

APPENDIX A

Glossary of Terms and Acronyms List

This appendix includes the Glossary of Terms and Acronyms List prepared for the LaGuardia International Airport 14 CFR Part 150 Study.

- Appendix A-1 Glossary of Terms
- Appendix A-2 Acronyms List

APPENDIX A-1

Glossary of Terms

Term	Definition
14 CODE OF FEDERAL REGULATIONS (CFR) PART 36	This regulation, titled "Noise Standards: Aircraft Type and Airworthiness Certification," establishes noise standards for the civil aviation fleet. Certain extensions for compliance are included in the Aviation Safety and Noise Abatement Act of 1979.
14 CFR PART 77	This regulation, titled "Safe, Efficient Use and Preservation of the Navigable Airspace," establishes standards for determining obstructions and their potential effects on aircraft operations. Objects are considered to be obstructions to air navigation according to 14 CFR Part 77 if they exceed certain heights or penetrate certain imaginary surfaces established in relation to airport operations. Objects classified as obstructions are subject to an FAA aeronautical analysis to determine their potential effects on aircraft operations.
14 CFR PART 91	This regulation, titled "General Operating and Flight Rules," includes an amendment issued by the FAA on September 25, 1991 (to 14 CFR 91) in conformance with requirements of the Airport Noise and Capacity Act of 1990. The amendment to the aircraft operating rules required a phased transition to an all Stage 3 aircraft fleet operating in the 48 contiguous United States and the District of Columbia by December 31, 1999.
14 CFR PART 150	This regulation, titled "Airport Noise Compatibility Planning," sets forth criteria for developing an 14 CFR Part 150 Noise Compatibility Program, an FAA-assisted program designed to increase the compatibility of land and land uses in the areas surrounding an airport that are most directly affected by operation of the airport. The specific purpose is to reduce the adverse effects of noise as much as possible by implementing both on-airport noise abatement measures and off-airport noise mitigation measures. The basic products of an 14 CFR Part 150 program typically include (1) noise exposure maps for the existing condition and for 5 years in the future; (2) workable on-airport noise abatement measures (preferential runway use programs, new or preferential flight tracks), (3) off-airport noise mitigation measures (land acquisition, soundproofing, or special zoning); (4) an analysis of the costs and the financial feasibility of the recommended measures; and (5) policies and procedures related to the implementation of on- and off-airport programs. Community involvement opportunities are provided throughout all phases of noise compatibility program development.
14 CFR PART 158	This regulation, titled "Passenger Facility Charges," establishes a passenger facility charge (PFC) program. The regulation implements Sections 9110 and 9111 of the Airport Noise and Capacity Act of 1990, which requires the Department of Transportation to issue regulations under which a public agency may be authorized to impose a PFC per enplaned passenger at a commercial service airport it controls. The proceeds from such PFCs are to be used to finance eligible airport-related projects that preserve or enhance safety, capacity, or security of the national air transportation system, reduce noise from an airport that is part of such system, or furnish opportunities for enhanced competition between or among airlines. The rule sets forth procedures for public agency applications for authority to impose PFCs, for FAA processing of such applications; for collection, handling, and remittance of PFCs by airlines; for record keeping and auditing by airlines and public agencies; for terminating PFC authority; and for reducing federal grant funds apportioned to large and medium hub airports where a PFC is imposed.
14 CFR PART 161	This regulation, titled "Notice and Approval of Airport Noise and Access Restrictions," establishes a program for reviewing airport noise and access restrictions on the operations of Stage 2 and Stage 3 aircraft. This regulation is in response to specific provisions in the Airport Noise and Capacity Act of 1990 and is a major element of the national aviation noise policy required by that Act. Even if such an airport noise and access restriction is proposed as an element of an 14 CFR Part 150 Noise Compatibility Program, it is still subject to the guidelines of 14 CFR Part 161 prior to approval. Some of the public notice requirements, however, may be met during development of the 14 CFR Part 150 program.

Term	Definition
A-WEIGHTED SOUND LEVEL (dBA)	The ear does not respond equally to different frequencies of sound. It is less efficient at low and high frequencies than it is at medium or speech-range frequencies. Thus, to obtain a single number representing the sound level of a noise having a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are decibels (dB); hence, the abbreviation is dBA. The A-weighted sound level is also referred to as the noise level. Sound level meters have an A-weighting network for measuring noise in A-weighted decibels.
ABSORPTION	Absorption is a property of materials that reduces the amount of sound energy reflected. Thus, introduction of an "absorbent" into the surfaces of a room will reduce the sound pressure level in that room because sound energy striking the room's surfaces will be partially absorbed rather than totally reflected. The process of absorption is different from that of transmission loss through a material, which determines how much sound enters a room via the walls, ceiling, and floor. Absorption reduces the resultant sound level in the room produced by energy that has already entered the room.
ACCEPTABLE	Relating to noise-Day-night average sound level (DNL) not exceeding 65 decibels-Noise exposure may be of some concern, but common building construction will make the indoor environment acceptable, and the outdoor environment will be reasonably pleasant for recreation and play. As defined by 14 CFR Part 150, "Airport Noise Compatibility Planning".
ACOUSTICS	(1) The science of sound, including the generation, transmission, and effects of audible and inaudible sound waves. (2) The physical qualities (such as size and shape) of a room or other enclosure that determine the audibility and perception of speech and music.
ADVISORY CIRCULAR (AC)	An external Federal Aviation Administration (FAA) publication consisting of non-regulatory material of a policy, guidance, or informational nature.
AFFECTED LOCAL GOVERNMENT AGENCIES	The local government agencies that have the authority to control land uses in areas that may be adversely affected by aviation activities.
AIR CARRIER, CERTIFICATED ROUTE	An airline company that: (1) performs at least five round trips per week between two or more points and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or (2) transports mail by air pursuant to a contract with the U.S. Postal Service, certificated in accordance with 14 CFR Parts 121 and 127.
AIR CARRIER, COMMUTER	An air taxi operator that (1) performs at least five round trips per week between two or more points and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or (2) transports mail by air pursuant to a contract with the U.S. Postal Service.
AIRCRAFT DELAY	The additional travel time, caused by airfield or airspace congestion, needed by an aircraft to move from point A to point B.
AIRCRAFT OPERATION	An aircraft arrival (landing) or an aircraft departure (takeoff) represents one aircraft operation. A low approach, below traffic pattern or a touch-and-go operation is counted as both a landing and a takeoff, i.e., two operations. The Federal Aviation Administration (FAA) records aircraft operations in four categories: air carrier, air taxi, general aviation, and military.
AIR CARRIER	Operations performed in revenue service by certificated route air carriers.
AIR TAXI/COMMUTER	Operations performed by operators of aircraft holding an air taxi certificate. This category includes commuter airline operations (excluding certificated commuter airlines), mail carriers under contract with the U.S. Postal Service, and operators of nonscheduled air taxi service.
GENERAL AVIATION	All civil aircraft operations not classified as air carrier or air taxi operations.

Term	Definition
MILITARY	Operations performed by military groups, such as the Air National Guard, the U.S. Air Force, or the U.S. Marine Corps. Aircraft operations may also be described as local or itinerant:
LOCAL	Local operations are performed by aircraft that (1) operate in the local traffic pattern or within sight of the airport, (2) are known to be departing for, or arriving from, local practice areas within a 20-mile radius of the airport, or (3) execute simulated or practice instrument approaches or low passes at the airport. Touch-and-go operations are counted as two local operations.
ITINERANT	All aircraft operations other than local operations.
AIR NAVIGATION FACILITY (NAVAID)	A facility designed for use as an aid to air navigation, including landing aids, lights, any apparatus or equipment for disseminating weather information; for signaling for radio direction-finding or for radio or other electronic communication; and any other structure or mechanism having a similar purpose for guiding and controlling flight in the air or the landing or takeoff of aircraft.
AIRPORT APPROACH AND RUNWAY PROTECTION ZONE LAYOUT PLAN	A plan map showing the imaginary surfaces that specify the maximum height of structures, trees, and other phenomena around an airport and that is prepared in accordance with 14 CFR Part 77, "Safe, Efficient Use and Preservation of the Navigable Airspace." The plan is required as part of an airport master plan.
AIRPORT ELEVATION	The highest point of an airport's usable runways measured in feet above mean sea level.
AIRPORT ENVIRONS	The area surrounding an airport that is considered to be directly affected by the presence and operation of the airport.
AIRPORT IMAGINARY SURFACES	Imaginary surfaces established at an airport for the purposes of identifying obstructions to air navigation. The imaginary surfaces consist of primary, approach-departure, horizontal, vertical, conical, and transitional surfaces.
AIRPORT IMPROVEMENT PROGRAM (AIP)	A program administered by the FAA to provide financial grants-in-aid for airport planning, airport development projects, and noise compatibility programs. The AIP was established through the Airport and Airway Improvement Act of 1982, which was incorporated as Title V of the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248). Funds are appropriated by the U.S. Congress for the AIP annually.
AIRPORT LAND USE PLAN	A generalized plan depicting proposed land uses within the airport boundary. The land use plan is a required element of an airport master plan.
AIRPORT LAYOUT PLAN (ALP)	A plan showing boundaries and proposed additions to all areas owned or controlled by the airport sponsor for airport purposes, the location and nature of existing and proposed airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon. The ALP is a required element of an airport master plan.
AIRPORT MASTER PLAN	An assembly of appropriate documents and drawings addressing the development of a specific airport from physical, economic, social, and political jurisdictional perspectives. The airport master plan includes forecasts of aviation demand, an airport land use plan, airport layout plan, airport approach and runway protection zone plan, terminal area plan, airport access and parking plan, staging plan, capital improvement plan, and financial plan.

Term	Definition
AIRPORT NOISE AND CAPACITY ACT OF 1990	Commonly referred to as the national noise policy; the Act was enacted on November 5, 1990 (Public Law 101-508). Two important provisions of the Act were the establishment of a national aviation noise policy (Sections 9308 and 9309) and the creation of a passenger facility charge (Sections 9110 and 9111), which enables airport sponsors to impose fees on the tickets issued to eligible enplaning passengers. An amendment to 14 CFR Part 91, "Transition to an All Stage 3 Fleet Operating in the 48 Contiguous United States and the District of Columbia," and new 14 CFR Part 161, "Notice and Approval of Airport Noise and Access Restrictions", implement the national noise policy. 14 CFR Part 158, "Passenger Facility Charges," implements that portion of the Act authorizing the imposition of such a charge.
AIRPORT NOISE CONTROL AND LAND USE COMPATIBILITY (ANLUC) STUDY	A study designed to minimize aircraft noise and maintain compatible land use around airports. Certain noise control and land use compatibility studies are eligible for federal funding participation.
AIRPORT SPONSOR	A public agency or tax-supported organization, such as an airport authority, authorized to own and operate an airport, obtain property interests, obtain funds, and be legally, financially, and otherwise able to meet all applicable requirements of current laws and regulations.
AIRPORT SURVEILLANCE RADAR (ASR)	Radar providing aircraft position data in terms of azimuth and range. ASR does not provide altitude data. It is designed for range coverage up to 60 nautical miles and is used by terminal area air traffic control.
AIRPORT TRAFFIC CONTROL TOWER (ATCT)	A central operations facility in the terminal area air traffic control system, consisting of a tower cab structure and an associated instrument flight rule (IFR) room if radar equipped, using air/ground communications and/or radar, visual signaling, and other devices, to provide safe and expeditious movement of terminal area air traffic.
AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)	A facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace and principally during the en route phase of flight.
AIRSPACE	Space in the air above the surface of the earth or a particular portion of such space, usually defined by the boundaries of an area on the surface projected upward.
AIR TRAFFIC CONTROL (ATC)	A service operated by appropriate authority (the FAA) to promote the safe, orderly, and expeditious flow of air traffic.
APRON	A paved area that provides the connection between the terminal buildings and the airfield. The apron includes aircraft parking areas, called ramps, and aircraft circulation and taxiing areas for access to these ramps. On the ramp, aircraft park in locations typically designated as gate positions or gates.
ATTENUATION	Acoustical phenomenon whereby a reduction of sound energy is experienced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, man-made features, and natural features.
AUTOMATED RADAR TERMINAL SYSTEM (ARTS)	Computer-aided radar display subsystems capable of associating alphanumeric data with radar returns.
AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979	The purpose of the Act is to assist airport sponsors in preparing and carrying out noise compatibility programs and in assuring continued safety for aviation. The Act also contains provisions extending to January 1, 1988, the requirement for certain types of aircraft to comply with 14 CFR Part 36.
AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)	Continuous radio broadcast of recorded air traffic control information at selected high activity airports.

Term	Definition
AVIGATION EASEMENT	A type of land acquisition that involves less-than-fee purchase. One form of aviation easement grants the right to perform aircraft operations over the designated property, including operations that might cause noise, vibration, and other effects. A stronger form of easement is a deed restriction that may include (1) the right to perform aircraft operations over the property, and (2) public acquisition of a landowner's rights restricting future development of the property in any use more intensive than that existing at the time of the transaction. This easement may also include specific prohibitions as to the uses for which the property may be developed. Maximum heights of structures and other objects may also be specified.
BACKBLAST	Noise generated by jet exhaust on takeoff characterized by high acoustic energy, low frequency, and high velocity air behind the aircraft engine.
BUILDING CODE	A legal document that sets forth requirements to protect the public health, safety, and general welfare as they relate to the construction and occupancy of buildings and structures. The code establishes the minimum acceptable conditions for matters found to be in need of regulation. Topics generally covered are exits, fire protection, structural design, sanitary facilities, lighting, and ventilation. Sound insulation may also be included.
BUILDING PERMIT	A permit issued by a local political jurisdiction (village, town, city, or county) to erect or modify a structure.
BUILDING RESTRICTION LINE (BRL)	The BRL should be located on an Airport Layout Plan to identify suitable locations for building areas on airports. It is recommended that the BRL encompass the runway protection zones, the runway visibility zone, areas required for airport traffic control tower clear lines of sight, and all airport areas with less than 35-foot clearance under the 14 CFR Part 77 surfaces.
CAPITAL IMPROVEMENT PROGRAM (CIP)	A multiyear (sometimes a single year) schedule of capital expenditures for construction or equipment at an airport.
CEILING	The height above the earth's surface of the lowest layer of clouds or obscuring phenomena that is reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."
CONTROLLED AIRSPACE	Airspace of defined dimensions within which air traffic control service is provided to IFR and to Visual Flight Rule (VFR) flights in accordance with the airspace classification.
DAY-NIGHT AVERAGE SOUND LEVEL (DNL)	A measure used to predict, by a single number rating, cumulative aircraft noise that affects communities in airport environs. DNL represents decibels of noise as measured by an A-weighted sound-level meter. In the DNL procedure, the noise exposure from each aircraft takeoff or landing is calculated at ground level around an airport, and these noise exposure levels are accumulated for a typical 24-hour period. (The 24-hour period often used is the average day of the peak month for aircraft operations during the year being analyzed.) Daytime and nighttime noise exposure is considered separately. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10:00 p.m. and 7:00 a.m. to account for the increased sensitivity of people to nighttime noise. DNLs can be expressed graphically on maps using either contours or grid cells.
DECIBEL (dB)	A unit for measuring the volume of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound.
DEVELOPMENT PLAN	A detailed land use plan for all or specific areas of an airport. The plan usually includes a plot map depicting parcel size and configuration, access, land use categories, utilities, improvements, and performance standards for each parcel and use category.

Term	Definition
DEVELOPMENT RIGHTS	Rights of landowners to develop a parcel of land according to the zoning of that parcel. Land is often assessed on a combination of its "resource" value and its "commodity" value. The resource value is the value of the property in its natural state; while the commodity value is an artificial value placed on it by the marketplace (that is, its value for development purposes). In less-than-fee acquisition, the airport sponsor may purchase only the development rights; the ownership of the land remains unchanged.
DISPLACED THRESHOLD	A runway threshold that is located at a point other than the designated beginning of the runway.
DISTANCE MEASURING EQUIPMENT (DME)	Equipment (ground and airborne) used to measure and report to the pilot the slant range distance, in nautical miles, of an aircraft from the DME navigational aid.
DURATION	The length of time that a noise event, such as an aircraft flyover, is experienced (typically reported in seconds). "Duration" may also refer to the length of time that the noise event exceeds a specified threshold noise level.
EMINENT DOMAIN (POWER OF)	In common law, power of a governmental unit (federal, state, or local) to condemn land for public purposes after having paid the owner of the land just compensation.
ENGINE RUNUP AREA	An area on an airport where aircraft engines are serviced or tested. The noise from such servicing or testing can affect neighborhoods adjacent to the airport.
ENPLANED PASSENGERS	The passengers on aircraft outbound (departing) from an airport. The total annual number of passengers at an airport is the total of enplaned and deplaned passengers.
EQUIVALENT CONTINUOUS SOUND LEVEL (LEQ)	Leq is the sound level, expressed in dBA, of a steady sound which has the same A-weighted sound energy as the time-varying sound over the averaging period. Unlike Sound Exposure Level (SEL), Leq is the average sound level for a specified time period (e.g., 24 hours, 8 hours, 1 hour, etc.). Leq is calculated by integrating the sound energy from all noise events over a given time period and applying a factor for the number of events.
FAA ADVISORY CIRCULAR (AC) 150/5300-13A	This document, titled "Airport Design," contains airport design standards, including descriptions of various subdivisions of 14 CFR Part 77 (see also) such as obstacle free zones (OFZs), object free areas (OFAs), and runway protection zones (RPZs) – formerly referred to as "clear zones" – on airports. According to Paragraph 211, "Safe and efficient operations at an airport require that certain areas on and near the airport be clear of objects or restricted to objects with a certain function, composition, and/or height." To achieve this requirement, object clearing criteria contained in the AC describe the types of objects tolerated within various subdivisions of 14 CFR Part 77. Aircraft are controlled by aircraft operating rules and not by these criteria. However, objects not in conformance with these criteria may result in aircraft operating restrictions.
FAA HANDBOOK 7400.2	This document, titled "Procedures for Handling Airspace Matters," contains procedures and guidelines for analyzing aeronautical operating conditions and determining the effects of existing or proposed objects that exceed 14 CFR Part 77 standards. Objects that exceed 14 CFR Part 77 standards are subject to an aeronautical review and are presumed to be hazards to air navigation unless an aeronautical review determines otherwise. However, once an aeronautical review is initiated, 14 CFR Part 77 standards are no longer the basis for determining whether or not an object would be a hazard. Other criteria, including operational, procedural, and electronic requirements, are used to determine if the object in question would be a hazard to air navigation. The outcome of an FAA aeronautical review is either a "Determination of No Hazard" or "Determination of Hazard to Air Navigation."

Term	Definition
FAA HANDBOOK 8260.3B	This document, titled "TERPS" (terminal instrument procedures), contains obstruction clearance criteria for instrument procedures. Imaginary surfaces for each type of instrument procedure are described. If an object would penetrate the imaginary surfaces for a particular instrument procedure and could not be relocated or sufficiently reduced in height, one of the following would be necessary: (1) alteration of the procedure to minimize or eliminate effects; (2) increase in the minimum cloud ceiling and/or visibility requirements for conducting the procedure; (3) some combination of (1) and (2); or (4) preclusion of the particular procedure.
FEDERAL AVIATION ADMINISTRATION (FAA)	The FAA, an agency of the U.S. Department of Transportation, is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for both civilian and military aircraft; and (5) promoting the development of a national system of airports.
FEE SIMPLE LAND ACQUISITION	The full purchase of land and improvements by an airport sponsor. The land is usually maintained or leased for uses that are compatible with airport operations. Alternatively, the airport sponsor can resell the land with an aviation easement (see also) and deed restrictions that specify the compatible land uses that are permitted. One benefit of the resale option is that the land is returned to the local tax rolls.
FLIGHT TRACK	The average flight path flown by aircraft within specific corridors. Deviation from these tracks occurs because of weather, pilot technique, air traffic control, and aircraft weight. Individual flight tracks within a corridor are "averaged" for purposes of modeling noise exposure using the FAA's Integrated Noise Model.
GENERAL AVIATION (GA)	All civil aviation except that classified as air carrier, military, or air taxi. The types of aircraft typically used in GA activities vary from multiengine jet aircraft to single-engine piston aircraft.
GENERAL PLAN	An overall plan of a political jurisdiction setting forth the goals and objectives of the jurisdiction, policies for development and redevelopment, and maps showing the spatial arrangement of land uses, circulation routes, and community facilities. This is sometimes referred to as a comprehensive plan or community plan.
GLIDE SLOPE	A FAA navigational system that: (1) provides the vertical (or altitude) profile followed by an aircraft during the approach and landing; (2) is an electronic vertical guidance provided by airborne and ground instruments for instrument approaches using equipment such as an instrument landing system (ILS) as well as visual ground aids, such as a visual approach slope indicator (VASI), for a visual flight rule (VFR) approach or for the visual portion of an instrument approach and landing.
GLOBAL POSITIONING SYSTEM (GPS)	A navigational system that uses a series of satellites orbiting the earth to provide non-precision guidance in azimuth, elevation, and distance measurement.
GROUND EFFECT	The excess attenuation of sound associated with absorption or reflection of noise by manmade and physical features on the ground surface.
GROUND TRACK	The trajectory of an aircraft flight path projected onto the ground surface.
HELIPAD	A small area designated for takeoff, landing, or parking of helicopters.
IFR AIRPORT	An airport with an authorized instrument approach procedure.
IFR CONDITIONS	Weather conditions that require aircraft to be operated in accordance with instrument flight rules.
IFR MINIMUMS AND DEPARTURE PROCEDURES (14 CFR PART 91)	Prescribed takeoff rules. For some airports, obstructions or other factors require the establishment of nonstandard takeoff minimums or departure procedures, or both, to assist pilots in avoiding obstacles during climb to the minimum en route altitude.

Term	Definition
IMPACT	In environmental studies, the word "impact" is used to express the extent or severity of an environmental problem, e.g., the number of persons exposed to a given noise environment. As indicated in CEQ 1500 (Section 1508.8), impacts and effects are considered to be synonymous. Effects or impacts may be ecological, aesthetic, historic, cultural, economic, social, or health related, and they may be direct, indirect, or cumulative.
INCOMPATIBLE LAND USE	Residential, public, recreational, and certain other noise-sensitive land uses that are designated as unacceptable within specific ranges of cumulative (DNL) noise exposure as set forth in 14 CFR Part 150, Appendix A, Table 1.
INFILL	The development of small pieces of property remaining in previously developed larger areas.
INSTRUMENT APPROACH	An aircraft approach to an airport, with intent to land, by a pilot flying in accordance with an IFR flight plan, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial approach altitude.
INSTRUMENT APPROACH RUNWAY	A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.
INSTRUMENT FLIGHT RULES (IFR)	Rules specified by the FAA for flight under weather conditions that do not meet the minimum requirements for VFR (see also). Under these conditions the pilot must rely on instruments to fly and navigate.
INSTRUMENT LANDING SYSTEM (ILS)	A system that provides, in the aircraft, the lateral and longitudinal (localizer), and vertical (guidance) electronic guidance necessary for an instrument landing.
INSTRUMENT OPERATION	An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center.
INSTRUMENT RUNWAY	A runway equipped with electronic and visual air navigation aids and for which a straight-in (precision or non-precision) approach procedure has been approved or is planned.
INTEGRATED NOISE MODEL (INM)	A computer model developed by the FAA and required by the FAA for use in environmental assessments, environmental impact statements, and 14 CFR Part 150 studies for developing existing and future aircraft noise exposure maps.
LAND USE COMPATIBILITY	The compatibility of land uses surrounding an airport with airport activities and particularly with the noise from aircraft operations.
LAND USE COMPATIBILITY ASSURANCE	Documentation provided by an airport sponsor to the FAA related to an application for an airport development grant. Its purpose is to assure that a reasonably appropriate action has been taken or will be taken to restrict the use of land adjacent to the airport or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft.
LAND USE CONTROLS	Controls established by local or state governments to implement land use planning. The controls include zoning, subdivision regulations, land acquisition (in fee simple, lease-back, or easements), building codes, building permits, and capital improvement programs (to provide sewer, water, utilities, or other service facilities).
LAND USE PLANNING	Comprehensive planning carried out by units of local government, for all areas under their jurisdiction, to identify the optimum uses of land and to serve as a basis for the adoption of zoning or other land use controls.
LESS-THAN-FEE ACQUISITION	The purchase of development rights from landowners by airport sponsors in areas that should remain at very low densities or in open space uses. The airport sponsor negotiates with the landowner to determine the fair market value of the unused development rights. Once sold, the land cannot be developed except in specified uses.

Term	Definition
LOCALIZER (LOC)	Navigational equipment that provides electronic course guidance. The ground-based equipment sends two signals, which, when received and receded by airborne equipment with equal intensity, indicate that the aircraft is on course. If the received and receded signals have unequal intensity, then the aircraft is off course. A localizer is the part of an ILS that provides lateral and longitudinal course guidance to the runway.
LOCALIZER-TYPE DIRECTIONAL AID (LDA)	A navigational aid used for non-precision instrument approaches with utility and accuracy comparable to a localizer; however, it is not part of a complete ILS and its signal is not typically aligned with the runway.
LOUDNESS	The judgment of the intensity of a sound by a person, loudness depends primarily on the sound pressure of the stimulus. Over much of the loudness range, it takes about a threefold increase in sound pressure (approximately 10 decibels) to produce a doubling of loudness.
MAXIMUM SOUND LEVEL (Lmax)	The maximum a-weighted sound level, in dBA, for a given noise event. The peak noise level reached by a single aircraft event.
MISSED APPROACH	An approach that is not completed with a landing due to lack of visual reference, the presence of other aircraft on or too near the runway, instructions from air traffic control to execute a missed approach, or other reasons.
MISSED APPROACH POINT (MAP)	A point during an instrument approach procedure at which, if the visual reference to continue the approach does not exist (i.e., the pilot cannot see the runway or visual guidance to the runway), a missed approach procedure must be executed.
NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)	National Environmental Policy Act of 1969. (Public Law 91-190.)
NOISE	Noise is any sound that is considered to be undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.
NOISE ABATEMENT PROCEDURES	Changes in runway use, flight approach and departure routes and procedures, and other air traffic procedures that are intended to shift adverse aviation effects away from noise-sensitive areas (such as residential neighborhoods).
NOISE ATTENUATION OF BUILDINGS	The use of building materials to reduce noise through absorption, transmission loss, and reflection of sound energy.
NOISE CONTOURS	Lines drawn on a map that connect points of equivalent noise exposure levels. For aircraft noise analyses conducted using DNL, noise contours are usually drawn in 5-DNL intervals, such as connections of DNL 75 exposure, DNL 70 exposure, DNL 65 exposure, and so forth.
NOISE COMPATIBILITY PROGRAM (NCP)	The NCP can consist of a combination of preferred noise abatement procedures, land use controls, and administrative measures; as well as a plan for the implementation. For planning purposes, the implementation plan also includes the estimated cost for each of the recommended measures to the airport sponsor, the FAA, airport users, and the local units of government.
NOISE EXPOSURE MAP (NEM)	A map prepared in accordance with 14 CFR Part 150 or other FAA environmental regulation that depicts actual (existing or historical conditions) or anticipated (future conditions) aircraft noise exposure and the affected land uses. NEMs for future conditions may take into account anticipated land use changes around the airport.
NOISE LEVEL REDUCTION (NLR)	The noise reduction between two areas or rooms is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. Noise reduction is measured by combining the effect of the transmission loss performance of structures separating the two areas or rooms and the effect of acoustic absorption in the receiving room.

Term	Definition
NOISE-SENSITIVE LAND USE	A land use that can be adversely affected by high levels of aircraft noise. Residences, schools, hospitals, religious facilities, libraries, and other similar uses are typically considered to be noise-sensitive.
NONDIRECTIONAL RADIO BEACON (NDB)	A low/medium frequency radio beacon transmitting nondirectional signals whereby the pilot of an aircraft equipped with direction-finding equipment can determine the aircraft's bearing to or from the radio beacon and track to or from the station.
NON-PRECISION INSTRUMENT APPROACH PROCEDURE	A standard instrument approach procedure for which no glide slope guidance is provided. Typical non-precision instrument approach procedures include VOR (see VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE), GPS (see GLOBAL POSITIONING SYSTEM), NDB (see NONDIRECTIONAL RADIO BEACON), and LOC (see LOCALIZER) approach procedures.
NORMALLY UNACCEPTABLE	DNL higher than 65 but not higher than 75 decibels (see UNACCEPTABLE)-the noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.
OBSTACLE FREE ZONE (OFZ)	The OFZ is a three-dimensional section of airspace that supports the transition of ground-to-airborne-aircraft operations (and vice versa). The OFZ clearing standard precludes taxiing and parked airplanes and object penetrations, except for frangible NAVAIDS, the location of which is fixed by function. The runway OFZ; when applicable, the inner-approach OFZ; and the inner-transitional OFZ compose the obstacle free zone.
OBSTRUCTION	An object that exceeds a limiting height or penetrates an imaginary surface described by 14 CFR Part 77.
PATTERN	The configuration or form of a flight path flown by an aircraft, or prescribed to be flown, as in making an approach for landing.
PRECISION APPROACH PATH INDICATOR (PAPI)	An airport lighting facility in the terminal area navigation system used under VFR conditions, through a single row of two to four lights, radiating high intensity red or white beams to indicate whether the aircraft is on, above, or below the required runway glide slope.
PRECISION INSTRUMENT APPROACH PROCEDURE	A standard instrument procedure for a pilot to approach an airport, in which both electronic course guidance and an electronic glide slope are provided. For example, an approach using an ILS is considered a precision instrument approach.
PREFERENTIAL RUNWAY USE (PROGRAM)	A noise abatement action whereby the FAA Air Traffic Division, in conjunction with the FAA Airports Division and Aviation System Standards Division, assists the airport sponsor in developing a program that gives preference to the use of a specific runway(s), unless weather or other conditions prevail, to reduce overflights of noise-sensitive areas.
PROPRIETARY USE RESTRICTIONS	Restrictions by an airport sponsor on the number, type, class, manner, or time of aircraft operations at the airport. The ability of an airport sponsor to impose proprietary use restrictions was significantly affected by passage of the <i>Airport Noise and Capacity Act of 1990</i> .
RELIEVER AIRPORT	An airport accommodating general aviation aircraft operations that might otherwise have to be accommodated at a congested air carrier airport.
RETROFIT	The retroactive modification of existing jet aircraft engines for noise reduction purposes.
RUNWAY	A defined rectangular area on an airport for the purpose of landing and taking off of aircraft. Runways are numbered in relation to their magnetic direction, rounded to the nearest 10 degrees (i.e., Runway 14, Runway 32).

Term	Definition
RUNWAY OBJECT FREE AREA	The runway object free area (OFA) is a two-dimensional ground area surrounding the runway. The runway OFA clearing standard precludes parked aircraft and objects, except objects whose location is fixed by function.
RUNWAY PROTECTION ZONE (RPZ)	The RPZ (formerly referred to as the runway clear zone) is trapezoidal in shape and centered about the extended runway centerline. It begins 200 feet beyond the end of the area usable for takeoff or landing. Displacing the threshold does not change the beginning point of the RPZ unless declared runway distances have been established by the airport sponsor and approved by the FAA. The RPZ dimensions are functions of the design aircraft, type of operation, and visibility minimums.
RUNWAY THRESHOLD	The beginning of that portion of a runway usable for landing.
SHIELDING	The attenuation of a sound by placing walls, buildings, plants, or other barriers between a sound source and the receiver. Also used with light to minimize impacts by introducing manmade or natural elements to reduce or eliminate glare.
SIGNIFICANT EFFECT ON THE ENVIRONMENT	A substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself is not considered a significant effect on the environment. However, a social or economic change that is related to a physical change may be considered in determining whether a physical change is significant.
SIGNIFICANT NOISE IMPACT THRESHOLD	A significant noise impact is defined as an increase in aircraft noise of DNL 1.5dB or greater in an area exposed to aircraft noise at or above DNL 65 dB and developed with noise sensitive land uses.
SINGLE EVENT	Noise generated by a single event, such as a single aircraft flyover.
SOUND EXPOSURE LEVEL (SEL)	SEL is a time-integrated measure, expressed in decibels, of the sound energy of a single noise event. The sound level is integrated over the period that the level exceeds a threshold (normally 65 dBA for aircraft noise events). Therefore, SEL accounts for the duration of the sound. SELs for aircraft noise events depend on the location of the aircraft, the type of operation (landing, takeoff, or overflight), and the type of aircraft.
SOUND INSULATION	(1) The use of structures and materials designed to reduce the transmission of sound from one room or area to another, or from the exterior to the interior of a building. (2) The degree of reduction in sound transmission, or noise level reduction, by means of sound insulating structures and materials.
SOUND LEVEL (NOISE LEVEL)	The weighted sound pressure level obtained by the use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.
SOUND LEVEL METER	An instrument consisting of a microphone, an amplifier, an output meter, and frequency-weighting networks used to measure noise and sound levels in a specified manner.
STANDARD DEPARTURE (SD)	A preplanned and published instrumental departure route.
STANDARD TERMINAL ARRIVAL ROUTE (STAR)	A preplanned and published instrumental arrival route.
TERPS	Certain airspace needs to be cleared for aircraft operations. This airspace is determined by the application of operating rules and terminal instrument procedures (TERPS). Removing obstructions to air navigation, except those that an FAA aeronautical analysis determined need not be removed, satisfies these requirements. Subpart C of 14 CFR Part 77 defines obstructions to air navigation. (See FAA HANDBOOK 8260.3B.)
TERMINAL AREA FORECAST (TAF)	The Terminal Area Forecast (TAF) is the official FAA forecast of aviation activity for U.S. airports. Forecasts are prepared for major users of the National Airspace System including air carrier, air taxi/commuter, general aviation, and military.

Term	Definition
TERMINAL RADAR APPROACH CONTROL (TRACON)	Radar approach facility generally serving more than one airport, providing separation; safety alerts; and sequencing of arrival, departure, and transitioning air traffic.
TRANSFER OF DEVELOPMENT RIGHTS (TDR)	TDR involves separate ownership and use of the various rights associated with a parcel of real estate. Under TDR, some of the property's development rights are transferred to another location, where they may be used to intensify allowable development. For example, lands within an area affected by aircraft noise could be kept in open space or agricultural uses, and development rights for residential or other uses could be transferred to locations outside the area. Landowners could be compensated for the transferred rights by their sale at the new locations, or the airport sponsor could purchase the rights. Depending on market conditions and legal requirements, the airport sponsor could either hold or resell the rights.
URBAN GROWTH MANAGEMENT	The identification and management of the demands on municipal facilities, improvements, or services created by any proposed residential, commercial, industrial, or other type of development. Urban growth management is intended to (1) provide the means for satisfying such demands, (2) identify any harmful effects of development, and (3) protect the jurisdictions and their residents against such harmful effects by minimizing the costs of municipal facilities, improvements, and services. The intent of urban growth management is usually not to prevent development or growth, but rather to avoid free or disorganized development or growth in the urban growth management area, which is generally located in and around the fringe of an urban area. The urban growth management area usually is either relatively undeveloped or predominantly agricultural and lacks most, if not all, municipal facilities, improvements, or services.
UNACCEPTABLE	DNL above 75 decibels-Noise exposure at the site is so severe that the construction cost to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.
VERY HIGH FREQUENCY (VHF) OMNIDIRECTIONAL RANGE (VOR)	A radio transmitter facility in the navigation system radiating a VHF radio wave modulated by two signals, the relative phases of which are compared, resolved, and displayed by a compatible airborne receiver to give the pilot a direct indication of bearing relative to the facility.
VFR AIRPORT	An airport without an authorized or planned instrument approach procedure.
VISUAL APPROACH	An approach to an airport wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of a radar facility and having air traffic control authorization, may deviate from the prescribed instrument approach procedure and proceed to and land at the airport of destination, served by an operational ATCT, by visual reference to the surface.
VISUAL APPROACH SLOPE INDICATOR (VASI)	An airport lighting facility in the terminal area navigation system used primarily under VFR conditions. It provides vertical visual guidance to indicate whether the aircraft is on, above, or below the glide slope to the runway.
VISUAL FLIGHT RULES (VFR)	A set of regulations that a pilot may operate under when weather conditions meet certain minimum requirements. The requirements are designed to provide sufficient visibility so that other aircraft can be seen and avoided. Under VFR, the pilot generally controls the attitude of the aircraft by relying on what can be seen out the window, although this may be supplemented by referring to the instrument panel.
VISUAL FLIGHT RULE (VFR) CONDITIONS-	Meteorological conditions under which VFR flight is permitted. For VFR flight certain requirements for visibility, ceilings (for takeoffs and landings), and cloud clearances must be met.
VISUAL RUNWAY	A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved Airport Layout Plan, or by any planning document submitted to the FAA by competent authority.

Term	Definition
ZONING AND ZONING ORDINANCES	Ordinances that divide a community into zones or districts according to the current and potential use of properties for the purpose of controlling and directing the use and development of those properties. Zoning is concerned primarily with the use of land and buildings, the height and bulk of buildings, the proportion of a lot that buildings may cover, and the density of population of a given area. As an instrument for noise compatibility plan implementation, zoning deals principally with the use and development of privately owned land and buildings. The objectives of zoning are to establish regulations that provide locations for all essential uses of land and buildings and ensure that each use is located in the most appropriate place. In noise compatibility planning, zoning can be used to achieve two major aims: (1) to reinforce existing compatible land uses and promote the location of future compatible uses in vacant or underdeveloped land, and (2) to convert existing incompatible uses to compatible uses over time.

SOURCE: Environmental Science Associates, 2016.

APPENDIX A-2

Acronyms List

ACRONYMS LIST

AAD	Average Annual Day
AC	Advisory Circular
AEDT	Aviation Environmental Design Tool
AEE	Office of Environment and Energy
ADF	Automatic Direction Finder
ADAP	Airport Development Aid Program
AFD	Airport Facility Directory
AFL	Above Field Level
AGI	Alliance Ground International
AGL	Airport Ground Level
ALP	Airport Layout Plan
ANOMS	Airport Noise and Operations Management System
ARFF	Aircraft Rescue and Fire Fighting Facilities
ARTCC	Air Route Traffic Control Center
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
CAL	China Airlines
CAT	Category
CBP	Customs and Border Protection
CDW	Caldwell Airport
CFR	Code of Federal Regulations
COLB	City of Long Beach
dB	Decibel
dba	A-weighted decibel
DCP	Department of City Planning
DME	Distance Measuring Equipment
DNL	Day Night Sound Level
DP	Departure Procedure
EDMS	Emissions and Dispersion Modeling System
EMAS	Engineered Material Arresting System
EPA	Environmental Protection Agency
ESA	Environmental Science Associates
EWR	Newark Liberty International Airport
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
FRG	Republic Airport
FSDO	Flight Standards Division
FMS	Flight Management System
GA	General Aviation
GIS	Geographic Information Systems
GPS	Global Positioning System
GS	Glide Slope
HPD	Department of Housing and Preservation
HPN	Westchester County Airport
HUD	U.S. Department of Housing and Urban Development
Hz	Hertz

IAP	Instrument Approach Procedures
IFR	Instrument Flight Rules
ILS	Instrument Landing System
INM	Integrated Noise Model
ISP	Long Island MacArthur Airport
JFK	John F. Kennedy International Airport
LDJ	Linden Airport
Leq	Equivalent Noise Level
LGA	LaGuardia Airport
Lmax	Maximum Sound Level
LOC	Localizer
MMU	Morristown Municipal Airport
MSL	Mean Sea Level
N07	Lincoln Park Airport
NAS	National Airspace System
NAVAIDS	Navigational Aids
NC	Nassau County Department of Public Works Planning Division
NCDC	National Climate Data Center
NCP	Noise Compatibility Program
NDB	Non-Directional Beacon
NEM	Noise Exposure Map
NEPA	National Environmental Policy Act
NLR	Noise Level Reduction
NPIAS	National Plan of Integrated Airport Systems
NYACR	New York Airport Community Roundtable
NYAPIO	New York Area Program Integration Office
NYCEDC	New York City Economic Development Corporation
OAG	Official Airline Guide
PA	Public Address
PANYNJ	Port Authority of New York and New Jersey
PAPI	Precision Approach Path Indicator
PAR	Precision Approach Radar
RNAV	Area Navigation
RNP	Required Navigation Performance
RPZ	Runway Protection Zone
RSA	Runway Safety Area
RVR	Runway Visual Range
RWY	Runway
SCA	School Construction Authority
SEL	Sound Exposure Level
SFC	Surface
STAR	Standard Terminal Arrival
TAC	Technical Advisory Committee
TACAN	Tactical Air Navigation
TAF	Terminal Area Forecasts
TEB	Teterboro Airport
TOH	Town of Hempstead
TONH	Town of North Hempstead
TRACON	Terminal Radar Approach Control
TVASNAC	Town-Village Aircraft Safety and Noise Abatement Committee

TWY	Taxiway
VFR	Visual Flight Rules
VHF	Very High Frequency
VOR	VHF Omni Directional Radar Beacon
VOR/DME	VHF Omni Directional Radar Beacon with Distance Measuring Equipment
VORTAC	VHF Omni Directional Range with Tactical Aircraft Approach & Navigation

APPENDIX B

Airport Facilities and Airspace

APPENDIX B

LaGuardia Airport Facilities and Airspace

1.1 Airport Facilities

This section provides a detailed overview of LGA's facilities, airspace, and approach and departure procedures.

1.1.1 Passenger Terminal Buildings



Source: Library of Congress.

Terminal A opened in 1940. Originally known as the Overseas Terminal, then the Marine Air Terminal, the terminal is listed on the National Park Service's National Register of Historic Places. This terminal, which has six contact gates, serves Delta Air Lines. General aviation also operates from the terminal through a fixed-base operator (FBO). A \$7 million restoration of the terminal was completed in 2004.

Terminal B (also known as the Central Terminal Building) was dedicated in 1964. Terminal B serves seven domestic airlines from 37 gates (35 contact and 2 ground-loaded) along four concourses designated as Concourse A through D, from east to west. The terminal area also includes hardstand/remote aircraft parking with 17 hardstand stations. International passengers at Terminal B are exclusively departing or pre-cleared arriving passengers; these passengers do not require federal international arrivals processing facilities and staff. Terminal B was expanded in the 1990s. In 2016, the Port Authority and a private development partnership announced plans to redevelop Terminal B. The project includes a new 35-gate Terminal B, a parking garage, and roadway improvements. The existing terminal will remain fully operational during construction. The new facilities will begin opening in 2018, with substantial completion scheduled for 2022.¹

Terminal C (construction completed in 1992) serves domestic flight operations by Delta Air Lines and American Airlines, including Express and Shuttle services, from 20 contact gates along two concourses and the main terminal building. There are 20 gates and 2 hardstands at this terminal. Terminal D (construction completed in 1983) serves domestic flight operations for

¹ "Agreement Signed for LaGuardia's Terminal B Redevelopment." *Aviation News Today*. AviationNews.net. June 3, 2016.

Delta Air Lines including its regional carriers from nine numbered contact gates. Hardstand parking at Terminal D varies between four and six positions, depending on aircraft size. In 2012, Delta Air Lines initiated a \$160 million program to renovate and expand Terminals C and D, including new jet bridges, a walkway linking the terminals, expanded security lanes, new baggage screening systems, and expanded concessions. Terminals C and D will be undergo a \$4 billion redevelopment project beginning in 2017. This redevelopment will result in combining Terminals C and D, and connecting the new terminal with LGA's new central hall which links the airport's terminals. This new terminal will have 37 gates located on four concourses connected by a centralized check-in lobby, security checkpoint, and baggage claim.

1.1.2 Airfield Facilities

The configuration of the major airfield and landside facilities at LGA is described in **Table B-1** and shown on **Figure B-1**.

TABLE B-1
EXISTING RUNWAY AND HELIPAD CHARACTERISTICS

Landing Area Characteristics	Runway 4-22		Runway 13-31		Helipad H1
	4	22	13	31	H1
Length (Feet)	7,001		7,003		60
Width (Feet)	150		150		60
Displaced Arrival Threshold (Feet)	n/a	n/a	n/a	n/a	n/a
Approach Surface Slope	50:1	50:1	50:1	34:1	n/a
Runway End Elevation (MSL)	20.6	11.5	11.6	6.7	21.0
Markings	Precision	Precision	Precision	Precision	Basic
Lighting	HIRL		HIRL		PERI
Part 77 Category – Instrument Type	Precision-ILS CAT I	Precision-ILS CAT I	Precision-ILS CAT I	Non-Precision-LOC/DME	Precision
Approach Lighting	MALSR	ALSF-1	MALSR	None	N/A

NOTES:

MSL = Mean Sea Level

HIRL = High Intensity Runway Lighting

PERI = Helipad runway edge lights

ALSF-1 = Approach Lighting System with Sequenced Flashing Lights 1

MALSR = Medium Intensity Approach Light System with Runway Alignment Indicator Lights

ILS CAT = Instrument Landing System Category

LOC/DME = Localizer Antenna/Distance Measuring Equipment

SOURCE: The Port Authority of New York and New Jersey. *Airport Layout Plan*. September 2011.



SOURCE: USDA, 2013 (Aerial Imagery); ESA, 2016.

LaGuardia Airport 14 CFR part 150 Study, 140037

Figure B-1
Airport Diagram
LaGuardia Airport

This Page Intentionally Left Blank

1.1.3 Demand Management

As discussed in Section 2.2.4, LGA has historically been one of the more delayed airports in the nation. To reduce congestion at LGA, the Port Authority instituted a Sunday-through-Friday "Perimeter Rule" in 1984 that prohibits nonstop flights from LGA to cities more than 1,500 statute miles away with the exception of flights to Denver, Colorado. Flights to Denver International Airport (DEN) were exempted from this rule because, at the time, Denver was the only such city with nonstop flights.² In the year 2000, Congress directed the U.S. Department of Transportation to also exempt flights that "would serve small hub and non-hub airports with aircraft with less than 71 seats," as well as to grant a limited number of applications for exemptions submitted by "new entrant and limited incumbent carriers."³

In an effort to further reduce operational delays at LGA, the FAA held a slot (a reservation for an instrument flight rule takeoff or landing by an air carrier or an aircraft in air transportation) lottery in December 2000 among the flights operating under exemptions, to cut their number from 300 to 159 between the hours of 7:00 AM and 10:00 PM. This reduced the volume of scheduled aircraft operations to approximately 71 per hour. The results of the lottery were implemented at the end of January 2001. In 2008, in conjunction with imposing slots at JFK and EWR, the FAA changed the slot rule at LGA, reducing the number of slots per hour for non-commercial aircraft to three and eliminating special exemptions.⁴ In addition, the time of day that slot limits are in use at LGA was extended from 6:00 AM to 9:59 PM. Existing slot limits for LGA are 71 scheduled operations per hour and three unscheduled operations per hour (Monday-Friday 6:00 AM to 9:59 PM and Sundays 12:00 PM to 9:59 PM).⁵

2.1 Navigational Aids

The ILS provides precision approach guidance for aircraft approaches and landings. There are several ILS categories: Category (CAT) I, CAT II, or CAT III A, B, or C. The category of approach that can be flown is based on airport capability (lighting, markings, etc.), aircraft capability, and pilot certification. The higher the category of approach, the lower the approach minimums (runway visual range (RVR) and cloud ceilings) the aircraft can fly before either having the runway in sight or executing a missed approach. The CAT I ILS is the simplest of the ILS approaches for instrument-rated pilots and aircraft to perform.⁶ The basic CAT I ILS allows

² LGA is to be utilized for nonstop domestic flights and international flights pre-cleared by the Federal Inspection Services only to/from points that are located within 1,500 statute miles of LGA, and to/from Denver, CO. The foregoing limitation does not apply to flight operations conducted on Saturdays or to general aviation operations conducted at the Marine Air Terminal (A). Information obtained from *The Port of New York and New Jersey Airport Rules and Regulations*, issued August 4, 2009.

³ Operating Limitations at New York LaGuardia Airport. Federal Aviation Administration. Docket No. FAA-2006-25755. December 13, 2006. https://www.faa.gov/regulations_policies/rulemaking/recently_published/media/LGA%20order.pdf. Accessed November 30, 2016.

⁴ Information obtained from Operating Limitations at New York LaGuardia Airport; Technical Amendment; Federal Register Volume 77, Number 100 (Wednesday, May 23, 2012). <http://www.gpo.gov/fdsys/pkg/FR-2012-05-23/html/2012-12552.htm>. Accessed March 11, 2016.

⁵ https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=18054. Accessed March 11, 2016

⁶ An Instrument Rating refers to the qualifications that a licensed pilot must have in order to fly under Instrument Flight Rules (IFR).

aircraft to descend to an altitude, typically 200 feet above the runway, and usually requires visibility of 2,400 feet or ½ statute mile. The NAVAIDS available to pilots using LGA are summarized in **Table B-2**.

TABLE B-2
LAGUARDIA AIRPORT NAVIGATIONAL AIDS

Navigational Aids	Description
Instrument Landing Systems (ILS)	<p>An ILS is a type of precision ground-based electronic landing navigation aid that has been in use in the U.S. for more than 50 years. An ILS guides pilots to runways during periods of limited visibility or inclement weather. An ILS has several components, including:</p> <ul style="list-style-type: none"> • Localizer antenna (LOC) that provides lateral course guidance to the runway • Glide slope antenna (GS) that provides vertical course guidance • Marker beacons along the extended runway centerline • Approach lighting system <p>Non-precision LOC instrument approach procedures are often available when a GS is not installed or for approaches from the opposite end of the runway ("back-course" approach).</p>
Area Navigation (RNAV)	<p>RNAV is a method of instrument flight rule (IFR) navigation that permits aircraft operation on any desired flight path using the combination of both GPS and ground-based navigational aids. RNAV routes and terminal procedures, including departure procedures and standard terminal arrivals, are designed with RNAV systems in mind to save time and fuel, reduce aircraft dependence on air traffic control (ATC) vectoring, and provide for more efficient use of the airspace.</p>
Global Positioning System (GPS)	<p>The GPS, operated by the Department of Defense, uses a network of satellites that create reference points to enable aircraft equipped with GPS receivers to determine their latitude, longitude, and altitude. GPS systems can be used during all phases of flight.</p>
Very High Frequency Omni-Directional Range (VOR) Distance Measuring Equipment (DME)	<p>A VOR is a ground-based electronic system that provides azimuth information for high and low altitude routes and airport approaches. DME determines a slant range distance from an aircraft to the VOR. VORs can be stand-alone or equipped with DME. These navigational aids provide navigational fixes on an aeronautical chart.</p>
Airport Beacon	<p>Airport beacons help pilots identify an airport at night. Beacons that alternately flash white and green designate civilian land airports.</p>

Source: Federal Aviation Administration, 2016. Adapted by Environmental Science Associates.

3.1 LGA Instrument Approach Procedures

Instrument approach procedures (IAPs) are flight procedures developed and published by the FAA that pilots use to navigate their aircraft to the runway. The IAPs currently published for LGA are summarized below.

3.1.1 Runway 4

Runway 4 has precision approach markings, High Intensity Runway Lighting (HIRL), centerline lighting (CL), and touchdown zone lighting (TDZ), as well as a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR). Runway 4 has a straight-in

precision CAT I ILS instrument approach procedure. This IAP has a decision altitude (DA) of 305 feet and visibility of 5,000 feet (one mile).

Runway 4 has a 3.1 degree precision approach path indicator (PAPI) located on the right side of the approach end of Runway 4 for aircraft navigating to the runway visually. Runway 4 also has the following non-precision IAPs:

- ILS or LOC
- RNAV (RNP) Z
- RNAV (GPS) Y
- VOR

3.1.2 Runway 22

Runway 22 has precision approach markings, HIRL, TDZ, and an Approach Lighting System with Sequenced Flashing Lights (ALSF1). Runway 22 has a straight-in precision CAT I ILS instrument approach procedure. This IAP has a decision altitude (DA) of 212 feet and visibility of 1,800 feet (slightly more than $\frac{1}{4}$ mile).⁷ Runway 22 also has a straight-in precision SA CAT I and II ILS instrument approach procedure. This IAP has a DA as low as 112 feet and visibility of 1,200 feet ($\frac{1}{4}$ mile). Special aircrew and aircraft certification is required for this IAP.

A 3.0 degree PAPI is located on the right side of the approach end of Runway 22 for aircraft navigating to the runway visually. Runway 22 also has the following non-precision IAPs:

- ILS
- ILS or LOC
- RNAV (RNP) Z
- RNAV (GPS) Y
- Copter ILS or LOC/DME

3.1.3 Runway 13

Runway 13 has precision approach markings, HIRL, CL, TDZ, and a MALSR. Runway 13 has a straight-in precision CAT I ILS instrument approach procedure. This IAP has a DA of 214 feet and visibility of 2,400 feet ($\frac{1}{2}$ mile).

A 3.0 degree PAPI is located on the left side of the approach end of Runway 13 for aircraft navigating to the runway visually. Runway 13 also has the following non-precision IAPs:

- ILS or LOC
- Copter ILS or LOC

⁷ Decision Altitude (or Decision Height) is the altitude (or height) at which a missed approach must be initiated if the required visual reference to continue the approach (e.g., runway environment, runway markings) is not visible to the pilot.

Runway 13 also has a visual approach procedure called the “River Visual” available when weather conditions permit (3,200 foot-ceilings and more than 5 statute miles visibility). Using this procedure, aircraft follow reference landmarks and altitudes to navigate to the runway.

3.1.4 Runway 31

Runway 31 has precision approach markings and HIRL. Runway 31 has only non-precision instrument approaches – LOC and RNAV (GPS). A 3.0 degree PAPI is located on the right side of the approach end of Runway 31 for aircraft navigating to the runway visually. Runway 31 has a visual approach procedure called the “Expressway Visual” for when weather conditions permit (3,000 foot-ceilings and more than 5 statute miles visibility); aircraft follow reference landmarks and altitudes to navigate to the runway end.

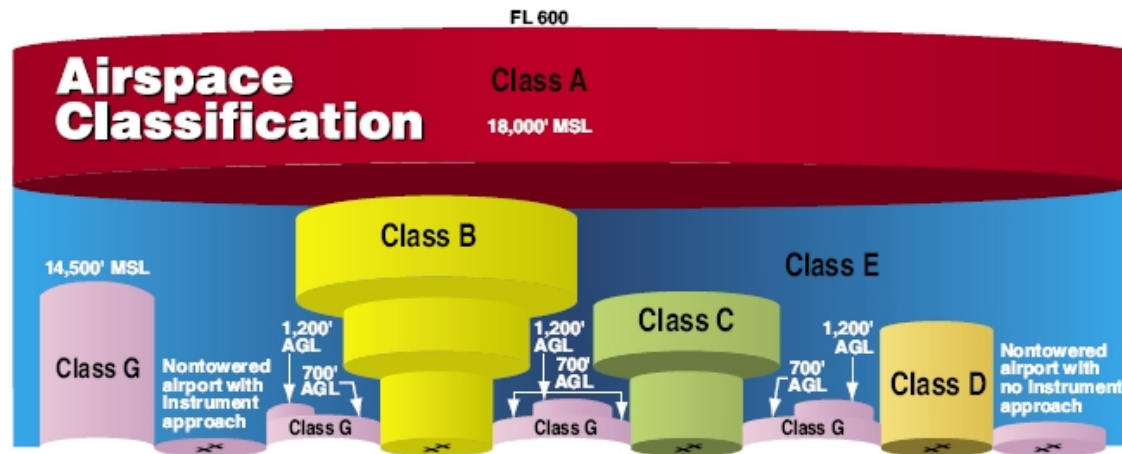
3.1.5 Circling Approaches

Circling IAPs published for LGA include RNAV (GPS)-B, LDA-A, VOR/DME-H. The published IAPs for LGA also include the Copter RNAV (GPS) 250.

4.1 Airspace

The FAA has six classifications of airspace under the National Airspace System (NAS). These classifications, which are designated Class A, B, C, D, E, and G and shown on **Figure B-2**, are critical to the safety of all flights and to the efficient operation of all air traffic control facilities and the NAS.

**FIGURE B-2
AIRSPACE CLASSIFICATIONS**



SOURCE: FAA Course ALC-42, *Airspace, Special Use Airspace and TFRs*, 2016.

The following paragraphs describe each airspace classification in the vicinity of LGA.

Figure B-3 depicts the airspace in the vicinity of the Airport.

This Page Intentionally Left Blank

Class A Airspace

Class A airspace is designated for positive control of aircraft and ranges from 18,000 feet above mean sea level (MSL) to 60,000 feet MSL. Within Class A airspace, only aircraft operating under instrument flight rules (IFR) that are on instrument flight plans are authorized. The aircraft must have specific equipment and Air Traffic Control (ATC) clearance before entering the airspace. This airspace is controlled by the FAA's Air Route Traffic Control Center (ARTCC).

Class B Airspace

The airspace immediately surrounding LGA is classified as Class B airspace (designated by solid blue lines on the navigation charts provided in **Figure B-3**). Note that the Class B airspace surrounding LGA encompasses other airports, such as John F. Kennedy International Airport (JFK) and Newark Liberty International Airport (EWR).

Class B airspace is generally defined as the airspace from the ground surface up to 10,000 feet MSL. As shown on **Figure B-3**, the layers are identified with blue numbers representing the base altitude of the airspace. For LGA these include the surface or 5,000 feet (50), which is shown as the bottom of the airspace. The upper limit of the airspace for LGA is 7,000 feet MSL designated by (70) as the upper number on **Figure B-3**. Class B airspace can sometimes be described as an "upside down wedding cake" designed to contain all published instrument procedures once an aircraft enters the airspace. ATC clearance is required for all aircraft to operate in Class B airspace. All aircraft that are so cleared also receive separation services from other aircraft within the airspace.

Aircraft operating under Visual Flight Rules (VFR) or IFR are permitted into Class B airspace; however, the aircraft must be equipped with a two-way radio capable of communicating with ATC on appropriate frequencies and an operable radar beacon transponder with automatic altitude reporting equipment. For IFR operations, the aircraft must have an operable VOR or TACAN receiver. The pilot must hold at least a private pilots certificate.

Further surrounding the Class B airport is a 30-nautical mile (nm) Mode C veil that is designated by a thin, solid magenta line on **Figure B-3** that circles the Class B airspace and extends from the surface upward to 7,000 feet MSL. Unless otherwise authorized, an aircraft operating within the Mode C veil must be equipped with automatic pressure altitude reporting equipment having Mode C radar capability. This allows the NY TRACON to see all aircraft operating close to the Class B airspace and provide adequate aircraft separation minimums.

The airspace in the New York City region is highly congested and complex with many airports, both commercial service and general aviation. These airports and airspaces that lie beneath, abeam, or above the LGA Class B airspace include Class C, D, and E airspace.

Class C Airspace

Class C airspace is the airspace from the surface up to 4,000 feet above the airport elevation charted in MSL surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger

enplanements. Class C airspace is represented by solid magenta lines, an example of which includes Long Island MacArthur Airport (ISP) as shown on **Figure B-3**. Like Class B airspace, Class C airspace is individually tailored to meet the needs of the respective airport. The airspace usually consists of a surface area with a 5-nm radius from the surface up to 4,000 feet above airport elevation, and a 10-nm radius that extends from 1,200 feet to 4,000 above airport elevation. An example of the extent of Class C airspace is ISP where magenta numbers represent the altitudes of the airspace. The extent of ISP's 5-nm radius is shown from the surface to 4,100 feet MSL (41). Pilots must establish two-way radio communications with the ATC facility providing air traffic control services prior to entering the airspace. VFR aircraft are separated from IFR aircraft in Class C airspace.

Class D Airspace

Class D airspace is generally that airspace from the surface to 2,500 feet AGL. The configuration of Class D airspace is individually tailored and shown as a dashed blue line with an altitude representing the extent of the airspace from the surface. When instrument procedures are published, the airspace will normally be designed to contain the procedures with either Class D or E airspace. Class D airspace only surrounds airports that have an operational control tower of which pilots are required to establish and maintain two-way radio communication with the ATC facility. Examples of Class D airspace within the Class B airspace in the New York area include Republic (FRG), Westchester County (HPN), Teterboro (TEB), Caldwell (CDW), and Morristown Municipal (MMU) airports. For example, TEB's airspace is shown as a dashed blue circle and extends from the surface up to 2,500 feet AGL.

Class E Airspace

Class E airspace is generally controlled airspace that is not Class A, B, C, or D. Class E airspace extends upward from either the surface or designated altitude to the overlying or adjacent controlled airspace. Also in this class are Victor airways (airspace beginning at either 700 feet or 1,200 feet AGL used to transition to/from the terminal or enroute environments) and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 feet MSL over the United States, including that airspace overlying the water within 12 nm off the coast of the 48 contiguous states and Alaska. It does not include airspace at or above 18,000 feet MSL. Class E airspace ensures that IFR aircraft remain in controlled airspace when approaching airports without Class D airspace or when flying on Victor airways that are below 18,000 feet MSL.

Most of the U.S. has a Class E airspace limit of 1,200 feet AGL. Where it decreases to 700 feet AGL is depicted on **Figure B-3** by a shaded magenta line. The floor of the vast majority of Class E airspace is 700 feet around the New York City area (which is not shown in its entirety on Figure B-3); the area south of LGA is Class B airspace. The more defined side of the magenta line indicates areas where the floor of Class E airspace rises to 1,200 feet AGL. When Class E extends down to the surface, it is depicted by a dashed magenta line usually off-shooting a Class D airport, such as CDW.

Class G Airspace

Where the lower level of Class E airspace is not depicted, the airspace is considered uncontrolled or Class G airspace. Class G airspace begins at ground level and, in very remote areas, it has an upper limit of up to but not including 14,500 feet MSL. The top of Class G airspace is usually where Class E airspace begins, usually either 700 foot AGL depicted by magenta shading or 1,200 foot AGL areas depicted by blue shading.

Class G airspace begins at the surface throughout much of the area surrounding the Class B, C, D, and E airspaces throughout the New York area. Uncontrolled airports located in Class G airspace are depicted in magenta since they do not have a control tower. Example airports below the New York Class B airspace located within in Class G airspace would be Lincoln Park (N07) and Linden (LDJ) airports on **Figure B-3**. Note that FRG, CDW, and MMU become the Class G airspace during the unattended hours. While VFR aircraft can operate in Class G airspace, IFR aircraft are not permitted.

Special Use Airspace

Special Use airspace consists of that airspace wherein activities must be confined because of their nature, or wherein limitations are imposed on aircraft operations that are not a part of those activities, or both. There are currently no special use airspaces within the New York Class B airspace.

4.2 Standard Terminal Arrivals and Departure Procedures

New York airspace is structured so that arriving aircraft can be safely and efficiently transitioned from the enroute environment to the approach control environment and from the approach control environment to the airfield. Likewise, the airspace is structured so that departing aircraft can transition from airfield to the terminal environment and ultimately to the enroute environment. Standard Terminal Arrivals (STARs) and Departure Procedures (DPs) simplify and expedite instrument flight rules (IFR) air traffic controller arrival and departure procedures in the New York airspace. As discussed previously, aircraft flying in and out of LGA follow these precise routes, depending on the operational flow of the Airport. STARs and DPs are a combination of lateral, vertical, and speed commands along a set of fixes (intersections) or waypoints that are typically pre-programmed into the aircraft's flight management system (FMS), and executed upon ATC clearance.

When flying a STAR or DP, the pilot will follow waypoints or fixes that are either ground-based or RNAV (GPS)-based depending on aircraft capability. In conventional procedures, fixes are defined by the location of a navigational aid (e.g., VOR) or determined by reference to these navigational aids such as DME intersections. The advantage of the RNAV STARs and DPs are that waypoints are defined by longitude and latitude, and allow aircraft to fly a more direct course from point to point instead of from navigational aid to navigational aid. STARs and DPs may serve more than one airport in an area, and an airport such as LGA may have multiple STARS

and DPs. Each of the published procedures is noted in the following sections. Navigational aids and airspace fixes used by aircraft arriving and departing LGA are shown on **Figure B-4**.

4.2.1 Standard Terminal Arrivals

The New York TRACON and LGA ATC use five STARs to route aircraft into LGA. Currently they are all conventional arrival procedures as shown in **Table B-3**.

TABLE B-3
STANDARD TERMINAL ARRIVAL ROUTES

Procedure Name	Procedure Type	Arrival Direction
GATBY ONE	Conventional	Southwest
KORRY THREE	Conventional	South
HAARP THREE	Conventional	North
MILTON FOUR	Conventional	West
NOBBI FIVE	Conventional	North
SOURCE: FAA, 2016.		

Aircraft entering the LGA airspace are generally assigned to one of the STARs listed in **Table B-3**. The following describes each procedure. These charts are included in **Attachment 1**.

GATBY ONE – There are two transitions for this STAR southwest of LGA - the PATUXENT and the SWANN. These two transitions converge at the GATBY intersection (approximately 135 nm southwest of LGA). From GATBY, the aircraft continue on to the DQO VORTAC, RUTH, RENU and then via LGA VOR/DME R-225 to the PROUD intersection (approximately 11 nm from the airport). From PROUD, aircraft are vectored to the final approach course. This STAR is applicable to turboprop aircraft only.

KORRY THREE – There are three transitions for this STAR south of LGA – the AGARD, GORDONSVILLE, and the PATUXENT. These three transitions converge at the ENO VORTAC (approximately 120 nm southwest of LGA). From the ENO VORTAC, aircraft continue on to DAVYS, RBV VORTAC, RENU and then via LGA VOR/DME R-225 to the PROUD intersection (approximately 11nm from the airport). From PROUD, aircraft are vectored to the final approach course. This STAR is applicable to turbojet aircraft only.

HAARP THREE – There are two transitions for this STAR north of LGA - the ALBANY and the ROCKDALE. These two transitions converge at the VALRE intersection (approximately 40 nm north of LGA). From VALRE, aircraft continue to the BAYSE intersection, then to the HAARP intersection, and then via the LGA VOR R-044 to CRALY (approximately 20 nm northeast of the airport). From CRALY, aircraft are vectored to the final approach course. This STAR is only applicable to turbojet and non-turbojet aircraft capable of operating at 250 KIAS or greater.

MILTON FOUR – There are three transitions for this STAR west of LGA - the KEATING, PHILIPSBURG, and the STONYFORK. These three transitions converge at the MIP VORTAC (approximately 130 nm west of LGA). From the MIP VORTAC, the aircraft continue on to LIZZI, BEUTY, HARLM, DREAMS, and APPLE intersections. From APPLE, the aircraft

continue on the LGA VOR/DME R-225 to the PROUD intersection (approximately 11 nm from the airport). From PROUD, aircraft are vectored to the final approach course. This STAR is applicable to aircraft capable of 210 knots indicated air speed (KIAS) or greater.

NOBBI FIVE – There are five transitions for this STAR north of LGA – the ALBANY, BARNES, CHESTER, DE LANCY and the ROCKDALE. These five transitions converge at the CASSH intersection (approximately 45 nm north of the airport). From CASSH, aircraft are routed to the CMK VOR/DME then to the RYMES intersection. From RYMES, aircraft continue on the LGA VOR/DME R-044 to the HAARP and CRALY intersections. CRALY is approximately 20 nm northeast of LGA. From CRALY, aircraft are vectored to the final approach course. This STAR is applicable to propeller and turboprop aircraft operating at 250 KIAS or less.

4.2.2 Departure Procedures

Aircraft departing LGA are often assigned a specific DP. A DP is a published procedure that provides a standard route from the runway to the appropriate enroute structure. In some cases, a DP may have an associated transition, which is a published procedure that connects the end of the DP to one of several enroute structures. DPs are designed to separate departing aircraft from arriving aircraft, provide for efficient interception of an outbound course, avoid noise-sensitive areas near an airport, simplify the issuance of departure clearances, and reduce radio communication.

Similar to the published STARs, DPs at LGA include a mix of RNAV and conventional procedures. **Table B-4** summarizes the departure procedures for LGA. These charts are included in **Attachment 1**.

**TABLE B-4
DEPARTURE PROCEDURES**

Procedure Name	Procedure Type
GLDMN FIVE	RNAV
HOPEA THREE	RNAV
JUTES THREE	RNAV
LA GUARDIA FIVE	Conventional
NTHNS FOUR	RNAV
TNNIS SIX	RNAV
NOTE: RNAV = Area Navigation.	
SOURCE: FAA, 2016.	

GLDMN FIVE – This Runway 13 departure procedure applies only to turbojets with the navigation instrumentation required to fly an RNAV procedure. Aircraft departing Runway 13 climb heading 134 degrees to intercept course 185 degrees to cross the KIWIE waypoint (approximately 5 nm south of the LGA) at or above 2,500 feet in altitude, then on a 236 degrees heading to cross the TRISK WP (approximately 6 nm south of LGA) at or above 4,000 feet. From TRISK, aircraft follow a 272 degrees heading to cross the MASTT WP (approximately 7 nm southwest of LGA) at or above 5,000 feet then on a 320 degrees heading to the GLDMN WP.

From GLDMN, aircraft follow a 340 degrees heading for vectors on course while maintaining 5,000 feet in altitude or as assigned by ATC. Clearance to filed altitude/flight level is given approximately ten minutes after departure.

HOPEA THREE – This Runway 22 departure procedure applies only to turbojets with the navigation instrumentation required to fly an RNAV procedure. Aircraft departing Runway 22 climb heading 224 degrees to intercept course 189 degrees to cross the HOEPA WP (approximately 6 nm south of LGA) at or above 2,500 feet in altitude, then on a 189 degrees heading to cross the CRI VOR/DME (approximately 10 nm south of LGA) at or above 5,000 feet. From the CRI VOR/DME, aircraft follow a 224 degrees heading to the ASALT WP and continue on the 224 degrees heading for vectors on course while maintaining 5,000 feet in altitude or as assigned by ATC. Clearance to filed altitude/flight level is given approximately ten minutes after departure.

JUTES THREE – This Runway 22 departure procedure applies turbojets with the navigation instrumentation required to fly an RNAV procedure and to turboprops assigned by ATC only. Aircraft departing Runway 22 climb heading 224 degrees to 540 feet in altitude, then a climbing left turn direct the JUTES WP (approximately 5 nm east of LGA) at or above 3,000 feet. From JUTES, aircraft follow a 039 degrees heading to cross the TNNIS WP (approximately 9 nm northeast of LGA) at or above 5,000 feet then on a heading of 045 degrees for vectors on course while maintaining 5,000 feet in altitude or as assigned by ATC. Clearance to filed altitude/flight level is given approximately ten minutes after departure.

LA GUARDIA FIVE – This conventional departure procedure has assigned routes from all four runway ends at LGA. Each procedure is described below.

- Departures from Runway 4 climb on a heading of 044 degrees to 600 feet in altitude then make a right turn to a heading of 055 degrees and climb to and maintain an altitude of 5,000 feet.
- Departures from Runway 13 using the Coney Climb execute a climbing right turn heading 180 degrees to intercept CRI VOR/DME R-043 then to the CRI R-223 until reaching CRI and maintain an altitude of 5,000 feet. The Coney Climb procedure is for turbojets only.
- Departures from Runway 13 using the Flushing Climb depart heading 134 degrees until reaching LGA 2.5 DME then execute a left turn to a heading of 050 degrees and continue to climb to maintain an altitude of 5,000 feet.
- Departures from Runway 13 using the Maspeth Climb procedure execute a climbing right turn heading 180 degrees. Upon reaching LGA 4.1 DME, the aircraft turns right heading 340 degrees then cross the LGA R-220 at or above 5,000 feet. The Maspeth Climb procedure is for turbojets only.
- Departures from Runway 13 using the Whitestone Climb procedure execute a climbing right turn heading of 180 degrees to the LGA 2.5 DME then a left turn to a heading of 040 degrees and continue to climb to and maintain an altitude of 5,000 feet.

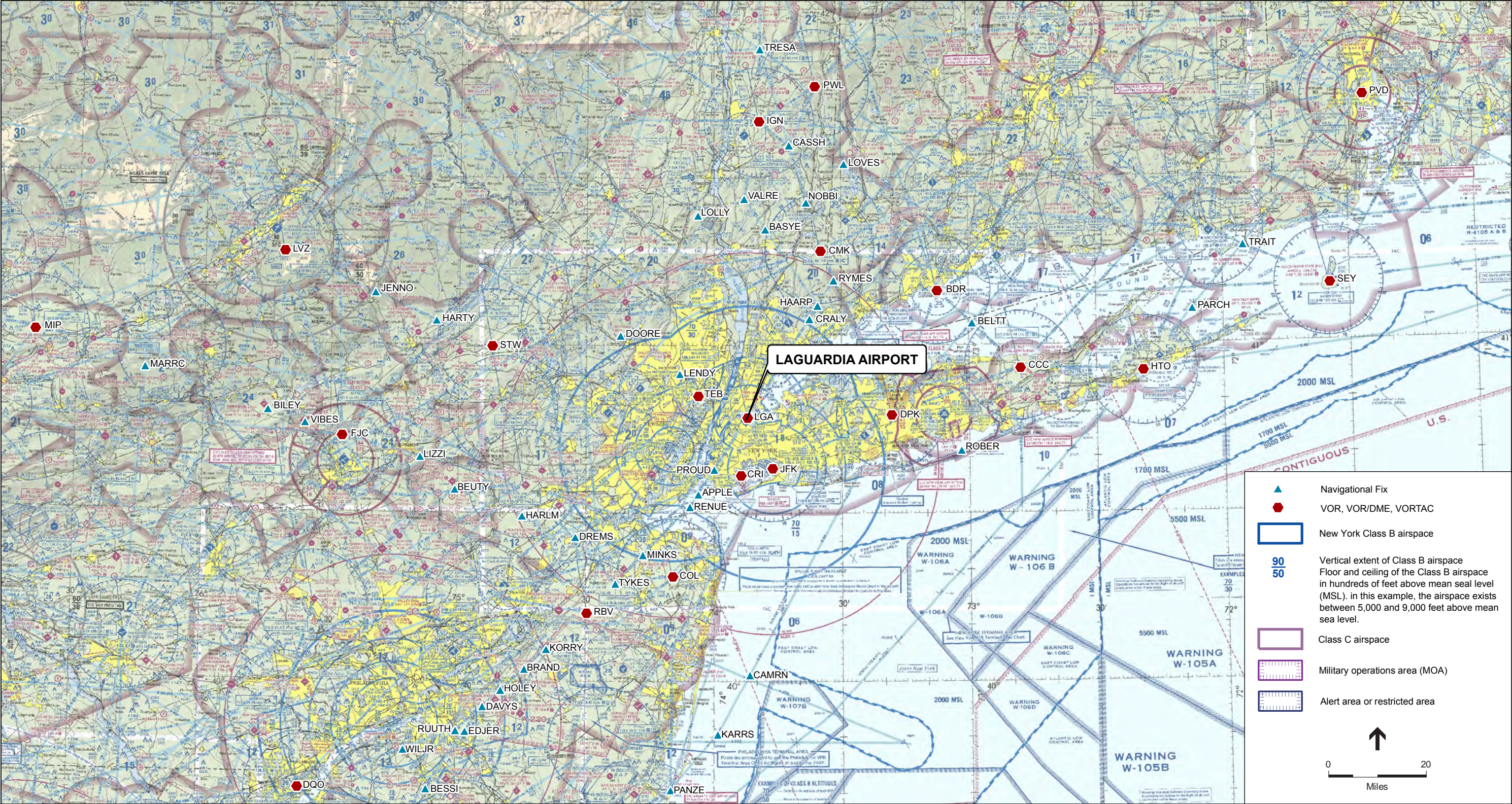
- Departures from Runway 22 execute a climbing left turn heading 070 degrees to and maintain an altitude of 5,000 feet.
- Departures from Runway 31 climb on a heading of 314 degrees (or as assigned by ATC) to, and maintain an altitude of, 5,000 feet.

Aircraft following these procedures are then vectored to their assigned route/fix. Pilots can expect clearance to their filed altitude/flight level approximately ten minutes after departure.

NTHNS FOUR – This Runway 13 procedure applies only to turbojets with the navigation instrumentation required to fly an RNAV procedure. Aircraft departing Runway 13 climb heading 134 degrees to intercept course 185 degrees to cross the KIWIE WP (approximately 5 nm south of the LGA) at or above 2,500 feet in altitude then on a 196 degrees heading to cross the NTHNS WP (approximately 7 nm south of LGA). From NTHNS, aircraft follow a 230 degrees heading to cross the CRI VOR/DME (approximately 10 nm south of LGA) at or above 5,000 feet then on a 224 degrees heading to the ASALT WP and continue on the 224 degrees heading for vectors on course while maintaining 5,000 feet in altitude or as assigned by ATC. Clearance to filed altitude/flight level is given approximately ten minutes after departure.

TNNIS SIX – This Runway 13 procedure applies turbojets with the navigation instrumentation required to fly an RNAV procedure and to turboprops assigned by ATC only. Aircraft departing Runway 13 climb heading 134 degrees to intercept course 050 degrees to cross the JUTES WP (approximately 5 nm east of LGA) at or above 3,000 feet in altitude. From JUTES, aircraft follow a 039 degrees heading to cross TNNIS (approximately 9 nm northeast of LGA) at or above 5,000 feet then on a heading of 045 degrees for vectors on course while maintaining 5,000 feet in altitude or as assigned by ATC. Clearance to filed altitude/flight level is given approximately ten minutes after departure.

This Page Intentionally Left Blank



New York Sectional Chart #92, published 11-12-2015.

SOURCE: Federal Aviation Administration, 2015; Adapted by Environmental Science Associates, 2016

LaGuardia Airport 14 CFR Part 150 Study .140037

Figure B-4
Navigational Aids
LaGuardia Airport

This Page Intentionally Left Blank

Attachment 1

Arrival and Departure Procedures

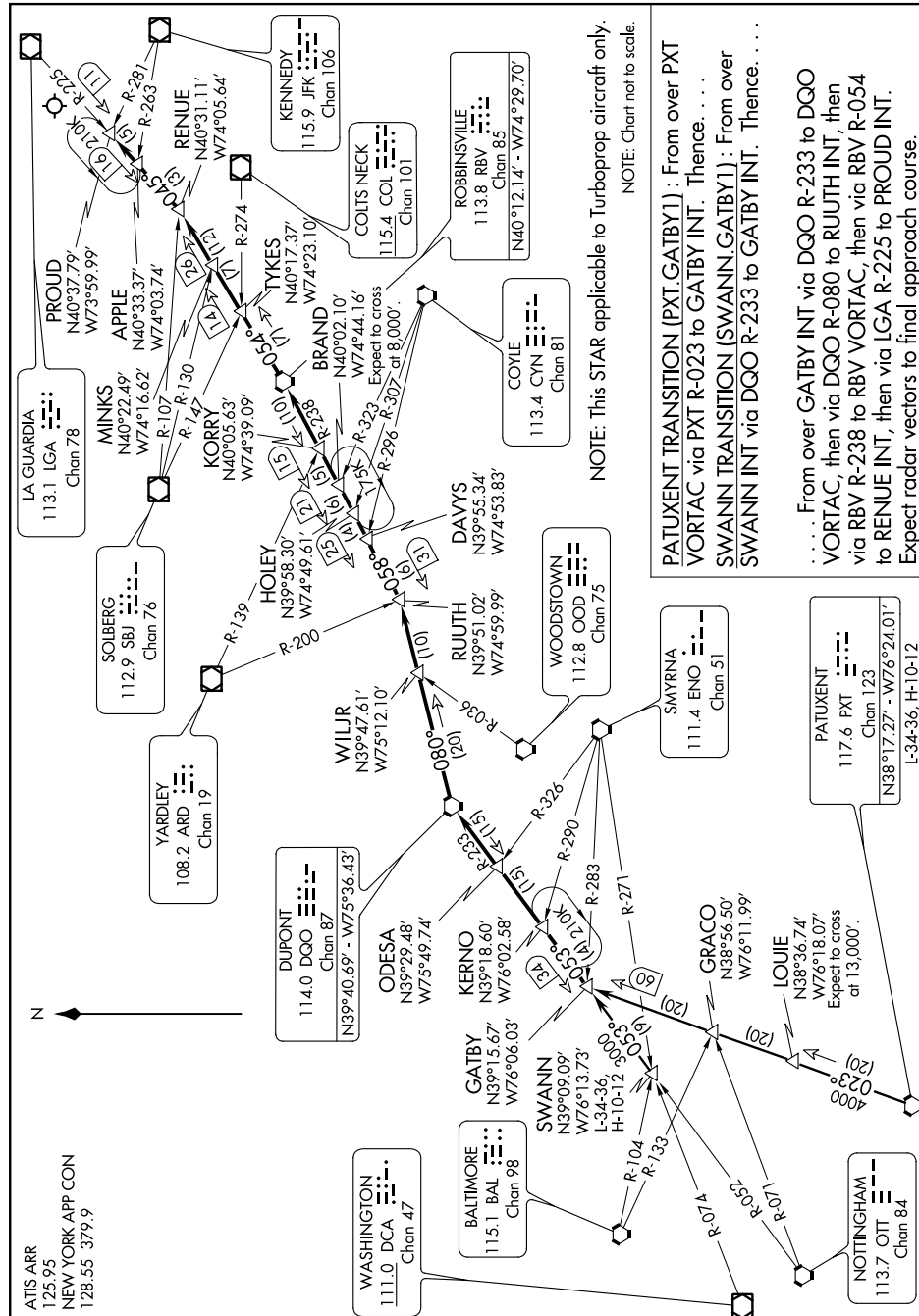
(GATBY.GATBY1) 15176

ST-289 (FAA)

LAGUARDIA
NEW YORK, NEW YORK

GATBY ONE ARRIVAL

NE-2, 28 APR 2016 to 26 MAY 2016



NE-2, 28 APR 2016 to 26 MAY 2016

GATBY ONE ARRIVAL

(GATBY.GATBY1) 15176

NEW YORK, NEW YORK
LAGUARDIA

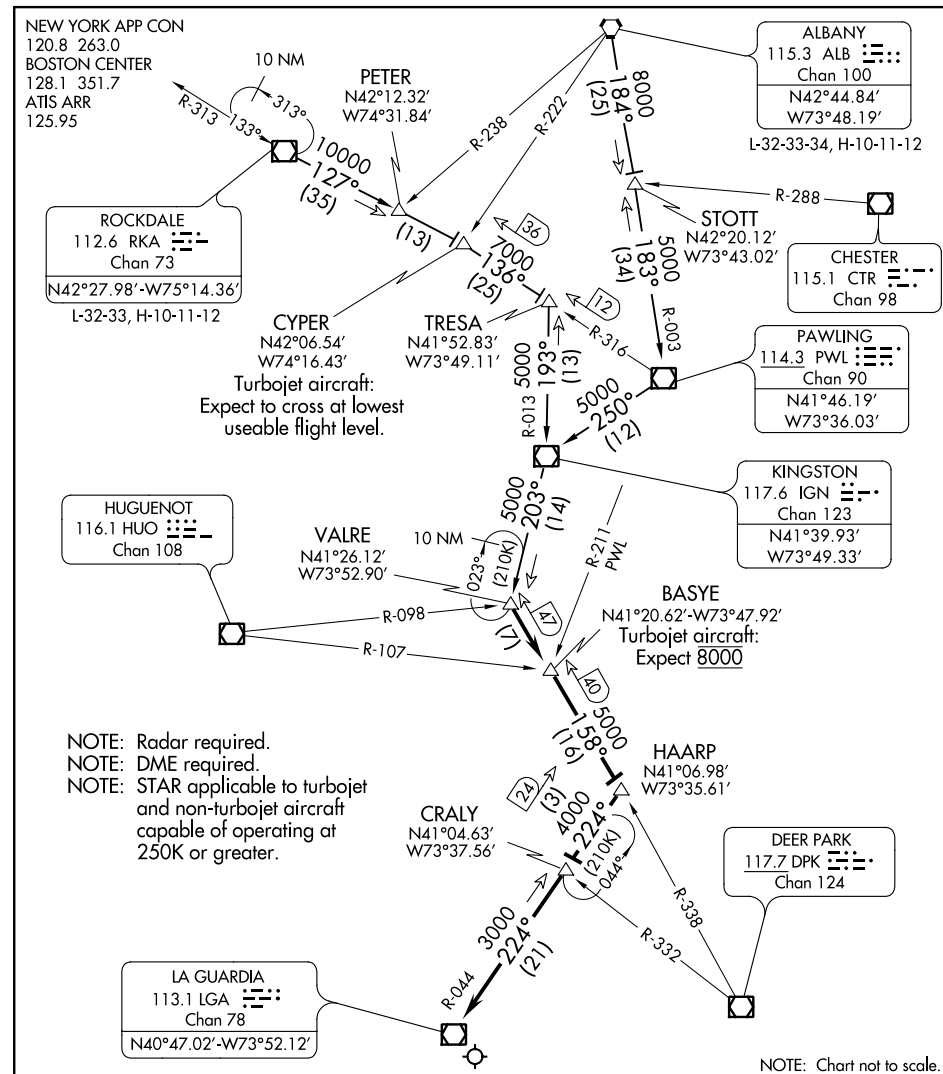
(VALRE.HAARP3) 16091

ST-289 (FAA)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

HAARP THREE ARRIVAL

NE-2, 28 APR 2016 to 26 MAY 2016



NE-2, 28 APR 2016 to 26 MAY 2016

ALBANY TRANSITION (ALB.HAARP3): From over ALB VORTAC via ALB R-184 to STOTT INT, then via PWL R-003 to PWL VOR/DME, then via PWL R-250 and IGN R-070 to IGN VOR/DME, then via IGN R-203 to VALRE INT, thence. . . .

ROCKDALE TRANSITION (RKA.HAARP3): From over RKA VOR/DME via RKA R-127 to CYPER INT, then via PWL R-316 to TRESA INT, then via IGN R-013 to IGN VOR/DME, then via IGN R-203 to VALRE INT, thence. . . .

. . . .From over VALRE INT via DPK R-338 to BAYSE INT, then to HAARP INT, then via LGA R-044 to CRALY, then to LGA VOR/DME. Expect radar vectors to final approach course.

HAARP THREE ARRIVAL

(VALRE.HAARP3) 17OCT13

NEW YORK, NEW YORK
LAGUARDIA (LGA)

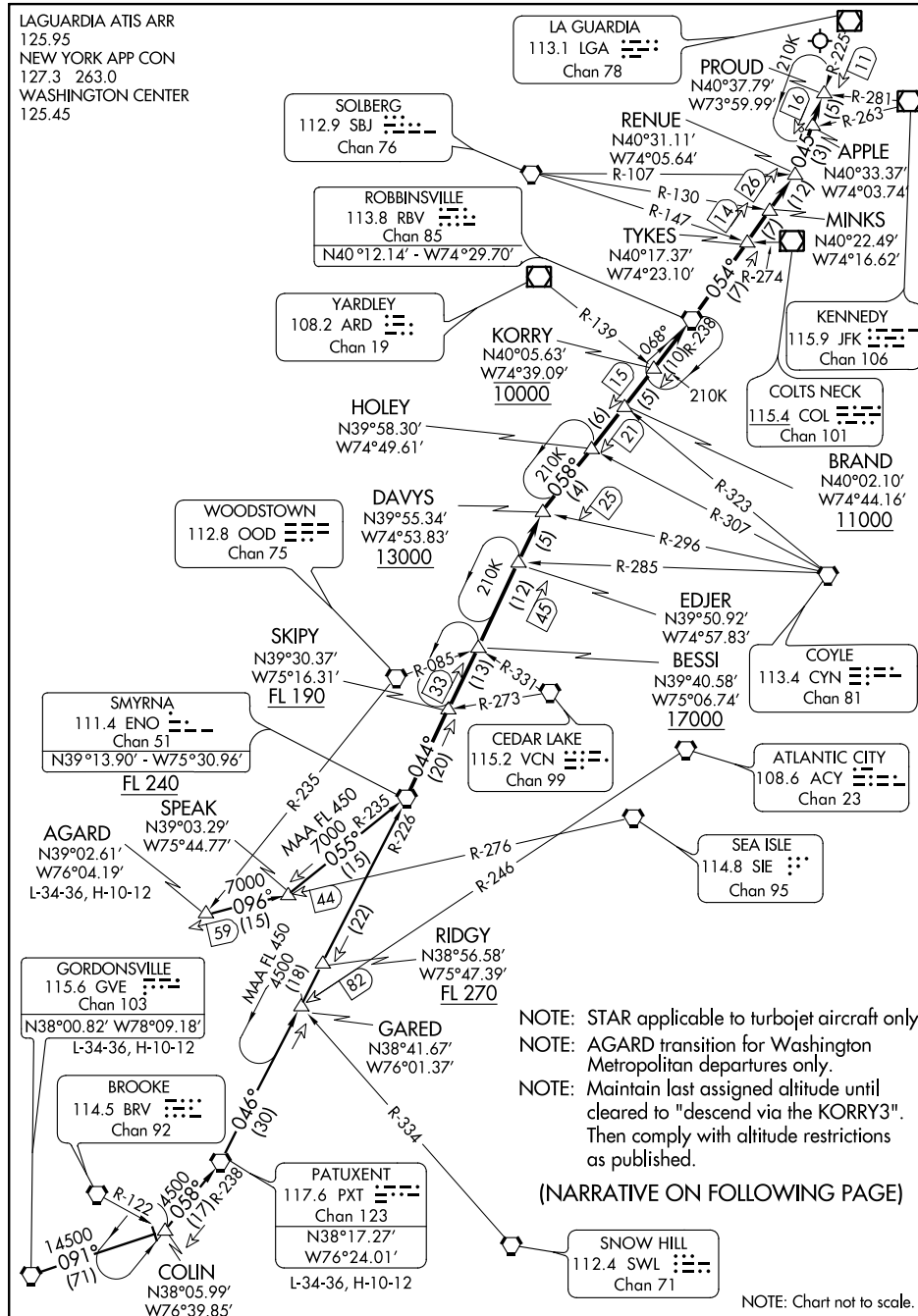
(ENO.KORRY3) 15176
KORRY THREE ARRIVAL

ST-289 (FAA)

LAGUARDIA
 NEW YORK, NEW YORK

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016



KORRY THREE ARRIVAL
 (ENO.KORRY3) 15176

NEW YORK, NEW YORK
 LAGUARDIA

15176

ST-289 (FAA)

KORRY THREE ARRIVAL (ENO.KORRY3)

LAGUARDIA
NEW YORK, NEW YORK

ARRIVAL ROUTE DESCRIPTION

AGARD TRANSITION (AGARD.KORRY3): From over AGARD INT via SIE R-276 and ENO R-235 to ENO VORTAC. Thence

GORDONSVILLE TRANSITION (GVE.KORRY3): From over GVE VORTAC via GVE R-091 and PXT R-238 to PXT VORTAC, then via PXT R-046 and ENO R-226 to ENO VORTAC. Thence

PATUXENT TRANSITION (PXT.KORRY3): From over PXT VORTAC via PXT R-046 and ENO R-226 to ENO VORTAC. Thence

. . . . From over ENO VORTAC via ENO R-044 to DAVYS INT, then via RBV R-238 to RBV VORTAC, then via RBV R-054 to RENUE INT, then via LGA R-225 to PROUD INT. Expect radar vectors to final approach course.

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

KORRY THREE ARRIVAL (ENO.KORRY3)

15176

NEW YORK, NEW YORK
LAGUARDIA

MILTON FOUR ARRIVAL

NE-2, 28 APR 2016 to 26 MAY 2016

KEATING TRANSITION (ETG.MIP4):

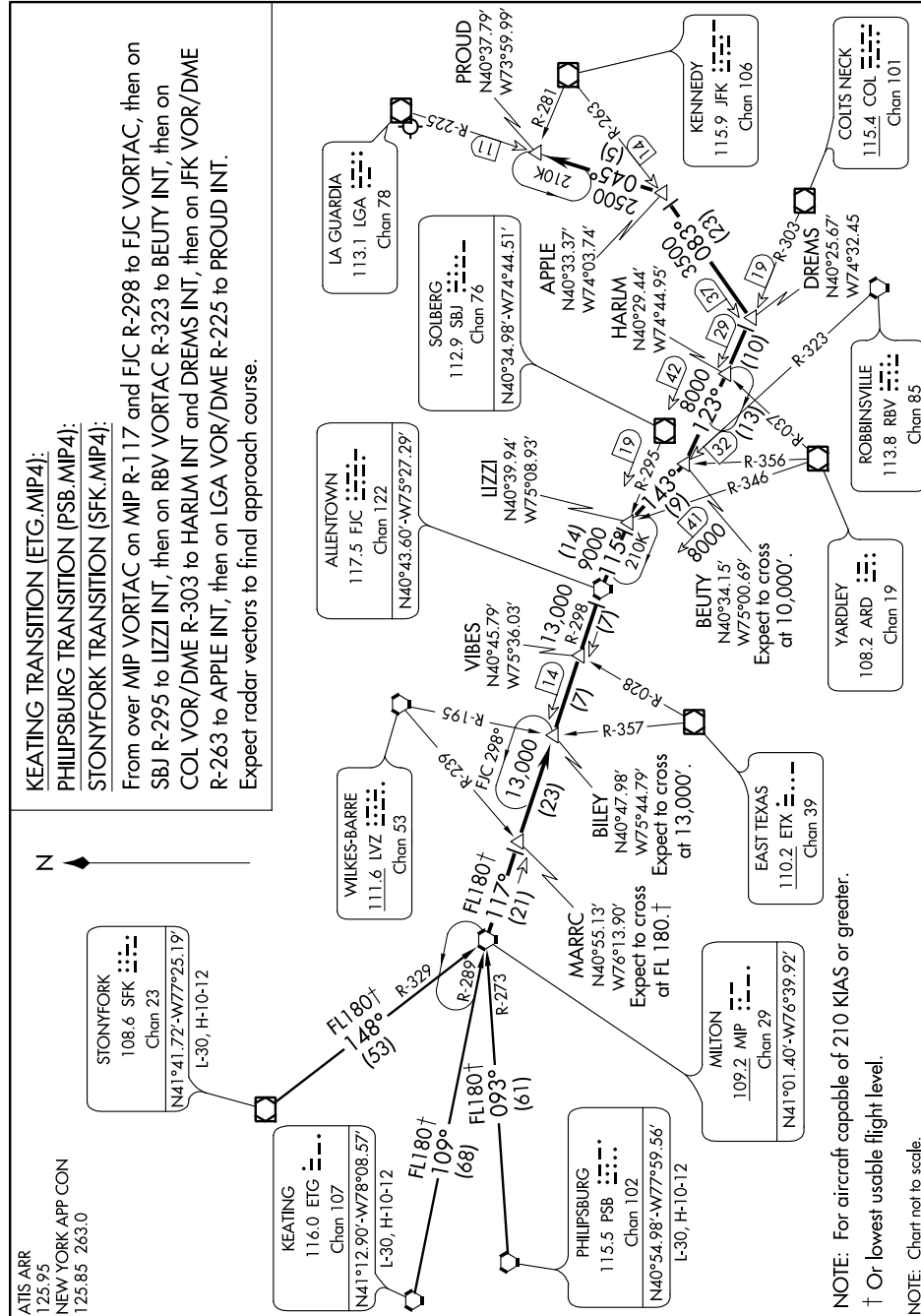
PHILIPSBURG TRANSITION (PSB MIP4):

STONYFORK TRANSITION (SFK MIP4):

From over MIP VORTAC on MIP R-117 and FJC R-298 to FJC VORTAC, then on SBJ R-295 to LUZI INT, then on RBV VORTAC R-323 to BEUTY INT, then on COL VOR/DME R-303 to HARIM INT and DREMS INT, then on JFK VOR/DME R-263 to APPLE INT, then on LGA VOR/DME R-225 to PROUD INT.
Expect radar vectors to final approach course.

ATIS ARR
125.95
NEW YORK APP CON
125.85 263.0

(MIP.MIP4) 20OCT11



NOTE: For aircraft capable of 210 KIAS or greater.

† Or lowest usable flight level.

NOTE: Chart not to scale.

NE-2, 28 APR 2016 to 26 MAY 2016

NEW YORK, NEW YORK
LAGUARDIA

(NOBBI.NOBBI5) 15176

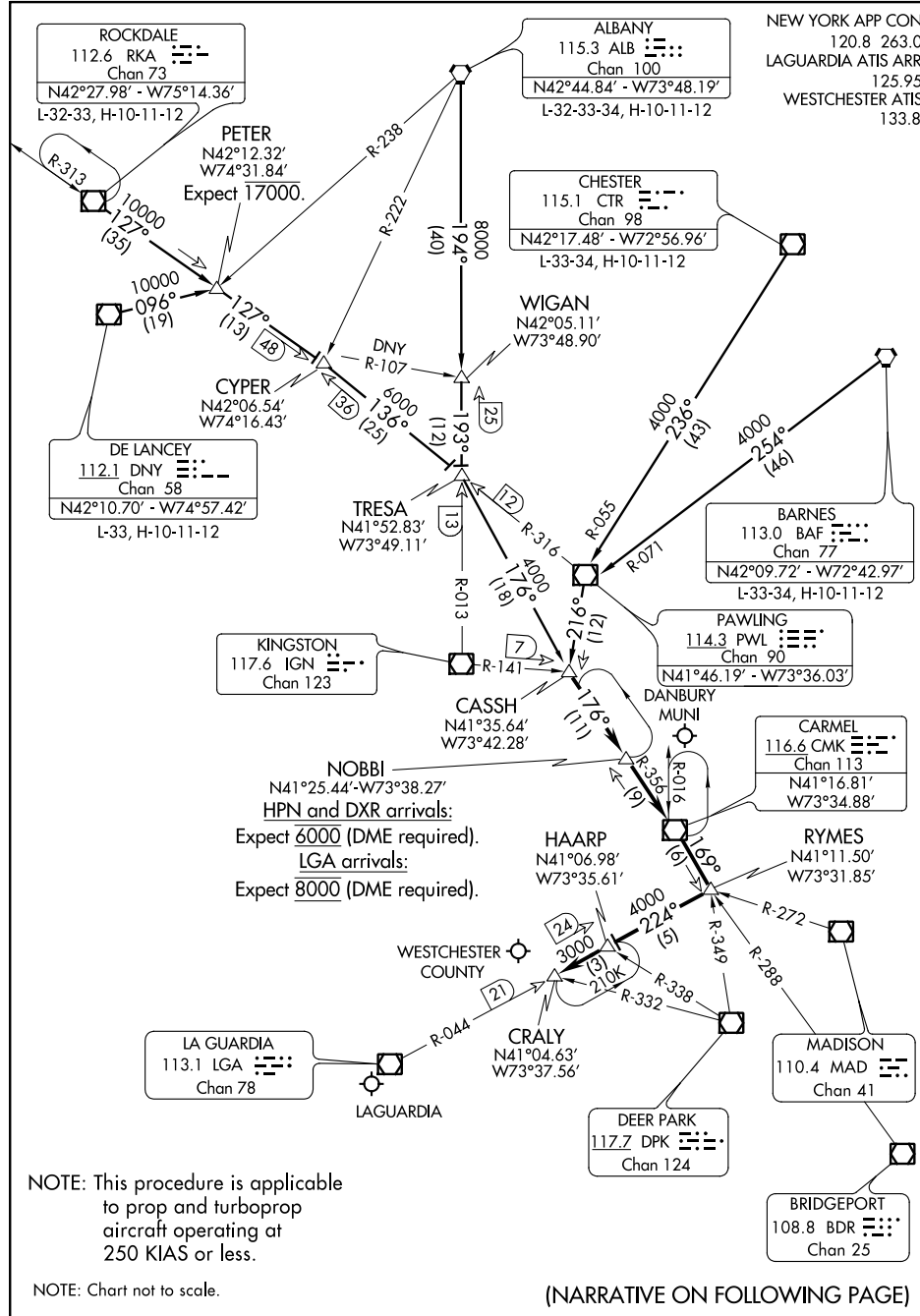
ST-289 (FAA)

NOBBI FIVE ARRIVAL

NEW YORK, NEW YORK

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016



NOBBI FIVE ARRIVAL

(NOBBI.NOBBI5) 15176

NEW YORK, NEW YORK

(NOBBI.NOBBI5) 15176

ST-289 (FAA)

NOBBI FIVE ARRIVAL

NEW YORK, NEW YORK

ARRIVAL ROUTE DESCRIPTION

ALBANY TRANSITION (ALB.NOBBI5): From over ALB VORTAC via ALB R-194 to WIGAN INT, then via IGN R-013 to TRESA INT, then via CMK R-356 to CASSH INT. Thence. . . .

BARNES TRANSITION (BAF.NOBBI5): From over BAF VORTAC via BAF R-254 and PWL R-071 to PWL VOR/DME, then via PWL R-216 to CASSH INT. Thence. . . .

CHESTER TRANSITION (CTR.NOBBI5): From over CTR VOR/DME via CTR R-236 and PWL R-055 to PWL VOR/DME, then via PWL R-216 to CASSH INT. Thence. . . .

DE LANCEY TRANSITION (DNY.NOBBI5): From over DNY VOR/DME via DNY R-096 to PETER INT, then via RKA R-127 to CYPER INT, then via PWL R-316 to TRESA INT, then via CMK R-356 to CASSH INT. Thence. . . .

ROCKDALE TRANSITION (RKA.NOBBI5): From over RKA VOR/DME via RKA R-127 to CYPER INT, then via PWL R-316 to TRESA INT, then via CMK R-356 to CASSH INT. Thence. . . .

. . . .From over CASSH INT via CMK R-356 to CMK VOR/DME, then via CMK R-169 to RYMES INT, then via LGA VOR/DME R-044 to HAARP INT to CRALY INT. Expect radar vectors to final approach course.

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

NOBBI FIVE ARRIVAL

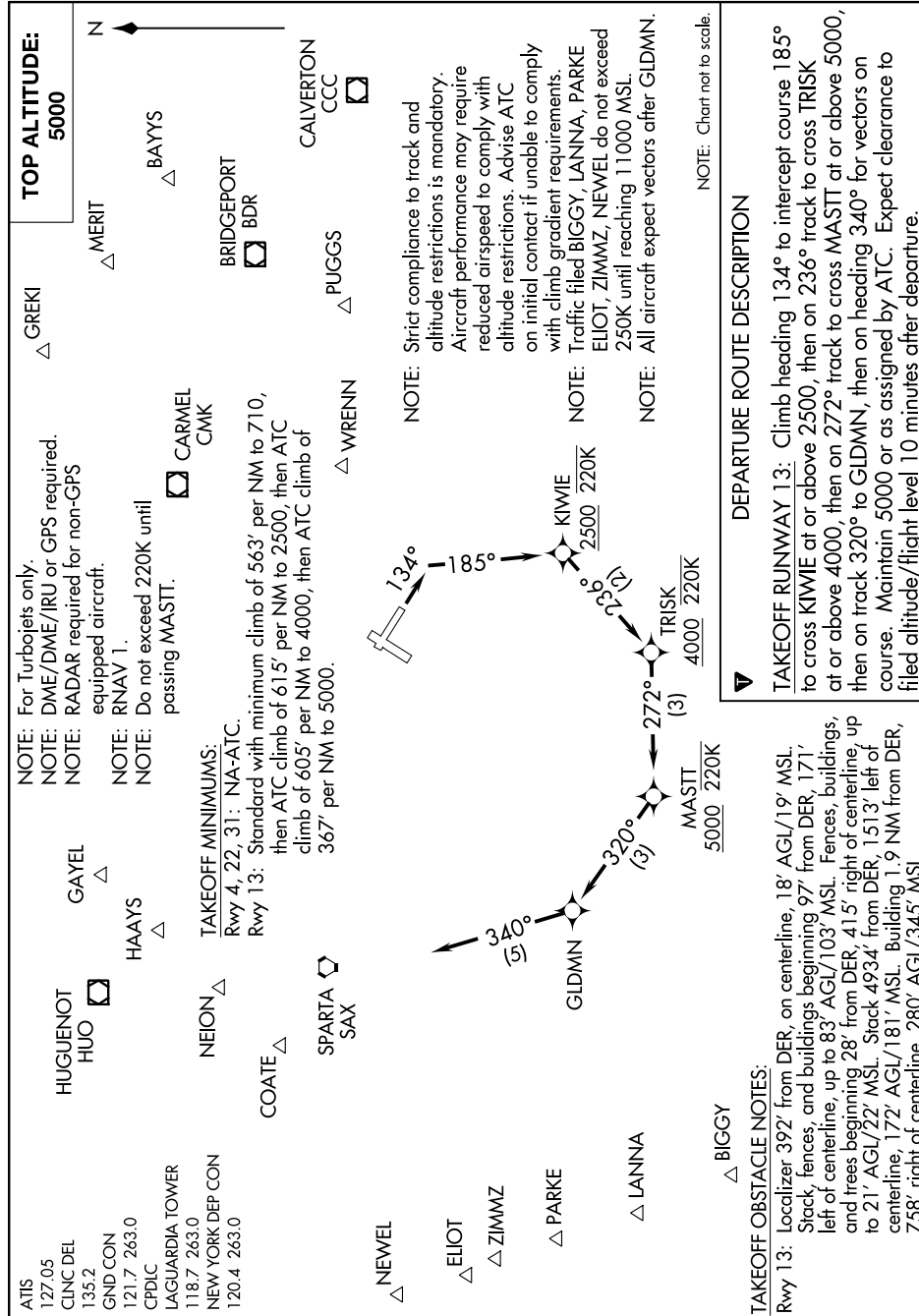
NEW YORK, NEW YORK

(NOBBI.NOBBI5) 15176

GLDMN FIVE DEPARTURE (RNAV)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

NE-2, 28 APR 2016 to 26 MAY 2016



NE-2, 28 APR 2016 to 26 MAY 2016

GLDMN FIVE DEPARTURE (RNAV)
(GLDMN5.GLDMN) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)

(HOPEA3.HOPEA) 16091

SL-289 (FAA)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

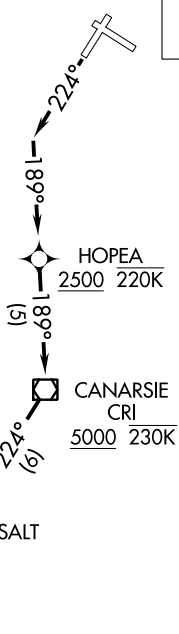
HOPEA THREE DEPARTURE (RNAV)

ATIS
127.05
CLNC DEL
135.2
CPDLC
GND CON
121.7 263.0
LAGUARDIA TOWER
118.7 263.0
NEW YORK DEP CON
120.4 263.0

TAKEOFF MINIMUMS
Rwys 4, 13, 31: NA-ATC.
Rwy 22: Standard with minimum climb of 516' per NM to 5000.

TAKEOFF OBSTACLE NOTES
Rwy 22: Buildings and trees beginning 165' from DER, 150' left of centerline, up to 72' AGL/101' MSL. Blast fence, fence, stack on building, navaid and trees beginning 109' from DER, 138' right of centerline, up to 55' AGL/104' MSL. Tower 1.8 NM from DER, 566' right of centerline, 222' AGL/302' MSL.

TOP ALTITUDE:
5000



ROBBINSVILLE
RBV

DIXIE
WHITE

NOTE: For Turbojets only.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: Do not exceed 220K until passing HOPEA.
NOTE: Do not exceed 230K until passing CRI VOR/DME.
NOTE: Strict compliance to track and altitude restrictions is mandatory. Aircraft performance may require reduced airspeed to comply with altitude restrictions. Advise ATC on initial contact if unable to comply with climb gradient requirements.
NOTE: Aircraft filed RBV VORTAC, WHITE, SHIPP, WAVEY, DIXIE expect vectors after ASALT.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 22: Climb heading 224° to intercept course 189° to cross HOPEA at or above 2500, then on track 189° to cross CRI VOR/DME at or above 5000, then on track 224° to ASALT, then on track 224° for vectors on course. Maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level 10 minutes after departure.

HOPEA THREE DEPARTURE (RNAV)
(HOPEA3.HOPEA) 25JUN15

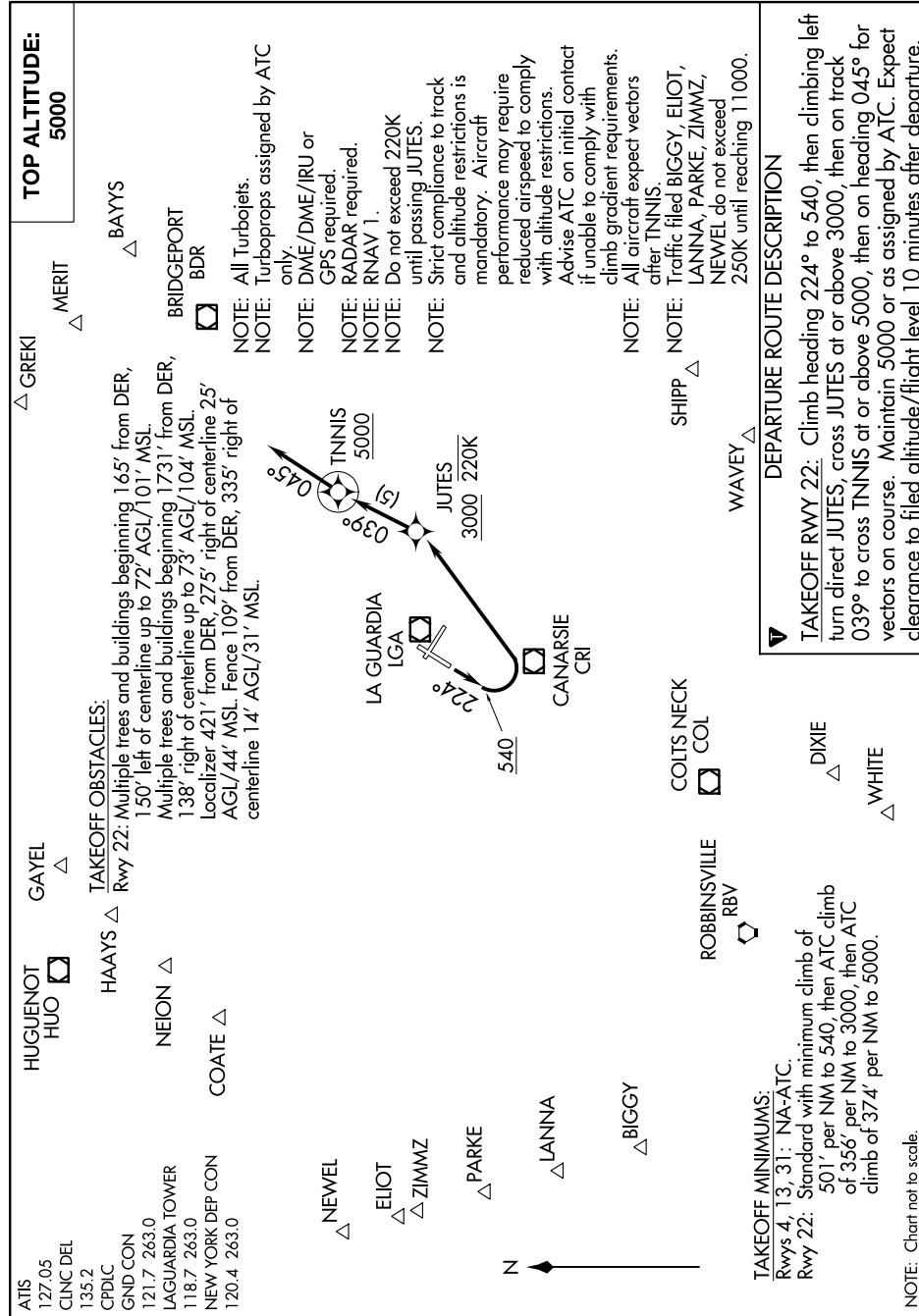
NEW YORK, NEW YORK
LAGUARDIA (LGA)

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

JUTES THREE DEPARTURE (RNAV)

NE-2, 28 APR 2016 to 26 MAY 2016



NE-2, 28 APR 2016 to 26 MAY 2016

JUTES THREE DEPARTURE (RNAV)

(JUTES3.JUTES) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)

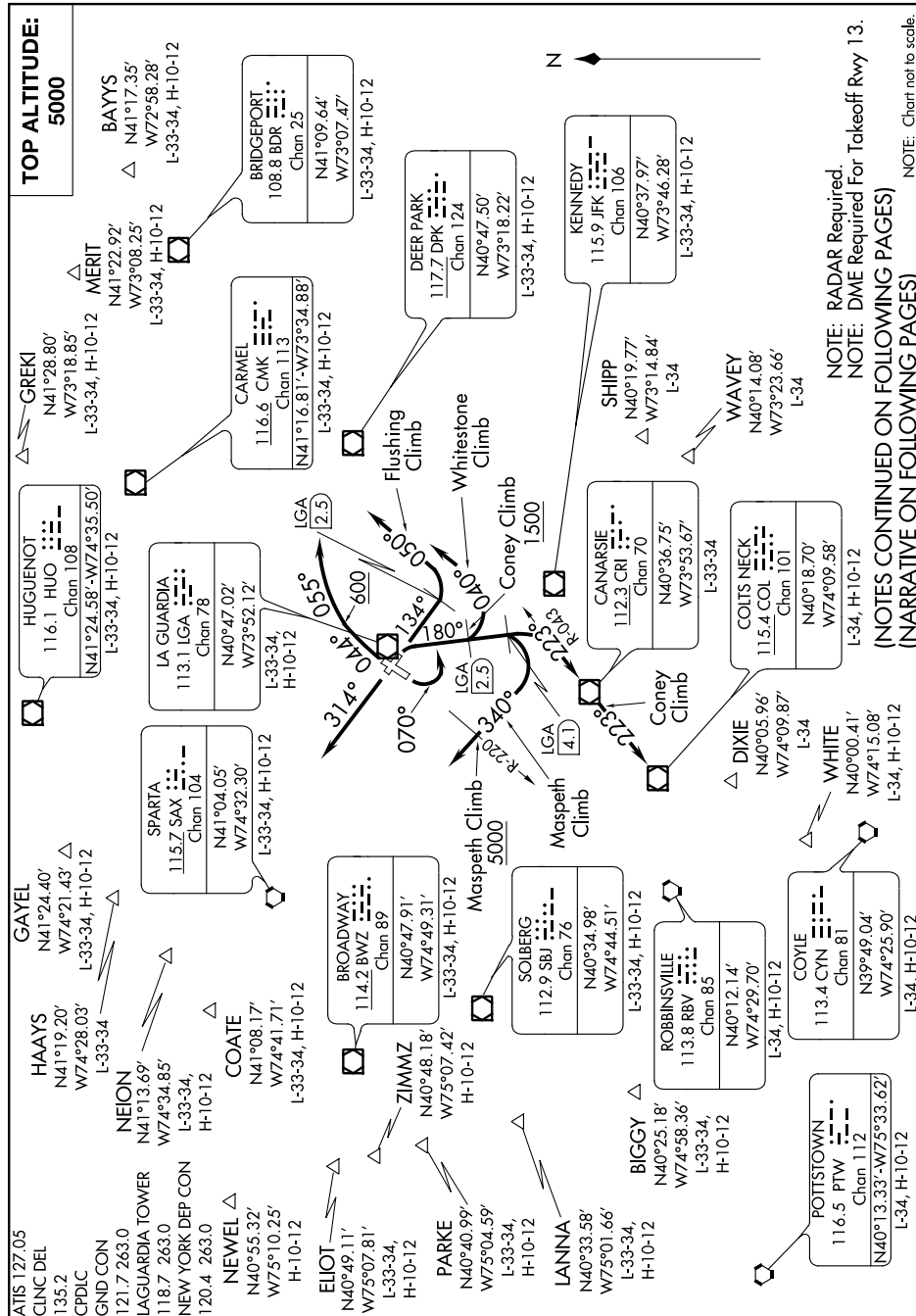
(LGA5.LGA) 16091

SL-289 (FAA)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

LA GUARDIA FIVE DEPARTURE

NE-2, 28 APR 2016 to 26 MAY 2016



LA GUARDIA FIVE DEPARTURE
(LGA5.LGA) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)

NOTE: RADAR Required.
NOTE: DME Required For Takeoff Rwy 13.
(NOTES CONTINUED ON FOLLOWING PAGES)
(NARRATIVE ON FOLLOWING PAGES)
NOTE: Chart not to scale.

NE-2, 28 APR 2016 to 26 MAY 2016

(LGA5.LGA) 16091

SL-289 (FAA)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

LA GUARDIA FIVE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb heading 044° to 600, then right turn heading 055°, maintain 5000, Thence....

TAKEOFF RUNWAY 13 (Coney Climb: TURBOJETS ONLY - Requires minimum ATC climb of 900' per NM to 1500, if unable, advise ATC): Climbing right turn heading 180° to intercept CRI R-043 (do not exceed 230K until intercepting CRI R-043) to CRI VOR/DME then on CRI R-223. Cross LGA 2.5 DME at or above 1500', maintain 5000, Thence....

TAKEOFF RUNWAY 13 (Flushing Climb): Climb heading 134° to LGA 2.5 DME, then left turn heading 050°, maintain 5000, Thence....

TAKEOFF RUNWAY 13 (Maspeth Climb: TURBOJETS ONLY - Requires minimum ATC climb of 900' per NM to 4400, if unable, advise ATC): Climbing right turn heading 180°, at LGA 4.1 DME turn right heading 340°, maintain 5000, cross LGA R-220 at or above 5000, Thence....

TAKEOFF RUNWAY 13 (Whitestone Climb: Requires minimum ATC climb of 500' per NM to 1500, if unable advise ATC): Climbing right turn heading 180° to LGA 2.5 DME, then left turn heading 040° (do not exceed 210K until established on heading 040°). Maintain 5000, Thence....

TAKEOFF RUNWAY 22: Climbing left turn heading 070°, maintain 5000, Thence....

TAKEOFF RUNWAY 31: Climb heading 314° (or as assigned by ATC), maintain 5000, Thence....

....Expect vectors to assigned route/fix. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

NOTE: Rwy 31 Departures: Expect turn on course leaving 6000.

NOTE: Traffic filed over BIGGY, LANNA, ELIOT, PARKE, ZIMMZ, NEWEL: Do not exceed 250 KIAS until reaching 11000.

NOTE: BAYYS Departures expect vectors to BDR/BDR R-054.

NOTE: COATE Departures expect vectors to SAX/SAX R-311.

NOTE: SHIPP Departures expect vectors to JFK/JFK R-139.

NOTE: WAVEY Departures expect vectors to JFK/JFK R-156.

NOTE: WHITE Departures expect vectors to COL/COL R-204.

NOTE: BIGGY Departures expect vectors to SBJ/SBJ R-237.

NOTE: DIXIE Departures expect vectors to COL/COL R-192.

NOTE: ELIOT Departures expect vectors to SAX R-252. ELIOT authorized for all aircraft types but restricted to a final altitude of 14000 or 16000.

NOTE: ZIMMZ Departures expect vectors to SAX R-250. ZIMMZ authorized for all aircraft types but restricted to a final altitude of FL180 and above.

NOTE: NEWEL Departures expect vectors to SAX R-264. NEWEL authorized only for jet aircraft requesting a final altitude of FL180 and above.

NOTE: GAYEL Departures expect vectors to DPK R-320.

NOTE: GREKI Departures expect vectors to CMK R-057.

NOTE: LANNA Departures expect vectors to PTW R-059.

NOTE: MERIT Departures expect vectors to LGA R-055.

NOTE: NEION Departures expect vectors to LGA R-322.

NOTE: PARKE Departures expect vectors to BWZ/BWZ R-250.

NOTE: HAAYS Departures expect vectors to HUO.

(CONTINUED ON FOLLOWING PAGE)

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

LA GUARDIA FIVE DEPARTURE

(LGA5.LGA) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)

(LGA5.LGA) 16091

SL-289 (FAA)

LA GUARDIA FIVE DEPARTURE

LAGUARDIA (LGA)
NEW YORK, NEW YORK



(NOTES CONTINUED)

TAKEOFF MINIMUMS:

- Rwy 4: Standard.
- Rwy 13 (Coney Climb): 400-2 ¼ or Standard with minimum climb of 280' per NM to 500. ATC climb of 900' per NM to 1500.
- Rwy 13 (Maspeth Climb): Standard with minimum climb of 280' per NM to 500. ATC climb of 900' per NM to 4400.
- Rwy 13 (Flushing Climb): 400-2 ¼ or Standard with minimum climb of 280' per NM to 500. ATC climb of 280' per NM to 500.
- Rwy 13 (Whitestone Climb): 400-2 ¼ or Standard with minimum climb of 280' per NM to 500. ATC climb of 500' per NM to 1500.
- Rwy 22: 300-2 ¼ or Standard with minimum climb of 210' per NM to 400, or alternatively, with Standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1100' prior to DER.
- Rwy 31: 300-1 ¾ or Standard with minimum climb of 330' per NM to 500.

TAKEOFF OBSTACLES NOTES:

- Rwy 13: Localizer 392' from DER, on centerline, 18' AGL/19' MSL. Stack, fences, and buildings beginning 97' from DER, 171' left of centerline, up to 83' AGL/103' MSL. Fences, buildings, and trees beginning 28' from DER, 415' right of centerline, up to 21' AGL/22' MSL. Stack 4934' from DER, 1513' left of centerline, 172' AGL/181' MSL. Building 1.9 NM from DER, 758' right of centerline, 280' AGL/345' MSL.
- Rwy 22: Buildings and trees beginning 165' from DER, 150' left of centerline, up to 72' AGL/101' MSL. Blast fence, fence, stack on building, navaid, and trees beginning 109' from DER, 138' right of centerline, up to 55' AGL/104' MSL. Tower 1.8 NM from DER, 566' right of centerline, 222' AGL/302' MSL.
- Rwy 31: Stack 1.2 NM from DER, 2015' left of centerline, 250' AGL/268' MSL.

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

LA GUARDIA FIVE DEPARTURE
(LGA5.LGA) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)

(NTHNS4.NTHNS) 16091

SL-289 (FAA)

NTHNS FOUR DEPARTURE (RNAV)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

ATIS
127.05
CLNC DEL
135.2
CPDLC
GND CON
121.7 263.0
LAGUARDIA TOWER
118.7 263.0
NEW YORK DEP CON
120.4 263.0

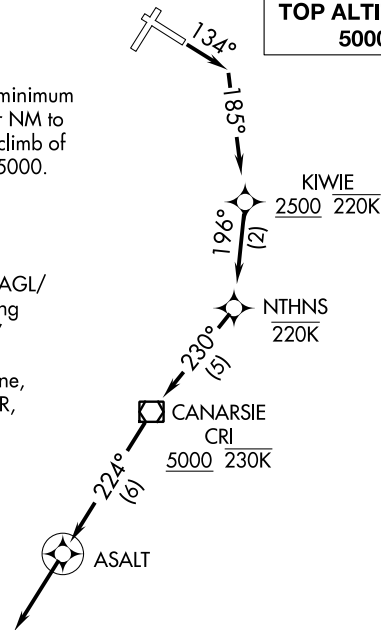
TAKEOFF MINIMUMS:

Rwys 4, 22, 31: NA-ATC.
Rwy 13: Standard with a minimum
climb of 600' per NM to
2500, then ATC climb of
355' per NM to 5000.

TOP ALTITUDE:
5000

TAKEOFF OBSTACLE NOTES:

Rwy 13: Localizer 392' from DER, on centerline, 18' AGL/
19' MSL. Stacks, fences, and buildings beginning
97' from DER, 171' left of centerline, up to 83'
AGL/103' MSL. Fences, buildings, and trees
beginning 28' from DER, 415' right of centerline,
up to 21' AGL/22' MSL. Stack 4934' from DER,
1513' left of centerline, 172' AGL/181' MSL.
Building 1.9 NM from DER, 758' right of
centerline, 260' AGL/345' MSL.



NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

ROBBINSVILLE
RBV

COLTS NECK
COL

SHIPP

WAVEY

DIXIE

WHITE

NOTE: For Turbojets only.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: Do not exceed 220K until passing NTHNS.
NOTE: Do not exceed 230K until passing CRI VOR/DME.
NOTE: Strict compliance to track and altitude restrictions is
mandatory. Aircraft performance may require reduced
airspeed to comply with altitude restrictions. Advise
ATC on initial contact if unable to comply with climb
gradient requirements.
NOTE: Aircraft filed RBV, WHITE, SHIPP, WAVEY, DIXIE,
expect radar vectors after ASALT.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb heading 134° to intercept course 185° to cross
KIWIE at or above 2500, then on track 196° to NTHNS, then on track 230° to
cross CRI VOR/DME at or above 5000, then on track 224° to ASALT, then on
track 224° for vectors on course. Maintain 5000 or as assigned by ATC. Expect
clearance to filed altitude/flight level 10 minutes after departure.

NTHNS FOUR DEPARTURE (RNAV)

(NTHNS4.NTHNS) 25JUN15

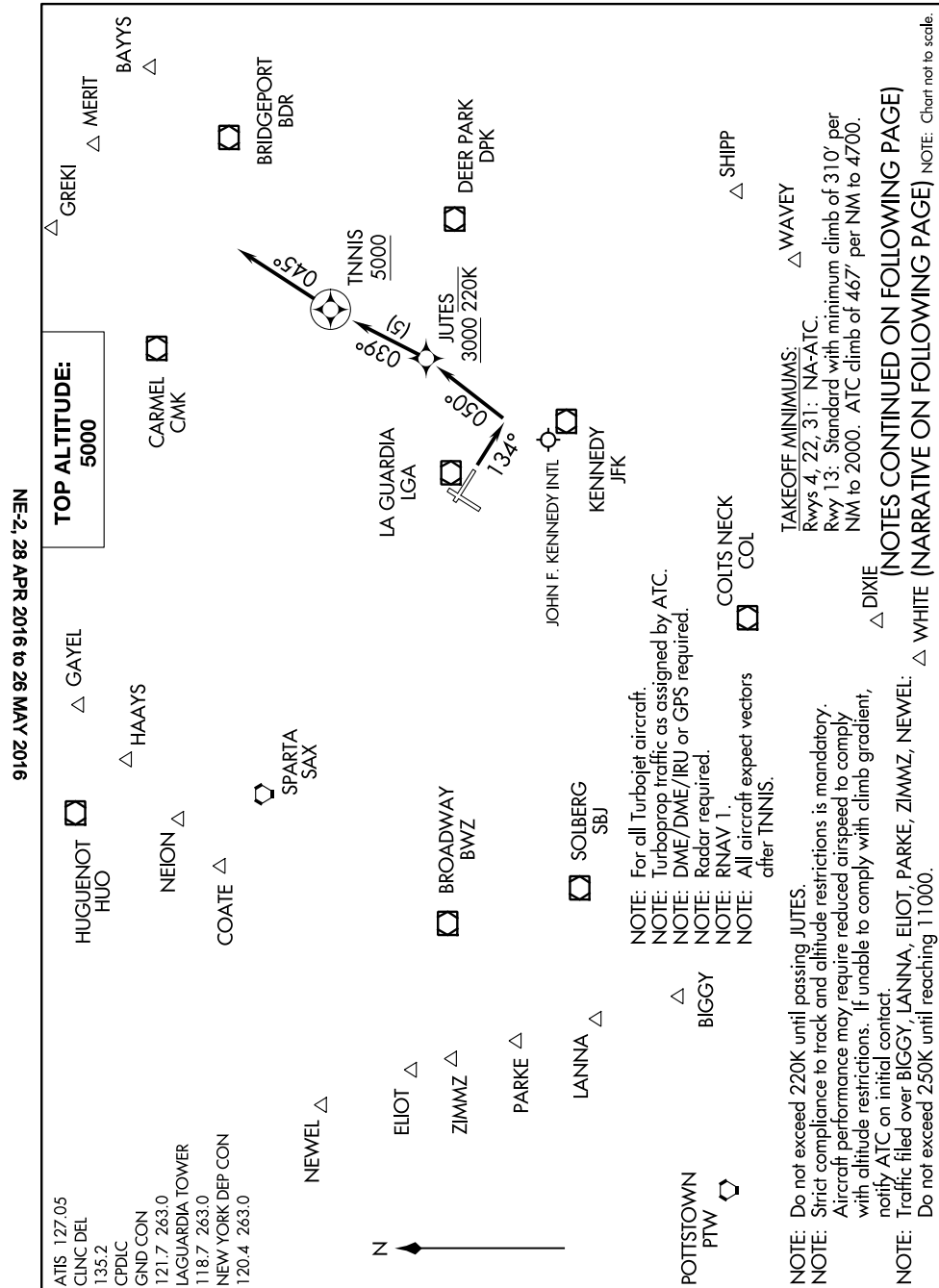
NEW YORK, NEW YORK
LAGUARDIA (LGA)

(TNNIS6.TNNIS) 16091

SL-289 (FAA)

LAGUARDIA (LGA)
NEW YORK, NEW YORK

TNNIS SIX DEPARTURE (RNAV)



NE-2, 28 APR 2016 to 26 MAY 2016

TNNIS SIX DEPARTURE (RNAV)

(TNNIS6.TNNIS) 25JUN15

NEW YORK, NEW YORK
LAGUARDIA (LGA)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 13: Climb heading 134° to intercept course 050° to cross JUTES at or above 3000, then on track 039° to cross TNNIS at or above 5000, then on heading 045°, expect vectors after TNNIS, Thence . . .

. . . maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

- NOTE: BAYYS departures expect vectors to BDR/BDR R-054.
NOTE: COATE departures expect vectors to SAX/SAX R-311.
NOTE: SHIPP departures expect vectors to JFK/JFK R-139.
NOTE: WAVEY departures expect vectors to JFK/JFK R-156.
NOTE: WHITE departures expect vectors to COL/COL R-204.
NOTE: BIGGY departures expect vectors to SBJ/SBJ R-237.
NOTE: DIXIE departures expect vectors to COL/COL R-192.
NOTE: ELIOT departures expect vectors to SAX R-252. ELIOT authorized only for aircraft requesting a final altitude of 14000 or 16000.
NOTE: GAYEL departures expect vectors to DPK R-320.
NOTE: GREKI departures expect vectors to CMK R-057.
NOTE: LANNA departures expect vectors to PTW R-059.
NOTE: MERIT departures expect vectors to LGA R-055.
NOTE: NEION departures expect vectors to LGA R-322.
NOTE: PARKE departures expect vectors to BWZ/BWZ R-250.
NOTE: HAAYS departures expect vectors to HUO.
NOTE: ZIMMZ departures expect vectors to SAX R-250. ZIMMZ authorized only for aircraft requesting a final altitude of FL180 and above.
NOTE: NEWEL departures expect vectors to SAX R-264. NEWEL authorized only for aircraft requesting a final altitude of at or above FL180.

TAKEOFF OBSTACLE NOTES:

Rwy 13: Localizer 392' from DER, on centerline, 18' AGL/19' MSL. Stack, fences, and buildings beginning 97' from DER, 171' left of centerline, up to 83' AGL/103' MSL. Fences, buildings, and trees beginning 28' from DER, 415' right of centerline, up to 21' AGL/22' MSL. Stack 4934' from DER, 1513' left of centerline, 172' AGL/181' MSL. Building 1.9 NM from DER, 758' right of centerline, 280' AGL/345' MSL.

NE-2, 28 APR 2016 to 26 MAY 2016

NE-2, 28 APR 2016 to 26 MAY 2016

APPENDIX C

Aircraft Noise

APPENDIX C

Aircraft Noise

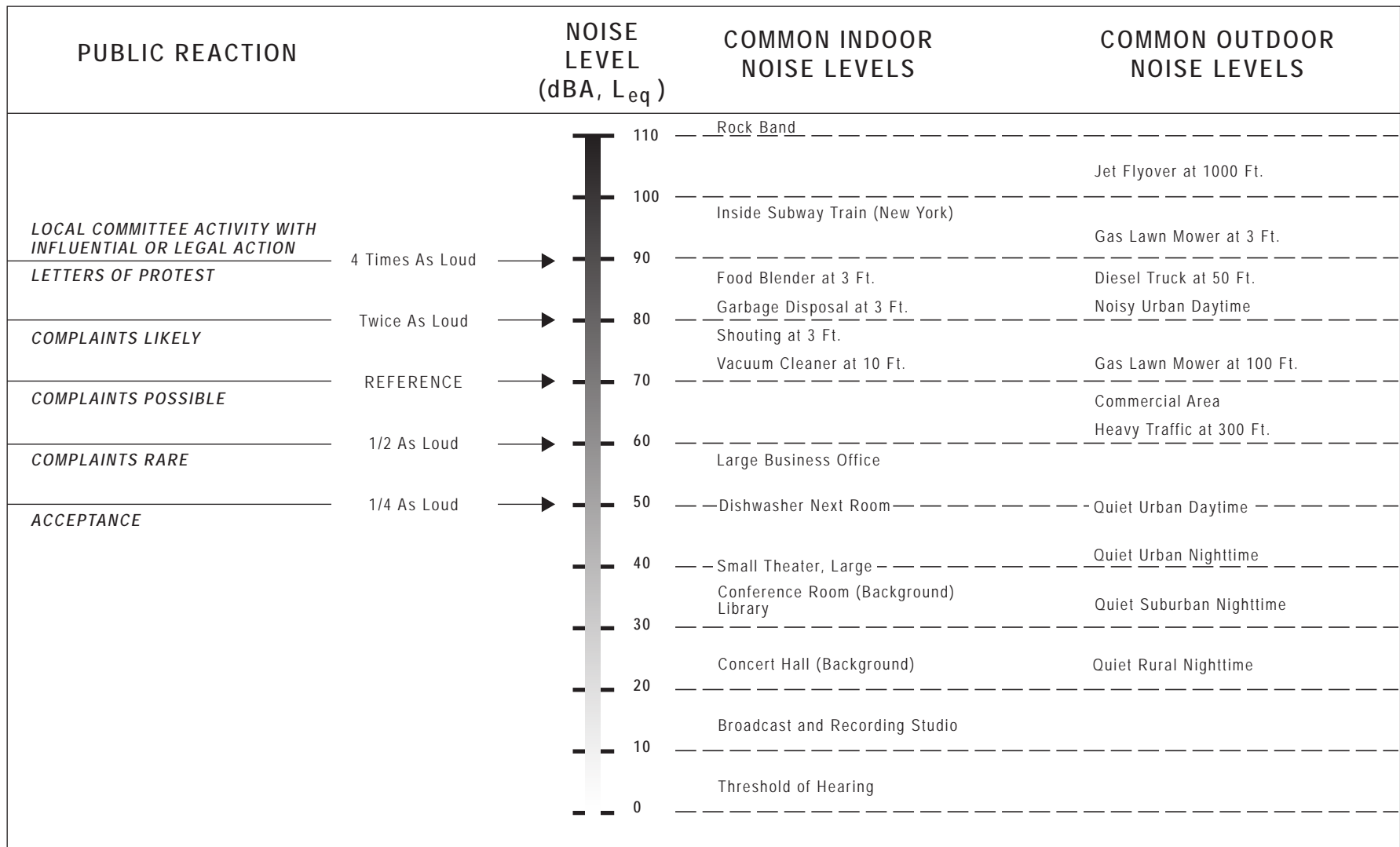
1.1 Environmental Noise Fundamentals

The measurement and human perception of sound involve two basic physical characteristics: intensity and frequency. Intensity is a measure of the acoustic energy of sound vibrations, expressed in terms of sound pressure. The higher the sound pressure, the more energy carried by the sound and the louder the perception of that sound. The second important physical characteristic is sound frequency, which is the number of times per second the air vibrates or oscillates. Low-frequency sounds are characterized as rumbles or roars, while high-frequency sounds are typified by sirens or screeches.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level), which is measured in decibels (dB). On this scale, zero dB corresponds roughly to the threshold of human hearing and 120 to 140 dB corresponds to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound. Noise is commonly defined as unwanted sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts on humans, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency weighting and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown on **Figure C-1**.



SOURCE: OSHA, 2013; EPA, 2010; Adapted by ESA, 2015

La Guardia Airport 14 CFR Part 150 Study .140037

Figure C-1
Effects of Noise on People
LaGuardia Airport

1.2 General Characteristics of Aircraft Noise

Outdoor sound levels decrease as a function of distance from the source and as a result of wave divergence, atmospheric absorption, and ground attenuation. If sound is radiated from a source in a homogenous and undisturbed manner, the sound travels as spherical waves. As the sound wave travels away from the source, the sound energy is distributed over a greater area, dispersing the sound power of the wave. Spherical spreading of the sound wave reduces the noise level, for most sound sources, at a rate of 6 dB per doubling of the distance.

Atmospheric absorption also influences the levels that are received by the observer. The greater the distance sound travels, the greater the influence of atmospheric effects. Atmospheric absorption becomes important at distances of greater than 1,000 feet. The degree of absorption is a function of the sound frequency, as well as the humidity and temperature of the air. For example, atmospheric absorption is lowest at high humidity and higher temperatures. Turbulence and gradients of wind, temperature, and humidity also play a significant role in determining the degree of attenuation. Certain conditions, such as inversions, can also result in higher sound levels that would result from spherical spreading as a result of channeling or focusing the sound waves.

Absorption effects in the atmosphere vary with frequency. The higher frequencies are more readily absorbed than the lower frequencies. Over large distances, the lower frequencies become the dominant sound as the higher frequencies are attenuated.

The effects of ground attenuation on aircraft noise propagation are a function of the height of the source and/or receiver and the characteristics of the terrain. The closer the source of the noise is to the ground, the greater the ground absorption. Terrain consisting of soft surfaces, such as vegetation, provide for more ground absorption than hard surfaces, such as a large parking lot.

Aircraft noise originates from both the engines and the airframe of an aircraft, but the engines are, by far, the more significant source of noise. Meteorological conditions affect the transmission of aircraft noise through the air. Wind speed and direction, and the temperature immediately above ground level, cause diffraction and displacement of sound waves. Humidity and temperature materially affect the transmission of air-to-ground sound through absorption associated with the instability and viscosity of the air.

1.3 Aircraft Noise Descriptors

The description, analysis, and reporting of aircraft noise levels is made difficult by the complexity of human response to sound and the myriad of sound-rating scales and metrics that have been developed for describing acoustic effects. Various rating scales have been devised to approximate the human response to the “loudness” or “noisiness” of a sound. Noise metrics have been developed to account for additional parameters, such as duration and cumulative effect of multiple events.

Noise metrics can be categorized as single-event metrics and cumulative metrics. Single-event metrics describe the noise from individual events, such as an aircraft flyover. Cumulative metrics describe the noise in terms of the total noise exposure over a period of time. The primary noise descriptors/metrics that are used in the Port Authority’s 14 CFR Part 150 studies are described below.

1.3.1 A-Weighted Sound Pressure Level (dBA)

The decibel is a unit used to describe sound pressure level. When expressed in dBA, the sound has been filtered to reduce the effect of very low and very high frequency sounds, much as the human ear filters sound frequencies. Without this filtering, calculated and measured sound levels would include events that the human ear cannot hear (e.g., dog whistles and low frequency sounds, such as the groaning sounds emanating from large buildings with changes in temperature and wind). With A-weighting, calculations and sound monitoring equipment approximate the sensitivity of the human ear to sounds of different frequencies.

Some common sound levels on the dBA scale are listed in **Table C-1**. As shown, the relative perceived loudness of a sound doubles for each increase of 10 dBA, although a 10-dBA change in the sound level corresponds to a factor of 10 changes in relative sound energy. Generally, single-event sound levels with differences of 2 dBA or less are not perceived to be noticeably different by most listeners.

1.3.2 Maximum A-Weighted Sound Level (Lmax)

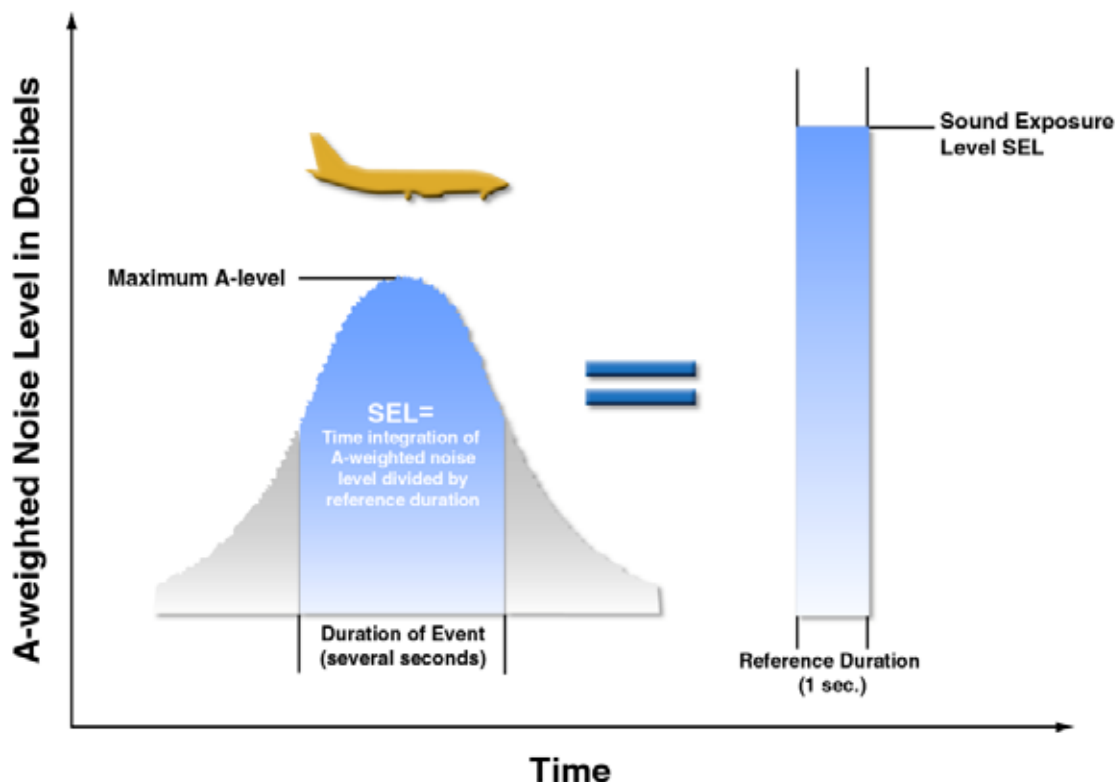
Lmax is the maximum, or peak, sound level during a noise event. The metric only accounts for the highest A-weighted sound level measured during a noise event, not for the duration of the event. For example, as an aircraft approaches, the sound of the aircraft begins to rise above ambient levels. The closer the aircraft gets, the louder the sound until the aircraft is at its closest point. As the aircraft passes, the sound level decreases until the sound returns to ambient levels. Some sound level meters measure and record the maximum sound level (Lmax). The Lmax for an aircraft flyover is illustrated on **Figure C-2**.

TABLE C-1
COMMON SOUNDS ON THE A-WEIGHTED DECIBEL SCALE

Sound	Sound level (dBA)	Relative loudness (approximate)	Relative sound energy
Rock music, with amplifier	120	64	1,000,000
Thunder, snowmobile (operator)	110	32	100,000
Boiler shop, power mower	100	16	10,000
Orchestral crescendo at 25 feet, noisy kitchen	90	8	1,000
Busy street	80	4	100
Interior of department store	70	2	10
Ordinary conversation, 3 feet away	60	1	1
Quiet automobiles at low speed	50	1/2	.1
Average office	40	1/4	.01
City residence	30	1/8	.001
Quiet country residence	20	1/16	.0001
Rustle of leaves	10	1/32	.00001
Threshold of hearing	0	1/64	.000001

SOURCE: U.S. Department of Housing and Urban Development, Aircraft Noise Impact—Planning Guidelines for Local Agencies, 1972.

FIGURE C-2
SOUND EXPOSURE LEVEL AND MAXIMUM SOUND LEVEL



SOURCE: Brown-Buntin Associates, Inc., November 2004.

1.3.3 Sound Exposure Level (SEL)

Sound Exposure Level (SEL), is a time integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The standardization of discrete noise events into a one-second duration allows calculation of the cumulative noise exposure of a series of noise events that occur over a period of time. The SEL of an aircraft noise event is typically 7 to 12 dBA greater than the L_{max} of the event. SELs for aircraft noise events depend on the location of the aircraft relative to the noise receptor, the type of operation (landing, takeoff, or overflight), and the type of aircraft. The SEL for an aircraft flyover is also illustrated on **Figure C-2**.

1.3.4 Equivalent Noise Level (L_{eq})

Equivalent Noise Level (L_{eq}) is the sound level corresponding to a steady state, A-weighted sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the “energy” average noise level during the time period of the sample. It is based on the observation that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. It is the energy sum of all the sound that occurs during that time period. This is graphically illustrated in the middle graph on **Figure C-3**. L_{eq} can be measured for any time period, but is typically measured for 15 minutes, 1 hour, or 24 hours.

1.3.5 Day-Night Average Sound Level (DNL)

Day-Night Average Sound Level (DNL), formerly referred to as Ldn, is expressed in dBA and represents the noise level over a 24-hour period. DNL includes the cumulative effects of a number of sound events rather than a single event. It also accounts for increased sensitivity to noise during relaxation and sleeping hours. DNL is used to estimate the effects of specific noise levels on land uses. The U.S. Environmental Protection Agency (EPA) introduced the DNL metric in 1976 as a single number. In the calculation of DNL, for each hour during the nighttime period (10:00 p.m. to 7:00 a.m.), the sound levels are increased by a 10 decibel-weighting penalty (equivalent to a 10-fold increase in aircraft operations) before the 24 hour value is computed. The weighting penalty accounts for the more intrusive nature of noise during the nighttime hours. The weighting penalty is illustrated on **Figure C-3**.

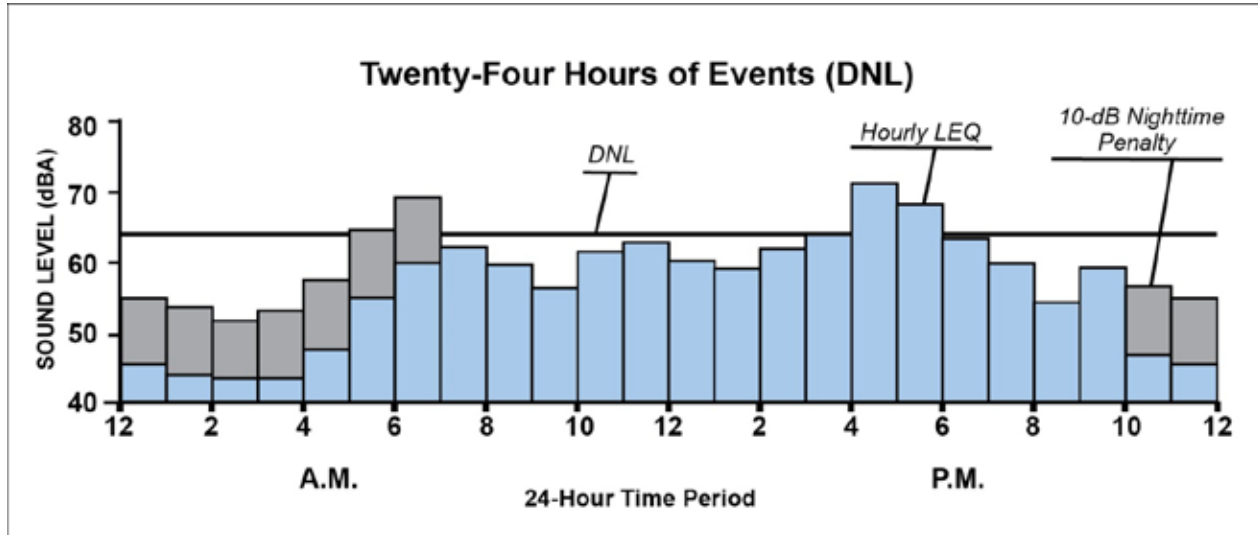
DNL is expressed as an average noise level on the basis of annual aircraft operations for a calendar year. To calculate the DNL at a specific location, the SELs at that location associated with each individual aircraft operation (landing or takeoff) are determined. Using the SEL for each noise event and applying the 10-dB penalty for nighttime operations as appropriate, a partial DNL is then calculated for each aircraft operation. The partial DNLs for each aircraft operation are added logarithmically to determine the total DNL.

DNL is used to describe existing and predicted noise exposure in communities in airport environs based on the average daily operations over the year and the average annual operational conditions at the airport. Therefore, at a specific location near an airport, the noise exposure on a particular day is likely to be higher or lower than the annual average noise exposure, depending on the specific operations at the airport on that day. DNL is widely accepted as the best available method to describe aircraft noise exposure and is the noise descriptor required for aircraft noise exposure analyses and land use compatibility planning under 14 CFR Part 150 and for federal environmental reviews of airport improvement projects (FAA Order 1050.1F).¹

The DNL metric used for this aircraft noise analysis is based on an average annual day of aircraft operations, generally derived from data for a calendar year. An annual-average day (AAD) activity profile is computed by adding all aircraft operations occurring during the course of a year and dividing the result by 365. As such, AAD does not reflect activities on any one specific day, but represents average conditions as they occur during the course of the year.

¹ U.S. Department of Transportation. Federal Aviation Administration. Order 1050.1F, *Environmental Impacts: Policies and Procedures*. July 16, 2015.

**FIGURE C-3
DAY-NIGHT AVERAGE SOUND LEVEL**



SOURCE: ESA, 2016.

1.4 Integrated Noise Model

The LGA 14 CFR Part 150 Study was initiated using the FAA's Integrated Noise Model (INM), Version 7.0d. This version of INM was the most current version of the INM at the time this 14 CFR Part 150 Noise Exposure Map Report process commenced.²

The INM 7.0d aircraft database contains representative data for commercial, general aviation, and military aircraft powered by turbojet, turbofan, or propeller-driven engines. For each aircraft in the database, the following information is provided: (1) a set of departure profiles for each applicable trip length, (2) a set of approach parameters, and (3) SEL versus distance curves for several thrust settings. The INM uses runway and flight track information, operation levels distributed by time of day, aircraft fleet mix, and aircraft profiles as inputs. This information is needed to develop noise exposure contours. The INM calculates noise exposure levels at a series of "noise grids" and produces noise exposure contours based on the grid results, for a variety of noise metrics including DNL, Lmax, Leq, and SEL. For the purposes of 14 CFR Part 150 NEMs, the FAA requires the use of DNL.

1.5 DNL and Noise Exposure Ranges

Noise exposure values of DNL 75, 70, and 65 were used as the criterion levels for the noise analysis. Three specific ranges of noise exposure were modeled: (1) DNL 75 and higher, (2) DNL 70 to 75, and (3) DNL 65 to 70. Although the FAA considers aircraft noise exposure lower than DNL 65 to be compatible with residential land uses, persons residing outside the area exposed to DNL 65 and higher may still be

² The FAA's Aviation Environmental Design Tool (AEDT) replaced the Integrated Noise Model (INM) and Emissions and Dispersion Modeling System (EDMS) as the required tool for noise, fuel burn, and emissions modeling on May 29, 2015. Updating the aircraft noise exposure information in this 14 CFR Part 150 Study was not required because the Study and substantial work on the analysis of noise at LGA was initiated prior to May 29, 2015.

annoyed by aircraft noise. The frequently cited “Schultz Curve”³ shows that, at an aircraft noise exposure of DNL 65, approximately 15 percent of the population would be expected to be “highly annoyed.” At DNL 60, approximately nine percent of the population would be expected to be highly annoyed by aircraft noise. At DNL 55, approximately five percent of the population would be expected to be highly annoyed by aircraft noise.

DNL mapping was developed as a tool to assist in land use planning around airports. The mapping is best used for comparative purposes rather than for providing absolute values. DNL calculations provide valid comparisons between different projected conditions, as long as consistent assumptions and data are used for all calculations.

Sets of DNL calculations can show anticipated changes in aircraft noise exposure over time, or can indicate which series of simulated situations is better, and generally how much better, from the standpoint of noise exposure. However, a line drawn on a map does not imply that a particular noise condition exists on one side of the line and not on the other. DNL calculations are for comparing noise effects, not for precisely defining them relative to specific parcels of land.

DNL contours can be used to: (1) highlight an existing or potential aircraft noise problem that requires attention, (2) assist in the preparation of noise compatibility programs, and (3) provide guidance in developing land use controls, such as zoning ordinances, subdivision regulations, and building codes. DNL is considered to be the best methodology available for depicting aircraft noise exposure by the FAA.

1.5.1 Graphic Representation of Aircraft Noise Exposure

Noise exposure contours are lines on a map that connect points of equal DNL values, much like topographic contours are drawn to indicate area of equal ground elevation. For example, a contour may be drawn to connect all points of DNL 70; another may be drawn to connect all points of DNL 65; and so forth. Generally, noise contours are plotted at 5-dB intervals. Noise contours were developed for the Airport in conformance with FAA guidelines included in 14 CFR Part 150.

For this analysis, the INM was used to produce contours to delineate areas exposed to DNL 65, 70, and 75. These contours were used in conjunction with U.S. Census data and land use data provided by the City of New York and Nassau County. These data were also used to determine land uses and estimate the numbers of dwelling units, residents, and noise-sensitive facilities located within the areas exposed to aircraft noise levels of 1) DNL 75 and higher, 2) between DNL 70 and 75, 3) between DNL 65 and 70, and 4) the sum of the previous, totaling the impacts within DNL 65 and higher.

³ Schultz, T.J. “Synthesis of Social Surveys on Noise Annoyance.” *Journal of the Acoustical Society of America*. V. 64 (2). 1978.

APPENDIX D

Land Use, Zoning and Noise Sensitive Sites

This appendix contains information on the collection of land use data for the 14 CFR Part 150 Study and a detailed description of land uses and zoning in the Study Area.

- Appendix D-1 Land Use and Zoning
- Appendix D-2 Historic Properties

Appendix D-1

Summary of Land Use Plans and Zoning

APPENDIX D-1

Summary of Land Use Plans and Zoning

1.0 Introduction

LaGuardia Airport (LGA) is a large-hub commercial service airport located in Queens, New York City (NYC). In 2014, the Airport served approximately 28,437,668¹ passengers ranking the Airport #21 in North America and #62 in the world for passengers.² The Airport is located approximately six miles east of mid-town Manhattan. New York City, Nassau County, and a small portion of Westchester County³ fall within the LGA Study Area for the Title 14 Code of Federal Regulation Part 150 (14 CFR Part 150) noise compatibility study that is being prepared by the Port Authority of New York and New Jersey (Port Authority or PANYNJ). Among other requirements, this 14 CFR Part 150 Study requires that noise exposure contours for LGA be superimposed on land use maps for the purpose of evaluating noise exposure levels on land uses and population in the vicinity of the Airport. The purpose of this report is to document land uses and zoning in the study area and the methods used to compile land use and zoning information from several jurisdictions into a single land use map.

The following sections summarize the development of the study area, existing land uses considered, and methodology for consolidating land use categories to create consistent categories for Nassau County, New York City, and a small portion of Westchester County. The summary also includes descriptions of future planned projects that would change the land use composition within the study area prior to 2021. This information will be incorporated into the LGA 14 CFR Part 150 Study's 2021 Noise Exposure Map (NEM) and the study's description of applicable public policies and plans.

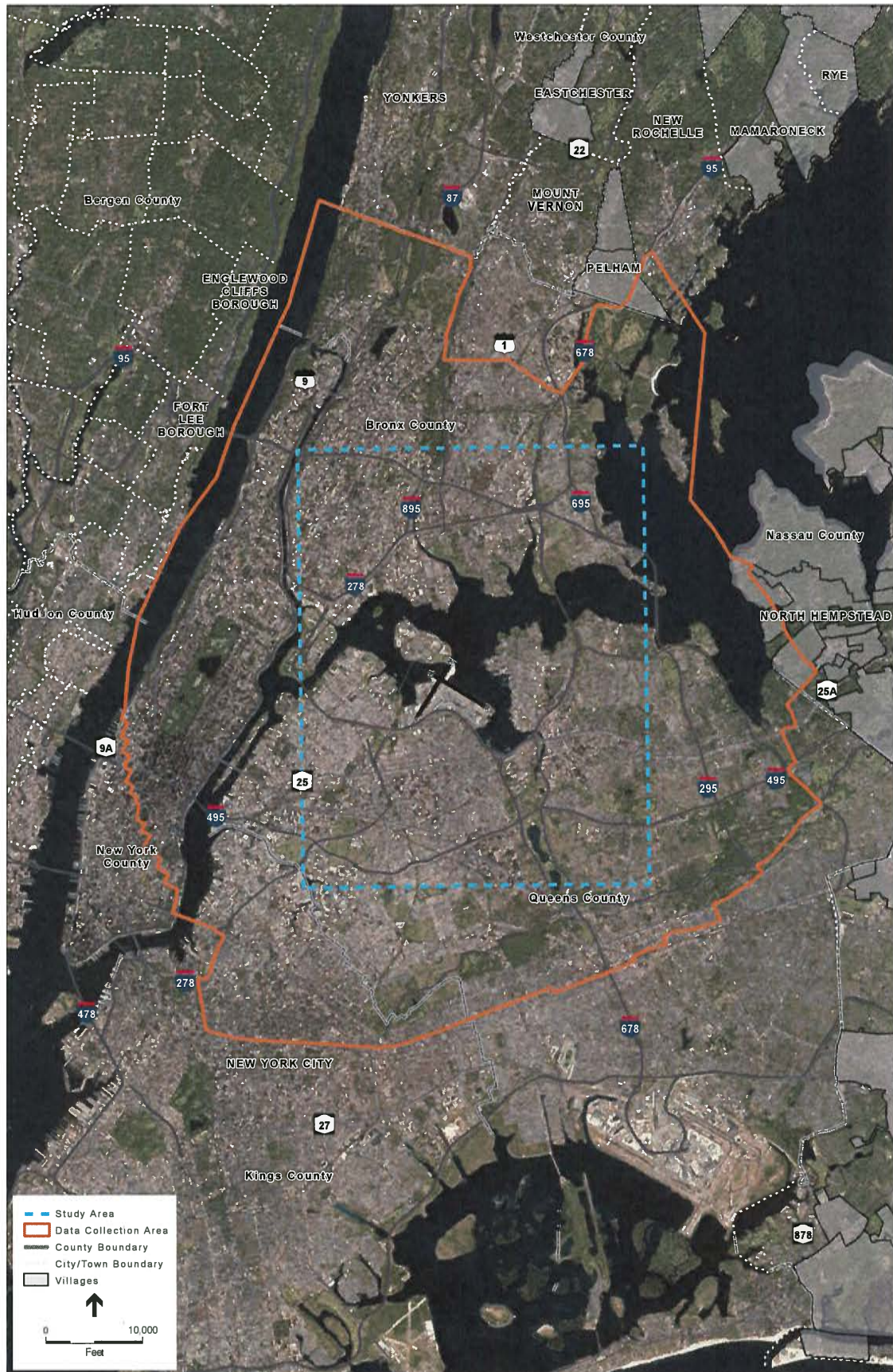
2.0 Land Use Study Areas

Key to the development of the LGA 14 CFR Part 150 Study is the identification of land uses located in the airport environs that may be affected by arriving and departing aircraft. Two areas were defined when considering the collection of data associated with land use, community planning, and zoning: the Land Use Data Collection Area and the Study Area. **Figure 2-1** depicts

¹ The Port Authority of New York and New Jersey, December 2015 Traffic Report. <http://www.panynj.gov/airports/general-information.html>. Accessed March 11, 2016.

² Airports Council International 2014 North American Airport Traffic Summary (Passenger), <http://www.aci-na.org/content/airport-traffic-reports>. Accessed January 7, 2016.

³ Approximately 650 acres of Westchester County is within the LGA study area. Land uses for the 650 acres are incorporated into the overall land use plan, but this analysis does not assess land uses, zoning, and land use plans for the entire county.



SOURCE: Earth Star Geographics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA Airports, 2015

PANYNJ FAR Part 150 Studies - 140037

Figure 2-1
Study Area and Land Use Data Collection Area
LGA 14 CFR Part 150 Study

the Land Use Data Collection Area and Study Area for the LGA 14 CFR Part 150 Study. The following sections describe the basis for the delineation of the data collection and study areas.

2.1 Land Use Data Collection Area

The Land Use Data Collection Area represents the outer limits for the land use data collection efforts. The Limits of the Data Collection Areas took into consideration a number of factors, including:

- The most current set of historic noise contours for LGA out to the DNL 50 dBA contour to ensure that the 2016 Existing Condition and 2021 Future Condition DNL 65 contours developed for the 14 CFR Part 150 Study would be encompassed;
- A radial distance of 30,000 feet (5.682 miles) off each runway end at LGA for capture of flight tracks per 14 CFR Part 150 requirements; and
- 2014 flight track data associated with arrivals and departure operations at LGA that took into account recent airspace changes (tracks were not limited to the 30,000 foot distance).

After review by the Port Authority, the Land Use Data Collection Area was further refined through the use of political and jurisdictional boundaries and man-made and/or natural features including:

- Major arterial streets and roadways as well as rail corridors providing readily identifiable boundaries beyond the limits of potential noise contours and outside of the 30,000 foot radial distances for LGA; and
- Readily identifiable geographic features including waterways, shorelines, streams/rivers and large expanses of open space.

The Land Use Data Collection Area boundary was defined to guide the efforts of the land use technical team that is responsible for collecting the land use data sets. The Data Collection Area includes a larger area than that depicted on the LGA Noise Exposure Maps and evaluated for compatibility with aircraft noise. The Land Use Data Collection Area exceeded minimum requirements to: 1) ensure adequate coverage and 2) land use databases maintained by the counties and cities provided potentially useful land use information beyond the minimum distances.

To define the general limits for the Land Use Data Collection Area, flight track data for calendar year 2014 was obtained from the Port Authority's Airport Noise and Operations Management system (ANOMs).⁴ These data included flight tracks of arrivals and departures to each runway end at LGA and took into consideration the relatively recent airspace changes that had been

⁴ For the purposes of the LGA 14 CFR Part 150 study, the calendar year 2014 data was used as a baseline to prepare the operational forecast and Integrated Noise Model inputs for the 2016 Existing Condition study year. The 2021 Future Condition study year was derived from the projected 2016 study year data.

implemented in the New York area. The flight track information collected extended outward from each runway end to a distance of approximately 10 miles, which exceeded minimum requirements. 14 CFR Part 150 requires that the development of the NEMs for an airport include, at a minimum, flight tracks extending outward from each runway end 30,000 feet (approximately 5.7 miles) along the route of the flight tracks. To be certain sufficient area would be included, a radial distance of 30,000 feet off each runway end at LGA was also applied to capture additional aircraft flight tracks, per 14 CFR Part 150 requirements.

Consideration of an adequate data collection area was to ensure that the land use base provided ample area to ensure that no portion of the DNL 65 dBA contour for the base conditions or for the five-year future condition would extend beyond the mapping. To ensure this, the most current set of historic noise contours for LGA was reviewed. This included an area within the DNL 50 and higher contours in order to provide a significant buffer for capturing the anticipated DNL 65 Existing and Future conditions contours. Additional considerations included the changes in flight corridors that had occurred over time as a result of regional airspace restructuring and the implementation of modified or new instrument procedures.

2.1.1 Land Use Data Collection Area Boundary

The resulting Land Use Data Collection Area boundary, depicted in Figure 2-1, is described below:

Beginning at a location in the Woodside area of Westchester County in the vicinity of Interstate 95 and Weyman Avenue, the Land Use Data Collection Area extends to the southeast along Weyman Avenue and Glen Island Approach, crossing over the northeastern end of Glen Island into Long Island Sound, passing west of David's Island and turning to the south. The general boundary alignment passes between Hart Island on the east and City Island to the west and extends to the vicinity of Stepping Stone Lighthouse where it shifts to a southeasterly direction and comes ashore in Nassau County in the vicinity of the United States Merchant Marine Academy and then follows West Shore Road/Bayview Avenue southwest for approximately 2.5 miles, passing through Saddle Rock and Harbor Hills to the vicinity of Great Neck Plaza where the boundary turns to the west following the Port Washington Branch of the Long Island Rail Road for approximately 0.9 miles to a small stream located west of 247th street. The boundary extends in a south/southeast direction for a short distance to Northern Boulevard and then turns west for approximately ½ of a mile to a tidal estuary at the upper end of Little Neck Bay. It again turns to the south until reaching Interstate 495 at the Cross Island Parkway interchange in Alley Park, Queens.

The boundary follows the Cross Island Parkway to the southeast to the Grand Central Parkway and turns to the west/southwest to follow the Grand Central Parkway to the interchange with Interstate 295. The LGA general data collection area boundary overlaps the JFK Data Collection Area boundary starting where the Grand Central Parkway crosses over Union Turnpike. Here, the boundary is to the south for a short distance, and picks up the alignment of Hillside Avenue and continues in a west/southwest direction

until reaching 188th Street where it again turns south to Jamaica Avenue and then west, and continues along Jamaica Avenue to 168th Street. The boundary continues along 168th Street south for a short distance until reaching the Long Island Railroad, where it turns west and follows the rail corridor approximately 0.7 miles to 150th street. Then the boundary turns south for approximately two city blocks to the intersection with 95th Avenue.

The Data Collection Area boundary follows the alignment of 95th Avenue west for 1.75 miles to 111th Street, where it turns to the north for a single city block to the intersection of 111th and Atlantic Avenue. The boundary then turns to the west southwest and runs along Atlantic Avenue for seven miles to Washington Avenue. The Land Use Data Collection Area ceases to overlap the JFK Data Collection Area along the Atlantic Avenue segment in the Bedford Stuyvesant area of Brooklyn, where Howard Avenue crosses Atlantic Avenue. At Washington Avenue, the boundary turns north to follow Washington Avenue for one mile to intersect with the Brooklyn Queens Expressway (I-278). At this point the boundary follows the Expressway to the north/northeast, intersects with Broadway, where it turns west for a short distance and then turns northwest to the east end of the Williamsburg Bridge. The boundary crosses the East River at the Williamsburg Bridge and then turns to the north following the alignment of the F.D.R. Drive for approximately one half mile to East 6th Street.

At this point, the Land Use Data Collection Area boundary uses a series of east-west streets and north-south avenues to generally angle northwesterly across the island of Manhattan from the F.D.R. Drive at East 6th Street on the east/southeast to the West Side Highway at West 59th Street on the west side of Manhattan. Over the length of its alignment through Manhattan, the Land Use Data Collection Area boundary touches on a number of neighborhoods including, from southeast to northwest, Alphabet City, East Village, Stuyvesant Town, Gramercy Park, the Flat Iron District, the Garment District, and Hell's Kitchen. A street-by-street listing of the alignment from southeast to northwest through Manhattan is provided below:

- | | |
|--|---|
| 1. F.D.R. Drive to E. 6 th Street | 14. West 31 st Street to 7 th Avenue |
| 2. East 6 th Street to Avenue C | 15. 7 th Avenue to West 34 th Street |
| 3. Avenue C to East 10 th Street | 16. West 34 th Street to 8 th Avenue |
| 4. East 10 th Street to Avenue A | 17. 8 th Avenue to West 39 th Street |
| 5. Avenue A to East 14 th Street | 18. West 39 th Street to 9 th Avenue |
| 6. East 14 th Street to 3 rd Avenue | 19. 9 th Avenue to West 44 th Street |
| 7. 3 rd Avenue to East 20 th Street | 20. West 44 th Street to 10 th Avenue |
| 8. East 20 th Street to Park Avenue | 21. 10 th Avenue to West 49 th Street |
| 9. Park Avenue to East 23 rd Street | 22. West 49 th Street to 11 th Avenue |
| 10. East 23 rd Street to Broadway Ave. | 23. 11 th Avenue to West 55 th Street |
| 11. Broadway Ave. to West 29 th Street | 24. West 55 th Street to West Side Highway |
| 12. West 29 th Street to 6 th Avenue | 25. West Side Highway to 59 th Street |
| 13. 6 th Avenue to West 31 st Street | 26. 59 th Street extended to Hudson River |

Upon reaching the Hudson River, the boundary of the Land Use Data Collection Area extends up the waterway approximately 11 miles to the northern municipal boundary of the City of New York. The boundary turns to an east/southeast direction and follows the jurisdictional boundary from the Hudson River 2.8 miles to the alignment of the Bronx River Parkway where the boundary follows the Parkway in a south/southwesterly direction for 2.1 miles, where it turns to the east to pick up the alignment of Burke Avenue. The boundary follows Burke Avenue 1.2 miles to the east to its intersection with East Gun Hill Road where it turns to the southeast and follows East Gun Hill Road for approximately 1.3 miles to the Hutchinson River Parkway. At Hutchinson River Parkway, the boundary turns back to the north for approximately 2.4 miles to the Hutchinson River Parkway-I-95/New England Thruway interchange. The boundary follows the alignment of I-95 East and then north crossing the north limits of the City of New York and extending in a north/northeast direction back to the point of beginning at I-95 and Weyman Avenue in Westchester County.

2.1.2 Jurisdictions within the Land Use Data Collection Area

Based on the described Land Use Data Collection Area boundary, the majority of the data to be collected involved information from the City of New York as the vast majority of the area encompassed was comprised of significant portions of the Boroughs of Queens, Manhattan, the Bronx and Kings/Brooklyn. Areas outside of the City of New York include a very small section of the southern end of Westchester County involving a limited area in the City of New Rochelle and a portion of the Village of Pelham Manor. Similarly, a small portion of Nassau County is also within the Land Use Data Collection Area and includes a small area in the northwest part of the Town of North Hempstead and adjacent incorporated areas, consisting of portions of the Village of Kings Point, Village of Saddle Rock, and Village of Great Neck Estates.

2.2 LGA 14 CFR Part 150 Land Use Study Area

A Study Area was established for the LGA 14 CFR Part 150 Study. The Study Area defined the area in which a more detailed inventory of land use and review of datasets was conducted to support population, household, and land use compatibility evaluations in the 14 CFR Part 150 Study.

The Study Area, which is located within the broader Land Use Data Collection Area, was identified based on historic noise exposure contours prepared under previous environmental studies at LGA and was designed to encompass the anticipated 2016 Existing Condition and 2021 Future Condition noise exposure contours.⁵ The Study Area is located entirely within the limits of the City of New York. As shown, the Study Area overlies densely developed areas in the Bronx and in Queens while only touching a small corner of Brooklyn.

⁵ The most recent aircraft noise analysis conducted at LGA was for the Central Terminal Building Redevelopment Program Environmental Assessment.

From the north to the south, the Study Area overlies the southern half of the Bronx, generally south of a line extending from the Harlem River at the Interstate 95/Interstate 87 interchange due east to a point in Eastchester Bay 0.3 miles west of City Island. Within the area south of this line within the Bronx, lie all, or part, of approximately 24 communities and/or neighborhoods, several of which have been combined. These areas are listed below:

- | | |
|--------------------------|------------------------------------|
| 1. Mott Haven | 13. Highbridge |
| 2. Port Morris | 14. Claremont |
| 3. Hunts Point | 15. Crotona Park East |
| 4. Castle Hill | 16. Bronx River |
| 5. Clason Point | 17. Parkchester |
| 6. Throgs Neck | 18. Westchester Square |
| 7. Concourse East & West | 19. Schuylerville |
| 8. Morrisania-Melrose | 20. Morris Heights (South End) |
| 9. Woodstock | 21. Mt Hope (South End) |
| 10. Foxhurst | 22. Tremont-West Farms (partial) |
| 11. Soundview | 23. Van Nest-Morris Park (partial) |
| 12. Unionport | 24. Middletown-Pelham(partial) |

Additionally, all of Rikers Island, which is located within the Bronx, is located within the Study Area. The Study Area also encompasses a large section of the north/northwestern portion of Queens. The boundary line for the detailed study area crosses the northern shore of Queens approximately 0.2 miles west of the centerline of the Throgs Neck Bridge and extends more or less due south to the Queens Campus of St. Johns University in the Hillcrest area. The boundary then turns to run more or less due west crossing over the southern end of Willow Lake, passes just to the north of St. John's Cemetery and crosses New Town Creek to intersect the west boundary of the Study Area 0.45 miles south of the Kosciuszko Bridge on Interstate 278 where the boundary turns back north to tie into the northern boundary in the Bronx where I-95 crosses the Harlem River, as previously described.

Given the noted boundary, an array of neighborhoods and sub-neighborhoods are located within the boundary. These have been combined in a number of instances for purposes of describing land use and the boundary of each is described in subsequent sections. Neighborhoods contained in the Study Area are listed below:

- | | |
|---------------------------|--------------------------------|
| 1. Ditmars Steinway | 10. Elmhurst |
| 2. Astoria | 11. Woodside |
| 3. Jackson Heights | 12. Long Island City-Sunnyside |
| 4. East Elmhurst | 13. Maspeth |
| 5. College Point | 14. Middle Village |
| 6. Whitestone-Beechhurst | 15. Rego Park |
| 7. Murray/Queensboro Hill | 16. Forest Hills |
| 8. Flushing | 17. Kew Gardens Hills-Pomonok |
| 9. Corona-North Corona | |

The Study Area also overlies a very small area located along the northern side of Brooklyn. The boundary just barely crosses New Town Creek to enter Brooklyn. Overall, an estimated 4.34 acres with an industrial development area in the East Williamsburg area of Brooklyn is located within the boundary.

While multiple neighborhoods are located within both the Bronx and in Queens along with a very limited section of Brooklyn, all of the requisite data needed to provide the basis of analysis within the FAA defined noise contour of impact (DNL 65 dB) for the 14 CFR Part 150 planning effort for LGA (land use, zoning, and potential residential and noise sensitive institutional development between the base year and the five year future condition, population and housing by census block, etc.) is available through the City of New York PLUTOTM data system and from the New York City Department of Planning and other City of New York Departments.

3.0 Existing Land Uses

3.1 New York City

The development of the land use base map for the LGA 14 CFR Part 150 Study required the collection of information from several different sources. For the New York City component (Queens and Brooklyn) of the Land Use Data Collection Area, information maintained by several NYC agencies that include the NYC DCP and the Finance Department, and information contained in the PLUTO and MapPLUTO data and mapping systems was accessed and utilized. The PLUTO data base contains approximately 70 individual fields of data that include, but are not limited to:

- Census Tract and Census Block
- Zoning Category
- Special Purpose Districts
- Existing Land Use by Tax Lot
- Landmark Names/Location
- Residential/Non-Residential units by Tax Lot
- Borough
- Residential Units by Tax Lot
- Land Use Categories
- Historic Districts
- Tax Lot Base Map

The NYC DCP classifies land use into 11 land use categories based on Department of Finance and NYC DCP Building Classifications. **Table 3-1** delineates the land use classification system used by the NYC.

**TABLE 3-1
CITY OF NEW YORK LAND USE CLASSIFICATIONS**

Code	Land Use
01	One & Two Family Buildings
02	Multi-Family Walk-Up Buildings
03	Multi-Family Elevator Buildings
04	Mixed Residential & Commercial Buildings
05	Commercial & Office Buildings
06	Industrial & Manufacturing Buildings
07	Transportation & Utility
08	Public Facilities and Institutions
09	Open Space & Outdoor Recreations
10	Parking Facilities
11	Vacant Land

Source: City of New York, Department of Planning, PLUTO Data Dictionary, June 2015. Compiled by Kimley Horn and Associates, 2016.

From the perspective of 14 CFR Part 150, Classifications 01, 02, 03, 04 and 08 take on the greatest significance, as these categories tend to encompass the land uses generally considered incompatible with aircraft noise levels exceeding the DNL 65 dB contour level, although there are exceptions. To a lesser extent, certain specific uses in the Open Space and Outdoor Recreation classification (09) may sometimes be deemed incompatible within noise contours of DNL 65 dB and particularly in contour levels of DNL 70 dB and higher.

Finally, the Mixed Residential and Commercial Building classification (04) also takes on significance from the perspective of noise and land use compatibility planning because most commercial land uses are generally considered to be compatible with higher levels of aviation related noise, however the incorporation of residential uses on the same site as the commercial triggers the need to identify these “mixed use” areas as a specific land use grouping on the base mapping. Information contained in the Residential and Non-Residential units by tax lot data file is used to quantify the number of residential units within the noise contours at LGA.

3.1.1 Consolidation of Particular NYC Classifications

After reviewing the classification contained in the PLUTO™ database and taking into consideration the intended purpose of the land use base map, some consolidation of the land use classifications were determined to be desirable to enhance the legibility of the base map. An example of this is associated with the multi-family land use category. The City of New York identifies two classifications consisting of multi-family walk-up structures and multi-family elevator buildings. From a 14 CFR Part 150 perspective, there is no difference pertaining to whether the particular unit is a walk up multi-family use or one having an elevator makes as they are both considered to be a multi-family use for the purpose of noise compatibility planning.

Therefore, the consolidation did not alter the mapping designation of the property as multi-family. Additionally, the consolidation of land use categories, notably the multi-family classification, does not alter the underlying data on number of dwellings on a lot-by-lot basis nor the population within census blocks or census tracts that is utilized to quantify impacted units and residents.

The second consolidation undertaken was to incorporate the Parking Facilities classification (10) into the Transportation and Utility (07) classification, both of which are considered to be compatible with airport related noise levels of DNL 65 dB and above. The land use mapping is a graphic representation of land uses and in the case of LGA the data collection area covers a large geographic area which made the consolidation of certain categories necessary to facilitate the legibility of the depiction of the major area land uses.

3.2 Nassau County

As described in the discussion of data collection area boundaries, a portion of Nassau County consisting of a small section of the Town of North Hempstead is located within the Land Use Data Collection Area, but lies outside of the Study Area. While this area is outside of the DNL 65 dB noise exposure contour, information of existing land uses was collected and mapped. In the case of Nassau County, access to property data maintained by the Nassau County Assessor and contained in the County's Geographic Information System (GIS) was used in the LGA 14 CFR Part 150 Noise Compatibility Planning effort.

The County Assessor's data and affiliated GIS mapping is based upon the New York State Office of Real Property Tax Services uniform classification system that is to be used in assessment administration in New York State. Nassau County classifies land use using a three digit system, but has developed an additional refinement of the state system to provide added detail beyond just the three digit classification used by the State. The system used by Nassau County and described in the County Assessor's Nassau County Property Classification Codes guide first classifies land uses into nine (9) general categories. The nine general categories are delineated in **Table 3-2**.

TABLE 3-2
NASSAU COUNTY GENERAL LAND USE CLASSIFICATIONS

General Category	Category Name	Description
100	Agricultural	Property used for the production of crops or livestock.
200	Residential	Property for human habitation. Living accommodations such as hotels, motels and apartments are in Commercial category
300	Vacant Land	Property that is not in use, is in temporary use or lacks permanent improvements
400	Commercial	Property used for the sale of goods and/or services
500	Recreation & Entertainment	Property used by groups for recreation, amusement or entertainment
600	Community Services	Property used for the wellbeing of the community

700	Industrial	Property used for the production and fabrication of durable and non-durable man-made goods
800	Public Services	Property used to provide services to the general public
900	Wild and Forested Conservation Lands & Public Parks	Reforested land, preserves and private hunting and fishing clubs

Source: Nassau County Property Classification Codes, 8-10-2011, Nassau County Assessor. Compiled by Kimley Horn and Associates, 2016.

Consistent with the State of New York classification system, the nine general categories are further refined into divisions that are identified by the second digit and then further by subdivisions identified by a third digit. The following example is taken from the Property Assessors Guide and identifies the general category, division, and subdivision classifications for the Recreation & Entertainment category:

500	Recreation and Entertainment (General Category)
530	Amusement Facilities (Division)
531	Fairgrounds (Sub-Division)
532	Amusement Parks (Sub-Division)
533	Game Farms (Sub-Division)
534	Social Organizations (Sub-Division)

Source: Nassau County Property Classification Codes, 8-10-2011, Nassau County Assessor

A complicating issue arose relative to the Nassau County classification system stemming from how the State of New York classifies land uses for assessment purposes. While the classifications include a general Residential category (200), this category does not cover all forms of residential land use. As noted in the description, living accommodations and notably apartments are listed under the general Commercial category (400). As a result, if the general classifications were used as a basis for the development of the land use base map, an entire group of residential land use would end up being depicted as commercial rather than its actual residential usage. As a result, it was necessary to go somewhat deeper into the data classification system.

Nassau County had previously recognized the need for further refinements to the classification system and had developed added detail to the state classification. As delineated in the County's guide to the property classification codes, "*Nassau County uses a decimal point in addition to the three (3) digit State Code. The use of the decimal allows the County to further differentiate broader New York State categories. The first digit after the decimal is used to indicate subcategories. This digit can be zero through nine, depending on the number of subcategories needed. See the example below:*"

New York State Category:*410 – Living Accommodations***Nassau County Codes:***411.02 – Apartments other than Condominiums & Co-ops**411.62 – Elevator Apartments⁶*

The second digit after the decimal is associated with property classifications for assessment purposes and resulted in the definition of four specific categories of which two classes relate specifically to residential development classes and were important to determining residential land uses by general characteristics of the residential use in Nassau County for the purposes of land use map development. This second digit to the right of the decimal point now indicates in which category each property belongs. The two added residential refinements to the classification system are described below:

Classification 1: *1, 2, 3 Family Residences – Residential condominiums that do not exceed three (3) stories in height and were not converted from a rental or cooperative use.*

Classification 2: *Apartments and Cooperatives. Condominiums that are more than three (3) stories in height and or have been converted from a rental or cooperative use. Properties that are used primarily as residential that have four (4) or more units.⁷*

Once the classification system was clearly understood, it became possible to conduct a search of the database and sort the County Assessor data to identify land uses by their actual use characteristic for purposes of then developing the base map for the LGA noise compatibility planning effort

3.3 Consolidation of Land Use Categories

As has been noted, one of the challenges faced in relation to the land mapping for the noise study is to represent the key land use data in an accurate manner but also in a manner that is clear and legible and reflective of the major categories of land use within the Land Use Data Collection Area. Further, and as has been alluded to in the previous section, different jurisdictions often classify property and their use in ways that do not correspond to each other and would likely generate confusion when trying to define a uniform mapping of land uses.

To address this issue, the Port Authority concurred with the need to develop a land use categorization that would define a set of basic land use categories incorporating and consolidating

⁶ Nassau County Property Classification Codes, 8-10-2011.

⁷ Ibid.

the data from Nassau County, Westchester County and the NYC into a consistent mapping base throughout the data collection areas, regardless of jurisdictional boundaries. This approach would avoid the need for multiple mapping legends to explain individual jurisdictional land use categorizations, while not changing in any way the actual characteristics of the actual use that exists on the ground land use. For example, while apartments are categorized in the Commercial category under assessment guidelines in Nassau County, the residential nature of the property is accounted for in the LGA 14 CFR Part 150 Study.

For the purposes of the LGA 14 CFR Part 150 land use mapping effort, the NYC land use categories, incorporating the consolidation of several categories that was described under Section 3.1, provided a basis for the classification land uses within the Land Use Data Collection Area. This process compared and evaluated the land use categories used by NYC and Nassau County, and resulted in the identification of ten land use categories and associated mapping colors for use in developing the LGA land use map. The land use classifications and the color depicting each land use category on the NEM are listed below.

Single and Two-Family Residential.....	Yellow
Multi-Family Residential.....	Orange
Mixed Use (Residential and Commercial).....	Pink
Industrial and Manufacturing	Purple
Transportation, Parking and Utilities	Grey
Public Facilities and Institutions	Blue
Open Space, Cemeteries and Outdoor Recreation.....	Green
Agriculture.....	Dark Green
Vacant Land.....	White
Undesignated/Unknown.....	Turquoise

The land use categorizations contained in the City of New York PLUTO™ data and the limited consolidation of categories that was undertaken with the City classifications easily fit into the Part 150 land use classes. For Nassau County, a listing of individual land uses, based on the classification system described in preceding sections was obtained. The County listing of uses was reviewed and based on the activity or use in the Nassau County Assessors classification system, an assignment of each use was made. The consolidated list of land uses is delineated in **Table 3-3**.

**TABLE 3-3
LAGUARDIA 14 CFR PART 150 STUDY CONSOLIDATED LAND USE CLASSIFICATIONS**

NASSAU COUNTY LAND USE DESCRIPTION	LAND USE MAP COLOR CODE	CONSOLIDATED LAND USE CLASSIFICATION
DAIRY PRODUCTS - MILK, BUTTER, AND CHEESE		Agriculture
FIELD CROPS		Agriculture
TRUCK CROPS - OTHER		Agriculture
ALL OTHER HEALTH FACILITIES		Commercial and Office
AMUSEMENT FACILITIES		Commercial and Office
AMUSEMENT PARKS OR RIDES, KIDDIE PARKS		Commercial and Office
AREA/NEIGHBORHOOD SHOPPING CENTER		Commercial and Office
AUTO DEALERS, SALES AND SERVICE		Commercial and Office
AUTO SALES, USED CAR LOT		Commercial and Office
AUTOMATIC CAR WASH		Commercial and Office
BANK BUILDING WITH OFFICES		Commercial and Office
BANKS AND OFFICE BUILDINGS		Commercial and Office
BARS - TYPICALLY PROVIDES LEGAL BEVERAGES		Commercial and Office
BOAT SALES OR REPAIRS AND STORAGE		Commercial and Office
BOWLING ALLEYS		Commercial and Office
CHILD CARE CENTER		Commercial and Office
COMMERCIAL		Commercial and Office
COMMERCIAL GARAGE REPAIRS, AUTO BODY, TIRE SHOPS AND OTHER RELATED REPAIRS		Commercial and Office
COMMERCIAL OUTDOOR SWIMMING POOLS		Commercial and Office
CONDO STRIP STORES - RETAIL		Commercial and Office
CONDOMINIUM OFFICE BUILDING		Commercial and Office
CONVERTED RESIDENCE		Commercial and Office
COUNTRY CLUBS, MEMBERSHIP GOLF COURSES INCLUDING THOSE WITH OTHER SPORTS AND DINING FACILITIES.		Commercial and Office
DEALERSHIPS SALES AND SERVICES (OTHER THAN AUTO)		Commercial and Office
DEPARTMENT STORE		Commercial and Office
DINERS WITH COUNTER SERVICE AND LIMITED MENU		Commercial and Office

DINING ESTABLISHMENTS		Commercial and Office
DISCOUNT HOUSES		Commercial and Office
DOWNTOWN ROW TYPE STORE WITH COMMON OR PARTY WALLS		Commercial and Office
DOWNTOWN TYPE STORE DETACHED WITH NO PARTY WALLS		Commercial and Office
DRIVE-IN BANK (ISLAND TYPE)		Commercial and Office
ENTERTAINMENT ASSEMBLY		Commercial and Office
FAST FOOD FACILITY (FRANCHISED)		Commercial and Office
FRATERNAL & BENEVOLENT ASSOCIATIONS		Commercial and Office
FUNERAL HOMES		Commercial and Office
GREENHOUSES, NURSERIES, AND GARDEN CENTERS RETAIL		Commercial and Office
HEALTH SPA		Commercial and Office
HOTELS		Commercial and Office
HUNTING AND FISHING CLUBS		Commercial and Office
INDOOR SKATING RINKS, ROLLER OR ICE		Commercial and Office
INDOOR SPORTS FACILITIES		Commercial and Office
INDOOR SWIMMING POOLS		Commercial and Office
INDOOR TENNIS CLUBS, ARCHERY, BILLIARDS		Commercial and Office
INNS, LODGES, BOARDING AND ROOMING HOUSES, TOURIST HOMES, FRATERNITY AND SORORITY HOUSES		Commercial and Office
LARGE INDIVIDUAL RETAIL FOOD STORE - SUPERMARKET		Commercial and Office
LUMBER YARDS (SALES & STORAGE)		Commercial and Office
MANUAL CAR WASH		Commercial and Office
MARINAS		Commercial and Office
MARINE FACILITIES		Commercial and Office
MINI-MART		Commercial and Office
MISCELLANEOUS SERVICES		Commercial and Office
MOTELS		Commercial and Office
MOTION PICTURE THEATER		Commercial and Office
MOTOR VEHICLE SERVICES		Commercial and Office
MULTIPLE USE OR MULTI-PURPOSE		Commercial and Office

NIGHT CLUB AND DINNER THEATERS		Commercial and Office
OFFICE BUILDING		Commercial and Office
OUTDOOR SKATING: ICE OR ROLLER RINKS		Commercial and Office
OUTDOOR TENNIS CLUBS, MINIATURE GOLF COURSES, BASEBALL BATTING RANGES, DRIVING RANGES, ARCHERY, ETC.		Commercial and Office
PAVING, BLACKTOP OR FENCING FOR RETAIL SERVICES		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH BANKS AND OFFICE BUILDINGS		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH FUNERAL HOMES		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH GREENHOUSES, NURSERIES AND GARDEN CENTERS		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH MOTOR VEHICLE SERVICES		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH RESTAURANTS AND DINERS		Commercial and Office
PAVING, BLACKTOP OR FENCING USED WITH VETERINARY CLINICS AND KENNELS		Commercial and Office
PAVING, BLACKTOP OR FENCING WITH HOTELS, MOTELS AND INNS, LODGING, ETC. SEE 414.14 THRU 418.14		Commercial and Office
PROFESSIONAL ASSOCIATIONS, NASSAU COUNTY BAR ASSOCIATION ETC.		Commercial and Office
PROFESSIONAL BUILDING (DOCTOR, DENTIST, CHIROPRACTOR, OR COMBINATION OF PROFESSIONS)		Commercial and Office
RACETRACKS: AUTO AND HORSE		Commercial and Office
RADIO, TELEVISION STATIONS AND MOTION PICTURE STUDIOS		Commercial and Office
REGIONAL SHOPPING CENTER		Commercial and Office
RESTAURANT, FULL SERVICE AND BEVERAGES		Commercial and Office
RETAIL CONDOMINIUM		Commercial and Office
RETAIL SERVICES		Commercial and Office
RIDING STABLES		Commercial and Office
ROAD STANDS, 7-11 STORES, DAIRY BARNS, SMALL DRIVE-IN BEVERAGE DISTRIBUTORS		Commercial and Office
SELF-SERVICE CAR WASH, COIN OPERATED		Commercial and Office
SERVICE AND GAS STATIONS		Commercial and Office
SMALL IMPROVEMENT FOR RETAIL SERVICES		Commercial and Office
SMALL IMPROVEMENT USED WITH BANKS AND OFFICE BUILDINGS		Commercial and Office

SMALL IMPROVEMENT USED WITH FUNERAL HOMES		Commercial and Office
SMALL IMPROVEMENT USED WITH GREENHOUSES, NURSERIES AND GARDEN CENTERS RETAIL		Commercial and Office
SMALL IMPROVEMENT USED WITH MOTOR VEHICLE SERVICES		Commercial and Office
SMALL IMPROVEMENT USED WITH RESTAURANTS AND DINERS		Commercial and Office
SMALL MARINE FACILITIES, BAIT STATIONS, MARINE FUELING		Commercial and Office
SOCIAL ORGANIZATIONS, LODGE HALLS, K. OF C., MASONIC, SONS OF ITALY, ODD FELLOWS, ELKS, MOOSE, EAGLES, VETERANS POSTS, ETC.		Commercial and Office
STANDARD BANK (SINGLE OCCUPANCY)		Commercial and Office
VETERINARY CLINICS AND KENNELS		Commercial and Office
YACHT CLUB, PRIVATE MEMBERSHIP CLUB		Commercial and Office
BEACH CLUB - MEMBERSHIP CLUBS		Commercial and Office
BEACH CLUB - PRIVATE - NON-EXEMPT		Commercial and Office
CAMPS: SLEEPAWAY FOR GROUPS OF CHILDREN AND/OR ADULTS		Commercial and Office
BOAT REPAIRS, DOCKS, SLIPS, RAILS FOR LIFTING, DRYDOCK FACILITY. NO BOAT SALES		Industrial and Manufacturing
BOTTLED GAS, NATURAL GAS FACILITIES		Industrial and Manufacturing
COAL YARDS		Industrial and Manufacturing
COLD STORAGE OR FROZEN FOOD PLANTS (INSULATED)		Industrial and Manufacturing
FUEL STORAGE - GASOLINE, FUEL, OIL, LIQUID PETROLEUM STORAGE AND/OR DISTRIBUTION		Industrial and Manufacturing
HEAVY MANUFACTURING, FACTORY COMPLEX		Industrial and Manufacturing
INDUSTRIAL		Industrial and Manufacturing
JOB SHOPS AND MULTIPLE USE BUILDINGS WITH NO INTERIOR FINISH		Industrial and Manufacturing
JUNKYARD (INCLUDES ALL PARCELS USED IN CONJUNCTION WITH)		Industrial and Manufacturing
LIGHT MANUFACTURING, SMALL FACTORY BUILDINGS		Industrial and Manufacturing
MANUFACTURING AND PROCESSING		Industrial and

		Manufacturing
MOTOR VEHICLE TRANSPORTATION SERVICES		Industrial and Manufacturing
NURSERIES AND GREENHOUSES (WHOLESALE GROWERS)		Industrial and Manufacturing
OTHER STORAGE, WAREHOUSE AND DISTRIBUTION FACILITIES		Industrial and Manufacturing
PAVING, BLACKTOP OR FENCING USED WITH FACTORIES OR INDUSTRIAL BUILDINGS, ALSO INCLUDES RAILROAD SIDING FOR FACTORIES AND INDUSTRIAL BUILDINGS		Industrial and Manufacturing
PAVING, BLACKTOP OR FENCING USED WITH STORAGE, WAREHOUSE AND DISTRIBUTION FACILITIES		Industrial and Manufacturing
PIERS, WHARVES, DOCKS AND RELATED FACILITIES USED WITH STORAGE, WAREHOUSE AND DISTRIBUTION FACILITIES		Industrial and Manufacturing
SAND AND GRAVEL		Industrial and Manufacturing
SMALL IMPROVEMENTS USED WITH FACTORIES AND INDUSTRIAL BUILDINGS		Industrial and Manufacturing
STORAGE, WAREHOUSE AND DISTRIBUTION FACILITIES		Industrial and Manufacturing
TRUCK TERMINALS		Industrial and Manufacturing
MULTIPLE USE BUILDING WITH DWELLING ATTACHED OR APARTMENT ABOVE		Mixed Use (Residential and Commercial)
ONE STORY MULTI-USE BUILDING (WITH FINISH) SINGLE OCCUPANT		Mixed Use (Residential and Commercial)
ONE STORY SMALL STRUCTURE - MULTI-OCCUPANT		Mixed Use (Residential and Commercial)
PAVING, BLACKTOP OR FENCING WITH ANY MULTIPLE USE OR MULTI-PURPOSE BUILDING		Mixed Use (Residential and Commercial)
SMALL IMPROVEMENT WITH ANY MULTIPLE USE OR MULTI-PURPOSE BUILDING		Mixed Use (Residential and Commercial)
4-6 FAMILY APARTMENTS		Multi-Family Residential
APARTMENTS OTHER THAN CONDOMINIUMS & CO-OPS		Multi-Family Residential
ASSISTED LIVING		Multi-Family Residential
CONDOMINIUMS		Multi-Family Residential
CO-OPERATIVE APARTMENTS		Multi-Family Residential
ELEVATOR APARTMENTS		Multi-Family Residential
MULTIPLE RESIDENCES		Multi-Family Residential
OVER 6 FAMILY APARTMENTS		Multi-Family Residential
PAVING, BLACKTOP OR FENCING USED WITH APARTMENTS		Multi-Family Residential

PUBLIC HOUSING PROJECTS		Multi-Family Residential
RESIDENTIAL CONDOMINIUMS		Multi-Family Residential
SMALL IMPROVEMENTS USED WITH APARTMENTS		Multi-Family Residential
THREE FAMILY YEAR-ROUND RESIDENCE		Multi-Family Residential
COTTAGE WITHOUT HEAT		Single and Two-Family Residential
ESTATES		Single and Two-Family Residential
ONE FAMILY HOMEOWNER'S UNIT		Single and Two-Family Residential
ONE FAMILY YEAR-ROUND RESIDENCE		Single and Two-Family Residential
RESIDENTIAL LAND INCLUDING A SMALL IMPROVEMENT. NOT BEING USED FOR LIVING ACCOMMODATIONS.		Single and Two-Family Residential
RURAL RESIDENCE WITH ACREAGE		Single and Two-Family Residential
TWO FAMILY YEAR-ROUND RESIDENCE		Single and Two-Family Residential
WILD OR CONSERVATION LANDS		Open Space, Cemeteries, and Outdoor Recreation
ATHLETIC FIELDS		Open Space, Cemeteries, and Outdoor Recreation
CEMETERIES		Open Space, Cemeteries, and Outdoor Recreation
CITY PUBLIC PARKS AND RECREATION AREAS		Open Space, Cemeteries, and Outdoor Recreation
COUNTY-OWNED PUBLIC PARKS AND RECREATION AREAS		Open Space, Cemeteries, and Outdoor Recreation
CULTURAL AND RECREATION		Open Space, Cemeteries, and Outdoor Recreation
HORSE FARMS		Open Space, Cemeteries, and Outdoor Recreation
LAND FOR CONSERVATION PURPOSES		Open Space, Cemeteries, and Outdoor Recreation
PARKS NOTE: FOR PUBLIC PARKS SEE CATEGORY 900		Open Space, Cemeteries, and Outdoor Recreation
PAVING, BLACKTOP OR FENCING FOR RECREATION AND ENTERTAINMENT CATEGORY		Open Space, Cemeteries, and Outdoor Recreation
PLAYGROUNDS		Open Space, Cemeteries, and Outdoor Recreation

PUBLIC/PRIVATE GOLF COURSES WITH OTHER ASSOCIATED SPORTS FACILITIES AND/OR DINING FACILITIES		Open Space, Cemeteries, and Outdoor Recreation
PUBLIC PARKS		Open Space, Cemeteries, and Outdoor Recreation
RECREATIONAL FACILITIES		Open Space, Cemeteries, and Outdoor Recreation
SMALL IMPROVEMENT FOR RECREATION AND ENTERTAINMENT CATEGORY		Open Space, Cemeteries, and Outdoor Recreation
STATE OWNED LAND INCLUDING FOREST PRESERVE		Open Space, Cemeteries, and Outdoor Recreation
STATE OWNED PUBLIC PARKS AND RECREATION AREAS		Open Space, Cemeteries, and Outdoor Recreation
TOWN PUBLIC PARKS AND RECREATION AREAS		Open Space, Cemeteries, and Outdoor Recreation
VILLAGE AND PUBLIC PARKS AND RECREATION AREAS		Open Space, Cemeteries, and Outdoor Recreation
WETLANDS EITHER PRIVATELY OR GOVERNMENTALLY OWNED SUBJECT TO SPECIFIC RESTRICTIONS AS TO USE		Open Space, Cemeteries, and Outdoor Recreation
ANIMAL WELFARE (SHELTERS)		Public Facilities and Institutions
AUDITORIUMS, EXHIBITION AND EXPOSITION HALLS		Public Facilities and Institutions
CITY		Public Facilities and Institutions
COLLEGES AND UNIVERSITIES		Public Facilities and Institutions
CORRECTIONAL		Public Facilities and Institutions
COUNTY		Public Facilities and Institutions
CULTURAL FACILITIES		Public Facilities and Institutions
EDUCATION		Public Facilities and Institutions
FEDERAL		Public Facilities and Institutions
GOVERNMENT HIGHWAY GARAGES		Public Facilities and Institutions
GOVERNMENTAL BUILDINGS		Public Facilities and Institutions
HOME FOR AGED		Public Facilities and Institutions

HOSPICE		Public Facilities and Institutions
HOSPITAL - NON EXEMPT (IN-PATIENT FACILITIES)		Public Facilities and Institutions
HOSPITALS		Public Facilities and Institutions
LIBRARIES		Public Facilities and Institutions
NASSAU COUNTY		Public Facilities and Institutions
NEW YORK STATE		Public Facilities and Institutions
NURSING HOMES		Public Facilities and Institutions
OTHER EDUCATIONAL FACILITIES		Public Facilities and Institutions
POLICE AND FIRE PROTECTION, ELECTRICAL SIGNAL EQUIPMENT AND OTHER FACILITIES FOR FIRE, POLICE, CIVIL DEFENSE, ETC.		Public Facilities and Institutions
PRIVATE SCHOOL FOR PROFIT		Public Facilities and Institutions
RELIGIOUS		Public Facilities and Institutions
SCHOOLS - ELEMENTARY, SECONDARY HIGH (PUBLIC)		Public Facilities and Institutions
SCHOOLS - ELEMENTARY, SECONDARY HIGH (TUITION CHARGED)		Public Facilities and Institutions
SPECIAL SCHOOLS FOR THE PHYSICALLY OR MENTALLY HANDICAPPED		Public Facilities and Institutions
STATE		Public Facilities and Institutions
TOWN		Public Facilities and Institutions
U. S. GOVERNMENT		Public Facilities and Institutions
U. S. POST OFFICE		Public Facilities and Institutions
VILLAGE		Public Facilities and Institutions
VILLAGES		Public Facilities and Institutions
YMCA, YWCA, YMHA, YWHA ETC.		Public Facilities and Institutions
GOVERNMENTAL PARKING LOTS		Transportation, parking and \Utilities
PARKING GARAGES		Transportation, parking and \Utilities
PARKING LOT		Transportation, parking and \Utilities
ROADS, STREETS, HIGHWAYS AND PARKWAYS, EXPRESS		Transportation, parking

OR OTHERWISE INCLUDING ADJOINING LAND		and \Utilities
SMALL GARAGE FOR PARKING		Transportation, parking and \Utilities
WATER SUPPLY		Transportation, parking and \Utilities
		Vacant land

Source: Kimley Horn and Associates, 2016.

With the consolidation of land use categories, a draft land use map was developed. The draft base map was reviewed by representatives of the Port Authority and, subsequent to that review, was presented to the Technical Advisory Committee for their review and comment at a meeting in December, 2015. From this process, the refined land use base map was developed. The consolidated land uses are depicted in **Figure 3-1**.

3.4 Noise Sensitive Institutional Land Uses

In addition to the general land use mapping, 14 CFR Part 150 also requires the mapping of noise sensitive institutional land uses including but not limited to places of worship, public and private schools, colleges and universities, libraries, museums, hospitals and hospices and designated historic and culturally significant properties. These were collected from a number of sources ranging from various NYC government departments, the State Historic Preservation Office, Nassau County Planning Department and Assessor records, previous environmental studies conducted within the area, and from various readily available on-line data and mapping sources. The noise sensitive land uses and sites are depicted in **Figure 3-2** through **Figure 3-8**.

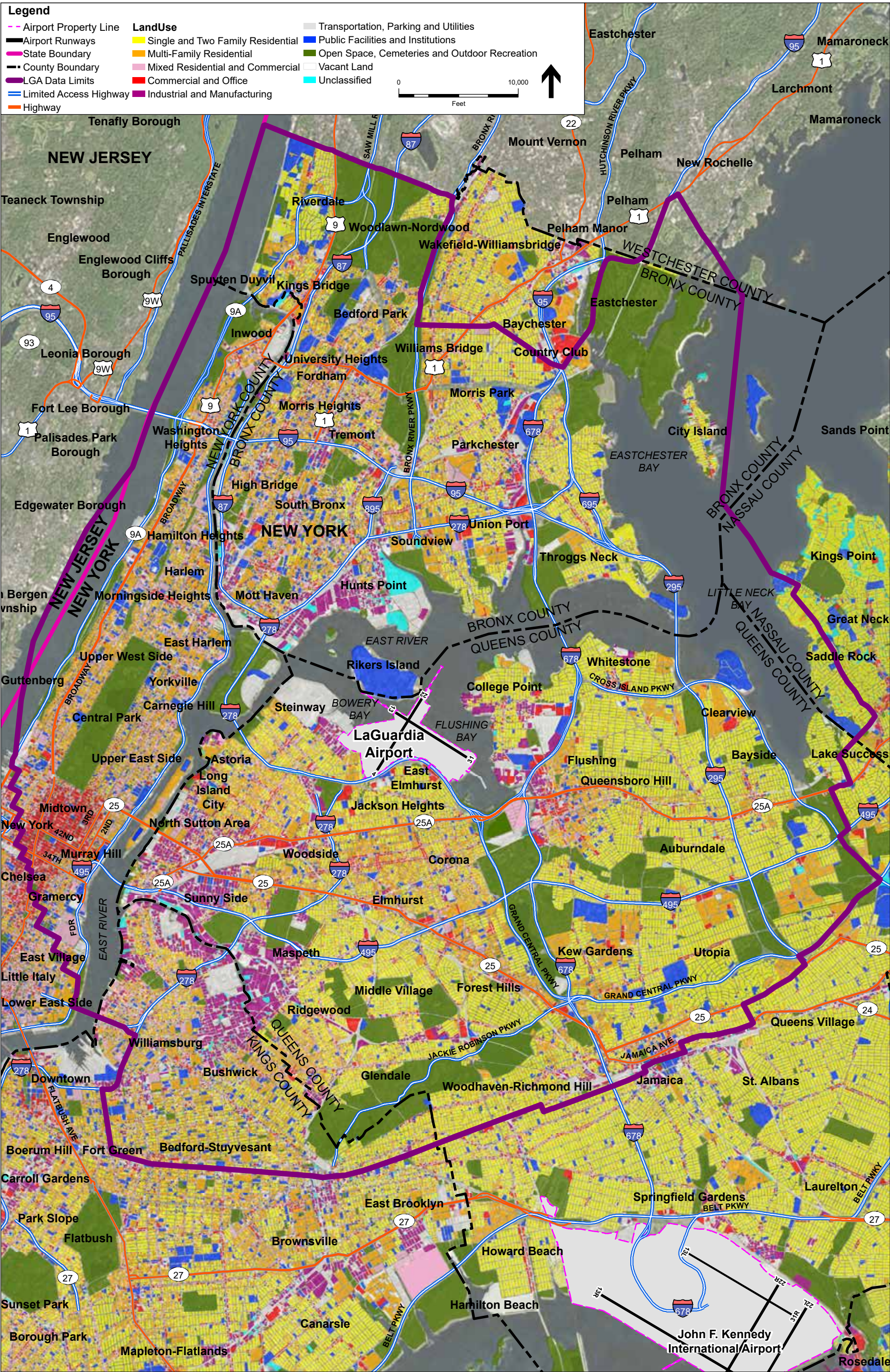
3.5 Future Land Use Changes

Finally, the compatibility planning effort addresses both the base year, which in the case of LGA is 2016, along with a five-year planning horizon. While much of the land area within the Land Use Data Collection Area has been developed, it remains important to determine if the potential exists for new non-compatible land uses to be established at some point within the five-year planning horizon and in particular, if that potential exists within the DNL 65 dB contour or higher.

4.0 Agency Coordination

The following New York City agencies were consulted in order to determine the existing land uses, applicable land use studies and data, and future projects in the study area:

- New York City Department of City Planning (DCP) – Environmental Review, Manhattan, Queens, Brooklyn and Bronx offices
- New York City Economic Development Corporation (NYCEDC)
- New York City Department of Housing and Preservation (HPD)

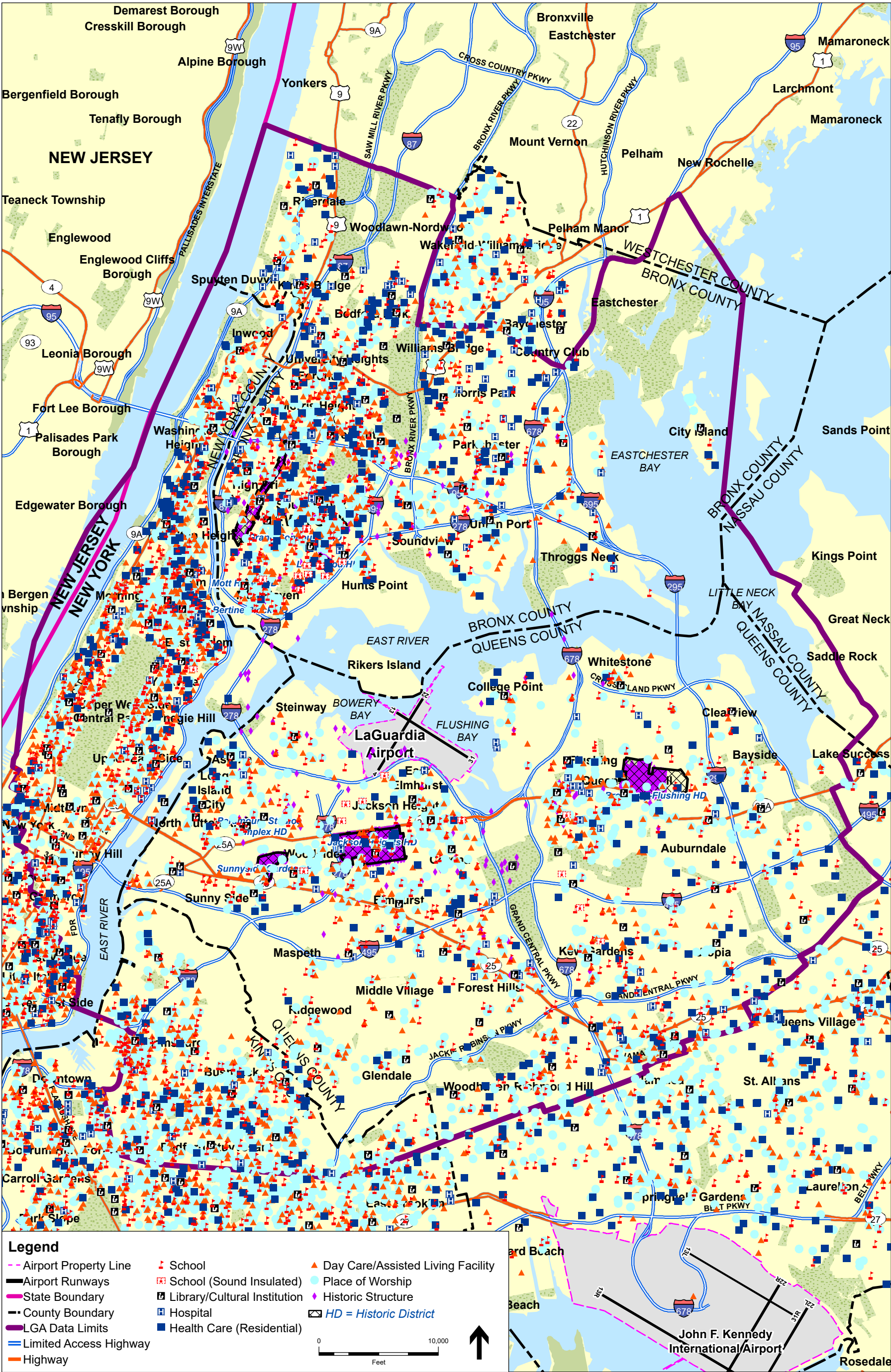


NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study, 140037

Figure 3-1
Generalized Existing Land Uses
LaGuardia Airport

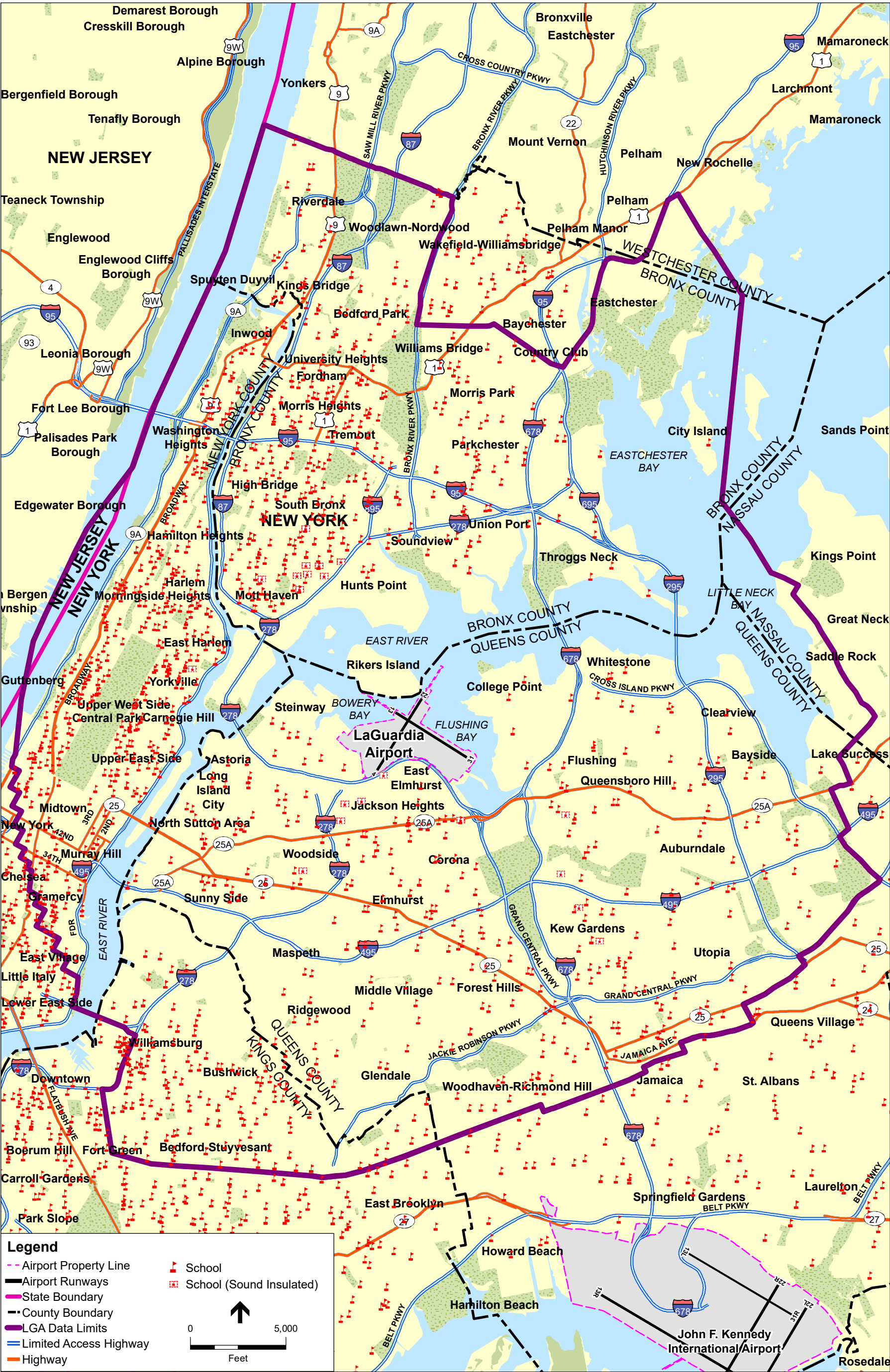


NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study. 140037

Figure 3-2
Noise Sensitive Sites
LaGuardia Airport

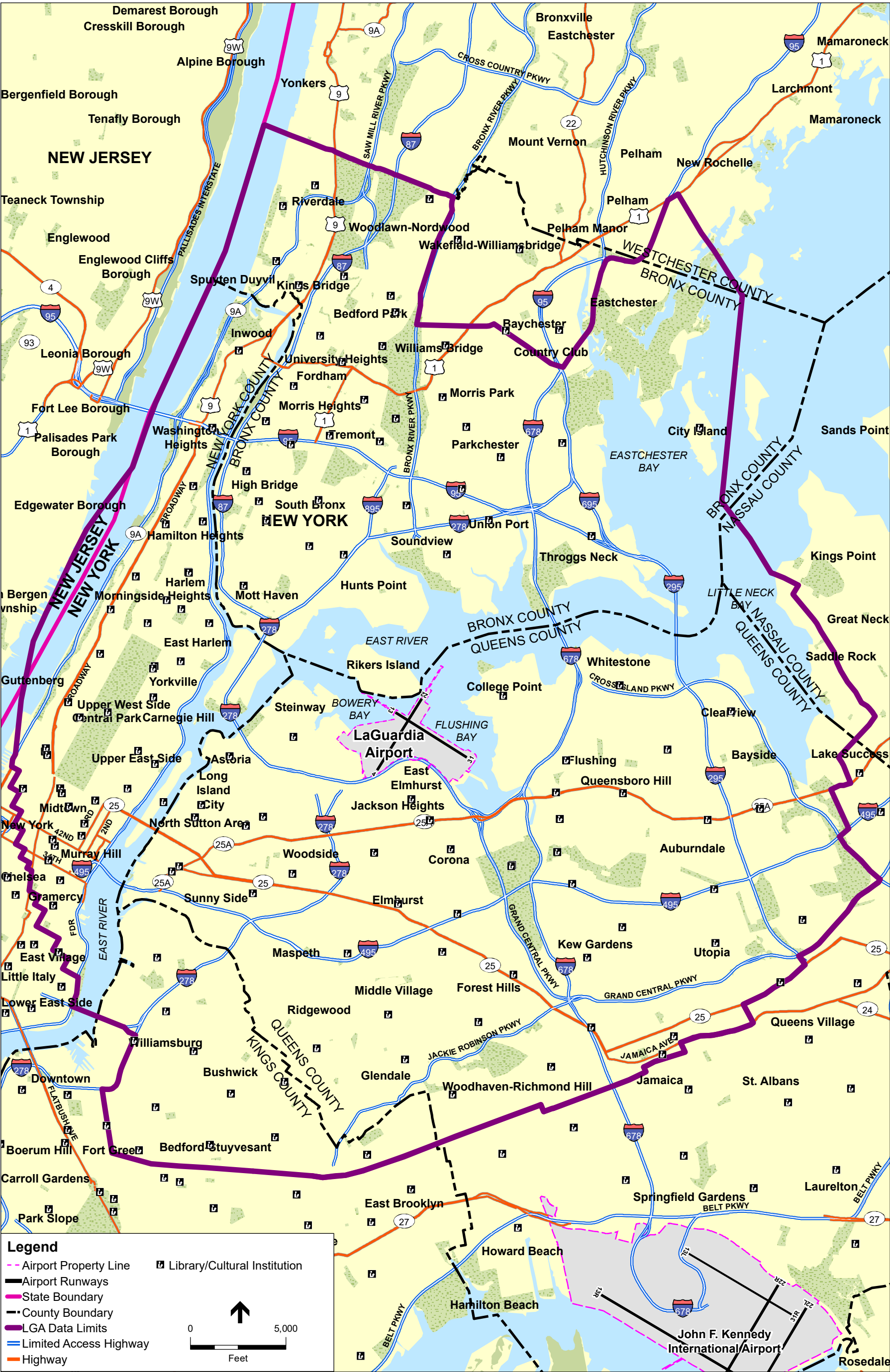


NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study. 140037

Figure 3-3
Noise Sensitive Sites - Schools
LaGuardia Airport

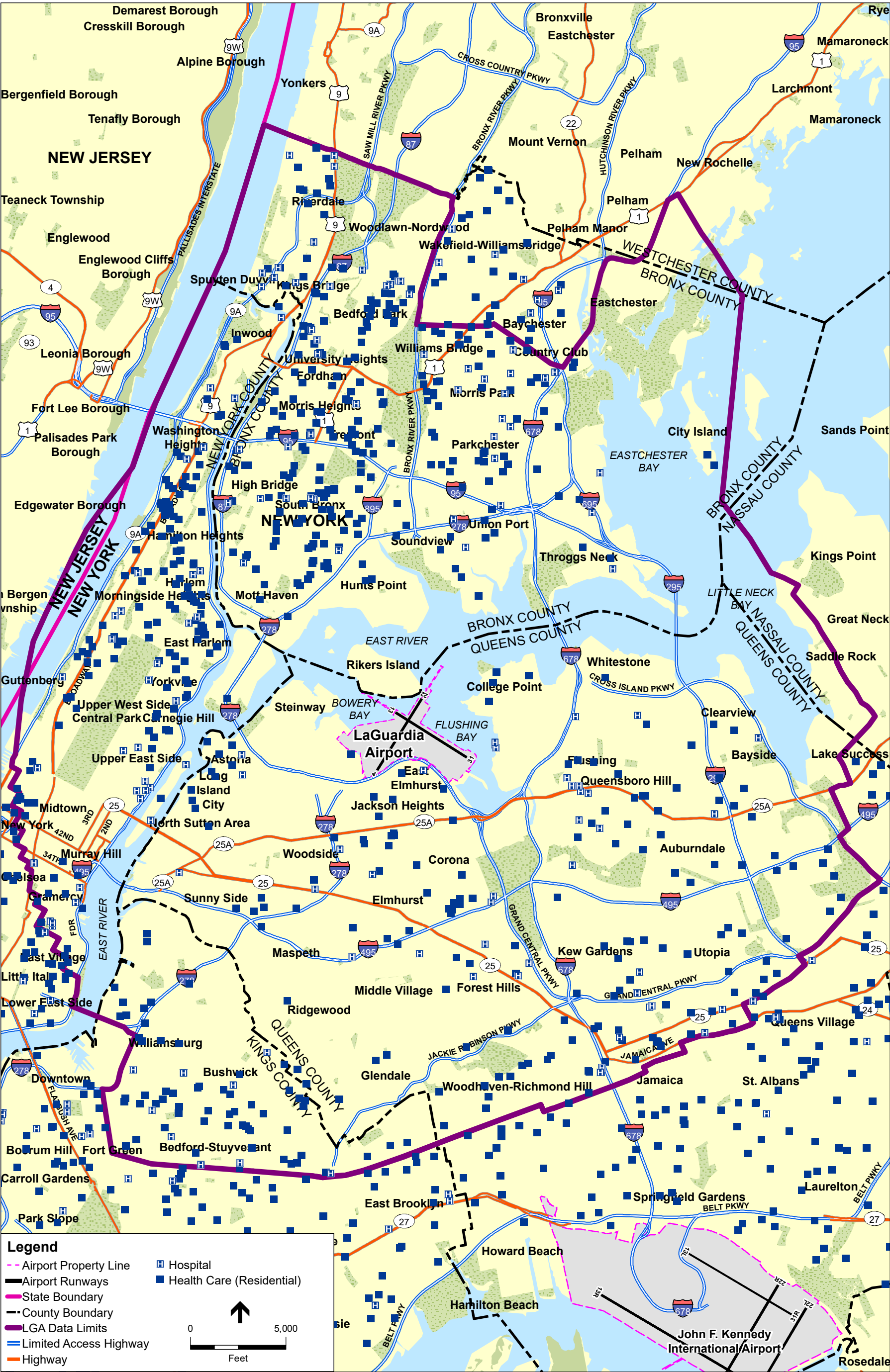


NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study. 140037

Figure 3-4
Noise Sensitive Sites - Libraries and Cultural Institutions
LaGuardia Airport



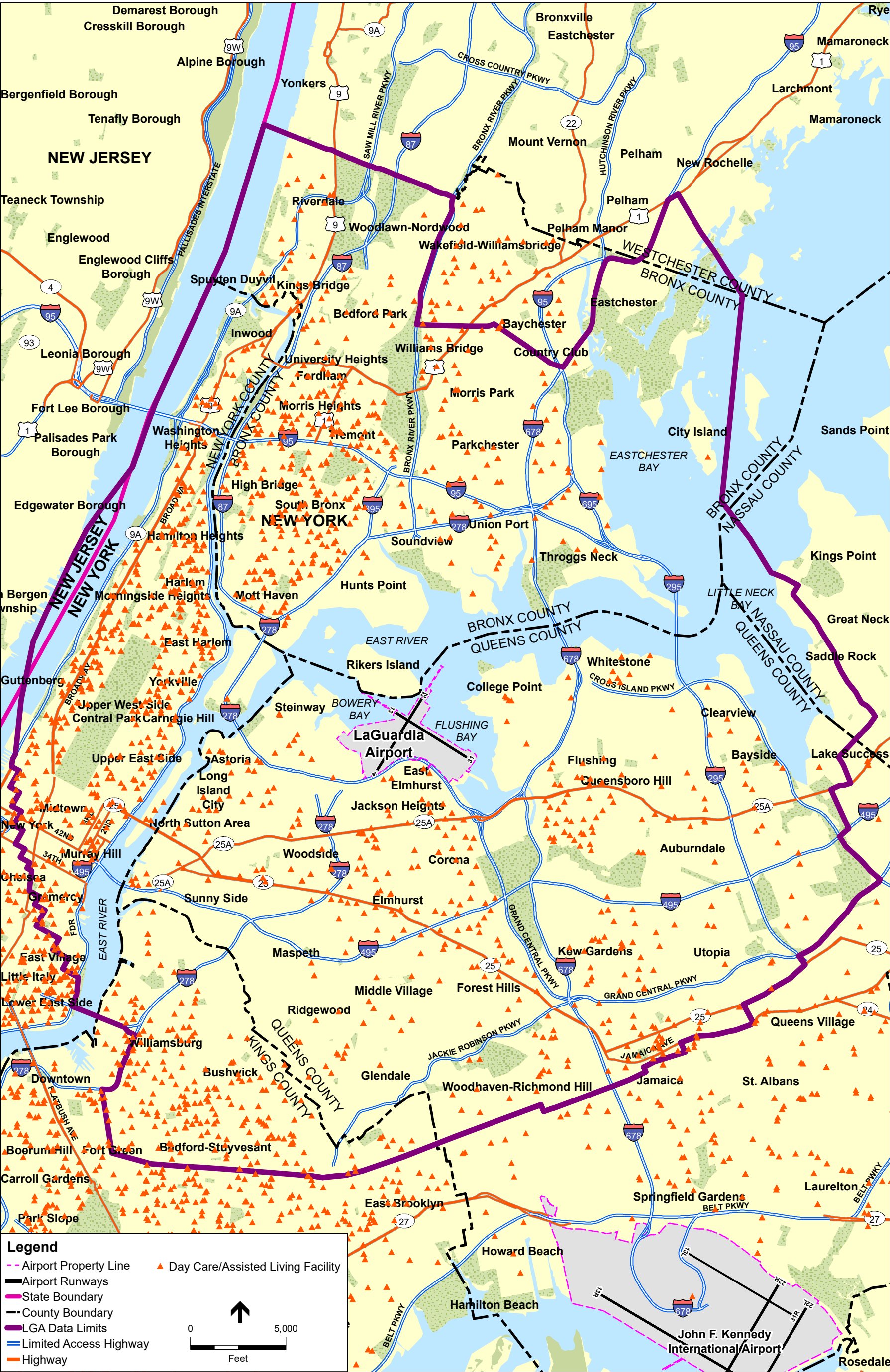
NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study.140037

Figure 3-5

Noise Sensitive Sites -
Hospitals and Health Care (Residential)
LaGuardia Airport

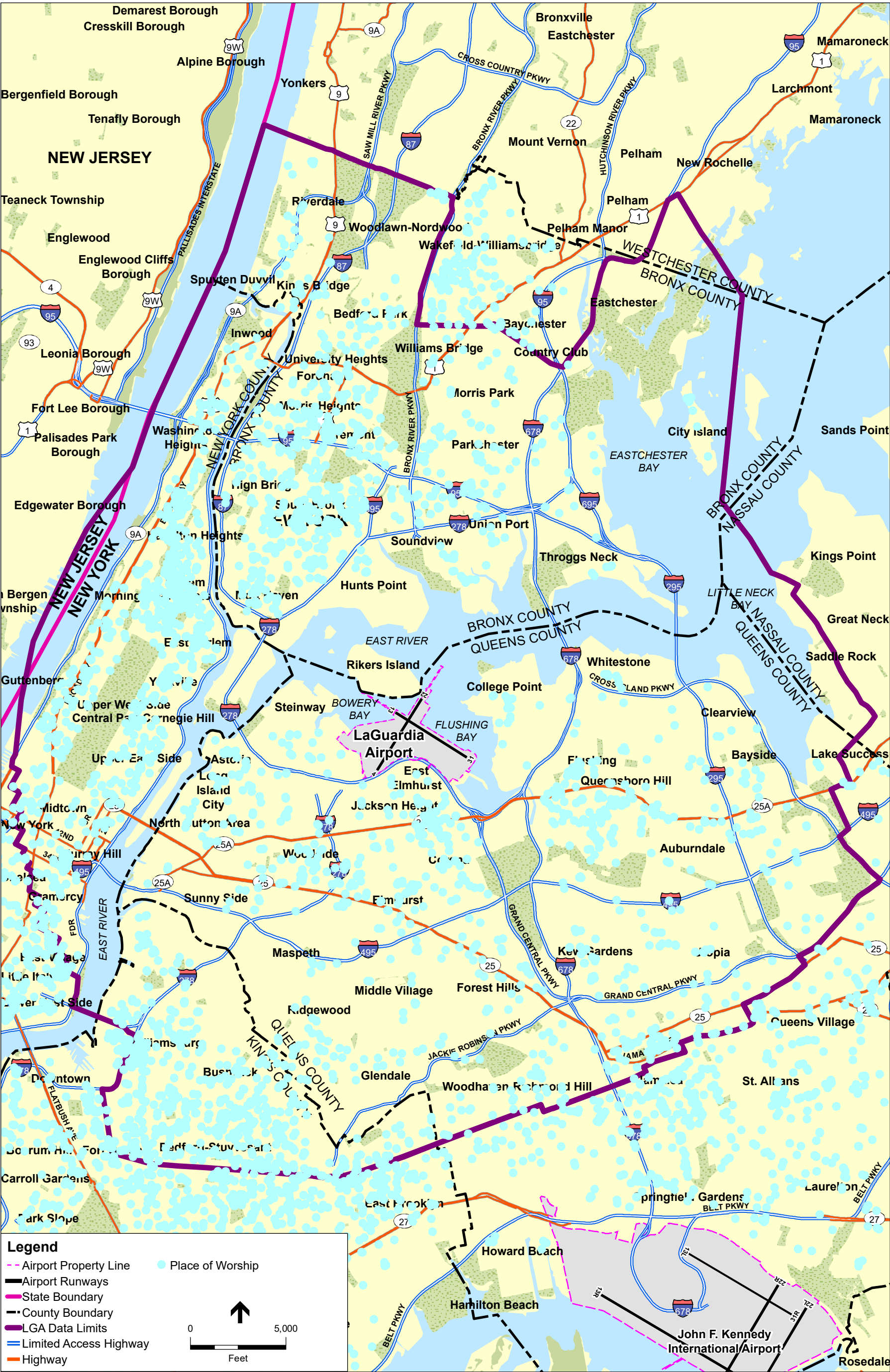


NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study. 140037

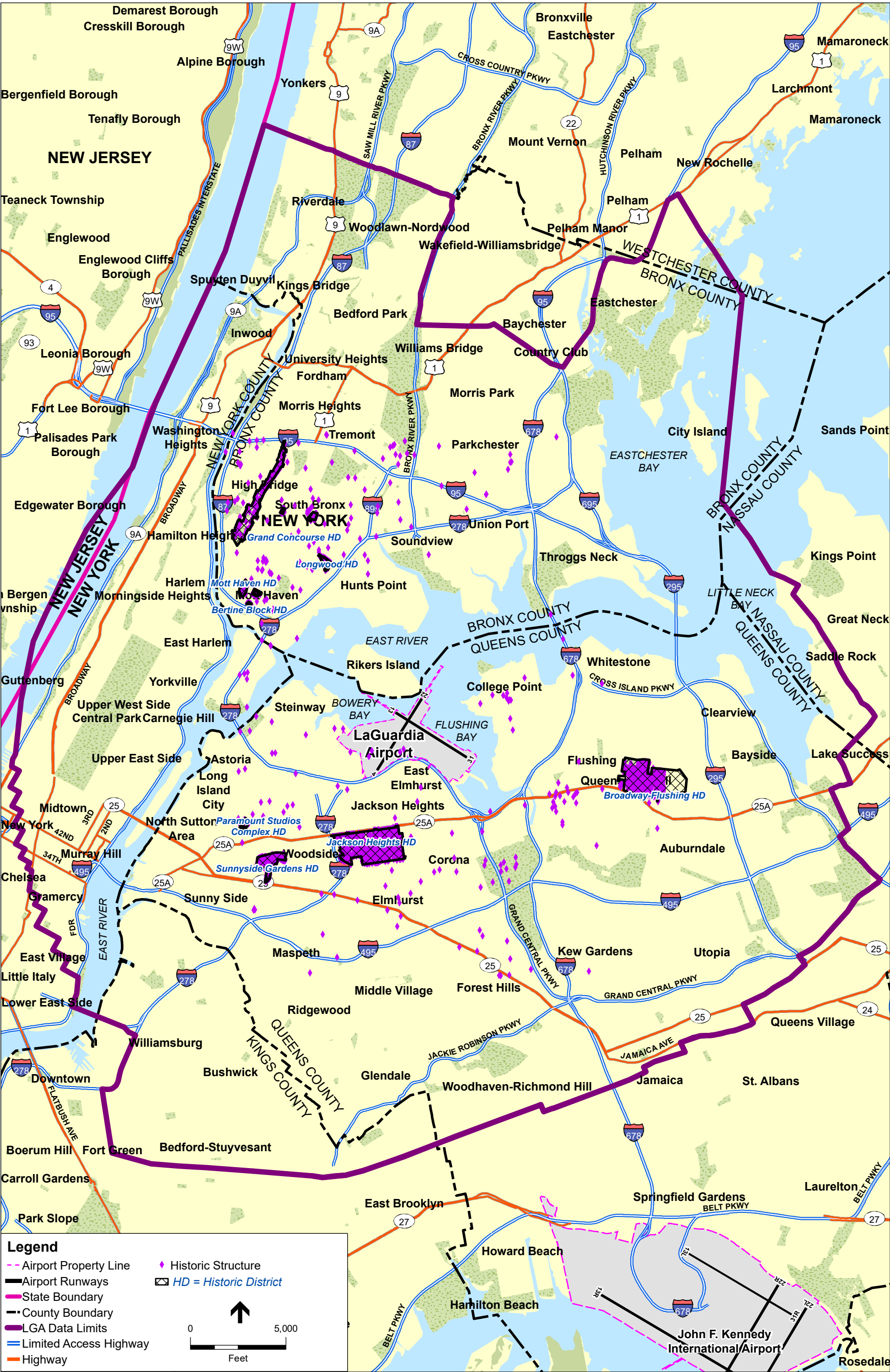
Figure 3-6
Noise Sensitive Sites -
Day Care and Assisted Living Facilities
LaGuardia Airport



NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study, 140037
Figure 3-7
Noise Sensitive Sites - Places of Worship
LaGuardia Airport



NOTE: This map depicts, for informational purposes, existing noise sensitive sites in the vicinity of the LaGuardia Airport. This map is not intended to identify, or otherwise indicate, sites that may be incompatible with aircraft noise or sites that may require mitigation.

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2016; ESRI Mapping Services.

LaGuardia Airport 14 CFR Part 150 Study. 140037

Figure 3-8
Noise Sensitive Sites - Historic Resources
LaGuardia Airport

These agencies are the primary City agencies responsible for approval of land use changes.⁸ The School Construction Authority (SCA) and the NYC Health + Hospitals were also contacted to determine if these organizations had relevant planning studies or future projects that would occur within the study timeframe.

The following Nassau County City agencies were consulted in order to determine the existing land uses, applicable land use studies and data, and future projects in the study area:

- Nassau County Department of Public Works Planning Division
- City of Long Beach (Long Beach)
- Town of Hempstead (Hempstead)
- Town of North Hempstead (North Hempstead)

In addition, the following agencies participated in the Technical Advisory Committee (TAC)⁹ and reviewed and provided information regarding the final compilation of the existing land uses and future projects:

- Delta Airlines
- Jet Blue
- NY Airport Liaison
- Aviation Development Council
- Air Cargo
- SheltAir
- Queens Chamber of Commerce
- NYC Department of Environmental Protection (NYCDEP)
- JFK Roundtable Representative
- Queens Borough President Representative

5.0 Planned Projects

The following describes the process of identifying the recently approved and future planned projects located in the LGA 14 CFR Part 150 Study Area for use in the 2021 NEM.

⁸ Other City agencies, such as the NYC Board of Standards and Appeals also approve development projects within NYC. However, these agencies generally do not approve substantial land use and zoning changes, which are instead undertaken by the NYC DCP.

⁹ During the course of the LGA Part 150 Study, the Technical Advisory Committee reviewed study documents and provided input to the Port Authority. The TAC members also keep their respective organizations informed of the TAC's discussions.

5.1 Purpose of Identifying Planned Projects

As part of the NEMs, land uses are depicted for 2016 (existing year) and 2021 (future year). Typically, existing land uses are used as the basis for both maps. However, New York City and Nassau County are densely populated areas, and land use changes routinely occur within New York City.¹⁰ For densely populated and built-out urban areas, most changes occur at the parcel or block level (potential for change over time as noted), but could also include larger-scale urban re-zoning redevelopment projects. Projects that require land use and/or zoning changes can modify the residential complexion of a particular area in the New York metropolitan area over the course of several years. In New York City, the DCP, as the primary agency that oversees zoning changes, reviews hundreds of applications each year that seek land use and zoning approvals throughout the five boroughs. Therefore, for this project, the Port Authority elected to incorporate any known and approved projects that would change land uses within the study area, and represent those changes in land uses on the 2021 NEM. The following describes the process of identifying the recently approved and future planned projects located in the LGA 14 CFR Part 150 Study Area.

In addition to using this information for the 2021 NEM, this information will also support future consideration of land use compatibility for the noise compatibility program (NCP) portion of this Study.

5.2 Methodology

In order to determine which projects and/or studies would result in a change to land use prior to 2021, the information collected through agency coordination and from readily available data was reviewed and divided into three categories:

1. Private developments/projects that have been approved, or in the process of approval, by January 2016. These were evaluated to determine if the project would result in land use changes from existing conditions (2016) by the year 2021;
2. NYC-sponsored neighborhood re-zonings identified by the City as of January 2016 that may result in land use changes from existing conditions. However, due to the nature of NYC-sponsored rezonings, the exact location and timing of new development is not guaranteed;¹¹ and
3. Planning studies that include consideration of the study period (2016-2021) and, at the time of this evaluation, do not have a specific development scenario, project proposal, or timeline for project implementation or land use changes.

¹⁰ Westchester County is currently developing a Vision Plan with *Westchester 2025*, the County's web-based, long-range land-use policies document. Therefore, based on the mature land use of this small area as well as the County planning process currently underway, no additional information was available associated with anticipated future projects for this area.

¹¹ Nassau County does not conduct re-zoning in the same manner as NYC, but Nassau County and its municipalities were contacted to discuss anticipated projects that would be similar to re-zoning.

The majority of projects listed in the first two categories are those that either have already been approved or identified by planning agencies and in the process of approval at the time of data collection (January 2016). In order to qualify in the first category, the project must have a development scenario (the specific land use changes projected to occur as a result of the project), be already approved or be in the midst of the approval process by January 2016, and would be undertaken by, or in conjunction with, a private applicant.

Large publicly-announced studies or other efforts, such as those described in the other two categories, where the details of the development scenario, rezoning boundaries, and timing of implementation are not yet known do not provide sufficient information in order to determine whether land use changes would occur.

5.3 Results

Projects that would change the land uses for the 2021 NEM were identified in New York City. No recently approved and future planned projects were identified in Nassau County within the study timeframe (2016-2021).¹²

For each project, the information provided in **Table 5-1** below, includes the project name, primary approval agency, location, approval date, and the current and future projected land uses for those entitled projects within the LGA study area. Also included are the unit counts and estimated population from the environmental review documents, if available and applicable.

NYC Major Developments

All the projects listed in Table 5-1 resulted in an update to the 2021 NEM to reflect the projected change in land use from the existing conditions, except for two: the Rockefeller University Expansion and the Memorial Sloan Kettering/CUNY projects (noted in the table as “No Change”).

¹² Based on consultations with Nassau County Planning Division, Town of North Hempstead Planning Department, Town of Hempstead Department of Planning and Economic Development, and City of Long Beach Department of Economic Development.

TABLE 5-1
ENTITLEMENT PROJECTS IN THE LGA 14 CFR PART 150 STUDY AREA

Project Name	Agency	Borough	Agency Status	Current Land Use	Future Land Use	Units	Estimated Population
Rheingold Rezoning	DCP	Brooklyn	Approved (2013)	Varies (50+ Parcels)	Mixed-Use Residential and Commercial	1,076	3,176
Willeys Point	EDC	Queens	Approved (2013)	Varies (100+ Parcels)	Mixed-Use Residential and Commercial; Parking Facilities	5,500	14,795
Astoria Cove	DCP	Queens	Approved (2014)	Industrial, Manufacturing	Mixed-Use Residential and Commercial	1,723	4,032
Halletts Point	DCP	Queens	Approved (2013)	Multi-Family Residential; Industrial & Manufacturing; Transportation & Utility (Including Parking)	Mixed-Use Residential and Commercial; Parking Facilities	2,644	6,187
Rockefeller University Expansion	DCP	Manhattan	Approved (2014)	Public Facilities & Institutions	No Change	N/A	N/A
One Vanderbilt	DCP	Manhattan	Approved (2015)	Commercial	No Change	N/A	N/A
North Conduit Avenue Zoning Map Amendment	DCP	Queens	Approved (2013)	Vacant Land	Commercial	N/A	N/A
Domino Sugar Rezoning	DCP	Brooklyn	Approved (2014)	Vacant Land	Mixed-Use Residential and Commercial	2,282	6,116
22-44 Jackson Avenue	DCP	Queens	Approved (2013)	Industrial & Manufacturing	Mixed-Use Residential and Commercial	372	963
The XU Hotel and Residences	DCP	Queens	Approved (2015)	Commercial	Mixed-Use Residential and Commercial	(-)29	(-)84
West 106 th Street Rezoning	DCP	Manhattan	Approved (2013)	Multi-Family Residential; Public Facilities & Institutions	Mixed-Use Residential and Commercial	217	451
Greenpoint Landing Newtown Barge Park Expansion	DCP	Brooklyn	Approved (2013)	Transportation & Utility (Including Parking); Vacant Land	Multi-Family Residential	701	1,845
77 Commercial Street	DCP	Brooklyn	Approved (2013)	Industrial & Manufacturing; Transportation & Utility (Including Parking)	Mixed-Use Residential and Commercial	444	1,149
1380 Rockaway Park Rezoning	DCP	Brooklyn	Approved (2013)	Commercial	Public Facilities & Institutions	N/A	N/A
West 117 th Street Rezoning	DCP	Manhattan	Approved (2013)	Open Space & Outdoor Recreation	Mixed-Use Residential and Commercial	70	158
11-55 49 th Avenue Rezoning	DCP	Queens	Approved (2014)	Transportation & Utility (Including Parking); Vacant Land	Mixed-Use Residential and Commercial	140	269
Woodward Avenue Rezoning	DCP	Queens	Approved (2014)	One & Two Family Residential; Multi-Family Residential; Transportation & Utility (Including Parking); Vacant Land	Multi-Family Residential / Mixed-Use Residential and Commercial	110	308

580 Gerard	DCP	Bronx	Approved (2012)	One & Two Family Residential; Multi-Family Residential; Transportation & Utility (Including Parking); Industrial & Manufacturing	Mixed-Use Residential and Commercial	124	300
River Plaza	DCP	Bronx	Approved (2013)	Commercial	No Change	N/A	N/A
East River Plaza	DCP	Manhattan	Pre-Approval (TBD)	Commercial / Parking Facilities	Mixed-Use Residential and Commercial	TBD	TBD
Education Construction Fund	DCP	Manhattan	Pre-Approval (TBD)	Public Facilities and Institutions	Mixed-Use Residential, Commercial, and Community Facility	TBD	TBD
East 125 th Street Development Project	Deputy Mayor for Housing and Economic Development	Manhattan	Approved (2008)	Residential, Commercial, Industrial, Transportation / Utility, Parking Facilities, and Vacant Land	Mixed-Use Residential, Commercial, and Community Facility	1,000	2,570
2033 Fifth Avenue/ National Black Theater	DCP	Manhattan	Pre-Approval (TBD)	Mixed-Use Commercial Building	Mixed-Use Residential, Commercial, and Community Facility	TBD	TBD
Broadway / Sherman Rezoning	DCP	Manhattan	Pre-Approval (TBD)	Parking Facilities	Mixed-Use Residential, Commercial, and Community Facility	TBD	TBD
207 th Street Rezoning	DCP	Manhattan	Pre-Approval (TBD)	Parking Facilities	Mixed-Use Residential, Commercial, and Community Facility	TBD	TBD
East River Con Edison LSGD	DCP	Manhattan	Approved (2008)	Multi-Family Residential, Transportation/ Utility, Parking Facilities, and Vacant Land	Mixed-Use Residential, Commercial, and Community Facility	3,680	6,576
Brookdale Campus LSGD	DCP	Manhattan	Pre-Cert (2016)	Vacant Building (Formerly Public Facilities and Institutions)	Parking Facilities	N/A	N/A
Memorial Sloan Kettering / CUNY	Deputy Mayor for Housing and Economic Development	Manhattan	Approved (2014)	Public Facilities and Institutions	No Change	N/A	N/A
Cornell NYC Tech Campus	Deputy Mayor for Housing and Economic Development	Manhattan	Approved (2013)	Public Facilities and Institutions / Vacant Land	Public Facilities and Institutions	442	842
Melrose Commons Site B	HPD	The Bronx	Approved (2015)	Industrial, Transportation/ Utility, Vacant	Mixed-Use Residential, Community Facility, and Commercial	277	806
Melrose Commons Site C	HPD	The Bronx	Approved (2015)	Industrial, Transportation/ Utility, Vacant	Mixed-Use Residential, Community Facility, and Commercial	194	565
La Central (Bronxchester RFP)	HPD	The Bronx	Pre-Cert (2016)	Commercial / Vacant	Mixed-Use Residential, Community Facility, and Commercial	992	2,976

Appendix D-1 - Summary of Land Use Plans and Zoning

Crossroads Plaza	HPD	The Bronx	Approved (2013)	Mixed-Use / Vacant	Mixed-Use Residential, Community Facility, and Commercial	428	1,331
Second Farms	Catholic Charities of NY	The Bronx	Pre-Approval (TBD)	Commercial	Mixed-Use Residential and Commercial	291	TBD
Lambert Houses	HPD	The Bronx	Pre-Approval (TBD)	Multi-Family Resident, Commercial, Vacant	Mixed-Use Residential and Commercial, Public Facilities and Institutions	934	2,681
One Flushing	HPD	Queens	Pre-Approval (TBD)	Commercial, Parking Facilities	Mixed-Use Residential, Community Facility, and Commercial	231	TBD
Gateway	HPD	Brooklyn	Approved (2009)	Residential, Commercial, Industrial, Transportation / Utility, Parking Facilities, Vacant	Mixed-Use Residential, Community Facility, and Commercial	2,385	6,648
PS/IS ¹ 298 ²	SCA	Queens	Approved (2015)	Industrial	Institutional / Public Facility	N/A	N/A
PS 317 ²	SCA	The Bronx	Approved (2013)	Vacant	Institutional / Public Facility	N/A	N/A
PS 398 (69-01 34 th Ave Queens)	SCA	Queens	Approved (2015)	Commercial	Institutional / Public Facility	N/A	N/A

SOURCE: The project data contained in this table (except where noted) is based on the information available on each project on the New York City Mayor's Office of Sustainability database, CEQR Access, <https://a002-ceqraccess.nyc.gov/ceqr/>. Compiled by VHB, 2016.

1. Primary school/ Intermediate school

2. This project information is available in the School Construction Authority's proposed 2016 Capital Plan, <http://www.nycsca.org/Community/CapitalPlanManagementReportsData/pages/CapitalPlan.aspx>.

NYC Rezoning

The following table, **Table 5-2**, contains the City-sponsored neighborhood rezonings that were identified within the LGA study area that may result in land use changes from existing conditions. However, due to the general nature of large, area-wide rezonings, the exact location and timing of new development is not guaranteed by 2021. Therefore, the projects listed below did not result in specific updates to the 2021 Land Use Map, but are provided for informational purposes.

Table 5-2
NEW YORK CITY-SPONSORED REZONING IN THE LGA STUDY AREA

	Project Name	Agency	Borough	Approval Status
1.	East New York Rezoning	DCP	Brooklyn	Certified (2016)
2.	Ozone Park Rezoning	DCP	Queens	Approved (2013)
3.	Woodhaven/Richmond Hill	DCP	Queens	Approved (2012)
4.	Long Island City Rezoning	DCP	Queens	Pre-cert (2017)
5.	Flushing West	DCP	Queens	Pre-cert (2016)
6.	Sunnyside/Woodside	DCP	Queens	Approved (2012)
7.	East Elmhurst Rezoning	DCP	Queens	Approved (2012)
8.	East Fordham Road	DCP	Bronx	Approved (2013)
9.	West Harlem	DCP	Manhattan	Approved (2012)

SOURCE: New York City Mayor's Office of Sustainability database, <https://a002-ceqraccess.nyc.gov/ceqr/>.
Compiled by VHB, 2016.

The City-sponsored rezonings listed in Table 5-2 are anticipated to result in new residential development along transit corridors within the project area, along with modest levels of ground floor commercial (retail and community facility) uses.

6.0 Public Policies and Plans

As previously noted, several land use planning studies have been identified within the LGA Study Area. The public policies and plans for areas included in the LGA study area are briefly described in the following sections.

6.1 New York City

At the time of this analysis, the following land use planning studies were either on-going or did not result in a specific development proposal or approval.

6.1.1 Zoning for Quality & Affordability Text Amendment (2015)

As part of NYC's coordinated efforts under *Housing New York* – the Mayor's 10-year, five-borough housing plan – the Department of City Planning is proposing a set of targeted changes to zoning regulations (text amendments) to support the creation of new affordable housing and encourage better residential buildings.¹³ Since the release of *Housing New York*, the DCP, working with the HPD, communities, nonprofit housing groups, architects, affordable housing developers, and other practitioners, has identified a set of zoning changes that would address the needs of affordable housing, aid efficient use of housing subsidies, and encourage higher-quality residential buildings in the City's medium- and high-density neighborhoods. On December 16, 2015, the program underwent the City Planning Commission Public Review and the Commission accepted additional public comments. In early 2016, the program will be reviewed by the City Council before a final decision on the implementation of the program is made.

The *Zoning for Quality and Affordability* text amendment (ZQA) would serve numerous goals of *Housing New York*, including making the city more affordable to a wider range of New Yorkers as well as foster diverse, livable communities with buildings that contribute to the character and quality of neighborhoods.

6.1.2 Mandatory Inclusionary Housing (2015)

The DCP is proposing a City-wide zoning text amendment to create a Mandatory Inclusionary Housing (MIH) program within the existing Inclusionary Housing program authorized in the New York City Zoning Resolution.¹⁴ The project would require permanently affordable housing set-asides for all developments over 10 units or 12,500 zoning square feet within MIH areas or, as an additional option for developments between 10 and 25 units, or 12,500 to 25,000 square feet, a payment into an affordable housing fund. The proposed MIH program would not affect existing provisions in the Zoning Resolution that apply to the regulation and administration of the Inclusionary Housing Program within existing Inclusionary Housing Designated Areas or R10 or R10 equivalent zoning districts.¹⁵ The proposed text amendment would have no effect until mapped or implemented through subsequent discretionary actions of the City Planning Commission. The purpose of the proposed MIH program is to promote neighborhood economic diversity in locations where land use actions create substantial new housing opportunities.

6.1.3 City-wide Ferry (On-going)

The NYCEDC is working with the Mayor's Office to launch the City-wide Ferry Service.¹⁶ The service will consist of five new ferry routes in addition to the existing East River Ferry service.

¹³ NYCDP *Zoning for Quality and Affordability*. <http://www1.nyc.gov/site/planning/plans/zqa/zoning-for-quality-and-affordability.page>, (February 3, 2016). Accessed March 7, 2016.

¹⁴ NYCDP. *Mandatory Inclusionary Housing*. <http://www1.nyc.gov/site/planning/plans/mih/mandatory-inclusionary-housing.page>, (February 3, 2016). Accessed March 7, 2016.

¹⁵ "R10" districts in New York City are considered general, high density residential zoning districts, which produce tower and tower-on-a-base buildings with a maximum floor area ratio of 10.0.

¹⁶ NYCEDC, Citywide Ferry Service. <http://www.nycedc.com/project/citywide-ferry-service>. February 17, 2016.

When the City-wide Ferry Service is fully operation in 2018, the six routes will carry an estimated 4.6 million passengers per year. The project would be implemented through the construction of 10 new ferry landings, the renovation of six existing landings, and the selection of service operators. The existing East River Ferry and Staten Island Ferry would be augmented by service of Rockaways, South Brooklyn, Astoria, Soundview, and the Lower East Side routes to be launched in two phases beginning with the South Brooklyn and Astoria routes in 2017 and ending with the Lower East Side and Soundview routes in 2018. The City-wide Ferry Service is being implemented subsequent to the 2010 East River Ferry Service pilot program, a 2011 City-wide Ferry Study, a policy and planning white paper, and a 2013 City-wide Ferry Service Study. The NYCEDC is undergoing the environmental and public review process associated with this project, and is expected to launch Phase I in Spring 2017 and Phase II by Spring 2018.

6.1.4 Jamaica Now Action Plan

The goals of the *Jamaica Now Action Plan* (2015) are twofold: 1) Encourage absentee property owners to activate vacant and derelict sites in Jamaica's downtown core and 2) Develop a mixed income, mixed-use project at the former New York Police Department garage on 168th Street.¹⁷ However, no site-specific projects are underway. From a land use perspective, the City wants to encourage an active downtown with a mix of uses to satisfy a regional commercial market as well as housing, both market rate and affordable.

6.1.5 Western Queens Transportation Study (2014)

The DCP has undertaken the *Western Queens Transportation Study* with the goal of improving mobility and enhancing connections both within western Queens and to other areas of NYC, including nearby Roosevelt Island and northern Brooklyn.¹⁸ The expansion and improvement of the transportation system in Western Queens will provide greater access and foster interconnectivity between the Select Bus Service (SBS) Manhattan and Northern Brooklyn transportation networks. The study calls for improved connections to the region's mass transit networks in addition to specific recommendations to the Queens Bus network. Furthermore, the study recommends specific bus route elimination and creation to provide greater access to the proposed SBS service route. The transit networks in this region are closely interconnected and any change to one component will have an impact on the entire local and regional network.

6.1.6 Jerome Avenue Study (2014)

The *Jerome Avenue Study* encompasses 73 tax blocks along the Jerome Avenue corridor in the Bronx, from Mullaly Park at its southern terminus to just south of Fordham Road at its northern terminus (approximately two miles in length).¹⁹ The study is being undertaken as a community

¹⁷ NYCEDC, *Jamaica Now Neighborhood Action Plan*. <http://www.nycedc.com/resource/jamaica-now-action-plan>. February 2015.

¹⁸ NYC DCP, *Western Queens Transportation Study*. <http://www1.nyc.gov/site/planning/plans/western-queens/western-queens.page>. October 2014.

¹⁹ NYC DCP, *Jerome Avenue Neighborhood Planning Study*. <http://www1.nyc.gov/site/planning/plans/jerome-ave/jerome-ave.page>. 2014.

planning effort, with DCP engaging local stakeholders (e.g., residents, businesses, and institutions) in order to identify opportunities for provide and support new and existing affordable housing; access to jobs and training; economic development and entrepreneurship; brownfield clean-up; cultural amenities; pedestrian safety; parks, schools and daycare; and retail and local services. At this time, specific land use and zoning recommendations have not been formulated for this study.

6.1.7 Bronx/Metro-North Study (2014)

The *Sustainable Communities: Bronx Metro – North Study* was undertaken by DCP to examine the viability of transit-oriented development (TOD) around eight Metro-North Stations (six existing, two proposed) in the Bronx.²⁰ The objectives of the study are to identify ways through TOD to accommodate growth through use of improving and enhancing pedestrian presence through various residential and commercial zoning designed to increase resident and business densities.

6.1.8 Sheridan Expressway/Hunts Point (2013)

The City, along with community and state collaboration, carried out a comprehensive *Sheridan – Hunts Point Transportation and Land Use Study*. The results of this study were a collection of recommendations, based on an altered configuration of the Sheridan Expressway, which is intended to promoted pedestrian safety, neighborhood and community connectivity, waterfront access, and mixed use development within the study and context area.²¹ The plan is the combination of local thoroughfares with the Sheridan Expressway along its at-grade portions to create a boulevard in order to reduce the size of the road and create greater pedestrian mobility. The study recommends several transportation initiatives in concert with land use changes and rezoning to encourage mix use development along the waterfront and focus growth and job opportunities along transit rich corridors. Modifications to the at-grade portion of the Sheridan Expressway will improve east-west access across the expressway for business and residents. Additionally, such improvements would improve access to newly creating housing complexes, to the newly constructed waterfront parks, and to other neighborhoods.

6.1.9 East Harlem (On-going)

The *East Harlem Neighborhood Study* is being undertaken by DCP.²² The exact study area boundaries have yet to be determined. The study's goals include the creation of additional mixed-income housing opportunities, developing strategies to preserve the existing affordable

²⁰ NYCDP. *Sustainable Communities: Bronx Metro-North*. <http://www1.nyc.gov/site/planning/plans/sustainable-communities/sc-bronx-metro-north.page>. 2014.

²¹ NYCDP. *Sheridan-Hunts Point Land Use and Transportation Study*. <http://www1.nyc.gov/site/planning/plans/sheridan-hunts-point/sheridan-hunts-point.page>. December 2013.

²² NYC DCP. *East Harlem Neighborhood Planning Study*. <http://www1.nyc.gov/site/planning/plans/east-harlem/east-harlem.page>. 2016.

housing stock, increasing economic and community development opportunities, and targeting infrastructure and open space improvements.

6.1.10 Inwood/Sherman Creek (On-going)

NYCEDC, in partnership with DCP and other city agencies and community stakeholders, is currently conducting a comprehensive neighborhood planning study in the Inwood neighborhood of Upper Manhattan.²³ This planning initiative is a successor to the previous *Sherman Creek Study* undertaken by DCP from 2003-2008. The three primary goals of *Inwood NYC* are to support affordable and mixed-income housing, expand economic opportunities, and improve neighborhood livability.

6.1.11 East Midtown Phase II (On-going)

Phase II of the comprehensive planning strategy for East Midtown's future is advancing through DCP.²⁴ The process is incorporating input from a wide range of stakeholders, including the affected Community Boards 5 and 6, the Regional Plan Association and the Real Estate Board of New York, among others. It will address such issues as the area's existing commercial building stock and appropriate uses, densities, and locations for future development, as well as examine questions regarding sustainability, preservation, landmark development rights, the public realm, and various funding mechanisms for proposed improvements. The resulting framework will help shape potential zoning modifications for East Midtown as well as facilitating coordination of new development with appropriate infrastructure and city services for the surrounding area.

6.1.12 Bronx District 10 Needs Statement (2015)

The Bronx Community District 10 Needs Statement outlines several issues facing the community and provides recommendations.²⁵ Three main concerns that the community board has pertain to preventing storm surge flooding, improved maintenance and protection of open spaces, and replacement of the 45th precinct. The statement recommends that a Business Improvement District (BID) be created to provide support for public housing and homeless shelters, while strengthening the economic backbone of the communities. The needs statement makes additional recommendations regarding projects planned for the area; however, no specific land use projects are contained in the document.

²³ NYCEDC. *Inwood NYC Neighborhood Study*. <http://www.nycedc.com/project/inwood-nyc-neighborhood-study>. Accessed March 7, 2016.

²⁴ NYC DCP. *East Midtown Rezoning*. http://www.nyc.gov/html/dcp/html/east_midtown/east_midtown3.shtml. 2016. Accessed March 7, 2016.

²⁵ *Statement of Community District Needs FY2016*. Bronx Community Board #10. <http://www.nyc.gov/html/bxcb10/downloads/pdf/District%20Needs%20Statement%20for%20FY%202016.pdf>. August 1, 2014. Accessed January 11, 2016.

6.2 Nassau County

6.2.1 2010 County Master Plan²⁶

The *2010 County Master Plan* (2010 Plan) utilizes the New York Metropolitan Transportation Council's (NYMTC) *2010-2035 Regional Transportation Plan* (RTP), adopted on September 24, 2009. The RTP provides a basis for current and projected demographic and socioeconomic trends. The 2010 Plan focuses on real challenges such as maturity and low rates of economic growth, very high property taxes and costs of doing business, failure to retaining young people and recent graduates, and stagnation in employment growth. The 2010 Plan seeks to address the problems currently facing Nassau County residents and business owners. The Plan calls for all levels of government, the private sector, not-for-profits, and County's residents to partake in a paradigm shift for sustainable growth over the next 20 years that results in:

- the creation of sustainable high-value jobs in targeted growth areas
- controlling the increases in the cost of government
- new housing choices and availability for the County's young workforce and seniors
- the revitalization and reinvestment in downtowns and underutilized commercial and industrial areas
- streamlining and expediting the entire land use regulatory process
- an increase in public transit infrastructure and usage
- selective and affordable preservation of remaining open space and environmentally-valuable areas
- energy conservation and affordable local renewable energy generation

Currently, the *2010 County Master Plan* is still in draft form.

6.3 New York State

New York State prepared a *NY Rising Community Reconstruction (NYRCR) Plan* to rebuild more resilient communities as a result of Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee.²⁷ The program associated with this plan was established to assist 124 communities. There are 21 and 23 community-specific plans within New York City and Long Island, respectively.

Each NY Rising Plan was driven by a local planning committee that assessed storm damages and current risk. Each plan identified community needs and opportunities, and developed recovery and resiliency strategies. Each plan details projects and implementation actions to help fulfill

²⁶ Nassau County. <http://www.nassaucountyny.gov/2872/Master-Plan>. Accessed March 7, 2016.

²⁷ New York State. *New York Rising Community Reconstruction Plans*. <http://stormrecovery.ny.gov/nyrcr/final-plans>. Accessed January 11, 2016.

those strategies. Each participating community has been allotted between \$3 million and \$25 million of Community Development Block Grant – Disaster Recovery (CDBG-DR) dollars to implement elements of their plans. Some projects identified in the plans are long-term and need to be further developed before their implementation may begin.²⁸ These plans outline projects and featured projects, but do not have specific schedules for implementation.

7.0 Zoning within the Land Use Data Collection Area

The following sections provide an overview of the existing zoning provisions in force within the Study Area. The focus of this review is on the identification of the zoning classifications by jurisdiction, the permitted uses within the zoning districts on a jurisdiction by jurisdiction basis and, where available, information on the density (particularly residential related density expressed in lot size required) allowed in the zoning districts. Additionally, where residential uses and/or noise sensitive institutional land use are found to be permitted in commercial or industrial zoning classification, these are also identified for potential consideration during the Noise Compatibility Planning Phase of the 14 CFR Part 150 Study.

The City of New York zoning ordinance is a complex yet utilitarian ordinance that reflects the realities of development patterns in a highly urbanized environment. The current Zoning Resolution was adopted on December 15, 1961 to apply city-wide and has been updated, amended, and expanded to respond to changing trends and development pressures. As noted on the Department of City Planning's website, "Each plot of land within the City's jurisdiction has a zoning designation – residence, commercial or manufacturing to establish relevant parameters for building and land use. The City continues to adapt the Zoning Resolution as the land use patterns in the City change through private and public actions."

An array of zoning categories and subcategories along with use specific exceptions and criteria are employed for each of three broad categories (Residential, Commercial & Manufacturing) of urban land use. Residence districts are the most common zoning classification and account for roughly 75 percent of the zoned area within the City of New York. These districts cover the entire range of residential development evident within the city boundaries ranging from traditional single family detached residences up to and including high rise residential apartment and condominium towers. There are 10 basic residential zoning categories (R1-R10) in the current zoning resolution with R1 representing the lowest density of residential use and R10 representing the highest density of residential development.

Each zoning category often has an additional number or letter appended to the zoning designation which signifies that additional requirements or controls exist for areas identified on the zoning map as being within that specific zoning category. For example, under the R-7 General Residence Category there are seven additional zoning classifications consisting of R7-1, R7-2, R7-3, R7-A, R7-B, R7-D and R7-X each of which acts to modify the requirements set forth under the general

²⁸ New York State. Governor's Office of Storm Recovery. <http://stormrecovery.ny.gov/nycrcr/final-plans>. Accessed January 11, 2016.

R7 zoning provisions in the City Ordinance. Unless otherwise noted in the Zoning Resolution, the regulations outlined for the general zoning district (e.g. R-7) apply to all of the subcategories under the basic zoning category. While the Zoning Resolution identifies a total of 10 primary residential zoning classifications, an additional 34 subcategories under those 10 primary zoning districts exist.

This structure is carried forward in both the commercial zoning categories and the manufacturing zoning categories. There are a total of eight basic commercial zoning categories consisting of C1 through C8, while there are a total of 84 zoning sub-classifications associated with seven of the eight commercial zoning classifications. For example, the C6 General Central Commercial District has 25 sub-districts that act to modify the development requirements listed for the basic C6 zoning district. Under the manufacturing district regulations there are three general categories consisting of M1 through M3 and 22 sub-district classifications, most of which act to modify the requirements of the M1 district. The City of New York Zoning Resolution identifies the following basic zoning districts:

Residential Districts

R1 – Single Family Detached Residence District	R6 – General Residence District
R2 – Single Family Detached Residence District	R7 – General Residence District
R3 – Detached and Semi-Detached Residence District	R8 – General Residence District
R4 – General Residence District	R9 – General Residence District
R5 – General Residence District	R10 – General Residence District

Commercial Districts

C1 – Local Retail District	C5 – Restricted Central Commercial District
C2 – Local Service District	C6 – General Central Commercial District
C3 – Waterfront Recreation District	C7 – Commercial Amusement District
C4 – General Commercial District	C8 – General Service District

Manufacturing Districts

M1 – Light Manufacturing District (High Performance)
M2 – Medium Manufacturing District (Medium Performance)
M3 – Heavy Manufacturing District (Low Performance)

To define the land uses permitted within each of the basic zoning categories (R-1 thru 10, C1 thru C8 and M1 thru M3), the City of New York has grouped permitted uses based on similarity and compatibility of their functions into one of 18 individual use groups. Of the 18 use groups contained in the City Zoning Resolution, two use groups address residential uses, two use groups delineate permitted community facility uses, 12 use groups address various types and intensity of commercial activity and two use groups delineate allowable manufacturing uses. Each use group is then identified as permitted in appropriate zoning districts either as-of-right or, if certain conditions are met, by authorization or special permit.

To determine whether a specific use is permitted in a general zoning classification, one identifies the use groups permitted in the category and then refers to the specific land uses

and special conditions or requirements listed under the Use Group. As an example, land uses classified under Use Group 4, one of two community facilities use groups, are identified as permitted uses in the following zoning classifications; R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6, C8, and M1 zoning districts per the Zoning Resolution. Under each zoning category there may be certain exclusions of activities or specific requirements for a specific activity listed under Use Group 4. **Figure 7-1** provides a quick reference of permitted use groups by zoning districts, while **Table 7-1** delineates each use group along with a listing of the uses within each use group and the zoning districts in which each use group is generally permitted.

Figure 7-1
Permitted Use Groups by Zoning District

Zoning Districts	USE GROUPS																		
	Residential Use Groups		Community Facility Use Groups		Retail & Commercial Use Groups												Gen. Service	Mfg. Use Groups	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Residential Districts																			
R1 R2 Single-family detached																			
R3A* R3X R4A R5A Single- & two-family detached																			
R3-1 R4-1* Single- & two-family detached & semi-detached																			
R4B* Single- & two-family detached, semi-detached & attached																			
R3-2 R4 R5 R5B* R6-R10 Detached, semi-detached & attached																			
Commercial Districts																			
C1 Local Retail																			
C2 Local Service																			
C3 Waterfront & Recreation																			
C4 General Commercial																			
C5 Central Commercial (Restricted)																			
C6 Central Commercial (General)																			
C7 Commercial Amusements																			
C8 General Service																			
Manufacturing Districts																			
M1 Light Manufacturing																			
M2 Medium Manufacturing																			
M3 Heavy Manufacturing																			

* Zero lot line buildings permitted

Source: City of New York Department of Planning Zoning, 2016.

**TABLE 7-1
PERMITTED LAND USES BY USE GROUP AND ZONING DISTRICT**

Use Group	Zoning District Permitted	Permitted Land Uses
Use Group 1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Single-Family Detached Residences
Use Group 2	R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Residences of all kinds R3A, R3X, R4A, R5A – residential uses limited to single or two-family detached, R3A allows single family and two-family zero lot line; R3-1 and R4-1 uses limited to single or two-family detached or semi detached R4-1 allows single family and two-family zero lot line; R4B residential uses limited to single, two-family residences in detached, semi-detached, attached or zero lot line buildings.
Use Group 3	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Schools, Colleges or Universities ¹ , student dormitories ¹ , fraternity or sorority student houses ¹ , Domiciliary care facilities for adults, Libraries, museums or non-commercial art galleries, monasteries, convents, Non-profit hospital staff dwellings, nursing homes and health related facilities, Sanitariums, Philanthropic and non-profit institutions with sleeping accommodations
Use Group 4	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6, C8, M1	Ambulatory diagnostic or treatment health care facilities, mental, health and mental health care facilities licensed by the state; Community centers or settlement houses; Houses of worship, rectories or parish houses; Monasteries, convents or novitiates use for living purpose as a part of a group of buildings accommodating house of worship activities; Non-Commercial Recreation Centers; Non-profit or voluntary hospitals and non-profit hospital staff dwellings on the same property as the hospital; Proprietary hospitals; Seminaries; Philanthropic or non-profit institutions without sleeping accommodations; Welfare Centers ¹ ; Cemeteries ¹ ; Golf Courses; Agricultural uses including greenhouses, nurseries or truck gardens;

		Outdoor tennis courts or ice skating rinks; Public parks or playgrounds or private parks;
Use Group 5	C1, C2, C4, C5, C6, C8, M1	Hotels, transient accommodations
Use Group 6	C1, C2, C4, C5, C6, C8, M1, M2, M3	<p><u>Convenience Retail</u> – Barber & beauty parlors; drug stores, small bakeries, eating and drinking establishments; hardware stores; stationery stores; hand or self-serve; tailor/dressmaker shops, Package liquor stores;</p> <p><u>Offices</u> – business, professional including ambulatory diagnostic or treatment health care, governmental;</p> <p>Veterinary medicine for small animals;</p> <p><u>Retail or Service Establishments</u> – Banks; book stores; retail clothing stores; gift shops; interior design establishments; dry goods or fabric stores; eating or drinking establishments; leather goods; luggage stores; millinery shops; bicycle sales; music stores; floor covering stores; auto supply stores; commercial art galleries and artist supply stores; jewelry stores; pet shops; toy stores; travel bureaus; watch and clock repair; shoe stores; seed and grain supply stores; photographic studios; sporting goods stores; other similar uses.</p> <p><u>Public Service Establishments</u> – Court houses; electric or gas utility substations; solar energy systems; Fire and police stations; telephone exchanges; water or sewage pumping stations; public utility stations for oil or gas metering/regulating.</p>
Use Group 6C	R6, R7, R8, R9, R10	<p>When located with Community District 1 in Brooklyn – uses permitted as a right are limited to docks for ferries, other than gambling vessels, with a capacity of up to 399 passengers, docks for water taxis for up to 99 passengers.</p> <p>USES PERMITTED BY SPECIAL PERMIT GRANTED BY PLANNING COMMISSION OR BOARD OF STANDARDS AND APPEALS BY ZONING DISTRICT INCLUDE:</p> <p><u>R3A, R3X, R3-1, R4A, R4B, R4-1</u> - Ambulatory diagnostic or treatment health care facilities listed in Use Group 4;</p> <p><u>R1, R2</u> – College or universities including student dormitories, fraternity or sorority student housing; outdoor tennis courts or ice skating rinks; Welfare centers;</p> <p><u>R1, R2, R3, R4, R5, R6, R7, R8, R9, R10</u> – Camps, overnight or outdoor day; Public Utility or service facilities; radio or television towers; riding academies or stables; sand, gravel or clay pits, Domiciliary care facilities for adults; Non-commercial clubs with outdoor swimming pool; Non-Profit hospital staff dwellings within 1,500 feet of hospital; Nursing home and health related facilities based on certification³, Public transit, railroad or electric substations; Passenger rail stations, Seaplane bases;</p> <p><u>R10H</u> – Transient Hotels</p>
Use Group 7	C2, C6, C8, M1, M2, M3	<p><u>Transient Accommodations</u> – Hotels, motels, cabins or boatels (requires proximity to major highway);</p> <p><u>Retail or Service Establishments</u> – Bicycle rental or repair; exterminators;</p>

		<p>funeral establishments; gun repair; moving or storage offices; sign painting shops; venetian blind, window shade or awning shops; Window cleaning contractors establishments or other similar building maintenance services; electrical, glazing, hearing, painting, plumbing, roofing and similar establishments; refreshment stands with drive in;</p> <p><u>Wholesale Establishments</u> – Wholesale establishments of 1,500 SF of accessory storage;</p> <p><u>Auto Service Establishments</u> – Auto glass and mirror shops; Auto seat cover and convertible top sales and installation; tire sales and installation establishments; electric vehicle charging stations and battery swapping facilities.</p>
Use Group 8	C2, C4, C6, C8, M1, M2, M3	<p><u>Amusements</u> – Billiard Parlors/pool halls; bowling alleys with less than 16 lanes; model car hobby center including racing; theaters;</p> <p><u>Retail or service establishments</u> – Auto driving schools; lumber stores; pawn shops; television, radio, phonograph or household appliance repair shops; upholstery shops;</p> <p><u>Automotive Service Establishments</u> – Automobile rental establishments; public parking lots or garages of less than 150 spaces;</p> <p>Public Service Establishments - Prisons</p>
Use Group 9	C2, C4, C5, C6, C8, M1, M2, M3	<p><u>Retail or service establishments</u> – studios, art, music, dancing or theatrical; trade and other schools for adults (subject to certain performance standard limitations); wedding chapels, umbrella repair shops; typewriter or other small business machine sales, rental or repair;</p> <p><u>Wholesale Establishments</u> – Hair Products for headwear, wholesaling including styling; photographic developing or photographic printing establishments;</p>
Use Group 10	C4, C5, C6, C8, M1, M2, M3	<p><u>Retail or service establishments</u> – Banquet halls; blueprinting and photostatting establishments; business schools or colleges; catering establishments; clothing or costume rental; public auction rooms; printing establishments; plumbing, heating or ventilating equipment showrooms; medical and dental laboratories (subject to performance based standards; auto, motorcycle, trailer or boat showrooms or sales; gymnasiums exclusively for basketball, handball, paddleball racketball, squash and tennis;</p> <p><u>Wholesale Establishments</u> – wholesale offices or showrooms</p>
Use Group 11	C5, C6 ⁴ , C8, M1, M2, M3	<p><u>Manufacturing Establishments</u> – Art needlework, hand weaving or tapestries; Book handbinding or tooling; ceramic products; clothing manufacturing or altering; custom hair products manufacturing; jewelry, medical, dental, optical or drafting or similar precision instruments; orthopedic or medical appliances; musical instruments (excludes piano and organs)</p> <p><u>Retail or service establishments</u> – Dry goods or fabric stores; records depositories; clothing and clothing accessory stores; department stores; radio and television studios; variety stores, watchmaking; furniture stores, appliance stores; photo or motion picture studios; floor covering stores; printing establishments of less than 2,500 SF production area³; eating and drinking places; office and business machine sales or rental</p> <p><u>Wholesale or Similar Establishments</u> – Ships Chandlers; wholesale</p>

establishments with accessory storage of less than 2,500 SF		
Use Group 12	C4, C6, C7, C8, M1, M2, M3	<p><u>Amusements</u> – Arenas or auditoriums with less than 2,500 seats; stadiums and trade expositions of less than 2,500 seats or persons respectively; Billiard Parlors/pool halls; bowling alleys or table tennis halls; eating and drinking establishments; indoor golf recreation centers; public auction rooms. Enclosed skating rinks; model car hobby center including racing; enclosed historical exhibits;</p> <p><u>Retail Establishments</u> – Antique store; commercial art gallery; candy/ice cream store; toy store; newsstands; drug stores; record stores; gift shop, photographic equipment store; music store; delicatessen; book store; jewelry store</p> <p><u>Public Service Establishments</u> – Police stations; sewage pumping stations</p> <p><u>Automotive Establishments</u> – Public parking lot or garage of less than 150 spaces</p>
Use Group 13	C7, C8, M1, M2, M3	<p><u>Amusements, Open or Enclosed</u> – Overnight or outdoor day camps; children's amusement parks (less than 10,000 SF in area); commercial beaches and pools; golf driving ranges or miniature golf courses; outdoor ice and roller skating rinks or skateboard parks; theaters</p> <p><u>Retail or Service</u> – Banquet halls, catering establishments, refreshment stands;</p> <p><u>Service Establishments</u> – boat fuel sales, open or enclosed</p>
Use Group 14	C2, C3, C7, C8, M1, M2, M3	<p><u>Retail or Service</u> – Bicycle sales, rental or repair shops; boat fuel sales open or enclosed; non-commercial boat launching facilities; boat rentals; boat showrooms and sales; boat storage, repair or painting and incidental sale of boats, boat parts and accessories; candy or ice cream stores; docks for sightseeing, excursion or sport fishing; docks for water taxis (vessel capacity up to 99 passengers); docks and mooring facilities for non-commercial pleasure boats; Fishing tackle or equipment sales or rental; sale or rental of sporting goods or equipment including instruction in skiing, sailing or skin diving, sail making establishments</p> <p><u>Clubs</u> – Non-commercial clubs</p>
Use Group 15	C7	<p><u>Amusements</u> – Arcades; animal exhibits; children's amusement park; ferris wheels, roller coasters, merry go rounds, parachute jumps or similar midway attractions; open booths with games of skill or chance; freak shows, wax museums or similar open or enclosed midway attractions;</p>
Use Group 16	C8, M1, M2, M3	<p><u>Retail or Service Establishments</u> – Trade Schools for adults; tool, die or pattern making; horse stables; sign painting shops; Silver plating shops; welding shops; motorcycle and scooter rental; poultry processing for retail sale; Riding academies; Machinery sales and rental; animal or human crematoriums; carpentry, custom woodworking or custom furniture making shops; fuel, ice, oil, coal or wood sales limited to 5,000 SF of lot area; electrical, glazing heating, painting, roofing, plumbing and similar uses; building materials sales limited to 10,000 SF lot; automobile, motorcycle, trailer, boat sales; animal hospital or kennel;</p> <p><u>Automotive Service Establishments</u> – Automobile, truck, motorcycle or trailer repairs; automobile laundries; auto service station (lubrication, washing or repair must be conducted inside)</p>

		<p><u>Vehicle Storage Establishments</u> – Commercial or public utility vehicle storage including accessory fuel pumps; dead storage of motor vehicles; public transit yards including accessory fuel pumps;</p> <p><u>Heavy Service, Wholesale or Storage Establishments</u> - Carpet cleaning establishments; dry cleaning or cleaning and dyeing establishments; laundries; linen, towel or diaper supply establishments; moving or storage establishments; packing or crating establishments; Trucking terminals or motor freight stations of not more than 20,000 SF of lot area; warehouses; wholesale establishments.</p>
<p>Use Group 17</p>	<p>M1⁵, M2</p>	<p><u>Service or Wholesale Establishments</u> – Building materials or contractors' yards including sales, storage or handling of building materials, (lumber yards limited to 20,000 SF lot); wholesale produce or meat markets;</p> <p><u>Manufacturing Establishments</u> – Adhesives; advertising displays, aircraft including parts; metal stamping or extrusion; metal finishing, plating cleaning, heat treatment or similar processes; motorcycles including parts; ink or inked ribbon, luggage, laboratories, leather products; hosiery; hair, felt or feather products; electrical supplies, photographic film; food products; electrical appliance and equipment assembly; cosmetics; cork products; canvas products, carpets; ceramic products, chemicals – compounding or packaging; orthopedic or medical appliances; optical equipment, musical instruments; pharmaceutical products; paper products; plastic products; printing or publishing; sporting or athletic equipment; textiles; tools or hardware; toys; umbrellas, upholstering; wax products; wood products</p> <p><u>Miscellaneous Uses</u> - Agriculture including greenhouses, nurseries or truck gardens; docks (excluding gambling vessels); public transit, railroad or electric utility substations; railroad rights of way, freight terminals, yards or appurtenances; truck weight stations; trucking terminals or motor freight stations.</p>
<p>Use Group 18</p>	<p>M3</p>	<p><u>Manufacturing Establishment</u> – Asphalt or asphalt products; alcoholic beverages or breweries; brick, tile or clay; cement; chemicals including hazardous compounds; fertilizers; foundries; coal, coke or tar products; glass products including structural or plate glass; grain milling; gypsum; graphite or graphite products; heavy machinery; incinerators; fungicides, insecticides, disinfectants or related chemical compounds; meat packing; metal or metal ore reduction/refining/smeltering; metal casting or foundry; monument works; petroleum refining; paint, varnish or turpentine production; railroad equipment; handling & storage of radioactive waste; ship building; steel mill; stock yards; wood or lumber processing; paper mills;</p> <p><u>Storage or Miscellaneous Uses</u> – coal or gas storage; dumps, marine transfer stations; power plants; explosives storage; gas manufacturing plants; scrap metal and salvage yards; grain storage; lumber yards; petroleum or petroleum products; refrigeration plants;</p>

Source: City of New York Department of Planning Zoning, 2016. Adapted by Kimley Horn and Associates.

The City Zoning Resolution incorporates the pyramiding of uses into its provisions. This concept allows for uses in a less intensive zoning classification, say for instance R1, to be considered as permitted uses in more intensive/high density zoning classifications, for instance R8. This is generally not a significant issue when considering uses in the same general category of use, for example within the general category of residential development. Where it can be a concern in relation to noise compatibility planning is when noise sensitive uses are permitted as a right

within other categories of zoning that are typically considered to be compatible with higher levels of aviation related noise. As can be seen in Figure 3-1, the City of New York Zoning Resolution permits as a right an array of residential land uses within all but two of the commercial zoning districts.

The issue from a noise compatibility standpoint is related to the fact that areas zoned and developed for commercial purposes are typically considered to be compatible with aircraft noise levels of DNL 65 dB and, in a number of cases, higher. Residential uses, however, are not generally deemed compatible with noise levels at and above the DNL 65 dB level. Under the City of New York Zoning Resolution, residential uses are permitted in all commercial districts with the exception of the higher density/intensity C7 and C8 zoning classifications with the size of the residential building or portion of a mixed-use being controlled by the bulk requirements of a specified equivalent residential zoning classification. For example, the R6 residential classification is the residential equivalent to be used for determining density/bulk requirements for residential land uses developed within the C4-2 and C4-3 districts. Residential equivalents are listed for an array of commercial districts and sub-districts in the Zoning Resolution and these are delineated in a full listing of the residential equivalents for residential development in commercial zoning districts in **Table 7-2**.

**TABLE 7-2
RESIDENTIAL BULK EQUIVALENCIES FOR COMMERCIAL ZONING DISTRICTS**

Commercial Zoning District	Applicable Equivalent Residence District for Density and Bulk Requirements
C3	R3-2
C4-1	R5
C4-2, C4-3, C6-1A	R6
C4-2A, C4-3A	R6A
C1-6, C2-6, C4-4, C4-5, C6-1	R7
C1-6A, C2-6A, C4-4, C4-5A	R7A
C4-5D	R7D
C4-5X	R7X
C1-7, C4-2F, C6-2	R8
C1-7A, C4-4D, C6-2A	R8A
C1-8, C2-7, C6-3	RD
C1-8A, C2-7A, C6-3A	R9A
C6-3D	R9D
C1-8X, C2-7X, C6-3X	R9X
C1-9, C2-8, C4-6, C4-7, C5, C6-4, C6-5, C6-6, C6-7, C6-8, C6-9	R10
C1-9A, C2-8A, C4-6A, C4-7A, C5-1A, C5-2A, C6-4A	R10-A
C6-4X	R10-X

Source: Zoning Resolution, Article III Commercial District Regulations, Chapter 4 Bulk Regulations for Residential Buildings in Commercial Districts.

Attachment A

Land Use and Zoning Details by Borough and Neighborhood

LAND USE AND ZONING DETAILS

by Borough and Neighborhood

1.0 Land Use within the Study Area

1.1 Borough of the Bronx

A significant area of the Bronx, comprising almost the entire southern half of the borough, is located within the Study Area. The following provides a more detailed overview of land uses on a neighborhood by neighborhood basis in the southern portion of the Bronx (see Figure 1-1 though Figure 1-3).

1.1.1 Mott Haven Neighborhood

Mott Haven is a primarily residential neighborhood in the southwest end of the Bronx. It is comprised of a relatively small geographic area while having an estimated 68,000 residents. As a result, while being primarily residential, the residential pattern is overwhelmingly multi-family in nature. The exceptions to the residential pattern occur on the west end of the area generally between Morris Avenue and the Harlem River, and along the east side of the neighborhood between Southern Boulevard and I-278. Land uses in both of these areas are predominantly industrial in nature with transportation and parking uses also being evident.

There are a limited number of outdoor recreation, cemetery or open space land uses that can be found in Mott Haven, with the primary exception being Saint Mary's Park which is in the northeast portion of Mott Haven. There are a number of institutional land uses spread throughout Mott Haven that include a number of smaller educational uses and places of worship. In addition to these smaller institutional land uses are several relatively large sections of institutional land use clearly discernible on the land use map that include the following:

- Lincoln Medical and Mental Health Center, John Peter Zenger School, Longwood Art Gallery, KIPP NYC College Preparatory – East 149th Street vicinity of Morris Avenue
- Health Opportunities High School – Grand Avenue at East 140th Street
- Samuel Gompers High School, Mott Haven Community High School, JM Rapport School for Career Development, St. Roch's Church – vicinity of Southern Boulevard and East 145th Street
- Public School 30, 40, 179 and South Bronx Charter School, Academy of Applied Mathematics and Technology and several places of worship – southeast of St. Mary's Park

A limited amount of commercial land use is delineated within Mott Haven, however there are two small clusters. The first of which is in the south/southeast section of Mott Haven in the vicinity of St. Ann's Avenue and East 137th and 138th streets, and the second concentration is in the north central section of Mott Haven in several blocks around Third Avenue and south of 149th Street.

1.1.2 Port Morris Neighborhood

The Port Morris neighborhood is located on the southwest end of the Bronx bordered by the Harlem River on the west and Bronx Kill and the East River to the south. To the north, the neighborhood is generally bordered by the alignment of Interstate 87 and Interstate 287. Land use within the Port Morris area is identified as being almost exclusively industrial in nature, with the second largest land use category consisting of transportation and utilities with a significant portion of those uses being associated with rail lines and rail yards. A small number of limited multi-family uses are located along the south side of Interstate 87 to the west of the Interstate 87/Interstate 287 interchange.

1.1.3 Hunts Point Neighborhood

Hunts Point is located to the east of Port Morris along the north side of the East River and is bordered on the north/northwest by the alignment of Interstate 287 and on the east by the Bronx River. The Hunts Point area of the Bronx is dominated by industrial land uses focused on large warehousing facilities with a number of food distribution centers along with the New Fulton Fish Market in the eastern third of the area. Industrial uses also predominate through the southern half and west side of the Hunts Point area. A limited cluster of predominantly multi-family residential uses with interspersed single-family units are located in the north central portion of Hunts Point. This cluster of residential use is located around the intersection of Lafayette Avenue and Hunts Point Avenue and Spofford Avenue and Hunts Point Avenue.

South of Hunts Point, in the middle of the East River, is Rikers Island which is part of the Bronx. While not technically a part of the Hunts Point neighborhood, Rikers Island is located the closest to Hunts Point of any other portion of the Bronx. The entire island is classified as an institutional land use based on the island's use as the primary correctional facility in the City of New York.

1.1.4 Clason Point Neighborhood

Clason Point is located east of Hunts Point bordered by Lafayette Avenue on the north, the Bronx River on the west and Westchester Creek/Pugsley Creek to the east. Land use in the Clason Point area is dominated by a combination of residential land uses and by outdoor Recreation and open space. Soundview Park comprises a large area along most of the west side of Clason Point, while Pugsley Creek Park is located on the east side along Westchester Creek.

A cluster of institutional land uses are identified along the northeast side of the Clason Point area which are associated with the Public Intermediate School 174/Archimedes Academy for Math, Science and Technology Applications, the Kips Bay Boys and Girls Club, Public School 182 and a U.S. Post Office. Additional institutional land uses are clustered in the north central portion of Clason Point along the east side of Soundview Avenue at its intersection with Randall Avenue.

These uses include a public library, the Holy Cross Roman Catholic Church, the Church of Jesus Christ of New York and an annex to Public School 69.

Multi-family residential uses in the Clason Point area are concentrated in the north/northwest section of the neighborhood and on the southern tip of the neighborhood in an area identified as Shorehaven. Additionally, small multi-family areas are scattered throughout other portions of the Clason Point area that are typified by a predominance of single-family and two-family residential land uses.

1.1.5 Castle Hill Neighborhood

Castle Hill is primarily a residential neighborhood geographically located in the south central section of the Bronx. As noted, residential uses are predominant in the neighborhood with a concentration of high rise multi-family residential uses occupying a five block section in the center of the neighborhood. Other smaller multi-family land uses are scattered and interspersed within primarily single- and two-family residential neighborhoods located to the north and south of the major multi-family concentration in the center of Castle Hill. The two primary concentrations of institutional uses in Castle Hill include the following:

- Adlai E. Stevenson High School, the Bronx Compass High School – Lafayette Avenue at Pugsley Avenue
- Public School 138 – Lafayette Avenue at Olmstead Avenue
- YMCA – Zerega Avenue at Castle Hill Avenue
- Dr. Katharine Dodge Brownell Special Education School – Lacombe Avenue at Castle Hill Avenue
- St. Andrews House Assisted Living – Virgil Place at Castle Hill Avenue
- Equality Charter High School – Seward Avenue at Castle Hill Avenue
- Kips Bay Boys and Girls Club and Dr. Richard Green Learning Center – Randall Avenue at Castle Hill Avenue

Other institutional land uses of a more limited size are depicted on the land use.

The west boundary of the Castle Hill area is comprised of open space and outdoor recreation uses associated with the Bronx Guild Orchard and athletic fields just south of Stevenson High School and east of the Kips Bay Boys and Girls Club. South of the athletic fields and south of Lacombe Avenue is an area of open space at the upper end of Pugsley Creek and Castle Hill Park that wraps around the southern end of the island ultimately abutting the YMCA facility.

On the east side of the Castle Hill neighborhood between Havemeyer Avenue and Westchester Creek, and south of Lacombe Avenue between Zerega Avenue and Westchester Creek, are concentrations of industrial uses and transportation uses (bus parking/storage yards).

1.1.6 Throgs Neck Neighborhood

The Throgs Neck neighborhood is located in the southeastern section of the Bronx and is bordered by the Cross Bronx Expressway and Interstate 95 generally on the north, Westchester Creek on the west, the East River to the south and Long Island on the east. Single and two-family residential land uses are the predominant land use classification that is evident in the Throgs Neck area.

Smaller areas of multi-family residential land uses are scattered and intermixed with the predominantly single-family residential areas in the eastern two thirds of Throgs Neck. There are also two more concentrated areas of multi-family use that are evident on the land use map. The most significant of the two concentrations abuts the south side of St. Raymond's Cemetery and the east boundary of a portion of the Trump Links Golf Course. This area is comprised almost exclusively by high rise multi-family housing provided through the New York City Housing Authority. Further to the south along the north shore of the East River is the second smaller concentration of multi-family use located approximately three to six blocks east of the south end of the Trumps Links Golf Course.

Significant outdoor recreation, cemetery and open space land uses are located in the west-southwest portion of Throgs Neck. To the south-southeast of the intersection of Interstate 295 and Interstate 678 is St. Raymond's Cemetery. To the south-southwest of the cemetery is a large expanse of parkland associated with the Ferry Point Park and the Trump Links Golf Course which combined occupy most of the southwest end of Throgs Neck.

North of Ferry Point Park between Westchester Creek and Interstate 678 a mix of industrial land uses and commercial development exists that extends up to the north boundary of the Throgs Neck area. Within this commercial/industrial area is one institutional land use comprised of the Monsignor Scanlan High School situated in the northwest quadrant of Interstate 678 and Lafayette Avenue intersection. A second clear concentration of commercial land use consists of a line of smaller individual commercial uses located along both side of Tremont Avenue from Miles Avenue on the south and Interstate 95 to the north.

In addition to the Monsignor Scanlan High School, whose location was described previously, several other institutional land uses that can be readily seen on the land use map within Throgs Neck include:

- St. Benedicts School – Edison Avenue at Greene Place
- New York City Public Library – Tremont Avenue at Cross Bronx Expressway
- Preston High School – North shore East River at Brinsmade Avenue
- St. Francis De Chantal Church and School, Little Sisters of the Poor, Monastery of the St. Claire, Sisters of Life – vicinity of Harding Avenue and Hollywood Ave., South Bronx
- Dr. William Dorney School, P.S. 72 – Dewey Avenue between I-695 and I-295

- Mott Hall Community School, Urban Institute of Mathematics, UA Academy of Civic Engineering, Throgs Neck Extended Care – vicinity of Randall Avenue and I-695
- Bronx Middle School 304 – south side of Lafayette Avenue and east side of I-295
- SUNY Maritime College, U.S. Navy Reserve, Maritime Industry Museum of Fort Schuyler – Throgs Point

Smaller institutional uses including numerous places of worship are scattered at various locations in Throgs neck.

1.1.7 East Concourse, West Concourse, Concourse City Neighborhood

The Concourse neighborhoods encompass a large area of the southwest section of the Bronx. Combined East, West Concourse and Concourse City are bordered by the Cross Bronx Expressway (I-95) on the north, the Highbridge neighborhood and the Harlem River to the west/southwest and generally by Webster Avenue and the Harlem Line metro-north rail corridor.

The predominant land use within the neighborhoods comprising this area is multi-family residential with only small scatterings of single-family being evident. Of these small single-family land uses the most prevalent area where these occur is at the southern end of Claremont Park generally between East 169th and East 170th Streets.

Commercial land uses in the Concourse neighborhoods can be found concentrated in the vicinity of the intersection of East 167th Street and Jerome Avenue and to the east along the north and south sides of Jerome Avenue. An additional concentration of commercial uses is situated along East 161st Street from Yankee Stadium east past the Bronx Public Administration building and including the Concourse Plaza development and continuing to the Harlem MTA line on the east side of the neighborhood. Significant commercial uses are also evident on the land use map near the southern end of the Concourse Neighborhoods. This commercial concentration is associated with the Gateway Center development that lies adjacent to the east right-of-way line of the Deegan Expressway (I-87) and to the north of East 150th Street.

Industrial land uses are limited in the Concourse neighborhoods and, based on the City of New York land use data, industrial uses in the area are generally concentrated at the southern end of the neighborhood in the immediate vicinity of the Gateway Center.

Just south of the Cross Bronx Expressway along both sides of Mt. Eden Avenue are various small retail, restaurant and service related commercial uses that extend from Grand Concourse westward to Inwood Avenue. The final significant concentration of commercial uses lies along both the north and south sides of East 170th Street from the south end of Claremont Park west to the vicinity of Inwood Avenue and then again at the intersection of East 170th Street and the Edward L Grant Highway.

A number of outdoor recreation/open spaces are evident in the Concourse neighborhoods. Three of these are located at the southern end of the Concourse area and include Mill Pond Park which is located along the east shore line of the Harlem River north of the 145th Street Bridge. To the north-northeast of Mill Pond Park is a concentration of outdoor recreation land uses that includes Heritage Field, Macombs Dam Park, Yankees Stadium and Mullaly Park which is to the north of the stadium. Joyce Kilmer Park and Franz Sigel Park, both of which border the west side of Grand Concourse are located to the east and southeast of Yankee Stadium.

Within the Concourse neighborhoods are a number of major institutional uses. These include a large number of places of worship scattered throughout the neighborhood, an array of governmental facilities including police and fire stations, the Bronx Criminal and Supreme Court, the Bronx County Public Administration Building as well as the schools and institutional uses listed below:

- William Howard Taft Educational Campus – 170th Street between Claremont Park and Grand Concourse
- Bronx-Lebanon Hospital Center and Grand Concourse Library – East 173rd Street at Grand Concourse
- P.S. 170 – Townsend Avenue, north of East Mt. Eden Avenue
- Comprehensive Model School Project MS 327, New Settlement Community Center – Goble Avenue at West 172nd Street
- P.S. 199 the Shakespeare School – Shakespeare Avenue at West 172nd Street
- The Walton Avenue School – Walton Avenue at East 171st Street
- Church of Christ the King, Christ the King Elementary School – Marcy Place at Grand Concourse
- P.S. 053 Basheer Quisim School, Church Alive Community Church – vicinity of Findlay Avenue at East 168th Street
- Daughters of Jacob Nursing Home – Teller Avenue at East 167th Street
- Jordan L. Mott Middle School 22 – East 167th Street at College Avenue
- The Bronx Museum of the Arts – Grand Concourse at East 165th Street
- Concourse Rehabilitation and Nursing Center – Grand Concourse at East 166th Street
- P.S./I.S. 218 – East 167th Street at Walton Avenue
- P.S. 114 Luis Lorens Torres School – between Cromwell and Jerome Avenues south of East 167th Street
- All Hallows High School – Walton Avenue south of East 165th Street
- Cardinal Hayes High School, Kipp Academy Elementary School, Urban Assembly School for Careers in Sports, Bronx Leadership Academy II/New Explorers High

School, PS 359 Concourse Village Middle School, William Lloyd Garrison Middle School – Concourse Village W south of East 156th Street

- Bronx School for Law, Government and Justice, Franz Sigel Public School, Grant Avenue Elementary School, St..Angels Roman Catholic Church and St. Angels Merici School, New York Public Library – vicinity of Morris Avenue and East 163rd Street
- Arturo Toscanini Junior High School JHS 145 – East 165th Street at Clay Avenue
- George Meany P.S. 90 – McCellan Street at Sheridan Avenue

1.1.8 Morrisania-Melrose Neighborhood

The Morrisania-Melrose neighborhood is best described by referencing the neighborhoods that border this area. The western boundary of the neighborhood is defined by the Concourse neighborhood from East 149th Street, which is also the southernmost boundary of the Morrisania-Melrose neighborhood, to East 168th Street, as well as part of the Claremont neighborhood. The eastern boundary is defined by the boundaries of the Woodstock neighborhood and the Foxhurst neighborhood, while the northern boundary is established by the boundary of East Crotona Park neighborhood.

Residential use accounts for the majority of the land use within the Morrisania-Melrose neighborhood and of this category, multi-family land uses comprise approximately 80 to 85 percent of the residential category. Single and two-family residential uses are generally scattered, consisting of a small portion of individual blocks in the neighborhood with the only concentration of single and two-family use, albeit a small concentration, occurring in the vicinity of Tinton and Forest Avenues between East 166th Street and East 168th Street.

As is the case in virtually all of the neighborhoods that are discussed, it is recognized that many of the areas that are identified as multi-family in many cases likely have commercial uses on the first floor while the overriding use is residential and that results in their being classified as multi-family. Areas where commercial uses are the predominant activity can be found in several areas of the neighborhood. These include the west side of Prospect Road and in particular the vicinity of the Westchester Road and Prospect Road intersection and the area around the intersection of Prospect Road and Boston Road.

A large concentration of commercial land use can also be found from East 168th Street at Third Avenue south in the blocks along both sides of Third Avenue to the area around the Old Bronx Borough Courthouse at East 161st Street. To the west of this area is another concentration of commercial uses that are situated in a several block area around East 161st Street and Melrose Avenue. The largest commercial area in the Morrisania-Melrose neighborhood is located along the west side of Third Avenue from East 156th Street south to East 149th Street and then west along East 149th Street to Park Avenue and includes both local commercial businesses and national brands.

Industrial land uses are not evident in the area, or at least are not of a sufficient size to be discernible given the scale of the land use mapping base. Regardless, it is clear that this

neighborhood does not have a significant amount of industrial use of any category within its general boundaries.

The Morrisania-Melrose area has a number of institutional uses scattered throughout the neighborhood. These include public service facilities including police and fire stations, Borough of the Bronx municipal facilities and an estimated 40 places of worship. A number of these uses cannot be easily discerned on the base mapping due to the required scale of the land use map and a number of these are listed below:

- Bronx Lebanon Hospital Center – Franklin Avenue at East 169th Street
- Morris Academy for Collaborative Studies – Edward A. Stevenson Avenue at East 166th Street
- Montefiore Medical Center – Prospect Avenue at East 163rd Street
- Bronx Latin School, Intermediate School 158 – Home Street at Tinton Avenue
- Urban Scholars Community School P.S. 212 – Tinton Avenue at East 168th Street
- New Visions Charter High School for Advanced Math and Science II – Union Avenue north of East 161st Street
- M.S. 301 Paul L. Dunbar Middle School – East 161st Street at Trinity Avenue
- P.S. X140 the Eagle School – East 163rd Street at Eagle Avenue
- P.S. 146 Edward Collins School – Hilton White Way at East 165th Street
- Bronx International High School – East 166th Street at Edward Stevenson Boulevard;
- RT Hudson Elementary School – Forest Avenue north of East 166th Street
- Bronx Public Library – East 169th Street at Franklin Avenue
- P.S. 63 Author's Academy, Mott Hall Charter School – Franklin Avenue at East 169th Street
- Alfred E. Smith High School – East 151st Street west of Courtland
- Immaculate Conception School and Church – Melrose Avenue at East 151st Street
- Melrose Mott Have Senior Citizens Housing – Melrose Avenue west of East 152nd Street
- P.S. 1 Courtlandt School – East 152nd Street at Governor Smith Playground
- P.S. 29 Middle School Courtlandt at East 156th Street

Areas of outdoor recreation or open space use are typified by a number of generally smaller playgrounds and community gardens that, in the case of the playgrounds, are in several cases located adjacent or in close proximity to schools in the neighborhood. The larger outdoor recreation land uses in the neighborhood consist of the Governor Smith Playground located east of Morris Avenue between East 151st and East 153rd Streets and the Basil Behagan Playground located between Tinton Avenue on the west and Union Avenue on the east and between East 165th

and East 166th Streets. An additional 23 parks, areas of open space and community gardens were identified within the neighborhood.

1.1.9 Woodstock Neighborhood

The Woodstock neighborhood is bordered by 149th Street on the south, Interstate 278 on the east, Third Avenue on the west and East 163rd Street on the north. Similar to the Mott Haven neighborhood to the south, Woodstock is predominantly residential in nature and, as with Mott Haven, the residential uses are mostly multi-family residential in nature. The multi-family residential pattern is broken up by several blocks of single and two-family land use in the north-northwest section of Woodstock and by a number of institutional land uses of a city block in size or more.

Two small clusters of commercial use are discernible; the first is in the southwest corner of Woodstock in the vicinity of Third Avenue and East 149th Street. The second area of commercial use is centered in a small cluster around the intersection of Prospect Avenue and Longwood Avenue in the immediate vicinity of the Prospect Avenue Green and Red Line MTA station.

As noted, there are a number of institutional land uses spread throughout the Woodstock neighborhood. Several of the larger institutional uses and combination of uses are listed below:

- Horizon Juvenile Center, Junior High School 162, University Prep Charter High School, US Post Office, Crotona Academy High School, University Heights High School & Dodge Vocational High School – vicinity of Brook Avenue and St. Ann’s Avenue between E 149th and E 156th Streets
- Public School 140, Paul L. Dunbar Middle School (MS 301)/Girls Prep Bronx Charter School – Trinity and Cauldwell Avenue at E 163rd Street
- New Visions Charter High School for Advanced Math and Science – E 163rd Street at Trinton Avenue
- Jill Chaifetz Transfer High School, Bronx Spanish Evangelical Church – vicinity of Trinton Avenue at E 156th Street
- Bronx Elementary School #161, P.S. 25 Bilingual School , Maria Isabel Senior Center– between Union and Tinton Avenues and E 149th Street and E 152nd Street
- P.S. 333, The Museum School, St. Vincent De Paul Nursing Home, Banana Kelly High School – immediate vicinity of Rainey Park

1.1.10 Foxhurst Neighborhood

The Foxhurst neighborhood is defined by East 163rd Street on the south, Prospect Avenue on the west, Louis Nine Boulevard on the north and Interstate 278 and Interstate 895 on the east. Residential land uses are the dominant category in the Foxhurst neighborhood with the single and two-family residence category being more prevalent in the northern two-thirds of the neighborhood. The heaviest concentration of multi-family residential development is generally located in the south and southeastern third of the neighborhood, generally to the south of Westchester Avenue and West Farms Road. Additional multi-family residential can be found

scattered throughout the single and two-family uses in the northern two-thirds of the neighborhood.

Commercial land uses are generally focused along Westchester Avenue from East 163rd Street northeast to Southern Boulevard and along Southern Boulevard south to East 163rd Street. Additional, but more scattered, commercial uses are located along Southern Boulevard north of Westchester Avenue. An area of mixed commercial and residential use is located in the southwest corner of the neighborhood between Westchester Avenue and East 163rd Street and extending eastward to the vicinity of Tiffany Street.

A number of institutional land uses are located in the Foxhurst neighborhood including a number of storefront and free-standing places of worship of numerous denominations. Several of these places of worship are situated in the northern portion of the neighborhood with others spread throughout the area. The larger institutional land uses that can be seen on the land use map include, but are not limited to, the facilities listed below:

- Bronx Elementary School P.S. 150 – Wieher Court at Tiffany Street
- South Bronx Classical Charter School – Westchester Avenue at Tiffany Street
- Bronx Regional High School and Bronx Lighthouse Charter School – vicinity of the intersection of Rogers Place and E 165th Street
- Bronx Elementary School – Bruckner Blvd at Faile Street
- P.S. 134, George F. Bristow School – Jennings Street at Bristow Street
- Bronx Music Heritage Center Laboratory – Louis Nine Boulevard near its intersection with Southern Boulevard
- Metropolitan High School – Rev. James A Polite Avenue, south of Home Street

The Foxhurst area does not include any large scale outdoor recreation facilities, open space or cemeteries within the neighborhood. Outdoor recreational facilities are typified by generally small community parks and playgrounds that are scattered throughout the neighborhood and in some cases co-located with school facilities. Examples of these smaller neighborhood park/playgrounds include Concrete Plant Park along the east side of Interstate 895, Stebbins Playground next to the Bronx Regional High School, Printers Park on Hoe Avenue south of Westchester Avenue, and the Reverend Polite Playground co-located with the Metropolitan High School.

1.1.11 Soundview Neighborhood

Soundview is a neighborhood that is geographically located in the Clason Point section of the Bronx. The border of the neighborhood is defined by LaFayette Avenue on the south and Westchester Avenue on the north. The west border is comprised of the Bronx River while the eastern boundary of the neighborhood is defined by White Plains Road.

Soundview is a relatively small neighborhood but has an estimated population of approximately 32,000 residents. Land use in the area is heavily dominated by residential uses and in particular

multi-family residential which represents the vast majority of residential land uses with the sole exception of the northeastern corner of the Soundview area where a slightly greater mix of single and two-family residential uses can be discerned.

Commercial land uses in Soundview are found primarily along Westchester Avenue, along Sound View Avenue from Interstate 278 south to LaFayette Avenue. A small concentration of commercial land use is located on and around the Bruckner Plaza area to the immediate southwest of the Bronx River Parkway and Interstate 278. A final concentration of commercial use is located along the east side of White Plains Road between Lafayette Avenue and Interstate 278.

Institutional land uses are somewhat limited in the Soundview area and include the typical mix of places of worship, government agency offices and public facilities such as police stations and a branch library. Places of worship in the neighborhood include but are not limited to the Blessed Sacrament Church, Bronx Pentecostal Deliverance, Kingdom Hall of the Jehovah Witnesses, Mt. Zion CME Church and Green Pastures Baptist Church. Some of the larger institutional uses discernible on the land use map consist of the following:

- Bronx Arena High School – southwest Soundview, Story Avenue at Colgate Avenue
- P.S. 93 Albert G Glover School - southwest Soundview, Story Avenue at Elder Avenue
- P.S. 100 Isaac Clason School – southeast Soundview, Lafayette Avenue at Taylor Avenue
- JHS 131 Albert Einstein School – southeast Soundview, Story Avenue at Underhill Avenue
- JHS 123 James M. Kiernan School – northwest quadrant of the Bronx River Parkway and I-278 interchange
- P.S. 152 – Bruckner Boulevard at Evergreen Avenue

1.1.12 Unionport Neighborhood

The Unionport Neighborhood is generally defined by White Plains Road on the west, Lafayette Avenue on the south, Westchester Creek on the east and Westchester Avenue and Waterbury Avenue on the north. The Unionport neighborhood is dominated by a mix of single, two-family and multi-family residential land uses that occupy a significant majority of the land uses in the area. Unlike the Soundview neighborhood located to the immediate west of Unionport, residential land uses in Unionport consist of an approximately 60/40 split of single and two-family versus multi-family with all residential development located within the western 80 percent of the neighborhood.

The eastern 20 percent of Unionport is comprised of a combination of limited commercial use, industrial land uses and transportation related land uses. These uses are located along both sides as well as to the east of Zerega Avenue. Commercial land uses are generally focused along the south side of Westchester Avenue and in the southwest corner of the Unionport neighborhood

where a large block of commercial land use is situated, and associated with the Bruckner Plaza development. Bruckner Plaza includes a large number of small retail shops along with several large box anchor stores including K-Mart, Toys-R-Us and Babies-R-Us.

The Unionport neighborhood does not have any large outdoor recreation, cemetery or open space land uses. Several institutional facilities are located within the neighborhood including those noted below:

- Rebekah Rehab Extended Care Facility – southeast quadrant of Havemeyer Avenue and Haviland Avenue
- P.S. 119 and the Henry Hudson Junior High School No. 123 – west Unionport, eastbound Bruckner Avenue at Elder Avenue
- Church of the Holy Family, Holy Family School, P.S. 36 Unionport – central Unionport, Pugsley Avenue at Watson Avenue
- Trinity Lutheran Church and School – central Unionport, Watson Avenue east of Olmstead Avenue
- Fourth Presbyterian Church and the Church of Jesus Christ of the Latter Day Saints – north central Unionport, Olmstead Avenue between Newbold Avenue and Ellis Avenue
- Tabernacle of Praise – Chatterton Avenue west of Olmstead

Additional institutional land uses of smaller size are not generally discernible on the base land use mapping but are located at a number of locations in the Unionport Area.

1.1.13 Highbridge Neighborhood

The Highbridge neighborhood is located in the central west section of the Bronx. The general boundaries of this neighborhood are defined by the Harlem River on the west, Interstate 95 on the north and the Edward L. Grant Highway, Jerome Avenue and a short section of the bridge approach road to the east end of the Macomb's Dam Bridge on the east. In all the neighborhood encompasses just under 400 acres or slightly less than two thirds of a square mile, but has an estimated population of 35,200 residents.

Given the relatively small size of the neighborhood and the population, it is somewhat clear that the primary land use is residential and specifically multi-family residential including a number of mid (5 to 10 story) to high rise (10+ stories) residential buildings including residential development owned by the City of New York Housing Authority on the west side of the neighborhood. Only a very small portion of Highbridge is occupied by single or two-family residential uses and this is mostly in the north-central and south-central sections of the neighborhood.

Commercial land uses in the Highbridge neighborhood are limited. Those that are delineated on the land use map are generally located along Ogden Avenue between West 161st Street and West 167th Street and in the general vicinity of the intersection of the Edward L. Grant Highway,

Jerome Avenue and East 167th Street. Industrial land uses of any significance do not show up in the Highbridge area, based on the City of New York GIS land use data.

The entire west side of the neighborhood between Interstate 87 and the Harlem River is devoted to transportation related land uses that are associated with the Metro-North rail yard and multiple rail lines that parallel the river. Outdoor recreation and open space is scattered throughout the neighborhood with a relatively large area at the south end of the neighborhood, another area of open space immediately west of the Housing Authority high rises, the Merriam Playground abutting University Avenue at West 168th Street and the Nelson Playground on Nelson Avenue at 166th Street. There are a number of smaller parks, open areas, community gardens and playgrounds at various locations around the neighborhood.

Institutional uses consist primarily of places of worship and schools, however there are other facilities that include shelters and medical and mental health care facilities located in the neighborhood. These uses include:

- Carmelite Sisters Convent – University Avenue at West 170th Street
- Shakespeare Avenue Group Home, Church of the Sacred Heart, Siena House Homeless Shelter and Sacred Heart School – vicinity of Shakespeare Avenue between West 168th and West 169th Street
- Public School 11, Union Reformed Church – Ogden Avenue at Merriam Avenue
- Bronx Task Force Police, Stadium Men’s Mental Health Center – Sedgwick Avenue at West 167th Street
- Highbridge Green School – West 167th Street at University Avenue
- P.S. 126 Dr. Marjorie H. School – West 166th Street at Ogden Avenue
- Highbridge Library – Shakespeare Avenue at West 166th Street
- Highbridge-Woodcrest Medical Center, Church of God-Woodcrest Avenue, Pilgrim Evangelical Lutheran Church – Woodcrest Avenue between Jerome Avenue and West 162nd Street
- Metropolitan Lighthouse Charger School – University Avenue at West 165th Street
- P.S. 73 – Anderson Avenue north of West 164th Street

1.1.14 Claremont Neighborhood

The Claremont neighborhood, also known as the Claremont-Bathgate neighborhood, is located in the west central portion of the Bronx. The boundaries of the area vary depending upon the source so, for this study the NYC Planning Department’s Neighborhood Tabulation Map was used. Based on this mapping, the southern half of the Claremont neighborhood is located within the Study Area for the LGA Part 150 Study effort. The boundary of the neighborhood within the Land Use Data Collection area is generally set by Hector Lavoe Boulevard on the north, Fulton Avenue on the east, Webster Avenue on the west and East 168th Street to the south.

The Claremont neighborhood has a mix of high density residential development associated with high rise residential housing managed by the Housing Authority of the City of New York and lower rise (3 to 6 story) apartments that dominate the residential category of land use. Only a very small portion of the area is identified in the single or two-family land use category. Residential uses are focused in the southern half of the neighborhood along the west boundary of Crotona Park in the portion of Claremont located in the Study Area. The northern half is dominated by a mix of land uses classified as industrial, typically light industrial and commercial. An additional small cluster of commercial land use is located near the southwest corner of Crotona Park along Third Avenue between East 170th Street and Claremont Parkway. In the north portion of the neighborhood (inside the Study Area), commercial uses are the most prevalent along East 174th Street between Morris Avenue and Clay Avenue, clustered in a triangular shaped area bordered by the Cross Bronx Expressway on the north, Clay Avenue to the west and Webster Avenue on the east. Finally, commercial uses can be found throughout the area generally defined by the Cross Bronx Expressway on the south, Webster Avenue on the west, Tremont Park on the east and Hector Lavoe/East Tremont Avenue on the north. For reference purposes, it should be noted that the north boundary of the Study Area extends in an east-west orientation across the north boundary of Tremont Park.

The Claremont neighborhood has a number of institutional land uses that are clearly evident on the base mapping along with a number of uses that, due to their limited size and the scale of the map, are not as evident. For example, a number of places of worship are not clearly discernable due to the necessary map scale. Based on a review of available data, approximately 17 places of worship were identified. In addition to these uses, a number of others were also found and are listed below:

- Bronx Leadership Academy High School – Webster Avenue at East 173rd Street
- New York City Public Library, Public School 58 – Washington Avenue at East 176th Street
- New York City Police Department – Washington Avenue at the Cross Bronx Expressway
- Crotona Park West Middle School 004 – Fulton Avenue at East 173rd Street
- I. S. 339 School of Leadership Development – Webster Avenue at Clay Avenue
- Fulton Correctional Facility – Fulton Avenue at East 171st Street
- Mott Hall High School – Washington Avenue at Claremont Parkway
- Bronx Preparatory Charter School – Third Avenue at East 172nd Street
- P.S.042 Claremont - Washington Avenue at Claremont Avenue
- South Bronx Headstart – Webster Avenue at East 171st Street
- Icahn Charter School 1 – Brook Avenue at Claremont Parkway
- Success Academy Bronx 2 – St. Paul's place at Park Avenue

- Bronx Lebanon Special Care Center – Fulton Avenue at East 169th Street
- Harriet Tubman Charter School – Third Avenue at East 169th Street
- Bronx Center for Science and Mathematics – Fulton Avenue at East 170th Street
- Fredrick Douglas Academy/I.S. 219 New Venture School – Third Avenue at East 169th Street
- Morrisania Health Center – Fulton Avenue at East 169th Street
- P.S. 55 Benjamin Franklin School – St. Paul's Place at Washington Avenue
- Garret A. Morgan P.S. 132 School – Washington Avenue at East 168th Street
- Fire Department of NY Rescue 3 and EMS station 18 – Washington Avenue south of East 173rd Street.

The Claremont neighborhood is located in immediate proximity to three large parks that are clearly discernible on the land use mapping. These consist of Crotona Park on the east of the neighborhood and abutting Fulton Avenue, Claremont Park on the west side of the neighborhood, and Tremont Park, which is located immediately north of the Cross Bronx Expressway and east of Firefighters Boulevard and Third Avenue.

Six additional small open space areas, playgrounds or community parks are located in the portion of Claremont located south of Claremont Avenue and north of East 168th Street. Three additional small open areas that include a community garden and a playground area situated north of the Cross Bronx Expressway between Firefighters Boulevard and Washington Avenue.

1.1.14 Crotona Park East Neighborhood

The Crotona Park East neighborhood is defined by a border comprised of the following boundaries: the western boundary is defined by Fulton Avenue that also forms the west boundary of Crotona Park. The north boundary of the neighborhood consists of the Cross Bronx Expressway, while the east boundary is formed by the Bronx River. The southern boundary consists of East 170th Street from Fulton Avenue on the west, east to Southern Boulevard, northeast on Southern Boulevard for four blocks to Louis Nine Boulevard and then southeast on Louis Nine Boulevard to Freeman Street and follows Freeman Street to the Bronx River.

Multi-family uses comprise an estimated 60 percent of all residential land use in the neighborhood, with the remaining 40 percent consisting of uses categorized as single and two-family. Multi-family land uses are concentrated near the northwest section of Crotona Park between the Park and the Cross Bronx Expressway, adjacent to the east side of Crotona Park generally between East 173rd Street and East Crotona Park and in the area east of Southern Boulevard. Single and two-family residential is concentrated in the remaining area north of the Crotona Park and along the south boundary of the Park and clustered in an area abutting and to the southeast of the Park. An additional limited area of single and two-family residential use is situated in the eastern part of the neighborhood generally along Longfellow and Bryant Avenues south of East 173rd Street.

A large area of commercial development is located along the south side of the Cross Bronx Expressway just east of Vyse Avenue and associated with the multi-store Stop and Shop strip commercial center. This is the largest commercial concentration in the neighborhood, however additional commercial uses are located around the Southern Boulevard and Boston Road intersection and at and around the intersection of Southern Boulevard and Louis Nine Boulevard.

A small concentration of industrial land use is depicted near the east boundary of the neighborhood located between West Farris Road and Boone Avenue and from north of East 174th Street south to East 172nd Street.

The mix of institutional uses in the Crotona Park East neighborhood is very similar to that described in other nearby neighborhoods. An estimated 30 places of worship were identified in the neighborhood along with municipal services uses. In addition to these institutional activities the following additional institutional land uses were identified:

- P186X Walter J. Damrosch School – Jennings Street at Union Avenue
- P.S. 44 – Prospect Avenue at East 176th street
- P.S. 61 – Crotona Park East at Charlotte Street
- P.S. 110 Theodore Schoenfeld School - Crotona Park South at Franklin Avenue
- East Bronx Academy for the Future – Southern Boulevard at East 174th Street
- P.S.50 Clara Barton School – Vyse Avenue north of East 172nd Avenue
- Fannie Lou Hamer Middle School, PS 811, Fannie Lou Hamer Schools – vicinity of Jennings Street and Farris Road
- Plaza Del Castillo Health Center – La 65 de Infanteria/Southern Boulevard north of Jennings Street
- The Children’s Aid Society Next Generation Center – Southern Boulevard at East 172nd Street
- Casa Boricua Senior Center – Southern Boulevard at East 172nd Street
- Bronx Envision/Explorations Academy – Edward A Stevenson/Boston Road at East 173rd Street

The Crotona Park East neighborhood’s most identifiable land use consists of Crotona Park which is classified and mapped under the Open Space, Cemeteries and Outdoor Recreation category. This park is located in the western part of the neighborhood and encompasses at least 30 percent of the land area within the neighborhood and is clearly evident on the land use base map. While Crotona Park is clearly evident, there are nine additional areas of open space and outdoor recreation in the neighborhood. The Daniel Boone Playground, located along the west side of Interstate 895 just north of Freeman Street, along with Starlight Park adjacent to the Bronx River, and Rock Garden Park located on Longfellow Avenue north of East 173rd Street, are the three next largest park spaces in the neighborhood. The remaining six parks are generally small in size and are scattered throughout the neighborhood.

1.1.15 Bronx River Neighborhood

The Bronx River neighborhood is defined by a border that consists of White Plains Road on the east, Bruckner Boulevard on the South, the Bronx River on the west and East 180th Street from the Bronx River to Tremont Avenue, and then along Tremont Avenue back to White Plains Road on the north.

Residential land uses comprise an estimated 85 percent of the identified land uses in the neighborhood. Of this amount, multi-family residential uses are estimated to account for approximately 65 percent of the residential category, while single-family and two-family residential make up the remaining 35 percent of the residential land use evident in the neighborhood. The portion of the neighborhood located south of the Cross Bronx Expressway between the Bronx River and the Bronx River Parkway displays the most intensive concentration of multi-family versus single and two-family uses, and includes the Bronx River Houses development owned by the New York City Housing Authority. The largest area of single and two-family residential in this section of the neighborhood is in the vicinity of Evergreen and Colgate Avenues south of Bronx River Avenue, with other smaller single and two-family uses scattered elsewhere in this section of the neighborhood

The section of the Bronx River neighborhood east of the Bronx River Parkway south of the Cross Bronx Expressway and north of Westchester Avenue displays a slightly less dense pattern of multi-family uses and does not appear to have a single large area of multi-family use, such as the Housing Authority development. The multi-family uses in this area consist of numerous smaller, three to seven story buildings developed on individual lots, with single and two-family dwellings interspersed throughout the area.

The area of the Bronx River neighborhood north of the Cross Bronx Expressway, west of White Plains Road and South of Tremont Avenue has multi-family uses concentrated in its eastern half generally from Beach Avenue east four blocks to White Plains Road and to both the north and south of Archer Street. A second smaller area of multi-family use is located just east of the Bronx River Parkway fronting on Noble Avenue south of Mansion Street. This area is comprised of the Noble Mansion apartments. This section of the Bronx River neighborhood has a more even mix between single and two-family residential development, versus multi-family development when compared to the previous two areas.

Commercial land uses in the Bronx River neighborhood are generally located along the main arterial streets, notably Tremont Avenue, and Westchester Avenue with the largest cluster of commercial land use being along Tremont Avenue between the Bronx River and the Bronx River Parkway. Other very small commercial nodes comprised of small restaurants and neighborhood uses are located in a few areas within the neighborhood including along Archer Street, east of Beach Avenue, East 174th Street at Manor Avenue and East 172nd Street near Rosedale Avenue. Industrial land uses are not in evidence within the neighborhood and transportation and parking uses are generally associated with the expressways and with noted commercial areas.

Institutional land uses are comprised of a mix of an estimated 21 places of worship a single public library and several educational facilities. The places of worship include a mix of freestanding and

storefront facilities. Educational and other institutional facilities and the library are delineated below:

- Monroe Academy for Visual Arts and Design, Business and Law – Boynton Avenue at East 172nd Street
- Bronx Little School, the Cinema School, Icahn Charter School – Manor Avenue at East 172nd Street
- Wings Academy – East 180th Street at Bronx Park Avenue
- Bronx Little Elementary School – Taylor Avenue at Archer Street
- P.S. 195 – Ward Avenue south of East 172nd Street
- East Tremont Head Start – Manor Avenue south of East 172nd Street
- New York City Public Library – Morrison Avenue north of Westchester Avenue
- P.S. 47 John Randolph School – St. Lawrence Avenue at East 172nd Street
- St. Anthony's Head Start – Mansion Street at Commonwealth Avenue

Outdoor recreation and open space land uses are not as extensive in the Bronx River neighborhood as they are in other neighborhoods and are comprised of four playgrounds, one park and one landscaped bus stop triangle. The largest of these areas is Starlight Park, located along both banks of the Bronx River and extending from south of East 172nd Street, north crossing under the Cross Bronx Expressway, and ending at East 177th Street. Noble Playground is the next largest outdoor recreation area in the neighborhood and is located in the northeast quadrant of the Cross Bronx Expressway and Bronx River Parkway. Other areas include Playground 114 located within the Housing Authority's Bronx River Houses development and Taylor Playground co-located with the Bronx Little Elementary School.

1.1.16 Parkchester Neighborhood

The Parkchester area is a planned community originally developed by the Metropolitan Life Insurance Company and located in the southeast Bronx. Parkchester is approximately one square mile in size, but within that area are over 26,000 residents. The vast majority of the Parkchester neighborhood is comprised of multi-family and mixed-use development associated with the original planned development. These areas comprise approximately 80 percent of the area within Parkchester. A mix of single-family and additional multi-family development is located along the south and east sides of the neighborhood that lie outside of the large scale multi-family development area.

The mixed-use portion of Parkchester has extensive commercial land uses located along with the multi-family components. These commercial uses are located in a planned commercial area along both sides of Metropolitan Avenue in the west/southwest side of Parkchester. Additional commercial uses are located along the north side of Westchester Avenue and in the southeast corner of the neighborhood along Unionport Road and along the west side of Castle Hill Avenue.

Institutional uses within Parkchester are limited and are concentrated in three sections of the community. Institutional uses and their location are delineated below:

- Bronx Charter School for Excellence, Parkchester Library – southwest end of neighborhood northwest of Westchester Avenue and Pugsley Avenue intersection
- St. Raymond High School for Boys, Castle Hill Middle School, Linden Tree Elementary School, P.S. 106 – east side of Parkchester along St. Raymonds Avenue between Castle Hill Avenue and Olmstead Avenue
- St. Raymond’s Church, St. Raymond’s Academy for Girls, St. Raymond Elementary School, St. Raymond’s Convent – northeast Parkchester, East of Castle Hill Avenue and in the vicinity of Metropolitan Avenue

1.1.17 Westchester Square Neighborhood

Westchester Square is a mostly residential in nature with a mix of single-family, two-family, and multi-family land uses that are concentrated in the western and northwestern section of the neighborhood. The composition of the housing mix is roughly a 50/50 split between single and two-family units and higher density multi-family structures. Unlike Parkchester to the immediate west, multi-family uses in the Westchester area are mixed in with the single and two-family uses with only a couple of concentrated multi-family developments being evident.

The eastern 40 percent of the Westchester neighborhood is comprised of commercial land uses with a limited mixing of some industrial, and a large transportation land use consisting of a major railroad yard. The commercial uses are generally found in a commercial core surrounding a portion of Westchester Square where Eastchester Road, East Tremont Avenue, Blondell Avenue, Williamsbridge Road and Commerce Avenue come together. Institutional uses identified within the Westchester Square neighborhood and their locations are delineated below:

- St. Peters Espicopal Church and Cemetery – Westchester Avenue at Seabury Avenue
- Westchester Square Medical Center – Seddon Street at St. Raymonds Avenue
- Lewis and Clark School – Benson Street at Tratman Avenue
- New York Public Library – Glebe Avenue east of St. Peters Avenue
- P.S. X721 Stephen McSweeny School – Waters Place at Westchester Avenue
- Montefiore Medical Center – Eastchester Road at Blondell Avenue
- Santa Maria School – Zerega Avenue at Frisby Avenue
- Convent of the Sacred Heart – Zerega Avenue at Dorsey Street

Additional smaller places of worship and a number of government offices are also located within the neighborhood.

1.1.18 Schuylerville Neighborhood

The Schuylerville neighborhood is located in the east Bronx to the north of Throgs Neck. The neighborhood is generally defined by the Bronx River to the west, Middletown Road on the north, and Interstate 95 to the south and east.

Due to its immediate adjacency, an unnamed neighborhood located north of the Throgs Neck neighborhood and east of Schuylerville, between Interstate 95 and Long Island Sound, is included in this discussion. This unnamed neighborhood is approximately 85 percent single and two-family residential in nature with only a limited scattering of generally small tracts of multi-family interspersed in the single family areas. The only noticeable area of multi-family development in this adjacent neighborhood is located along Long Island Sound, and situated to both the north and to the south of Evers Marina, just inside the Study Area. There are no significant areas of commercial land use within the adjacent neighborhood, nor is there any identified industrial activity or discernible transportation or utility uses. Two areas of institutional land use are located in the adjacent neighborhood and both are located along the west shore of Long Island Sound and are described below:

- Sisters of St. John the Baptist, Providence Rest Nursing Home – Waterbury Avenue at Stadium Avenue
- Villa Maria Academy, Sisters, Servants of Mary Convent – Country Club Road at Campbell Drive

Within the Schuylerville neighborhood itself, as described above, the land use pattern is somewhat similar to that of the areas to the east. The two largest land use categories in Schuylerville are first, the single and two-family residential category followed by the outdoor recreation, cemetery and open space category. Single and two-family residential is the predominant land use in the northern two thirds of the neighborhood. Within these areas of single and two-family development, are numerous small multi-family uses that are spread throughout and would be the third most significant category of land use in the neighborhood.

In the southern third of Schuylerville, the predominant land use feature is the St. Raymond Cemetery which is clearly discernible on the land use map. There are also four small parks within this neighborhood, including the Samuel H. Young Park which is located in the northwest corner of Schuylerville along the west side of the Hutchinson River Parkway just north of East Tremont Avenue and the Bufano Park which is situated in the approximate center of the neighborhood, near the intersection of Bradford Avenue and Waterbury Avenue. The third small park is the Schneider-Sampson Park located in the southeast section of the Schuylerville neighborhood abutting the west side of the I-95/I-695 interchange along Bruckner Boulevard. Miele Park is the fourth and final park and is approximately 300 to 400 feet to the west/southwest of the southern tip of the Schneider-Sampson Park, fronting on the westbound lanes of Bruckner Boulevard.

Commercial uses are for the most part located along, and in some areas, on both sides of East Tremont Avenue, with the exception of one large commercial node comprised of the Whitestone multi-screen theater complex located in the northwest quadrant of the I-95 (Cross Bronx Expressway) and I-678 (Hutchinson River Expressway).

Institutional uses are not as prevalent, nor for the most part as large in Schuylerville as was the case in areas in the west portion of the Bronx. The primary institutional uses are located on the northwest and southeast sides of the neighborhood and the specific use is noted below:

- First Presbyterian Church – northwest Schuylerville on Dudley Avenue at East Tremont Avenue
- The Bronx River High School, Westchester Square Academy, Renaissance High School – northwest Schuylerville, East Tremont Avenue at the Hutchinson River Parkway
- First Lutheran Church, P.S 14 – southeast Schuylerville in the immediate vicinity of the Schneider-Sampson Park

1.1.19 Morris Heights Neighborhood (South End)

The Morris Heights Neighborhood is generally defined by the Cross Bronx Expressway on the south, the Harlem River to the west, Jerome Avenue to the east, and West Burnside Avenue on the north. The northern boundary of the Study Area runs in an east-west orientation over the very southern end of Morris Heights. The boundary is approximately one-tenth of a mile north of the Cross Bronx Expressway through the entire southern end of Morris Heights.

The most significant land use within this limited portion of Morris Heights is comprised of multi-family residential land, including high-rise structures along Sedgwick Avenue, and buildings generally ranging between three and seven stories throughout the remainder of the south end of Morris Heights. This pattern is similar to the rest of the neighborhood with the exception that, as you proceed to the north, the multi-family pattern gives way to a greater mix of single and two-family land uses, which is not the case on the south end of the area.

Commercial uses are often located on the first floor of a number of the multi-family structures and do not show up as the primary land use in the GIS mapping. The commercial pattern in this limited portion of Morris Heights is located west of University Avenue/Dr. Martin Luther King Boulevard, generally along both sides of Featherbed Lane, as well as along Grand Avenue further to the east.

Given the limited area of Morris Heights within the Study Area, only a small number of institutional land uses were identified and these are noted below:

- Featherbed land Presbyterian Church – Featherbed Lane at University Avenue
- Iglesias Cristiana Eben Ezer Church – Plimpton Avenue at Cross Bronx Expressway
- U.S. Post Office, St. Francis of Assisi Roman Catholic Church – Shakespeare Avenue south of Featherbed Lane

Open space and outdoor recreation uses are also limited due largely to the small area of the neighborhood within the Study Area. These uses consist of Bridge Park that is located along the east shore of the Harlem River along with two playgrounds consisting of the Sedgwick Playground and the Half Nelson Playground.

1.1.20 Mount Hope Neighborhood (South End)

The Mount Hope neighborhood is generally defined by the Cross Bronx Expressway on the south, Jerome Avenue to the west, East Burnside Avenue on the north and Webster Avenue on the east. A similar limited portion of the Mount Hope neighborhood is within the Study Area as was the case with the Morris Heights neighborhood.

The predominant residential pattern in this portion of Mount Hope consists of mid-rise multi-family development with some high-rise buildings intermixed such as is the case along the west side of Grand Concourse just north of the Cross Bronx Expressway. This portion of Mount Hope also includes some small areas of single family residential as is evidenced by the development pattern along Carson Place.

Commercial development in this part of Mount Hope, with the exception of that occurring on the first floor of a multi-family structure, is concentrated along the three major north south arterials consisting of Jerome Avenue, Grand Concourse and Webster Avenue.

Given the small portion of the Mount Hope neighborhood included in the Study Area, just a few institutional uses were identified and are listed below:

- St John's AF Church – Eastburn Avenue at the Cross Bronx Expressway
- Charity Baptist Church, Clifford Place Group Home – Charity Place at Townsend Avenue

Open space and outdoor recreation uses in this section of Mount Hope include two playgrounds and two small parks.

1.1.21 Tremont/West Farms Neighborhoods (Partial)

The Tremont/West Farms neighborhood is generally defined by the Cross Bronx Expressway on the south, Webster Avenue on the west, the Bronx River on the east and the northern boundary of the Study Area on the north. As it relates to the Tremont/West Farms area, the Study Area boundary runs along an east-west alignment from vicinity of the northwest corner of Tremont Park and extending east to the vicinity of the intersection of Honeywell Avenue and Bronx Park South at the southern boundary of Bronx Park.

As is the case in many of the other neighborhoods, residential land uses comprise the majority of the development in the Tremont/West Farms area with multi-family making up the majority of the residential use category. The multi-family category ranges from mid-rise residential buildings to high-rise structures such as those near the Bronx River in the vicinity of Boston Road north of East Tremont Avenue. Single and two-family residential comprises an estimated 30 to 35 percent of the residential land use in the Tremont/West Farms area and this is generally interspersed throughout the neighborhood, with the exception of the area along Boston Road north of East Tremont Avenue which is almost exclusively multi-family in nature.

Commercial land uses are heavily concentrated along both the north and south sides of Hector Lavoe Boulevard/East Tremont Avenue throughout the neighborhood. A second smaller strip of

commercial activity is located beginning near the intersection of Southern Boulevard and East 180th Street and extending east to Vyse Avenue. Industrial land uses are not evident in the Tremont/West Farms area.

Institutional uses in this section of the Tremont/West Farms neighborhood include approximately 23 places of worship that are spread throughout the neighborhood, along with a Bronx Building Department facility and a host of schools and two libraries. Many of the churches are on small parcels within the neighborhood and will be delineated through symbology on the Noise Exposure Maps based on their proximity to a noise contour. Schools and libraries are listed below:

- Langston Hughes School, P.S. 236 – East 176th Street at Bathgate Avenue
- P.S. 58 – East 176th Street at Bishop William J. Robinson Place
- New York City Public Library - East 176th Street at Bishop William J. Robinson Place
- Eagle Academy – Third Avenue at East 176th Street
- Bronx Lebanon Hospital Psychiatric Center – Webster Avenue at East 176th Street
- P.S. 92 Bronx Elementary – Clinton Avenue at East 178th street
- Middle School M.S. 129/Knowledge and Power Preparatory School – Mapes Avenue at East 179th Street
- Urban Assembly School for Wildlife Conservation – East 179th Street at Mohegan Avenue
- West Farms Branch Library – East 180th Street at Honeywell Avenue
- Phipps Community Education Center – Boston Road at East 178th Street
- P.S. 214 – West Farms Road at Tremont Avenue
- Saint Thomas Aquinas School and church – Daly Avenue north of the Cross Bronx Expressway
- I.S. 193/P.S. 218 – Prospect Avenue at Elsmere Place
- P.S. 6 – Hector Lavoe Boulevard at Bryant Avenue

Outdoor recreation and open space uses include both Tremont Park and Bronx Park, which are readily visible on the land use base map, along with 12 other smaller playgrounds, community gardens and areas of open space.

1.1.22 Van Nest/Morris Park Neighborhoods (Partial)

The Van Nest/Morris Park neighborhoods are defined for the purposes of this study by the Bronx River Parkway on the west, East 180th Street and the Amtrak Rail alignment on the south, Williamsbridge Road on the east and the northern boundary of the Study Area on the north. The boundary of the Study Area runs from the vicinity of the northern end of the New York Transit

Authority Unionport rail yard to the east boundary of the neighborhood at a location approximately 250 feet north of the bridge over the Amtrak rail line on Williamsbridge Road.

The majority of land use in the Van Nest/Morris Park neighborhood is dominated by residential uses. These consist of a mixture of multi-family uses and single and two-family residential development that are roughly evenly split. The area of the neighborhood generally west of White Plains Road shows a higher level of multi-family residential land uses than single-family, while east of White Plains Road, the pattern tends to shift to a higher incidence of single and two-family residential.

Commercial uses in this area are focused along the north side of East 180th Street and both sides of Morris Park Avenue from Unionport Road east to where Morris Park Avenue reaches the northern boundary of the Study Area. Additional commercial use is also located along Bronxdale Avenue, south of Van Nest Avenue to the Amtrak alignment. One area of industrial use, consisting of a large Consolidated Edison complex, is located along the south side of the neighborhood abutting the Amtrak line.

The Van Nest/Morris Park area also shows a significant concentration of transportation/parking use along the western and southern boundaries of the neighborhood. The use on the west is associated with the New York Transit Authority East 180th Street and Unionport rail yards while the area to the south is affiliated with a major regional Amtrak rail line.

Institutional uses in the portion of the Van Nest/Morris Park neighborhood located in the Study Area are limited in part due to the limited part of the neighborhood encompassed by the Study Area. Based on a review of mapping, five churches were identified, all of which were in the area west of Bronxdale Avenue. Additional institutional uses in the neighborhood are delineated below:

- New York City Police Department Transit District 12 – Adams Street at Bronx River Parkway
- St. Dominic School – Van Nest Avenue at White Planes Road
- Williamsburg Nursing Home – Tomlinson Avenue at Sackett Avenue
- Icahn Charter School 2/P.S. and M.S. 498 – Bronxdale Avenue at Van Nest Avenue

Outdoor recreation and open space land uses are also limited within the noted boundary of the Van Nest/Morris Park neighborhood in the Study Area. Only one park is located inside the boundary and this consists of Van Nest Park located between Unionport Road, White Plains Road and Van Nest Avenue.

1.1.23 Middletown-Pelham Neighborhood (Partial)

The boundary of the portion of the Middletown Pelham neighborhood that is contained within the Study Area is defined by the Bruckner Expressway/I-95 on the east, Middletown Road and a short section of Westchester Avenue on the south. Waters Place, which runs along the east side of the Westchester/Pelham New York City Transit Authority rail yard, forms the eastern boundary, and the northern boundary of the Study Area forms the northern boundary of the portion of the

neighborhood being assessed in greater detail. This northern boundary extends from the north end of the Transit Authority rail yard eastward to intersect the Bruckner Expressway approximately 400 feet to the north of the eastern terminus of Middletown Road.

Within this limited portion of the southern end of the Middletown-Pelham neighborhood, residential uses are the dominant land use category, with all residential land use being located between the alignments of the Hutchinson Parkway and the Bruckner Expressway. Within the residential land use category, single and two-family uses account for the vast majority of residential land use.

Several limited areas of multi-family uses are located in this portion of the neighborhood that include an area along Hutchinson River Parkway East, north of Westchester Avenue, and along both Pilgrim Avenue and Mayflower Avenue north of Westchester Avenue. Additional multi-family use is situated on the north side of the Bruckner Boulevard-Middletown Road intersection, and along the north side of Middletown Road between Hobart Avenue and Jarvis Avenue.

Commercial uses are found in three main locations. The first of these is at the intersection of Westchester Avenue and Middletown Road and is relatively small and compact. The second small cluster of commercial uses is at the intersection of Middletown Road and Crosby Avenue, while the third area of limited commercial use is along Crosby Avenue south of Roberts Avenue. No discernible industrial land uses are located within the southern section of the Middletown-Pelham neighborhood under review as a part of this analysis.

Given the limited size of the area of Middletown-Pelham contained in the Study Area, the extent of institutional land uses located in the area is limited. A large area of institutional land use is evident within the Middletown-Pelham Neighborhood along the west side of the Hutchinson River Parkway, however all but the southern end of this area is located outside of the Study Area boundary. This large area of institutional use contains a number of facilities that include the Mercy College-Bronx Campus and the Bronx Children's Psychiatric Center, which lie just outside of the Study Area. Located in the southern end of the area along Waters Street however, is an additional institutional use that is within the boundary and this use and others are listed below:

- Division of Substance Abuse, Albert Einstein College of Medicine – Waters Place
- P.S. 71 – Roberts Avenue at Hobart Avenue
- Our Lady of the Assumption School – Parkview Avenue at Middletown Road
- Our Lady of the Assumption Church – Mahan Avenue at Roberts Avenue
- Tremont Terrace Moravian Church – Pilgrim Avenue slightly north of Middletown Road

No outdoor recreation, cemetery or open space land uses are located within this portion of the Middletown-Pelham neighborhood.

The preceding discussion has provided a high level overview of the land use pattern existing in that portion of the City of New York, and small portions of Westchester County and Nassau

County contained in the Land Use Data Collection Area, along with a slightly more detailed overview on a neighborhood by neighborhood basis of land use inside the Study Area. This information provides a foundation on which subsequent steps in the noise compatibility planning process will be based.

1.2 Borough of Queens

A significant area of Queens, consisting of much of the northern and northwest section of the borough, is located within the Study Area. The following provides a more detailed overview of land uses on a neighborhood by neighborhood basis in the portion of Queens contained in the Study Area (see Figures 1-1, 1-4 and 1-5).

1.2.1 Ditmars-Steinway

The Ditmars-Steinway neighborhood is located in the north-northwest section of Queens, abutting, and directly west of LGA. The neighborhood is generally defined by the East River on the north and west, the Grand Central Parkway (I-278) on the south and Bowery Bay and LGA on the east.

Single and two-family residential uses are spread throughout the Ditmars-Steinway neighborhood. Overall this category of land use comprises an estimated 30 percent of all developed land uses in the area and approximately 45 percent of all residential land uses in the area. As evident from the base map, residential uses are located in the southern 60 percent of the Ditmars-Steinway neighborhood, with the northern 40 percent accommodating industrial and utilities related activities.

Significant concentrated multi-family is found at multiple locations in the Ditmars-Steinway neighborhood, of which the largest concentration is located near the eastern boundary of the area just west of LGA. Within this area and generally between 80th Street on the east and 77th Street to the west are multiple condominium and apartment complexes that include but are not limited to the Garden Bay Manor and Barclay Gardens Condominiums along with others over an area of approximately 15 city blocks.

Multi-family development is also concentrated along both sides of Steinway Street from the Grand Central Parkway to 20th Street. This area of multi-family being comprised of two and three story apartments, often with commercial uses on the first floor. Some of these parcels show up on the mapping under the mixed use category. Additional concentrations of multi-family land use are situated to the west of 31st street and south of 24th Avenue. This concentration of multi-family encompasses over approximately five city blocks, along the west side of 31st Street between 21st Avenue and 20th Avenue and along and north of 21st Avenue from 31st street to the East River. Elsewhere in the Ditmars-Steinway neighborhood multi-family uses tend to be interspersed within the lower density Single Family and Two-family classification.

As has been noted in previous discussions, commercial land uses are often located on the first floors of buildings that also house other forms of the land use, and in many of these situations the use that occupies the majority of the floor area on a particular parcel will drive the identification of the land use category. An example that illustrates this in the Ditmars-Steinway neighborhood

can be found at and around the intersection of Ditmars Boulevard and 21st Street. This area is displayed on the base mapping as having a mix of multi-family and single and two-family land uses. Within the multi-family designated area, further review identified several restaurants and other commercial activities occupying the street level, while multi-family dwelling units occupied the remaining floors. The discussion of areas of commercial land use in these sections focuses on those areas where commercial categories of activity represent the dominant activity on a parcel of land or within a general area.

The most significant concentration of commercial use is located along 31st Street generally between 23rd Road and 21st Avenue with a less intense pattern of commercial extending south of 21st Avenue to the vicinity of 24th Avenue. Commercial activity also extends two to three blocks east from 31st Street along Ditmars Boulevard.

Small nodes of commercial are also evident around the intersection 21st Street and 21st Avenue and also at the intersection of 21st street and 24th Avenue as well as along the north side of Astoria Boulevard North, between 49th Street and 72nd Street and along Steinway Street from Astoria Boulevard North to Ditmars Boulevard. Finally, as depicted on the land use base map an area of commercial use is located north of 20th Avenue and east of Steinway Street immediately adjacent to a concentration of industrial activity. This area consists of the 37th Street Plaza a small strip center anchored on a Best Market Grocery Store and having several other retail uses on site.

The Ditmars-Steinway neighborhood has a large industrial area that is generally located between 20th Avenue on the south/southwest and Berrian Boulevard two blocks to the north of 20th Avenue. The area is border on the east by Hazen Street and Luyster Creek on the west. This concentration of industrial uses is located immediately south of, and adjacent to, the Bowery Bay Wastewater Treatment Center. The most significant industrial use in this area consists of the Steinway and Sons Piano Manufacturing Facility located at 19th Avenue and 38th Street. Other types of uses in this area include, but are not limited to wholesale facilities, equipment rental, automotive services and repair, roofing contractors, environmental services and a Gate Gourmet flight kitchen/warehouse and distribution center.

A large area in the Transportation, Parking and Utilities category is located at the northern end of the Ditmars-Steinway neighborhood and is partially comprised of the Bowery Bay Wastewater Treatment Plant, situated just west of the Rikers Island Bridge and north of Berrian Boulevard. West of the Bowery Bay wastewater treatment plant across Luyster Creek, and north of 20th Avenue is the Astoria Generating Station (power plant) and supporting facilities operated by NRG, Consolidated Edison and the New York Power Authority. Combined these two land uses occupy approximately 30 to 35 percent of the land area in the Ditmars-Steinway neighborhood.

Institutional Land Uses within the Ditmars-Steinway neighborhood were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that in a number of cases churches that were identified consisted of storefront facilities that were in commercial land uses or occasionally consisted of private residences in neighborhoods and did not display any

outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below. The institutional activities listed consist of a number of places of worship and educational uses.

- P.S. 122 – Ditmars Boulevard at 21st Street
- Saint John's Preparatory School – 27th Avenue at 27th Street
- Saint Markella Greek Orthodox Church – 26th Street north of 23Rd Avenue
- P.S. 2 Alfred Zimberg School – 21st Avenue at 75th Street
- Augustana Evangelical Lutheran – Hazen Street at Ditmars Boulevard
- Saint Francis of Assisi Church and Saint Francis of Assisi School – 45th Street at 21st Avenue
- P.S. 84 Steinway School – 42nd Avenue between Ditmars Boulevard and 23rd Avenue
- I.S. 141 The Steinway School – 37th Street at 21st Avenue
- Saint Irene Chrysovalantou Church – 23rd Avenue at 36th Street;
- Saint Catherine and Saint George Church and St. Demetrios Annex, Astoria Islamic Center – 33rd Street between Ditmars Boulevard and 23rd Avenue
- Queens Lutheran Church and School - 21st Avenue at 33rd Street
- Church of the Immaculate Conception – Ditmars Boulevard at 29th Street
- P.S. 85 Judge Charles Vallone School – 31st Street south of 23rd Road
- Lent-Riker-Smith Homestead Historical site – 19th Road at 78th Street

Outdoor Recreation, Cemeteries and Open Space land uses consistent primarily of parks the larger of which were located along the East River and a series of playgrounds located around the community. Two areas with developed sports fields were also identified and are listed below.

- Hoyt Playground – Astoria Boulevard North at 31st Street
- Astoria Park – Shore Boulevard at Astoria Park South
- Ralph Demarco Park – East River between 20th Avenue and Ditmars Boulevard
- Carlos R. Lillo Park - 21st Avenue at 76th Street
- Paul Raimonda Playground – 20th Avenue at 47th Street
- Ditmars Park - Steinway Street between Ditmars Boulevard and 23rd Avenue
- Steinway Playground – 37th Street between 20th road and 20th Avenue
- Woodtree Playground – 20th Avenue at 37th Street
- Lawrence Cemetery 35th Street at 20th Road

- Con Ed FIAO Soccer and ICYP Youth Program soccer and baseball fields – North of 20th Avenue at 33rd Street
- Elmjack Little League Fields – Hazen Street at 19th Avenue

1.2.2 Jackson Heights

Jackson Heights, as defined for this study effort, is generally bordered by the following: the Brooklyn Queens Expressway on the west, the Grand Central Parkway to the north, Junction Boulevard/94th Street on the east, and Broadway and Roosevelt Avenue on the south.

Residential land uses comprise an estimated 85 to 90 percent of all land use in the Jackson Height neighborhood. The type and density of residential makes a very noticeable change between the area north of Northern Boulevard and that section of Jackson Heights south of Northern Boulevard. In what is roughly the northern half of Jackson Heights (between Northern Boulevard and the Grand Central Parkway) the majority of the residential pattern consists of single and two-family residential land uses. Multi-family residential development is concentrated in four primary clusters north of Northern Boulevard while small individual multi-family parcels are interspersed among single and/or two-family residences on a block by block basis. The following identifies the general locations of the four multi-family concentrations:

- West of Junction Boulevard and east of 88th Street, generally between Northern Boulevard and 32nd Avenue
- Surrounding the intersection of 31st Avenue and 80th Street
- Along 31st Avenue between 74th Street and 69th Street in the immediate vicinity of the Monsignor McClancy Memorial High School
- Between 31st Avenue and Northern Boulevard, generally west of 74th Street

South of Northern Boulevard, the pattern of residential development is decidedly higher density multi-family in nature, with numerous blocks being comprised solely of multiple family dwellings. There are, however, four pockets where the single and two-family category remains evident but is intermixed with multi-family uses. These pockets are generally defined below:

- Between Northern Boulevard and 35th Avenue, east of the Brooklyn Queens Expressway and west of 76th Street
- Between Northern Boulevard and 35th Avenue, east of 83rd Street and west of 90th Street
- Between 35th Avenue and 37th Avenue, east of 86th Street and west of 93rd Street
- Between 37th Avenue and Roosevelt Avenue, west of Junction Boulevard and east of 91st Street

Commercial development in the Jackson Heights area consists of two patterns with the first involving either a single large use on a site or a concentration of multiple uses into a shopping area. The second and most prevalent pattern consists of commercial corridors that are primarily along and on both sides of all, or portions, of five major arterial roadways.

The commercial shopping plazas tend to have one or more anchor stores and a number of other smaller retail establishments all located within one parcel and served by a large common parking area, or a mix of office and retail together. The following describes the notable shopping plazas and stand-alone commercial uses within the Jackson Heights area:

- South and east of the intersection of the Grand Central Parkway and the Brooklyn Queens Expressway is a large area of commercial development. This area is occupied by a Home Depot, Bed Bath and Beyond, and offices of the Bulova Watch Corporation, British Airways North America and several other major tenants.
- Approximately one block to the south of that commercial area is the Jackson Heights Shopping Center located between 30th Avenue and 31st Avenue and between 75th and 77th Streets. This center has a mix of small retail national chains such as Pearle Vision and Radio Shack along with more locally based retail shopping.
- Three notable stand-alone commercial uses are located along the south side of the Grand Central Parkway and consist of a hotel, several car services and a FedEx facility located at 24th Avenue and 83rd Street, an additional hotel fronting on to 23rd Avenue at 87th Street, and a Marriott affiliated hotel fronting Ditmars Boulevard at 90th Street.

The second major pattern of commercial land use that is also clearly evident are those businesses that front along several major arterial streets and roadways as described below:

- In the Southwest corner of Jackson Height several major streets and roadways come together including Roosevelt Avenue, Broadway and 37th Avenue. The proximity of these three thoroughfares has resulted in the development of a commercial node that is bordered by Roosevelt Avenue on the south, 37th Avenue on the north, 72nd Street to the west and 75th Street to the east. Within this five block area is concentration of commercial uses blending national chains (Payless ShoeSource, T-Mobile) with a diverse array of local retail offerings, ethnic restaurants and personal service establishments.
- Along both the north and south sides of Roosevelt Avenue from the Brooklyn Queens Expressway on the west to the eastern boundary of the Jackson Heights neighborhood at Junction Boulevard/94th Street. The uses along this avenue consist of an array of small restaurants, small grocery and specialty food stores, small retail businesses, personal services shops (beauty and tattoo) and other generally small commercial activities.
- 37th Avenue from 72nd Street east to Junction Boulevard/94th Street also has a significant commercial land use presence along both sides of the street, although not quite as dense as that along Roosevelt Avenue. Land uses along 37th Avenue are similar in nature to those identified along Roosevelt with pattern being dominated by smaller shops including a number of cafes and restaurants, a phone store, a bicycle shop, a pharmacy, coffee shops and financial institutions. Along this avenue, there

are also mixed residential/commercial uses with residential occupying the upper level of the buildings.

- 82nd Street between Roosevelt Avenue and 37th Avenue is lined on both sides with commercial uses including two financial institutions, a national chain sporting goods store, and several retail clothing and other stores.
- Along both sides of Junction Boulevard between Roosevelt Avenue and 34th Avenue is a pattern of commercial use very similar to that previously discussed along other major streets and roadways.
- Northern Boulevard is lined with commercial uses from the Brooklyn Queens Expressway eastward to 90th Street. The density of uses is a little more intense than some of the other areas noted and includes an array of ethnic restaurants, fast food restaurants, service stations/convenience uses, and a wide variety of generally small retail establishments. As with 37th Avenue, there are also mixed residential / commercial uses along this stretch of roadway.
- Along Astoria Boulevard between 94th Street on the east and where Astoria Boulevard intersects with the Grand Central Parkway on the west, is a slightly less dense pattern of commercial development. The commercial uses along this section of Astoria Boulevard do not create an unbroken commercial corridor as there are areas of residential and institutional uses interspersed among the commercial areas.

No Industrial land uses are evident or mapped in the Jackson Heights neighborhood.

The most significant concentration of Transportation, Parking and Utilities land use consists of airport affiliated facilities on the south side of 23rd Avenue and the Grand Central Parkway between 83rd and 89th Streets. Within the noted area are uses including vehicle storage and maintenance areas for several rental car companies serving LaGuardia Airport customers including Budget Rent-a-Car, Payless Rent-a-Car, U-Save Car Rental and Enterprise. The MTA LaGuardia Depot Bus Facility is also located in this area.

Institutional Land Uses within the Jackson Heights neighborhood were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that a number of the identified churches consisted of storefront facilities that were in commercial land uses or consisted of private residences in neighborhoods and did not display any outward appearance of being a church. In short, small groups were meeting and likely conducting services in their personal residence or possibly renting temporary space from a local business. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below. The institutional activities listed consist of a number of places of worship, public and parochial educational uses, a public library and one senior care/rehabilitation center.

- P.S. 69 Queens-Jackson Heights School – 37th Avenue at 78th Street

- P.S. 222 – 37th Avenue at 87th Street
- St. Joan of Arc Elementary School and Saint Joan of Arc Parrish – 35th Avenue at 82nd Street
- Jackson Heights Library – 81st Street slightly north of 37th Avenue
- Ray of Hope Church – 35th Avenue at 81st Street
- Regal Heights Rehabilitation Center – 35th Avenue at 70th Street
- Intermediate School 230 – 34th Avenue at 74th Street
- P.S. 280 – 94th Street at 34th Road
- Blessed Sacrament Church – 35th Avenue at 93rd Street
- Public School 228 – Northern Boulevard at 93rd Street
- Public School 149 – 34th Avenue at 93rd Street
- St. Mark's Episcopal Church – 34th Avenue at 81st Street
- I.S. 145 Joseph Pulitzer School – 34th Avenue at 80th Street
- Garden School – 79 Street between 34th Avenue and Northern Boulevard
- Louis Armstrong Middle School – Junction Boulevard at 32nd Avenue
- Public School 148 – 32nd Avenue at 90th Street
- Congregation Tifereth Israel – 88th Street slightly north of 32nd Avenue
- Islamic Center of Jackson Heights – 31st Avenue at 78th Street
- Monsignor McClancy Memorial High School – 31st Avenue at 73rd Street
- Immanuel Baptist Church – 31st Avenue at 69th Street
- Atonement Lutheran Church and Pre-School – 31st Avenue at 87th Street
- Our Lady of Fatima Church and School – 30th to 31st Avenue between 79th and 80th Street
- Lexington School for the Deaf – 30th Avenue at 75th Street
- New York Hindu Sanatan – mid-block east side of 89th Street south of 23rd Avenue
- East Elmhurst Jehovah's Witness Kingdom Hall – 25th Avenue at 92nd Avenue
- The Korean Church of Queens – 89th Street at 23rd Avenue
- Greek Orthodox Church – 72nd Street between Broadway and Roosevelt Avenue
- Jewish Center of Jackson Heights – 37th Avenue at 77th Street

Land uses in the Outdoor Recreation, Cemeteries and Open Space category are limited to a number of relatively small neighborhood parks and playgrounds. These are listed below:

- Northern Playground – Northern Boulevard at 93rd Street

- Travers Park – 34th Avenue at 77th Street
- Playground Ninety – 90th Street between Northern Boulevard and 32nd Avenue
- Gorman Playground – 30th Avenue at 84th Street
- Planeview Park – between Grand Central Parkway and 23rd Avenue at 82nd Street
- Bulova Park – 25th Avenue at 76th Street
- LaGuardia Landing Lights Park – northeast and southwest corners of 25th Avenue at 80th Street, as well as south side of 24th Avenue west side of 81st Street
- One Room Schoolhouse Park – 90th Street at Astoria Boulevard

1.2.3 East Elmhurst

For this analysis the East Elmhurst area is generally defined by 34th Avenue on the south, Flushing Bay on the east, all of LaGuardia Airport on the north and 94th Street and Junction Boulevard on the west.

Between Astoria Boulevard and the Grand Central Parkway the predominant residential pattern consists of single and two-family uses with a limited amount of interspersed small multi-family structures. Overall, single and two-family residences account for approximately 90 percent of all residential use in the portion of East Elmhurst north of Astoria Boulevard.

Residential land use in East Elmhurst tends to increase in density as one moves south of Astoria Boulevard. Between Astoria Boulevard and the southern boundary of the East Elmhurst area (34th Street) the residential pattern shifts to a more equal balance between the single and two-family category and multi-family uses. There are no single large multi-family developments that drive this shift, rather it is driven by a greater density of small multi-family structures being interspersed with single and two-family dwellings on a block by block basis. The largest single multi-family structure is Astoria Towers located on Astoria Boulevard between 110th Street and 111th Street.

Commercial land uses in the East Elmhurst neighborhood are generally focused either immediately south of LGA and are typically related to hotels catering to airport customers, or are concentrated along the major arterial roadways notably Astoria Boulevard and Northern Boulevard. The most significant concentration of non-lodging commercial activity is found along and on both sides of Northern Boulevard. A diverse array of commercial activities are situated along this major arterial including but not limited to automotive related uses, eating establishments, financial institutions, personal services, small grocery and convenience stores, and other generally small retail establishments. Commercial activity along Astoria Boulevard is less intense and more scattered.

No discernible concentration of industrial land use is evident within the East Elmhurst neighborhood. Some of the automotive uses classified as commercial along Northern Boulevard are of a type that would be generally considered as heavy commercial and in some jurisdictions light industrial, however these are categorized as commercial in New York City.

Outside of the Steinway Ditmars neighborhood, the East Elmhurst area has the most significant concentration of land use in the Transportation, Parking and Utilities Category of any area within the Study Area. These uses consist primarily of LaGuardia Airport north of the Grand Central Parkway and airport affiliated facilities on the south side of the Parkway that include vehicle storage and maintenance for both Alamo and National rental car companies as a part of their overall airport operations.

Institutional land uses within East Elmhurst were reviewed and the more significant of these are included in the listing below. The focus of this listing is on institutional uses that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources, it was found that in a number of cases churches that were identified consisted of storefront facilities that were in commercial land uses or consisted of private residences in neighborhoods and did not display any outward appearance of being a church. In short, small groups were meeting and likely conducting services in their personal residence or renting temporary space from the businesses. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these churches in the listing below. The institutional activities identified consist of a number of places of worship, library facilities, educational uses and two assisted living/care facilities.

- Elm York Assisted Living and Elmhurst Care Center – Ditmars Boulevard at 23rd Avenue
- East Elmhurst James Masjid Mosque – 24th Avenue at 95th Street
- P.S. 127 Aerospace Science Magnet School – 25th Avenue at 98th Street
- Southern Baptist Church – Astoria Boulevard at 97th Street
- East Elmhurst Library – Astoria Boulevard at 95th Street
- East Elmhurst Community School – 31st Avenue at 98th Street
- Free Baptist Church of East Elmhurst – Astoria Boulevard at 100th Street
- Korean Methodist Church of New York – 95th Street at 32nd Avenue
- Langston Hughes Community Library – Northern Boulevard at 100th Street
- Church of the Resurrection – 32nd Avenue at 101st Street
- P.S. 330 – Northern Boulevard at 110th Street
- Young Nak Presbyterian Church – 107th Street north of 34th Avenue
- Antioch Baptist Church of Corona – Northern Boulevard at 103rd Street
- Church of God – 102nd Street south of Northern Boulevard
- Shaw AME Zion Church – 34th Avenue slightly east of 100th Street
- P.S. 092 Harry T. Stewart Sr. School – 99th Street slightly north of 34th Avenue
- New York Luso Brazilian SDA Church – 34th Avenue at 96th Street

- New York Dhammaram Temple & Mt. Olivet Gospel Church – 97th Street slightly north of 34th Avenue
- St. Mark's AME Church – Northern Boulevard at 96th Street

Outdoor Recreation, Cemeteries and Open Space land uses are limited in the East Elmhurst area and these have been listed along with their general location below.

- Overlook Park – south side of Ditmars Boulevard between 97th and 100th Streets
- Jackson Mill Green – 24th Avenue at 94th Street
- East Elmhurst Playground – 100th Street at 25th Avenue
- Fisher Pool – 32nd Avenue at 99th Street

1.2.4 College Point

The College Point neighborhood is entirely located within the Study Area and for this analysis is generally bounded by Flushing Creek to the south, Flushing Bay to the west, the East River to the north, and Interstate 678 to the northeast. The boundary in the southeast quadrant of this neighborhood follows a series of roads to the west and south from the intersection of 20th Avenue and the Whitestone Expressway in the north to where the Expressway crosses Flushing Creek in the south. From north to south, these roads include: West on 20th Avenue from the Whitestone Expressway, South on 130th Street, South on Ulmer Street, West on 26th Avenue, South on 123rd Street, West on 28th Street, South on 122nd Street, East on 31st Avenue, and Southeast on College Point Boulevard to the Whitestone Expressway

Residential land use in this neighborhood accounts for approximately 50 percent of the total land area with the majority of that consisting of the single and two-family classification. The area north of 15th Avenue and east of 133rd Place is almost entirely single and two-family development. West of this area, multi-family uses become intermingled with the lower density housing, however, there are four notable concentrations of multi-family development including:

- Bay Park Estates – 115th Street and Bay Park Drive near the Herman A. Macneil Park
- Powell Cove Estates – along both sides of Powell Cove Boulevard and 121st Street east of Macneil Park
- Multiple facilities – located between Powell's Cove Boulevard and 6th Avenue and east of 127th Street
- Skyline Terrace – between 120th Street and the Flushing Bay at approximately 25th Road

There is also a corridor of mixed residential/commercial use facilities located along College Point Boulevard between 14th Avenue and 22nd Avenue. Along this stretch of roadway, there are many two and three-level buildings where the lower level includes small local retail, restaurant or business uses and the upper level provides residential accommodations.

Commercial and office space uses are centered in four distinct areas with a few smaller commercial facilities scattered about the neighborhood. Many of the commercial type land uses are also adjacent to other industrial type developments. The notable commercial use developments within the College Point neighborhood, and their general locations, are described in the following list:

- Landmark Plaza Shopping Center which includes major national retail chains such as Target, T.J. Maxx, Petco and Staples – along 20th Avenue between 132nd Street and Petracca Place
- Multiple office buildings accommodating labor unions, the World Journal and an Extended Stay America hotel – along the Whitestone Expressway north of 20th Avenue
- Whitepoint Shopping Center and adjacent retailers which includes smaller retailers, eating establishments and other businesses – vicinity of 14th Avenue and 132nd Street
- Home Depot – vicinity of College Point Boulevard and 31st Avenue
- Several small businesses including retail, banking and personal services – along both sides of College Point Boulevard from approximately 25th Avenue in the south to 14th Avenue in the north
- Four level office building – 26th Avenue between 127th Street and Ulmer Street

Within the College Point neighborhood there are no industrial or manufacturing uses east of 133rd Place. These types of uses are concentrated in the central and southern portions of the neighborhood, including the five general locations as described below along with a few other small, non-listed uses that are typically adjacent to other industrial uses. The five concentrations of industrial uses include:

- Multiple building and construction material companies and the NYPD Queens vehicle impound lot – west of College Point Boulevard and south of 28th Avenue
- Multiple buildings and businesses – northwest quadrant of the Ulmer Street and 26th Avenue intersection
- Pepsi-Cola Bottling Group and other businesses – along 15th Avenue west of 119th Street
- Multiple businesses including the Time Warner Cable Training Facility – along both sides of 14th Avenue west of 115th Street and nearby businesses west of 110th Street adjacent to the East River
- Multiple businesses – west of the Landmark Plaza Shopping Center and between 14th Avenue and 20th Avenue

There are two major transportation and utility land uses in this neighborhood. These include the New York City Department of Sanitation (DSNY) North Shore Marine Transfer Station, Household Special Waste drop-off site, and Maintenance Garage 7 which are all located west of

122nd Street between 30th Avenue and 31st Avenue adjacent to Flushing Bay. The second major land use in this category is located on the northern tip of the neighborhood and consists of the Tallman Island Wastewater Treatment Facility which is bordered by the East River to the north and Powell Cove to the east.

Institutional and public facility land uses within College Point are dispersed throughout the neighborhood. Upon review of the available mapping, the institutional uses that are typically considered to be noise sensitive uses under Part 150 are identified in the listing below. These include places of worship, public and parochial schools, and two rehabilitation centers. As with many of the other neighborhoods in this study, a number of identified churches were found to be within storefront type facilities or private residences and displayed no outward appearance of being a church. In these instances, the underlying residential or commercial land use designation was maintained and the church was not included in the listing.

- Waterview Nursing and Rehabilitation Center – Western terminus of 27th Avenue
- Woodcrest Rehabilitation Center – 120th Street at 26th Avenue
- Public School 29 – 125th Street at 23rd Avenue
- Public School 129 Patricia Larkin – 128th Street at 7th Avenue
- New Youk Hua Lian Tsu Hui Temple – 22nd Avenue at 121st Street
- St. John's Lutheran Church and School – 22nd Avenue at 123rd Street
- St. Clement of Ohrid Macedonian Church – 124th Street slightly south of 20th Avenue
- International Fellowship Church – College Point Avenue at 14th Avenue
- Poppenhusen Institute Cultural Center – 14th Road at 114th Street
- Poppenhusen Public Library – College Point Boulevard at 14th Avenue
- First Reformed Church – 118th Street at 14th Avenue
- St Fidelis of Sigmaringen Roman Catholic Church – 14th Avenue at 123rd Street
- St Fidelis School – 14th Avenue at 124th Street
- St. Paul's Episcopal Church – College Point Boulevard between 13th and 14th Avenues
- St. Agnes High School and the New York Child Learning Institute – 124th Street at 14th Avenue
- Holy Trinity Roman Catholic Church and Holy Trinity School – 143rd Street at 15th Avenue
- Lincoln Technical Institute – 15th Avenue at 140th Street

The largest concentrations of outdoor recreation and open space land uses within the College Point area are located along the East River and Powell Cove and south of 14th Avenue near the Landmark Plaza Shopping Center. There are also a few smaller parks and playgrounds scattered

throughout the area. There are no cemeteries located in College Point. The identified recreational and open space uses and their locations are listed below.

- One Hundred Fifteenth Street Playground – 115th Street north of 14th Road
- College Point Yacht Club – Powell's Cove Boulevard at 126th Street
- College Point Park – 14th Avenue at 121st Street
- Powell's Cove Park – 11th Avenue at 135th Street
- Frank Golden Park and the One Hundred Thirty Six Playground – 15th Avenue at 132nd Street
- Skyline Cove Marina and Arrow Yacht Club – 119th Street at 22nd Avenue
- Poppenhusen Playground – 20th Avenue at 123rd Street
- Hermon A. Macneil Park – Poppenhusen Avenue at 199th Street

1.2.5 Whitestone/Beechhurst Neighborhood

The Whitestone/Beechhurst area of Queens is almost entirely within the Study Area with the exception of the portion generally located to the east of 166th Street which is considered to be outside of the Study Area. For purposes of this study, the Whitestone/Beechhurst neighborhood is defined by the East River to the north, the Whitestone Expressway (I-678) to the west, Willets Point Boulevard and 25th Avenue on the south and 166th Street on the east. The neighborhood is split into a northern half and a southern half by the alignment of the Cross Island Expressway.

The northern half of the area is predominantly developed with uses classified in the single and two-family residential category which is estimated to comprise approximately 75 percent of the developed area in the portion of the neighborhood north of the Cross Island Expressway. Multi-family development is limited in this area when compared to a number of neighborhoods to the south and west of LGA. Only one large concentration of multi-family development is found in the area north of the Cross Island Expressway and that is located to the northeast in the vicinity of Cryders Point. A second, and considerably smaller, concentration of multi-family use is located at the far north end of 154th Street/154th Place at Riverside Drive.

Single and two-family land uses also comprise the vast majority of development in the Whitestone/Beechhurst area south of the Cross Island Expressway, accounting for an estimated 85 percent of all developed land use in this portion of the area. Three concentrations of multi-family development are clearly evident in the area south of the Expressway, consisting of one large cluster and two smaller ones. The large concentration of multi-family is located to the east of Francis Lewis Boulevard along both sides of Willets Point Road to the north/northeast of a small commercial node. West of this area is a second multi-family concentration located adjacent to the east side of Clintonville Street immediately south of the Clintonville Playground and the William Carr Junior High School 194 at 17th Avenue. The third, and even smaller cluster of multi-family use is located on the west side of the Whitestone/Beechhurst area, approximately one block to the east of where 20th Avenue crosses the Whitestone Expressway.

Based on the above, it is appropriate to state that the overwhelming majority of land use in the Whitestone/Beechhurst area is classified in the single and two-family residential category. Overall, the single and two-family land use category is estimated to account for approximately 80 percent of the land use within the Whitestone/Beechhurst area.

Commercial land uses are most evident in the portion of the Whitestone/Beechhurst area north of the Cross Island Expressway. A commercial core is clearly evident in the area generally bordered by 154th Street on the east, 12th Avenue on the north, the Cross Island Expressway on the south and 149th Street on the west. Commercial development is typified by an array of small neighborhood retail and service establishments along the streets in the noted area as well as a number of stores and businesses in the Whitestone Shopping Center, which is located along 154th Street near the Queens Library at Whitestone. A second notable commercial area in this portion of the neighborhood is located near the intersection of 154th Street and 10th Avenue. This area includes one large grocery store and several small businesses, restaurants and other retailers.

A second smaller cluster of commercial activity is evident south of the Cross Island Expressway, centered about the intersection of Willets Point Boulevard and Francis Lewis Boulevard. Commercial uses consist of a number of small eating establishments, small personal and banking service uses, and limited retail uses.

Industrial land use is limited in the Whitestone/Beechhurst area and is concentrated between 151st Street and 154th Street adjacent to the south shore of the East River. This area also includes a limited number of commercial establishments and a grocery store as noted previously. Industrial uses in this area consist of food products distribution, wholesale trade uses, and a bus transportation provider. There is also a collection of smaller industrial uses in the blocks surrounding the intersection of Clintonville Street and 12th Avenue.

Institutional land uses and public facilities are scattered throughout the Whitestone/Beechhurst area. These include public and parochial schools, numerous places of worship, and various municipal and public service facilities (e.g. police, fire, public works). While not as evident on the land use mapping, there are also religious uses being conducted out of residential or storefront locations and occasional day care facilities located in commercially developed areas. The list presented below identifies a number of the institutional uses and their general location in the Whitestone/Beechhurst area within the Study Area.

- Immanuel Lutheran Church – 11th Avenue slightly west of 150th Street
- Holy Cross Church and the Martin A Gleason Funeral Home – 11th Avenue at 150th Street
- Qsac School – 150th Street at 12th Avenue
- Holy Cross Greek School – 12th Avenue at 150th Street
- Whitestone Academy – 12th Avenue between Clintonville Street and 150th Street
- Queens Library at Whitestone – Clintonville Street at 14th Road

- St. Nicholas Orthodox Church – Clintonville Street between the Cross Island Expressway and 14th Road
- P.S. 193 – 152nd Street at 12th Avenue
- P.S. 184 Flushing Manor School – 163rd Street at 21st Avenue;
- J.H.S. 194 William Carr Junior High School – 157th Street at 7th Avenue
- P.S. 79 Francis Lewis School – 147th Street at 15th Drive
- St. Luke's Roman Catholic Church and St. Luke's School – 17th Avenue at Clintonville Street
- Bridgeview Nursing Home – Whitestone Expressway at 20th Avenue
- Sisters of Mercy Convent and Church – Parsons Boulevard at 21st Avenue
- First Presbyterian Church – 149th Street at 15th Drive
- Lowell School and Garden Jewish Center of Flushing – Parsons Boulevard at 24th Avenue
- The Grand at Queens Rehabilitation Center – 19th Avenue between Clintonville Street and Francis Lewis Boulevard
- New York Army National Guard – Powell's Cove Boulevard at 6th Avenue

Outdoor recreation and open space land uses are somewhat limited in the Whitestone/Beechhurst area and the listing below identifies those that exist. No cemeteries are identified as being located in this area. Uses in this category consist of park space and playgrounds.

- Francis Lewis Park – 3rd Avenue at I-678;
- Whitestone Playground – 12th Avenue between 152nd and 154th Streets;
- Playground Twenty-One – 166th Street at 21st Avenue;
- Clintonville Playground – Clintonville Street at 17th Road;
- GU Harvey Playground - Whitestone Expressway at 20th Avenue

1.2.6 Astoria (Eastern Half)

The Astoria area of Queens is heavily developed with residential and supporting commercial and public facility land uses. There is only a sparse amount of industrial and open space uses scattered throughout the neighborhood. The approximate eastern two-thirds of the Astoria neighborhood is located within the Study Area for this study. For this analysis, the western boundary for this portion of the neighborhood begins at the intersection of Astoria Park South and Shore Boulevard along the East River just south of the RFK Triborough Bridge and extends directly southward to Northern Boulevard at 36th Street. This coincides with the western boundary of the Study Area. The northern boundary consists of Astoria Park South and the Grand Central Parkway/I-278. The eastern boundary is 49th Street and the southern boundary is Northern Boulevard.

Multi-family is the predominant residential land use pattern, however, single and two-family residential is substantial and rather evenly dispersed amongst the multi-family developments. The multi-family buildings tend to range from two to five levels and there are several blocks that are completely developed with these types of buildings. There is also an abundance of mixed commercial/residential land uses along the major thoroughfares including Steinway Street, Broadway, 31st Avenue, 30th Avenue and Astoria Boulevard. Along these roadways, the buildings tend to be two to three levels with the lower level containing a variety of retail, restaurant and small business uses while the upper levels are residential. These mixed-use buildings are also interspersed amongst the other the pure commercial use buildings. Overall, it is estimated that residential uses account for over 85 percent of the land area within this part of Astoria.

Commercial and office space uses line both sides of Steinway Street, 30th Avenue and Broadway. These uses include a variety of shops, stores, restaurants, and personal and banking services. There is one commercial node, generally located along 35th Avenue between Steinway Street and 35th Street. This area is characterized by a movie theater, numerous restaurants and retailers, and multiple media studios. Just south of this area, located along 36th and 37th Avenues, is the neighborhood's only concentration of industrial land uses that includes several automobile and equipment service facilities, food distribution and miscellaneous mechanical, electrical and building material supply companies.

Aside from the above-ground section of the subway line that runs along 31st Street, there are no major transportation or utility land uses in this neighborhood.

Institutional land uses within the eastern portion of Astoria, inside the Study Area, are dispersed throughout the neighborhood and were reviewed relative to the noise sensitivity concerns of Part 150. The more significant of the identified institutional activities include a number of places of worship and educational uses along with a medical facility and a senior care facility. These are defined in the listing below. From the available mapping and data sources it was found that in a number of cases, facilities identified as churches consisted of storefront in a commercial land use area or a private neighborhood residence and did not display any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include those facilities in the listing below.

- HANAC Senior Housing – Hoyt Avenue South at 29th Street
- Astoria Islamic Center/Mosque – Astoria Boulevard at 21st Street
- Astoria Community Christian Church – Crescent Street at 29th Avenue
- Holy Cross Ukrainian Church – 31st Avenue at 30th Street
- HANAC PCA Senior Residence – mid-block 33rd Street south of 31st Avenue
- Trinity Lutheran Church – 31st Avenue at 37th Street
- I.S. 10, Horace Greeley Middle School – 31st Avenue at 46th Street
- William Cullen Bryant High School – 31st Avenue at 48th Street

- P.S. 166, Henry Gradstein School – 35th Avenue at 33rd Street
- Emmanuel Charismatic Church – 35th Avenue between 31st Street and 32nd Street
- Museum of the Moving Image – 35th Avenue at 36th Street
- Frank Sinatra School of the Arts High School – 35th Avenue at 35th Street
- Korean Central Church of New York – 41st Street between 34th Avenue and Broadway
- Queens Library at Broadway – 41st Street at Broadway
- Most Precious Blood Roman Catholic Church and School – 36th Avenue slightly south of Broadway
- Indonesian Muslim Community Center and Mosque – 31st Avenue at 48th Street
- Good Shepard United Methodist Church – Crescent Street at 30th Road
- Redeemer Episcopal Church – Crescent Street at 30th Road
- United Methodist Korean Church – Crescent Street at 30th Drive
- Mount Sinai Hospital Queens – Crescent Street at 30th Avenue
- P.S. 234 – 29th Street at 30th Road
- P.S. 17 Henry David Thoreau – 29th Street at 30th Avenue
- Saint Demetrios Cathedral and High School – 30th Drive at 30th Street
- St. Josephs Roman Catholic Church – 30th Avenue at 44th Street
- City Light Church – 31st Avenue at 47th Street
- Masjid Al-Iman Mosque – Steinway Street between 25th Avenue and Astoria Boulevard South
- Our World Neighborhood Charter School – 35th Avenue at 37th Street
- Holy Trinity Church – mid-block 37th Street south Astoria Boulevard South
- The Young Women’s Leadership School and Our Lady of Mt. Carmel Church – Newtown Avenue at 23rd Street
- New York Center for Rehabilitation and Nursing – 21st Street at 26th Road
- Hadrath, Shahjalal Masjid – 31st Street slightly north of 28th Avenue
- El-Ber Islamic School – mid-block of 49th Street south of 25th Avenue
- P.S. 70 – 42nd Avenue between Newtown Road and 30th Avenue
- Open Door Bible Baptist Church – 35th Street slightly north of 31st Avenue
- Astoria Seventh Day Adventist Church – 32nd Street slightly north of 31st Avenue
- Taiwan Union Christian Church – 31st Street near 30th Drive

- First Portuguese Speaking Baptist Church – 18th Street at 26th Road
- New York Center for Rehabilitation and Nursing – 21st Street slightly north of Astoria Boulevard

Outdoor recreation and open space land uses are limited in this portion of the Astoria neighborhood and there are no cemeteries. The few identified uses in this category consist of generally smaller playgrounds and various small open space areas. These facilities and general location are delineated in the following list.

- Playground Thirty-Five – 35th Avenue at Steinway Street
- Dwyer Square – Northern Boulevard at 47th Street
- Sean's Place – 38th Street slightly south of 31st Avenue
- Van Alst Playground – 30th Avenue slightly east of 21st Street
- Athens Square – 30th Street at 30th Avenue
- Astoria Heights Playground and Mini Pool – 46th Street at 30th Road
- Columbus Triangle – 31st Street at Astoria Boulevard South

1.2.7 Woodside

The Woodside neighborhood of Queens is located between the Jackson Heights neighborhood and Elmhurst on the east, Maspeth to the south, Ditmars-Steinway on the north, and Astoria and Sunnyside-Long Island City to the west. Specifically the neighborhood is bordered on the north by a short section of the Grand Central Parkway along the north side of St. Michael's Cemetery. The eastern boundary includes the Brooklyn Queens Expressway on the east side of the St. Michaels Cemetery and extending further south along 58th Street along the east side of the New Calvary Cemetery to Queens Boulevard. At Queens Boulevard the boundary extends west a short distance to 53rd Street. At 53rd Street the boundary turns to the north to follow a series of streets that form the west boundary consisting from south to north of:

The Woodside neighborhood is located between the Jackson Heights neighborhood and Elmhurst on the east, Maspeth to the south, Ditmars-Steinway on the north and Astoria and Sunnyside-Long Island City to the west. Specifically the neighborhood is bordered to the north by a short section of the Grand Central Parkway along the north side of St. Michael's Cemetery. The eastern boundary includes the Brooklyn Queens Expressway, on the east side of St. Michaels Cemetery, and extending further to the south to it's intersection with 58th Street at the eastern edge of the New Calvary Cemetery. The boundary then follows 58th Street northward to Queens Boulevard where it turns west on Queen's Boulevard for a short distance to 53rd Street. At 53rd Street the boundary turns to the north to follows a series of streets that form the neighborhood's western boundary. From south to north, the series of streets include:

- 53rd Street north to Skillman Avenue
- Skillman Avenue west to 52nd Street
- 52nd Street north to Barnett Avenue

- Barnett Avenue east to Woodside Avenue
- Woodside Avenue north to Northern Boulevard
- Northern Boulevard west to 49th Street
- 49th Street north to Grand Central Parkway

Residential is the dominant land use category in Woodside, comprising an estimated 60 to 65 percent of all land uses in the neighborhood. Of this, multi-family residential accounts for roughly 60 percent of all residential land use with single and two-family residential comprising the remaining 40 percent. Much of the multi-family use in Woodside, particularly in the area south of Northern Boulevard, is located on residential blocks that also have single and two-family uses intermixed from parcel to parcel within each block. Almost all of the residential blocks south of Northern Boulevard have both single and two-family and multi-family uses mixed together with the exception of a cluster of multi-family located around the intersection of Skillman Avenue and 53rd Street next to the Lawrence Virgilio Playground and Doughboy Plaza.

To the north of Northern Boulevard, single and two-family land uses are more concentrated with considerably less intermixing of multi-family uses. Multi-family uses are dominated by several large Housing Authority developments comprised of a mixture of four-plex units and 6-story apartment buildings. These are the Authority's Woodside complex and Boulevard Gardens complex. Additional multi-family apartments are located in the immediate area along 51st Street south of 31st Avenue. This results in a large area of multi-family land use near the west boundary of Woodside (north of Northern Boulevard between Newtown Road and 30th Avenue). A two block wide concentration of single and two-family residential use is evident to the west of the Boulevard Gardens Apartments, between the apartments and the west boundary of Woodside and north of 31st Avenue. Single and two-family residences are also evident to the north of the Boulevard Gardens Apartments from 30th Avenue to the LIRR rail line.

Commercial land uses are generally focused along multiple major arterial and collector streets and roadways in the Woodside neighborhood including Northern Boulevard, Roosevelt Avenue, Queens Boulevard and to a lesser extent 31st Avenue. These are summarized below starting in the north portion of the study area and moving south:

- 31st Avenue – A four-block strip of commercial land use is located along 31st Avenue starting at Hobart Street on the west and extending to 58th Street to the east. This commercial strip runs along the south end of the Boulevard Gardens Apartments and includes a number of small restaurants, pharmacies, a supermarket and a car dealership.
- Northern Boulevard – Commercial land uses are located along both sides of Northern Boulevard from Woodside Avenue on the west to the Brooklyn Queens Expressway on the east which creates a solid commercial corridor through the entire Woodside neighborhood. The intersection of Northern Boulevard and Broadway creates a small commercial node that ranges from large national brand retailers (Sports Authority, Staples) while east of Broadway the pattern returns to a commercial strip lining both

sides of Northern Boulevard. Typical uses along this strip include multiple car dealerships, automotive stores and small restaurants and retail establishments.

- Roosevelt Avenue – Roosevelt Avenue extends from east to west through the southern end of Woodside and has an unbroken pattern of commercial uses along both the north and south sides of the roadway for its entire length through Woodside. This commercial strip tends to not extend beyond the initial uses that front the roadway and specific commercial activities consist a typical mix of restaurants, pharmacies, grocery and convenience food stores small retail stores, personal service uses (beauty and barber), hardware and neighborhood bars.
- Queens Boulevard – Commercial uses along the north side of Queens Boulevard tend to be scattered and more intermittent than the patterns identified for Roosevelt Avenue or Northern Boulevard. Uses generally consist of several hotel/motel properties, several gas stations and several fast food restaurants.

Additionally, along this stretch of Northern Boulevard, and along 39th Avenue from Roosevelt to approximately 62nd Street, there are several residential/commercial properties noted consisting of two to three-level buildings where small retail and shops business occupy the lower and residential units occupy the upper levels.

Woodside has four main areas of concentrated industrial use. In the northern part of Woodside is an area of industrial use located along the west side of St. Michael's Cemetery that extends west across the Brooklyn Queens Expressway to the Amtrak Northeast Corridor and CSX rail alignment. This area also includes two areas of commercial use. A second area consists of uses located along the east and west sides of a triangular area defined by Northern Boulevard on the south, the Brooklyn Queens Expressway and CSX rail on the east and the AmTrak Northeast Corridor rail on the west. This area displays small industrial parcels along both the east and west sides with a residential center and a large industrial on the north end. A third industrial concentration is located south of the intersection of Broadway and Northern Boulevard and is generally located to the north of the LIRR line west/northwest of 58th Street, southwest of Broadway and bordered by 54th Street on the north/northwest. This area includes an array of automobile services, food distributors, manufacturers and other small businesses. The final industrial cluster has a similar business profile as the third area, and is on the west side of Woodside south of Northern Boulevard and situated along 34th Avenue.

Transportation, parking and utility land uses in the Woodside area are dominated by major rail corridors including the AmTrak Northeast corridor main line as well as a primary corridor of the Long Island Rail Road (LIRR) along with a MTA alignment and the CSX freight line. The remaining uses identified in this land use category consist of rights-of-way for the Brooklyn Queens Expressway and major arterials that pass along or through the neighborhood.

Institutional uses within the Woodside neighborhood were reviewed and the more significant of these are included in the listing below. The focus of this listing is on institutional and public uses that are typically considered to be noise sensitive uses under Part 150. The institutional activities listed consist of a diverse array of places of worship, public and parochial educational uses, and a

public library. In the development of this list from available mapping and data sources, it was found that a number of the identified churches consisted of storefront facilities in commercial land uses or consisted of private residences in neighborhoods and did not display any outward appearance of being a church. In short, small groups were conducting services in their personal residence or possibly renting temporary space from a local business. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below.

- Al-Husseini Madrassa Center Mosque – Laurel Hill Boulevard at 58th Street
- Razi School and Islamic Institute of New York, Imam Ali Mosque – Queens Boulevard at 56th Street
- Queens Library at Woodside – Skillman Avenue at 55th Street
- P.S. 11 Kathryn M. Phelan School – Skillman Avenue at 56th Street
- P.S. 152 Gwendolyn Alleyne – mid-block 61st Street south of Northern Boulevard
- St. Sebastian’s Roman Catholic Church and School – 58th Street at 41st Avenue
- Korean Trinity Church – Woodside Avenue slightly south of 39th Avenue
- Unity Ministry of Practical Church – Roosevelt Avenue between 58th and 59th Streets
- El Renuevo Christian Church – Midblock on 52nd Street north of Queens Boulevard
- Spanish Woodside Seventh Day Adventist – 58th Street north of 43rd Avenue
- Woodside Community Baptist Church – 58th Street at 41st Avenue
- She Moon Korean Baptist Church – Roosevelt Boulevard between 57th and 58th Streets
- Queens Boulevard Extended Care – Queens Boulevard at 63rd Street
- Church of Jesus Christ of Latter Day Saints – Midblock of 62nd Street and 61st Street between Woodside Avenue and 43rd Avenue
- St Paul’s Episcopal Church – 39th Avenue slightly east of 60th Street
- Sure Foundation Lutheran Church – Roosevelt Avenue at 65th Street
- Winfield Reformed Church – 67th Street slightly south of Woodside Avenue
- First Korean Presbyterian Church – 38th Avenue at 61st Street
- The Universal Church – Roosevelt Avenue at 69th Street
- New Wires Revival Church – 37th Avenue at 54th Street
- Shree Divya Dham Temple – 37th Avenue at 57th Street
- William Cullen Bryant High School – 31st Avenue at 49th Street

- Joong Ang Presbyterean Church – mid-block of 61st Avenue between Northern Boulevard and 32nd Avenue
- Christ Lutheran Church – Broadway at 58th Street
- P.S. 151 Mary D. Carter School – 31st Avenue at 50th Street
- Corpus Christi Church, Corpus Christi School and Academy of the City Charter School – 32nd Avenue between 60th and 61st Street
- El-Ber Islamic School – mid-block of 49th Street south of 25th Avenue

Land uses in the Outdoor Recreation, Cemeteries and Open Space category are limited to a number of relatively small neighborhood parks and playgrounds and a cemetery. These are listed below:

- Carl L. Sohncke Square – Roosevelt Avenue at 58th Street
- Strippoli Triangle – 31st Avenue at 54th Street
- Hart Playground – Broadway at 65th Street
- St. Michael's Cemetery – Brooklyn Queens Expressway at the Grand Central Parkway
- St. Michaels Playground – south side of 30th Avenue between the east and west portions of Brooklyn Queens Expressway
- Woodside Plaza – Woodside Avenue at Roosevelt Avenue
- Sherry Park – Queens Boulevard east of 65th Place
- Nathan Weidenbaum Park – Laurel Hill Boulevard at 63rd Street
- Big Bush Park – Queens Boulevard at 47th Avenue
- Lawrence Virgilio Playground and Doughboy Plaza – Woodside Avenue at 56th Street

1.2.8 Corona/North Corona

Corona and North Corona neighborhoods are generally defined by Flushing Meadows Corona Park on the east, 34th Avenue to the north, Junction Boulevard on the west and 62nd Avenue on the south. A portion of the Corona/North Corona neighborhood extends east along the north side of the Flushing Meadows Corona Park encompassing all of the Mets Citi Field and surrounding parking area and commercial/transportation and industrial uses between Citi Field and the Van Wyck Expressway. Corona/North Corona is bordered by the Flushing neighborhood to the east, Jackson Heights and East Elmhurst to the north, Elmhurst to the west and Forest Hills and Rego Park to the south.

Within this neighborhood, all residential land uses are located west of the Van Wyck Expressway and account for approximately 85 percent of the land uses in that area. Single and two-family uses are intermingled with multi-family uses throughout this portion of the neighborhood with the largest concentration of multi-family complexes being located in the southern portion, nearer the

intersection of 57th Avenue and 99th Street. Other clusters of multi-family residential complexes are located along 41st Avenue west of the Park of the Americas and between 38th and 39th Streets east of 108th Street. Most of the other multi-family residential uses scattered throughout the neighborhood consist of two to five level buildings with many of the lower levels of the larger buildings (particularly along the main thoroughfares) having some form of commercial or retail use. Blocks within the neighborhood dedicated to almost exclusively single and two-family residences are located at:

- Between 99th and 102nd Streets south of 37th Avenue
- North and south of Corona Avenue between 97th and 99th Streets
- Along 96th Street between 57th Avenue and Christie Avenue
- Along 41st, 42nd and 43rd Avenues east of 111th Street

Commercial and office development in the Corona/North Corona neighborhood is concentrated in four main areas with other small pockets located primarily near main roadway intersections. The four primary commercial land uses clusters and two notable pockets include:

- Along Junction Boulevard between 34th Avenue and 40th Road; retail lines both sides of this stretch of road
- Immediately north and west of the Park of the Americas and extending northward along both sides of 103rd Street
- Along Roosevelt Avenue near the intersection of 111th Street; including a lumber yard and Best Western Hotel
- Surrounding the Lefrak City complex along 57th Avenue, 99th Street and the Horace Harding Expressway; including many independent single-level retail shops, the Lefrak City Shopping Center, the Queens Library at Lefrak City, U.S. Post Office, and several government buildings including the Parks and Recreation Department, City Water Board, and the Department of Environmental Protection.
- AFB-Americas Food Basket at Corona Avenue and 102nd Street
- Holiday Inn LaGuardia Airport at 37th Avenue and 114th Street

Transportation, Parking and Utilities land uses include the rights-of-way of the Grand Central Parkway, a short section of the Van Wyck Expressway and the Long Island Expressway along with the MTA 7 line Corona Maintenance Facility located just south of Citi Field. An additional utility use is also identified on the mapping and consists of a full city block sized electrical substation bordered by 99th Street on the east, 98th Street on the west, Christie Avenue on the north and 55th Avenue on the south.

Institutional Land Uses within the Maspeth neighborhood inside the Study Area were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that in a number of cases churches that were identified consisted of storefront facilities that were in

commercial land uses or occasionally consisted of private residences in neighborhoods and did not display any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below. The institutional activities listed consist of a number of places of worship and educational uses along with two museums and an assisted living facility.

- I.S. 061 Leonardo Da Vinci School – 50th Avenue at 99th Street;
- P.S. 28 Thomas Emanuel Early Childhood Center – 47th Avenue east of 111th Street;
- P.S. 14 Fairview School – Van Doren Street at Otis Avenue;
- The High School for Arts and Business – Horace Harding Expressway Frontage Road at Westside Avenue;
- St. Leo Church and St. Leo School – 49th Avenue at 104th Place;
- Louis Armstrong House Museum - 107th Street north of 37th Avenue
- Grace Episcopal Church – 98th Street north of 35th Avenue;
- Galilee Gospel Chapel – 102nd Street at 35th Avenue
- Good Shephard Church of God – 97 Street north of 37th Avenue;
- IEDJ Corona Church – 103rd Street at 37th Avenue
- New York Hall of Science Museum – 111th Street at 47th Avenue;
- St. Paul Apostle Church – north end of 98th Place between 57th Avenue and 55th Avenue.
- Rego Park Health Care Assisted Living Facility – Corona Avenue between Saultell Avenue and the westbound exit ramp from the Grand Central Parkway to the Long Island Expressway.

Outdoor Recreation, Cemeteries and Open Space land uses were inventoried and uses identified in this category consisted of multiple relatively smaller park areas along with the Queens Zoo and a small portion along the west side of the Grand Central Parkway of the 1964 World's Fair Site, Corona Park. These facilities and general location are delineated in the list that follows.

- Corona Golf Playground – 47th Avenue at 111th Street
- Horace Harding Playground – 62nd Avenue at 102nd Street
- Barrier Playground – 62nd Avenue at Yellowstone Boulevard
- Corona Mac Park & Louis Simeone Park – Lewis Avenue at 101st Street
- William F. Moore Park – Corona Avenue at 108th Street
- Park of the Americas – 104th Street at 41st Avenue
- Hinton Park – 34th Avenue at 114th Street
- Queens Zoo – 111th Street at 53rd Avenue

- Met's Citi Field – 126th Street between Shea Road and Roosevelt Boulevard
- Flushing Bay Promenade – North side of the Whitestone Expressway and Northern Boulevard east of the Grand Central Expressway

1.2.9 Elmhurst

Elmhurst is typified with a mix of residential development that is more multi-family than single and two-family in nature. It is estimated that multi-family land uses account for roughly 65 to 70 percent of the residential development in the neighborhood. Much of the multi-family land use is intermixed with single and two-family land uses and does not display a pattern typical of large scale multi-family apartment or condominium developments. The portion of Elmhurst to the north/northeast of Queens Boulevard displays a higher intensity of multi-family on a block by block basis than the relatively small portion of Elmhurst to the southwest of Queens Boulevard which displays an equal split between multi-family and the single and two-family categories. .

Consistent with other neighborhood, it is recognized that commercial activities are often found on the first floor of multi-family buildings and in most cases do not show up as the principal use of the building or parcel. This is recognized in the case of Elmhurst as well. For this discussion those areas that the City has classified as commercial in the land data base are focused upon. In Elmhurst commercial land uses are evident along several major roadway corridors and at two commercial nodes. The largest node is located in the north/northeast quadrant of the intersection of Queens Boulevard and the Long Island Expressway and is concentrated around the Queens Center Mall, the five level Queens Place shopping mall and other smaller commercial uses located around these two malls. The second smaller commercial node found around the intersection of 51st Avenue and Queens Boulevard.

Commercial land uses are also found along several of the major arterial roadways in Elmhurst including along Roosevelt Boulevard across the entire north boundary of Elmhurst, along the alignment of Broadway from the Brooklyn Queens Expressway southeast to Queens Boulevard and along the length of Queens Boulevard in the Elmhurst area.

No significant industrial land uses are evident in the Elmhurst, although there are some small individual industrial parcels that do show up.

Transportation, Parking and Utilities land uses include the Rights of Way of the Long Island Expressway the LIRR alignment and that of associated with MTA rail. No significant areas of public utility use or major parking facilities are delineated on the land use base mapping.

Institutional Land Uses within the Maspeth neighborhood inside the Study Area were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that in a number of cases churches that were identified consisted of storefront facilities that were in commercial land uses or occasionally consisted of private residences in neighborhoods and did not display any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not

include these in the listing below. The institutional activities listed consist of a number of places of worship and both public and parochial educational uses along with one medical facility.

- Elm Tree Elementary School – Grand Avenue at Seabury Street
- New Life Fellowship Church – Simonson Street at Queens Boulevard
- Saint Adalbert Catholic Church and School – 83rd Street south of Grand Avenue
- P.S. I.S. 102 Queens – Van Horn Street at 55th Road
- Church of the Ascension – Van Horn Street at 55th Avenue
- First Presbyterian Churches of Newtown and Elmhurst – vicinity of Queens Boulevard and 54th Avenue
- The Rock Church – Hoffman Drive at 57th Avenue
- Newtown High School – 90th Street at 48th Avenue
- Elmhurst Learning Center/St. James Episcopal Church, The Reformed Church of Newtown – Corona Avenue at Broadway
- Cathedral Preparatory School and Seminary – 57th Avenue at 92nd Street
- P.A. 13 Clement C. Moore School – 56th Avenue at 94th Street
- Central Queens Academy Charter School – 56th Avenue at Junction Boulevard
- John F. Kennedy Jr. School/Pan American International High School – 94th Street at 46th Avenue
- P.S. 7 NYCDOE school – Poyer Street at Barnwell Avenue
- Greeta Temple Ashram - Corona Avenue vicinity of 92nd Street
- Elmhurst Hospital – Broadway Baxter/Woodside Avenue
- SDA School of Jackson Heights 73rd Street at Woodside Avenue
- Wat Buddha Thai Thavorn Vanaram – 46th Avenue slight east of 76th Street
- Bangladesh Hindu Mandir – 44th Avenue east of 94th Street
- St. Bartholomew Parish Roman Catholic Church and St. Bartholomew School, P.S. 14 Annex, Elmhurst Baptist Church; Jain Temple, Christian Testimony Church – Vicinity of Ithaca Street and Whitney Avenue
- James B. Colgate P.S. 12, St. Jacobs Evangelical Lutheran Church – 72nd Street at 43rd Avenue
- P.S. 089 Elmhurst School – Britton Avenue at Hampton Street

Outdoor Recreation, Cemeteries and Open Space land uses were inventoried and uses identified in this category consisted of all or portions of generally small parks and a number of playgrounds. These facilities and general location are delineated in the list that follows.

- Elmhurst Park and Crowley Playground – vicinity of 57th Avenue and 80th Street
- Hoffman Park – Woodhaven Boulevard at the Long Island Expressway (I-495)
- Newtown Playground – 56th Avenue at 92nd Street
- Frank D. O'Connor Playground – Broadway at 78th Street
- Moore Homestead Playground – 45th Street and Broadway
- Veterans Grove – 43rd Avenue at Whitney Avenue

1.2.10 Flushing

The Flushing area of Queens exhibits a wide mix of relatively concentrated similar land uses. Parks and open spaces line the southern portion of the neighborhood including a large portion of the Flushing Meadows Corona Park and Worlds Fair site. Commercial, industrial and transportation type uses are abundant in the western portion. Moving eastward, the uses become distinctly multi-family residential with supporting institutional and public facilities and then transition to predominately single and two-family residential further to the east. For this analysis, the eastern boundary of the Flushing neighborhood coincides with the eastern boundary of the Study Area, which is essentially the alignment of 171st Street if it were extended southward to Booth Memorial Avenue. As listed below, the remainder of the neighborhood boundary follows a series of roads from its eastern limits towards the northwest, then south, then east to where it intersects with eastern boundary again.

- Beginning near the intersection of 43rd Avenue and Northern Boulevard
- West on 43rd Avenue to Cherry Avenue
- Southwest on Cherry Avenue to Parson Boulevard
- North on Parsons Boulevard to 25th Avenue
- West on 25th Avenue to the Whitestone Expressway/I-678
- Whitestone Expressway north to 20th Avenue
- 20th Avenue west to 130th Street
- 130th Street south to Ulmer Street
- Ulmer Street Southeast 26th Avenue
- 26th Avenue west to 124th Street
- 124th Street south to 28th Avenue
- 28th Avenue west 123rd Street
- Alignment of 123rd Street south to 31st Avenue
- 31st Avenue east to College Point Boulevard
- College Point Boulevard southeast to the Whitestone Expressway/I-678
- The eastern shore of Flushing Creek south to the Van Wyck Expressway/I-678

- The Van Wyck Expressway south to the subway rail line
- Subway rail line west to the Grand Central Parkway
- Grand Central parkway south to the long Island Expressway/I-495
- Long Island Expressway east to College Point Boulevard
- College Point Boulevard north to Booth Memorial Avenue
- Booth Memorial Avenue east to 133rd Street
- 133rd Street/Elder Avenue/Peck Avenue northeast to Main Street
- Main Street South to 56th Avenue
- 56th Avenue and 142nd Street east to 56th Road
- 56th Road east, including the residential community on the north side, to 150th Street
- 150th Street south to Booth Memorial Avenue
- Booth Memorial Avenue east to the boundary of the Study Area at Fresh Meadows Lane

As noted previously, the residential land use pattern is markedly different in the western and eastern portions of this neighborhood. Generally west of the Parsons Boulevard alignment, residential uses are mostly multi-family in nature with scattered mixed commercial/residential. There are however several blocks along the northern portion of Parsons Boulevard, between 29th Avenue and 32nd Avenue that are exclusively single and two-family uses. Near the Queen's Botanical Garden, west of Main Street, there are also several single family and two-family uses interspersed with the multi-family units. Moving eastward through the neighborhood, single and two-family residential uses become dominate, particularly in the vicinity of Kissena Park, the Kissena Park Golf Course and the Flushing Cemetery. Within a few blocks east or west of 162nd Street and north or south of 45th Avenue, multi-family units are noted to be scattered amongst the lower density residential properties. There are a couple of commercial pockets along

The western portion of the Flushing neighborhood, near the intersections of Northern Boulevard with College Point Boulevard and Main Street, contains a large concentration of commercial and office space uses. This concentration extends approximately five blocks south of Northern Boulevard to 41st Avenue, effectively creating a shopping and hotel district supported with various eating and entertainment establishments. There is another large shopping located between the Van Wyck Expressway and College Point Boulevard north of Fowler Avenue. This shopping area includes a Home Depot, Target, Best Buy and numerous smaller retail, personal service, restaurants, and similar businesses. Commercial and office uses also line both sides of Northern Avenue extending into the Queensboro Hill Neighborhood to the east. There are other notable commercial activities along Kissena Boulevard at Laburnum Avenue, at Cherry Avenue and at Sanford Avenue. A market area containing local retailers and restaurants is also located along Union Street at 29th Road.

Commercial and office space uses line both sides of Steinway Street, 30th Avenue and Broadway. These uses include a variety of shops, stores, restaurants, and personal and banking services. Similar commercial uses are located along both sides of 162nd Street between 46th Avenue and Northern Boulevard. There is one commercial node, generally located along 35th Avenue between Steinway Street and 35th Street. This area is characterized by a movie theater, numerous restaurants and retailers, and multiple media studios. Just south of this area, located along 36th and 37th Avenues, is the neighborhood's only concentration of industrial land uses that includes several automobile and equipment service facilities, food distribution and miscellaneous mechanical, electrical and building material supply companies. North of the Whitestone Expressway/I-678, at its intersection with Ulmer Street, there is also a commercial node that includes a four-story office building and adjacent shopping mall and movie theater.

Aside from the roadway right-of-ways, there are two significant transportation and utility land uses in this neighborhood. These include the Con Edison College Point Yard located along College Point Boulevard between 30th and 31st Avenue, and the MTA Bus College Point Depot located on 28th Avenue at Ulmer Avenue.

Institutional and public land uses within the Flushing portion of the Study Area are mostly located in the western and northern sections of the neighborhood, nearer the multi-family residential and commercial uses. These institutional uses were reviewed from available mapping and data sources and the more significant of those identified are included in the listing below. The focus of this listing is on those institutional and public uses that are typically considered to be noise sensitive uses under Part 150. There are two large scale public facility land uses located north of the Whitestone Expressway which include the NYPD Training Academy and the U.S. Postal Service (USPS) Queens Processing and Distribution Center however these are not considered to be noise sensitive. The institutional activities listed consist of a diverse array of places of worship, public and parochial educational uses, a public library and one senior care/rehabilitation center. It should be noted that in a number of cases, churches that were identified consisted of only storefront facilities within commercial land uses or consisted of private residences and did not display any outward appearance of being a church. Where these situations arose, it is understood that individuals are likely conducting limited or private services, and the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below.

- St. Mel's Roman Catholic Church and Catholic Academy – 27th Avenue at 154th Street
- Mitchell Linden Library – 32nd Avenue at Union Street
- New York City Police Academy – 28th Avenue at College Point Boulevard
- Promise Church and International Fellowship – 31st Avenue slightly west of the Whitestone Expressway
- P.S. 242 Leonard P. Stavisky Early Childhood Development Center – 31st Road at 137th Place
- Pure Presbyterian Church – 32nd Avenue at Union St

- Salvation Army NK Church – Parsons Boulevard at 32nd Avenue
- Jehovah's Witnesses Flushing – 33rd Avenue at Parsons Boulevard
- Masjidi Hazrat Abubakr Mosque – 33rd Avenue between Parsons Boulevard and Union Street
- Bowne Street Community Church – Roosevelt at Bowne Street
- P.S. 020, John Bowne School – Sanford Avenue at Bowne Street
- Queens Library at Flushing – Kissena Boulevard at Main Street
- Franklin Center for Rehabilitation and Nursing – Franklin Avenue just west of Bowne Street
- P.S. 244 – Franklin Avenue at Colden Street
- I.S. 237 – Colden Street at Juniper Avenue
- St. Michael's Church and St. Michael's School – 41st Avenue at Union Street
- St. George's Episcopal Church – Main Street at 39th Avenue
- Flushing High School – Union Street at Northern Boulevard
- Temple Gates of Prayer Congregation – Parsons Boulevard at 38th Avenue
- Queens Academy – 35th Avenue at Union Street
- St. John's Vianney Roman Catholic Church – Union Street at 35th Avenue
- Cypress Garden Care Center – mid-block of 35th Avenue east of Union Street
- Queens Christian Alliance Church – Linden Place at 35th Avenue
- The Windsor School – 37th Avenue at Main Street
- Temple Gates of Prayer Congregation – Parsons Boulevard at 38th Avenue
- Free Synagogue of Flushing – Sanford Avenue at Kissena Boulevard
- Manville Baptist Church – Sanford Avenue at Union Street
- Chinese for Christ New York Church – mid-block Franklin Avenue between Union Street and Bowne Street
- The Korean American Presbyterian Church of Queens – Franklin Avenue at Bowne Street
- Queens Museum – Meridian Road at Hall of Science Bridge
- East-West School of International Studies – Colden Street at Juniper Avenue
- Kingdom Hall of the Jehovah's Witnesses – Colden Street at Laburnum Avenue
- Hindu Center of New York Temple – Holly Avenue at Kissena Boulevard
- Muslim Center of New York – Geranium venue slightly west of Kissena Boulevard

- Nichiren Shoshu Buddhist Temple – Ash Avenue at Parsons Boulevard
- BAPS Shri Swaminarayan Mandir – mid-block Robinson Street between Cherry Avenue and 45th Avenue
- Kissena Jewish Center Synagogue – mid-block Bowne Street between Cherry Avenue and 45th Avenue
- Flushing Hospital Medical Center – Parsons Boulevard at 45th Avenue
- Flushing First Church of the Nazarene – 149th Street at Hawthorne Avenue
- Queens Herald Church – mid-block 162nd Street between 43rd Avenue and 45th Avenue
- P.S. 107 Thomas A. Dooley Elementary – 45th Avenue at 167th Street
- Antioch Missionary Church – 162nd Avenue slightly north of 46th Avenue
- P.S. 24 Andrew Jackson School – Holly Avenue at Union Street
- The Hindu Temple – Bowne Street just north of Holly Avenue
- St. Mary's Nativity Church – Parsons Boulevard at Holly Avenue
- Most Holy Catholic Redeemer Church – Jasmine Avenue at Parsons Boulevard
- Christian Believers Church – Laburnum Avenue at Parsons Boulevard
- Shri Shridi Sai Baba Temple – Robinson Street slightly south of Holly Avenue
- Iglesia Presbiteriana Church – Rose Avenue at Bowne Street
- New York Korean Baptist Church – Rose Avenue slightly east of Parsons Boulevard
- New People's Church of New York – 46th Avenue at 162nd Street

As noted previously, there are large tracts of outdoor recreation, open space and cemetery land uses in the Flushing portion of the Study Area. These include several large regional park and outdoor recreation areas, the World's Fair site, and a number of smaller parks and playgrounds and a portion of one cemetery. These and their general location are delineated in the list that follows. There is also one large open tract of land located to the west of the Whitestone Expressway and immediately adjacent to the USPS Queens Distribution Center and College Point Fields. This undeveloped open space is noted as site of the previous Flushing Airport which is decommissioned in the mid-1980s.

- Flushing Meadows Corona Park East – Meridian Road at College Point Boulevard
- Flushing Meadows Golf Center – Meridian Road at East Road
- U.S. Tennis Association Billie Jean King Tennis Center – Meridian Road at Grand Central Parkway
- College Point Fields – 23rd Avenue at 130th Street
- Leavitts Park – 32nd Avenue at 137th Street;

- Cadwallader Colden Playground – Union Street at 31st Road (Mitchell Linden)
- Bowne Playground – Sanford Avenue at Union Street
- Maple Playground – Maple Street at Kissena Boulevard
- Bland Playground – 40th Road at Price Street
- Margaret I. Carman Green – Bowne Street at 37th Avenue
- Queens Botanical Garden – College Point Boulevard at Blossom Avenue
- Kissena Corridor and Kissena Park – Kissena Boulevard at Rose Avenue
- Kissena Park Golf Course – 164th Street at Booth Memorial Avenue
- Al Oerter Recreation Center – College Point Boulevard at Fowler Avenue
- Flushing Cemetery – 164th Street at 46th Avenue
- Lawrence Triangle – Parsons Boulevard at Elm Avenue
- Martin Field – 164th Street at 46th Avenue
- Flushing Cemetery – 164th Street at 46th Avenue

1.2.11 Murray Hill / Queensboro Hill

For purposes of this study, the Murray/Queensboro Hill neighborhood is defined as being bordered by Whitestone/Beechhurst on the north, Parsons Boulevard on the West, Cherry Avenue/43rd Avenue on the south and 168th Street (the boundary of the Study Area) on the east.

Single and two-family residential land uses comprise the majority of residential land use in this area and dominate the residential development pattern north of 35th Avenue or one block to the north of Northern Boulevard. Only limited scattered multi-family development occurs between 35th Avenue and the northern boundary of the neighborhood at 25th Avenue. To the east of 154th Street and out to the east boundary of the Study Area, single and two-family residential land use extends to the south of 35th Avenue to Crocheron Avenue.

A significant concentration of multi-family land use is located in the southwest section of the Murray/Queensboro Hill neighborhood spilling over from the Flushing area and centered around Northern Boulevard. To the north of Northern Boulevard this area is generally defined by 149th Street on the east, Parsons Boulevard on the west and 33rd Avenue on the north. South of Northern Boulevard this concentration of multi-family generally extends to the east of Parsons Boulevard to Murray Street and south to Sanford Avenue. Additional, albeit, smaller concentrations of multi-family land use are located west of 162nd Street between Corcheron Avenue and Northern Avenue, and south of Northern Avenue in an area east of 162nd Street and north of 43rd Avenue. A mix of Single and Two-family and multi-family residential is located south of Northern Boulevard between 149th Street and 162nd Avenue.

Commercial land uses in the Murray/Queensboro Hill neighborhood is most evident along the length of Northern Boulevard from Parsons Boulevard on the west, to the eastern boundary of the Study Area. Commercial uses are evident along both the north and south sides of Northern

Boulevard, but do not extend to the north or south of this roadway to any significant extent. A second small corridor of commercial is located along 162nd Street from 43rd Avenue on the south to Northern Boulevard a distance of roughly two blocks. Uses in both of these corridors are comprised of a mix of small retail establishments of all kinds, an array of restaurants and various banks and personal service establishments. A small neighborhood retail center is also evident in the northwest corner of the neighborhood at the intersection of Willetts Point Boulevard and Parsons Boulevard. Mixed use developments are not in evidence in the Murray/Queensboro Hill neighborhood

Industrial land uses as well as Transportation, Parking and Utilities land uses are not evident within the Murray/Queensboro Hill neighborhood in the Study Area.

Institutional land uses are scattered throughout the Murray Hill/Queensboro Hill area many of which are not of sufficient size to be discernable on the land use map covering an area the size of the Study Area. These include places of worship being conducted out of residential or storefront locations and occasional day care facilities located in commercially developed areas along with various municipal and public service (police, fire, public works) facilities. The list presented below delineates and generally identifies the location of a number of the institutional uses that are located within the section of the Whitestone/Beechhurst area inside the Study Area.

- P.S. 21 Edward Hart School and Edward Bleeker Junior School – 149th Street at 26th Avenue
- The Giving Church of New York - Bayside Avenue between Parsons Boulevard and 146th Street
- St. Paul Chung Ha Sang Roman Catholic Church – Parsons Boulevard slightly north of 33rd Avenue
- First Church of Christ Scientist - Bayside Avenue between Parsons Boulevard and 146th Street
- Han Ma Um Zen Center of New York - Bayside Avenue between Parsons Boulevard and 146th Street
- True Buddha Diamond Temple – 148th Street slight north of 34th Avenue
- Sapphire Center for Rehabilitation and Nursing – parsons Boulevard between 35th Avenue and Northern Boulevard
- The Shield Institute Special Education School – Roosevelt Avenue between 147th Street and Parsons Boulevard
- The Sikh Center of New York – Parsons Boulevard between 38th Avenue and Roosevelt Avenue
- The Korean Church of New York – 150th Place at 35th Avenue
- United Methodist Korean Church – 35h Avenue at Murray Street
- Immanuel Korean Lutheran Church

- Saint Andrew Avellino Roman Catholic Church and School – 157th Street at Northern Boulevard
- New Power Presbyterian Church – 35th Avenue at 162nd Street
- North Presbyterian Church – 154th Street at 25th Drive
- St. Mel's Roman Catholic Church and Catholic Academy – 27th Avenue at 154th Street
- J.H.S. 189, Daniel Carter Beard Junior High School – Barclay Avenue at 147th Street
- International Buddhist Society – Barclay Avenue at 156th Street
- First Presbyterian Church and Flushing Christian School – Barclay Avenue at Murray Street
- Free Gospel Assemblies of God – Sanford Avenue at 157th Street
- Faith Bible Church and Seminary – 41st Avenue at 154th Street
- St. John's Episcopal Church – 149th Place at Sanford Avenue
- New Sprout Presbyterian Church - 149th Street between Roosevelt Avenue and 41st Avenue
- The First United Methodist Church - 149th Street at 38th Avenue
- The Church of Jesus Christ of Latter Day Saints – Sanford Avenue slightly east of Parsons Boulevard
- Voelker Orth Museum – 38th Avenue at 149th Place
- Queens Library at McGoldrick – 155th Street at Roosevelt Avenue
- Masjid Dar Al-Taqua Mosque – 159th Street at Depot Road
- Russian Orthodox Church – 147th Street between Beech and Cherry Avenues
- Lutheran Church of St. John – Sanford Avenue at 149th Street
- Queens Church of Christ – Murray Street at Sanford Avenue
- Hyo Shin Bible Presbyterian Church – 166th Street between 43rd Avenue and Northern Boulevard
- Full Gospel United Church – Northern Boulevard at 168th Street
- Church on the Hill – 35th Avenue at 167th Street

Outdoor Recreation, Cemeteries and Open Space land uses in the Murray/Queensboro Hill area were inventoried and only a limited number of areas were identified in this category. Those listed consisted of several playgrounds, a small park and an area comprised of a series of athletic fields, tennis courts, dual use soccer and baseball diamonds and an artificial turf football field, These facilities and general location are delineated in the list that follows.

- Murray Hill Playground – Sanford Avenue at Murray Street

- Memorial Field Playground and Park of Flushing 149th Street at 25th Avenue
- Hart Playground – 147th Street at 26th Avenue
- Browne Park - 29th Avenue at 155th Street

1.2.12 Sunnyside / Sunnyside Gardens and Long Island City

This area is comprised of elements of three neighborhoods consisting of a portion of the east section of Long Island City, almost all of Sunnyside and fully encompassing the Sunnyside Gardens area. The western boundary of this area consists of the west boundary line of the Study Area. This boundary line enters Sunnyside where 56th Road passes under the Brooklyn Queens Expressway and extends in a north/northwesterly orientation across the eastern quarter of Calvary Cemetery to the Long Island Expressway. North of the Long Island Expressway the boundary line crosses back over developed areas at the intersection of Laurel Hill Boulevard and 39th Street, but does not follow any ground features. For this reason the boundary will be described by proximity to street and roadway intersections. From 39th Street and Laurel Hill Boulevard, the boundary continues north/northwest crossing over the intersection of 50th Avenue at Greenpoint Avenue, 47th Avenue just west of 38th Street, passes over the intersection of 37th Street at 43rd Avenue and connects with the northern boundary of the Sunnyside, Sunnyside Gardens and Long Island City area at 36th Street and Northern Boulevard. All of the area to the east of this line is within the Study Area.

The northern boundary line follows Northern Boulevard east to the intersection with Woodside Avenue where the boundary turns back to the south to generally follow 52nd and 53rd Streets south to Queens Boulevard and the north side of the New Calvary Cemetery where the boundary turns to the east and then south along the east side of the cemetery to the alignment of the Brooklyn Queens Expressway and follows the expressway back to 56th Road.

Residential land use comprises the majority of development in the area, accounting for an estimated 60 to 65 percent of all mapped uses. The residential pattern is comprised of a more significant level of multi-family development than single and two-family residential, and this is clearly evident on the base mapping. Single-family uses are for the most part located in the northern and southern sections of the neighborhood. In the north, single and two-family uses are found clustered in the Sunnyside Gardens area. These uses are bordered by 43rd Street on the west and 52nd Street on the east with Skillman Avenue on the south and 39th Avenue on the north. This consists of a nine block area. On the south, single and two-family land uses are concentrated between the Long Island Expressway on the south and 50th Avenue on the north, again only one block in depth from north to south and 11 blocks from east to west.

Multi-family residential use dominates the central core of the neighborhood extending from 50th Avenue on the south to Skillman Avenue on the north and encompassing an area through the entire center of the neighborhood five blocks wide (north to south) and an average of 12 blocks east to west.

A large block of commercial land use is located between the northeastern section of the Sunnyside rail yard and Northern Boulevard. This area starts as a narrow sliver of commercial

activity near the Northern Boulevard and 39th Street intersection and expands noticeably east of 42nd Place. Commercial use continues up to, and beyond, the east boundary of the neighborhood. Uses in this area include but are not limited to large box national chains, regional and local retail, restaurants, car dealerships, and grocery stores.

In addition to the large commercial area on the north side of the neighborhood, commercial land use is also evident along major streets in the Sunnyside, Sunnyside Gardens and Long Island City area that include the following:

- Both sides of Queens Boulevard from the west boundary line to the east boundary at the northeast corner of New Calvary Cemetery
- Greenpoint/Roosevelt Avenue from 48th Avenue northeasterly to the east boundary of Sunnyside, Sunnyside Gardens and Long Island City area at 53rd Street
- While not as discernible, Skillman Avenue from 45th Street east to the east boundary of the neighborhood at 52nd Street
- 48th Avenue from 43rd Street to 48th Street

Mixed use development is not contained within the Sunnyside, Sunnyside Gardens and Long Island City area.

Industrial land uses are focused in three sections of the Sunnyside, Sunnyside Gardens and Long Island City area. The first of these is in the northwest section of the neighborhood south of the Sunnyside rail yard, and west of 39th Street, extending to the west approximately two blocks to the boundary of the Study Area. Industrial land uses parallel the Study Area border south, crossing Queens Boulevard and ending at 47th Avenue. A small section of this area also extends east along the south side of the Sunnyside rail yard and north of Skillman Avenue for approximately two blocks. The industrial uses in this area are on the eastern end of an extensive industrial area that ultimately extends all the way to the East River.

Industrial land use is also evident along the west side of the New Calvary Cemetery between Queens Boulevard on the north and the Brooklyn Queens Expressway on the south. This is a narrow corridor of industrial use extending westward roughly a block from the west side of the cemetery. The final industrial area is in the northeast corner of the Sunnyside, Sunnyside Gardens and Long Island City area at the eastern end of the Sunnyside rail yard. This area lies astride the LIRR line where it turns to the southeast in the immediate vicinity of Woodside Avenue and Barnett Avenue.

Transportation, Parking and Utility land uses in the Sunnyside, Sunnyside Gardens and Long Island City area are dominated by the major rail corridor, and the 180 acre Sunnyside rail yard. The yard serves the Amtrak northeast corridor main line as well as a primary corridor of the LIRR. The area also serves as a maintenance facility and a storage area for rail coaches. A study is currently underway to investigate the potential for the redevelopment of some of the site or potentially an air rights development over the site but this will not trigger any land use changes during the Part 150 timeframe. The remaining uses identified in this land use category consist of rights of way for the major regional roadways that pass along or through the area.

Institutional Land Uses within the Sunnyside, Sunnyside Gardens and Long Island City neighborhood area were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that a number of the identified churches consisted of storefront facilities that were in commercial land uses or consisted of private residences in neighborhoods and did not display any outward appearance of being a church. In short, small groups were meeting and likely conducting services in their personal residence or possibly renting temporary space from a local business. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below. The institutional activities listed consist of a number of places of worship, several educational facilities, and a public library.

- Queens Vocational and Technical High School – 47th Avenue at 38th Street
- P.S. 199 Maurice A. Fitzgerald School – 48th Avenue at 39th Street
- Sunnyside Jewish Center – 47th Avenue at 41st Street
- P.S. 150Q – 43rd Avenue at 41st Street
- Sunnyside Library – Greenpoint Avenue at 43rd Street
- Queen of Angels Church – Skillman Avenue at 44th Street
- Queens Assembly Hall of Jehovah’s Witnesses – Greenpoint Avenue at 45th Street
- Church of Saint Teresa – 50th Avenue at 45th Street
- St. Nicholas Romanian Church – 48th Avenue at 45th Street
- All Saints Episcopal Church of Long Island City – 46th Street slightly south of 43rd Avenue
- Woodside Intermediate School 125 – 47th Avenue at 47th Street
- Sunnyside Reformed Church – Skillman Avenue at 48th Street

Land uses in the Outdoor Recreation, Cemeteries and Open Space category are limited to portions of two cemeteries and a number of relatively small neighborhood parks and playgrounds. These are listed below:

- John Vincent Daniels Jr. Square - Roosevelt Boulevard at 51st Street
- John Downing Park – 43rd Avenue at 51st Street
- Sunnyside Garden Park – Barnett Avenue at 48th Street
- Lance Corporal Thomas P. Noonan Playground – Greenpoint Avenue at 42nd Street
- Lou Lodati Park – 48th Avenue at 43rd Street
- John Vincent Daniels Jr. Square – 43rd Avenue at 52nd Street
- Sunnyside Garden - Barnett Avenue at 48th Street

- Eastern Quarter of New Calvary Cemetery
- Northern half of New Calvary Cemetery – Northern Boulevard at 52nd Street

1.2.13 Maspeth (Northern Portion)

The Maspeth neighborhood is partially contained within the Study Area. The portion of Maspeth in the Study Area is comprised of approximately the northern two-thirds of the neighborhood, while the remaining component of the neighborhood is located in the more general Land Use Data Collection Area. The portion in the Study Area is generally defined by a combination of the Brooklyn jurisdictional boundary and the Alignment of the Brooklyn Queens Expressway (I-278) on the west and northwest, a short section of Queens Boulevard on the north, the CSX Rail line of the east and the south boundary of the Study Area on the south. As the Study Area boundary was not defined based on local geographical features the best way to describe its position through Maspeth would be as a line running east-west generally parallel to the and more or less six-tenths of a mile north of the alignment of Metropolitan Avenue.

Residential land uses are dominated by development classified in the Single and Two-Family land use category. The large majority of the residential land uses are generally located in the eastern half of the portion of Maspeth in the Study Area. It is estimated that land uses categorized in the Single and Two-Family category comprise approximately 85 to 90 percent of the residential uses mapped on the land use map base.

Two small clusters of multi-family development are evident on the map with the remainder of the multi-family uses consisting of small individual building parcels interspersed among predominantly Single and Two-Family residential blocks. The first of the two small concentrations of multi-family development is an area located near the east-northeast corner of the Mt. Zion Cemetery, generally along both sides of 65th Place between 53rd Drive and 52nd Avenue. The second concentration is located between 74th Street and the CSX rail line and from Eliot Avenue north to the Long Island Expressway (I-495).

Significant concentrations of commercial activity are not discernible within the section of Maspeth inside the Study Area. Commercial uses can be found mixed in with the first two industrial areas that were described, with the remaining commercial use of any significance being located along Grand Avenue from the south boundary of the Study Area to the east boundary of Maspeth at the CSX rail alignment.

Industrial land uses can be found in several locations in the Maspeth portion of the Study Area. The most significant of these is part of a large concentration of industrial development that extends through multiple jurisdictions spreading out along both sides of Newtown Creek. In the Study Area this includes an area that is generally bordered by Newtown Creek and I-278 on the west the Queens Midtown Expressway (I-495) and the southern end of the New Calvary Cemetery on the north the section and an irregular line along and on both sides of Maurice Avenue. Additional industrial development extends south from the described area but outside of the Study Area.

The second, but far more limited concentration of industrial land use is located south of Queens Boulevard on both sides and north of 51st Avenue from 69th Place east to the CSX and the Long Island railroad (LIRR) track alignments. This particular area is dominated by an array of auto service and repair activities

A third concentration of industrial development is located along the south side of the Brooklyn Queens Expressway and east of where 58th Street passes beneath the expressway alignment. This area consists of roughly six city blocks of equipment repair, automotive service uses, food distribution, HVAC contractors and similar activities. These are located immediately north and adjacent to a major facility operated by the City of New York Sanitation Department and a fleet maintenance facility for the New York City Police Department.

Transportation, Parking and Utilities land uses include portions of Newtown and Maspeth Creeks and a dual line rail alignment and affiliated materials yard running along the south side of 56th Street/Rust Street and passing through the major industrial area previously noted. In addition this category includes the intersection point of the CSX rail and the LIRR rail line just south of Queens Boulevard near 51st street. The other major area of Transportation, Parking and Utilities land use is bordered on the east and south by Mt Zion Cemetery and on the west by 58th Street and the New Calvary Cemetery and is immediately south of the third industrial area noted above. This area includes offices, the Central Repair Shop and other supporting facilities of the City of New York Department of Sanitation. At the south end of this area is, what appears to be either a waste to energy facility or a waste incinerator. Also located in this area is the New York City Police Department Fleet Services Division.

Institutional Land Uses within the Maspeth neighborhood inside the Study Area were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list from available mapping and data sources it was found that in a number of cases churches that were identified consisted of storefront facilities that were in commercial land uses or occasionally consisted of private residences in neighborhoods and did not display any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below. The institutional activities listed consist of a number of places of worship and educational uses along with a medical facility and a senior care facility.

- Our Lady of Hope Church and Our Lady of Hope School – Eliot Avenue at 71st Street
- Martin Luther High School – Maspeth Avenue vicinity of 60th Street
- St. Stanislaus Catholic Church and School 0 61st Street between Grand Avenue and Maspeth Avenue
- Holy Cross Roman Catholic Church & Holy Cross Elementary School – 56th Avenue at 61st Street
- Transfiguration Roman Catholic Church – 64th Street at Clinton Avenue

- ALCD Middle School, St Mary's Help of Christian Church, The Little Flock Church – Immediate vicinity of 47th Avenue and 70th Street
- Remnant Mission Church of New York - 49th Avenue at 69th Street
- Jehovah's Witnesses Sunnyside Congregation – 49th Avenue at 69th Street
- The Rogosin Institute Queens Dialysis Center – Queens Boulevard at 67th Street
- P.S. 229 – 51st Road at 67th Street
- St. Illuminator Armenian School – 47th Avenue west of 70th Street
- I.S. 73 The Frank Sansivieri Intermediate School – 71st Street at 54th Avenue
- The Midway Nursing Home – 57th Drive at 70th Street
- P.S. 58 – School of Heros – Grand Avenue at 72nd Place
- Maspeth High School – 74th Street at 57th Avenue

Outdoor Recreation, Cemeteries and Open Space land uses were inventoried and uses identified in this category consisted of all or portions of three cemeteries followed by three small parks areas of open space. These facilities and general location are delineated in the list that follows.

- Northern third of Mr. Olivet Cemetery – Grand Avenue at Remsen Place
- Frontera Park – Borden Avenue at Brown Place
- Mount Zion Cemetery – 54th Avenue east of Maurice Avenue
- New Calvary Cemetery (South Half) – 50th Street at 54th Avenue
- Nathan Weidenbaum Park – Laurel Hill Boulevard at 63rd Street
- Cowbird and Federalist Triangles – Jay Avenue at Hamilton Place
- Francis J. Principe Park – Queens Midtown Expressway7 at Maurice Avenue
- Oliver Hazard Triangle Borden Avenue at Hamilton Place
- Hull Triangle – Borden Avenue at 64th Street

1.2.14 Middle Village (Partial)

The northern third of the Middle Village neighborhood is contained in the Study Area while the remainder of the neighborhood is in the broader Land Use Data Collection Area. The portion of Middle Village in the Study Area is generally defined by Woodhaven Boulevard on the east, the Queens Midtown Expressway (I-495) on the north, Juniper Boulevard on the south and the CSX rail alignment along its western boundary.

Residential land uses account for roughly 90 percent of all land use within the portion of Middle Village in the Study Area. Out of this 90 percent of all uses, the Single and Two-Family category was estimated to account for an estimated 75 to 80 percent of the residential component with multi-family comprising the remainder.

Between Eliot Avenue, which bisects the north section of Middle Village from southwest to northeast, and the Long Island Expressway (I-495), scattered multi-family uses are more evident than in areas south of Eliot Avenue. Even south of Eliot Avenue, however, single-family residential use still predominates. The multi-family uses evident south of Eliot are concentrated along the west side of Woodhaven Boulevard with the largest concentration being in an area generally bordered by Woodhaven Boulevard on the east, Dry Harbor Road and 84th Street to the west and 62nd Drive on the south. This development consists primarily of a series of six story buildings.

Commercial land uses are concentrated in two general locations in the northern section of Middle Village. The first of these is along the west side of Woodhaven Boulevard and is comprised of small retail and eating establishments that extend from the south boundary of the Study Area to the Long Island Expressway. The second area is a small neighborhood commercial node focused around the intersection Eliot Avenue and Caldwell Avenue at 82nd Street. Commercial uses extend between one to two blocks mostly to the west and southwest.

Industrial land uses as well as Transportation, Parking and Utilities land uses are not evident within the section of Middle Village in the Study Area.

Institutional Land Uses within the Middle Village neighborhood inside the Study Area were reviewed and are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. The institutional activities listed consist of a several places of worship, an educational use and a senior care facility.

- NYL Forest Hills West School – Dry Harbor Road south of 63rd Avenue
- Dry harbor Nursing Home and Rehabilitation Center, Madison York Assisted Living - Woodhaven Boulevard at Dry Harbor Road
- Resurrection Ascension Church - 61st Road at Woodhaven Boulevard
- The Church of Jesus Christ of Latter Day Saints – Woodhaven Boulevard at 60th Drive
- Friends Tamilnad Christian Church – Caldwell Avenue at 80th Street

Only one Outdoor Recreation, Cemeteries and Open Space land use was within the Study Area portion of Middle Village and this consisted of a portion a fairly large public park that is listed below.

- Northern section of Juniper Valley Park – South side of Juniper Boulevard North at Lutheran Avenue

1.2.15 Rego Park (Partial)

The Rego Park neighborhood is bordered by Forest Hills on the east, Corona and Elmhurst to the north and the Middle Village neighborhood to the west. The southern quarter of Rego Park is not

contained within the Study Area and uses in this area have been described in the Queens general data collection discussion.

The northern three-quarters of Rego Park from a residential land use perspective is split roughly evenly between the single and two-family land use category and the multi-family category. The portion of Rego Park to the west of the LIRR alignment and an abandoned rail alignment that is now open space and baseball fields is predominantly single family with a single cluster of multi-family uses fronting along both sides of 63rd Drive and north along both sides of Haring Street for roughly one block to 63rd Avenue. The remainder of the area described is almost exclusively classified in the single and two-family residential use.

East-northeast of the LIRR alignment and west of Queens Boulevard, single and two-family residential is more limited with the largest concentration of these uses being located to the northwest of 63rd Avenue between Queens Boulevard and the LIRR alignment. South of 63rd Avenue between Queens Boulevard and the LIRR alignment, multi-family residential is the predominant residential land use with the exception of an area of approximately two and a half blocks located along Saunders Street and Booth Street between 67th Avenue and 66th Avenue, a block west of Queens Boulevard.

To the east of Queens Boulevard, multi-family residential is also dominant both in the mixed use category as well as in the multi-family category. Two small areas of single and two-family residential can be seen to the north of 63rd Avenue and east of 99th Street and a limited area also east of 99th Street and generally between 64th Avenue on the north and 65th road on the south.

Commercial uses within the section of Rego Park inside the Study Area are most evident along 63rd Street from Alderton Street crossing the LIRR tracks and extending east across Queens Boulevard to 98th Street. A commercial node is clearly evident at the intersection of Queens Boulevard and 63rd Street that includes several major large box retailers including Sears, Old Navy and Marshalls along with a number of smaller retail, restaurant and service establishments. Commercial uses extend along Queens Boulevard to the northwest and southeast. A second smaller commercial node is located at the intersection of 63rd Road and 99th Street.

Two areas of Mixed-Use development are identified in Rego Park. The largest of these is along the east side of Queens Boulevard, generally between 64th Road on the north and 67th Avenue on the south and along 99th Street. Additional mixed use development is located at the intersection of 99th street and 63rd Avenue and, as a part of the Rego Center development fronting the south side of the Long Island Expressway at Junction Boulevard.

There are no discernible industrial land uses within the portion of Rego Park located inside the Study Area. Transportation, Parking and Utilities land uses in Rego Park are associated with the LIRR alignment that runs from the northwest to the southeast through the neighborhood, right of way associated with Queens Boulevard and the Long Island Expressway and a parking area located west of Junction Boulevard and south of the Long Island Expressway.

Institutional Land Uses within the Rego Park neighborhood inside the Study Area were reviewed and the more significant of these are included in the listing below. The focus of the listing of

institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. The institutional activities listed consist of a several places of worship, public, private and parochial educational uses.

- Our Lady of the Angelus Catholic Academy and Church – 63rd Drive at 98th Street
- P.S. 139 Rego Park School – Booth Street at 63rd Drive
- P.S. 206 The Horace Harding School – 97th Place at 62nd Avenue
- Jewish Institute of Queens – Woodhaven Boulevard at Wetherole Street
- St. Paul's School of Nursing – Queens Boulevard at 64th Road

Only two Outdoor Recreation, Cemeteries and Open Space land uses were identified within the Study Area portion of Rego Park. These consisted of a playground area and an area of open space and baseball diamonds located along a former rail alignment. Both are listed below with a general description of their location.

- Lost Battalion Playground – Queens Boulevard at 62nd Avenue
- Forest Hills Youth Athletic Association – Located on a former rail alignment north of Fleet Street, south of the LIRR line between Thornton Place on the east and Alderton Street to the west.

1.2.16 Forest Hills

The section of the Forest Hills neighborhood within the Study Area is defined by the Grand Central Parkway and Flushing Meadows Corona Park on the east, the Long Island Expressway on the north, and 102nd Street and 67th Street extended across the LIRR an abandoned rail alignment on the west and the boundary of the Study Area to the south.

Residential use in the section of Forest Hills in the Study Area is more heavily multi-family with this category comprising an estimated 60 to 65 percent of the residential land uses in the neighborhood. The majority of the single and two-family residential uses are concentrated to the east of 108th street with a second area of single and two-family residential west of 108th Street between 63rd Drive and 62nd Avenue on the north.

Multi-family land uses are located on the north end of Forest Hills focused along the south side of the Long Island Expressway and both 108th and 110th Streets north of 63rd Road, with an additional concentration of multi-family located between 110th Street and the Grand Central Parkway from 66th Road north to 63rd Drive. The largest concentration of multi-family is located west of 108th street and stretched from 63rd Drive in the north and extending south to the LIRR alignment and encompassing approximately 30 blocks. A small portion of this is shown as consisting of mixed uses typically comprising a multi-family residential and commercial mix.

A concentration of commercial land uses extends along both sides of 108th Street from 65th Avenue north to 63rd Road and also extends a block to the west of 108th Street along 64th Road. Additional commercial development is located along and on both sides of Queens Boulevard along its entire length through the section of the Forest Hills neighborhood inside the Study Area.

There are no discernible industrial land uses within the portion of Forest Hills located inside the Study Area. Transportation, Parking and Utilities land uses in Forest Hills are associated with the LIRR alignment that runs from the northwest to the southeast through the neighborhood, right of way associated with Queens Boulevard.

Institutional Land Uses within the Maspeth neighborhood inside the Study Area were reviewed and the more significant of these are included in the listing below. The focus of the listing of institutional uses was on those that are typically considered to be noise sensitive uses under Part 150. In the development of the list using available mapping and data sources it was found that in a number of cases churches that were identified consisted of storefront facilities that were in commercial land uses or occasionally consisted of private residences in neighborhoods and did not display any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the listing below.

- Forest Hills High school – Grand Central Parkway at 67th Road
- The Reform Temple of Forest Hills, Touro College, First Presbyterian Church of Forest Hills – 112th Street at 71st Avenue
- Fairview Nursing Care Center – Grand Central Parkway at Jewel Avenue
- P.S. 196 - Grand Central Parkway north of 72nd Road
- P.S. 175 the Lynn Gross Discovery School – 102nd Street at 65th Avenue
- J.H.S. 157 Stephen A Halsey Junior High School – 102nd Street at 63rd Drive
- Forest Hills Hospital – 102nd Street at 66th Road
- P.S. 220 Edward Mandel School – 108th Street at 62nd Avenue
- Mount Sinai Medical Associates Hospital – Yellowstone Boulevard at 69th Road
- Forest Hills Library – 71st Avenue east of 108th Street
- J.H.S. 190 Russell Sage School – Yellowstone Boulevard at Austin Street
- Iglesia Ni Cristo Church – 113th Street at 70th Road
- The Academy for Excellence through the Arts Elementary School – 69th Avenue at 110th Street
- Sephardic Jewish Center – 68th Avenue at 108th Street
- Congregation Machane Chodosh synagogue – 108th Street at 67th Road
- Beth Gavriel Bukharian Congregation Synagogue - 108th Street at 66th Road
- Central Queens YM & YWCA – 108th Street at 67th Road

Outdoor Recreation, Cemeteries and Open Space land uses in the Forest Hills Neighborhood consist of a major regional park, two smaller neighborhood parks and a playground. These are listed below along with their general locations.

- Willow Lake Playground – Grand Central Parkway at 72nd Avenue
- MacDonald Park – Queens Boulevard at Yellowstone Boulevard
- Yellowstone Park – Yellowstone Boulevard at 68th Road
- Flushing Meadows Corona Park – Long Island Parkway at the Grand Central Parkway

1.2.17 Kew Gardens Hills, Pomonok, and Hillcrest

The Kew Gardens Hills, Pomonok and Hillcrest area is comprised of several neighborhoods that have been combined for purposes of land use definition within the Study Area of this study. The area is generally defined by the Van Wyck Expressway on the west, the southern boundaries of the Queens Botanical Garden, Kissena Corridor Park, Kissena Park and the Kissena Park Golf Course on the north, the east boundary of the Study Area (running north/south generally along 172nd Street) on the east, and the southern boundary of the Study Area on the south (in the general vicinity of 78th Road).

Residential is the dominant land use category in the combined area of these neighborhoods, accounting for an estimated 75 percent of all land use, with the next largest components of land use being associated with the two large cemeteries and Queens College. Within the residential classification, single and two-family uses account for roughly 60 percent of the overall residential land use with multi-family comprising the rest.

Unlike a number of neighborhoods in the Study Area where multi-family and single-family uses are intermixed with each other on a block-by-block basis, multi-family in the Kew Gardens Hills, Pomonok and Hillcrest area tends to be concentrated making up the entire residential use on a block by block basis. Multi-family residential is most evident in two major concentrated locations. The first is located in the center of the combined neighborhoods, including virtually all of Pomonok from 164th Street west to Kissena Boulevard along with a large area south of Queens College west and southwest of Kissena Boulevard as far south as 76th Avenue. The second concentration of multi-family land use is located south of the Mt. Hebron Cemetery and immediately east of the Van Wyck Expressway encompassing a multi-block area. The eastern and southern extent of this area from Mt Hebron Cemetery on the north to the Van Wyck Expressway on the south is defined by the following streets: 140th Street to Jewel Avenue, Jewel Avenue to 137th Street, 137th Street to 70th Road, 70th Road to 136th Street, 136th Street to 72nd Avenue, 72nd Avenue to Park Drive East and the Van Wyck Expressway.

The area north of Mt Hebron Cemetery, Queens College and Pomonok east of 164th street and to the western and northern boundary of the neighborhood is generally categorized as single and two-family residential. Some limited intermixing of small parcel multi-family uses can be seen in the area north of the Long Island Expressway and west of Main Street, but single family still is the predominant land use. Single and two-family land uses dominate the land use pattern east of 164th Street and south of the Long Island Expressway within the Study Area. Single and two-family residential land uses also extend from 164th Street westward wrapping around the south end of the main multi-family concentration in the center of the combined neighborhoods and

extending north along both sides of Main Street until reaching the Mount Hebron Cemetery and Queens College.

Commercial land uses in the Kew Gardens Hills, Pomonok and Hillcrest area are generally found along the alignments of major arterial roadways in the neighborhood. These include:

- Main Street from the Long Island Expressway north to the Queens Botanical Garden
- Main Street from 76th Road on the south to Queens College at Melbourne Avenue on the north
- Along the north outer road (Horace Harding Expressway) of the Long Island Expressway from Kissena Boulevard east to 164th Street, as well as north on Kissena for two blocks to 59th Avenue
- Along the length of Union Turnpike in the Kew Gardens Hills and Hillcrest sections of the area extending from Parsons Boulevard to the northwest corner of the St. John's University Queens Campus which is at the southeast corner of the Study Area
- 164th Street from the south boundary near 81st Avenue north to approximately 76th Avenue. Then further to the north on 164th on the east side of Pomonok around the intersection of 164th and 69th Avenue

In addition to the commercial uses noted along the arterial roadways, there are also two notable concentrations of commercial uses within this neighborhood. The first is near the center of the Pomonok area and includes a two block cluster of commercial uses along Parsons Avenue from 71st Avenue on the south to one block north of Jewel Avenue. This area consists of a number office uses and neighborhood retail, banks, grocery and service related commercial activities. The second and slightly larger concentration of commercial activity is located on the southwest side of Pomonok around the intersection of multiple streets. This area extends along Kissena Boulevard from 71st Avenue southward to Parsons Boulevard, as well as both sides of Aguilar Avenue, and two blocks southward on Parsons to 75th Road.

Within these neighborhoods, inside the Study Area, there are no significant or discernible industrial land uses. Additionally, transportation, parking and public utility uses are limited to rights-of-way for the major regional roadways notably the Van Wyck Expressway and the Long Island Expressway.

Institutional land uses within the Kew Gardens Hills, Pomonok and Hillcrest portion of the Study Area were reviewed with a focus on those that are typically considered to be noise sensitive uses under 14 CFR Part 150. The more significant of these institutional activities are listed below and include a large number of places of worship, numerous educational facilities, several libraries and two hospitals. In the development of the list from available mapping and data sources, a number of the identified churches were found to consist of either storefront facilities in commercial land uses or private residences with neither displaying any outward appearance of being a church. Where these situations arose, the decision was made to retain the underlying residential or commercial land use designation and to not include these in the following list.

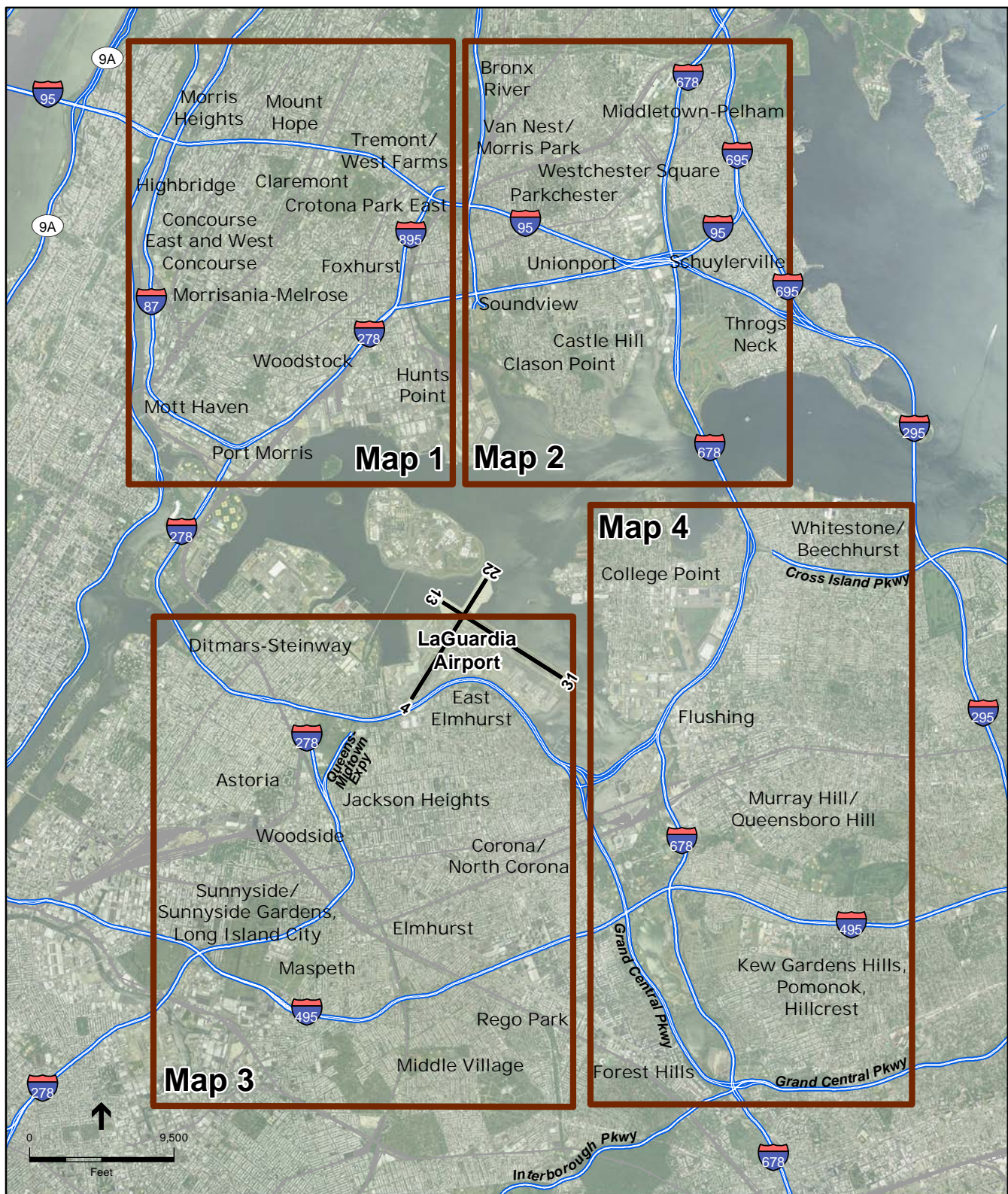
- Queens College – Kissena Boulevard at Horace Harding Expressway
- Townsend Harris High School – Melbourne Avenue at 149th Street (Queens College Campus)
- John Brown High School – Reeves Avenue at Main Street (Queens College Campus)
- P.S. 219 – Gravett Road east of Main Street, (Queens College Campus)
- P.S. 201 – Kissena Boulevard near 65th Avenue
- P.S. M.S. 164 – 77th Avenue at 137th Street
- P.S. 255 Queens School of Inquiry – 77th Avenue at 160th Street
- Solomon Schechter School – 76th Avenue at Parsons Boulevard
- Robert F. Kennedy Community High School – Parsons Boulevard at 76th Avenue
- P.S. 154 – 75th Avenue at 162nd Street
- Queens Police Department – Parsons Boulevard at 71st Avenue
- Meadow Park Rehabilitation and Health Care Center – 164th Street at 78th Avenue
- Cornerstone of Medical Arts Center – Union Turnpike east of Parsons Boulevard
- Young Israel of Queens Valley – 77th Avenue at Main Street
- Queen of Peace Church and Convent and North Queens Community High School – 77th Road at Main Street
- Khal Nachlas Yitzchok Orthodox Synagogue – 73rd Avenue just west of Main Street
- Sephardic Congregation of Kew Garden Hills – 72nd Avenue slightly west of Main Street
- Queens Library of Kew Garden Hills – Main Street between 71st Road and 72nd Avenue
- Yeshiva Ohr Hachaim and Mesivta Yesodei Yeshurun – Main Street at 71st Avenue
- Torath Haim Ohel Sarah Synagogue – 77th Avenue slightly east of Main Street
- Congregation B-Nai Abraham Synagogue – Main Street at 75th Avenue
- Congregation Ahavas Yisreal Synagogue – 73rd Avenue at 147th Street
- Queens Borough Public Library – Vleigh Place at 72nd Road
- Yeshiva of Central Queens – 70th Road at 150th Street
- Rabbinical Seminary of America – 147th Street at 76th Road
- Touro College – 150th Street at 75th Road
- P.S. 165 Edith K Bergtraum School – 150th Street at 70th Road
- Young Israel of Kew Gardens Hills – 70th road at 150th Street

- Al-Mamoor School – 78th Road at Parsons Boulevard
- Jewish Center of Torath Emeth – 78th Road at Parsons Boulevard
- Yeshiva Ketana of Queens – 78th Avenue at Parsons Boulevard
- Hillcrest Gospel Chapel – 77th Avenue at 160th Street
- Queens Library at Pomonok – Jewell Avenue at Parsons Boulevard
- Queens Herald Church – 65th Avenue at 164th Street
- The Pomonok School – 164th Street at 71st Avenue
- Great Commission Bible Church – 164th Street between Union Turnpike and 81st Avenue
- Yeshiva Madreigas Ha'adam – 69th Avenue at 166th Street
- Israel Center of Hillcrest Manner Synagogue and the Phyllis L. Susser School for Exceptional Children – 167th Street at 73rd Avenue
- Young Israel of Hillcrest – Jewell Avenue at 170th Street
- Torah Center of Hillcrest – 171st Street at Jewel Avenue
- P.S. 163 – 59th Avenue at 160th Street
- New York Presbyterian Queens Hospital – Booth Memorial Avenue at Main Street
- P.S. 120 – 136th Street at 58th Avenue
- Flushing Seventh Day Adventist Community Church – 138th Street at Horace Harding Expressway North
- The Lowell School – 58th Road at 146th Street
- St. Ann's Church – 146th Street at 58th Avenue

Outdoor recreation, cemetery and open space land uses in the Kew Garden Hills, Pomonok and Hillcrest area were inventoried and are delineated in the list below. Uses identified in this category consist of all or portions of generally smaller parks and a number of playgrounds along with three large cemeteries. While not having major parks within the general limit of this three neighborhood area, major regional parks contribute to forming the northern and western boundary of the Kew Garden Hills, Pomonok and Hillcrest area. The outdoor recreation, cemetery and open space facilities in this area and their general location include:

- Mt St. Mary Cemetery – Fresh Meadow Lane at 59h Avenue
- Emerald Playground - 71st Avenue slightly west of 164th Street
- Electric Playground – 164th Street at 164th Street
- Vleigh Playground – 70th Road at 163rd Street
- Freedom Square – 73rd Terrace at Main Street

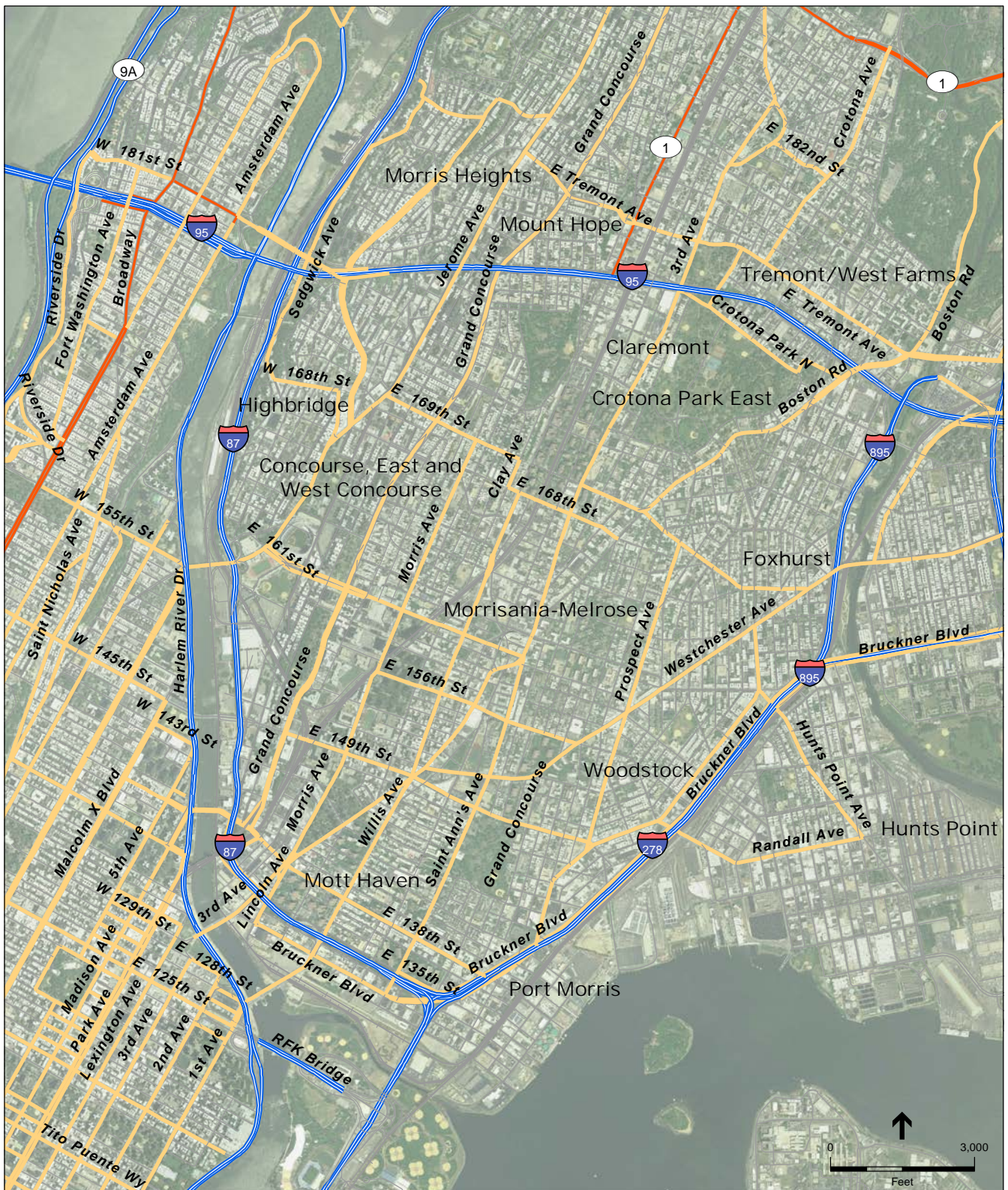
- Queens Valley Playground – 137th Street at 76th Avenue
- Cedar Grove Cemetery – Horace Harding Expressway at College Point Boulevard
- Mt. Hebron Cemetery – Horace Harding Expressway at College Point Boulevard
- Playground Seventy Five – 160th Street at 75th Road
- Pomonok Playground – southern terminus of 155th Street near 65th Avenue
- Albert H. Mauro Playground – between the Van Wyck Expressway and Park Drive East south of 72nd Avenue



SOURCE: USDA Imagery; ESA, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

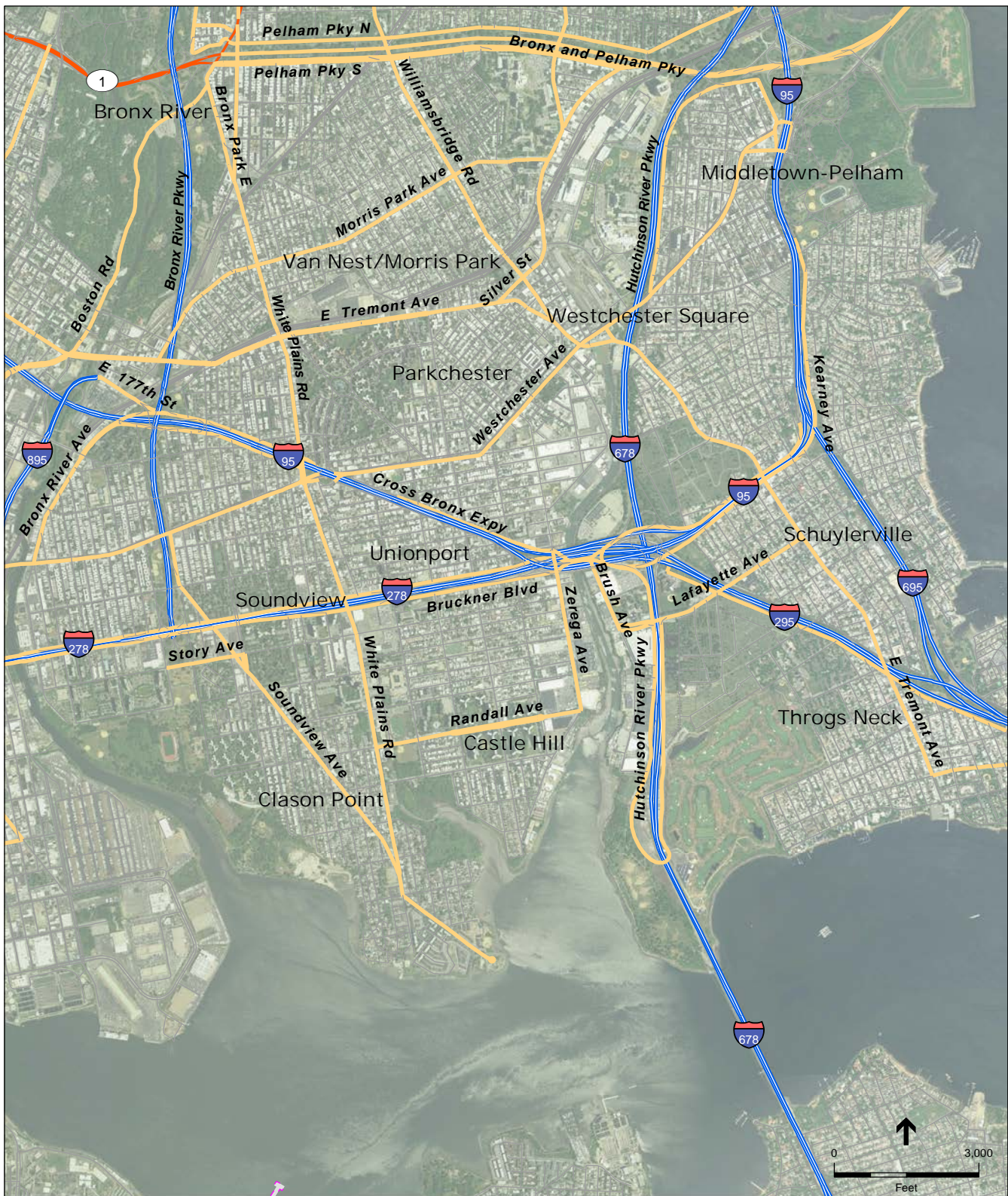
Figure 1-1
Neighborhoods in Proximity to LGA - Key Map



SOURCE: USDA Imagery; ESA, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

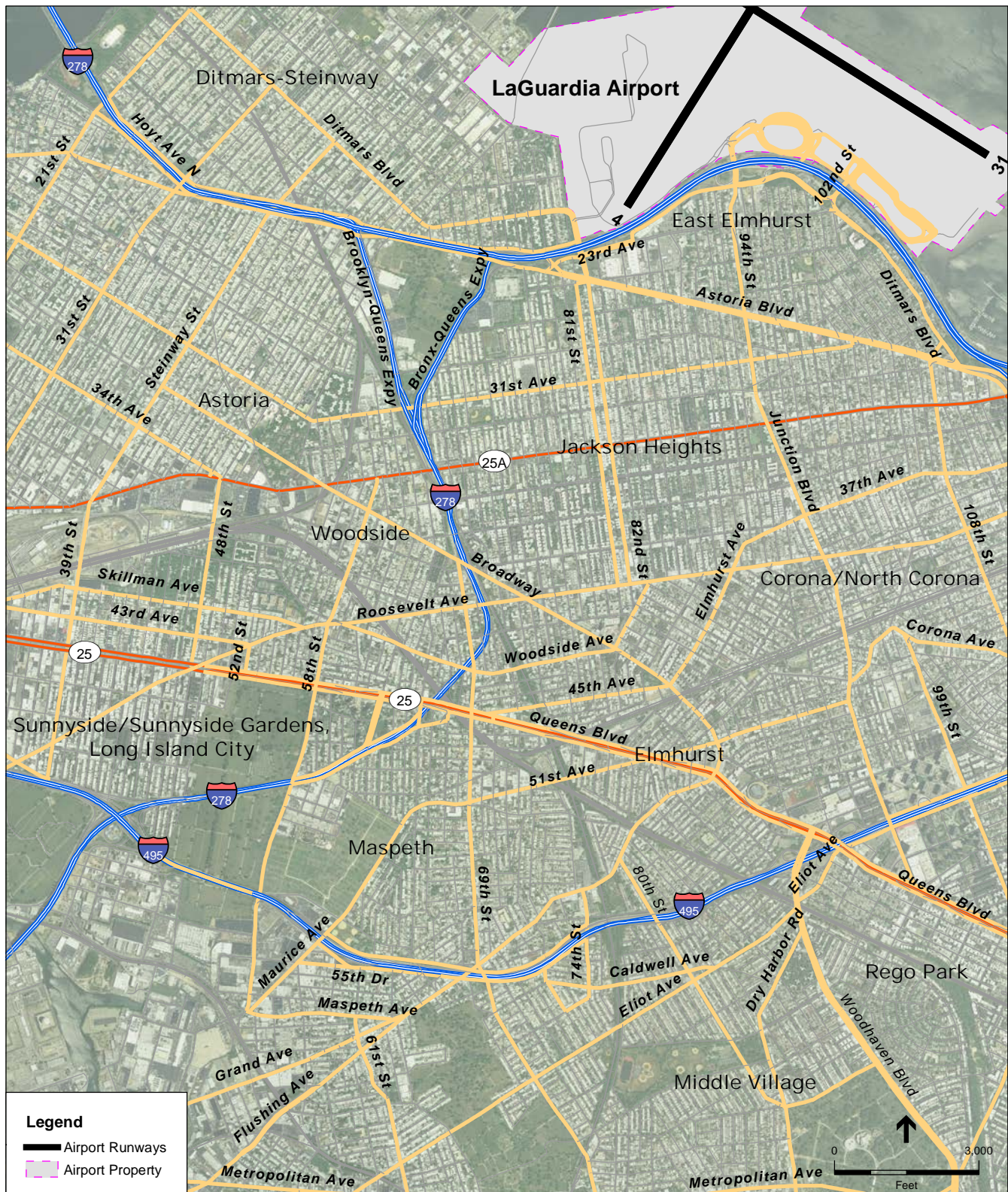
Figure 1-2
Neighborhoods in Proximity to LGA (Map 1 of 4)



SOURCE: USDA Imagery; ESA, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

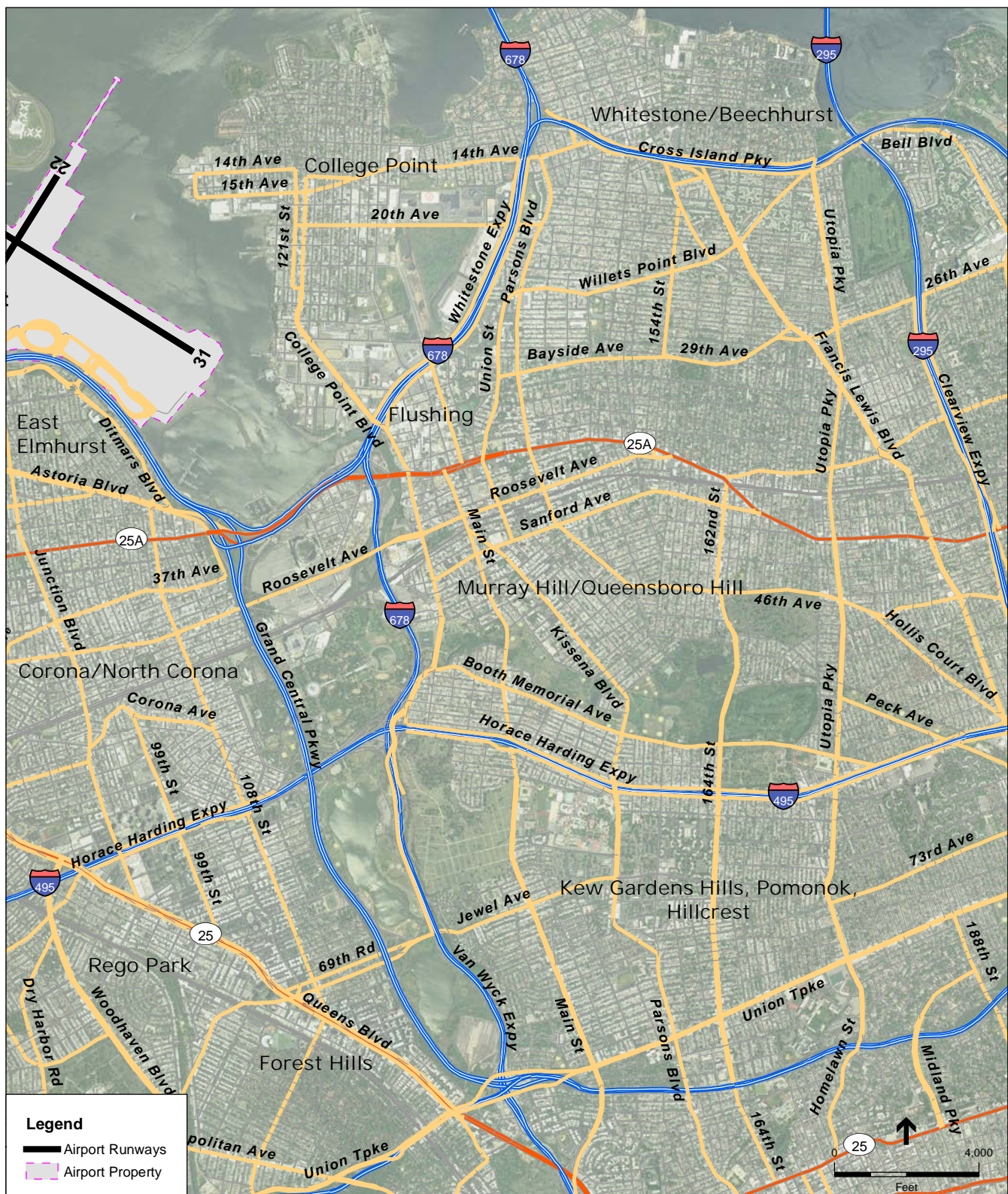
Figure 1-3
Neighborhoods in Proximity to LGA (Map 2 of 4)



SOURCE: USDA Imagery; ESA, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 1-4
Neighborhoods in Proximity to LGA (Map 3 of 4)



SOURCE: USDA Imagery; ESA, 2016

- LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 1-5
Neighborhoods in Proximity to LGA (Map 4 of 4)

2.0 Generalized Land Use within the Land Use Data Collection Area

This section presents a general overview of existing land uses in the LGA Land Use Data Collection Area (those areas outside of the Study Area). Land uses in this section will be addressed at a much higher and more general level than land uses found within the Study Area.

2.1 Borough of Manhattan

When viewing the land use pattern in Manhattan, a change in intensity of uses and activities occurs along an east to west line across the island that would pass along 59th Street at the south end of Central Park. To the south of this line is a significant core of commercial uses that dominate the land use pattern from 59th street south through the central core of Manhattan. North of 59th street commercial uses show up much more sporadically, with only a limited concentration of commercial use as the predominant activity being located along 125th street.

The predominant land use north of 59th Street consists of multi-family residential with only very limited single/two-family residential uses. Mixed use development is intermingled throughout the City, although there are areas where the mixed use category of use becomes more concentrated. These concentrations can be found west of the southwest end of Central Park, along Broadway between 59th and West 96th Street, in the vicinity of 8th Avenue and West 125th Street, in portions of east Harlem, in the vicinity and north of Jackie Robinson Park (155th Street), the near the north end of Sutton Place and west of Rockefeller University, in, and southeast of the Murray Hill area and, finally, the Peter Cooper Villages and Stuyvesant Town developments.

Various institutional uses consisting of places of worship, schools colleges and universities, museums, art galleries, libraries, government buildings are spread throughout Manhattan. The larger institutional uses that are clearly evident on the land use map include the following:

- Concentration of medical facilities and City of New York municipal uses around and including Bellevue Hospital
- United Nations Headquarters
- Rockefeller University
- Fordham University, Fordham Institute and Lincoln Center
- Hayden Planetarium & American Museum of Natural History
- Columbia University
- City College of New York
- Columbia University Medical Center, Columbia Presbyterian Hospital, Babies Children's Hospital
- George Washington Educational Campus, Isabella Geriatric Center
- Mt Sinai Hospital, Tisch Cancer Institute, Mt. Sinai School of Medicine

Also depicted on the map are numerous parks and outdoor recreation areas in Manhattan. The most significant is Central Park, along with other notable parks including:

- Riverside Park and Hudson River Greenway along the Hudson River
- Morningside Park adjacent to Columbia University
- Fort Washington Park
- Saint Nicholas Park
- Highbridge Park
- Fort Tryon Park
- Inwood Hill Park
- Jackie Robinson Park
- Marcus Garvey Park
- East River Park

2.2 Borough of the Bronx

A significant portion of the Borough of the Bronx is located within the Land Use Data Collection Area, but outside of the Study Area. The only portion of the borough not within either the Study Area or the larger Land Use Data Collection Area consists of the north central section of the borough. The southern half of the Bronx, while being in the boundary of the Land Use Data Collection Area, is also located in the Study Area, and is discussed in a subsequent section. As noted in the description of the boundary of the Land Use Data Collection Area, all of the land area north of the study area boundary and west of the Bronx River Parkway northward to the Bronx Borough boundary with Westchester County is within the Land Use Data Collection Area. This is not the case in the area east of the Bronx Parkway. For this reason, the land uses in the area west of the Parkway will be described, albeit at a general level, first, and the area to the east of the Park will be described separately.

While the land use map depicts a significant amount of land area devoted to the Open Space, Cemeteries and Outdoor Recreation Category (discussed in a subsequent section), Single/Two-Family and Multi-Family land uses still account for the largest percentage of the developed land uses in this section of the Bronx. Further, there is a clear distinction in the level of density of residential land use in the northern third of this section of the borough. If the southern boundary of Van Cortlandt Park and Mosholu Golf Course was extended west to the Harlem River and east to the Bronx River Parkway, the resulting line would provide an excellent frame of reference defining the change in the pattern and density of residential uses. To the north of this imaginary line, residential uses display a much greater prevalence of single and two-family residential uses. As one proceeds south of this line, single and two-family residential land uses become less concentrated and become considerably more interspersed and scattered with multi-family uses becoming the dominant residential pattern south.

While there is clearly a more defined single-family pattern in the north/northwest section of the west half of the Bronx, that is not to suggest that multi-family residential uses cease to be evident. What does occur is that multi-family uses tend to occur in a more consolidated fashion quite dissimilar to the pattern that occurs in areas such as Morris Heights, Mount Hope, Belmont or Fordham Heights neighborhoods to the south where considerable intermixing of single/two-family and multi-family adjacent to one another on a lot by lot basis is typical. Four distinct concentrations of multi-family development is evident in the area west of Van Cortlandt Park, two in the far northwest corner of the Borough and two more along both the east and west side of the Hudson Parkway in and around the vicinity of West 236th Street. A fifth concentration of multi-family located along the north side of the Harlem River at its confluence with the Hudson River is situated in the same general vicinity.

Commercial land uses are in what are either linear patterns along major roadways or in small concentrations around major intersecting roadways. In defining the land use categories, planning jurisdictions base the determination of use on the predominant activity occurring on the site. Therefore, it is recognized that many of the areas showing a multi-family land use classification may often have commercial uses that occupy the street level portions of the building, however due to the extent of the residential component in the structure it will be designated as multi family. When this section speaks of commercial, it is referring to areas that have been classified commercial by the appropriate jurisdiction (in this case, NYC) based on a determination that commercial activities comprise the predominant activity and use on the specific parcel of land.

Two of the more discernable concentrations of commercial development consist of a commercial corridor located in the Kingsbridge area of the Bronx that is located west of Interstate 87 along both sides of Broadway from West 230th Street on the south to the southwest corner of Van Cortlandt Park on the north. Within this corridor are a diverse array of local and national businesses and restaurants along with a number of national retailers such as Sports Authority, Party City and Staples. In this same northwest section of the borough are three other smaller commercial nodes, one around the intersection of West 235th and Netherland Avenue as well as the intersection of West 236th and Riverdale Avenue.

To the east of the commercial areas noted above are two other smaller linear commercial nodes located just east of the Mosholu Parkway. The first of these is located along Jerome Avenue between Mosholu Parkway and East Gun Road. The second linear node located along both sides of Bainbridge Road between Webster Avenue on the south and Williamsbridge Oval Recreation Center to the north. Additionally, smaller commercial uses can be discerned in the area, but are generally limited in size.

The second relatively large concentration of commercial activity runs from Bronx Park to almost reach the Harlem River. Located along Fordham Road this concentration of commercial uses also tends to form intersection nodes in several locations including around the Fordham Road, Webster Avenue intersection, at East Fordham Road and Grand Concourse and at the intersection with Jerome Avenue. The commercial land use pattern drops off markedly at the point that East Fordham Road intersects the Aqueduct Walk Park. Commercial uses extend south from East Fordham Road along both sides of Jerome Avenue to the north boundary of the Study Area with

visible commercial nodes at the intersections of Jerome Avenue and East 183rd Street and at, and around, the intersection with East Burnside Avenue. Grand Concourse south of East Fordham Road displays some commercial land use, but not to the level shown along Jerome Avenue.

An area of commercial and mixed land use is located to the immediate northwest and to the north/northeast of St. Barnabas Hospital and approximately four blocks south of Fordham University. Commercial uses in this area are typified by a number of small specialty restaurants, service related businesses and small retail shops. The primary concentration of commercial activity is found along Firefighters Boulevard northwest of the hospital, and between East 184th and East 187th Street to the immediate north of the hospital, with other more limited commercial activity emanating outward from the core.

A small commercial node is also located south of Lehman College on East/West Kingsbridge Road extending from Grand Concourse west across Jerome Avenue to the immediate vicinity of the Aqueduct Walk Park. Finally, immediately adjacent to the northern boundary of the Study Area and around the intersection of Webster Avenue and East Tremont Avenue/Hector Lavoe Boulevard is a commercial node that extends into the Study Area, but also extends north along both sides of Webster Avenue. Significant industrial activity is not apparent in the section of the Bronx west of the Bronx River Parkway between the north boundary of the Study Area and the northern borough boundary.

Land uses under the Transportation, Parking and Utilities Category within this western section of the Bronx are generally limited. The majority of land categorized in this use category is either associated with major regional highway systems and parkways, New York Transit and Metro North Rail alignments and in a single case a New York Transit Authority rail yard that is located immediately east of Lehman College and west of the Jerome Avenue/Bedford Park Boulevard West intersection.

Major Public Facilities and Institutional uses in the Land Use Data Collection Area west of the Bronx River Parkway and south of the northern boundary of the borough, which is also the boundary of the Land Use Data Collection Area have been identified. Where multiple major institutional uses are located in close proximity to one another, they have been listed together on a single line as delineated below:

- Fordham University, Fordham Preparatory School and the Haupt Conservatory
- St. Barnabas Hospital
- Bronx Community College and CUNY Graduate Center
- James J. Peters VA Medical Center
- Lehman College, Bronx High School of Science, Walton High School, P.S. 086, P.S. 340, DeWitt Clinton High School, and High School of American Studies
- Academy of Mount St. Ursula
- North Central Bronx Hospital

- John F. Kennedy High School, In-Tech Academy, International Leadership Charter School
- Manhattan College, Ethical Culture Fieldston School, Horace Man School, Methodist Home for Nursing and Rehabilitation
- Riverdale Country School
- College of Mount Saint Vincent, the Carol and Frank Biondi Special Education School
- Morris Heights School, Academy for Language and Technology/I.S.232
- M.S. 331, P.S. 306

As noted, the above listing identifies major institutional or concentrations of multiple institutional uses. This portion of the west-northwest Bronx has a large number of other institutional activities that are spread through the neighborhoods west of Bronx Park and the Bronx River Parkway. These uses include, but are not necessarily limited to, an array of places of worship, multiple governmental facilities (police, fire, etc.) additional public, private and parochial schools along with libraries and museums to name the more prevalent examples.

Major Open Space, Cemetery and Outdoor Recreation land uses in the Land Use Data Collection Area west of the Bronx River Parkway are dominated by three areas of considerable size followed by a number of smaller yet significant areas spread throughout the portion of the Land Use Data Collection Area. The three most significant uses from a size perspective in this land use category are comprised of the Bronx Park and all of the activities and facilities it encompasses, the Woodlawn Cemetery and Woodlawn Conservancy and, the third is the Van Cortlandt Park and associated Golf Course. Other notable parks and areas of open space in the section of the Bronx north of the Study Area and west of the Bronx River Parkway include those listed below:

- | | |
|------------------------------------|---------------------------------------|
| • Roberto Clemente State Park | • Quarry Ball Fields |
| • University Woods | • DeVoe Park |
| • Aqueduct Walk | • Seaton Park |
| • Richman (Echo) Park | • Mosholu Parkway Greenway |
| • Jerome Park and Reservoir | • Williamsbridge Oval Recreation Area |
| • St. James Park and Tennis Courts | • Mosholu Golf Course |
| • Riverdale Park | • Henry Hudson Park; |
| • Spuyten-Duyvil Shorefront Park | • Van Cortlandt Park and Golf Course |

2.3 Bronx Parkway (within the Land Use Data Collection Area)

The boundary of the Land Use Data Collection Area east of the Bronx River Parkway does not extend to the borough jurisdictional boundary with Westchester County. The northern boundary

of the Land Use Data Collection Area east of the Bronx Parkway is defined by a combination of Burke Avenue extending eastward from the Bronx River Parkway to the intersection with East Gun Hill Road, and then along East Gun Hill Road in a southeasterly direction to the Hutchinson River Parkway and New England Thruway. At this juncture, the boundary follows the alignment of the Hutchinson River Parkway north to a location where the New England Thruway re-crosses the Hutchinson River Parkway. At this point the boundary turns to follow the New England Thruway to the north jurisdictional boundary of the Bronx.

As discussed previously, the overall pattern of residential development in the area east of the Bronx River Parkway displays a lesser presence of multi-family residential land uses than is typical of the neighborhoods to the west of Bronx Park. This is not to suggest that there are not significant concentrations of multi-family land use existing east of Bronx Park and the Bronx River Parkway, as significant concentrations of multi-family land use is clearly evident abutting the eastern side of Bronx Park. These uses extend several blocks (generally 4-7 blocks) to the east of the park, and then quickly thin out near the alignment of Browndale Road where single-family and two-family residential land uses begin to dominate the residential land use pattern. The single and two-family category continues to be not only the dominant form of residential use, but also the overall most prevalent land use from Browndale Road east to East Gun Hill Road and the alignment of the New England Thruway.

Commercial land uses in the Land Use Data Collection Area east of the Bronx Park/Bronx River Parkway is mostly located along the main arterial roadways with more limited commercial concentrations scattered between several intersections of collector streets serving nearby neighborhoods. These locations and their extent are delineated in general terms below:

- Commercial use strip located in eastern Morris Park between Eastchester Road/Stillwater Avenue and the Amtrak Rail alignment between Waters Place to two blocks south of the Bronx-Pelham Parkway;
- Area surrounding the intersection of Crosby Avenue, Westchester Avenue and Buhre Avenue in the Middletown/Pelham neighborhood outside of the Study Area;
- Westchester Avenue between Wilkinson Avenue and Bruckner Expressway in the Middletown/Pelham neighborhood outside of the Study Area;
- Small neighborhood commercial node at Eastchester and Waring Avenue;
- Along both sides of Allerton Avenue from 2 blocks west of White Plains Road east past Boston Road to Laconia Avenue.;
- An extended linear concentration of commercial land uses is located along White Plains Road from Browndale Avenue on the south (3 blocks north of Morris) to the Land Use Data Collection Area north boundary along Burke Ave.;
- Williamsbridge Road from Morris Road on the south to Pelham Parkway on the north along both sides. With the continuation of this pattern north of Pelham Parkway along Williamsbridge Road around the intersection with Mace Avenue.

A final area of commercial land use is located along the south side of East Gun Hill Road immediately west of the Hutchinson River Parkway and the New England Thruway. It is a commercial area comprised of two primary national chain anchor stores with several associated out parcels developed with smaller commercial tenants. A single area of industrial land use is situated in the Middletown/Pelham Neighborhood along the AmTrak rail alignment between Marconi Street and Bassett Avenue along with some smaller additional industrial land uses being shown in the same area between Bassett Avenue and Stillwell Avenue to the northeast of Eastchester Road.

Major Public Facilities and Institutional uses in the Land Use Data Collection Area east of the Bronx River Parkway and south of the northern boundary of Burke Avenue and East Gun Hill Road which is the northern boundary of the Land Use Data Collection Area have been identified. Where multiple major institutional uses are located in close proximity to one another they have been listed together on a single line as delineated below:

- Icahn Charter School 3 and 4, Albert Einstein College, Yeshiva University – Jack and Pearl Resnick Campus, Jacobs Medical Center; Jack D. Weiler Hospital, Albert Einstein College of Medicine, Calvary Hospital
- Mercy College Bronx Campus, Bronx Children’s Psychiatric College; Montefiore Hutchinson Campus;
- United Cerebral Palsy of New York City
- The New York Institute for Special Education, St. Catherine Academy, Christopher Columbus High School Campus

Major Open Space, Cemetery and Outdoor Recreation land uses in the Land Use Data Collection Area east of the Bronx River Parkway are limited in number but are of considerable size. These consist of Pelham Bay Park including both the Pelham Bay and Split Rock Golf Courses, a portion of Bronx Park east of the Bronx River Parkway and the Pelham Bay Park Nature Center and Aileen B. Ryan Recreational Complex. In addition to these major outdoor recreation and open space areas are a number of smaller facilities that include those noted below.

- Eastchester Playground – Adea Avenue at Tenbroeck Avenue
- Givan Square and Campanero Playground – Eastchester Road at East Gun Hill Road
- Burns Playground – Behind (south) Pelham Gardens Middle School
- Colucci Playground – Mayflower Avenue at Wilkinson Avenue
- Mazze Playground next to P.S. 89 and at the intersection of Mace Avenue and Williamsbridge Road
- Zimmerman Playground – Baker Avenue at Britton Street
- Loreto Playground – Morris Park Avenue at Haight Avenue
- Allerton Playground – Adjacent to P.S. 121, Allerton Avenue at Throop Avenue

2.4 Brooklyn (within the Land Use Data Collection Area)

The Land Use Data Collection Area for the LGA noise compatibility planning effort encompasses land area comprising the northern part of Brooklyn, generally east and south of the boundary of Queens, north of Atlantic Avenue, east of Washington Avenue and Interstate 278, bordered by the East River from the Williamsburg Bridge to the Brooklyn/Queens boundary at the Newtown Creek. This portion of Brooklyn is heavily urbanized with extensive high density multi-family residential and a significant concentration of industrial land uses being the two most prominent use categories.

2.4.1 Residential Land Use

Multi-family residential land uses account for the majority of residential land uses within the Land Use Data Collection Area boundary in Brooklyn with only one exception. The area located to the north of Atlantic Avenue and south of Cypress Hills, Mt. Judah, The Evergreens Cemeteries and Highland Park shows a pattern of mostly single and two-family residential uses with a scattering of small multi-family residential uses generally located on small lots or parcels. The remaining portions of Brooklyn inside the Land Use Data Collection Area boundary has areas consisting of virtually all multi-family land use while other areas show residential blocks where multi-family is the predominant use with the interspersed of single and two-family residential.

Examples of areas in Brooklyn where multi-family land use comprises virtually the entire residential development pattern include a triangular area defined by Broadway on the south/southwest, Grand Avenue on the north and Bushwick Avenue on the east in the southeastern section of the Williamsburg neighborhood. Another section of Brooklyn displaying a similar dominance of multi-family uses is in a part of the Bushwick neighborhood and is generally bordered by Flushing Avenue on the northwest, the boundary with Queens to the east/northeast, Central Avenue on the southwest and Gates Avenue on the southwest. Residential land use in the area north of the Williamsburg Bridge (Williamsburg and Greenpoint neighborhoods) between the East River and I-278 is also heavily dominated by multi-family land use, but also has a noticeable inclusions of the mixed land use category particularly in the area south of North 12th Street and closest to the Williamsburg Bridge. In the Greenpoint neighborhood located to the north of the Williamsburg neighborhood and extending to Newtown Creek, multi-family residential use accounts for an estimated 80 percent of the residential land use category with the remaining 20 percent consisting of single and two-family residential being scattered throughout the neighborhood.

Residential land use in other areas of Brooklyn (generally to the southwest of Broadway) are typified by block after block of mixed multi-family and single and two-family residential land uses with some concentrations of multi-family housing. While comprised of a mix of residential use, multi-family is still the dominant residential development use accounting for an estimate 65 to 70 of the residential land uses. The concentrated multi-family developments are typified by areas such as the New York City Housing Authority's Brevoort Apartments on Fulton Street at

Ralph Avenue, the Authority's Marcy Apartments (part of which show as mixed-use), south of Flushing Avenue at Marcy Avenue, and the Tompkins Apartments between Park Avenue and Myrtle Avenue just west of Broadway.

2.4.2 Commercial and Office Land Use

As is the case throughout other areas of the City of New York, a significant amount of commercial activity does not get depicted as a commercial land use when mapped. This results from the fact that the commercial activity may only comprise a small percentage of a larger land use. For example, the ground level of a multi-story building may house a grocery, small restaurant, coffee shop, dry cleaning establishment, barber or beauty shop or some other retail or service business, while the remaining five, ten, fifteen or more stories of the building consist of apartments, co-ops or condominium units. Under this circumstance the land use of the building is typically defined by the dominant use on the site or in the example noted it would be the multi-family use that would be identified. This pattern is very prevalent throughout the City and is important to keep in mind. As a result, when discussing the commercial land uses identified on the base land use map, the focus of that discussion is on areas where commercial categories of land use have been defined at the predominant land use within an area or along a street.

Based on the preceding considerations, commercial land uses in the section of Brooklyn inside the Land Use Data Collection Area are generally focused along a number of the more major thoroughfares that bisect the area with a few limited commercial nodes showing up elsewhere. Commercial nodes, generally centered on the intersections of major streets, can be seen on the land use base map at and around the intersection of Broadway and Flushing Avenue, the intersection of Broadway at Ralph Avenue, and to the west and southwest of McNamara Park. An additional node of commercial development is evident on the Brooklyn Queens jurisdictional Boundary where Myrtle Avenue intersects Wyckoff Avenue and extending west along Myrtle Avenue to Knickerbocker Avenue where a second smaller node exists.

Commercial land uses are evident on numerous collector and arterial streets throughout Brooklyn including noticeable concentrations along Atlantic and Fulton Avenues in the southern section of the Land Use Data Collection Area. Commercial uses can be seen along both sides of Broadway from the East New York MTA yard northwest to I-278, on the south and northwest sides of McNamara Park including where Nassau Avenue and Manhattan Avenue intersect and extending away from the park along the both avenues. In the case of Manhattan Avenue, commercial uses extend north to the terminating point of the avenue near Newtown Creek. Finally, while difficult to discern on the mapping, commercial land uses can be found spread throughout the area between the East River and I-278 and from McNamara Park south to the Williamsburg Bridge.

2.4.3 Industrial and Manufacturing Land Use

Newtown Creek forms the northern boundary between Brooklyn and Queens from the East River around to the east/southeast to Metropolitan Avenue. The creek is also the focal point for the most significant concentration of industrial land uses in both Brooklyn and in Queens. On the Brooklyn side of the channel are significant concentrations of industrial land uses that also extend along East Branch and in the English Kills segment of the waterway near its terminus in the

vicinity of Metropolitan Avenue. These industrial uses extend south of the southern end of Newtown Creek with the land use category generally terminating along and slightly south of Flushing Avenue. South of I-278, industrial land uses extended west of Newtown Creek to the general vicinity of Kingsland Avenue to Metropolitan Avenue and out to Bushwick Avenue south of Metropolitan Avenue to the vicinity of Flushing Avenue.

North of I-278, industrial land uses are located along the south shore of the creek from I-278 to the East River. Industrial land uses extend from between one tenth of a mile to as much as almost a half mile to the west southwest of Newtown Creek. The narrowest strip of industrial land use is located near the confluence of the creek and the East River.

Additional industrial land uses are located along the East River south of Newtown Creek generally ending in the vicinity of Bushwick Inlet Park and East River State Park. The industrial uses extend to the east of the Bushwick Inlet for several blocks ending along the north side of McCarran Park. Two smaller and less intense clusters of industrial land use are found in an area roughly two blocks north of the Williamsburg Bridge and the second is located in the vicinity of Park Avenue and Flushing Avenue at I-278.

2.4.4 Transportation Parking and Utilities Land Use

There are four readily identifiable areas of significant uses and one smaller area of use in this category outside of the alignments of major roadways. The smaller public utility use consists of a power plant located along the west shore of the East River along River Street at North 1st Street. To the northeast of the preceding location, and located along the south side of Newtown Creek, which is also one of the four significant areas in this land use category, is the Newtown Creek Wastewater Treatment Plant that occupies a large multi-acre site north of Greenpoint Avenue and east of Provost Street.

Approximately one mile to the southeast of the Newtown Creek Wastewater plant and located on the east side of Newtown Creek is the National Grid Clean Energy Plant that also occupies a large multi-acre site. This facility is bordered by Newtown creek to the east, Lombardy Street to the north, Maspeth Avenue to the south and Vandervoort Avenue on the west. The fourth and final significant use under transportation, parking and utilities land use category is located near the southern boundary of the Land Use Data Collection Area in Brooklyn just south of the Evergreen Cemetery at the intersection of Highland Boulevard and Bushwick Avenue. This facility consists of the East New York MTA subway yard which is one of the oldest yards in the MTA system. The East New York Bus Depot is co-located with the subway yard.

2.4.5 Open Space, Cemeteries and Outdoor Recreation Land Use

Significant outdoor recreation and open space uses are limited in the section of the Bronx within the Land Use Data Collection Area with the most significant areas of this category of land use being associated with multiple cemeteries located along the northeastern Brooklyn boundary with Queens to the north of Jamaica Avenue. Outside of the above, the other most significant park space inside the Land Use Data Collection Area in Brooklyn is McNamara Park located due east

of I-278 at McGuinness Boulevard. A number of small playgrounds and community parks are spread throughout Brooklyn in the Land Use Data Collection Area. The list below identifies a number of these areas, but not all, that are generally identifiable on the land use base map.

- Trinity Cemetery, The Evergreens Cemetery and Knollwood Park Cemetery – North of Jackie Robinson Parkway, Highland Boulevard and Bushwick Avenue intersection;
- McCarren Park – Driggs Avenue at Union Avenue and surrounding streets
- Monsignor McGolrick Park – Nassau Avenue at Russell Street
- Bushwick Inlet Park, Ken Avenue at North 10th Street/East River
- Cooper Park – Masspeth Avenue at Morgan Avenue
- Green Central Knoll - Central Avenue at Flushing Avenue
- Marcy Playground – Myrtle Avenue at Marcy Avenue
- Maria Hernandez Park – Irving Avenue at Starr Street
- Herbert Von King Park – Lafayette Avenue at Tompkins Avenue
- Parts of Cypress Hills National Cemetery, Salem Fields Cemetery, Mt. Hope Cemetery and Cypress Hills Cemetery – between Jamaica Avenue and Jackie Robinson Parkway
- Irving Square Park – Halsey Street at Wilson Avenue
- Saratoga Park – Halsey Street at Howard Avenue
- Sternberg Park – Montrose Avenue at Lorimer Street
- St. Andrews Playground – Atlantic Avenue at Kingston Street

2.4.6 Public Facilities and Institutional Land Use

Institutional land uses are scattered throughout the Land Use Data Collection Area and cover an array of places of worship, public, private and parochial schools, governmental offices and facilities, public safety facilities, hospitals and various other institutional uses. The listing below provides a representative sampling of institutional uses by their approximate location in this portion of Brooklyn in the Land Use Data Collection Area.

- Community Partnership Charter School, Johann DeKalb P.S.270, Church of God, Pratt Institute and Libraries, St. Joseph's College, New York Police Department 88th Precinct, Brooklyn Community Arts and Media High School, Ohel Elozer, St. Patrick's Roman Catholic Church, St. Mary's Episcopal Church - Vicinity of Glasson Avenue between Lafayette Avenue and Myrtle Avenue
- Woodhull Medical Center – Broadway at Flushing Avenue
- Brooklyn Public Library – Bushwick Avenue at Siegel Street

- Grand Street Campus High School – Grand Street at Bushwick Avenue
- Boys and Girls High School, Bishop Henry B. Hucles Episcopal Nursing Home and Interfaith Medical Center – Vicinity of Atlantic Avenue at Union Avenue
- Bushwick School for Social Justice and Washington Irving Library – Irving Avenue at Woodbine Street
- Franklin K, Lane Educational Campus – Jamaica Avenue at Dexter Lane;
- Armory Building and Juan Morel Campos Secondary School – Harrison Avenue at Heyward Street
- Brooklyn Public Library – Brooklyn Queens Expressway at Division Avenue;
- Community Partnership School, Urban Dover Charter School, Benjamin Banneker School – Vicinity of Nostrand Avenue and Kosciuszko Street
- Ron Brown Academy/Whitelaw Reid Junior High School P.S. 57 and Jesse Owens P.S. 26 – Malcolm X Boulevard at Lafayette Avenue
- EBC High School, Brooklyn Public Library and Bushwick Leaders High School – Bushwick Avenue at Dekalb Avenue
- Buena Vida Continuing Care Rehabilitation Center – Cedar Street at Evergreen Avenue
- Public School P.S. 116, Philippa Schuyler I.S. 383, New York City Police Department, P.S. 376 – Vicinity of Bleecker Street and Knickerbocker Avenue
- P.S./I.S 384 Frances E. Carter School, Audrey Johnson Day Care Center – Moffat Street at Wilson Avenue

2.5 Queens (Portions within the Land Use Data Collection Area)

The portion of Queens within the Land Use Data Collection Area essentially surrounds the southern half of the Study Area and is generally bounded by the East River and the eastern boundary of Brooklyn to the west, Atlantic Avenue and Grand Central Parkway to the South, the Cross Island Parkway and the border of Nassau County on the east, and Little Neck Bay and East River to the northeast. This area includes at least portions of the following neighborhoods:

- | | |
|---------------------|-----------------|
| • Astoria | • Rego Park |
| • Long Island City | • Forest Hills |
| • Sunnyside Gardens | • Wood Haven |
| • Ridgewood | • Richmond Hill |
| • Maspeth | • Kew Gardens |
| • Middle Village | • Briarwood |
| • Glendale | |

- Jamaica/Jamaica Hills/Jamaica Estates
- Utopia
- Fresh Meadows
- Auburndale/Murray Hill
- Clearview/Whitestone/Bay Terrace/Bayside
- Douglaston/Little Neck

The area west of LGA, in the Astoria, Long Island City and Sunnyside Gardens neighborhoods is predominately industrial, manufacturing and transportation related land uses with residential uses being focused mostly north of 36th Avenue. South and east of LGA the land uses are substantially residential with several tracts of open space, recreational and cemetery uses.

2.5.1 Residential Land Use

The predominant residential land uses within the Land Use Data Collection Area west of LGA are multi-family in nature. A large concentration of these multi-level residential units is located near Astoria Boulevard and between Vernon Boulevard and 14th Street north of Broadway. Heading east from here, towards the Study Area, more single and two-family residential units become interspersed with the higher-rise residential buildings. A second large concentration is the City of New York Housing Authority's Ravenswood complex located at the intersection of 21st Street and 35th Avenue. East of this, and north of 36th Avenue, there is also a varied mix of single, two-family and multi-family residential buildings. The third concentration is the Queensbridge housing complex located near the East River just north of the Queensboro Bridge Greenway. There are portions within both the Ravenswood and Queensbridge complex's dedicated to mixed commercial-residential uses that consist of first floor office and/or retail spaces.

The southern portion of the Land Use Data Collection Area, generally east of Brooklyn and north of Atlantic Avenue, is mostly single and two-family residential land uses. The largest concentrations of multi-family residential uses are in the Ridgewood neighborhood along and west of Forest Road and along Fresh Pond Road; in Kew Gardens along Talbot Street and Metropolitan Avenue; in Forest Hills along 113th Street; in Briarwood to northwest and southeast of Main Street; and in Jamaica Estates along Francis-Lewis Boulevard. There are also several high-rise multi-family uses scattered along both sides of Hillside Avenue in Jamaica.

East of LGA, along the Interstate 295 corridor north of Grand Central Parkway, the majority of land use is also single and two-family residential. Large areas of multi-family residential use are located near Cunningham and Alley Pond Parks to the south of Interstate 495; in Bay Terrace north of 26th Avenue; and in Whitestone along Union Parkway west of the Clearview Park Golf Course. There is also a scattering of multi-family residential uses along Northern Boulevard and near the Auburndale and Bayside stations of the LIRR.

2.5.2 Commercial and Office Land Use

Commercial and office uses are scattered throughout the Queens portion of the Land Use Data Collection Area and are tend to be located along major thoroughfares or, as in the case of the Astoria and Long Island City neighborhoods, adjacent to other industrial uses. The most apparent

commercial uses include a variety of retail, restaurant and larger shopping center/indoor entertainment businesses. From the Ridgewood neighborhood heading east, concentrations of commercial and office uses are generally located along the following roadways:

- Metropolitan Avenue with clusters at Rentar Plaza, the intersection with Fresh Pond Road, the intersection with Woodhaven Boulevard, and near the Jamaica-Van Wyck subway station
- Jamaica Avenue west of Merrick Boulevard
- Hillside Avenue between the Sutphin subway station and 188th Street
- Myrtle Avenue with clusters at Wyckoff Avenue, 65th Street, Cooper Avenue (the Shops at Atlas Park), and Jamaica Avenue
- Union Turnpike between the St. Johns University Queens Campus and Cunningham Park
- Long Island Expressway near the Utopia Parkway overpass
- Northern Boulevard between the Utopia Parkway and 233rd Street
- Bell Boulevard between Northern Boulevard and 35th Avenue
- Francis Lewis Boulevard between 35th Avenue and 26th Avenue
- The Bay Terrace Shopping Center at the intersection of 26th Avenue and Bell Boulevard

2.5.3 Industrial and Manufacturing Land Use

Industrial land uses are prominent throughout the Astoria, Long Island City and Maspeth portions of the Land Use Data Collection Area north of Flushing Avenue, particularly along Newton Creek, Interstate 495 and the LIRR facilities. There are no notable industrial areas east of Interstate 678. Other industrial use clusters within the southern portion of the Queens general study area include:

- Traffic Avenue between the LIRR and Menahan Street
- Otto Road adjacent to the LIRR
- The area around Irving, Wyckoff and Cypress Avenues near Decatur Street
- The area near the railyard/LIRR facilities south of Jamaica Avenue between 121st Street and 133rd Street
- North and south of Cooper Road between 73rd Place and 88th Street

2.5.4 Transportation, Parking and Utilities Land Use

As with the industrial uses, there are several transportation and utility land uses within the Land Use Data Collection Area to the northwest of Flushing Avenue and Newton Creek. These, along with other notable transportation, parking and utility land uses within the study area include:

- Ravenswood Generating Station located along the East River near the Roosevelt Island Bridge and the Queensboro Bridge
- The LIRR railyard located along Northern Boulevard between Interstate 495 and 43rd Street
- The multiple railyards near Joseph Mafera Park and the eastern end of Traffic Avenue
- The railyard at the south end of Willow Lake near the intersection of Interstate 678 and Grand Central Parkway
- The railyard/LIRR facilities south of Jamaica Avenue between 121st Street and Sutphin Boulevard to include the Jamaica Rail Station

2.5.5 Public Facilities and Institutional Land Use

Public facilities and institutional land uses are distributed throughout the neighborhoods of Queens and include a variety of places of worship, public, private and parochial schools, governmental offices and facilities, public safety facilities (i.e. fire and police), hospitals and other institutional uses. The listing below provides a representative sampling of institutional uses by their approximate location within the Queens portion of the Land Use Data Collection Area.

To the west of LGA there are numerous schools, a hospital, a couple of libraries, at least two New York City Police Department (NYPD) stations and multiple Fire Department of New York (FDNY) stations including:

- P.S. 17 Henry David Thoreau School, 30th Avenue School, St Demetrious High School, P.S. 234 and the Mt. Sinai Hospital Queens – near the 30th Avenue subway station
- Long Island City High School – intersection of Broadway and 21st Street
- Dutch Kills Public School 112, Energy Tech High School, and IS 204 Oliver Holmes School – intersection of 37th Avenue and 28th Street
- P.S. 111 and Queens Library at Long Island City – intersection of 21st Street and 38th Avenue
- Newcomers High School - 41st Avenue at 28th Street
- Bard High School Early College, High School of Applied Communications, LaGuardia Community College, International High School at LaGuardia, and the Middle College High School at La Guardia, Continuing Education Center – south of Thomson Avenue between 29th Street and 32nd Place
- Aviation High School and Queens Vocational and Technical High School – 47th Avenue between 35th Street and 38th Street
- Queens Library at Court Square – 45th Avenue at 23rd Street
- NYPD – Skillman Avenue at Pearson Place

- NYPD 108th Precinct – 50th Avenue at Vernon Boulevard
- FDNY Engine 258 & Ladder 115 – near intersection of 47th Avenue and 11th Street

To the south of LGA there are numerous public and private schools, St. Johns University, several FDNY and NYPD stations, churches and multiple hospitals supporting the abundance of residential land uses in this area. While dispersed throughout the various neighborhoods, they tend to be within easy access of the major east-west thoroughfares such as Metropolitan Avenue, Union Turnpike, Grand Central parkway and Atlantic Avenue. Examples of these public facilities include:

- Grover Cleveland High School, P.S. 71, Christ the King Regional High School, and P.S./I.S. 128Q – along Metropolitan Avenue between Flushing Avenue and 69th StreetForest Avenue
- Queens Metropolitan High School – Metropolitan Avenue at Selfridge Street
- Brooklyn Lab School, Forest Park P.S. 97, P.S.254, Horace Man P.S. 90, Richmond Hill High School, P.S. 60 – south of Forest Park between Atlantic Avenue and Park Lane South
- Hillcrest High School, P.S. 86, Young Women’s Leadership School of Queens, P.S. 182, and Gateway to Health Science – Hillside Avenue near the Parsons Boulevard subway station
- Thomas A. Edison Career and Technical Education High School, Jamaica High School, Chapin Home for the Aging, Margaret Tietz Nursing and Rehabilitation Center, and Queens Collegiate – 168th Street between Hillside Avenue and Grand Central Parkway
- P.S. 144 and Our Lady of Mercy Roman Catholic Church and Our Lady of Mercy School – 70th Avenue at Kessel Street
- St. Johns University Queens Campus – Union Turnpike at Utopia Parkway
- Sacred Heart Convent, Sacred Heart Church, Sacred Heart School – 78th Avenue at 84th Street
- Queens Gateway to Health Sciences and the Saint Nicholas of Tolentine Youth Center – vicinity of Union Turnpike and Parsons Boulevard
- P.S. 239, I.S. 77 and Robert E. Peary School – vicinity of St. Nicholas Avenue and Weirfield Street
- NYPD station, Queens Library at Briarwood, and Archbishop Molloy High School – Main Street near the Briarwood-Van Wyck subway station
- Queens Police Department – Queens Boulevard at 82nd Road
- FDNY Engine 319 – Metropolitan Avenue at 78th Street
- FDNY Engine 305 and Ladder 151 – Queens Boulevard at 75th Avenue

- Wyckoff Heights Medical Center – near the DeKalb Ave. subway station
- Jamaica Hospital Medical Center – Van Wyck Expressway at 89th Avenue
- Queens Hospital Center Complex – Grand Central Parkway at 164th Street
- Mary Immaculate Hospital – 89th Avenue at 153rd Street
- Saint Joseph's Medical Center – Hillside Avenue at 178th Street
- Mary Immaculate Hospital – 89th Avenue at 153rd Street
- Silvercrest Nursing Center, Theresa Paplin School, Robert A. Van Wyck Junior High School, P.S.117 Keld/Briarwood School – 144th Street at 85th Avenue
- Immaculate Conception School and Church, the Mary Louis Academy – Edgerton Boulevard at Wexford Terrace
- King Manor Museum and Rufus King Park – Jamaica Avenue at 153rd Street

Land uses east of LGA, along the Interstate 295 corridor, are similar to that south of the Land Use Data Collection Area. Queens Community College is located in this area, along with numerous schools and churches that support the abundant residential land uses. While dispersed throughout the neighborhoods, these facilities tend to be located near the major roadways including Francis Lewis Boulevard, Bell Boulevard, Utopia Parkway and Northern Boulevard. Examples include:

- Francis Lewis High School – Utopia Parkway at 59th Avenue
- P.S. 177 – 58th Avenue at 188th Street
- P.S. 162 John Golden 201st Street at 53rd Avenue
- Divine Wisdom Catholic Academy and Saint Robert Bellarmine Roman Catholic Church – 56th Avenue at 213th Street
- Benjamin N. Cardozo High School, P.S. 203 and Queensborough Community College – Springfield Boulevard at 56th Avenue
- M.S. 158 Marie Currie and P.S. 31 – 46th Road near 211th Street
- Saint Francis Preparatory School and P.S. 4 – Horace Harding Parkway at Francis Lewis Boulevard
- P.S. 205Q, P.S. 188 Kingsbury, American Martyrs Roman Catholic Church, American Martyrs Church, Hollis Woods Community Church, and Ebenezer Mission Church – vicinity of Union Turnpike Parkway and Bell Boulevard
- Flushing Public School 130 – Francis Lewis Boulevard at Ridge Road
- I.S. 025 Adrien Block and P.S. 32 – along 35th Avenue between 171st Street and Francis Lewis Boulevard
- Bayside High School and P.S. 159 – Clearview Expressway (I-295) at 33rd Avenue
- Holy Cross High School – 29th Avenue at 170th Street

- P.S. 169 – Bell Boulevard at 23rd Avenue
- Mary’s Hospital for Children – Abutting the Cross Island Expressway at 29th Avenue
- P.S. 41 Crocheron, Lutheran School of Flushing, Sacred Heart Catholic Church and School – vicinity of 36th Avenue and 215th Street
- P.S. 98 The Douglaston School, Community Church of Douglaston, Open Door Church of New York, St. Sarkiks Armenian Apostolic Church – along 235th Street between Pine Street and 38th Drive
- Louis Pasteur Middle School – Marathon Parkway at 51st venue
- Divine Wisdom Catholic Academy and St. Anastasia Roman Catholic Church – Alameda Avenue at 245th Street
- FDNY Emergency Medical Service (EMS) training Academy and Incident Management Team facilities are located in Fort Totten Park, along Shore Road
- FDNY Engine 306 – 41st Avenue at 214th Place
- FDNY Engine 313 and Ladder 164, and Zion Episcopal Church – Church Street at Cary Place
- FDNY Battalion 53, Ladder 160 and Engine 326 – Springfield Boulevard at 64th Avenue

2.5.6 Open Space, Cemeteries and Outdoor Recreation Land Use

Large pockets of open space are present throughout Queens, particularly along the Jackie Robinson Parkway, Interstate 678, Interstate 295, and the Cross Island parkway. Many of these are large cemeteries; however, there are also numerous recreational parks and playgrounds scattered throughout the neighborhoods. A sample listing of these, from west to east, include:

- Hallets Point, Goodwill Park, Two Coves Community Garden, Socrates Sculpture Park, Rainey Park, Gantry Plaza State Park, and Hunters Point South Park – located along the eastern shore of the East River between the Queens Midtown Tunnel and Interstate 278
- Linden Hill Cemetery and Grover Cleveland Playground – Woodward Avenue between Starr Street and Stanhope Street
- Grover Cleveland Athletic Field and the Starr Playground – vicinity of Willoughby Avenue and Onderdonk Avenue
- Metropolitan Oval – Andrews Avenue at 56th Street
- Mount Olivet Cemetery and Lutheran All Faiths Cemetery – vicinity of Eliot Avenue at Mt. Olivet Crescent

- Joseph Mafera Park – 65th Place near the LIRR railyard at the east end of Traffic Avenue
- Christ the King Cemetery - Metropolitan Avenue near 69th Street
- Juniper Valley Park – Juniper Boulevard North between Lutheran Avenue and Dry Harbor Road
- Forest Hills Stadium and West Side Tennis Center – Burns Street in vicinity of Continental Avenue;
- Saint John Cemetery – Vicinity of Woodhaven Boulevard at Metropolitan Avenue
- Knollwood Park Cemetery, Mt. Judah Cemetery, Evergreens Cemetery, Union Field Cemetery, Beth El Cemetery, Machpelah Cemetery, Cypress Hills National Cemetery, Mt. Hope Cemetery, Mt. Carmel Cemetery, Mt. Neboh Cemetery, Mt. Hope Cemetery, Mt. Lebanon Cemetery, Forest Park Golf Course, Forest Park, Victory Field, Jackson Pond Playground, and Wallenberg Square – along Jackie Robinson Parkway from Highland Boulevard in the west to Markwood Road/Park Lane in the east
- South end of Flushing Meadows-Corona Park, Willow Lake and Willow Lake Playground – Grand Central Parkway south of 69th Road and near P.S. 196
- Maple Grove Cemetery, Maple Grove Park and Hoover-Manton Playgrounds – vicinity of Briarwood-Van Wyck Boulevard subway station, Queens Boulevard at Interstate 678
- Phil “Scooter” Rizzuto Park – Atlantic Avenue at 125th Street
- Judge Moses Weinstein Playground – Union Turnpike at 141st Street
- King Manor Museum – Jamaica Avenue at 150th Street
- Captain Tilly Park and the Joseph Austin Playground – vicinity of Jamaica High School
- Cunningham Park – along Interstate 295 from Grand Central Parkway to Interstate 495
- Kissena Corridor Park – between Underhill Avenue and Peck Avenue east of Utopia Parkway
- Kissena Park Golf Course (eastern portion) – Peck Avenue and Fresh Meadow Lane
- Flushing Cemetery (eastern portion) – Auburndale Lane at 46th Avenue
- Marie Curie Park – adjacent to M.S. 158 at 46th Avenue and 211th Street
- Bayside Fields and Raymond O’Connor Park – near the intersection of 32nd Avenue and Interstate 295
- Little Bay Park, Clearview Park and Golf Course – near the intersection of Interstate 295 and Cross Island Parkway

- Crocheron Park and John Golden Park – abutting the Cross Island Parkway between 31st Road and 35th Avenue
- Oakland Lake, Alley Pond Environmental Center, and Alley Pond Golf Center – vicinity of Northern Boulevard at Cross Island Expressway
- Queensbridge Park First Calvary Cemetery – southwest quadrant of the intersection of Interstate 278 and Interstate 495 north of Newton Creek
- Maple Grove Cemetery – near the intersection of Queens Boulevard and Interstate 678
- Douglaston Club – Manor Road at West Drive
- Udall's Cove Park – Sandhill Road and 39th Avenue
- Memorial Field – Douglas Road at Knollwood Avenue

2.6 Westchester County

A very small section of Westchester County is located within the limits of the Land Use Data Collection Area. This section of the County within the Land Use Data Collection Area is bordered by the Westchester County jurisdictional boundary on the south, the New England Thruway/I-95 on the west, Weyman Avenue and Long Island Sound on the east. The primary land use classifications in this area are dominated by single and two-family residential uses and by outdoor recreation and open space land uses.

Single family land uses are concentrated in the area east of the New England Thruway to the south of the section of the Pelham Country Club east of the Thruway and to the west of Shore Road. Additional single family residential land use is between the Country Club and Weyman Avenue. In addition to the single and two-family residential uses, are multi-family land uses that are located along both sides of Pelham Road between Weymeyer Avenue and Pelhamdale Avenue.

At the northern extent of Land Use Data Collection Area in Westchester County near the intersection of Main Street and Weyman Avenue is an area comprised of a number of commercial land uses that includes national chains such as The Home Depot, Harley Davidson Motorcycles and Costco. This area extends for several blocks along Weyman Avenue and south to the north side of the Pelham Country Club.

As noted the second largest land use in this section of Westchester County consists of outdoor recreation and open space land uses. As noted, one of the larger of these uses is comprised of the Pelham Country Club, however this is not the only area in this category. Other outdoor recreation uses include D'Onofrio Park abutting the southwest side of the Weyman Avenue commercial area, Shore Park on the west side of Shore Road south of Pelhamdale Avenue and, finally, Glen Island Park that encompasses all of Glen Island.

2.7 Nassau County/Town of North Hempstead

A small section of Nassau County's Town of North Hempstead is located within the limits of the Land Use Data Collection Area. This area is generally bordered by Kings Point Road/Bayview Avenue on the east, Little Neck Bay on the west and the Long Island Rail Road (LIRR) branch line on the south. Within this are the villages of Saddle Rock, Harbor Hills and Great Neck Estates.

Land uses within this section of Nassau County and the Town of Hempstead are overwhelmingly dominated by land use classified in the single and two-family category. Further, it is believed that the vast majority of the land uses consist of single family detached dwellings based on a cursory review of aerial photography.

Commercial uses are virtually non-existent in this portion of the Town of North Hempstead in Nassau County. The very few commercial uses that do exist in this section of the Town of North Hempstead consist of small individual commercial uses scattered predominately in the southern part of the noted area.

Two other land use classifications are also evident in this section of the Land Use Data Collection Area. These consist of a very limited amount of open space and outdoor recreation use and the other is associated with the institutional land use category. The areas of open space and outdoor recreation consist of Pond Park located off of Mirrielees Circle near the south end of the section of Nassau County in the Land Use Data Collection Area. The second area is comprised of a recreation area off of Shore Drive in the Great Neck Estates area and a third area is the Saddle Rock Village Park to the west/southwest of Udall's Millpond and the Saddle Grist Mill off of Grist Mill Lane.

Institutional uses in this portion of the Land Use Data Collection Area inside Nassau County consist of the United States Merchant Marine Academy and the Kings Point U.S. Coast Guard station and affiliated activities and uses in the immediate area. These facilities are at the location where the general data collection boundary crosses the north shoreline of Long Island into Nassau County. The second institutional land use in this area is the Saddle Rock School which is located at the intersection of Bayview Avenue and Hawthorne Lane.

3.0 Zoning within the Land Use Data Collection Area

The following sections provide an overview of the existing zoning provisions in force within the Study Area around LGA. The focus of this review is on the identification of the zoning classifications by jurisdiction, the permitted uses within the zoning districts on a jurisdiction by jurisdiction basis and, where available, information on the density (particularly residential related density expressed in lot size required) allowed in the zoning districts. Additionally, where residential uses and/or noise sensitive institutional land use are found to be permitted in commercial or industrial zoning classification, these area also identified for potential consideration during the Noise Compatibility Planning Phase of the 14 CFR Part 150 Study.

3.1 New York City

The City of New York zoning ordinance is a complex yet utilitarian ordinance that reflects the realities of development patterns in a highly urbanized environment. The current Zoning Resolution was adopted on December 15, 1961 to apply citywide and has been updated, amended, and expanded to respond to changing trends and development pressures. As noted on the Department of City Planning's website, "Each plot of land within the City's jurisdiction has a zoning designation – residence, commercial or manufacturing to establish relevant parameters for building and land use. The City continues to adapt the Zoning Resolution as the land use patterns in the City change through private and public actions."

An array of zoning categories and subcategories along with use specific exceptions and criteria are employed for each of three broad categories (Residential, Commercial & Manufacturing) of urban land use. Residence districts are the most common zoning classification and account for roughly 75 percent of the zoned area within the City of New York. These districts cover the entire range of residential development evident within the city boundaries ranging from traditional single family detached residences up to and including high rise residential apartment and condominium towers. There are 10 basic residential zoning categories (R1-R10) in the current zoning resolution with R1 representing the lowest density of residential use and R10 representing the highest density of residential development.

Each zoning category often has an additional number or letter appended to the zoning designation which signifies that additional requirements or controls exist for areas identified on the zoning map as being within that specific zoning category. For example, under the R-7 General Residence Category there are seven additional zoning classifications consisting of R7-1, R7-2, R7-3, R7-A, R7-B, R7-D and R7-X each of which acts to modify the requirements set forth under the general R7 zoning provisions in the City Ordinance. Unless otherwise noted in the Zoning Resolution, the regulations outlined for the general zoning district (e.g. R-7) apply to all of the subcategories under the basic zoning category. While the Zoning Resolution identifies a total of 10 primary residential zoning classifications, an additional 34 subcategories under those 10 primary zoning districts exist.

This structure is carried forward in both the commercial zoning categories and the manufacturing zoning categories. There are a total of eight basic commercial zoning categories consisting of C1 through C8, while there are a total of 84 zoning sub-classifications associated with seven of the

eight commercial zoning classifications. For example, the C6 General Central Commercial District has 25 sub-districts that act to modify the development requirements listed for the basic C6 zoning district. Under the manufacturing district regulations there are three general categories consisting of M1 through M3 and 22 sub-district classifications, most of which act to modify the requirements of the M1 district. The City of New York Zoning Resolution identifies the following basic zoning districts:

Residential Districts

R1 – Single Family Detached Residence District	R6 – General Residence District
R2 – Single Family Detached Residence District	R7 – General Residence District
R3 – Detached and Semi-Detached Residence District	R8 – General Residence District
R4 – General Residence District	R9 – General Residence District
R5 – General Residence District	R10 – General Residence District

Commercial Districts

C1 – Local Retail District	C5 – Restricted Central Commercial District
C2 – Local Service District	C6 – General Central Commercial District
C3 – Waterfront Recreation District	C7 – Commercial Amusement District
C4 – General Commercial District	C8 – General Service District

Manufacturing Districts

M1 – Light Manufacturing District (High Performance)
M2 – Medium Manufacturing District (Medium Performance)
M3 – Heavy Manufacturing District (Low Performance)

To define the land uses permitted within each of the basic zoning categories (R-1 thru 10, C1 thru C8 and M1 thru M3), the City of New York has grouped permitted uses based on similarity and compatibility of their functions into one of 18 individual use groups. Of the 18 use groups contained in the City Zoning Resolution, two use groups address residential uses, two use groups delineate permitted community facility uses, 12 use groups address various types and intensity of commercial activity and two use groups delineate allowable manufacturing uses. Each use group is then identified as permitted in appropriate zoning districts either as-of-right or, if certain conditions are met, by authorization or special permit.

To determine whether a specific use is permitted in a general zoning classification, one identifies the use groups permitted in the category and then refers to the specific land uses and special conditions or requirements listed under the Use Group. As an example, land uses classified under Use Group 4, one of two community facilities use groups, are identified as permitted uses in the following zoning classifications; R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6, C8, and M1 zoning districts per the Zoning Resolution. Under each zoning category there may be certain exclusions of activities or specific requirements for a specific activity listed under Use Group 4. **Figure 3-1** provides a quick reference of permitted use groups by zoning districts, while **Table 3-1** delineates each use group along with a listing of the uses within each use group and the zoning districts in which each use group is generally permitted.

Figure 3-1
Permitted Use Groups by Zoning District

Zoning Districts	USE GROUPS																	
	Residential Use Groups		Community Facility Use Groups		Retail & Commercial Use Groups										Gen. Service		Mfg. Use Groups	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Residential Districts																		
R1 R2 Single-family detached																		
R3A* R3X R4A R5A Single- & two-family detached																		
R3-1 R4-1* Single- & two-family detached & semi-detached																		
R4B* Single- & two-family detached, semi-detached & attached																		
R3-2 R4 R5 R5B* R6-R10 Detached, semi-detached & attached																		
Commercial Districts																		
C1 Local Retail																		
C2 Local Service																		
C3 Waterfront & Recreation																		
C4 General Commercial																		
C5 Central Commercial (Restricted)																		
C6 Central Commercial (General)																		
C7 Commercial Amusements																		
C8 General Service																		
Manufacturing Districts																		
M1 Light Manufacturing																		
M2 Medium Manufacturing																		
M3 Heavy Manufacturing																		

* Zero lot line buildings permitted

Source: City of New York Department of Planning Zoning, 2016.

**TABLE 3-1
PERMITTED LAND USES BY USE GROUP AND ZONING DISTRICT**

Use Group	Zoning District Permitted	Permitted Land Uses
Use Group 1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Single-Family Detached Residences
Use Group 2	R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Residences of all kinds R3A, R3X, R4A, R5A – residential uses limited to single or two-family detached, R3A allows single family and two-family zero lot line; R3-1 and R4-1 uses limited to single or two-family detached or semi detached R4-1 allows single family and two-family zero lot line; R4B residential uses limited to single, two-family residences in detached, semi-detached, attached or zero lot line buildings.
Use Group 3	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6	Schools, Colleges or Universities ¹ , student dormitories ¹ , fraternity or sorority student houses ¹ , Domiciliary care facilities for adults, Libraries, museums or non-commercial art galleries, monasteries, convents, Non-profit hospital staff dwellings, nursing homes and health related facilities, Sanitariums, Philanthropic and non-profit institutions with sleeping accommodations
Use Group 4	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, C1, C2, C3, C4, C5, C6, C8, M1	Ambulatory diagnostic or treatment health care facilities, mental, health and mental health care facilities licensed by the state; Community centers or settlement houses; Houses of worship, rectories or parish houses; Monasteries, convents or novitiates use for living purpose as a part of a group of buildings accommodating house of worship activities; Non-Commercial Recreation Centers; Non-profit or voluntary hospitals and non-profit hospital staff dwellings on the same property as the hospital; Proprietary hospitals; Seminaries; Philanthropic or non-profit institutions without sleeping accommodations; Welfare Centers ¹ ; Cemeteries ¹ ; Golf Courses; Agricultural uses including greenhouses, nurseries or truck gardens;

		<p>Outdoor tennis courts or ice skating rinks;</p> <p>Public parks or playgrounds or private parks;</p>
Use Group 5	C1, C2, C4, C5, C6, C8, M1	Hotels, transient accommodations
Use Group 6	C1, C2, C4, C5, C6, C8, M1, M2, M3	<p><u>Convenience Retail</u> – Barber & beauty parlors; drug stores, small bakeries, eating and drinking establishments; hardware stores; stationery stores; hand or self-serve; tailor/dressmaker shops, Package liquor stores;</p> <p><u>Offices</u> – business, professional including ambulatory diagnostic or treatment health care, governmental;</p> <p>Veterinary medicine for small animals;</p> <p><u>Retail or Service Establishments</u> – Banks; book stores; retail clothing stores; gift shops; interior design establishments; dry goods or fabric stores; eating or drinking establishments; leather goods; luggage stores; millinery shops; bicycle sales; music stores; floor covering stores; auto supply stores; commercial art galleries and artist supply stores; jewelry stores; pet shops; toy stores; travel bureaus; watch and clock repair; shoe stores; seed and grain supply stores; photographic studios; sporting goods stores; other similar uses.</p> <p><u>Public Service Establishments</u> – Court houses; electric or gas utility substations; solar energy systems; Fire and police stations; telephone exchanges; water or sewage pumping stations; public utility stations for oil or gas metering/regulating.</p>
Use Group 6C	R6, R7, R8, R9, R10	<p>When located with Community District 1 in Brooklyn – uses permitted as a right are limited to docks for ferries, other than gambling vessels, with a capacity of up to 399 passengers, docks for water taxis for up to 99 passengers.</p> <p>USES PERMITTED BY SPECIAL PERMIT GRANTED BY PLANNING COMMISSION OR BOARD OF STANDARDS AND APPEALS BY ZONING DISTRICT INCLUDE:</p> <p><u>R3A, R3X, R3-1, R4A, R4B, R4-1</u> - Ambulatory diagnostic or treatment health care facilities listed in Use Group 4;</p> <p><u>R1, R2</u> – College or universities including student dormitories, fraternity or sorority student housing; outdoor tennis courts or ice skating rinks; Welfare centers;</p> <p><u>R1, R2, R3, R4, R5, R6, R7, R8, R9, R10</u> – Camps, overnight or outdoor day; Public Utility or service facilities; radio or television towers; riding academies or stables; sand, gravel or clay pits, Domiciliary care facilities for adults; Non-commercial clubs with outdoor swimming pool; Non-Profit hospital staff dwellings within 1,500 feet of hospital; Nursing home and health related facilities based on certification³, Public transit, railroad or electric substations; Passenger rail stations, Seaplane bases;</p> <p><u>R10H</u> – Transient Hotels</p>
Use Group 7	C2, C6, C8, M1, M2, M3	<p><u>Transient Accommodations</u> – Hotels, motels, cabins or boatels (requires proximity to major highway);</p> <p><u>Retail or Service Establishments</u> – Bicycle rental or repair; exterminators; funeral establishments; gun repair; moving or storage offices; sign painting</p>

		shops; venetian blind, window shade or awning shops; Window cleaning contractors establishments or other similar building maintenance services; electrical, glazing, hearing, painting, plumbing, roofing and similar establishments; refreshment stands with drive in; <u>Wholesale Establishments</u> – Wholesale establishments of 1,500 SF of accessory storage; <u>Auto Service Establishments</u> – Auto glass and mirror shops; Auto seat cover and convertible top sales and installation; tire sales and installation establishments; electric vehicle charging stations and battery swapping facilities.
Use Group 8	C2, C4, C6, C8, M1, M2, M3	<u>Amusements</u> – Billiard Parlors/pool halls; bowling alleys with less than 16 lanes; model car hobby center including racing; theaters; <u>Retail or service establishments</u> – Auto driving schools; lumber stores; pawn shops; television, radio, phonograph or household appliance repair shops; upholstery shops; <u>Automotive Service Establishments</u> – Automobile rental establishments; public parking lots or garages of less than 150 spaces; Public Service Establishments - Prisons
Use Group 9	C2, C4, C5, C6, C8, M1, M2, M3	<u>Retail or service establishments</u> – studios, art, music, dancing or theatrical; trade and other schools for adults (subject to certain performance standard limitations); wedding chapels, umbrella repair shops; typewriter or other small business machine sales, rental or repair; <u>Wholesale Establishments</u> – Hair Products for headwear, wholesaling including styling; photographic developing or photographic printing establishments;
Use Group 10	C4, C5, C6, C8, M1, M2, M3	<u>Retail or service establishments</u> – Banquet halls; blueprinting and photostating establishments; business schools or colleges; catering establishments; clothing or costume rental; public auction rooms; printing establishments; plumbing, heating or ventilating equipment showrooms; medical and dental laboratories (subject to performance based standards; auto, motorcycle, trailer or boat showrooms or sales; gymnasiums exclusively for basketball, handball, paddleball racketball, squash and tennis; <u>Wholesale Establishments</u> – wholesale offices or showrooms
Use Group 11	C5, C6 ⁴ , C8, M1, M2, M3	<u>Manufacturing Establishments</u> – Art needlework, hand weaving or tapestries; Book handbinding or tooling; ceramic products; clothing manufacturing or altering; custom hair products manufacturing; jewelry, medical, dental, optical or drafting or similar precision instruments; orthopedic or medical appliances; musical instruments (excludes piano and organs) <u>Retail or service establishments</u> – Dry goods or fabric stores; records depositories; clothing and clothing accessory stores; department stores; radio and television studios; variety stores, watchmaking; furniture stores, appliance stores; photo or motion picture studios; floor covering stores; printing establishments of less than 2,500 SF production area ³ ; eating and drinking places; office and business machine sales or rental <u>Wholesale or Similar Establishments</u> – Ships Chandlers; wholesale establishments with accessory storage of less than 2,500 SF
Use Group	C4, C6, C7,	<u>Amusements</u> – Arenas or auditoriums with less than 2,500 seats; stadiums

12	C8, M1, M2, M3	<p>and trade expositions of less than 2,500 seats or persons respectively; Billiard Parlors/pool halls; bowling alleys or table tennis halls; eating and drinking establishments; indoor golf recreation centers; public auction rooms. Enclosed skating rinks; model car hobby center including racing; enclosed historical exhibits;</p> <p><u>Retail Establishments</u> – Antique store; commercial art gallery; candy/ice cream store; toy store; newsstands; drug stores; record stores; gift shop, photographic equipment store; music store; delicatessen; book store; jewelry store</p> <p><u>Public Service Establishments</u> – Police stations; sewage pumping stations</p> <p><u>Automotive Establishments</u> – Public parking lot or garage of less than 150 spaces</p>
Use Group 13	C7, C8, M1, M2, M3	<p><u>Amusements, Open or Enclosed</u> – Overnight or outdoor day camps; children's amusement parks (less than 10,000 SF in area); commercial beaches and pools; golf driving ranges or miniature golf courses; outdoor ice and roller skating rinks or skateboard parks; theaters</p> <p><u>Retail or Service</u> – Banquet halls, catering establishments, refreshment stands;</p> <p><u>Service Establishments</u> – boat fuel sales, open or enclosed</p>
Use Group 14	C2, C3, C7, C8, M1, M2, M3	<p><u>Retail or Service</u> – Bicycle sales, rental or repair shops; boat fuel sales open or enclosed; non-commercial boat launching facilities; boat rentals; boat showrooms and sales; boat storage, repair or painting and incidental sale of boats, boat parts and accessories; candy or ice cream stores; docks for sightseeing, excursion or sport fishing; docks for water taxis (vessel capacity up to 99 passengers); docks and mooring facilities for non-commercial pleasure boats; Fishing tackle or equipment sales or rental; sale or rental of sporting goods or equipment including instruction in skiing, sailing or skin diving, sail making establishments</p> <p><u>Clubs</u> – Non-commercial clubs</p>
Use Group 15	C7	<p><u>Amusements</u> – Arcades; animal exhibits; children's amusement park; ferris wheels, roller coasters, merry go rounds, parachute jumps or similar midway attractions; open booths with games of skill or chance; freak shows, wax museums or similar open or enclosed midway attractions;</p>
Use Group 16	C8, M1, M2, M3	<p><u>Retail or Service Establishments</u> – Trade Schools for adults; tool, die or pattern making; horse stables; sign painting shops; Silver plating shops; welding shops; motorcycle and scooter rental; poultry processing for retail sale; Riding academies; Machinery sales and rental; animal or human crematoriums; carpentry, custom woodworking or custom furniture making shops; fuel, ice, oil, coal or wood sales limited to 5,000 SF of lot area; electrical, glazing heating, painting, roofing, plumbing and similar uses; building materials sales limited to 10,000 SF lot; automobile, motorcycle, trailer, boat sales; animal hospital or kennel;</p> <p><u>Automotive Service Establishments</u> – Automobile, truck, motorcycle or trailer repairs; automobile laundries; auto service station (lubrication, washing or repair must be conducted inside)</p> <p><u>Vehicle Storage Establishments</u> – Commercial or public utility vehicle storage including accessory fuel pumps; dead storage of motor vehicles; public transit yards including accessory fuel pumps;</p>

		<p><u>Heavy Service, Wholesale or Storage Establishments</u> - Carpet cleaning establishments; dry cleaning or cleaning and dyeing establishments; laundries; linen, towel or diaper supply establishments; moving or storage establishments; packing or crating establishments; Trucking terminals or motor freight stations of not more than 20,000 SF of lot area; warehouses; wholesale establishments.</p>
Use Group 17	M1 ⁵ , M2	<p><u>Service or Wholesale Establishments</u> – Building materials or contractors' yards including sales, storage or handling of building materials, (lumber yards limited to 20,000 SF lot); wholesale produce or meat markets;</p> <p><u>Manufacturing Establishments</u> – Adhesives; advertising displays, aircraft including parts; metal stamping or extrusion; metal finishing, plating cleaning, heat treatment or similar processes; motorcycles including parts; ink or inked ribbon, luggage, laboratories, leather products; hosiery; hair, felt or feather products; electrical supplies, photographic film; food products; electrical appliance and equipment assembly; cosmetics; cork products; canvas products, carpets; ceramic products, chemicals – compounding or packaging; orthopedic or medical appliances; optical equipment, musical instruments; pharmaceutical products; paper products; plastic products; printing or publishing; sporting or athletic equipment; textiles; tools or hardware; toys; umbrellas, upholstering; wax products; wood products</p> <p><u>Miscellaneous Uses</u> - Agriculture including greenhouses, nurseries or truck gardens; docks (excluding gambling vessels); public transit, railroad or electric utility substations; railroad rights of way, freight terminals, yards or appurtenances; truck weight stations; trucking terminals or motor freight stations.</p>
Use Group 18	M3	<p><u>Manufacturing Establishment</u> – Asphalt or asphalt products; alcoholic beverages or breweries; brick, tile or clay; cement; chemicals including hazardous compounds; fertilizers; foundries; coal, coke or tar products; glass products including structural or plate glass; grain milling; gypsum; graphite or graphite products; heavy machinery; incinerators; fungicides, insecticides, disinfectants or related chemical compounds; meat packing; metal or metal ore reduction/refining/smeltering; metal casting or foundry; monument works; petroleum refining; paint, varnish or turpentine production; railroad equipment; handling & storage of radioactive waste; ship building; steel mill; stock yards; wood or lumber processing; paper mills;</p> <p><u>Storage or Miscellaneous Uses</u> – coal or gas storage; dumps, marine transfer stations; power plants; explosives storage; gas manufacturing plants; scrap metal and salvage yards; grain storage; lumber yards; petroleum or petroleum products; refrigeration plants;</p>

Source: City of New York Department of Planning Zoning, 2016. Adapted by Kimley Horn and Associates.

The City Zoning Resolution incorporates the pyramiding of uses into its provisions. This concept allows for uses in a less intensive zoning classification, say for instance R1, to be considered as permitted uses in more intensive/high density zoning classifications, for instance R8. This is generally not a significant issue when considering uses in the same general category of use, for example within the general category of residential development. Where it can be a concern in relation to noise compatibility planning is when noise sensitive uses are permitted as a right within other categories of zoning that are typically considered to be compatible with higher levels of aviation related noise. As can be seen in Figure 3-1, the City of New York Zoning Resolution permits as a right an array of residential land uses within all but two of the commercial zoning districts.

The issue from a noise compatibility standpoint is related to the fact that areas zoned and developed for commercial purposes are typically considered to be compatible with aircraft noise levels of DNL 65 dB and, in a number of cases, higher. Residential uses, however, are not generally deemed compatible with noise levels at and above the DNL 65 dB level. Under the City of New York Zoning Resolution, residential uses are permitted in all commercial districts with the exception of the higher density/intensity C7 and C8 zoning classifications with the size of the residential building or portion of a mixed-use being controlled by the bulk requirements of a specified equivalent residential zoning classification. For example, the R6 residential classification is the residential equivalent to be used for determining density/bulk requirements for residential land uses developed within the C4-2 and C4-3 districts. Residential equivalents are listed for an array of commercial districts and sub-districts in the Zoning Resolution and these are delineated in a full listing of the residential equivalents for residential development in commercial zoning districts in **Table 3-2**.

**TABLE 3-2
RESIDENTIAL BULK EQUIVALENCIES FOR COMMERCIAL ZONING DISTRICTS**

Commercial Zoning District	Applicable Equivalent Residence District for Density and Bulk Requirements
C3	R3-2
C4-1	R5
C4-2, C4-3, C6-1A	R6
C4-2A, C4-3A	R6A
C1-6, C2-6, C4-4, C4-5, C6-1	R7
C1-6A, C2-6A, C4-4, C4-5A	R7A
C4-5D	R7D
C4-5X	R7X
C1-7, C4-2F, C6-2	R8
C1-7A, C4-4D, C6-2A	R8A
C1-8, C2-7, C6-3	RD
C1-8A, C2-7A, C6-3A	R9A
C6-3D	R9D
C1-8X, C2-7X, C6-3X	R9X
C1-9, C2-8, C4-6, C4-7, C5, C6-4, C6-5, C6-6, C6-7, C6-8, C6-9	R10
C1-9A, C2-8A, C4-6A, C4-7A, C5-1A, C5-2A, C6-4A	R10-A
C6-4X	R10-X

Source: Zoning Resolution, Article III Commercial District Regulations, Chapter 4 Bulk Regulations for Residential Buildings in Commercial Districts.

Appendix D-2

Historic Property Review



To: Project File, 29376.00

Date: April 27, 2016

Memorandum

Project #: 29376.00

From: Peter Byrne, VHB
Carol S. Weed, M.A. (RPA), VHB

Re: LGA 14 CFR Part 150 Study, Historic Property Review for NEM
Analysis

This memorandum summarizes the research methods and results of a historic properties site file search for the LaGuardia Airport (LGA) 14 Code of Federal Regulations (CFR) Part 150 study area (Figures 1 and 2). The memo consists of five sections: Historic Property Definitions and Considerations, Data Sources, Data Presentation, Research Results, and Further Actions. This information is intended for reference and related to the existing land uses in support of the LGA CFR Part 150 Study.

Historic Property Definitions and Considerations

The historic property due diligence review was designed to provide the historic resource register status and location data for the following types of historic properties: buildings, structures, objects, and districts. Following a discussion with Federal Aviation Administration (FAA) representatives Andrew Brooks and James Byers, only those historic properties that have been previously determined eligible for, or are listed on the National Register of Historic Places or the New York State Register of Historic Places, or that are listed by the New York City Landmarks Preservation Commission (LPC) as landmarks or landmark districts were considered. The two registers are jointly referred to as the N/SR.

In historic preservation, a building is defined as having four walls and a roof, while a structure has no roof and in some cases no walls. Structure types include, but are not limited to bridges, roads, cemeteries, utility infrastructure, and canals. An object is commonly a memorial. LPC landmarks can be buildings, structures, and objects. New York City uses the term "landmarks" to encompass all three. Finally, N/SR and LPC districts represent a spatially-defined group of buildings, structures, and/or objects that are linked by a historic theme. An example of a historic district that is located within the 14 CFR Part 150 LGA Study Area is the Paramount Studios Complex, an Historic District (HD) that is comprised of a small group of buildings erected by Paramount Studios that facilitated movie and television production in New York City.

The purpose of the review was to identify the location and functional classes of the eligible, listed, and landmarked historic properties within the study area that may be affected by changes in noise levels. Traditionally, only certain classes of historic properties are considered to be locations susceptible to noise effects, as most historic properties do not have a specific noise level as a condition of their setting.¹ These classes of historic properties include churches and synagogues (and related buildings), hospitals, libraries, and schools.

¹ Setting is one of the seven aspects of integrity that have to be considered in determining if a historic property is eligible to the National Register. One of the conditions of setting is quiet. The quiet condition may relate to the physical setting (a quiet glen) and/or a property's function (a convent served as a place of quiet reflection). For quiet to be considered as a condition of a setting and integral to its eligibility, it must be defined and discussed the nominating paperwork (Patrick W. Andrus and Rebecca H. Shrimpton. 1982 (rev. 1995). *Now to Apply National Register Criteria*. United States Department of the Interior, National Register Bulletin 15.)

Two Penn Plaza
Suite 2602
New York, NY 10121-0001
P 212.857.7350

Ref: 29376.00
 April 15, 2016
 Page 2

A determination of the functional classes (school, library, etc.) of the historic properties within the study area was within the scope of this study. The historic property setting characteristics, however, were not included. The setting characteristics can be obtained from the individual New York State Office of Parks, Recreation and Historic Preservation (NYOPRHP) Unique Site Number (USN) inventory forms, the LPC Designation Reports, or the NYOPRHP and LPC district descriptions for each property.

Finally, the original description of an historic property usually contains a listing of the variables that contributed to the property's eligibility status. These descriptions, however, are rarely updated and the condition of the historic property may have altered considerably over time. Further, historic properties may have been demolished or modified in the time since their original recording, and that is not always reported to the agencies. For these reasons, the properties discussed herein and plotted on the GIS layers may or may not retain their original condition and aspects of integrity.

Data Sources

The sources used to acquire these data were the NYOPRHP Cultural Resources Information System (NYOPRHP CRIS), the NYOPRHP CRIS managers, Michael Schifferli and Matthew Shepherd, and the LPC on-line historic resources. No archaeological sites or other historic properties (buildings, structures, objects, or districts) that were listed in the State Register as 'not eligible' or 'undetermined' are included as resources considered herein, on the associated Geographic Information Systems (GIS) layers and its associated attribute list, or in Table 1, which is titled "LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmarked Historic Properties." Archaeological sites are rarely impacted by indirect noise. However, the archaeological site types susceptible to impacts from indirect noise include petroglyphs, pictographs, and buried deposits in hydric soils. These archaeological site types can be affected by noise-induced cracking however, there are none in the LGA Part 150 study area. Historic properties that are listed as 'not eligible' have already been subjected to a complete federal or state level evaluation, and have been determined not eligible for listing on the N/SR by the lead agency in concert with the NYOPRHP. Historic properties that have an 'undetermined' status have never been subject to formal federal or state level evaluation. Many of these properties were recorded in the decade following the implementation of the National Historic Preservation Act of 1966, as amended, and their existing conditions have not been updated since that initial documentation.

No historic properties shown in the accompanying maps, the associated GIS layers, the GIS point and polygon attribute list, or in Table 1 have been subject to field confirmation of locations or existing conditions. As previously noted, it is possible that individual properties listed on Table 1, plotted in the GIS layers (and its associated GIS attribute table) have been demolished or altered since listed, and that their listing variables are no longer applicable.

Data Presentation

The data acquired during this due diligence review are presented in two locations: Table 1 and the GIS layers within its associated GIS attribute table.

Table 1, LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmarked Historic Properties

Table 1 includes all information that was available from CRIS or LPC on-line downloads and additional information on property class and type. This review of resources did not include obtaining individual inventory forms. The review, however, did include reference to the district nomination forms and LPC designation reports particularly those for the

Ref: 29376.00
 April 15, 2016
 Page 3

Broadway-Flushing, Jackson Heights, Morris High School, and Sunnyside Gardens historic districts, all of which had incomplete and/or erroneous location information. The forms and reports were accessed to determine the property class and type, and to clarify several data entry anomalies in the CRIS location information. These anomalies included assignment of USN designations to non-existent buildings (particularly in the Morris High School HD) and USN designations assigned to non-contributing properties (particularly in the Broadway Flushing and Jackson Heights). A non-contributing property is a building or structure that is located within a district that does not meet the criteria for inclusion within the district's historic themes.

Table 1 contains 13 columns of information, as described below. Please note Table 1 is not linked to the electronic GIS files.

1. Historic Property Class and Type: assigned by VHB.
 - o Class- building, structure, building/structure, object, district
 - o Type- church/synagogue and related, cemetery only, cemetery + object, church + cemetery, civic, commercial, contributing (open space), contributing (park), current function unknown, district element, Emergency Medical Services (EMS), historic feature, hospital, library, museum, parent number,² recreation, recreation (theatre), residence, residence apartments, school, transportation (airport), transportation bridge), and U.S. Postal Service
2. Name of the Data Source(s): The names in this column are those of the agencies from which the historic property information were obtained.
3. All Historic Property Designations: this includes all the designations assigned to a specific historic property by the agencies who have reviewed the property. Any number prefaced by "LP-" is assigned by LPC. Any number containing the letter combination "NR" was assigned by NYOPRHP in consultation with National Park Service. Any property that has an "NR" designation is listed in the National Register of Historic Places. All other numbers in the column were assigned by NYOPRHP, and they represent the State Register Unique Site Number (USN).
4. NRHP Number: the National Register of Historic Places number.
5. LPC Number: The LPC "LP-" designation.
6. NYOPRHP Number: USN assigned by NYOPRHP to each historic property in the state inventory of historic properties. The first 5 digits are specific to the borough neighborhood (for example, 08101 designates Queens). The last digits from a sequential list maintained for each borough neighborhood.
7. Listing Status: as determined by the listing agency and the lead agency.

² Each N/SR district has a "parent number." This is the agency inventory number applied to the entire district by the recording agency.

Ref: 29376.00
 April 15, 2016
 Page 4

8. Historic District: district name linked to the individual property noted. The district names are assigned by NYOPRHP or LPC. Figure 3 illustrates the location of all historic districts within the LGA CFR Part 150 Study Area.
9. Historic Property Names(s): names provided by the agency for the individual resource. Usually the names are linked to the current or historic name of the building, structure, or object, and may include additional descriptors, such as "residence," that describe the function of the building at the time it was recorded.
10. Street Name: included by VHB for sorting purposes.
11. Agency Address: taken from agency information.
12. Notes: VHB notes related to the resource/data.

GIS Layers and Associated Attribute List

The GIS information (provided electronically) includes historic property designation (USN and LPC), historic property name, county, and minor civil division. There are two GIS layers (historic points and historic polygons). The GIS layers include only those that had points and polygons in CRIS or the LPC GIS.

The GIS matrix, which is included with and supports the GIS layers, includes agency identification number, the resource name, the county, the minor civil division, latitude, and longitude, and a note column. This information is accessed when the points and polygons are engaged in the GIS layers.

Research Results

The initial receipt of historic property data from NYOPRHP and LPC yielded a total of 6,089 historic property entries. This total included duplicate entries resulting from historic properties being listed in or determined eligible for N/SR and LPC, as well as properties determined 'not eligible' or 'undetermined.' All duplicates, not eligible, and undetermined properties were removed. The resultant total was 5,445 historic properties, which included all landmarked, listed NR historic properties, and all SR listed properties determined eligible for listing in the NR.

The initial Broadway-Flushing District listings included all historic properties in the District, not just the ones in the Study Area. This was because the current CRIS plottings for the Broadway-Flushing Historic District are incomplete and in some cases, incorrect. All points in the Broadway-Flushing, Jackson Heights, and Sunnyside Gardens HDs were re-plotted. This re-plotted data will be returned to NYOPRHP for their use.

The total of 5,445 historic properties was reduced when properties were re-plotted. The final total used in the calculations of this memorandum is 3,906. Individual GIS points or polygons were assigned to 3,910 lots or individual buildings. This discrepancy in the total number is due to multiple properties on corner lots having different street addresses.

In Table 1, a second tab called "No GIS" is included. This table includes properties that were initially captured during the data downloads and that were eventually determined to be outside of the Study Area, or which were determined to have no physical property associated with them. The latter occurred when NYOPRHP assigned USNs to street addresses rather than actual buildings. The result was USNs assigned to addresses that were actually not assigned to a physical building. The "No GIS" also includes several parks in Jackson Heights, which are play yards associated with

Ref: 29376.00
 April 15, 2016
 Page 5

particular apartment complexes, and a series of garages that were described in the Jackson Heights nomination and designation forms, but which were not captured during the re-plotting of the properties in that district.

Buildings Identified in the LGA Part 150 Study Area

The majority (n=3,830;³ 98 percent) of the historic properties in the study area are buildings. Of those, most (n=3,345; 87.3 percent of buildings) seem to be individual residences or multi-family residential buildings. These buildings are classified under class and type on Table 1 as Building – residential with various qualifiers such as single-family, multi-family, and apartment. Not included in the residential count are buildings that have both commercial and residential functions. Most of the residential properties are within historic districts.

The remaining building types are described below:

1. Building – church/synagogue and related: the church/synagogue-related buildings include convents, rectories, and schools (n=57). As with all other classes, it is unknown whether the church/synagogues and their related buildings all function as originally documented.
2. Building – civic: these historic properties function as meeting spaces. These include such locations as the Flushing YMCA, Fireman's Hall, and the Joyce Kilmer Knights of Columbus (n=9).
3. Building – commercial: these buildings, when originally documented, functioned as commercial establishments. As far as is known, the buildings still have a commercial purpose, but they may no longer be serving the original function (n=90).
4. Building – commercial/residential (apt): these buildings have both residential and commercial functions with commercial uses usually restricted to the ground floor. There are 31 such buildings.
5. Building – EMS (Emergency Medical Services): these are firehouses and three police station houses (n=16).
6. Building – government: there are four government buildings, three in the Bronx and one in Queens.
7. Building – hospital: there are four hospitals.
8. Building – library: there are six libraries, all of which were constructed as library buildings.
9. Building – museum: there are nine museums in the data set (n=9). Six originally functioned as private residences. The seventh was originally constructed as the New York City Building at the World's Fair Site. It is now the Queens Museum of Art. Two are now part of the Bronx Museum of Arts.
10. Building – recreation (centers): the Astoria Park Pool and Play Center is the only pool complex in the data set. The other is the Mullally Recreation Center.

³ "n=" is the total number of resources in a particular class or type

Ref: 29376.00
 April 15, 2016
 Page 6

11. Building – recreation (theatre): there are four theatres in the data set including the Earle Theatre, the Boulevard Theatre, *Teatro Puerto Rico* (aka Forum Theatre), and RKO Keith's Theatre (n=4).
12. Building – school: these listings include public schools and schools that are privately held but open to the public (n = 56).
13. Building – transportation: the transportation buildings include seven buildings at LGA, two subways, and the NY, Westchester & Boston Railroad Administration Building (n=8).
14. Building – unknown: the function of the building is unknown. Most of these are likely residential buildings of some type within districts (n=185).
15. Building – USPS (United States Postal Service): the United States Post Office stations that were inventoried and determined eligible are located in the Bronx on Grand Course, Morrisania, the Boulevard Station in Queens, Mott Haven, West Farms, Flushing, Forest Hills, Jackson Heights, Jamaica Main, and Long Island City (n=9).

Historic Districts Identified in the LGA Part 150 Study Area

There are 11 historic districts in the study area, most of which are comprised of residential historic properties. The districts range in size from the previously noted Paramount Studios to the very large Jackson Heights historic districts (see Figure 3). With some exceptions, the residential districts include churches, commercial, parks, schools, and open spaces. The Jackson Heights HD also includes single- and 2-family garages.

On Table 1 and in the GIS attribute list, each N/SR district has a parent number. No latitude and longitude coordinates are provided for the parent districts, which are listed on both Table 1 and the GIS attribute list.

Non-Buildings Identified in the LGA Part 150 Study Area

The 76 non-building historic properties include the class and types described below:

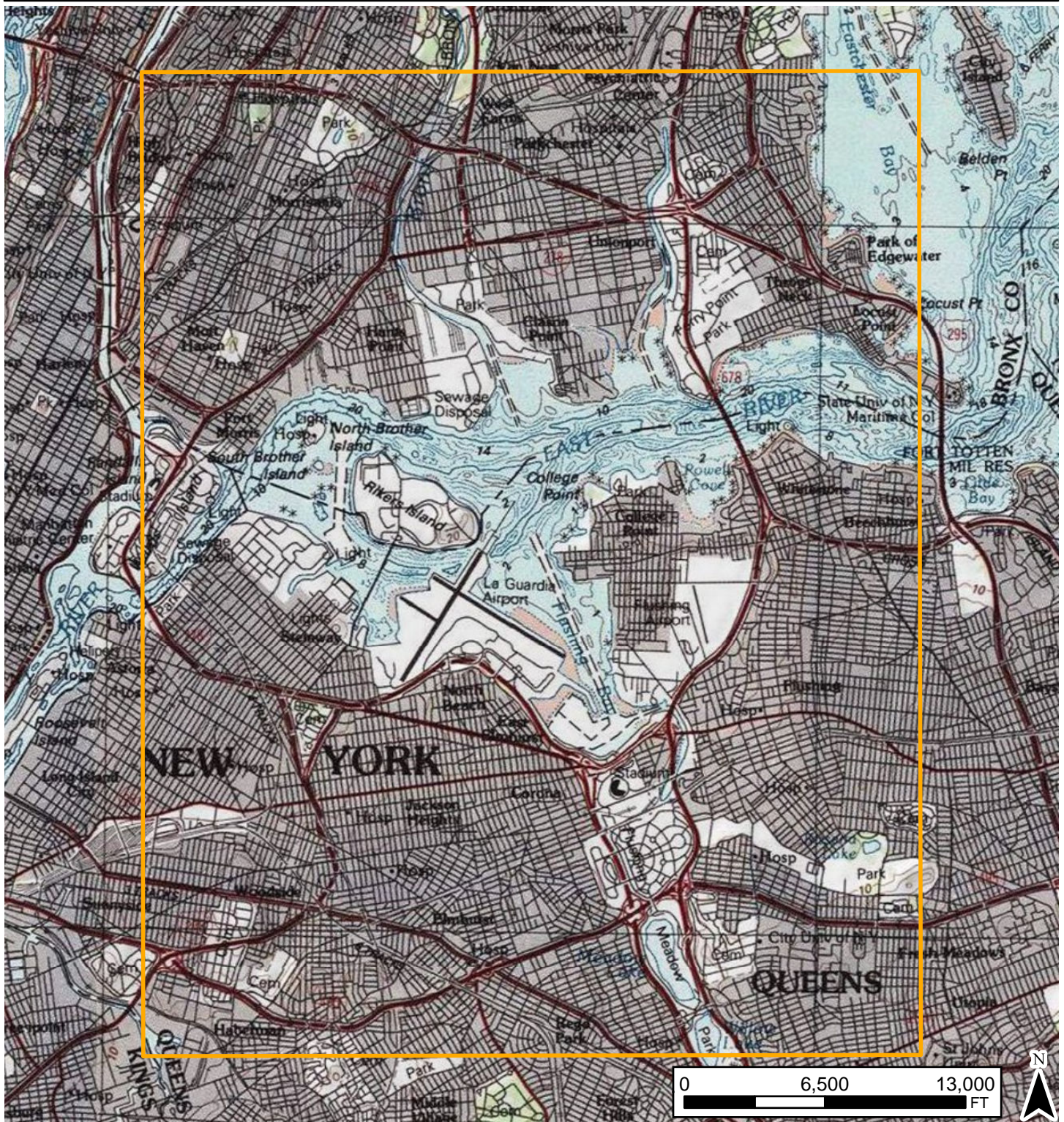
1. Building/Structure – recreation: there are 11 recreational locations including 10 associated with the original World's Fair site and one park.
2. Objects: there are 4 objects including the Weeping Tree, a sidewalk clock, an historic lamppost, and gateposts.
3. Structure – cemetery: these cemeteries may contain vaults that, by definition, meet the definition of a building, which is four walls and a roof (n=5). However, they are classified in the same way as a park.
4. Structure – infrastructure: the five infrastructure projects include two aqueduct crossings, a dam, and two water treatment plants.
5. Structure – parking lots and Structure – vacant lots: both of the structure types are called out in nomination forms or are now the condition of a lot, which previously contained a building that was inventoried.
6. Structure – recreation: 12 properties are classified in this class. Nine are parks, most of which are within districts. Two are vacant lots owned by NYC Parks and Recreation. The final one is the Unisphere at the World's Fair site.

Ref: 29376.00
April 15, 2016
Page 7

7. Structure – transportation: the 32 properties in this class include bridges, a railroad, two roads, and various subways.

Further Actions


Prior to the implementation of any mitigation responses associated with the results of the study, two actions are recommended. First, the class and types of historic properties that warrant field and document reviews need to be determined, as certain property classes and types like structure-bridges may not need reviews. Second, listed and eligible properties that may be eligible for mitigation should be subjected to a field review, as properties may have been demolished, changed function, or been physically altered to the extent that they no longer retain their eligibility characteristics.

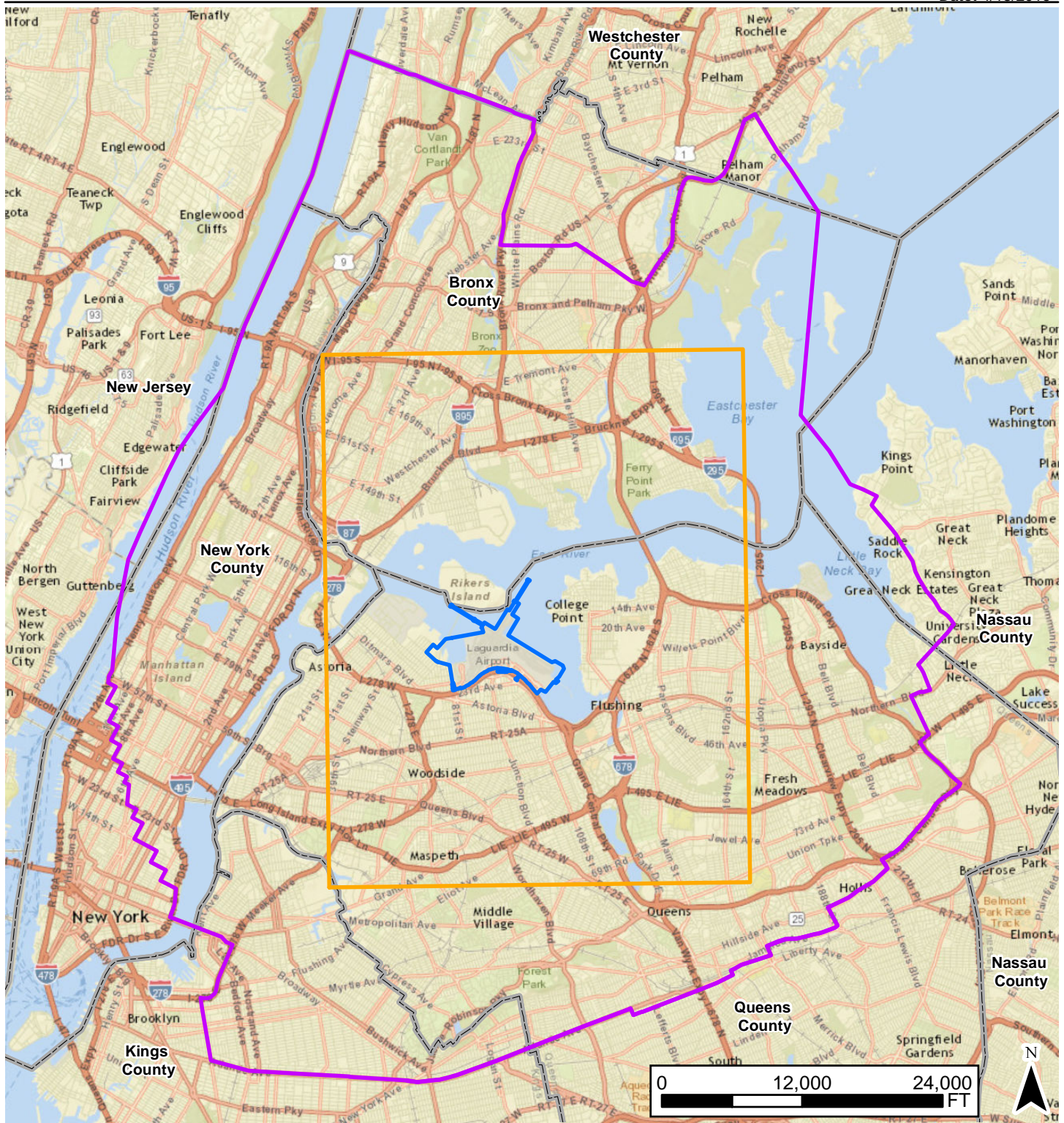


Port Authority CFR Part 150 Study
The City of New York and Nassau County

USGS LGA Study Area

Figure
1

 LGA Study Area Boundary



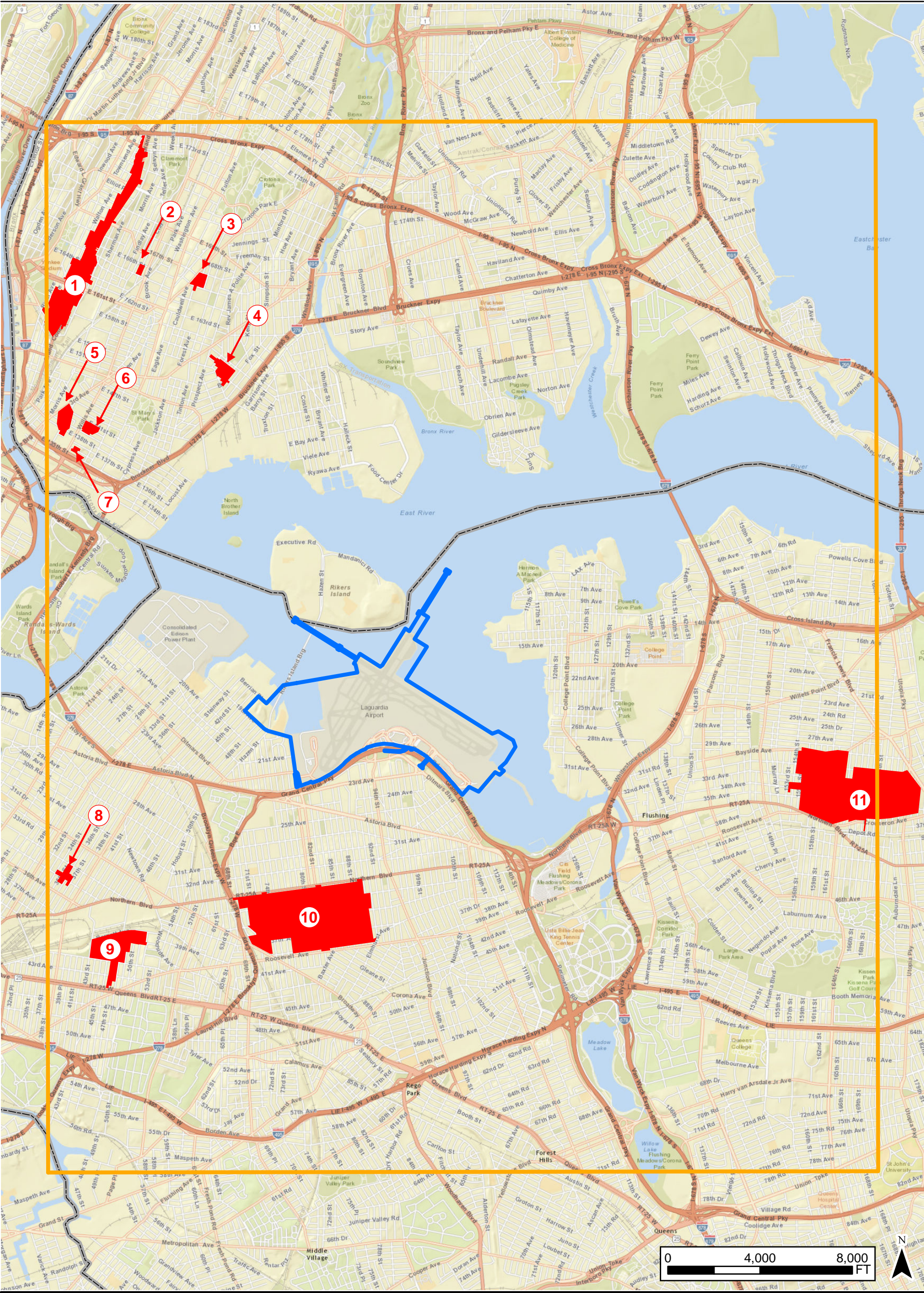
Port Authority CFR Part 150 Study
The City of New York and Nassau County

LGA Data Collection and Study Area

Figure
2

- LGA Airport Boundary
- LGA Data Collection
- LGA Study Area
- County Boundary





Port Authority CFR Part 150 Study
The City of New York and Nassau County

LGA Study Area
Historic Districts

Figure
3

- LGA Airport Boundary
 - LGA Study Area
 - LGA Historic Districts (w/ ID No.)
 - County Boundary
- Historic District ID Nos.:**
- 1 - Grand Concourse Historic District*
 - 2 - Clay Avenue Historic District
 - 3 - Morris High School Historic District*
 - 4 - Longwood Historic District and Extension
 - 5 - Mott Haven Historic District*
 - 6 - Mott Haven East Historic District

- 7 - Bertine Block Historic District
- 8 - Paramount Studios Complex Historic District
- 9 - Sunnyside Gardens Historic District
- 10 - Jackson Heights Historic District*
- 11 - Broadway-Flushing Historic District

*Represents both National Register and NYC Landmarks Preservation Commission historic district boundaries.

Sources: 1. Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, Imagery Date: February 5, 2016
2. New York State Office of Parks, Recreation and Historic Preservation Cultural Resources Information System (<https://cris.parks.ny.gov/Login.aspx>)



TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-177

HISTORIC PROPERTY CLASS AND TYPE	DATA SOURCE	ALL HISTORIC PROPERTY DESIGNATIONS	NHRP NUMBER	LP NUMBER	NYOPRHP US NUMBER	LISTING STATUS	HISTORIC DISTRICT	HISTORIC PROPERTY NAME(S)	STREET ADDRESS	AGENCY ADDRESS
Building - church/synagogue and related	NY SHPO, LPC	90NR00036, LP-0101	90NR00036	LP-01011	00501.000010	Listed, Landmark	Individual	St. Ann's Church and Graveland (aka St. Ann's Church Complex)	St. Ann's Avenue	295 St. Ann's Avenue
Building - church/synagogue and related	LPC	LP-01117		LP-01117		Landmarked	Individual	First Reformed Church and Sunday School of College Point	14 Avenue	118-09 14TH AVENUE
Building - church/synagogue and related	NY SHPO, LPC	00501.001595 / LP-01192		LP-01192	00501.001595	Listed, Landmark	Individual	Immaculate Conception Convent (1907) - 371 East 150th St	East 150 Street	371 East 150th St
Building - church/synagogue and related	NY SHPO, LPC	90NR00572 / 08101.000008 / LP-00138	90NR00572	LP-00138	00501.000008	Listed, Landmark	Individual	Church of Newwinds (Church of Newwinds, aka Reformed Dutch Church of Newwinds and	85-15 Broward Court	85-15 Broward Court
Building - church/synagogue and related	NY SHPO, LPC	02N04967 / 08101.009400 / 08101.009592 / LP-02283	02N04967	LP-02283	08101.009400, 08101.009592	Listed, Landmark	Individual	Congregation Tifereth Israel	54 Street	109-18 and 109-20 54th Avenue
Building - church/synagogue and related	LPC	LP-02401		LP-02401		Landmarked	Individual	Union Reformed Church of Highborne (Former - now Highborne Community Church)	Ogden Avenue	1272 OGDEN AVENUE (AKA 1270 OGDEN AVENUE)
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-00451	00501.000169, 00501.000171	Listed, Landmark	Individual	St. Jerome's Roman Catholic School, St. Jerome's Roman Catholic Church	Alexander Avenue	222, 230 ALEXANDER AVE
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-00451	00501.000170	Listed, Landmark	Individual	St. Jerome's Roman Catholic Church, St. Jerome's Roman Catholic Church	Alexander Avenue	226 ALEXANDER AVE
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-00451	00501.000303	Listed, Landmark	Individual	Terceira Igreja Batista Parsonage	East 141 Street	138 EAST 141ST ST
Building - church/synagogue and related	NY SHPO, LPC	90NR00061 / 00501.000737 / LP-00917	90NR00061	LP-00917	00501.000737	Individual	Individual	St. Peter's Church, Chapel and Cemetery Complex	Westchester Avenue	2500 WESTCHESTER AVE
Building - church/synagogue and related	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	LP-1075	00501.000403	Listed, Landmark	Individual	Longwood Heights District	East 156 Street	940 East 156 Street
Building - church/synagogue and related	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	LP-1075	00501.000407	Listed, Landmark	Individual	St. Margaret's Episcopal Church Rectory, 948 East 156 Street (LPC designation report)	East 156 Street	948 East 156 Street
Building - church/synagogue and related	NY SHPO, LPC	90NR00060, 00501.000461, 00501.000462, LP-1075, LP-1286	90NR00060	LP-1075, LP-	00501.000461, 00501.000462	Listed, Landmark	Individual	Church/Synagogue + related (Residence, 2.5-story single family, 762 Hewitt Place) and Hewitt	Hewitt Place	762 and 764 Hewitt Place
Building - church/synagogue and related	NY SHPO, LPC	90NR00058, LP-1079	90NR00058	LP-1079	00501.000736	Listed, Landmark	Individual	Sunmolygo (aka Bright Temple A.M.E. Church)	Falle Street	800 Falle Street (also listed as 812 Falle Street)
Building - church/synagogue and related	NY SHPO, LPC	08101.007899, LP-01831	LP-01831	08101.007899	LP-01831	Listed, Landmark	Individual	St. Mark's Episcopal Church Complex	34 Avenue and 82 Street	81-11 34 Ave (Church) and 83-10 82 St (Parish House)
Building - church/synagogue and related	NY SHPO, LPC	08101.007472 / LP-01831	LP-01831	08101.007472	LP-01831	Listed, Landmark	Individual	Salvation Army Church Complex	35 Avenue	86-01-01 35TH AVE, QUEENS NY
Building - church/synagogue and related	NY SHPO, LPC	08101.007503 / LP-01831	LP-01831	08101.007503	LP-01831	Listed, Landmark	Individual	COMMUNITY UNITED METHODIST CHURCH COMPLEX	35 Avenue	81-02-10 35TH AVE, QUEENS NY
Building - church/synagogue and related	NY SHPO, LPC	08101.007504 / LP-01831	LP-01831	08101.007504	LP-01831	Listed, Landmark	Individual	Saint Joan of Arc Roman Catholic Church Complex	35 Avenue	35TH AVE, QUEENS NY
Building - church/synagogue and related	NY SHPO, LPC	08101.007538 / LP-01831	LP-01831	08101.007538	LP-01831	Listed, Landmark	Individual	Young Israel of Jackson Heights (original use Commercial)	37 Avenue	86-15-29 37 AVENUE
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-01899	00501.000273	Listed, Landmark	Individual	St. Peter's German Evangelical Lutheran Church and Parsonage	East 140 Street	435 East 140 Street (Church)
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-01899	00501.000273	Listed, Landmark	Individual	St. Peter's German Evangelical Lutheran Church and Parsonage	East 140 Street	437 East 140th Street (Parsonage)
Building - church/synagogue and related	NY SHPO, LPC	95NR00810 / 08101.007194 / LP-02053	95NR00810	LP-02053	08101.007194	Listed, Landmark	Individual	St. George's Church, also St. George's (Episcopal) Church Old Parish House	39 Avenue	Church: 135-32 Main Street, between 38 and 39 Avenues; Old Parish House: 135-33 39 Avenue
Building - church/synagogue and related	LPC	LP-02137		LP-02137		Landmarked	Individual	Bowen Street Community Church	Bowen Street	38-01 BOWEN STREET
Building - church/synagogue and related	NY SHPO, LPC	90NR05383, LP-2258	90NR05383	LP-02258	08101.000372	Listed, Landmark	Individual	Sunmolygo Reformed Church (No Nomination form)	39-70 Gorman Avenue	39-70 Gorman Avenue
Building - church/synagogue and related	NY SHPO	00501.000147		00501.000147		Listed	Individual	Grand Concourse Seventh Day Adventist Temple (aka Congregation Adath Israel)	Grand Concourse	1275 GRAND CONCOURSE
Building - church/synagogue and related	NY SHPO	00501.001006		00501.001006		Listed	Individual	St. Anselm's Roman Catholic Church	Tinton Avenue	673 TINTON AVE, 683 TINTON AVE
Building - church/synagogue and related	NY SHPO	8101.011153		8101.011153		Individual	Individual	Free Synagogue of Flushing - 4140 Kissena Blvd	Kissena Blvd	4140 Kissena Blvd
Building - church/synagogue and related	NY SHPO	8101.011413		8101.011413		Individually eligible	Individual	St. Fabien Roman Catholic Church	123 Street	14-09 123RD ST
Building - church/synagogue and related	NY SHPO	8101.011414		8101.011414		Individually eligible	Individual	Agnes Convent & School	124 Street	14-02 124TH ST
Building - church/synagogue and related	NY SHPO	8101.011789		8101.011789		Listed	Individual	Congregation Agudas Achod of College Point	124 Street	15-01 124th St
Building - church/synagogue and related	NY SHPO	00501.001518		00501.001518		Eligible	Individual	St. Luke's R.C. Church and rectory (ca. 1898/ca. 1909) - 633 East 138th St	East 138 Street	633 East 138th St
Building - church/synagogue and related	NY SHPO	00501.001540		00501.001540		Eligible	Individual	Our Lady of Victory Church (Lumbard Romanesque) - 1508 Webster Ave	Webster Avenue	1508 Webster Ave
Building - church/synagogue and related	NY SHPO	00501.001547		00501.001547		Eligible	Individual	All Saints Lutheran Church (former Bethany Lutheran; 1927) - 585 East 163rd St	East 163 Street	585 East 163rd St
Building - church/synagogue and related	NY SHPO	00501.001589		00501.001589		Eligible	Individual	St. Anthony of Padua Roman Catholic Church complex, 822 East 166th St	East 166 Street	822 East 166th St
Building - church/synagogue and related	NY SHPO	00501.001592		00501.001592		Eligible	Individual	Immaculate Conception Roman Catholic Church (1887, Henry Bur - 389 East 150th St	East 150 Street	389 East 150th St
Building - church/synagogue and related	NY SHPO	00501.001593		00501.001593		Eligible	Individual	Immaculate Conception School - 378 East 151st St	East 151 Street	378 East 151st St
Building - church/synagogue and related	NY SHPO	00501.001594		00501.001594		Eligible	Individual	St. Mary's Hall (1801; Anthony F.A. Schmitt), 601 Melrose Ave	Melrose Avenue	601 Melrose Ave
Building - church/synagogue and related	NY SHPO	00501.001830		00501.001830		Eligible	Individual	Berk Memorial Presbyterian Church - 980 East 180th Street	East 180 Street	980 East 180th Street
Building - church/synagogue and related	NY SHPO	00501.001836		00501.001836		Eligible	Individual	Iglesia de Dios Pentecostal La Promesa - 277 East 162nd Street 10A51	East 162 Street	277 East 162nd Street 10A51
Building - church/synagogue and related	NY SHPO	08101.009567		08101.009567		Listed	Individual	New Life Fellowship Church (aka Eke Lodge 878)	Queens Blvd	82-10 Queens Blvd 11373
Building - church/synagogue and related	NY SHPO	08101.009792		08101.009792		Listed	Individual	St. Andrews Avelino Roman Catholic Church Complex (5 buildings)	Northern Blvd	157-05 Northern Blvd, QUEENS NY
Building - church/synagogue and related	NY SHPO	08101.010630		08101.010630		Listed	Individual	Church-on-the-Hill	168 Street	15-09 168th St, QUEENS NY
Building - church/synagogue and related	NY SHPO	08101.011149		08101.011149		Listed	Individual	Broadway Flushing Historic District	152-17 Northern Avenue	152-17 Northern Blvd, QUEENS NY
Building - church/synagogue and related	NY SHPO	08101.011197		08101.011197		Eligible	Individual	Church of the Most Precious Blood - 32-40 37th St	37 Street	32-40 37th St
Building - church/synagogue and related	NY SHPO	08101.011401		08101.011401		Eligible	Individual	Forest Hills Jewish Center - 106-06 QUEENS BLVD.	Queens Blvd	106-06 QUEENS BLVD.
Building - church/synagogue and related	NY SHPO	08101.011527		08101.011527		Eligible	Individual	Macedonia AME Church - 17-16 Union St	Union Street	17-16 Union St
Building - church/synagogue and related	NY SHPO	08101.011587		08101.011587		Eligible	Individual	St. Stanislaus Kostka Catholic Church and School - 57-15 61st St	61 Street	57-15 61st St
Building - church/synagogue and related	NY SHPO	08101.011716		08101.011716		Eligible	Individual	St. Teresa's Roman Catholic Church, 50-01 44th St	44 Street	50-01 44th St
Building - church/synagogue and related	NY SHPO	08101.011718		08101.011718		Eligible	Individual	St. Teresa's Convent, 50-20 45th St	45 Street	50-20 45th St
Building - church/synagogue and related	NY SHPO	08101.011552 / 08101.011553 / 08101.011554		08101.011552 / 08101.011553 /		Eligible	Individual	First Presbyterian Church of Newtown (Church) - Queens Blvd	37 Avenue	37-01 Queens Blvd 11373
Building - church/synagogue and related	NY SHPO	08NR05837	08NR05837	LP-01027		Listed	Individual	Trinity Lutheran Church	Queens Blvd	97-30 Queens Blvd, Rego Park, NY 11374
Building - church/synagogue and related	NY SHPO	09NR06006	09NR06006	LP-011271		Listed	Individual	Rego Park Jewish Center	Queens Blvd	97-30 Queens Blvd, Rego Park, NY 11374
Building - church/synagogue and related	NY SHPO, LPC	99NR01470, 08101.007356	99NR01470	08101.007356		Individual	Individual	Saint James Church (former) and St. James Parish Hall	Broadway	86-03 Broadway
Building - church/synagogue and related	NY SHPO, LPC	90NR00035	90NR000035	LP-010221		Listed	Individual	Tenara (Jewish) (Tenara) (Tenara) (Tenara)	Alexander Avenue	94 ALEXANDER AVE
Building - church/synagogue and related (1930)	NY SHPO	90NR00057, 00501.001816, LP-1258	90NR00057	00501.001816		Listed, Landmark	Individual	Broadway-Flushing Historic District - 35-05 162nd St QUEENS NY	162 Street	35-05 162nd St QUEENS NY
Building - church/synagogue and related (non-)	NY SHPO, LPC	90NR00057, 00501.001816, LP-1258	90NR00057	00501.001816		Listed, Landmark	Individual	Trinity Episcopal Church of Morrisania, 690 East 166th Street	East 166 Street	690 East 166TH ST
Building - civic	NY SHPO, LPC	90NR00119, LP-0141	90NR00119	LP-0141	00501.000001	Listed, Landmark	Individual	Trinity Episcopal Church of Morrisania rectory, 698 East 166TH ST (non-contributing)	East 166 Street	698 East 166TH ST
Building - civic	NY SHPO, LPC	95NR00781, 08101.006198, LP-2160	95NR00781	LP-2160	08101.006198	Listed, Landmark	Individual	Old Morrisania House (Friends Meeting House)	137-15 Northern Boulevard	137-15 Northern Boulevard (also noted as South side of Northern Blvd.)
Building - civic	NY SHPO	00NR01654, 8101.006565	00NR01654	8101.006565		Listed	Individual	Flushing Army (17th Separate Company) - 137-58 Northern Boulevard	Northern Boulevard	137-58 Northern Boulevard
Building - civic	NY SHPO	00501.000100		00501.000100		Listed	Individual	Fremien's Hall	Grand Concourse	123 Street
Building - civic	NY SHPO	00501.000611		00501.000611		Individual	Individual	Girls Club (aka Y.M. & Y.W.H.A., earlier Bronx Society for the Prevention of Cruelty to Children)	Grand Concourse	1130 GRAND CONCOURSE
Building - civic	NY SHPO	08101.010086		08101.010086		Eligible	Individual	Antonia Center of Israel	Convent Street	27-25 Convent Street
Building - civic	NY SHPO	08101.011159		08101.011159		Eligible	Individual	Joyce Kilmer Knights of Columbus	160 Street	35-79 160th St, QUEENS NY
Building - civic	NY SHPO	00NR01724	00NR01724	LP-01044		Eligible	Individual	Flushing YMCA - 138-46 Northern Blvd	Northern Blvd	138-46 Northern Blvd
Building - civic	NY SHPO	08101.009422		08101.009422		Listed	Individual	Bohemian Hall and Park	24 Avenue	29-15 24th Avenue
Building - commercial	NY SHPO	00501.001639		00501.001639		Eligible	Individual	Law Adkins Vocational High School	900 Tinton Ave	900 Tinton Ave
Building - commercial	LPC	LP-01283		LP-01283		Listed	Individual	614 Courtland Avenue Building	Courtland Avenue	614 COURTLAND AVENUE
Building - commercial	NY SHPO, LPC	LP-01831	LP-01831	08101.007561		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue
Building - commercial	NY SHPO, LPC	LP-01831	LP-01831	08101.007562		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue
Building - commercial	NY SHPO, LPC	LP-01831	LP-01831	08101.007563		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue
Building - commercial	NY SHPO, LPC	LP-01831	LP-01831	08101.007564		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue
Building - commercial	LPC	LP-02066		LP-02066		Landmarked	Individual	Ridgewood Savings Bank, Forest Hills Branch	Queens Blvd	107-55 QUEENS BOULEVARD
Building - commercial	NY SHPO, LPC	00NR06191 / 00501.001489 / LP-02370	00NR06191	LP-02370	00501.001489	Listed, Landmark	Individual	Dollar Savings Bank - 2792 Third Ave	Third Avenue	2792 Third Ave
Building - commercial	LPC	LP-02388		LP-02388		Landmarked	Individual	Haffen Building	Third Avenue	2808 THIRD AVENUE
Building - commercial	NY SHPO, LPC	90NR01612, LP-00977	90NR01612	LP-00977	08101.000001	Listed, Landmark	Individual	Grand Concourse Historic District	162 Street	1685 EAST 162 STREET
Building - commercial	NY SHPO, LPC	0051.001769, LP-1128		LP-01128	00501.001769	Listed, Landmark	Individual	Paramount Studios Complex HD	36 Street	35th Ave., 35th, 36th, and 37th Sts. (LPC Address for Main Building, 34-12 36 Street)
Building - commercial	NY SHPO, LPC	08101.007544 / LP-01831	LP-01831	08101.007544		Listed, Landmark	Individual	Brown Gift Chamber Building	East 132 Street	East 132 Street (at 158 Bruckner Blvd)
Building - commercial	NY SHPO, LPC	08101.007555 / LP-01831	LP-01831	08101.007555		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.007556 / LP-01831	LP-01831	08101.007556		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.007557 / LP-01831	LP-01831	08101.007557		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.007579 / LP-01831	LP-01831	08101.007579		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008325 / LP-01831	LP-01831	08101.008325		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008326 / LP-01831	LP-01831	08101.008326		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008327 / LP-01831	LP-01831	08101.008327		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008328 / LP-01831	LP-01831	08101.008328		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008329 / LP-01831	LP-01831	08101.008329		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008330 / LP-01831	LP-01831	08101.008330		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008351 / LP-01831	LP-01831	08101.008351		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008352 / LP-01831	LP-01831	08101.008352		Listed, Landmark	Individual	Jackson Heights Historic District	COMMERCIAL BLDG (I OF 5)	37 Avenue
Building - commercial	NY SHPO, LPC	08101.008353 / LP-01831	LP-01831	08101.0						

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-178

Building - commercial	NY SHPO	90NR01612 / 08101.006533	90NR01612	08101.006533	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Building No. 34/Chemical Mix Building - 34-44 37TH ST	37 Street	34-44 37TH ST
Building - commercial	NY SHPO	90NR01612 / 08101.006534	90NR01612	08101.006534	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Building No. 23 - 34-33 36TH ST	36 Street	34-33 36TH ST
Building - commercial	NY SHPO	90NR01612 / 08101.006535	90NR01612	08101.006535	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Building No. 34 - 35-12 35TH AVE	35 Avenue	35-12 35TH AVE
Building - commercial	NY SHPO	90NR01612 / 08101.006536	90NR01612	08101.006536	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Laboratory Building - 34-54 35TH ST	35 Street	34-54 35TH ST
Building - commercial	NY SHPO	90NR01612 / 08101.006537	90NR01612	08101.006537	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Film Vault Building - 34-01 35TH AVE	35 Avenue	34-01 35TH AVE
Building - commercial	NY SHPO			050501.000586	Eligible	Individual	Shelton Farms with Plant Annex (1924), 1045 Webster Ave	Webster Avenue	1045 Webster Ave
Building - commercial	NY SHPO			08101.000097	Eligible	Individual	Louis C. Tiffany Studio - 36-18 43RD AVE	43 Avenue	36-18 43RD AVE
Building - commercial	NY SHPO			08101.000672	Listed	Paramount Studios Complex MD	Paramount Studios Complex, Building No. 6 - 36-12 35TH AVE	35 Avenue	36-12 35TH AVE
Building - commercial	NY SHPO			08101.007861	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Northern Blvd	73-05-22 NORTHERN BLVD, QUEENS NY
Building - commercial	NY SHPO			08101.007878	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Queens Blvd	79-18-24 35TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007521	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	72-23/31 37 Avenue at corner of 73 Street
Building - commercial	NY SHPO			08101.007521	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	72-15 37 Avenue
Building - commercial	NY SHPO			08101.007523	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	73-05 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007524	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	74-01-27 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007525	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	75-01-23 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007526	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	76-01-27 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007547	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	72-16-30 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007548	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	73-02-12 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007558	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	37 Avenue	82-08-10 37TH AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007574	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	78-11-17 ROOSEVELT AVE
Building - commercial	NY SHPO			08101.007575	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	79-01-17 ROOSEVELT AVE
Building - commercial	NY SHPO			08101.007576	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	80-01-13 ROOSEVELT AVE
Building - commercial	NY SHPO			08101.007578	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	81-01-09 ROOSEVELT AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007582	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	84-01-29 ROOSEVELT AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007583	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	85-01-15 ROOSEVELT AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007586	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	88-01-17 ROOSEVELT AVE
Building - commercial	NY SHPO			08101.007587	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	89-01-05 ROOSEVELT AVE
Building - commercial	NY SHPO			08101.007590	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	Roosevelt Ave	90-01 ROOSEVELT AVE, QUEENS NY
Building - commercial	NY SHPO			08101.007598	Listed	Jackson Heights Historic District	COMMERCIAL BLDG	80 Street	17-48-59 80 STREET
Building - commercial	NY SHPO			08101.011150	Eligible	Individual	Broadway Flushing Historic District	Northern Blvd	159-02/17 Northern Blvd, QUEENS NY
Building - commercial	NY SHPO			08101.011207	Eligible	Individual	Empire Millworks Building, 1938 - 128-50 Willets Point Blvd	Willets Point Blvd	128-50 Willets Point Blvd
Building - commercial	NY SHPO			08101.011528	Eligible	Individual	Flushing Bankers Trust Company (aka Flushing National Bank) - 36-61 Main St	Main Street	36-61 Main St
Building - commercial	NY SHPO			08101.011529	Eligible	Individual	Office building, Apt Deco 1931 by J. Langner & Son, Inc. - 38-05 Main St	Main Street	38-05 Main St
Building - commercial	NY SHPO			08101.011534	Eligible	Individual	Metropolitan Industrial Bank (Bank of America) - 99-03 Queens Blvd	Queens Blvd	99-03 Queens Blvd
Building - commercial	NY SHPO			04NR05.019 / 08101.009724	Eligible	Individual	Queens County Savings Bank	Main Street	75-44 Main Street
Building - commercial	NY SHPO			08101.001630	Eligible	Individual	Casa Amadeo, Antigua Casa Hernandez - 850 Longwood Ave	Longwood Avenue	850 Longwood Ave
Building - commercial	NY SHPO			08101.001138	Eligible	Individual	Herbert and Schaller Silk Treemaking Factory	148 Street	454-454 East 148th Street
Building - commercial	NY SHPO			03NR05.020	Listed	Individual	C. Rieger's Sams Factory - 450-452 EAST 148TH ST	East 148 Street	450-452 East 148th Street
Building - commercial	NY SHPO, LPC	90NR00035	90NR00035	08101.000306	Listed, Landmark	Mott Haven Historic District	Commercial (aka Theatre Metropolis, Low's Theatre's Scenic Studio)	Third Avenue	2460-2602 Third Avenue
Building - commercial	NY SHPO, LPC	08101.007532 / LP-01831	08101.007532	08101.007532	Listed, Landmark	Jackson Heights Historic District	Commercial Bldg (original built 1937; demolished w/ replacement 1986-1994)	37 Avenue	82-01 37 AVENUE
Building - commercial (non-contributing)	NY SHPO			08101.007588	Eligible	Jackson Heights Historic District	WAREHOUSE (NON-CONTRIBUTING)	Roosevelt Ave	89-01-08 ROOSEVELT AVE, QUEENS NY
Building - commercial/residential	NY SHPO			050501.001528	Eligible	Individual	Commercial/Residential building (ca. 1912) - 44-53 Westchester Sq	Westchester Square	44-53 Westchester Sq
Building - commercial/residential	NY SHPO, LPC	90NR00057, 050501.001816, LP-1258	90NR00057	050501.000581	Listed, Landmark	Morris High School Historic District	Commercial/Residential, 3-story	Jackson Ave	1096 JACKSON AVE
Building - commercial/residential	NY SHPO, LPC	90NR00035	90NR00035	050501.000259	Listed, Landmark	Mott Haven Historic District	Commercial/Residential (Warehouses, 5-story (2) and Residences (2))	East 140 Street	291-307 EAST 140TH ST
Building - commercial/residential (apt)	NY SHPO, LPC	08101.007539 / LP-01831	08101.007539	08101.007539	Listed, Landmark	Jackson Heights Historic District	CELESTON APT RESIDENTS with Commercial	27 Avenue	87-12-27 APT RESIDENTS with COMMERCIAL, 15C, 15D professional entrances, 15 is residential
Building - commercial/residential (apt)	NY SHPO			08101.007365	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (1 OF 10)	Northern Blvd	89-02 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007366	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (2 OF 10)	Northern Blvd	89-04 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007367	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (3 OF 10)	Northern Blvd	89-06 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007368	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (4 OF 10)	Northern Blvd	89-08 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007369	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (5 OF 10)	Northern Blvd	89-10 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007370	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (6 OF 10)	Northern Blvd	89-12 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007371	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (7 OF 10)	Northern Blvd	89-14 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007372	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (8 OF 10)	Northern Blvd	89-16 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007373	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (9 OF 10)	Northern Blvd	89-18 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007374	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE (10 OF 10)	Northern Blvd	89-20 NORTHERN BLVD, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007456	Listed	Jackson Heights Historic District	APT BLDG W STOREFRONTS	35 Avenue	71-06-11 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007479	Listed	Jackson Heights Historic District	APTS/STORES (1 OF 6)	35 Avenue	71-02-35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007480	Listed	Jackson Heights Historic District	APTS/STORES (2 OF 6)	35 Avenue	71-04 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007481	Listed	Jackson Heights Historic District	APTS/STORES (3 OF 6)	35 Avenue	71-06 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007482	Listed	Jackson Heights Historic District	APTS/STORES (4 OF 6)	35 Avenue	71-08 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007483	Listed	Jackson Heights Historic District	APTS/STORES (5 OF 6)	35 Avenue	71-10 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007484	Listed	Jackson Heights Historic District	APTS/STORES (6 OF 6)	35 Avenue	71-12 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007485	Listed	Jackson Heights Historic District	APT BLDG W STOREFRONTS	35 Avenue	71-14-26 35TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007544	Listed	Jackson Heights Historic District	APT BLDG W COMMERCIAL BASE	37 Avenue	80-01-15 BLDG W COMMERCIAL BASE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007545	Listed	Jackson Heights Historic District	ROMBOUTS COURT APTS AND STORES	37 Avenue	71-02-14 37TH AVE, QUEENS NY
Building - commercial/residential (apt)	NY SHPO			08101.007568	Listed	Jackson Heights Historic District	COMMERCIAL/APARTMENT	37 Avenue	90-02-14 37TH AVE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-12 39 AVENUE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-14 39 AVENUE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-16 39 AVENUE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-18 39 AVENUE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-20 39 AVENUE
Building - commercial/residential	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Commercial/Residential, 2-story	39 Avenue	50-22 39 AVENUE
Building - EMS	NY SHPO, LPC			050501.000043, 050501.000044	Listed, Landmark	Individual	Firehouse: Engine Co. 73 and Hook & Ladder 73 - 657 PROSPECT AVE	Prospect Avenue	657 PROSPECT AVE
Building - EMS	NY SHPO, LPC	90NR00035	90NR00035	050501.000124	Listed, Landmark	Mott Haven Historic District	NYPD, 49th Precinct Police Station	Alexander Avenue	251/257 ALEXANDER AVE
Building - EMS	NY SHPO, LPC	050501.000793, LP-01809	050501.000793	LP-01809	Listed, Landmark	Individual problem	NYPD (New York City Police Department) & 62nd Police Precinct Station House	Simpson Street	1086 SIMPSON ST
Building - EMS	NY SHPO, LPC	LP-2019	050501.000131	LP-02019	Landmark	Individual	Firehouse: ENGINE CO. 262/HOOK & LADDER 117 - 42-06 ASTORIA BLVD	Astoria Blvd	42-06 Astoria Blvd
Building - EMS	NY SHPO	050501.000040	050501.000040		Eligible	Individual	Firehouse: ENGINE CO. 60/HOOK & LADDER 117 - 341 EAST 143RD ST	East 143 Street	341 East 143rd St
Building - EMS	NY SHPO	050501.000041	050501.000041		Eligible	Individual	Firehouse: ENGINE CO. 41 - 330 EAST 150TH ST	East 150 Street	330 East 150th St
Building - EMS	NY SHPO	050501.000045	050501.000045		Eligible	Individual	Firehouse: ENGINE CO. 29/HOOK & LADDER 48 - 1226 SENECA AVE	Seneca Avenue	1226 SENECA AVE
Building - EMS	NY SHPO	050501.000048	050501.000048		Eligible	Individual	Firehouse: ENGINE CO. 46/HOOK & LADDER 27 - 451-453 EAST 176TH ST	East 176 Street	451-453 East 176th St
Building - EMS	NY SHPO			050501.001775	Eligible	Individual	Firehouse: Hook & Ladder 47 (1913) - 1220 Castle Hill Ave	Castle Hill Avenue	1220 Castle Hill Ave
Building - EMS	NY SHPO			050501.001776	Eligible	Individual	Firehouse: Engine Co. 64 (1908) - 1214 Castle Hill Ave	Castle Hill Avenue	1214 Castle Hill Ave
Building - EMS	NY SHPO			08101.000113	Eligible	Individual	Firehouse: EMERGENCY MEDICAL SQUAD - 38-14 NORTHERN BLVD	Northern Boulevard	38-14 NORTHERN BLVD
Building - EMS	NY SHPO			08101.000114	Eligible	Individual	Firehouse: RESCUE CO. ALFENGNE CO. 292 - 44-18 QUEENS BLVD	Queens Blvd	44-18 QUEENS BLVD
Building - EMS	NY SHPO			08101.000116	Eligible	Individual	Firehouse: ENGINE CO. 289/HOOK & LADDER 138 - 97-28 43RD AVE	41 Street	97-28 43rd Ave
Building - EMS	NY SHPO			08101.000117	Eligible	Individual	Firehouse: ENGINE CO. 288 - 56-29 68TH ST	68 Street	56-29 68th Street
Building - EMS	NY SHPO			08101.000121	Eligible	Individual	Firehouse: ENGINE CO. 292/HOOK & LADDER 144 - 12-49 148TH ST	East 150 Street	130 East 150th St
Building - EMS	NY SHPO, LPC	050501.000042	050501.000042	LP-02043 / LP-00928	Listed, Landmark	Individual	Firehouse: ENGINE CO. 83/HOOK & LADDER 29 - 638 EAST 138TH ST	East 138 Street	638 East 138th St
Building - government	NY SHPO, LPC	90NR00051 / 050501.000128 / LP-02403 / LP-00928	90NR00051	050501.000128	Listed, Landmark	Grand Concourse Historic District	Brown County Courthouse (aka Brown County Building; LPC Individual Landmark)	Grand Concourse	851 Grand Concourse
Building - government	NY SHPO, LPC	050501.000099	050501.000099		Listed	Grand Concourse Historic District	Brooklyn Housing Courthouse (aka the Brown County Housing Court)	Grand Concourse	1118 GRAND CONCOURSE
Building - government	NY SHPO, LPC	90NR00032 / 050501.000728 / LP-01076	90NR00032	050501.000728	Listed, Landmark	Individual	Old Brown-Belt Courthouse	East 161st Street	East 161st St
Building - government	NY SHPO, LPC	90NR01566, LP-01139	90NR01566	LP-01139	Listed, Landmark	Individual	Flushing Town Hall (aka Flushing Municipal Courthouse)	Northern Boulevard	137-35 Northern Boulevard
Building - hospital and related	NY SHPO	LP-02403	LP-02403		Landmark	Grand Concourse Historic District	Institutional, 10-story Concourse Rehabilitation and Nursing Center (LPC designation)	Grand Concourse	1072 GRAND CONCOURSE (AKA 160-180 EAST 166 STREET, (NO NUMBER) CARROLL PLACES)
Building - hospital and related	NY SHPO			050501.000824	Eligible	Individual	Morrison Hospital complex - 50-98 EAST 158TH ST	East 158 Street	50-98 East 158th St
Building - hospital and related	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	LP-1075	Eligible	Individual	Brown Hospital (1928-32), currently vacant	24th Avenue	1276 Fulton Ave
Building - library	NY SHPO, LPC	050501.001019 / LP-02322	050501.001019	LP-02322	Listed, Landmark	Individual	Prospect Hospital and related (see 728 - 730-732 Kelly Street for descriptions)	East 156 Street	951 East 156th St
Building - library	NY SHPO, LPC	050501.001015 / LP-02323	050501.001015	LP-02323	Listed, Landmark	Individual	New York Public Library, Woodstock Branch (1913-14 - 761 East 160th St)	East 160 Street	761 East 160th St
Building - library	NY SHPO, LPC	08101.000834 / LP-01831	08101.000834	LP-01831	Listed, Landmark	Individual	New York Public Library, Hunt's Point Branch - 877 SOUTHERN BLVD	Southern Blvd	877 SOUTHERN BLVD
Building - library	NY SHPO, LPC	08101.007260, LP-2045	08101.007260	LP-2045	Listed, Landmark	Individual	Queens Borough Public Library	31 Street	15-11 31 Street
Building - library	NY SHPO, LPC			08101.011733	Eligible	Individual	Queens Borough Public Library, Poppenghousen Branch	14 Avenue	121-23 14TH AVE
Building - library	NY SHPO, LPC	050501.000760 / LP-01996	050501.000760	LP-01996	Eligible	Individual	Broadway Community Library 1958 - 40-20 Broadway	Broadway	40-20 Broadway
Building - museum	NY SHPO, LPC	90NR01573, LP-1555	90NR01573	LP-1555	Listed, Landmark	Individual	New York Public Library, Morrisania Branch (originally the McKinley Square Branch)	Franklin Avenue	1264 FRANKLIN AVENUE
Building - museum	NY SHPO, LPC	90NR01588, 050501.001658, LP-0143	90NR01588	LP-00143	Listed, Landmark	Individual</			

3

D-180

4

5

6

7

8

D-185

9

D-186

10

11

12

13

D-190

14

D-191

15

D-192

Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR00035	LP-01899	00501.000279	Listed, Landmark	Molt Haven East Historic District	Tenement, 5-story multi family	East 140 Street	481 East 140 Street
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR00035	LP-01899	00501.000743	Listed, Landmark	Molt Haven East Historic District	Tenement, 5-story multi family	East 140 Street	445 East 140 Street
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR00035	LP-01899	00501.000744	Listed, Landmark	Molt Haven East Historic District	Tenement, 5-story multi family	East 140 Street	455 East 140 Street
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR00035	LP-1809	00501.000744	Listed, Landmark	Molt Haven East Historic District	Tenement, 5-story multi family	East 140 Street	445 East 140 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002924	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story + basement	47 Street	41-23 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002925	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story + basement	47 Street	41-31 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002930	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Monroe Court"	47 Street	43-05 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002931	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Carolin Gardens"	47 Street	43-13/25 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002932	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Carolin Gardens"	47 Street	43-31/37 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002934	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story + basement "Colonial Court"	48 Street	41-12 48 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002935	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story + basement "Colonial Court"	48 Street	41-18 48 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002936	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story "Colonial Court"	48 Street	41-38 48 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002937	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 3-story "Colonial Court"	48 Street	41-44 48 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002938	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Monroe Court"	48 Street	43-04/20 48 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.003313	Listed, Landmark	Sunnyside Gardens Historic District	Carolyn Gardens, 3-story attached	47 Street	39-17 47 Street (aka Caroline Street)
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.003317	Listed, Landmark	Sunnyside Gardens Historic District	Carolyn Gardens, 3-story attached	47 Street	39-25 47 Street (aka Caroline Street)
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.003320	Listed, Landmark	Sunnyside Gardens Historic District	Carolyn Gardens, 3-story attached	47 Street	39-11 47 Street (aka Caroline Street)
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.003323	Listed, Landmark	Sunnyside Gardens Historic District	Carolyn Gardens, 3-story attached	47 Street	39-37 47 Street (aka Caroline Street)
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000082	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Wilson Court"	47 Street	43-02 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000083	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Wilson Court"	47 Street	43-12 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000086	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 5-story "Wilson Court"	47 Street	43-16 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000087	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 5-story "Wilson Court"	47 Street	43-22 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000088	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Wilson Court"	47 Street	43-28 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000089	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Wilson Court"	47 Street	43-32 47 Street
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000090	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Monroe Court"	43 Avenue	47-08 43 Avenue
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	00501.000091	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, 4-story "Monroe Court"	43 Avenue	47-12 43 Avenue
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	08101.002975, 08101.002976	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, Phiggs Garden II, 4-story	Barnett Avenue	50-02 Barnett Avenue
Building - residential (apt)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02403	00501.000081 / LP-02403	Listed, Landmark	Sunnyside Gardens Historic District	Apartment, Phiggs Garden I, 4-story (Bldgs A-W)	39 Avenue	50-01/09 39 Avenue (NY SHPO S-1-01)
Building - residential (apt)	NY SHPO, LPC	00501.000090 / LP-02403	90NR01583	LP-02403	00501.000090	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Art Deco	Grand Concourse	770 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000091 / LP-02403	90NR01583	LP-02403	00501.000091	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Art Deco	Grand Concourse	888 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000092 / LP-02403	90NR01583	LP-02403	00501.000092	Listed, Landmark	Grand Concourse Historic District	Senior Housing (two Concourse Plaza Hotel), 10-story	Grand Concourse	900 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000093 / LP-02403	90NR01583	LP-02403	00501.000093	Listed, Landmark	Grand Concourse Historic District	Apartment, 8-story Moderne	Grand Concourse	914 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000094 / LP-02403	90NR01583	LP-02403	00501.000094	Listed, Landmark	Grand Concourse Historic District	Apartment, 11-story Moderne	Grand Concourse	930 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000095 / LP-02403	90NR01583	LP-02403	00501.000095	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Mediterranean Revival	Grand Concourse	940 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000096 / LP-02403	90NR01583	LP-02403	00501.000096	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Mediterranean Revival	Grand Concourse	960 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000097 / LP-02403	90NR01583	LP-02403	00501.000097	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	970 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000098 / LP-02403	90NR01583	LP-02403	00501.000098	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	980 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000099 / LP-02403	90NR01583	LP-02403	00501.000099	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	990 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000100 / LP-02403	90NR01583	LP-02403	00501.000100	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1000 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000101 / LP-02403	90NR01583	LP-02403	00501.000101	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1010 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000102 / LP-02403	90NR01583	LP-02403	00501.000102	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1020 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000103 / LP-02403	90NR01583	LP-02403	00501.000103	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1030 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000104 / LP-02403	90NR01583	LP-02403	00501.000104	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1040 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000105 / LP-02403	90NR01583	LP-02403	00501.000105	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1050 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000106 / LP-02403	90NR01583	LP-02403	00501.000106	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1060 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000107 / LP-02403	90NR01583	LP-02403	00501.000107	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1070 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000108 / LP-02403	90NR01583	LP-02403	00501.000108	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1080 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000109 / LP-02403	90NR01583	LP-02403	00501.000109	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1090 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000110 / LP-02403	90NR01583	LP-02403	00501.000110	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1100 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000111 / LP-02403	90NR01583	LP-02403	00501.000111	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1110 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000112 / LP-02403	90NR01583	LP-02403	00501.000112	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1120 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000113 / LP-02403	90NR01583	LP-02403	00501.000113	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1130 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000114 / LP-02403	90NR01583	LP-02403	00501.000114	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1140 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000115 / LP-02403	90NR01583	LP-02403	00501.000115	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1150 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000116 / LP-02403	90NR01583	LP-02403	00501.000116	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1160 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000117 / LP-02403	90NR01583	LP-02403	00501.000117	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1170 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000118 / LP-02403	90NR01583	LP-02403	00501.000118	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1180 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000119 / LP-02403	90NR01583	LP-02403	00501.000119	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1190 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000120 / LP-02403	90NR01583	LP-02403	00501.000120	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1200 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000121 / LP-02403	90NR01583	LP-02403	00501.000121	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1210 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000122 / LP-02403	90NR01583	LP-02403	00501.000122	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1220 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000123 / LP-02403	90NR01583	LP-02403	00501.000123	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1230 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000124 / LP-02403	90NR01583	LP-02403	00501.000124	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1240 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000125 / LP-02403	90NR01583	LP-02403	00501.000125	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1250 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000126 / LP-02403	90NR01583	LP-02403	00501.000126	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1260 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000127 / LP-02403	90NR01583	LP-02403	00501.000127	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1270 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000128 / LP-02403	90NR01583	LP-02403	00501.000128	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1280 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000129 / LP-02403	90NR01583	LP-02403	00501.000129	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1290 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000130 / LP-02403	90NR01583	LP-02403	00501.000130	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1300 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000131 / LP-02403	90NR01583	LP-02403	00501.000131	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1310 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000132 / LP-02403	90NR01583	LP-02403	00501.000132	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1320 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000133 / LP-02403	90NR01583	LP-02403	00501.000133	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1330 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000134 / LP-02403	90NR01583	LP-02403	00501.000134	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1340 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000135 / LP-02403	90NR01583	LP-02403	00501.000135	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1350 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000136 / LP-02403	90NR01583	LP-02403	00501.000136	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1360 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000137 / LP-02403	90NR01583	LP-02403	00501.000137	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1370 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000138 / LP-02403	90NR01583	LP-02403	00501.000138	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1380 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000139 / LP-02403	90NR01583	LP-02403	00501.000139	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1390 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000140 / LP-02403	90NR01583	LP-02403	00501.000140	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1400 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000141 / LP-02403	90NR01583	LP-02403	00501.000141	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1410 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000142 / LP-02403	90NR01583	LP-02403	00501.000142	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1420 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000143 / LP-02403	90NR01583	LP-02403	00501.000143	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1430 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000144 / LP-02403	90NR01583	LP-02403	00501.000144	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1440 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000145 / LP-02403	90NR01583	LP-02403	00501.000145	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1450 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000146 / LP-02403	90NR01583	LP-02403	00501.000146	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1460 GRAND CONCOURSE
Building - residential (apt)	NY SHPO, LPC	00501.000147 / LP-02403	90NR01583	LP-02403	00501.000147	Listed, Landmark	Grand Concourse Historic District	Apartment, 6-story Colonial Revival	Grand Concourse	1470 GRAND CONCOURSE
Building - residential (apt)										

D-193

17

18

19

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-196

Building - residential (apt)	NY SHPO				08101.009069	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (1 OF 18)	90 Street	35-13 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009070	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (2 OF 18)	90 Street	35-15 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009071	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (3 OF 18)	90 Street	35-17 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009072	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (4 OF 18)	90 Street	35-19 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009073	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (5 OF 18)	90 Street	35-21 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009074	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (6 OF 18)	90 Street	35-23 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009075	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (7 OF 18)	90 Street	35-25 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009076	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (8 OF 18)	90 Street	35-27 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009077	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (9 OF 18)	90 Street	35-29 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009078	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (10 OF 18)	90 Street	35-31 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009079	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (11 OF 18)	90 Street	35-33 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009080	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (12 OF 18)	90 Street	35-35 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009081	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (13 OF 18)	90 Street	35-37 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009082	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (14 OF 18)	90 Street	35-39 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009083	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (15 OF 18)	90 Street	35-41 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009084	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (16 OF 18)	90 Street	35-43 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009085	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (17 OF 18)	90 Street	35-45 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009086	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (18 OF 18)	90 Street	35-47 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009087	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (1 OF 6)	90 Street	37-11 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009088	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (2 OF 6)	90 Street	37-15 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009089	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (3 OF 6)	90 Street	37-17 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009090	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (4 OF 6)	90 Street	37-19 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009091	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (5 OF 6)	90 Street	37-21 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009092	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (6 OF 6)	90 Street	37-25 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009093	Listed	Jackson Heights Historic District	APT BLDG (1 OF 2)	90 Street	37-27 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.009094	Listed	Jackson Heights Historic District	APT BLDG (2 OF 2)	90 Street	37-29 90TH ST, QUEENS NY
Building - residential (apt)	NY SHPO				08101.011167	Eligible	Individual	Apartment Building	30 Avenue	46-20 30TH AVE
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR000035	050501.000230	Listed, Landmark	Mott Haven Historic District	Apartment, 4-story 8 family		East 139 Street	802 EAST 139TH ST
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR000035	050501.000231	Listed, Landmark	Mott Haven Historic District	Apartment, 4-story 8 family		East 139 Street	804 EAST 139TH ST
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR000035	050501.000232	Listed, Landmark	Mott Haven Historic District	Apartment, 4-story 8 family		East 139 Street	806 EAST 139TH ST
Building - residential (apt)	NY SHPO, LPC	90NR00035	90NR000035	050501.000233	Listed, Landmark	Mott Haven Historic District	Apartment, 4-story 8 family		East 139 Street	808 EAST 139TH ST
Building - residential (apt)	NY SHPO	08101.007397, 08101.007398		08101.007397, 08101.007398	Listed, Landmark	Jackson Heights Historic District	THE NEW SALEM HOUSE (1 OF 2, 2 OF 2)		34 Avenue	78-01/09 34TH AVE, QUEENS NY
Building - residential (apt)	NY SHPO	08101.007408, 08101.007409		08101.007408, 08101.007409	Listed	Jackson Heights Historic District	MAYFAIR COURT APTS (1 OF 2, 2 OF 2)		34 Avenue	89-01/11 34TH AVE, QUEENS NY
Building - residential (apt)	NY SHPO	08101.007431 / 08101.007432		08101.007431 / 08101.007432	Listed	Jackson Heights Historic District	BREWSTER HOUSE APTS (1 OF 2, 2 OF 2)		34 Avenue	77-02/10 34TH AVE, QUEENS NY
Building - residential (apt)	NY SHPO	08101.007441, 08101.007442		08101.007441, 08101.007442	Listed	Jackson Heights Historic District	Whitehall Apts (1 of 2, 2 of 2)		34 Avenue	89-04/14 34TH AVE, QUEENS NY
Building - residential (apt)	NY SHPO	08101.007458 / 08101.007459		08101.007458 / 08101.007459	Listed	Jackson Heights Historic District	BEECH COURT APTS (1 OF 2, 2 OF 2)		35 Avenue	75-05 35TH AVE, QUEENS NY
Building - residential (apt)	NY SHPO	08101.007486/87/88/89/90/91/92/93		08101.007486/87/88/89/90/91/92/93	Listed	Jackson Heights Historic District	WASHINGTON PLAZA APTS GATEHOUSE AND APT BLD (1 OF 6 THRU 6 OF 6)		35 Avenue	73-12 35TH AVE, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO				08101.007511	Listed	Jackson Heights Historic District	ADLPHI HALL APTS	35 Avenue	89-10 35TH AVE, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008044, 08101.008265	Listed, Landmark	Jackson Heights Historic District	CHATEAU APTS (1 OF 12, 4 OF 12)			84 Street	14-20/11 84 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008301, 08101.008302	Listed, Landmark	Jackson Heights Historic District	MAPLE COURT APTS (1 OF 2, 2 OF 2)			81 Street	35-12/27 81 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008504, 08101.008505	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (1 OF 20, 2 OF 20)			84 Street	37-11/17 84 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008510, 08101.008511	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (7 OF 20, 8 OF 20)			84 Street	37-45/51 84 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008512, 08101.008513	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (9 OF 20, 10 OF 20)			84 Street	37-55/59 84 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008514, 08101.008515	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (11 OF 20, 12 OF 20)			85 Street	37-12/18 85 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008516, 08101.008617	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (13 OF 20, 14 OF 20)			85 Street	37-22/28 85 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008518, 08101.008519	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (15 OF 20, 16 OF 20)			85 Street	37-34/48 85 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008520, 08101.008520	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (17 OF 20, 18 OF 20)			85 Street	37-46/52 85 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008522, 08101.008523	Listed, Landmark	Jackson Heights Historic District	LINDEN COURT APTS (19 OF 20, 20 OF 20)			85 Street	37-56/60 85 STREET
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008229, 08101.008230	Listed, Landmark	Jackson Heights Historic District	HAMILTON COURT-SUNCHESTER GARDENS APTS (5 OF 8, 6 OF 8)			79 Street	37-51/55 79TH ST
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.008231, 08101.008232	Listed, Landmark	Jackson Heights Historic District	HAMILTON COURT-SUNCHESTER GARDENS APTS (7 OF 8, 8 OF 8)			90 Street	37-52/56 80TH ST
Building - residential (apt, 2 buildings)	NY SHPO, LPC	LP-1831	08101.007533, 08101.007534	Listed, Landmark	Jackson Heights Historic District	GEORGIAN HALL APTS AND STORES (1 OF 2, 2 OF 2)			37 Avenue	83-01/13 thru 83-15/27 37TH AVE
Building - residential (apt, 2 buildings)	NY SHPO				08101.008506, 08101.008507	Listed	Jackson Heights Historic District	LINDEN COURT APTS (3 OF 20, 4 OF 20)	84 Street	37-21/27 84TH ST
Building - residential (apt, 2 buildings)	NY SHPO				08101.008827, 08101.008828	Listed	Jackson Heights Historic District	ARDEN COURT APTS NORTH, ARDEN COURT APTS SOUTH	88 Street	37-36 88TH ST, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO				08101.008907, 08101.008908	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (1 OF 24, 2 OF 24)	89 Street	35-14/18 89TH ST, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO				08101.008909, 08101.008910	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (1 OF 24, 4 OF 24)	89 Street	35-18/20 89TH ST
Building - residential (apt, 2 buildings)	NY SHPO				08101.008911, 08101.008912	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (5 OF 24, 6 OF 24)	89 Street	35-22/24 89TH ST, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO				08101.008916, 08101.008917	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (10 OF 24, 11 OF 24)	89 Street	35-30/32 89TH ST, QUEENS NY
Building - residential (apt, 2 buildings)	NY SHPO				08101.008918, 08101.008919	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (12 OF 24, 13 OF 24)	89 Street	35-34/36 89TH ST
Building - residential (apt, 2 buildings)	NY SHPO				08101.008920, 08101.008921	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (14 OF 24, 15 OF 24)	89 Street	35-38/40 89TH ST
Building - residential (apt, 2 buildings)	NY SHPO				08101.008923, 08101.008924	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (17 OF 24, 18 OF 24)	89 Street	35-44/46 89TH ST
Building - residential (apt, 2 buildings)	NY SHPO				08101.008925, 08101.008926	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (19 OF 24, 20 OF 24)	89 Street	35-49/50 89TH ST, QUEENS NY
Building - residential (apt, 3 buildings)	NY SHPO, LPC	LP-1831	08101.008466, 08101.008467, 08101.008468	Listed, Landmark	Jackson Heights Historic District	SPANISH GARDENS APTS: EAST (1 OF 9, 2 OF 9, 3 OF 9)			84 Street	37-16/24 84 STREET
Building - residential (apt, 3 buildings)	NY SHPO, LPC	LP-1831	08101.008469, 08101.008470, 08101.008471	Listed, Landmark	Jackson Heights Historic District	SPANISH GARDENS APTS: EAST (4 OF 9, 5 OF 9, 6 OF 9)			84 Street	37-34 84TH ST, QUEENS NY
Building - residential (apt, 3 buildings)	NY SHPO				08101.008426, 08101.008427, 08101.008428	Listed	Jackson Heights Historic District	SPANISH GARDENS APTS: WEST (1 OF 9, 2 OF 9, 3 OF 9)	83 Street	37-15/23 83RD ST
Building - residential (apt, 3 buildings)	NY SHPO				08101.008429, 08101.008430, 08101.008431	Listed	Jackson Heights Historic District	SPANISH GARDENS APTS: WEST (4 OF 9, 5 OF 9, 6 OF 9)	83 Street	37-34/45 83RD ST
Building - residential (apt, 3 buildings)	NY SHPO				08101.008432, 08101.008433, 08101.008434	Listed	Jackson Heights Historic District	SPANISH GARDENS APTS: WEST (7 OF 9, 8 OF 9, 9 OF 9)	83 Street	37-49/57 83RD ST
Building - residential (apt, 3 buildings)	NY SHPO				08101.008913, 08101.008914, 08101.008915	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (7 OF 24, 8 OF 24, 9 OF 24)	89 Street	35-26A/26B/28 89TH ST
Building - residential (apt, 3 buildings)	NY SHPO				08101.008927, 08101.008928, 08101.008929	Listed	Jackson Heights Historic District	SEMI-DETACHED RESIDENCES (21 OF 24, 22 OF 24, 23 OF 24)	89 Street	35-52A, 52B, 54 89TH ST
Building - residential (apt, 3 buildings)	NY SHPO				08101.009066, 08101.009067, 08101.009068	Listed	Jackson Heights Historic District	APT BLDGS (1 OF 3, 2 OF 3, 3 OF 3) - 35-07A 90TH ST	90 Street	35-07A, 07B, 07C 90TH ST
Building - residential (apt, 3 buildings)	NY SHPO, LPC	LP-1831	08101.007465, 08101.007466, 08101.007467	Listed, Landmark	Jackson Heights Historic District	WOODSTOCK APTS (1 OF 3, 2 OF 3, AND 3 OF 3)			81 Street	34-49 81 STREET, 81-05 35TH AVE, AND 81-15 35TH AVE
Building - residential (multi-family)	NY SHPO				08101.008871	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (1 OF 7)	88 Street	37-11 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008872	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (2 OF 7)	88 Street	37-15 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008873	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (3 OF 7)	88 Street	37-17 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008874	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (4 OF 7)	88 Street	37-19 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008875	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (5 OF 7)	88 Street	37-21 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008876	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (6 OF 7)	88 Street	37-25 88TH ST, QUEENS NY
Building - residential (multi-family)	NY SHPO				08101.008877	Listed	Jackson Heights Historic District	MULTI-FAMILY RESIDENCES (7 OF 7)	88 Street	37-27 88TH ST, QUEENS NY
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009809	Listed	Broadway-Flushing Historic District	Residence	155 Street	32-15 155th St
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009811	Listed	Broadway-Flushing Historic District	Residence	155 Street	32-20 155th St
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009815	Listed	Broadway-Flushing Historic District	Residence	155 Street	32-26 155th St
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009883	Listed	Broadway-Flushing Historic District	Residence	157 Street	33-70 157th St
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009912	Listed	Broadway-Flushing Historic District	Residence	158 Street	33-23 158th St
Building - residential (NYC 1 and 2 family)	NY SHPO				08101.009915	Listed	Broadway-Flushing Historic District	Residence	158 Street	33-29 158th St
Building - residential (NYC 1 and 2										

21

D-198

Building - residential, 2 family	NY SHPO	00501.000942			00501.000942	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1055 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000943			00501.000943	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1057 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000944			00501.000944	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1059 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000945			00501.000945	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1061 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000946			00501.000946	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1063 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000947			00501.000947	Eligible	Clay Avenue Historic District	Residence, semi-detached 2-family	Clay Avenue	1065 Clay Avenue - 1065 Clay Avenue
Building - residential, 2 family	NY SHPO	00501.000948			00501.000948	Eligible	Clay Avenue Historic District	Residence, 2-family house	Clay Avenue	1087 CLAY AVE
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (1 OF 9)	84 Street	33-14-16 84TH ST
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (2 OF 9)	84 Street	33-18-20 84TH ST, QUEENS NY
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (3 OF 9)	84 Street	33-22-24 84TH ST, QUEENS NY
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (4 OF 9)	84 Street	33-26-28 84TH ST, QUEENS NY
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (5 OF 9)	84 Street	33-30-32 84TH ST
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (6 OF 9)	84 Street	33-34-36 84TH ST, QUEENS NY
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (7 OF 9)	84 Street	33-38-40 84TH ST, QUEENS NY
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (8 OF 9)	84 Street	33-42-44 84TH ST
Building - residential, 2 family	NY SHPO	00501.000949			00501.000949	Listed	Jackson Heights Historic District	SEMI-DETACHED 2-FAMILY RESIDENCES (9 OF 9)	84 Street	33-46-48 84TH ST
Building - residential, 2 family	NY SHPO				00501.010258	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	33-23/25 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010259	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	33-27/29 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010261	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	33-31/33 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010287	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-19/23 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010289	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-27/31 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010291	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-33/35 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010294	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-41/43 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010295	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-47/51 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010298	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-57A/B 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010299	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-60 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010300	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-63 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010302	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-67/69 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010304	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	163 Street	35-71/73 163rd St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010315	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	164 Street	33-17 164th St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010317	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	164 Street	33-19 164th St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010324	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	164 Street	33-34/36 164th St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010326	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	164 Street	33-38/40 164th St, QUEENS NY
Building - residential, 2 family	NY SHPO				00501.010334	Listed	Broadway-Flushing Historic District	Residence, 2-story 2 family	164 Street	33-56

Building - residential, multi family	NY SHPO					08101.010014	Listed	Broadway-Flushing Historic District	Residence, 2-story three family	160 Street	29-05, 29-07, 29-09, and 29-09A 160th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010248	Listed	Broadway-Flushing Historic District	Residence, 2-story 6-unit rowhouse	163 Street	29-12, 29-14, 29-16, 29-18, 29-20, 29-22 163rd St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010249	Listed	Broadway-Flushing Historic District	Residence, 2-story 6-unit rowhouse	163 Street	29-24, 29-26, 29-28, 29-30, 29-32, 29-34 163rd St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010293	Listed	Broadway-Flushing Historic District	Residence, 4-story apt (# families unstated)	163 Street	35-40/44 163rd St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010307	Listed	Broadway-Flushing Historic District	Residential, 2.5-story 11-unit multi-family	164 Street	29-55/59 164th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010311	Listed	Broadway-Flushing Historic District	Residence, 2.5-story apt (# families unstated)	164 Street	33-01/09 164th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010368	Listed	Broadway-Flushing Historic District	Residence, 3-story apt	164 Street	35-58/60 164th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010369	Listed	Broadway-Flushing Historic District	Residence, 3-story apt	164 Street	35-59/63 164th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010556	Listed	Broadway-Flushing Historic District	Residence, 2.5-story apt 18 family	167 Street	35-05 167th St, QUEENS NY
Building - residential, multi family	NY SHPO					08101.010989	Listed	Broadway-Flushing Historic District	Residential, 2.5-story 11-unit multi-family	32 Avenue	164-01 32nd Ave, QUEENS NY
Building - residential, multi family	NY SHPO					08101.011039	Listed	Broadway-Flushing Historic District	Residence, 2.5-story multi family	33 Avenue	164-02 04 33rd Ave, QUEENS NY
Building - residential, multi family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	00501.000219	Listed, Landmark	Mott Haven Historic District	Rowhouse, 4- and 5-story (NR form only)	Alexander Avenue	331 ALEXANDER AVE
Building - residential, multi family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	00501.000220	Listed, Landmark	Mott Haven Historic District	Rowhouse, 4- and 5-story (NR form only)	Alexander Avenue	333 ALEXANDER AVE
Building - residential, multi family	NY SHPO, LPC	90NR00061	90NR00061	90NR00061	90NR00061	0101075.00501.000311	Listed, Landmark	Mott Haven Historic District	Rowhouse, 4- and 5-story (NR form only)	Alexander Avenue	337 ALEXANDER AVE
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000315	Listed, Landmark	Longwood Historic District	Residence, 2.5-story, 718 Beck Street	718 Beck Street	718 Beck Street
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000318	Listed, Landmark	Longwood Historic District	Residence, 2.5-story, 726 Beck Street	726 Beck Street	726 Beck Street
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000438	Listed, Landmark	Longwood Historic District	Residence, 2-story single family, 949 East 156 Street	949 East 156 Street	949 East 156 Street
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000464	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 768 Hewitt Place	Hewitt Place	768 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000465	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 770 Hewitt Place	Hewitt Place	770 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000466	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 774 Hewitt Place	Hewitt Place	774 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000467	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 774 Hewitt Place	Hewitt Place	774 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000468	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 776 Hewitt Place	Hewitt Place	776 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000469	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 778 Hewitt Place	Hewitt Place	778 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000470	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 780 Hewitt Place	Hewitt Place	780 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00060	90NR00060	90NR00060	90NR00060	0101075.00501.000471	Listed, Landmark	Longwood Historic District	Residence, 2.5-story single family, 782 Hewitt Place	Hewitt Place	782 Hewitt Place
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000263	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	469 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000264	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	411 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000265	Listed, Landmark	Mott Haven East Historic District	Rowhouse, 2-story single family	East 140 Street	413 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000266	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	415 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000268	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	417 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000269	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	421 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000270	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	423 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000271	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	425 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035	90NR00035	90NR00035	0101899.00501.000272	Listed, Landmark	Mott Haven East Historic District	Rowhouse, single family	East 140 Street	427 East 140 Street
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.002904	Listed, Landmark	Sunnyside Gardens Historic District	Residence	48 Street	41-50 48 Street (aka 4150 Gosman Ave., NY SHPO)
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.002919	Listed, Landmark	Sunnyside Gardens Historic District	Residence	47 Street	41-05 47 Street
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.002999	Listed, Landmark	Sunnyside Gardens Historic District	Residence	47 Street	39-48 47 Street (aka Caroline Street)
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003063	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-11 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003064	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-13 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003065	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-15 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003066	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-17 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003067	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-21 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003068	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-23 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003069	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-25 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003070	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-31 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003071	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-33 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003072	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-35 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003074	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-39 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003075	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-41 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003076	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-43 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003077	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-45 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003078	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-47 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003079	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-49 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003080	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-51 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003082	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-55 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003083	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-57 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003084	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-59 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003085	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-61 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003086	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-67 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003087	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-69 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003088	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-71 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003089	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-73 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003090	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-75 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003091	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-77 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003092	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-79 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003093	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-81 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003094	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-83 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003096	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-87 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003097	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-89 Gosman Avenue
Building - residential, single family	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	90NR01583	90NR01583	0102258.08101.003098	Listed, Landmark	Sunnyside Gardens Historic District	Residence	Gosman Avenue	39-91 Gosman Avenue

D-200

[illegible]

D-202

[illegible]

D-204

[illegible]

D-205

[illegible]

D-206

[illegible]

D-207

31

D-208

32

D-209

33

D-210

34

D-211

35

D-212

[illegible]

D-213

37

D-214

38

D-215

[illegible]

D-216

[illegible]

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-217

Building - residential, single family	NY SHPO				08101.011052	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	33 Avenue	166-17 33rd Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011054	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	33 Avenue	167-11 33rd Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011055	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	33 Avenue	167-12 33rd Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011056	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	33 Avenue	167-14 33rd Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011084	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	154-02 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011085	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	154-08 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011086	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	154-14 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011087	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	154-18 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011089	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	155-11 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011091	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	155-15 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011092	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	156-03 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011093	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	156-15 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011094	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	157-03 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011095	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	157-04 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011096	Listed	Broadway-Flushing Historic District	Residence, 1-story single family	35 Avenue	157-15 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011097	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	157-20 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.009931, 08101.011098	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	158-04 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011099	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	158-05 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011100	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	159-01 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011102	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	160-01 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011103	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	160-06 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011104	Listed	Broadway-Flushing Historic District	Residence, 1.5-story single family	35 Avenue	160-14 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011105	Listed	Broadway-Flushing Historic District	Residence, 1.5-story single family	35 Avenue	162-16 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011106	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	163-15 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011107	Listed	Broadway-Flushing Historic District	Residence, 1.5-story single family	35 Avenue	163-16 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011109	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	166-03 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011110	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	166-15 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011112	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	35 Avenue	168-03 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011113	Listed	Broadway-Flushing Historic District	Residence, 1.5-story single family	35 Avenue	168-04 35th Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011137	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	Crocheron Ave	164-03 Crocheron Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011138	Listed	Broadway-Flushing Historic District	Residence, 1-story single family	Crocheron Ave	165-06 Crocheron Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011139	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	Crocheron Ave	165-11 Crocheron Ave, QUEENS NY
Building - residential, single family	NY SHPO, LPC				08101.011140	Listed	Broadway-Flushing Historic District	Residence, 1-story single family	Crocheron Ave	165-17 Crocheron Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.011142	Listed	Broadway-Flushing Historic District	Residence, 1.5-story single family	Crocheron Ave	166-61 Crocheron Ave, QUEENS NY
Building - residential, single family	NY SHPO				08101.010195, 08101.011034	Listed	Broadway-Flushing Historic District	Residence, 2-story single family	162 Street	32-29 162nd St, QUEENS NY
Building - residential, single family	NY SHPO, LPC	08101.009818, 08101.011006			08101.009818, 08101.011006	Listed, Landmark	Broadway-Flushing Historic District	Residence, 2-story single family	155 Street	32-37 155th St, QUEENS NY
Building - residential, single family	NY SHPO, LPC	08101.010521 / 08101.011053			08101.010521, 08101.011053	Listed, Landmark	Broadway-Flushing Historic District	Residence, 2-story single family	167 Street	32-35 167th St, QUEENS NY
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000214	Listed, Landmark	Mott Haven Historic District	Residence	Alexander Avenue	307 ALEXANDER AVE
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000215	Listed, Landmark	Mott Haven Historic District	Residence	Alexander Avenue	309 ALEXANDER AVE
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000216	Listed, Landmark	Mott Haven Historic District	Residence	Alexander Avenue	311 ALEXANDER AVE
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000218	Listed, Landmark	Mott Haven Historic District	Residence	Alexander Avenue	317 ALEXANDER AVE
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000235	Listed, Landmark	Mott Haven Historic District	Residence, 2-story single family (converted stable)	East 140 Street	138 EAST 140TH ST
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000257	Listed, Landmark	Mott Haven Historic District	Residence, 2-story single family	East 140 Street	339 EAST 140TH ST
Building - residential, single family	NY SHPO, LPC	90NR00035	90NR00035		00501.000258	Listed, Landmark	Mott Haven Historic District	Residence, 2-story single family	East 140 Street	341 EAST 140TH ST
Building - school	NY SHPO, LPC	90NR00054 / 00501.000731 / LP-01179	90NR00054	LP-01179	00501.000731	Listed, Landmark	Individual	PS 11, 1257 Ogden Avenue	Ogden Avenue	1257 OGDEN AVE
Building - school	NY SHPO, LPC		90NR01582	LP-01628	00501.000100	Listed, Landmark	Individual	PS 28 (Herman Ridder Junior High School), 3619 BOSTON RD	Boston Road	1619 BOSTON RD
Building - school	NY SHPO, LPC	90NR01582, LP-0662	90NR01582	LP-0662	08101.000038	Listed, Landmark	Individual	Poggenpohsen Institute	14 Road	114-04 14th Rd.
Building - school	NY SHPO, LPC	91NR00099, 08101.006190, LP-1798	91NR00099	LP-01798	08101.006190	Listed, Landmark	Individual	Flushing High School	North Boulevard	35-01 North Boulevard (also listed as 35-01 Union Street)
Building - school	NY SHPO, LPC	00501.000877, LP-1895		LP-01895	00501.000877	Listed, Landmark	Individual	PS 27	St. Ann's Avenue	519 St Ann's Avenue
Building - school	NY SHPO, LPC	USN 8101.011223, LP-2131		LP-02131	08101.011223	Listed, Landmark	Individual	Newtown High School	30 Street	48-01 30 Street
Building - school	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258		Listed, Landmark	Sunnyside Gardens Historic District	Little Friends School	47 Street	43-42/46 47 Street
Building - school	NY SHPO	8101.000206			08101.000206	Eligible	Individual	Horace Greeley School	31 Avenue	45-11 31st Ave
Building - school	NY SHPO	08101.009230			08101.009230	Eligible	Individual	Junior High School 157 - 63-55 102ND ST	102 Street	63-55 102ND ST
Building - school	NY SHPO	8101.011174			08101.011174	Individually eligible	Individual	William C. Bryant High School	31 Avenue	48-10 31st Ave
Building - school	NY SHPO	8101.011186			08101.011186	Individually eligible	Individual	PS 102-Q	Van Horn Street	55-24 Van Horn St
Building - school	NY SHPO				00501.001104	Eligible	Individual	PS 43, 165 BROWN PL	Brown Place	165 BROWN PL
Building - school	NY SHPO				00501.001125	Eligible	Individual	PS 77-1250 WARD AVE	Ward Avenue	1250 WARD AVE
Building - school	NY SHPO				00501.001137	Eligible	Individual	PS 44, 1825 PROSPECT AVE	Prospect Avenue	1825 PROSPECT AVE
Building - school	NY SHPO				00501.001145	Eligible	Individual	PS 50, 1530 VYSE AVE	Vyse Avenue	1530 VYSE AVE
Building - school	NY SHPO				00501.001157	Eligible	Individual	PS 61, 1550 CROTONA PARK EAST	Crotona Park East	1550 CROTONA PARK EAST
Building - school	NY SHPO				00501.001166	Eligible	Individual	William H. Taft High School, 240 East 172nd Street	East 172 Street	240 EAST 172ND ST
Building - school	NY SHPO				00501.001192	Eligible	Individual	PS 71, 3040 ROBERTS AVE	Roberts Avenue	3040 ROBERTS AVE
Building - school	NY SHPO				00501.001193	Eligible	Individual	PS 114, 1155 CROMMELL AVE	Cromwell Avenue	1155 CROMMELL AVE
Building - school	NY SHPO				00501.001194	Eligible	Individual	PS 48, 467 EAST 176TH ST	East 176 Street	457 EAST 176TH ST
Building - school	NY SHPO				00501.001195	Eligible	Individual	PS 6, 1000 EAST TREMONT AVE	East Tremont Avenue	1000 EAST TREMONT AVE
Building - school	NY SHPO				00501.001288	Eligible	Individual	Samuel Gompers Technical High School - 455 Southern Blvd	Southern Blvd	455 Southern Blvd
Building - school	NY SHPO				00501.001300	Eligible	Individual	PS 104, 1445 Shakespeare Ave	Shakespeare Avenue	1445 Shakespeare Ave
Building - school	NY SHPO				00501.001341	Eligible	Individual	PS 70, 1401 Weeks Ave	Weeks Avenue	1401 Weeks Ave
Building - school	NY SHPO				00501.001346	Eligible	Individual	PS 75, 984 Faile St	Faile Street	984 Faile St
Building - school	NY SHPO				00501.001349	Eligible	Individual	PS 107, 1695 Seward Ave	Seward Avenue	1695 Seward Ave
Building - school	NY SHPO				00501.001422	Eligible	Individual	PS 48, 1290 Spofford Ave	Spofford Avenue	1290 Spofford Ave

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-218

Building - school	NY SHPO			09001.001447	Eligible	Individual	Junior High School 125 - 1111 Pugsley Ave	Pugsley Avenue	1111 Pugsley Ave
Building - school	NY SHPO			09001.001455	Eligible	Individual	Junior High School 123 - 1025 Morrison Ave	Morrison Avenue	1025 Morrison Ave
Building - school	NY SHPO			09001.001475	Eligible	Individual	PS 62-K, 888 Rev. James A. Polite Ave	888 Rev. James A. Polite Ave	
Building - school	NY SHPO			09001.001563	Eligible	Individual	S 219 (former I.S. 148) (1965-67, Lester C. Tichy) - 3630 Third Ave	Third Avenue	3630 Third Ave
Building - school	NY SHPO			09001.001564	Eligible	Individual	PS 754 (former I.S. 155; 1967, Arthur G. Paletta) - 470 Jackson Ave	Jackson Ave	470 Jackson Ave
Building - school	NY SHPO			09001.001640	Eligible	Individual	PS 3 (former St. Dominic's Parochial School), 1684 White Plains Rd	White Plains Road	1684 White Plains Rd
Building - school	NY SHPO			09001.001640	Eligible	Individual	PS 148, 89-22 23RD AVE	32 Avenue	89-22 23RD AVE
Building - school	NY SHPO			0901.008191	Listed	Jackson Heights Historic District	GARDEN COUNTRY DAY SCHOOL		79 Street
Building - school	NY SHPO			0901.009131	Eligible	Individual	PS 107, 167-02 45TH AVE	45 Street	33-16 79TH ST, QUEENS NY
Building - school	NY SHPO			0901.009180	Eligible	Individual	PS 126, 129-02 7TH AVE	7 Avenue	128-02 7TH AVE
Building - school	NY SHPO			0901.009188	Eligible	Individual	PS 85, 23-70 31ST ST	31 Street	23-70 31ST ST
Building - school	NY SHPO			0901.009373	Eligible	Individual	PS 122, 21-21 DITMARS AVE	Ditmars Avenue	21-21 DITMARS AVE
Building - school	NY SHPO			0901.009376	Eligible	Individual	PS 127, 88-01 25TH AVE	25 Avenue	88-01 25TH AVE
Building - school	NY SHPO			0901.009383	Eligible	Individual	PS 29, 121-10 23RD AVE	23 Avenue	125-10 23RD AVE
Building - school	NY SHPO			0901.011169	Eligible	Individual	Forest Hills High School - 67-01 110th St	110 Street	67-01 110th St
Building - school	NY SHPO			0901.011175	Eligible	Individual	PS 803 Queens, 108-55 69TH AVE 11375	69 Avenue	108-55 69TH AVE 11375
Building - school	NY SHPO			0901.011309	Eligible	Individual	PS 16-Q, 41-15 104th St	104 Street	41-15 104th St
Building - school	NY SHPO			0901.011326	Eligible	Individual	PS 106-Q, 1952 - 72-25 113th St	72-25 113th St	
Building - school	NY SHPO			0901.011389	Eligible	Individual	PS 280-Q (former Blessed Sacrament School), 32-20 94TH ST	94 Street	32-20 94TH ST
Building - school	NY SHPO			0901.011550	Eligible	Individual	PS 329 (former St. Gabriel's School), 26-25 97th St	97 Street	26-25 97th St
Building - school	NY SHPO			0901.011717	Eligible	Individual	PS 399 Annex (former St. Teresa's School), 50-15 44th St	44 Street	50-15 44th St
Building - school	NY SHPO			0901.011787	Eligible	Individual	PS 175, 65-35 100th St	100 Street	65-35 100th St
Building - school	NY SHPO			0901.011898	Eligible	Individual	PS 24, Andrew Jackson School, 141-11 Holly Avenue	Holly Avenue	141-11 Holly Avenue 11355
Building - school	NY SHPO			09001.002148	Eligible	Individual	PS 106 BRONX - 2120 ST. RAYMOND AVE		PS 106 BRONX - 2120 ST. RAYMOND AVE
Building - school	NY SHPO, LPC	0801.009941, 0801.009942		0801.009941, 0801.009942	Listed, Landmark	Brooklyn-Flushing Historic District	School, 2-story steel frame, International style (0801.009941) and St. Andrew Avellino Convent (0801.009942)	158 Street	35-48 158th St (school) and 35-50 158th St (convent)
Building - school	NY SHPO	0801.008118, 0801.008119		0801.008118, 0801.008119	Listed	Jackson Heights Historic District	RAINBOWLAND NURSERY SCHOOL (USN 0801.008118) and RAINBOWLAND KINDERGARTEN (USN 0801.008119 non-contributing)	77 Street	33-11 77TH ST, QUEENS NY
Building - school (non-contributing)	NY SHPO, LPC	0801.007549 / LP-01831		0801.007549	Listed, Landmark	Jackson Heights Historic District	New Public School 69 (NON-CONTRIBUTING)	77 Street	37-01 77TH ST, QUEENS NY
Building - school and school related	NY SHPO, LPC	90NR00057, 09001.001616, LP-1258	90NR00057	09001.000521, 000530, 000531, 000532, and 000552	Listed, Landmark	Morris High School Historic District	Morris High School Auditorium interior (000523 LPC Landmark Interior), Morris HS Complex (000530, 000532, 000552, 4 buildings)	Bozton Road	1096 Bozton Road
Building - school and school related	NY SHPO			09001.001108	Eligible	Individual	NYC School District Office #7	Courtlandt Avenue	501 COURTLANDT AVE
Building - transportation (airport)	NY SHPO, LPC	90NR01580, LP-1109, LP-1110	90NR01580	0901.006415	Listed, Landmark	Individual	LaGuardia Airport, Marine Air Terminal	Grand Central Parkway	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011711		0901.011711	Individually eligible	Individual	LaGuardia Airport, Hanger 1, 1939 (Delano & Aldrich)	LaGuardia Airport	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011712		0901.011712	Individually eligible	Individual	LaGuardia Airport, Hanger 2, 1940 (Delano & Aldrich)	LaGuardia Airport	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011713		0901.011713	Individually eligible	Individual	LaGuardia Airport, Hanger 3, 1939 (Delano & Aldrich)	LaGuardia Airport	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011714		0901.011714	Individually eligible	Individual	LaGuardia Airport, Hanger 4, 1940 (Delano & Aldrich)	LaGuardia Airport	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011715		0901.011715	Individually eligible	Individual	LaGuardia Airport, Hanger 5, 1939 (Delano & Aldrich)	LaGuardia Airport	Grand Central Parkway
Building - transportation (airport)	NY SHPO	8101.011790		0901.011790	Individually eligible	Individual	LaGuardia Airport, Hanger 7, ca 1939 (former see plane hanger)	LaGuardia Airport	Grand Central Parkway
Building - transportation (railroad admin)	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000730	Listed, Landmark	Individual	NY, Westchester & Boston Railroad Administration Building	West 134th Avenue	1483 MOORE ST AVE
Building - unknown	NY SHPO	09001.000886	90NR00037	0901.000886	Eligible	Individual	former Hygrade Casket Manufacturing Co., - 454-464 EAST 148TH ST	East 148 Avenue	454-464 EAST 148TH ST
Building - unknown	NY SHPO			09001.001158	Eligible	Individual	former American Female Guardian Society, 936 Woodcrest Avenue	Woodcrest Avenue	936 WOODCREST AVE
Building - unknown	NY SHPO			09001.001385	Eligible	Individual	former Semi Earl Theatre - 58 East 161st St	East 161 Street	58 East 161st St
Building - unknown	NY SHPO			09001.001534	Eligible	Individual	former Home & Hospital of the Daughters of Jacob - 321 East 167th St	East 167 Street	321 East 167th St
Building - unknown	NY SHPO			09001.001791	Listed	Individual	former Chevra Lish Nizkeid Synagogue - 1115 Ward Ave	Ward Avenue	1115 Ward Ave
Building - unknown	NY SHPO			09001.001829	Eligible	Individual	former Swedish Evangelical Emmanuel Church (current New Tabernacle Baptist Church) - 992 East 181st Street		992 East 181st Street
Building - unknown	NY SHPO			09001.001831	Eligible	Individual	former Bronx Consumers Ice Company - 425 Devoe Street	Devoe Street	425 Devoe Street
Building - unknown	NY SHPO			09001.001883	Eligible	Individual	Former St. Augustine's School (current Harriet Tubman Charter School) - 1176 Franklin Ave	Franklin Avenue	1176 Franklin Ave
Building - unknown	NY SHPO			09001.001580	Eligible	Individual	former Astoria Police Precinct Building (ca. 1890) - 23-16 30th Ave	30 Avenue	23-16 30th Ave
Building - unknown	NY SHPO, LPC	LP-01075		09001.000477 / LP-01075	Listed, Landmark	Longwood Historic District	Longwood Historic District - 728 KELLY STREET		728 KELLY STREET
Building - unknown	NY SHPO, LPC	LP-01831		LP-01831	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 34-13 87 STREET		34-13 87 STREET
Building - unknown	NY SHPO, LPC	0901.008052 / LP-01831		0901.008052 / LP-01831	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-36 85 STREET		35-36 85 STREET
Building - unknown	NY SHPO, LPC	LP-01831		0901.008574 / LP-01831	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-31 86 STREET		35-31 86 STREET
Building - unknown	NY SHPO, LPC	LP-01831		0901.008575 / LP-01831	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-51 86 STREET		35-51 86 STREET
Building - unknown	NY SHPO, LPC	LP-01831		0901.008390 / LP-01831 (see 0801.008388 above)	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 37-48 83 STREET		37-48 83 STREET
Building - unknown	NY SHPO, LPC	LP-02258		0901.002887 / LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 41-18 47 STREET		41-18 47 STREET
Building - unknown	NY SHPO, LPC	LP-02258		0901.003141 / LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 49-02 39 AVENUE		49-02 39 AVENUE
Building - unknown	NY SHPO, LPC	LP-02258		0901.003142 / LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 49-04 39 AVENUE		49-04 39 AVENUE
Building - unknown	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000399	Listed, Landmark	Longwood Historic District	783 Dawson Street (see description in LPC designation report)	Dawson Street	783 Dawson Street
Building - unknown	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000434	Listed, Landmark	Longwood Historic District	941 East 156 Street (see 241-728 Kelly Street for description)	East 156 Street	941 East 156 Street
Building - unknown	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000437	Listed, Landmark	Longwood Historic District	947 East 156 Street (see 962-966 East 156th Street for description)	East 156 Street	947 East 156 Street
Building - unknown	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000443	Listed, Landmark	Longwood Historic District	959 East 156 Street (see 939-941 East 156th Street for description)	East 156 Street	959 East 156 Street
Building - unknown	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	0901.000444	Listed, Landmark	Longwood Historic District	963 East 156 Street (see 939-941 East 156th Street for description)	East 156 Street	963 East 156 Street
Building - unknown	NY SHPO, LPC	LP-01794		09001.000713, LP-1794	Listed, Landmark	Individual	Franklin Avenue Second Battery Armory	Franklin Avenue	1127 Franklin Avenue, Bronx
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-14 85 STREET	85 STREET	34-14 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-15 87 STREET	87 STREET	34-15 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-16 85 STREET	85 STREET	34-16 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-17 87 STREET	87 STREET	34-17 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-18 85 STREET	85 STREET	34-18 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-19 87 STREET	87 STREET	34-19 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-20 85 STREET	85 STREET	34-20 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-21 87 STREET	87 STREET	34-21 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-22 87 STREET	87 STREET	34-22 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-24 85 STREET	85 STREET	34-24 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-26 85 STREET	85 STREET	34-26 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-27 87 STREET	87 STREET	34-27 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-28 85 STREET	85 STREET	34-28 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-29 87 STREET	87 STREET	34-29 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-30 85 STREET	85 STREET	34-30 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-31 82 STREET	82 STREET	34-31 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-33 87 STREET	87 STREET	34-33 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-34 85 STREET	85 STREET	34-34 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-35 82 STREET	82 STREET	34-35 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-35 87 STREET	87 STREET	34-35 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-36 85 STREET	85 STREET	34-36 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-38 85 STREET	85 STREET	34-38 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-39 82 STREET	82 STREET	34-39 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-39 87 STREET	87 STREET	34-39 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-40 85 STREET	85 STREET	34-40 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-41 87 STREET	87 STREET	34-41 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-43 82 STREET	82 STREET	34-43 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-43 87 STREET	87 STREET	34-43 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-44 85 STREET	85 STREET	34-44 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-45 87 STREET	87 STREET	34-45 87 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-46 85 STREET	85 STREET	34-46 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-47 82 STREET	82 STREET	34-47 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-47 87 STREET	87 STREET	34-47 87 STREET
Building - unknown	LPC	LP-01831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-49 87 STREET	87 STREET	34-49 87 STREET
Building - unknown	LPC	LP-01831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-50 85 STREET	85 STREET	34-50 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-51 82 STREET	82 STREET	34-51 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-51 85 STREET	85 STREET	34-51 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-52 82 STREET	82 STREET	34-52 82 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 34-52 85 STREET	85 STREET	34-52 85 STREET
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE	35 AVENUE	82-02 35 AVENUE
Building - unknown	LPC	LP-1831		LP-01831	Landmarked	Jackson Heights Historic District	Jackson Heights Historic District - 82-02 35 AVENUE		

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-219

Building - unknown	NY SHPO, LPC	08101.008154 / LP-01831	LP-01831	08101.008154	Listed, Landmark	Jackson Heights Historic District	78-11 35 Avenue	35 Avenue	78-11 35 Avenue
Building - unknown	NY SHPO, LPC	08101.008237 / 08101.008238 / LP-01831	LP-01831	08101.008237 / 08101.008238	Listed, Landmark	Jackson Heights Historic District	7-27/31 79 Street	79 Street	7-27/31 79 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	34-65 80 Street	80 Street	34-65 80 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-21 87 Street	87 Street	35-21 87 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-49 86 Street	86 Street	35-49 86 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-53 86 Street	86 Street	35-53 86 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-55 86 Street	86 Street	35-55 86 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-57 86 Street	86 Street	35-57 86 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-61 87 Street	87 Street	35-61 87 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	35-64 84 Street	84 Street	35-64 84 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	37-30 83 Street	83 Street	37-30 83 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	37-36 79 Street	79 Street	37-36 79 Street
Building - unknown	NY SHPO, LPC	LP-1833	LP-01831		Listed, Landmark	Jackson Heights Historic District	82-11 37 Avenue	37 Avenue	82-11 37 Avenue
Building - unknown	NY SHPO, LPC	08101.007500 / 08101.007501 / LP-01831	LP-01831	08101.007500 / 08101.007501	Listed, Landmark	Jackson Heights Historic District	79-36 35 AVENUE	35 AVENUE	79-36 35 AVENUE
Building - unknown	NY SHPO, LPC	08101.007550 / LP-01831	LP-01831	08101.007550	Listed, Landmark	Jackson Heights Historic District	Building	80 Street	37-06 80 STREET
Building - unknown	NY SHPO, LPC	08101.007552 / LP-01831	LP-01831	08101.007552	Listed, Landmark	Jackson Heights Historic District	Building	37 Avenue	37-06 81 STREET
Building - unknown	NY SHPO, LPC	08101.008305 / LP-01831	LP-01831	08101.008305	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 81-11 37 AVENUE	37 Ave	81-11 37 AVENUE
Building - unknown	NY SHPO, LPC	08101.008316 / LP-01831	LP-01831	08101.008316	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 34-06 82 STREET	82 Street	34-06 82 STREET
Building - unknown	NY SHPO, LPC	08101.008316 / LP-01831	LP-01831	08101.008316	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 34-24 82 STREET	82 Street	34-24 82 STREET
Building - unknown	NY SHPO, LPC	08101.008329 / LP-01831	LP-01831	08101.008329	Listed, Landmark	Jackson Heights Historic District	Building	82 Street	37-60 82ND ST
Building - unknown	NY SHPO, LPC	08101.008331 / LP-01831	LP-01831	08101.008331	Listed, Landmark	Jackson Heights Historic District	Building	82 Street	37-62 82 STREET
Building - unknown	NY SHPO, LPC	08101.008336 / LP-01831	LP-01831	08101.008336	Listed, Landmark	Jackson Heights Historic District	Building	82 Street	33-53 82 STREET
Building - unknown	NY SHPO, LPC	08101.008339 / LP-01831	LP-01831	08101.008339	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 34-24 83 STREET	83 Street	34-24 83 STREET
Building - unknown	NY SHPO, LPC	08101.008378 / LP-01831	LP-01831	08101.008378	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 34-44 83 STREET	83 Street	34-44 83 STREET
Building - unknown	NY SHPO, LPC	08101.008461 / LP-01831	LP-01831	08101.008461	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-46 84 STREET	84 Street	35-46 84 STREET
Building - unknown	NY SHPO, LPC	08101.008463 / LP-01831	LP-01831	08101.008463	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-48 84 STREET	84 Street	35-48 84 STREET
Building - unknown	NY SHPO, LPC	08101.008463 / LP-01831	LP-01831	08101.008463	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-50 84 STREET	84 Street	35-50 84 STREET
Building - unknown	NY SHPO, LPC	08101.008464 / LP-01831	LP-01831	08101.008464	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-52 84 STREET	84 Street	35-52 84 STREET
Building - unknown	NY SHPO, LPC	08101.008465 / LP-01831	LP-01831	08101.008465	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-54 84 STREET	84 Street	35-54 84 STREET
Building - unknown	NY SHPO, LPC	08101.008502 / LP-01831	LP-01831	08101.008502	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-56 85 STREET	85 Street	35-56 85 STREET
Building - unknown	NY SHPO, LPC	08101.008559 / LP-01831	LP-01831	08101.008559	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-58 85 STREET	85 Street	35-58 85 STREET
Building - unknown	NY SHPO, LPC	08101.008645 / LP-01831	LP-01831	08101.008645	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-29 86 STREET	86 Street	35-29 86 STREET
Building - unknown	NY SHPO, LPC	08101.008646 / LP-01831	LP-01831	08101.008646	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-31 86 STREET	86 Street	35-31 86 STREET
Building - unknown	NY SHPO, LPC	08101.008647 / LP-01831	LP-01831	08101.008647	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-33 86 STREET	86 Street	35-33 86 STREET
Building - unknown	NY SHPO, LPC	08101.008649 / LP-01831	LP-01831	08101.008649	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-37 86 STREET	86 Street	35-37 86 STREET
Building - unknown	NY SHPO, LPC	08101.008651 / LP-01831	LP-01831	08101.008651	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-41 86 STREET	86 Street	35-41 86 STREET
Building - unknown	NY SHPO, LPC	08101.008653 / LP-01831	LP-01831	08101.008653	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-45 86 STREET	86 Street	35-45 86 STREET
Building - unknown	NY SHPO, LPC	08101.008654 / LP-01831	LP-01831	08101.008654	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 35-65 86 STREET	86 STREET	35-65 86 STREET
Building - unknown	NY SHPO, LPC	08101.009111 / LP-01831	LP-01831	08101.009111	Listed, Landmark	Jackson Heights Historic District	Jackson Heights Historic District - 81-06 34 AVENUE		81-06 34 AVENUE
Building - unknown	NY SHPO, LPC		LP-01900	00501.000910 / 00501.000911 / 00501.001490 / LP-01900	Listed, Landmark	Bertine Block Historic District	Bertine Block Historic District - 416 EAST 137 STREET		416 EAST 137 STREET
Building - unknown	NY SHPO, LPC		LP-01900	00501.000912 / 00501.000913 / 00501.000914 / LP-01900	Listed, Landmark	Bertine Block Historic District	Bertine Block Historic District - 416 EAST 137 STREET		416 EAST 137 STREET
Building - unknown	NY SHPO, LPC		LP-01900	00501.000915 / 00501.000916 / LP-01900	Listed, Landmark	Bertine Block Historic District	Bertine Block Historic District - 416 EAST 137 STREET		416 EAST 137 STREET
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	08101.002929	Listed, Landmark	Sunnyside Gardens Historic District	41-49 47 Street	47 Street	41-49 47 Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	08101.003154	Listed, Landmark	Sunnyside Gardens Historic District	City Housing Corporation	Locust Street	39-11 Locust Street (aka 44 Street)
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	08101.003177	Listed, Landmark	Sunnyside Gardens Historic District	Weem Sporn Bldg Corp (NR Nomination form)	Locust Street	39-63 Locust Street (aka 44 Street)
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	38-19 50 Street	50 Street	38-19 50 Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	38-20 52 Street	52 Street	38-20 52 Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-02 Locust Street	Locust Street	39-02 Locust Street (aka 44 Street)
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-02 Packard Street	Packard Street	39-02 Packard Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-09 Heiser Street	Heiser Street	39-09 Heiser Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-23 Locust Street	Locust Street	39-23 Locust Street (aka 44 Street)
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-60 Heiser Street	Heiser Street	39-60 Heiser Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-80 Locust Street	Locust Street	39-80 Locust Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	40-09 Gosman Avenue	Gosman Avenue	40-09 Gosman Avenue
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	40-11 Gosman Avenue	Gosman Avenue	40-11 Gosman Avenue
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	40-13 Gosman Avenue	Gosman Avenue	40-13 Gosman Avenue
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	40-22 Locust Street	Locust Street	40-22 Locust Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	46-01 39 Avenue	39 Avenue	46-01 39 Avenue (aka Middleburg Avenue)
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	46-16 47 Street	47 Street	46-16 47 Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	39-56 43 Street	43 Street	39-56 43 Street
Building - unknown	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	Listed, Landmark	Sunnyside Gardens Historic District	48 Street	48 Street	48 Street
Building - unknown	NY SHPO, LPC	08101.003014, LP-02258	LP-02258	08101.003014	Listed, Landmark	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 39 AVENUE	39 Avenue	39 AVENUE
Building - unknown	LPC		LP-02258		Landmark	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-10 48 STREET	48 Street	43-10 48 STREET
Building - unknown	NY SHPO, LPC		LP-02403	00501.000087 / LP-02403	Listed, Landmark	Grand Concourse Historic District	800 GRAND CONCOURSE (AKA [NO NUMBER] EAST 158 STREET; [NO NUMBER] CONCOURSE VILLAGE WEST)		800 GRAND CONCOURSE (AKA [NO NUMBER] EAST 158 STREET; [NO NUMBER] CONCOURSE VILLAGE WEST)
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-04 48 STREET		43-04 48 STREET
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-16 48 STREET		43-16 48 STREET
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-17 47 STREET		43-17 47 STREET
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-25 47 STREET		43-25 47 STREET
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 43-37 47 STREET		43-37 47 STREET
Building - unknown	LPC		LP-02258		Landmarked	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 46-15 SKILLMAN AVENUE		46-15 SKILLMAN AVENUE
Building - unknown	NY SHPO			00501.001536	Eligible	Individual	Peabody Home for Aged and Indigent Women (1901; Edward A. Sargent)	Boston Road	2064 Boston Road 10460
Building - unknown	NY SHPO			00501.001884	Eligible	Individual	Queen Anne House - 1198 Franklin Ave	Frankline Avenue	1198 Franklin Ave
Building - unknown	NY SHPO			08101.010963	Eligible	Broadway-Flushing Historic District	154-11 32nd Ave	32 Avenue	154-11 32nd Ave
Building - unknown	NY SHPO			08101.011802	Eligible	Individual	former St. Fidelis Parochial School (1924; 1960 add'n) - 124-06 14th Ave	14 Avenue	124-06 14th Ave
Building - unknown	LPC		LP-02258		Listed	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 47 STREET	47 Street	47 STREET
Building - unknown	NY SHPO			08101.006691	Listed	Individual	7 Center Dr	Center Dr	7 Center Dr
Building - unknown	NY SHPO			00501.000357 / 00501.000448 / LP-01075	Listed	Longwood Historic District	Longwood Historic District - 969 EAST 156 STREET		969 EAST 156 STREET
Building - unknown	NY SHPO			00501.000151	Listed	Grand Concourse Historic District	Grand Concourse Historic District - 1345 GRAND CONCOURSE		1345 GRAND CONCOURSE
Building - unknown	NY SHPO			08101.011088	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 155-10 35th Ave QUEENS NY		155-10 35th Ave QUEENS NY
Building - unknown	NY SHPO			08101.011090	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 155-14 35th Ave QUEENS NY		155-14 35th Ave QUEENS NY
Building - unknown	NY SHPO			08101.010984	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 161-10 32nd Ave QUEENS NY		161-10 32nd Ave QUEENS NY

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-220

Building - unknown	NY SHPO					08101.011111	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 166-16 35th Ave QUEENS NY		166-16 35th Ave QUEENS NY
Building - unknown	NY SHPO					08101.010593	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 32-26 168th St QUEENS NY		32-26 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010596	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 32-32 168th St QUEENS NY		32-32 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010526	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-15 167th St QUEENS NY		33-15 167th St QUEENS NY
Building - unknown	NY SHPO					08101.010613	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-38 168th St QUEENS NY		33-38 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010398	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-46 165th St QUEENS NY		33-46 165th St QUEENS NY
Building - unknown	NY SHPO					08101.010622	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-58 168th St QUEENS NY		33-58 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010406	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-63 165th St QUEENS NY		33-63 165th St QUEENS NY
Building - unknown	NY SHPO					08101.010276	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-66 163rd St QUEENS NY		33-66 163rd St QUEENS NY
Building - unknown	NY SHPO					08101.010410	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-73 165th St QUEENS NY		33-73 165th St QUEENS NY
Building - unknown	NY SHPO					08101.010481	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 33-73 166th St QUEENS NY		33-73 166th St QUEENS NY
Building - unknown	NY SHPO					08101.010558	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-14 167th St QUEENS NY		35-14 167th St QUEENS NY
Building - unknown	NY SHPO					08101.010286	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-18 163rd St QUEENS NY		35-18 163rd St QUEENS NY
Building - unknown	NY SHPO					08101.010353	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-19 164th St QUEENS NY		35-19 164th St QUEENS NY
Building - unknown	NY SHPO					08101.010288	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-22 163rd St QUEENS NY		35-22 163rd St QUEENS NY
Building - unknown	NY SHPO					08101.010357	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-29 164th St QUEENS NY		35-29 164th St QUEENS NY
Building - unknown	NY SHPO					08101.010648	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-39 168th St QUEENS NY		35-39 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010650	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-41 168th St QUEENS NY		35-41 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010498	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-44 166th St QUEENS NY		35-44 166th St QUEENS NY
Building - unknown	NY SHPO					08101.010363	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-46 164th St QUEENS NY		35-46 164th St QUEENS NY
Building - unknown	NY SHPO					08101.010651	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-46 168th St QUEENS NY		35-46 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010366	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-51 164th St QUEENS NY		35-51 164th St QUEENS NY
Building - unknown	NY SHPO					08101.010653	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-51 168th St QUEENS NY		35-51 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010502	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-55 166th St QUEENS NY		35-55 166th St QUEENS NY
Building - unknown	NY SHPO					08101.010656	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-59 168th St QUEENS NY		35-59 168th St QUEENS NY
Building - unknown	NY SHPO					08101.010305	Listed	Broadway-Flushing Historic District	Broadway Flushing Historic District - 35-76 163rd St QUEENS NY		35-76 163rd St QUEENS NY
Building - unknown	NY SHPO					05051.000160	Listed	Grand Concourse Historic District	Grand Concourse Historic District - 1455-1499 GRAND CONCOURSE		1455-1499 GRAND CONCOURSE
Building - unknown	NY SHPO					08101.009002	Listed	Jackson Heights Historic District	Jackson Heights Historic District - 33-20 90TH ST QUEENS NY		33-20 90TH ST QUEENS NY
Building - unknown	NY SHPO					08101.007248	Listed	Jackson Heights Historic District	Jackson Heights Historic District - 33-23 69TH ST QUEENS NY		33-23 69TH ST QUEENS NY
Building - unknown	NY SHPO					08101.009060	Listed	Jackson Heights Historic District	Jackson Heights Historic District - 34-19 90TH ST QUEENS NY		34-19 90TH ST QUEENS NY
Building - unknown	NY SHPO					08101.002877	Eligible	Sunnyside Gardens Historic District	Sunnyside Gardens Historic District - 38-04 48TH ST		38-04 48TH ST
Building - unknown	NY SHPO, LPC	90NR000057, 05051.001816, LP-1258	90NR000057			05051.000695	Listed, Landmark	Morris High School Historic District	735 EAST 166TH ST (see 1095 Forrest Avenue)	East 166 Street	735 EAST 166TH ST
Building - unknown	NY SHPO, LPC	90NR000035	90NR000035			05051.000217	Listed, Landmark	Mott Haven Historic District	Ukrainian National Association, Inc. (NR form only)	Alexander Avenue	315 ALEXANDER AVE
Building - unknown	NY SHPO, LPC	90NR000035	90NR000035			05051.000307	Listed, Landmark	Mott Haven Historic District	Unknown	Third Avenue	2604 Third Avenue
Building - unknown	NY SHPO, LPC	90NR000035	90NR000035			05051.001012	Listed, Landmark	Individual	101 East 139th Street		
Building - USPS	NY SHPO, LPC	90NR000039 / 05051.000727 / LP-00837	90NR000039	LP-00837		05051.000727	Individual	US Post Office (USPS), Bronx General Post Office - 558 Grand Concourse	Grand Concourse		558 Grand Concourse
Building - USPS	NY SHPO, LPC	90NR01616 / 08101.006408 / LP-01831	90NR01616	LP-01831		08101.006408	Individual	US Post Office (USPS), Jackson Heights Station	17 Avenue		78-02 17th Ave
Building - USPS	NY SHPO	90NR000069 / 05051.000735	90NR000069			05051.000735	Individual	US Post Office (USPS), Morrisania - 442 East 167TH ST	East 167 Street		442 EAST 167TH ST
Building - USPS	NY SHPO	05051.000881	05051.000881			05051.000881	Individual	US Post Office (USPS), Boulevard Station - 1132-1136 SOUTHERN BLVD	Southern Blvd		1132-1136 SOUTHERN BLVD
Building - USPS	NY SHPO	05051.000883	05051.000883			05051.000883	Individual	US Post Office (USPS), Mott Haven Station - 517 EAST 139TH ST	East 139 Street		517 EAST 139TH ST
Building - USPS	NY SHPO	05051.000885	05051.000885			05051.000885	Individual	US Post Office (USPS), West Farms Station - 362 DEVOL AVE	Devote Avenue		362 DEVOL AVE
Building - USPS	NY SHPO	90NR01614 / 08101.006188	90NR01614			08101.006188	Individual	US Post Office (USPS), Flushing Main	Main Street		41-65 Main St.
Building - USPS	NY SHPO	90NR01617 / 08101.006409	90NR01617			08101.006409	Individual	US Post Office (USPS), Jamaica Main	164 Street		88-40 164th St.
Building - USPS	NY SHPO	90NR01615 / 08101.006407	90NR01615			08101.006407	Individual	US Post Office (USPS), Forest Hills Station - 106-28 QUEENS BLVD	Queens Blvd		106-28 QUEENS BLVD
Building/Structure - recreation (park and park-related)	NY SHPO, LPC	08101.009793, 08101.009794				08101.009793, 08101.009794	Listed, Landmark	Broadway-Flushing Historic District	Bowme Park (08101.009793) and Bowme Park, Park Bldg (08101.009794)		QUEENS NY
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011515				08101.011515	Individual	World's Fair Site, "Freedom of the Human Spirit" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.009338				08101.009338	Individual	World's Fair Site, New York State Pavilion	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011171				08101.011171	Individual	World's Fair Site, New York Hall of Science	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011513				08101.011513	Individual	World's Fair Site, "The Rocket Thrower" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011514				08101.011514	Individual	World's Fair Site, "George Washington" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011516				08101.011516	Individual	World's Fair Site, "Form" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011517				08101.011517	Individual	World's Fair Site, "Form in Transit" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011518				08101.011518	Individual	World's Fair Site, "Column of Jars" (Sculpture)	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011588				08101.011588	Individual	World's Fair Site, World's Fair Marina Pavilions	World's Fair Site		Flushing Meadow Corona Park
Building/Structure - recreation (Worlds Fair)	NY SHPO	08101.011871				08101.011871	Individual	World's Fair Site, Fair Carousel, 1964-1965 - @ United Nations Ave South & Ave of Transportation	World's Fair Site		Flushing Meadow Corona Park
Object	NY SHPO, LPC	94NR005584, LP-0142	94NR005584	LP-00142	08101.000006	Individual	The Weeping Beech Tree (aka Weeping Beech Tree)		37 Avenue		143-35 37 Avenue (NRHP form states "37th Ave., n. side, bet. Parsons Blvd. and Bowme St.")
Object	LPC	LP-1174		LP-01174		Landmarked	Sidewalk Clock, 30-78 Steepway Street		Steepway Street		30-78 Steepway Street
Object	LPC	LP-1963		LP-01963		Landmarked	Historic Street Lamps (Lampost 72)		53 Avenue		South Side of 53 Avenue Step between 64 & 65 Place
Object	NY SHPO				08101.007276	Listed	GATEPOSTS FOR CUTTERMAN HOMES		69 Street		69TH ST, QUEENS NY
Structure - cemetery	LPC	LP-00136		LP-00136		Individual	Lawrence Family Graveyard (SW corner of 20th Road and 35th Street)		20 Road		20 Road
Structure - cemetery	LPC	LP-1956		LP-01956		Landmarked	Moore-Jackson Cemetery		54 Street		no # 54 Street
Structure - cemetery	NY SHPO	8101.011176			08101.011176	Individually eligible	St. Michael's Cemetery		Astoria Boulevard		72-02 Astoria Blvd.
Structure - cemetery	NY SHPO				08101.009107	Listed	Jackson Heights Historic District		Leverich St		35-35-45 LEVERICH ST, QUEENS NY
Structure - cemetery	LPC	LP-00624			LP-00624	Landmarked	Old West Farms Soldier Cemetery		East 180 Street		EAST 180 STREET
Structure - infrastructure (aqueduct and WT)	NY SHPO, LPC	90NR00923 / 05051.000753 / LP-00639	90NR00923	LP-00639	05051.000753	Listed, Landmark	High Bridge Aqueduct and Water Tower		Harlem River At W Th St And High Bridge Expressway		Harlem River at W. 170th St. and High Bridge Park
Structure - infrastructure (aqueduct)	NY SHPO	90NR02435	90NR02435			05051.000435	Individual	Old Croton Aqueduct	Multiple Counties		Runs N from Yonkers to New Croton Dam
Structure - infrastructure (dam)	NY SHPO					05051.001398	Individual	182nd Street Dam - East 180th St			East 180th St
Structure - infrastructure (WWTP)	NY SHPO					06101.001392	Individual	Wards Island WWTP - 7 Wards Island 10035			7 Wards Island 10035
Structure - infrastructure (WWTP)	NY SHPO					08101.011545	Individual	Bowery Bay WWTP (1939-40; Art Moderne) - 43-01 Berrian Blvd.			43-01 Berrian Blvd.
Structure - parking lot	LPC	LP-02403		LP-02403		Landmarked	Grand Concourse Historic District		Parking lot (at time of designation, no building present and use was parking lot)		700 GERRARD AVENUE
Structure - parking lot	NY SHPO	08101.011564			08101.011564	Individual	parking lot - 45-58 30th Pl		30 Place		45-58 30th Pl
Structure - recreation (park)	LPC	LP-02403		LP-02403		Landmarked	Grand Concourse Historic District		Franz Sigel Park (LPC-designation)		613 GRAND CONCOURSE (AKA 613-619 GRAND CONCOURSE AND 779 GRAND CONCOURSE; 660-690 WALTON AVENUE; 132-158 EAST 158 STREET)
Structure - recreation (park)	NY SHPO, LPC	08101.008152 / LP-01831		LP-01831	08101.008152	Listed, Landmark	Jackson Heights Historic District		Dunnolly Gardens		79 Street
Structure - recreation (park)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258		Listed, Landmark	Sunnyside Gardens Historic District		Sunnyside Gardens Park		39 Avenue
Structure - recreation (park)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258		Listed, Landmark	Sunnyside Gardens Historic District		Phiggs Playground		39 Avenue
Structure - recreation (park)	NY SHPO, LPC	90NR01583, LP-2258	90NR01583	LP-02258	no NY SHPO #	Listed, Landmark	Sunnyside Gardens Historic District		Sunnyside Park Tennis Courts and Playground		39 Avenue
Structure - recreation (park)	NY SHPO	05051.000129	05051.000129			05051.000129	Grand Concourse Historic District		Joyce Kilmer Park		Grand Concourse
Structure - recreation (park)	NY SHPO	08101.008424	08101.008424			08101.008424	Jackson Heights Historic District		OAK HALL PARK		83 Street
Structure - recreation (park)	NY SHPO					08101.007396	Jackson Heights Historic District		THOMAS J. TRAVERS PARK		34 Avenue
Structure - recreation (park)	NY SHPO					08101.007998	Jackson Heights Historic District		WEMBERLY GARDENS PARK		75 Street

TABLE 1
LGA 14 CFR Part 150 Study Area Listed, Eligible, and Landmark Historic Properties

D-221

Structure - recreation (vacant, owner is NYC Parks and Recreation)	NY SHPO, LPC	90NR00057, 00501.001816, LP-1258	90NR00057		00501.000647	Listed, Landmark	Morris High School Historic District	Vacant lot (LPC designation report), 722 Home Street	Home Street	722 HOME ST
Structure - recreation (vacant, owner is NYC Parks and Recreation)	NY SHPO, LPC	90NR00057, 00501.001816, LP-1258	90NR00057		00501.000654	Listed, Landmark	Morris High School Historic District	Vacant lot (LPC designation report), 736 HOME ST	Home Street	736 HOME ST
Structure - recreation (Worlds Fair)	NY SHPO, LPC	08101.007212, LP-1925		LP-01925	08101.007212	Listed, Landmarked	Individual	World's Fair Site, The Unisphere (with Surrounding Pool and Fountains)	World's Fair Site - Horace Harding Parkway	Flushing Meadow Corona Park
Structure - transportation (bridge)	NY SHPO, LPC	90NR00856 / 00501.000738 / 06101.001643 / LP-01222	90NR00856	LP-01222	00501.000738, 06101.001643	Listed, Landmark	Individual	Bridge, Washington Bridge	Avenue	Between Amsterdam and Underhill Aves.
Structure - transportation (bridge)	NY SHPO	00501.001554			00501.001554	Listed	Individual	Bridge, Port Morris Ferry Bridges @ East 134th Street on the East River	Locust Avenue	Locust Ave
Structure - transportation (bridge)	NY SHPO	8101.000053			08101.000053	Eligible	Individual	Bridge, Bronx Whitestone Bridge	RT 295 (adjacent)	RT 295 WHITESTONE, adjacent
Structure - transportation (bridge)	NY SHPO				00501.000709	Eligible	Individual	Bridge, Jerome Ave. Approach to Macomb's Dam Bridge	Bridge - Jerome Avenue	BRIDGE - JEROME AVE. APPROACH TO MACOMB'S DAM BRIDGE
Structure - transportation (bridge)	NY SHPO				00501.000745	Eligible	Individual	Bridge, BRONX-WHITESTONE BRIDGE	BRIDGE	Bridge, BRONX-WHITESTONE BRIDGE
Structure - transportation (bridge)	NY SHPO				00501.000796	Eligible	Individual	Bridge, BRONX KILL (NEW YORK CONNECTING RAILROAD)	BRIDGE	BRONX KILL BRIDGE (NEW YORK CONNECTING RAILROAD) - Bronx Kill
Structure - transportation (bridge)	NY SHPO				00501.000964	Eligible	Individual	Bridge, TRIBOROUGH BRIDGE (aka RFK Bridge) - I-278	BRIDGE	I-278
Structure - transportation (bridge)	NY SHPO				00501.001362	Eligible	Individual	Bridge, over Bronx River AMTRAK Northeast Corridor Line Bascule Bridge	BRIDGE	Bridge, Northeast Corridor
Structure - transportation (bridge)	NY SHPO				00501.001421	Eligible	Individual	Bridge, Eastern Boulevard Bridge (Dual Double Leaf Bascule - Eastern Blvd	BRIDGE - Eastern Blvd	Eastern Blvd
Structure - transportation (bridge)	NY SHPO				00501.001454	Eligible	Individual	Bridge, Anchor Bridge, NYW & B Railroad - East 174th St	BRIDGE	East 174th St
Structure - transportation (bridge)	NY SHPO				00501.001633	Eligible	Individual	Bridge, E.L. Grant Highway Bridge BIN 1-06622-0 (built 1962) - over Cross Bronx Expressway	BRIDGE	Bridge, Cross Bronx Expressway
Structure - transportation (bridge)	NY SHPO				00501.001634	Eligible	Individual	Bridge, Jesup Avenue Bridge BIN 1-06624-0 (built 1964) - over Cross Bronx Expressway	BRIDGE	Bridge, Cross Bronx Expressway Jesup Avenue
Structure - transportation (bridge)	NY SHPO				00501.001916	Eligible	Individual	Bridge, Nelson Avenue Bridge over Cross Bronx Expressway	BRIDGE	Bridge, Nelson Avenue over Cross Bronx Expressway
Structure - transportation (bridge)	NY SHPO				06101.007392	Eligible	Individual	Bridge, HELL GATE BRIDGE (NEW YORK CONNECTING RAILROAD)	BRIDGE	Bridge, HELL GATE (NEW YORK CONNECTING RAILROAD)
Structure - transportation (bridge)	NY SHPO				06101.007334	Eligible	Individual	Bridge, LITTLE HELL GATE BRIDGE (NEW YORK CONNECTING RAILROAD)	BRIDGE	Bridge, LITTLE HELL GATE (NEW YORK CONNECTING RAILROAD)
Structure - transportation (bridge)	NY SHPO				06101.007336	Eligible	Individual	Bridge, BRONX KILL BRIDGE (NEW YORK CONNECTING RAILROAD)	BRIDGE	Bridge, BRONX KILL (NEW YORK CONNECTING RAILROAD)
Structure - transportation (bridge)	NY SHPO				06101.007672	Eligible	Individual	Bridge, Little Hell Gate Auto Bridge	BRIDGE	Bridge, LITTLE HELL GATE AUTO BRIDGE
Structure - transportation (bridge)	NY SHPO				06101.008523	Eligible	Individual	Bridge, TRIBOROUGH BRIDGE (aka RFK Bridge) - EAST 125TH ST	BRIDGE	Bridge, TRIBOROUGH BRIDGE (aka RFK Bridge) - EAST 125TH ST
Structure - transportation (bridge)	NY SHPO				08101.000043	Eligible	Individual	Bridge, HELL GATE BRIDGE (NEW YORK CONNECTING RAILROAD)	BRIDGE	Bridge, HELL GATE BRIDGE (NEW YORK CONNECTING RAILROAD)
Structure - transportation (bridge)	NY SHPO				08101.000137	Eligible	Individual	Bridge, TRIBOROUGH BRIDGE (aka RFK Bridge) - ASTORIA BLVD	BRIDGE	Bridge, TRIBOROUGH BRIDGE (aka RFK Bridge) - ASTORIA BLVD
Structure - transportation (bridge)	NY SHPO				08101.009222	Eligible	Individual	Bridge, Queens Blvd	BRIDGE	BRIDGE, QUEENS BLVD
Structure - transportation (bridge)	NY SHPO				08101.009643	Eligible	Individual	Bridge, Queens Blvd (New York Connecting Railroad)	Queens Avenue	Queens Blvd
Structure - transportation (railroad)	NY SHPO				00501.000835	Eligible	Individual	Freeman Street Signal Tower (proposed for demolition in 2009) - SOUTHERN BLVD	Southern Blvd	no # Southern Blvd.
Structure - transportation (road)	NY SHPO	8101.011427			08101.011427	Eligible	Individual	Cross Island Parkway (appears NRE within Moses-era parkway context)	LaGuardia Airport	Cross Island Parkway
Structure - transportation (road)	NY SHPO				00501.001590	Eligible	Individual	Cross Bronx Expressway Corridor (part of I-95) - Cross Bronx Expressway	CROSS BRONX EXPRESSWAY	Cross Bronx Expressway
Structure - transportation (subway)	NY SHPO	00501.002363			00501.002363	Eligible	Individual	Subway, RT No. 5 Subway Tunnels Bridge	Westchester Avenue	Westchester Ave (above Bronx River)
Structure - transportation (subway)	NY SHPO	04NR05273	04NR05273		08101.007197	Listed	Individual	Subway, Main Street Subway Station (Dual System IRT)	Multiple	Main Street and Roosevelt Avenue
Structure - transportation (subway)	NY SHPO	04NR05283	04NR05283		00501.000830	Listed	Individual	Subway, Prospect Avenue Subway Station (IRT)	Multiple	Westchester and Longwood Avenues and Prospect Street
Structure - transportation (subway)	NY SHPO	04NR05284	04NR05284		00501.000834	Listed	Individual	Subway, Jackson Avenue Subway Station (IRT)	Multiple	East 152nd Street, Jackson and Westchester Avenue
Structure - transportation (subway)	NY SHPO	04NR05285	04NR05285		00501.000831	Listed	Individual	Subway, Simpson Street Subway Station and Substation #18 (IRT)	Multiple	Westchester Avenue between Simpson Street and Southern Boulevard
Structure - transportation (subway)	NY SHPO	04NR05308, 00501.001323	04NR05308		00501.001323	Listed	Individual	Westchester Square Station (Dual System IRT)	Westchester Avenue	Above Westchester Avenue, from Overing Street to Ferris Place
Structure - transportation (subway)	NY SHPO	04NR05377, 08101.007205, 08101.009740	04NR05377		08101.007205, 08101.009740	Listed	Individual	Subway, Elmhurst Avenue Subway Station (IND)	Multiple	Beneath Broadway at 82nd St and 45th Avenue and Elmhurst Avenue
Structure - vacant lot	LPC	LP-01886		LP-01886		Landmarked	Individual	Van Schick Free Reading Room/Huntington Free Library	Lane Avenue	5 LANE AVENUE
Structure - vacant lot	NY SHPO, LPC	90NR00060, LP-1075, LP-1286	90NR00060	LP-01075	00501.000127	Listed, Landmark	Longwood Historic District	Vacant lot, 750 Jack Street (LPC designation report)	Jack Street	750 Jack Street
Structure - vacant lot	LPC	LP-02403			LP-02403	Landmarked	Grand Concourse Historic District	Unimproved lot, original building demolished c. 1977	Grand Concourse	1050 GRAND CONCOURSE
Structure - vacant lot	NY SHPO, LPC	90NR00035 / LP-01899	90NR00035	LP-01899	in district no USN	Listed, Landmark	Mott Haven East Historic District	Vacant lot (nomination form)	East 139 Street	447 East 139 Street
Structure - vacant lot (contributing)	NY SHPO, LPC	90NR00035	90NR00035		00501.000226	Listed, Landmark	Mott Haven Historic District	Vacant lot	Alexander Avenue	313 ALEXANDER AVE

APPENDIX E

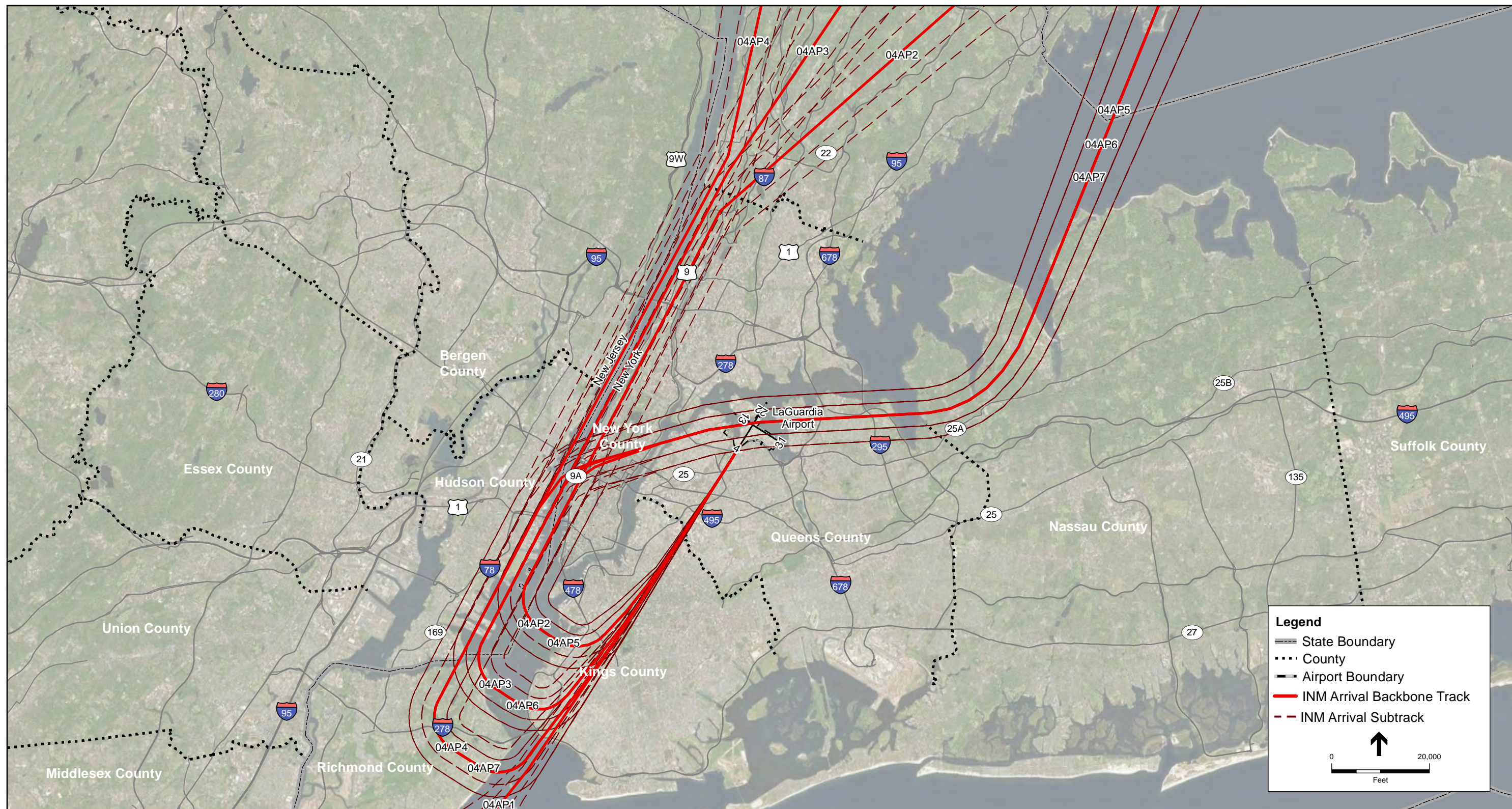
Radar Flight Tracks and Flight Profiles

This appendix includes the flight track figures and aircraft profile methodology.

- Appendix E-1 Flight Tracks
- Appendix E-2 Aircraft Profiles
- Appendix E-3 Radar Tracks

APPENDIX E-1

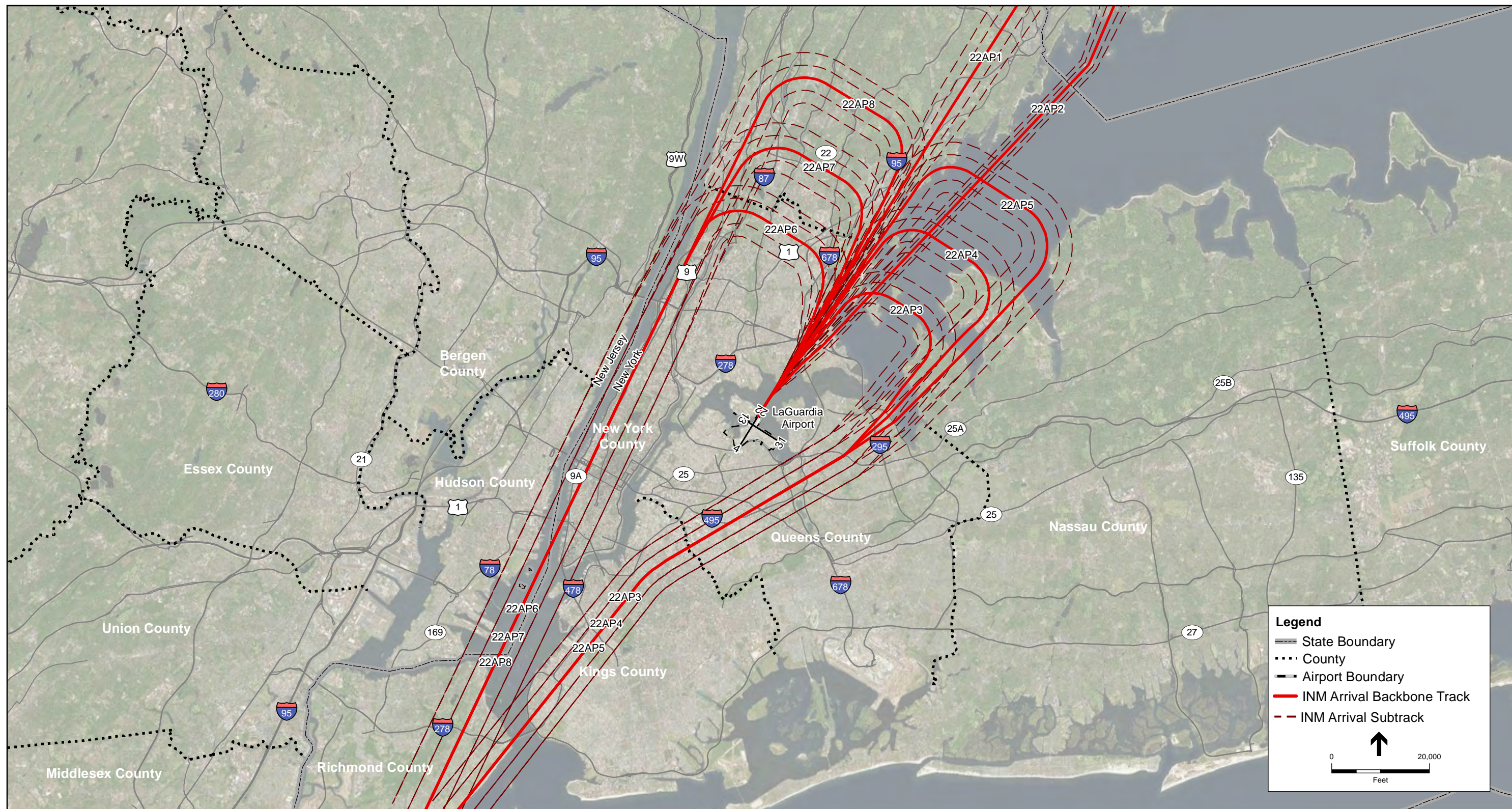
Flight Tracks



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

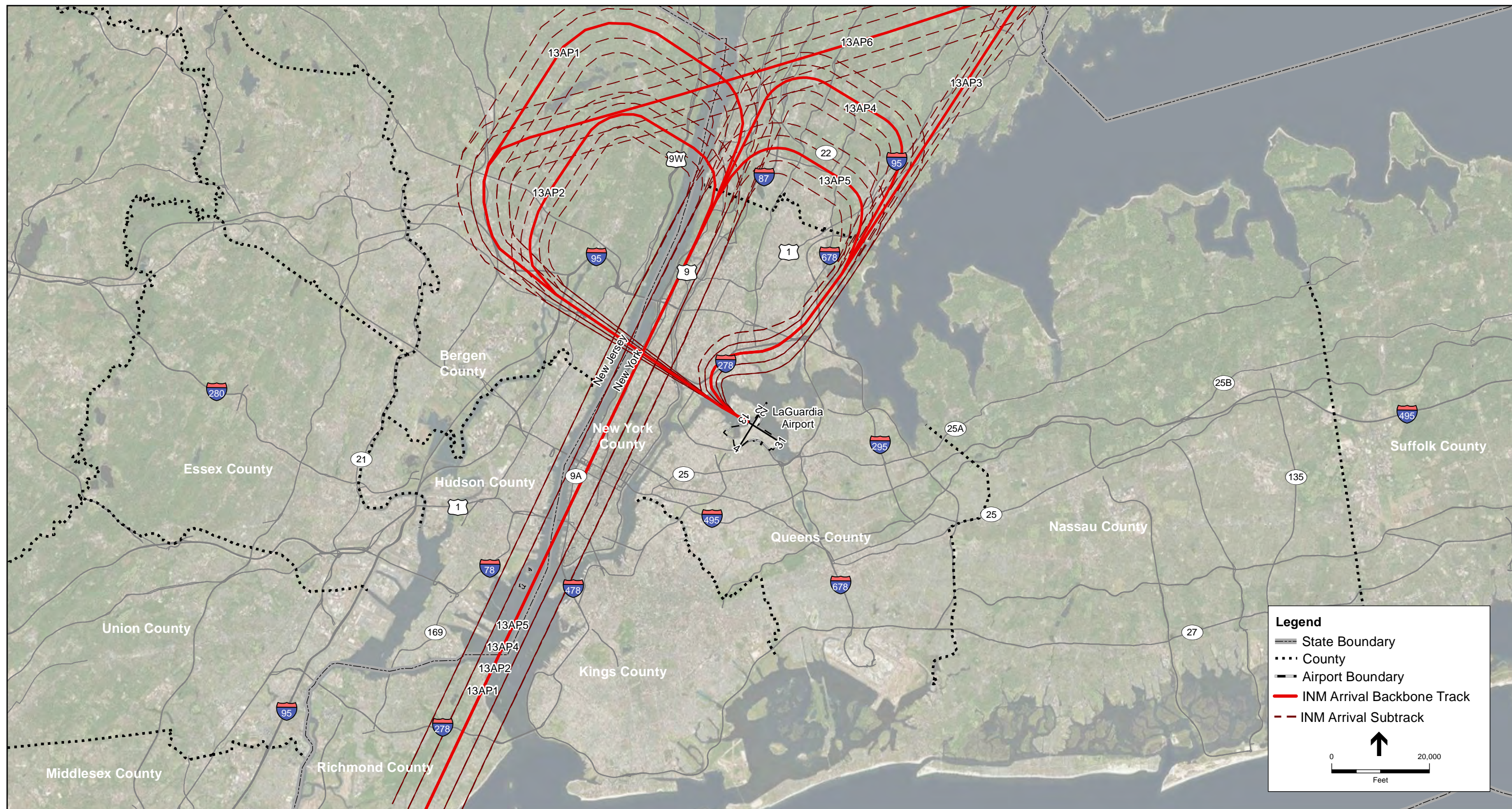
Figure 1
INM Arrival Flight Tracks - Runway 4
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

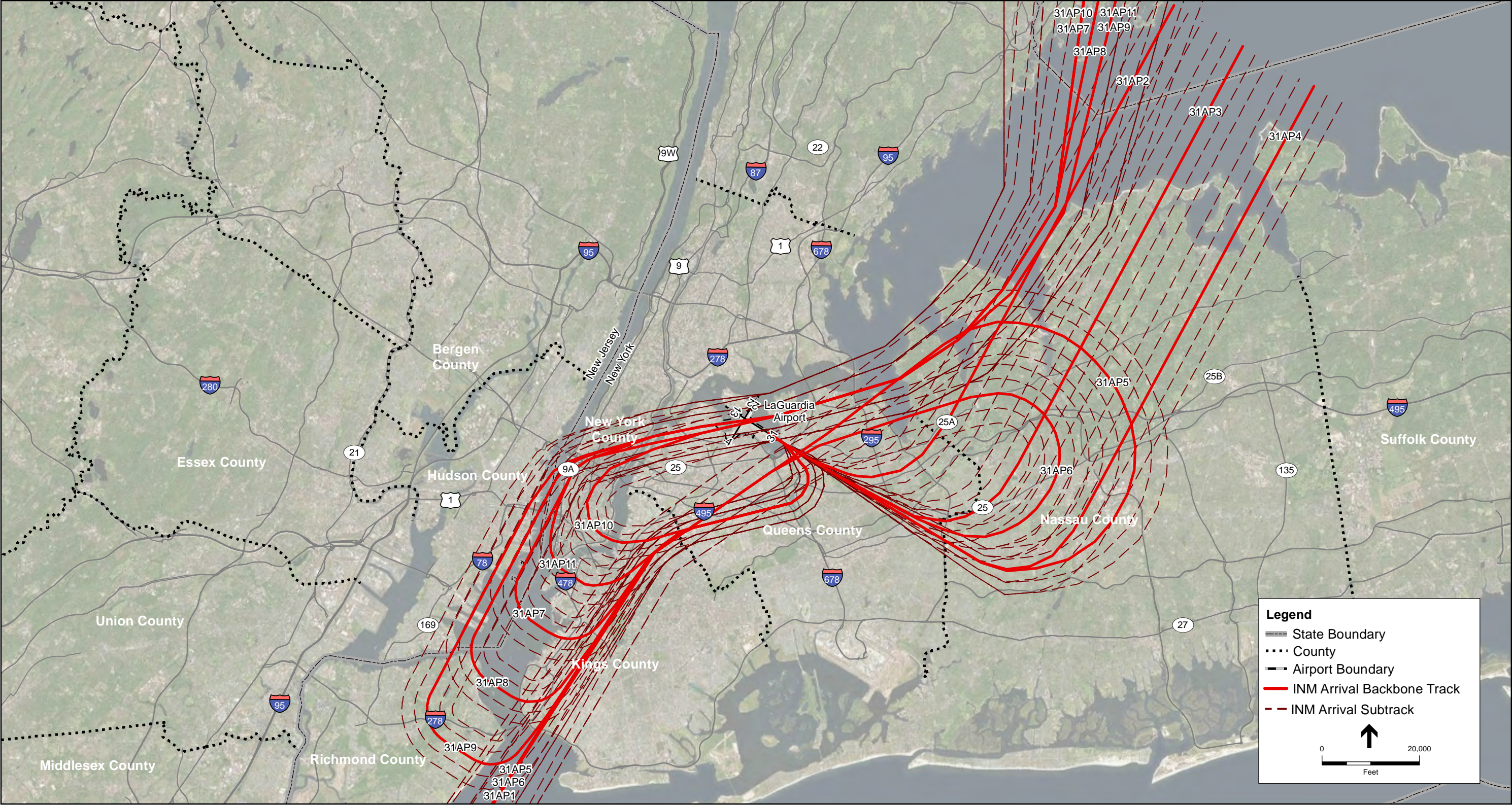
Figure 2
INM Arrival Flight Tracks - Runway 22
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

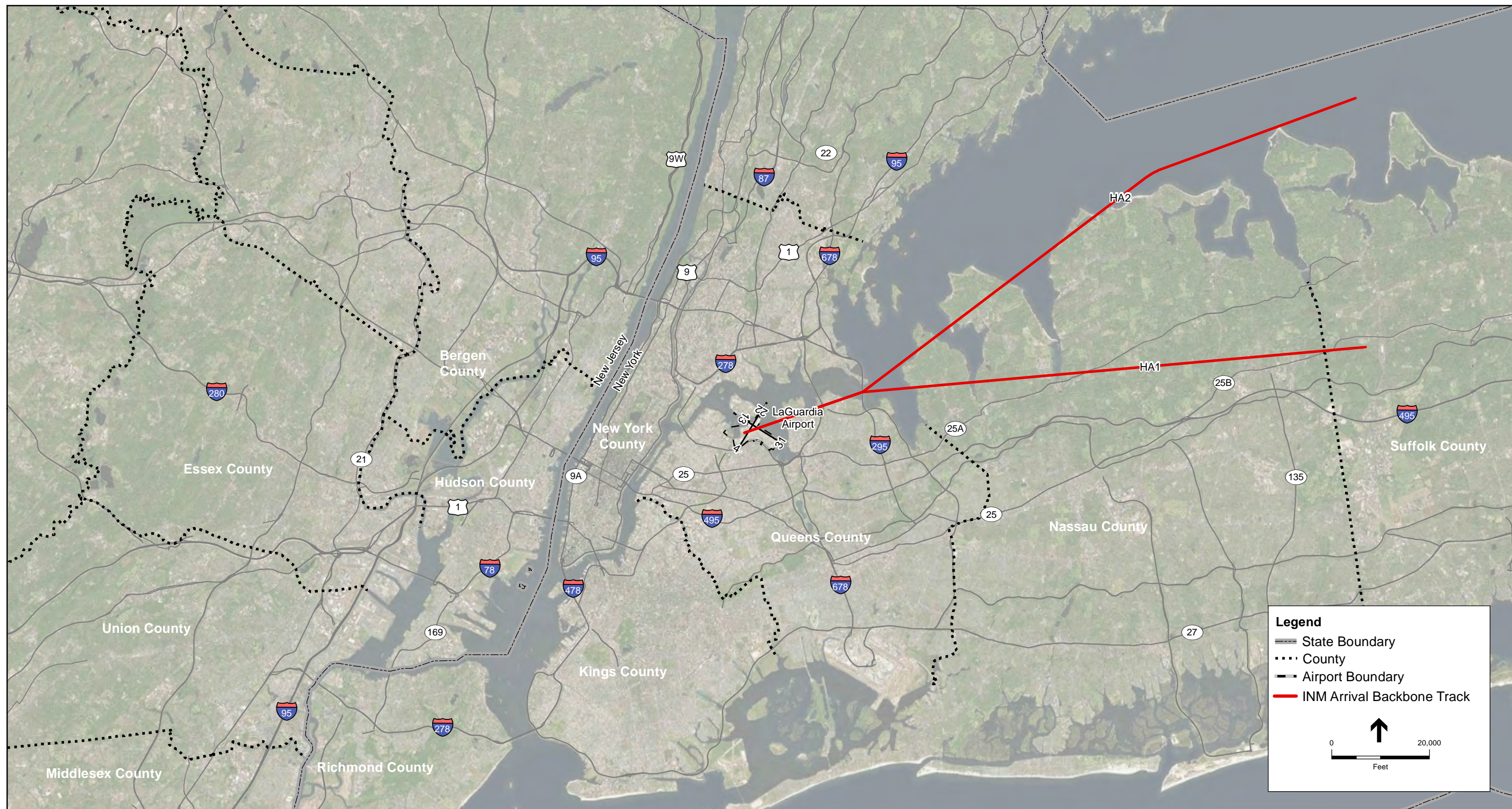
Figure 3
INM Arrival Flight Tracks - Runway 13
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

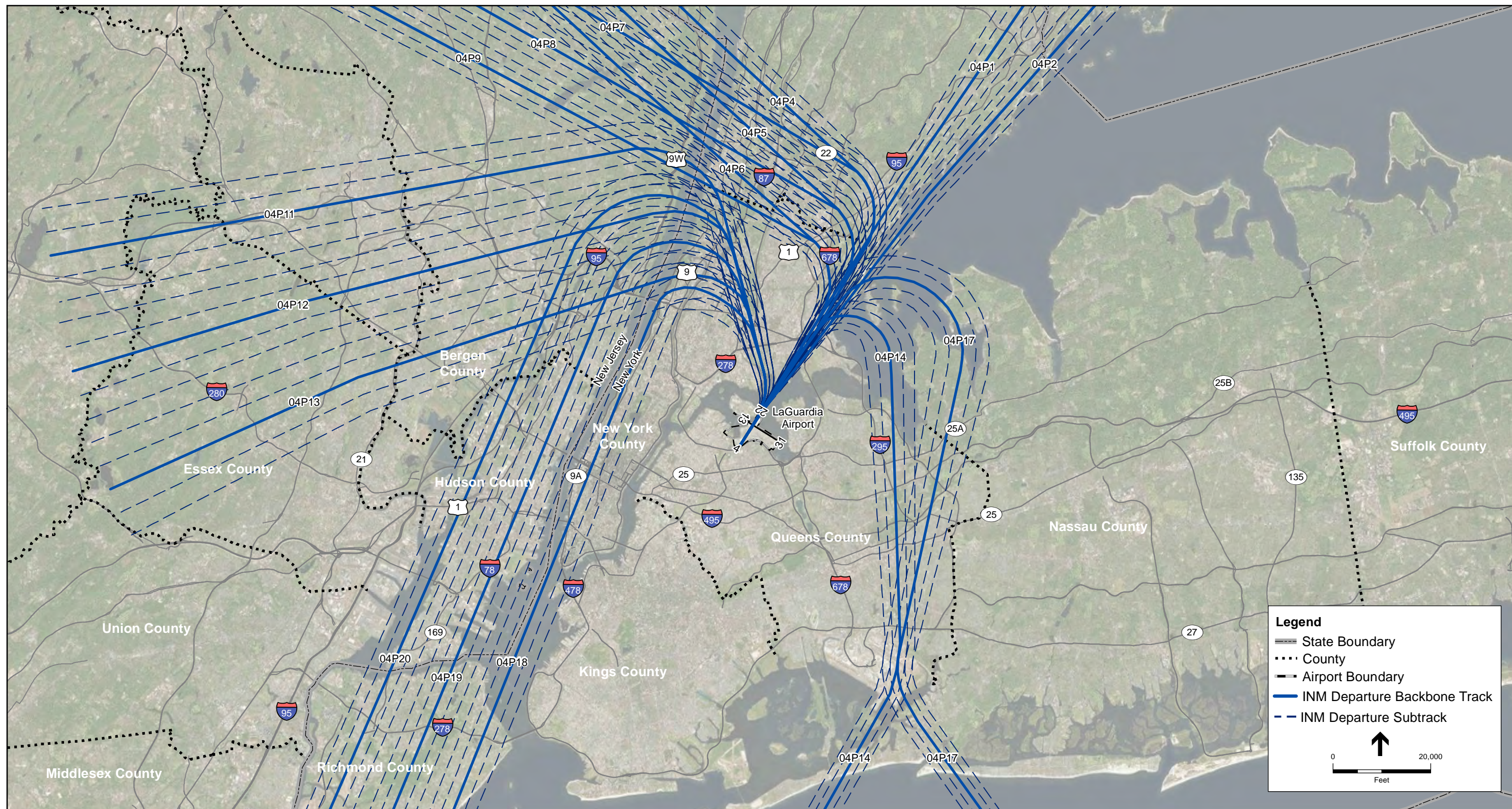
Figure 4
INM Arrival Flight Tracks - Runway 31
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

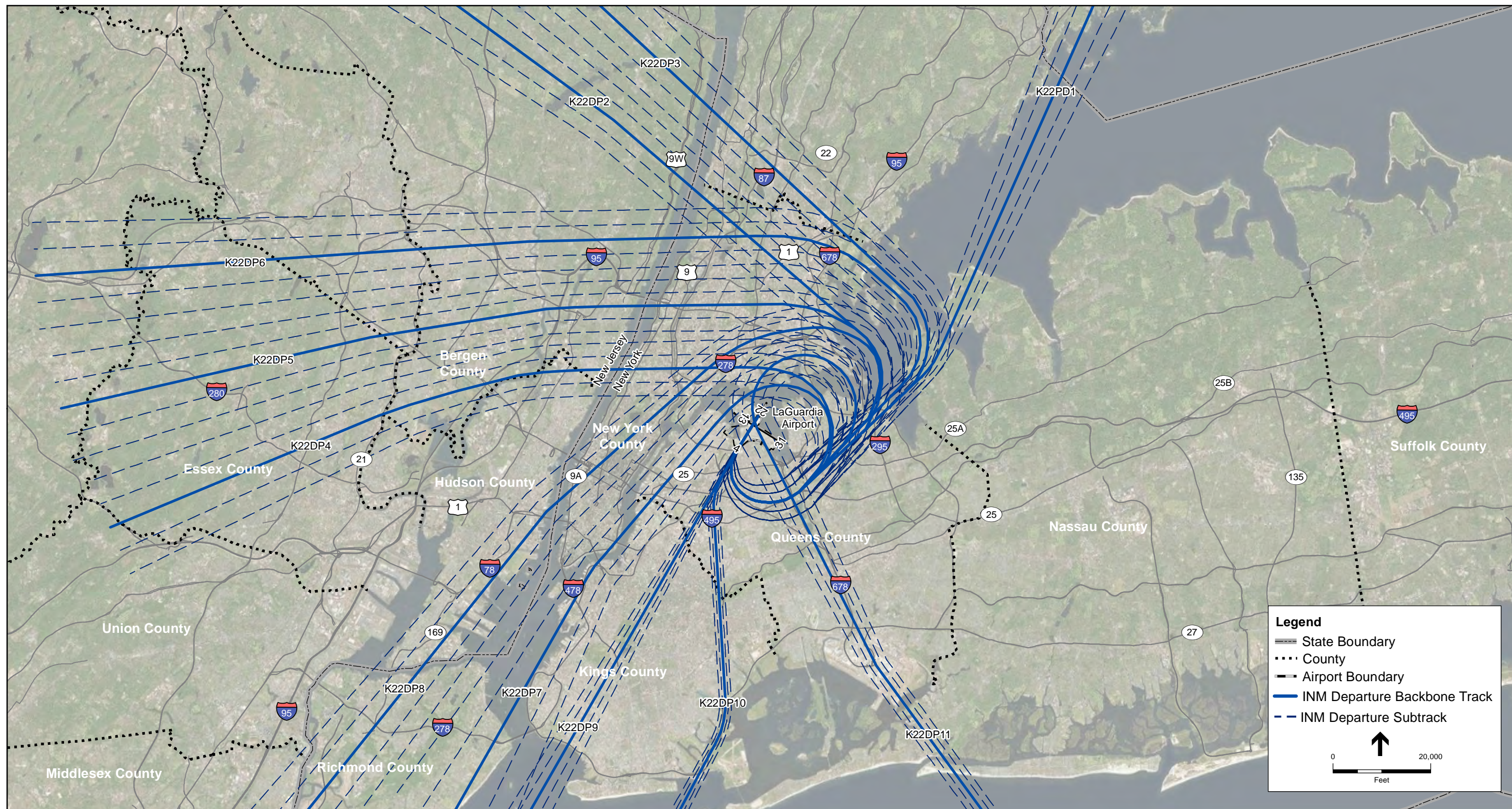
LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 5
INM Helicopter Arrival Flight Tracks
LaGuardia Airport



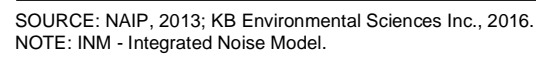
SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

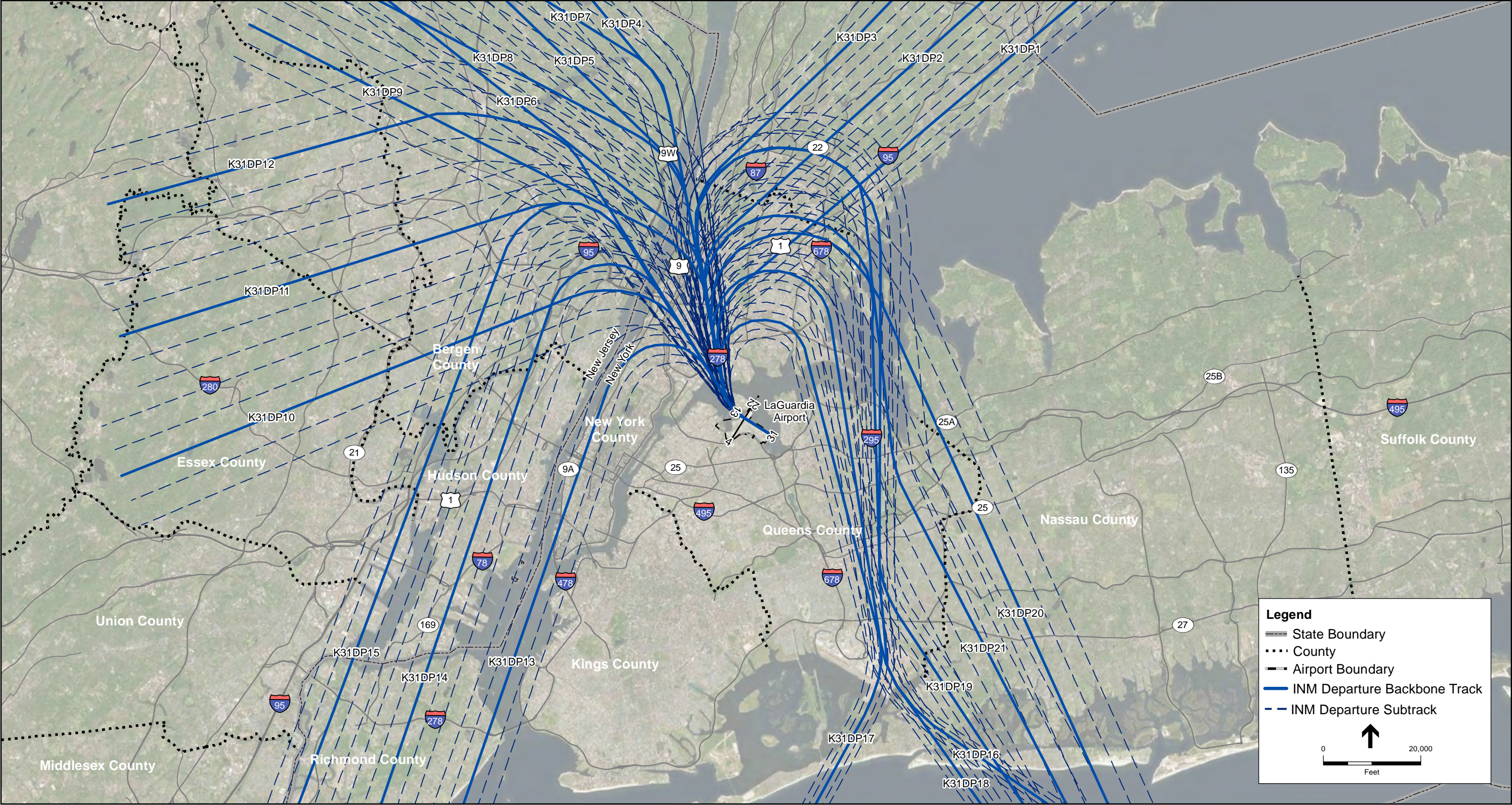
LaGuardia Airport 14 CFR Part 150 Study . 140037
Figure 6
INM Departure Flight Tracks - Runway 4
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

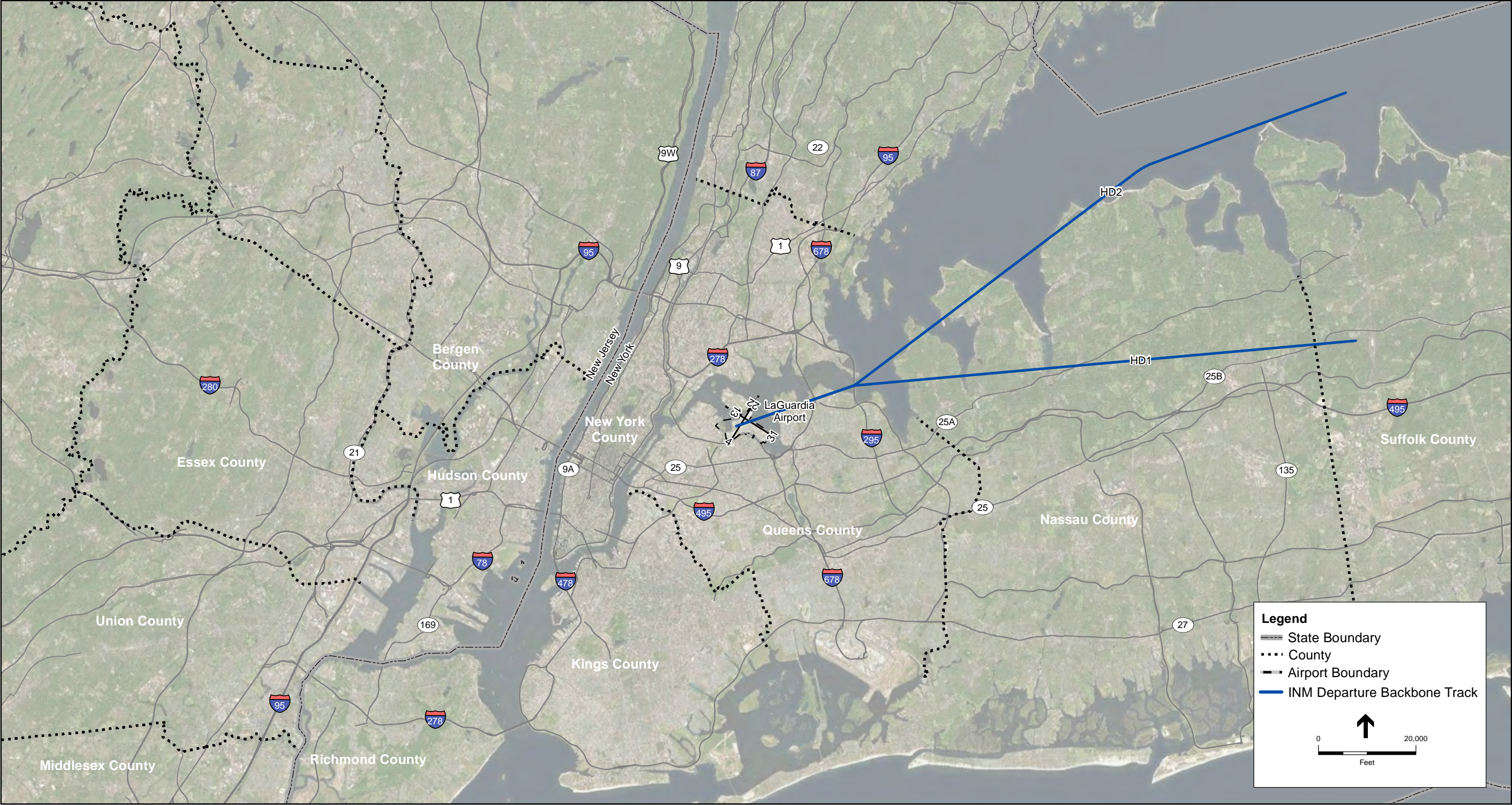
LaGuardia Airport 14 CFR Part 150 Study . 140037
Figure 7
INM Departure Flight Tracks - Runway 22
LaGuardia Airport





SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

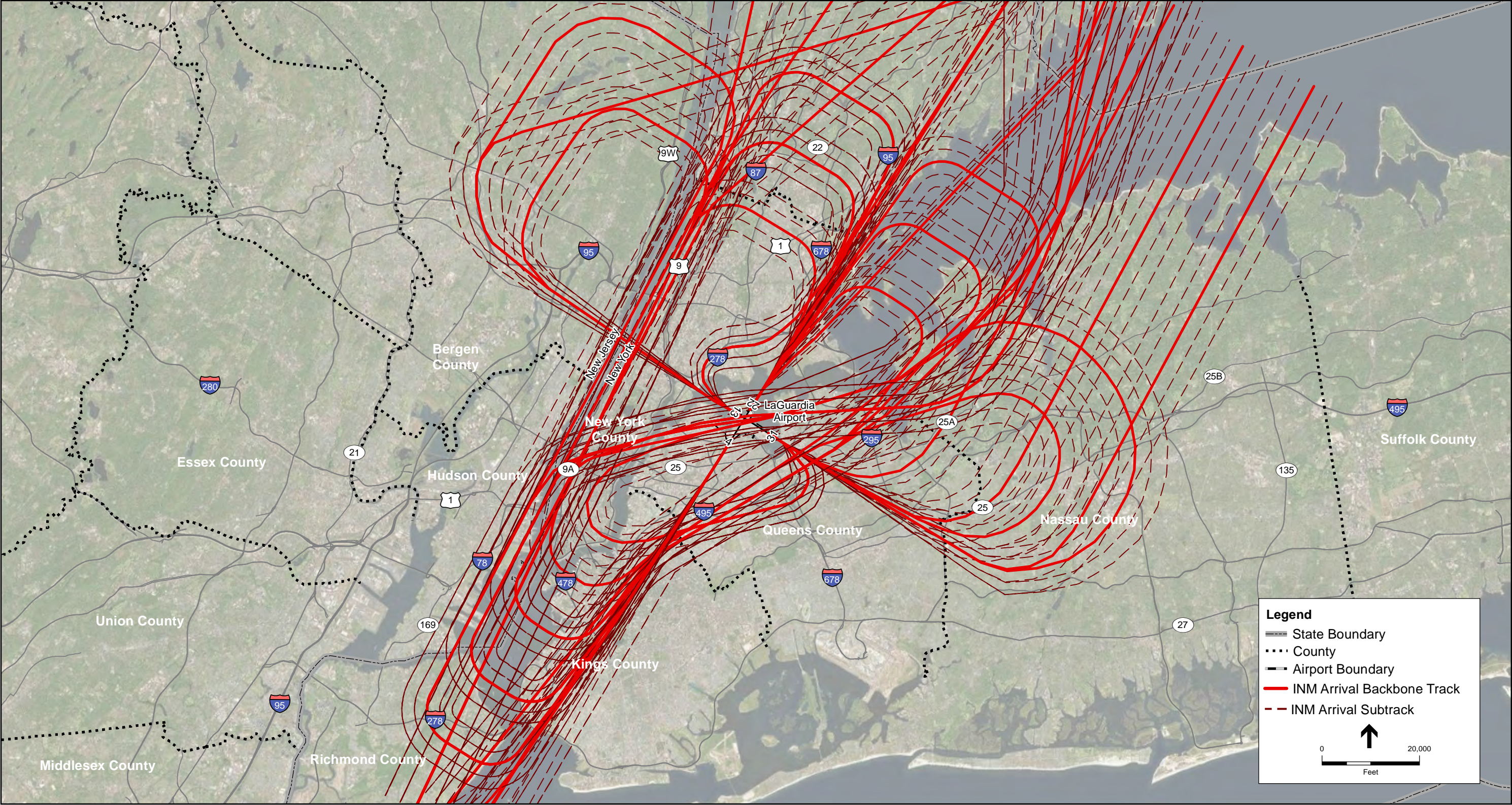
Figure 9
INM Departure Flight Tracks - Runway 31
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 10
INM Helicopter Departure Flight Tracks
LaGuardia Airport



SOURCE: NAIP, 2013; KB Environmental Sciences Inc., 2016.
NOTE: INM - Integrated Noise Model.

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 11
INM Arrival Flight Tracks - All Runways
LaGuardia Airport

APPENDIX E-2

Aircraft Profiles

memorandum

date May 17, 2016

to Kelly Mitchell (Port Authority)

from Adrian Jones, Steve Alverson, and Mike Alberts (KBE)

subject User-Defined Departure and Arrival Profiles - 14 CFR Part 150 Studies for JFK and LGA

Introduction

As identified in Appendix B of the Integrated Noise Model (INM) 7.0 User's Guide, the Federal Aviation Administration's Office of Environment and Energy (FAA AEE) requires prior written approval for all user changes to the Integrated Noise Model's (INM) standard departure and arrival profiles. This requirement applies to the development of User-defined arrival and departure profiles for the 14 CFR Part 150 studies being prepared for John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA). As detailed in previous memoranda, the ESA Study Team has determined that some level of customization of arrival and departure profiles will be required for the JFK and LGA 14 CFR Part 150 studies based on a review of arrival and departure flight track data contained in the Port Authority's Airport Noise and Operations Management System (ANOMS).

In reviewing radar arrival tracks for JFK and LGA in ANOMS, the arrival profile data show that many aircraft fly a level-flight segment at altitudes below 6,000 feet above field elevation (AFE) for several nautical miles, often starting at points more than 20 nautical miles from touchdown. For these operations, we propose modeling a level-flight segment using the "standard" INM level-flight profile for the specified aircraft at altitude(s) that match the level flight segment that we see in the ANOMS data.

In reviewing radar departure tracks for JFK and LGA in ANOMS, the departure profile data show that a small proportion of total departures are held down (i.e., below 10,000 feet AFE) and fly a level segment in areas that extend beyond 10 nautical miles from the start of takeoff roll. Based on our analysis of the JFK and LGA departure profiles we propose modeling level-flight segments for departure operations in those situations when the ANOMS data show: (1) the majority of departure operations following a single flight corridor have level-flight segments and (2) the altitudes of the level flight-segments do not exceed 5,000 feet AFE.

The review of radar departure tracks for JFK and LGA also revealed that many aircraft departures at both JFK and LGA climb at a slower rate than indicated by the INM's standard departure profiles. The ESA Study Team recommends that the departure profiles for certain aircraft types be customized to address the shallower climb gradients seen in the ANOMS datasets for JFK and LGA.

The remainder of this technical memorandum describes the approach used by the ESA Study Team to develop User-defined arrival and departure profiles for use in the 2016 and 2021 INM modeling files being developed for

the JFK and LGA 14 CFR Part 150 studies. Sample charts and graphs for JFK and LGA comparing User-defined profiles to INM standard profiles are provided in **Attachments A - D**.

Approach to the Development of User-Defined Profiles

Boundaries for JFK and LGA Profile Analyses

Section 3 of Appendix B of the INM User's Guide describes the data required for the analysis demonstrating the benefit of modified arrival and departure profiles. These data requirements include the calculation of sound exposure levels (SELs) for a series of grid points along the flight track with the modified profile. Specifically for arrivals, Appendix B states: "For arrival tracks, place grid points 0.5 nautical miles apart underneath the flight track, beginning at the start of the profile, or at 10 nautical miles away from the runway threshold (whichever is shorter), and ending at the last point of the landing roll-out on the runway." Specifically for departures Appendix B states: "For departure tracks, provide SEL values for a series of grid points spaced 0.5 nautical miles apart underneath the flight track, beginning at the start of takeoff roll and ending at the end of the profile, or at 10 nautical miles from the start of takeoff roll (whichever is shorter)." While a typical profile analysis only considers a distance of 10 nautical miles, the flight track analyses for LGA and JFK indicate that aircraft are routed over or in near proximity to both airports at altitudes that have the potential to influence the aircraft noise exposure contours for the respective airports even though those aircraft are more than 10 nautical miles from touchdown or the beginning of takeoff roll.

During a conference call on October 20, 2015, the FAA advised the Port Authority and the ESA Study Team to define a geographic limit/boundary for the arrival and departure profiles analyses. In a memorandum dated October 26, 2015 (see Appendix A) the Port Authority and the ESA Study Team proposed using a circle centered on JFK with a radius of 13 nautical miles to act as the limit/boundary for the arrival and departure profiles analysis for JFK and a circle centered on LGA with a radius of 9 nautical miles to act as the limit/boundary for the arrival and departure profiles analysis for LGA. Both the JFK and LGA profile analysis boundaries encompass the data collection areas depicted on Figures 7-1 and 7-2 in the Study Protocol for the JFK and LGA 14 CFR Part 150 Studies. The evaluation of altitude profiles for arriving aircraft would begin at the point where the aircraft initially enters the profile analysis boundary and continue to touchdown. The evaluation of altitude profiles for departing aircraft would begin at takeoff roll and continue to the point where the aircraft exits the profile analysis boundary. In an e-mail dated October 30, 2015, the FAA concurred with the proposed JFK and LGA profile analysis boundaries as well as the scope of the profile analyses for JFK and LGA.

Aircraft Considered in the JFK and LGA Profile Analyses

It is impractical to develop User-defined arrival and departure profiles for all of the aircraft types that operate at JFK and LGA. Therefore, our goal was to capture as high a percentage of operations as possible, while keeping the number of aircraft receiving user-defined profiles to a manageable number. For both JFK and LGA, the data indicated that the top 10 aircraft types accounted for the majority of the aircraft operations. In addition, beyond these 10 aircraft types at JFK and LGA, the aircraft operations drop off precipitously on a per-aircraft-type basis with the non-top 10 aircraft types having fewer than 6,000 annual operations at each airport, respectively.

The top 10 aircraft types at JFK represent approximately 66% of the total aircraft operations performed at JFK in calendar year 2014. As described above, beyond these 10 aircraft types, the aircraft operations drop off precipitously on a per-aircraft-type basis. In addition, the aircraft fleet at JFK is very diverse with each aircraft type outside of the top 10 accounting for a very small portion of the total operations. **Table 1** lists the 10 aircraft types considered in the JFK arrival and departure profiles analysis. Based on the draft JFK forecast, the majority of these aircraft are expected to operate at JFK in 2016 and 2021.

The top 10 aircraft types at LGA represent approximately 83% of the total aircraft operations performed at LGA in calendar year 2014. As described above, beyond these 10 aircraft types, the aircraft operations drop off precipitously on a per aircraft type basis. In addition, the aircraft fleet at LGA is very homogenous (i.e., comprised of mostly narrow-body, short-haul jet aircraft). As a result, these 10 aircraft types capture a higher percentage of LGA operations than the top 10 aircraft types at JFK. **Table 2** lists the 10 aircraft types considered in the LGA arrival and departure profiles analysis. Based on the draft LGA forecast, the majority of these aircraft are expected to operate at LGA in 2016 and 2021.

Table 1: Aircraft Selected for Custom Profile Evaluation - JFK

INM Type	2014 Annual Operations	Percentage of 2014 Operations
A320-232	71,702	17%
737800	50,139	12%
CRJ9-ER	32,057	7%
EMB190	31,775	7%
757PW	27,912	7%
767400	19,757	5%
7773ER	18,300	4%
A330-301	12,554	3%
74720B	9,596	2%
MD83	6,536	2%
Total	230,328	66%

Table 2: Aircraft Selected for Custom Profile Evaluation - LGA

INM Type	2014 Annual Operations	Percentage of 2014 Operations
CRJ9-ER	92,852	25%
737800	37,087	10%
EMB175	32,951	9%
A320-211	26,310	7%
A320-232	24,118	7%
737700	23,446	6%
EMB190	21,240	6%
EMB170	20,885	6%
MD83	18,203	5%
717200	6,239	2%
Total	303,331	83%

Analysis Methodology

JFK Arrival Profile Analysis

Step 1: Download ANOMS radar arrival flight tracks for calendar year 2014

Group radar tracks by runway end and compass direction (e.g., north, northwest, south, etc.). Separate groups are created for each of the INM aircraft types listed in Table 1.

Step 2: Review the profiles within the JFK profile analysis boundary

The profile analysis boundary (a circle with a 13 nautical mile [nm] radius centered on the airport that encompasses the data collection area) is used to determine the starting altitude for the radar arrival flight tracks. Some radar flight tracks enter the profile analysis boundary at an altitude above 6,000 feet AFE and others enter the profile analysis boundary at altitudes below 6,000 feet. The profile analysis boundary is used to crop the radar flight tracks.

Step 3: Create a plan view figure and a distance/altitude graph for each aircraft flight track group

A figure and a distance/altitude graph are developed for the radar tracks that align with the draft INM tracks. The figure shows the ANOMS aircraft altitudes relative to the to the profile analysis boundary.

Step 4: Compare the ANOMS radar flight track data to the INM standard profiles

The altitude/distance information derived from ANOMS for each of the ten aircraft types listed in Table 1 is compared to standard INM profiles for the same aircraft. The profile graph and information about land use underneath the individual INM flight tracks is used to determine the need for a User-defined profile. If a User-defined profile is not required the profile analysis concludes at this step. If a User-defined profile appears to be required additional analyses (described below) are required.

Step 5: Develop a User-Defined profile in the Integrated Noise Model (INM)

A User-defined arrival profile is developed in the INM. An average altitude/distance profile is calculated and used to inform the development of the User-defined arrival profile.

Step 6: Develop Profile Graphs

Three graphs are developed for each User-defined arrival profile: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance. The User-defined profile is adjusted as necessary to ensure a good correlation between the INM profile and ANOMS data.

Step 7: Calculate SEL values for the standard INM profile and User-Defined profile for the INM aircraft

As described in Appendix B of INM User's Manual, SEL values are calculated for a series of grid points spaced 0.5 nm apart underneath the INM arrival flight track(s) associated with the specific User-defined profile. SEL values for the standard INM profile are compared to the User-defined profile. This comparison highlights the locations where aircraft noise levels would change if the User-defined profile is assigned to the INM arrival flight track. In some situations the SEL values calculated for the proposed User-defined profile indicate that use of the User-defined profile would provide no benefit to the analysis and that the standard INM profile should be utilized.

Step 8: Revise User-Defined Profiles as necessary following consultation with airlines.

The User-defined profiles are revised as necessary following consultation with airlines.

The analysis completed by the ESA Study Team indicates that several User-defined profiles are required to accurately model arrival noise for aircraft landing at JFK on the following runways: 22L, 22R, 31L, 31R.

JFK Departure Profile Analysis

Step 1: Download ANOMS radar departure flight tracks for calendar year 2014

Group radar tracks by runway end and compass direction (e.g., north, northwest, south, etc.). Separate groups are created for each of the INM aircraft types listed in Table 1.

Step 2: Select the portion of each radar flight track that falls within the profile analysis boundary

The profile analysis boundary is used to select the radar departure flight tracks.

Step 3: Create a plan view figure and a distance/altitude graph for each aircraft flight track group

A figure and a distance/altitude graph are developed for the radar tracks that align with the draft INM tracks. The figure shows the ANOMS aircraft altitudes relative to the profile analysis boundary.

Step 4: Compare the ANOMS radar flight track data to the INM standard profiles

The altitude/distance information derived from ANOMS for each of the ten aircraft types listed in Table 1 is compared to standard INM profiles for the same aircraft. The profile graph and information about land use underneath the individual INM flight tracks is used to determine the need for a User-defined profile. If a User-defined profile is not required, the profile analysis concludes at this step. If a User-defined profile appears to be required additional analyses (described below) are required.

Step 5: Develop a User-Defined profile in the Integrated Noise Model (INM)

A User-defined departure profile is developed in the INM. An average altitude/distance profile is calculated and used to inform the development of the User-defined departure profile.

Step 6: Develop Profile Graphs

Three graphs are developed for each User-defined profile: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance. The User-defined profile is adjusted as necessary to ensure a good correlation between the profile in the INM and the ANOMS data.

Step 7: Calculate SEL values for the standard INM profile and User-Defined profile for the INM aircraft

As described in Appendix B of INM User's Manual, SEL values are calculated for a series of grid points spaced 0.5 nm apart underneath the INM departure flight track(s) associated with the specific User-defined profile. SEL values for the standard INM profile are compared to the User-defined profile. This comparison highlights the locations where aircraft noise levels would change if the User-defined profile is assigned to the INM departure flight track. In some situations the SEL values calculated for the proposed User-defined profile indicate that use of the User-defined profile would provide no benefit to the analysis and that the standard profile should be utilized.

Step 8: Revise User-Defined Profiles as necessary following consultation with airlines.

The User-defined profiles are revised as necessary following consultation with airlines.

The analysis completed by the ESA Study Team indicates that several User-defined profiles are required to accurately model departure noise caused by aircraft departing the following runways at JFK: 4L, 22R, 31L, 13R.

LGA Arrival Profile Analysis

Step 1: Chart ANOMS radar arrival flight profile data for calendar year 2014

Group radar tracks by runway end and compass direction (e.g., north, northwest, south, etc.). Separate groups are created for each of the INM aircraft types listed in Table 2.

Step 2: Review the profiles within the LGA profile analysis boundary

The profile analysis boundary (a circle with a 9 nautical mile [nm] radius centered on the airport that encompasses the data collection area) was developed to define the limit for the arrival profile analysis. This review focused on the profiles of the aircraft while traversing through the profile analysis boundary and their ultimate transition to the runway end using a standard 3-degree approach.

Step 3: Compare the ANOMS radar profile data to the INM standard profiles

A figure and a distance/altitude graph are developed for the radar tracks that align with the draft INM tracks. The figure shows the ANOMS aircraft altitudes relative to the to the profile analysis boundary.

Step 4: Compare the ANOMS radar profile data to the INM standard profiles

The altitude/distance information charted from the ANOMS data is compared to the INM standard profile for each of the ten aircraft listed in Table 2 within the study boundary. This comparison is used to determine the need for a User-defined profile. If a User-defined profile is not required, the profile analysis concludes at this step. If a User-defined profile appears to be required additional analyses (described below) are required.

Step 5: Develop User-Defined profiles in the INM

A User-defined arrival profile is developed in the INM. An average altitude/distance profile is calculated and used to inform the development of the User-defined arrival profile.

Step 6: Develop Profile Graphs

Three graphs are developed for each User-defined arrival profile: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance. The User-defined profile is adjusted as necessary to ensure a good correlation between the portions of the INM profiles that have been modified to the ANOMS data/assigned altitudes.

Step 7: Calculate SEL values for the standard INM profile and User-defined profile for the INM aircraft

As described in Appendix B of INM User's Manual, SEL values are calculated for a series of grid points spaced 0.5 nm apart underneath the INM arrival flight track(s) associated with the specific User-defined profile. SEL values for the standard INM profile are compared to the User-defined profile. This comparison highlights the locations where aircraft noise levels would change if the User-defined profile is assigned to the INM arrival flight track. In some situations the SEL values calculated for the proposed User-defined profile indicate that use of the User-defined profile would provide no benefit to the analysis and that the standard INM profile should be utilized.

Step 8: Revise User-Defined Profiles as necessary following consultation with airlines.

The User-defined profiles are revised as necessary following consultation with airlines.

The aircraft profile analysis completed for LGA indicates that User-defined profiles should be developed and modeled for certain arrival flight tracks to at all four runway ends at LGA.

LGA Departure Profile Analysis

Step 1: Chart ANOMS radar departure flight profile data for April and October 2014

Download the departure radar tracks for the months of April and October 2014 for each of the 10 INM aircraft listed in Table 2. The average temperature for these two months is the closest to the 30-year average annual temperature of 56° Fahrenheit (F) recorded at LGA, which is the temperature that will be used in the modeling of the DNL contours using the INM.

Step 2: Select the portion of each radar flight track that falls within the profile analysis boundary

The profile analysis boundary is used to select the radar departure flight tracks.

Step 3: Create a plan view figure and a distance/altitude graph for each aircraft flight track group

A figure and a distance/altitude graph are developed for the radar tracks that align with the draft INM tracks. The figure shows the ANOMS aircraft altitudes relative to the to the profile analysis boundary.

Step 4: Compare the ANOMS radar profile data to the INM standard profiles

The altitude/distance information derived from ANOMS for each of the ten aircraft types listed in Table 2 is compared to standard INM profiles for the same aircraft. The profile graph and information about land use underneath the individual INM flight tracks is used to determine the need for a User-defined profile. If a User-defined profile is not required, the profile analysis concludes at this step. If a User-defined profile appears to be required additional analyses (described below) are required.

Step 5: Develop User-Defined profiles in the INM

A User-defined departure profile is developed in the INM. An average altitude/distance profile is calculated and used to inform the development of the User-defined departure profile.

Step 6: Develop Profile Graphs

Three graphs are developed for each User-defined departure profile: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance. The User-defined profile is adjusted as necessary to ensure a good correlation between the portions of the INM profiles that have been modified to the ANOMS altitude and speed data.

Step 7: Calculate SEL values for the standard INM profile and User-defined profile for the INM aircraft

As described in Appendix B of INM User's Manual, SEL values are calculated for a series of grid points spaced 0.5 nm apart underneath the INM arrival flight track(s) associated with the specific User-defined profile. SEL values for the standard INM profile are compared to the User-defined profile. This comparison highlights the locations where aircraft noise levels would change if the User-defined profile is assigned to the INM arrival flight track. In some situations the SEL values calculated for the proposed User-defined profile indicate that use of the User-defined profile would provide no benefit to the analysis and that the standard INM profile should be utilized.

Step 8: Revise User-Defined Profiles as necessary following consultation with airlines.

The User-defined profiles are revised as necessary following consultation with airlines.

The aircraft profile analysis completed for LGA indicates that User-defined profiles should be developed and modeled for aircraft departing from all four runway ends at LGA.

Airline Concurrence

The ESA Study Team requested input from several major airlines regarding the JFK and LGA arrival and departure profile analyses on March 4, 2016. Sample User-defined profiles and INM standard profiles for several aircraft types were transmitted to the airlines along with a questionnaire. The following airlines provided data regarding their operations at JFK: American Airlines, British Airways, Delta Air Lines, and JetBlue Airways. The following airlines provided information regarding their operations at LGA: Air Canada, American Airlines, Delta Airlines, GoJet Airlines, JetBlue Airways, Shuttle America, Sky Regional Airlines, Southwest Airlines, and United Airlines. The data provided by these airlines allowed the ESA Study Team to fine tune the User-defined profiles using real-world information regarding aircraft operating parameters at JFK and LGA.

In May 2016, the Port Authority transmitted examples of User-defined arrival and departure profiles to the airlines listed above. The technical memorandum sent to each of the airlines requested written concurrence that the User-defined arrival and departure profiles fall within reasonable bounds in terms of aircraft performance at a given airport. Signed airline concurrence statements will be submitted to the FAA's Office of Environment and Energy Noise Division (AEE-100) in June 2016.

Certification of New Parameters

User-defined profiles were developed with the INM 7.0d standard aircraft performance coefficient data included in INM performance equations. No new aircraft performance coefficient data were developed for the User-defined profiles.

A Streamlined Approach to Custom Profile Approval

Due to the large volume of custom profiles required for the JFK and LGA noise modeling effort, the ESA Study Team is requesting a streamlined approach to approval of the User-defined profiles by the FAA's Office of Environment and Energy. The sample profiles presented in Attachments A – D are representative of arrival profiles and departure profiles at JFK and LGA for the specified aircraft. The ESA Study Team will be developing User-defined arrival profiles and User-defined departure profiles for all of the aircraft types listed in Tables 1 and 2 above.

Attachment A

Sample User-Defined Arrival Profile - JFK

The sample arrival profile included in this technical memorandum was developed for A320-232 aircraft arriving to Runway 22L from the northwest. See **Figure 1** for a plan view depiction of the ANOMS records that were used to inform the development of the User-defined arrival profile for the A320-232 aircraft. **Figure 2** presents an altitude versus distance graph for the same radar flight tracks.

For this example, the custom profile begins at an altitude of 6,000 feet at a distance approximately 225,000 feet (37 nautical miles [nm]) from the touchdown point. On Figure 2, the red dots represent the radar flight profiles from the Port Authority's ANOMS. The black line represents the INM standard arrival profile for the A320-232 aircraft. The yellow line represents the proposed User-defined arrival profile for the A320-232 aircraft.

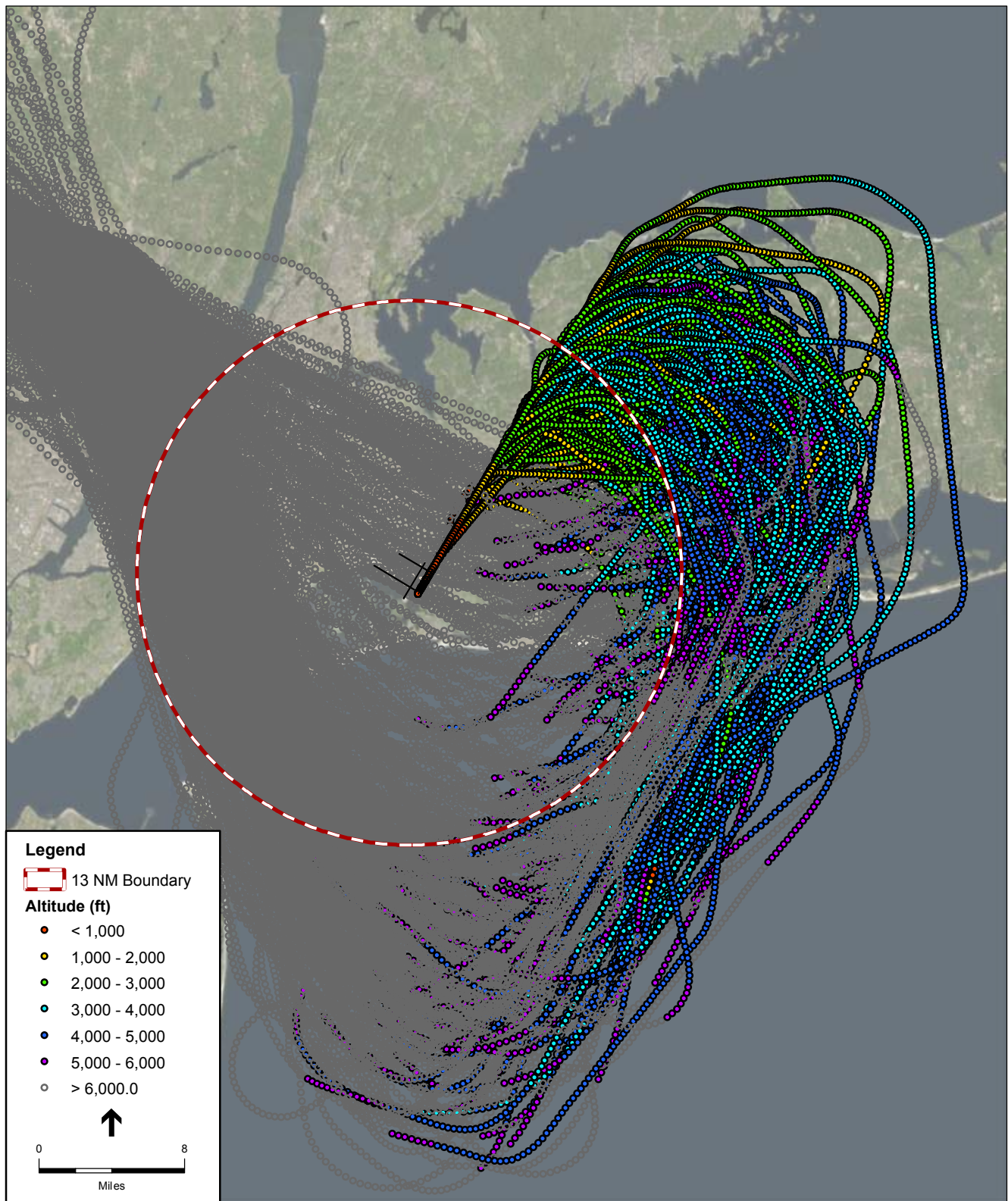
Statement of Benefit

Based on the radar flight profiles exported from the Port Authority's ANOMS, it is clear that A320-232 aircraft approaching Runway 22L at JFK from the northwest are not following the INM standard profile. In general, at most locations, the ANOMS data suggest that A320-232 aircraft are at a lower altitude than INM standard profile until a point approximately 45,000 feet (7.4 nm) from touchdown. Beginning at a distance of 45,000 feet (7.4 nm) from touchdown there is a better correlation between the ANOMS data and the INM standard profile.

In accordance with Appendix B of the INM User's Guide, the ESA Study Team developed three graphs (**Figures 2 through 4**) comparing the User-defined arrival profile to the INM Standard arrival profile for the A320-232. The three graphs include: 1) Altitude vs. Distance, 2) Speed vs. Distance, and 3) Thrust vs. Distance. The data presented in these three graphs for the INM standard profile were derived from the INM profile database. The ANOMS data were used to develop the altitude and speed graphs for the User-defined arrival profile and data from the INM profile database were used to develop the thrust profile graph. **Table 1** presents the procedure steps of the INM standard profile and the User-defined profile, and **Table 2**, the INM flight path report for the A320-232.

Sound Exposure Level Calculations

As described in Appendix B of INM User's Manual, **Table 3** presents SEL values for a series of grid points spaced 0.5 NM apart underneath an INM arrival flight track developed for Runway 22L that fits within the flight corridor shown on Figure 1. Table 3 presents a comparison of SEL values for the INM standard arrival profile to SEL values for the User-defined profile.

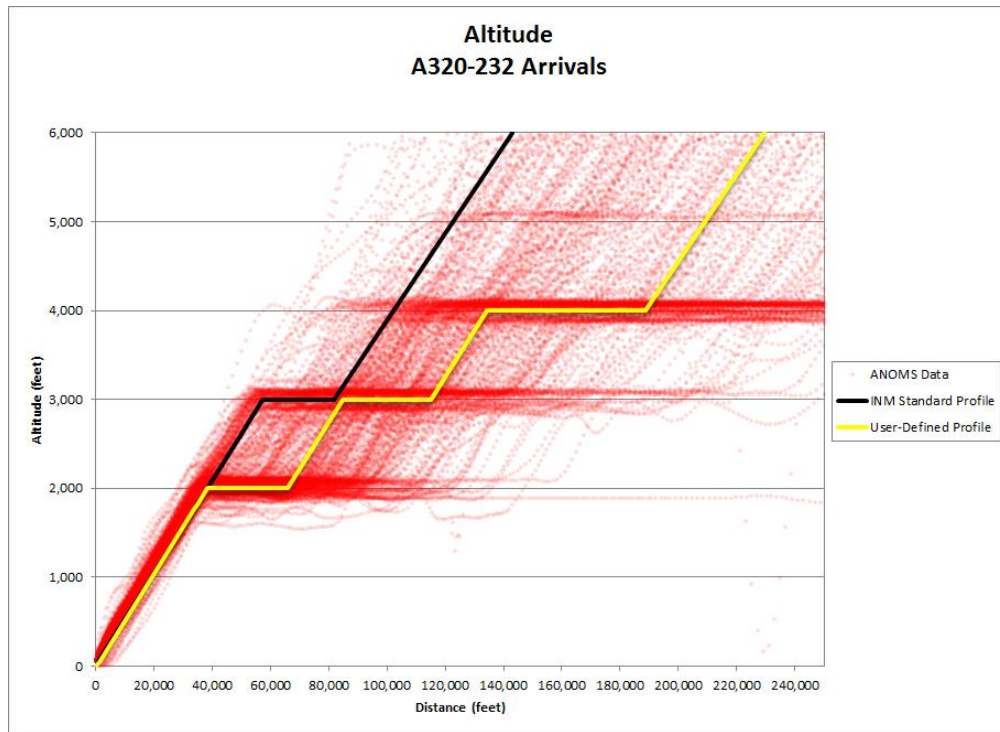


SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

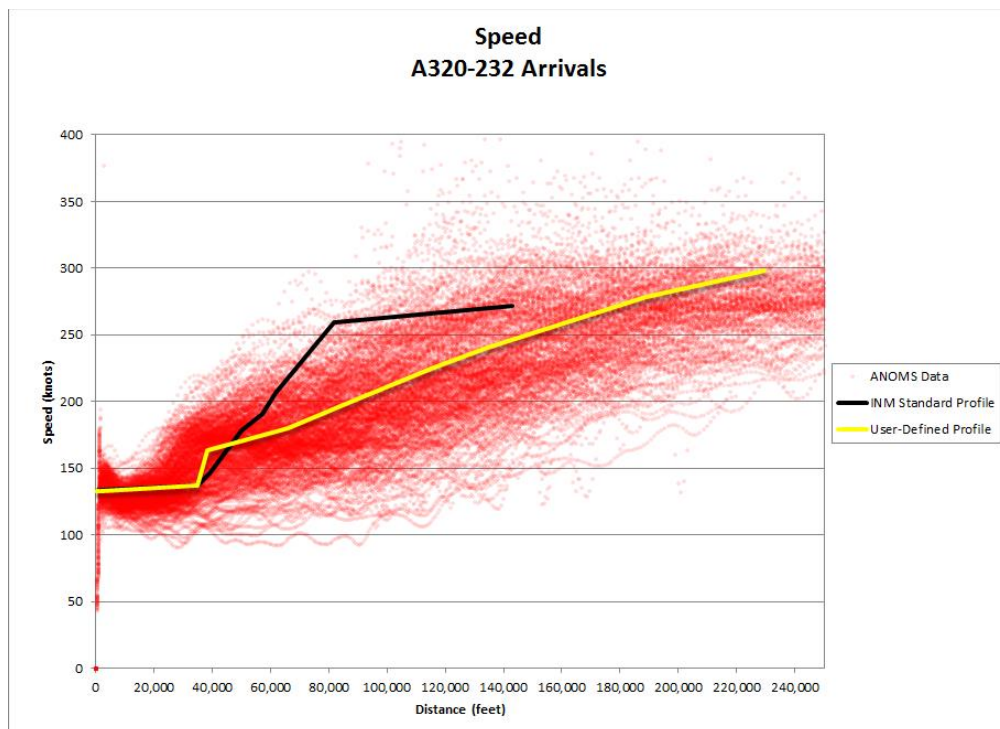
John F. Kennedy International Airport 14 CFR Part 150 Study.140037

Figure 1
Plan View of A320-232 Radar Arrival Tracks
Runway 22L Arrivals from the Northwest

**Figure 2: Altitude vs. Distance Graph – A320-232
Runway 22L Arrivals from the Northwest**



**Figure 3: Speed vs. Distance Graph – A320-232
Runway 22L Arrivals from the Northwest**



**Figure 4: Thrust vs. Distance Graph – A320-232
Runway 22L Arrivals from the Northwest**

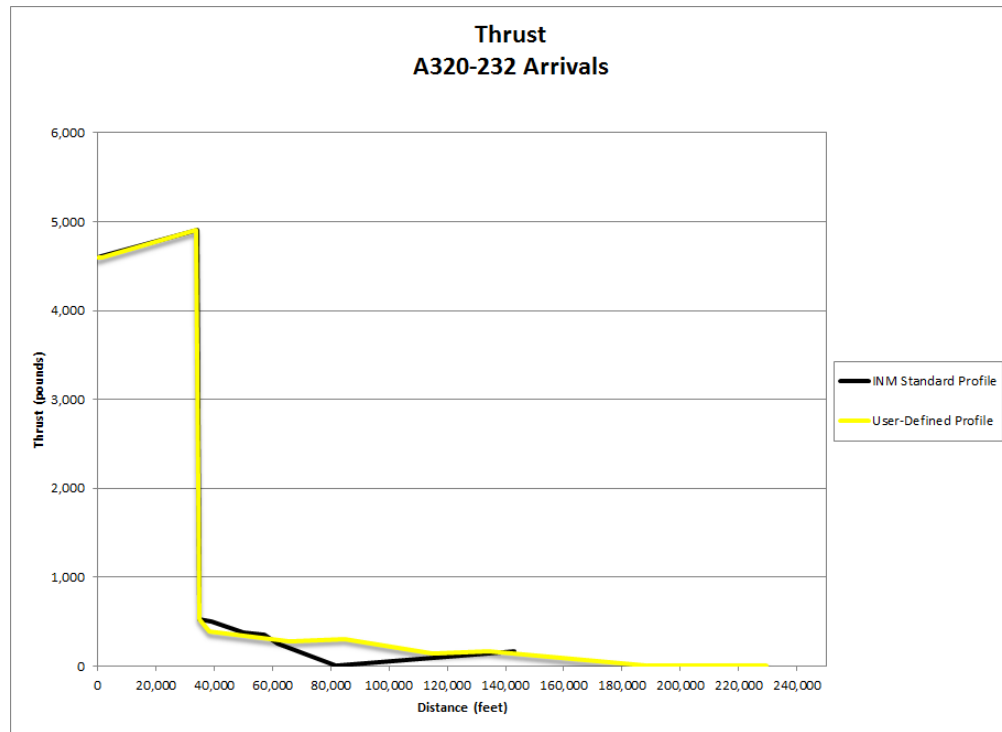


Table 1: Procedural Profiles – A320-232
Runway 22L Arrivals from the Northwest

Standard Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
A320-232	A	STANDARD	1	Descend-Idle			6000.0	250.0	2.8
A320-232	A	STANDARD	2	Level-Idle			3000.0	250.0	20003.3
A320-232	A	STANDARD	3	Level-Idle			3000.0	198.7	4629.3
A320-232	A	STANDARD	4	Descend-Idle			3000.0	183.5	3.0
A320-232	A	STANDARD	5	Descend-Idle			2613.0	172.8	3.0
A320-232	A	STANDARD	6	Descend-Idle			2033.0	142.2	3.0
A320-232	A	STANDARD	7	Descend	FULL_D		1819.0	133.8	3.0
A320-232	A	STANDARD	8	Descend	FULL_D		50.0	133.8	3.0
A320-232	A	STANDARD	9	Land	FULL_D		311.0	0.0	0.0
A320-232	A	STANDARD	10	Decelerate		REVERSE	2799.4	130.8	40.0
A320-232	A	STANDARD	11	Decelerate		REVERSE	0.0	30.0	10.0
User-Defined Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
A320-232	A	USER	1	Descend-Idle			6000.0	274.0	2.8
A320-232	A	USER	2	Level-Idle			4000.0	263.8	55256.4
A320-232	A	USER	3	Descend-Idle			4000.0	227.5	3.0
A320-232	A	USER	4	Level-Idle			3000.0	215.8	30618.4
A320-232	A	USER	5	Descend-Idle			3000.0	189.8	3.0
A320-232	A	USER	6	Level-Idle			2000.0	176.0	27806.6
A320-232	A	USER	7	Descend-Idle			2000.0	159.2	3.0
A320-232	A	USER	8	Descend	FULL_D		1819.0	133.8	3.0
A320-232	A	USER	9	Descend	FULL_D		50.0	133.8	3.0
A320-232	A	USER	10	Land	FULL_D		311.0	0.0	0.0
A320-232	A	USER	11	Decelerate		REVERSE	2799.4	130.8	40.0
A320-232	A	USER	12	Decelerate		REVERSE	0.0	30.0	10.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 2: INM Flight Path Report – A320-232
Runway 22L Arrivals from the Northwest

Standard Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	A320-232	A	USER	145102.2	5998.8	263.9	171.5
1	A320-232	A	USER	83762.8	2998.8	251.8	1.0
2	A320-232	A	USER	76648.9	2998.8	234.0	85.1
3	A320-232	A	USER	70054.0	2998.8	216.3	169.2
4	A320-232	A	USER	63978.2	2998.8	198.6	253.3
5	A320-232	A	USER	59399.7	2998.8	182.8	352.5
6	A320-232	A	USER	52098.0	2616.1	170.6	378.1
7	A320-232	A	USER	46331.7	2313.9	154.2	442.2
8	A320-232	A	USER	41149.3	2042.3	137.7	506.4
9	A320-232	A	USER	37100.8	1830.2	128.7	533.3
10	A320-232	A	USER	36100.8	1777.8	128.6	4912.8
11	A320-232	A	USER	3110.4	48.8	125.2	4604.7
12	A320-232	A	USER	2156.3	-1.2	125.1	4596.4
13	A320-232	A	USER	1845.3	-1.2	122.1	10600.0
14	A320-232	A	USER	1013.5	-1.2	103.7	9010.0
15	A320-232	A	USER	317.6	-1.2	85.2	7420.0
16	A320-232	A	USER	-242.3	-1.2	66.7	5830.0
17	A320-232	A	USER	-666.2	-1.2	48.3	4240.0
18	A320-232	A	USER	-954.1	-1.2	29.8	2650.0
User-Defined Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	A320-232	A	STANDARD	231808.3	5998.8	290	14.9
1	A320-232	A	STANDARD	190915.4	3998.8	270.2	1.0
2	A320-232	A	STANDARD	162555.6	3998.8	251.1	84.6
3	A320-232	A	STANDARD	136266.4	3998.8	232.1	168.2
4	A320-232	A	STANDARD	117185.3	2998.8	216.2	142.9
5	A320-232	A	STANDARD	101542.7	2998.8	202.8	227.1
6	A320-232	A	STANDARD	86902.4	2998.8	189.3	311.3
7	A320-232	A	STANDARD	67821.2	1998.8	172.1	281.3
8	A320-232	A	STANDARD	40318.6	1998.8	155.1	389.7
9	A320-232	A	STANDARD	38531.3	1905.1	141.9	460.7
10	A320-232	A	STANDARD	36902.9	1819.8	128.7	531.8
11	A320-232	A	STANDARD	35902.9	1767.4	128.6	4910.9
12	A320-232	A	STANDARD	3110.4	48.8	125.2	4604.7
13	A320-232	A	STANDARD	2156.3	-1.2	125.1	4596.4
14	A320-232	A	STANDARD	1845.3	-1.2	122.1	10600.0
15	A320-232	A	STANDARD	1013.5	-1.2	103.7	9010.0

16	A320-232	A	STANDARD	317.6	-1.2	85.2	7420.0
17	A320-232	A	STANDARD	-242.3	-1.2	66.7	5830.0
18	A320-232	A	STANDARD	-666.2	-1.2	48.3	4240.0
19	A320-232	A	STANDARD	-954.1	-1.2	29.8	2650.0

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

**Table 3: SEL Comparison – A320-232
Runway 22L Arrivals from the Northwest**

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	111.7	111.7	0.0
0.5	102.6	102.6	0.0
1.0	95.4	95.4	0.0
1.5	91.9	91.9	0.0
2.0	89.6	89.6	0.0
2.5	87.8	87.8	0.0
3.0	86.3	86.3	0.0
3.5	85.1	85.1	0.0
4.0	84.0	84.0	0.0
4.5	83.1	83.1	0.0
5.0	82.2	82.2	0.0
5.5	81.4	81.4	0.0
6.0	80.5	80.4	-0.1
6.5	79.4	79.1	-0.3
7.0	78.5	78.4	-0.1
7.5	77.6	78.3	0.7
8.0	76.8	78.4	1.6
8.5	76.0	78.4	2.4
9.0	75.4	78.4	3.0
9.5	74.8	78.4	3.6
10.0	74.4	78.3	3.9
10.5	74.1	78.3	4.2
11.0	73.9	78.3	4.4
11.5	73.7	77.6	3.9
12.0	73.6	76.9	3.3
12.5	73.4	76.3	2.9
13.0	73.3	75.7	2.4
13.5	73.2	75.2	2.0
14.0	72.8	74.8	2.0
14.5	72.3	74.4	2.1
15.0	71.9	74.1	2.2

15.5	71.6	74.1	2.5
16.0	71.2	74.1	2.9
16.5	70.9	74.1	3.2
17.0	70.6	74.0	3.4
17.5	70.2	73.8	3.6
18.0	69.9	73.8	3.9
18.5	69.6	73.8	4.2
19.0	69.3	73.8	4.5
19.5	69.0	73.5	4.5
20.0	68.7	72.9	4.2
20.5	68.4	72.5	4.1
21.0	68.1	72.1	4.0
21.5	67.8	71.7	3.9
22.0	67.5	71.4	3.9
22.5	67.1	71.0	3.9
23.0	66.6	70.9	4.3
23.5	65.5	70.8	5.3
24.0	63.2	70.8	7.6
24.5	60.0	70.7	10.7
25.0	56.1	70.7	14.6

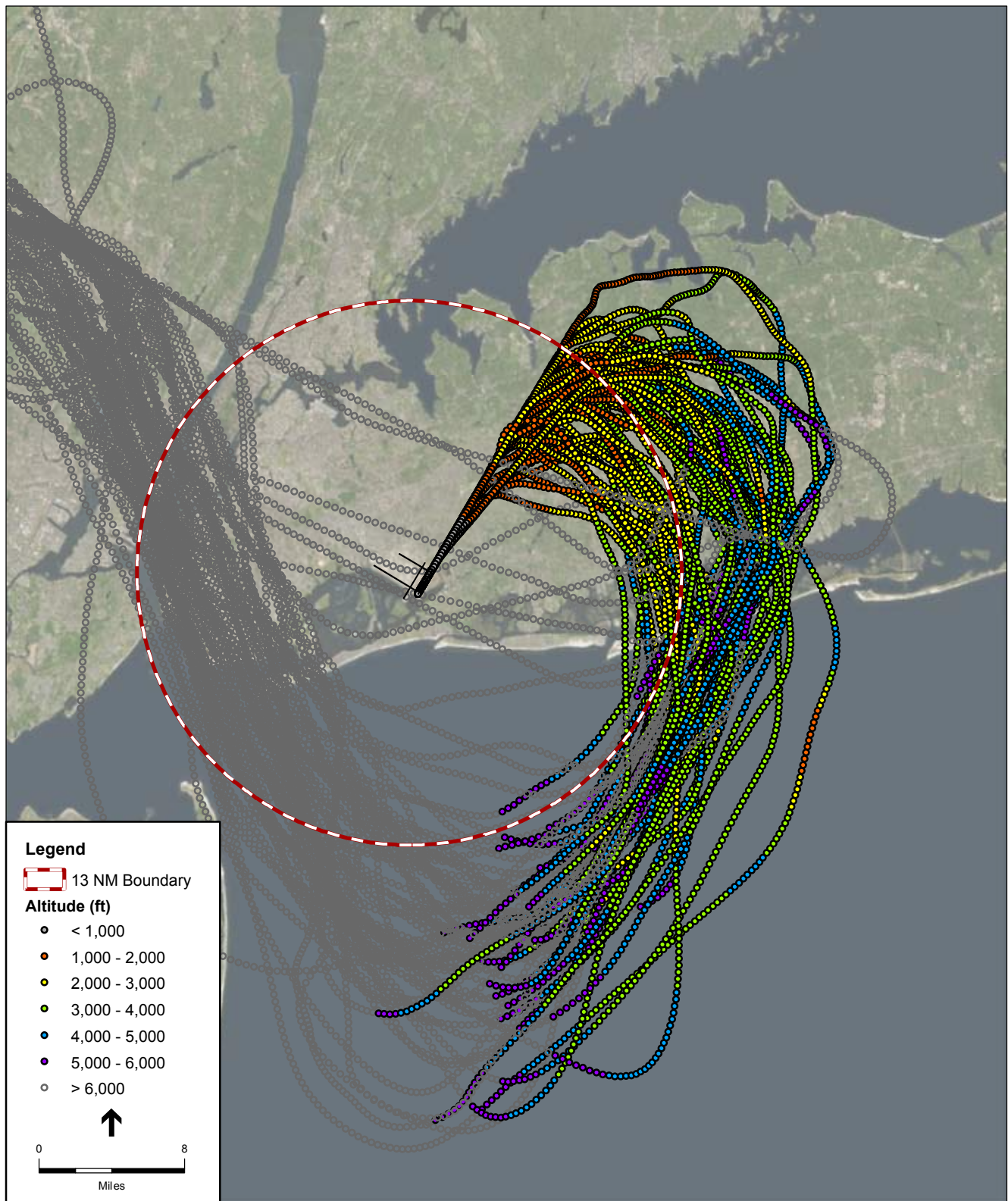
Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Additional Sample Profile Charts – EMB190 and 7773ER

Sample User-defined arrival profiles were also developed for the EMB190 and 7773ER aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the EMB190 and 7773ER are presented on the following pages. These charts present a comparison of the INM standard profile to ANOMS data and also depict a User-defined profile.

Figure 5 presents a plan view of the ANOMS flight track records used in the profile analysis for the EMB190 aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the EMB190 are presented on **Figures 6 – 8**. **Table 4** presents the profile procedure steps and **Table 5**, the INM flight path report for the EMB190. **Table 6** presents a comparison of SEL values for the INM standard arrival profile for the EMB190 aircraft to SEL values for the User-defined profile.

Figure 9 presents a plan view of the ANOMS flight track records used in the profile analysis for the 7773ER aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 7773ER are presented on **Figures 10 – 12**. **Table 7** presents the profile procedure steps and **Table 8**, the INM flight path report for the 7773ER. **Table 9** presents a comparison of SEL values for the INM standard arrival profile for the 7773ER aircraft to SEL values for the User-defined profile.



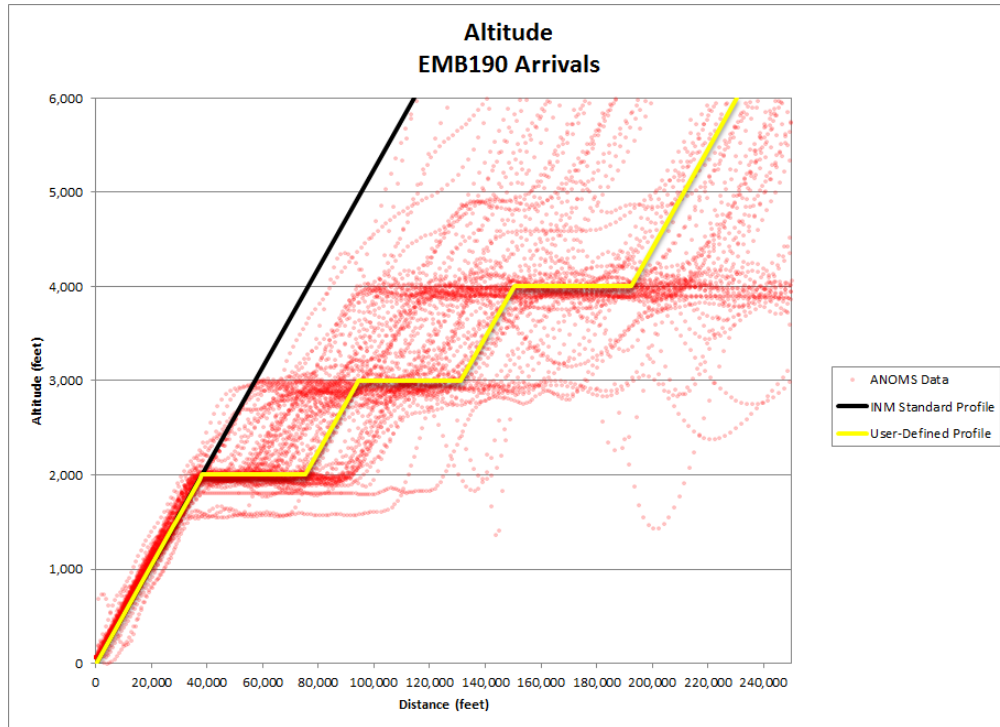
SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

John F. Kennedy International Airport 14 CFR Part 150 Study.140037

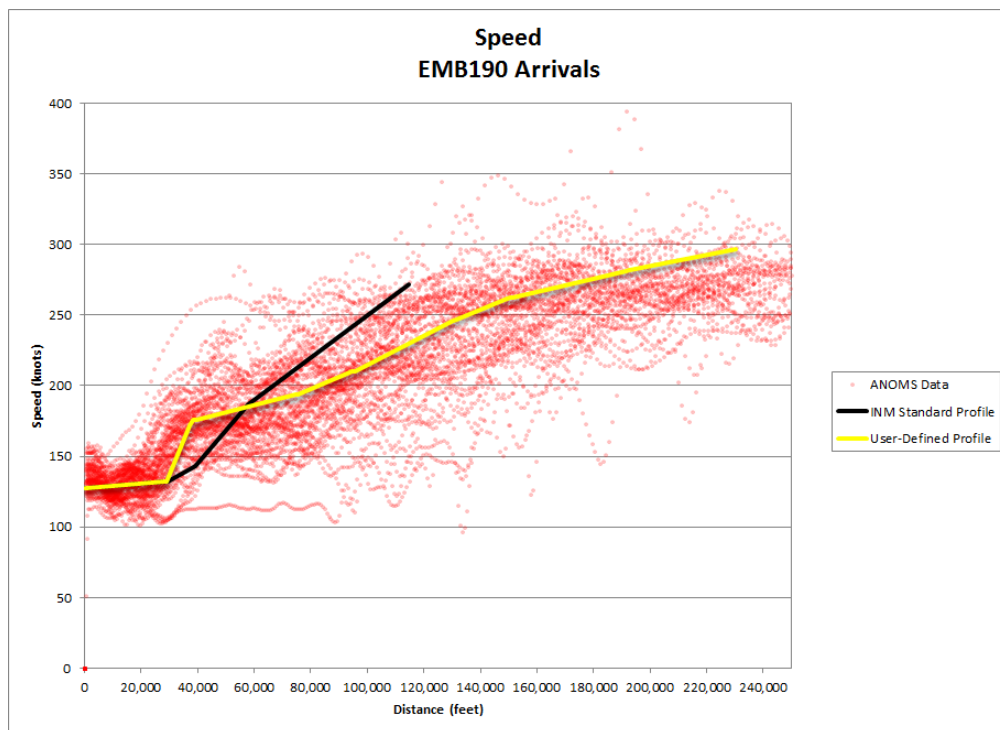
Figure 5

Plan View of EMB-190 Radar Arrival Tracks
Runway 22L Arrivals from the Northwest

**Figure 6: Altitude vs. Distance Graph – EMB190
Runway 22L Arrivals from the Northwest**



**Figure 7: Speed vs. Distance Graph – EMB190
Runway 22L Arrivals from the Northwest**



**Figure 8: Thrust vs. Distance Graph – EMB190
Runway 22L Arrivals from the Northwest**

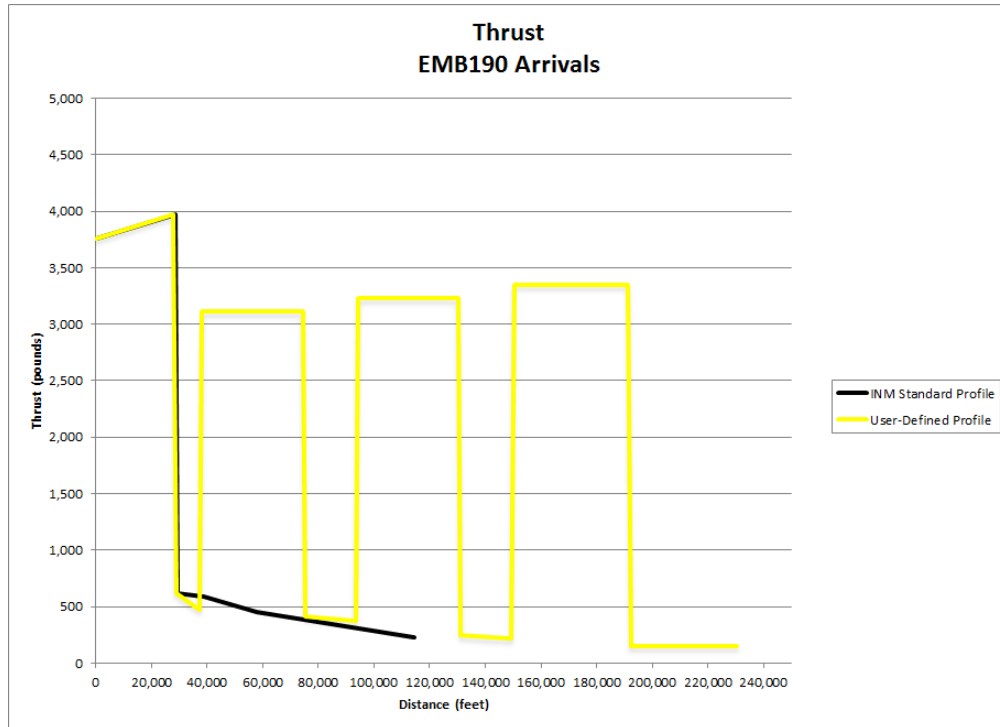


Table 4: Procedural Profiles – EMB190
Runway 22L Arrivals from the Northwest

Standard Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
EMB190	A	STANDARD	1	Descend-Idle			6000.0	250.0	3.0
EMB190	A	STANDARD	2	Descend-Idle			3000.0	180.0	3.0
EMB190	A	STANDARD	3	Descend-Idle			2000.0	140.0	3.0
EMB190	A	STANDARD	4	Descend	FULL		1500.0	130.0	3.0
EMB190	A	STANDARD	5	Land	FULL		271.9	0.0	0.0
EMB190	A	STANDARD	6	Decelerate	FULL	NORMAL	2447.0	120.0	40.0
EMB190	A	STANDARD	7	Decelerate		NORMAL	0.0	30.0	10.0
User-Defined Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
EMB190	A	USER	1	Descend-Idle			6000.0	272.5	3.0
EMB190	A	USER	2	Level			4000.0	267.0	41070.2
EMB190	A	USER	3	Level			4000.0	248.1	1000.0
EMB190	A	USER	4	Descend-Idle			4000.0	248.1	3.0
EMB190	A	USER	5	Level			3000.0	237.5	35851.5
EMB190	A	USER	6	Level			3000.0	202.0	1000.0
EMB190	A	USER	7	Descend-Idle			3000.0	202.0	3.0
EMB190	A	USER	8	Level			2000.0	189.3	36062.9
EMB190	A	USER	9	Level			2000.0	171.2	1000.0
EMB190	A	USER	10	Descend-Idle			2000.0	171.2	3.0
EMB190	A	USER	11	Descend	FULL		1500.0	130.0	3.0
EMB190	A	USER	12	Land	FULL		271.9	0.0	0.0
EMB190	A	USER	13	Decelerate	FULL	NORMAL	2447.0	120.0	40.0
EMB190	A	USER	14	Decelerate		NORMAL	0.0	30.0	10.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

**Table 5: INM Flight Path Report – EMB190
Runway 22L Arrivals from the Northwest**

Standard Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	EMB190	A	STANDARD	116251.8	5998.8	263.9	232.9
1	EMB190	A	STANDARD	103200.7	5314.8	247.0	277.6
2	EMB190	A	STANDARD	91015.9	4676.2	230.0	322.2
3	EMB190	A	STANDARD	79697.5	4083.1	213.1	366.9
4	EMB190	A	STANDARD	69245.4	3535.3	196.1	411.5
5	EMB190	A	STANDARD	59659.8	3032.9	179.1	456.1
6	EMB190	A	STANDARD	52770.1	2671.9	164.6	501.2
7	EMB190	A	STANDARD	46464.9	2341.4	150.0	546.2
8	EMB190	A	STANDARD	40744.0	2041.6	135.4	591.2
9	EMB190	A	STANDARD	31230.1	1543.0	124.2	622.2
10	EMB190	A	STANDARD	30230.1	1490.6	124.0	3976.5
11	EMB190	A	STANDARD	2719.1	48.8	119.8	3767.1
12	EMB190	A	STANDARD	1765.0	-1.2	119.7	3759.6
13	EMB190	A	STANDARD	1493.1	-1.2	111.4	7400.0
14	EMB190	A	STANDARD	777.7	-1.2	95.1	6290.0
15	EMB190	A	STANDARD	175.2	-1.2	78.8	5180.0
16	EMB190	A	STANDARD	-314.2	-1.2	62.5	4070.0
17	EMB190	A	STANDARD	-690.5	-1.2	46.1	2960.0
18	EMB190	A	STANDARD	-953.9	-1.2	29.8	1850.0
User-Defined Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	EMB190	A	USER	232236.4	5998.8	288.4	150.8
1	EMB190	A	USER	194074.2	3998.8	273.6	149.5
2	EMB190	A	USER	193074.2	3998.8	273.1	3349.6
3	EMB190	A	USER	153004.0	3998.8	253.8	3349.6
4	EMB190	A	USER	152004.0	3998.8	253.8	3349.6
5	EMB190	A	USER	151004.0	3946.4	253.1	217.9
6	EMB190	A	USER	132922.8	2998.8	238.8	246.2
7	EMB190	A	USER	131922.8	2998.8	237.8	3227.8
8	EMB190	A	USER	113788.3	2998.8	219.9	3227.8
9	EMB190	A	USER	97071.3	2998.8	202.0	3227.8
10	EMB190	A	USER	96071.3	2998.8	202.0	3227.8
11	EMB190	A	USER	95071.3	2946.4	201.2	375.1
12	EMB190	A	USER	76990.2	1998.8	185.7	411.2
13	EMB190	A	USER	75990.2	1998.8	185.2	3111.4
14	EMB190	A	USER	40927.3	1998.8	167.4	3111.4
15	EMB190	A	USER	39927.3	1998.8	167.4	3111.4

16	EMB190	A	USER	38927.3	1946.4	163.3	476.6
17	EMB190	A	USER	34422.5	1710.3	143.8	549.0
18	EMB190	A	USER	30491.8	1504.3	124.2	621.5
19	EMB190	A	USER	29491.8	1451.9	124.0	3970.8
20	EMB190	A	USER	2719.1	48.8	119.8	3767.1
21	EMB190	A	USER	1765.0	-1.2	119.7	3759.6
22	EMB190	A	USER	1493.1	-1.2	111.4	7400.0
23	EMB190	A	USER	777.7	-1.2	95.1	6290.0
24	EMB190	A	USER	175.2	-1.2	78.8	5180.0
25	EMB190	A	USER	-314.2	-1.2	62.5	4070.0
26	EMB190	A	USER	-690.5	-1.2	46.1	2960.0
27	EMB190	A	USER	-953.9	-1.2	29.8	1850.0

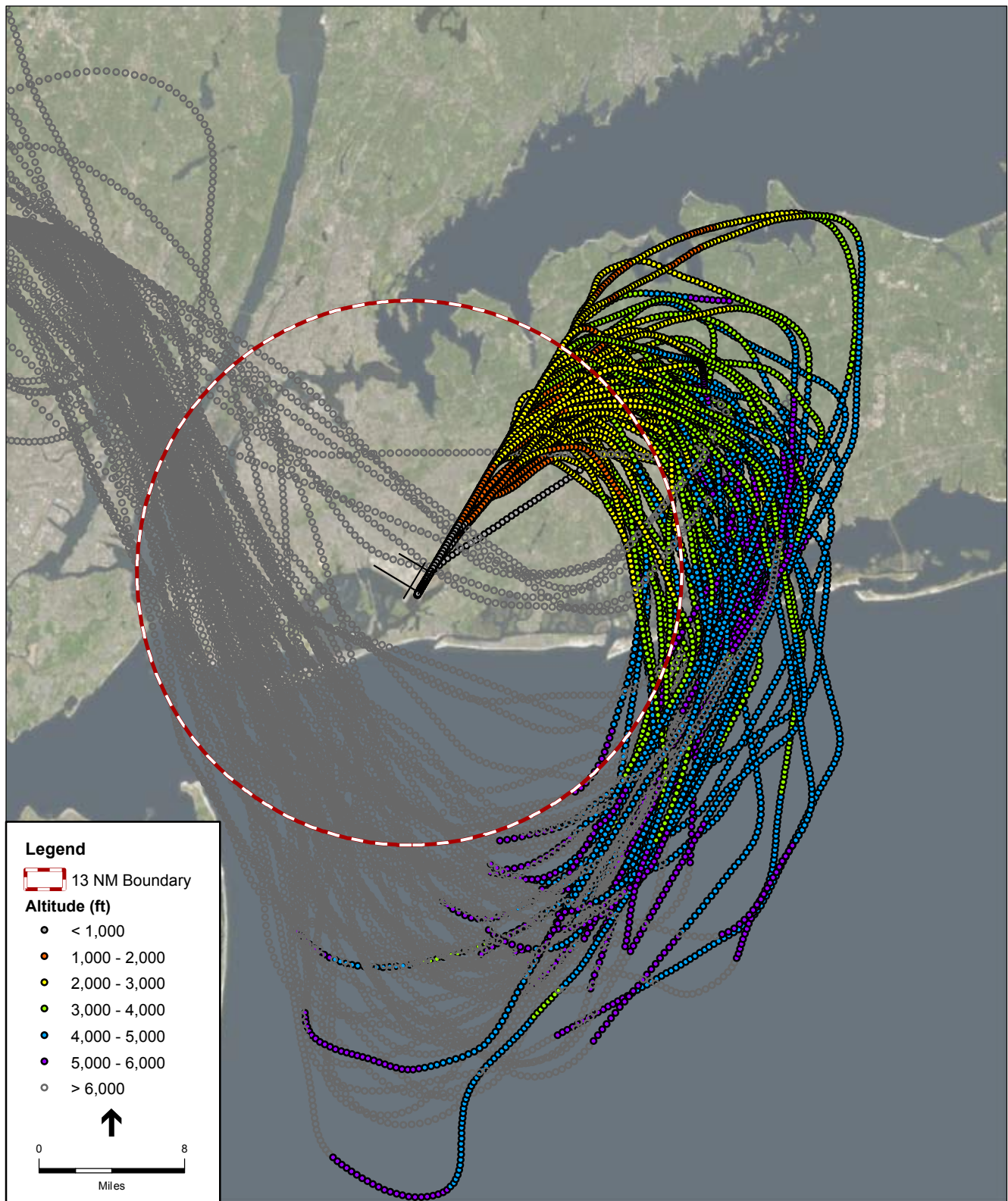
Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

**Table 6: SEL Comparison – EMB190
Runway 22L Arrivals from the Northwest**

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	111.9	111.9	0.0
0.5	99.8	99.8	0.0
1.0	94.0	94.0	0.0
1.5	91.1	91.1	0.0
2.0	89.1	89.1	0.0
2.5	87.6	87.6	0.0
3.0	86.3	86.3	0.0
3.5	85.3	85.3	0.0
4.0	84.4	84.4	0.0
4.5	83.5	83.5	0.0
5.0	82.4	81.4	-1.0
5.5	80.0	79.7	-0.3
6.0	79.3	78.6	-0.7
6.5	78.8	78.7	-0.1
7.0	77.9	78.9	1.0
7.5	77.1	78.8	1.7
8.0	76.3	78.8	2.5
8.5	75.7	78.8	3.1
9.0	75.0	78.8	3.8
9.5	74.4	78.8	4.4
10.0	73.8	78.8	5.0
10.5	73.2	78.8	5.6
11.0	72.8	78.8	6.0
11.5	72.3	78.8	6.5
12.0	71.8	78.7	6.9
12.5	71.4	78.4	7.0
13.0	70.9	76.6	5.7
13.5	70.5	75.9	5.4
14.0	70.0	75.4	5.4
14.5	69.6	74.9	5.3
15.0	69.1	74.4	5.3
15.5	68.8	74.3	5.5
16.0	68.4	75.0	6.6
16.5	68.0	74.9	6.9
17.0	67.6	74.9	7.3
17.5	67.2	74.9	7.7
18.0	66.7	74.9	8.2
18.5	65.9	74.9	9.0
19.0	64.3	74.8	10.5
19.5	61.3	74.6	13.3
20.0	57.5	74.6	17.1
20.5	53.2	74.6	21.4
21.0	49.5	74.5	25.0
21.5	46.3	74.4	28.1
22.0	43.6	73.0	29.4
22.5	41.1	72.1	31.0
23.0	39.0	71.7	32.7
23.5	37.0	71.3	34.3
24.0	35.2	71.0	35.8
24.5	33.6	71.0	37.4
25.0	32.2	71.5	39.3

Source: Integrated Noise Model (INM) Version 7.0d



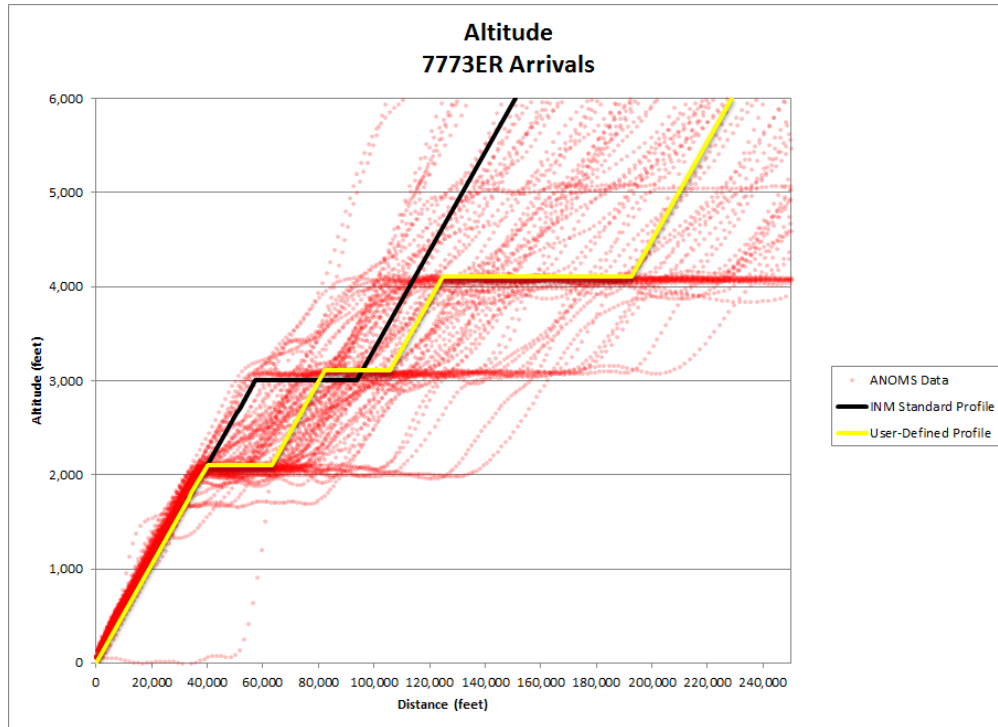
SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

John F. Kennedy International Airport 14 CFR Part 150 Study.140037

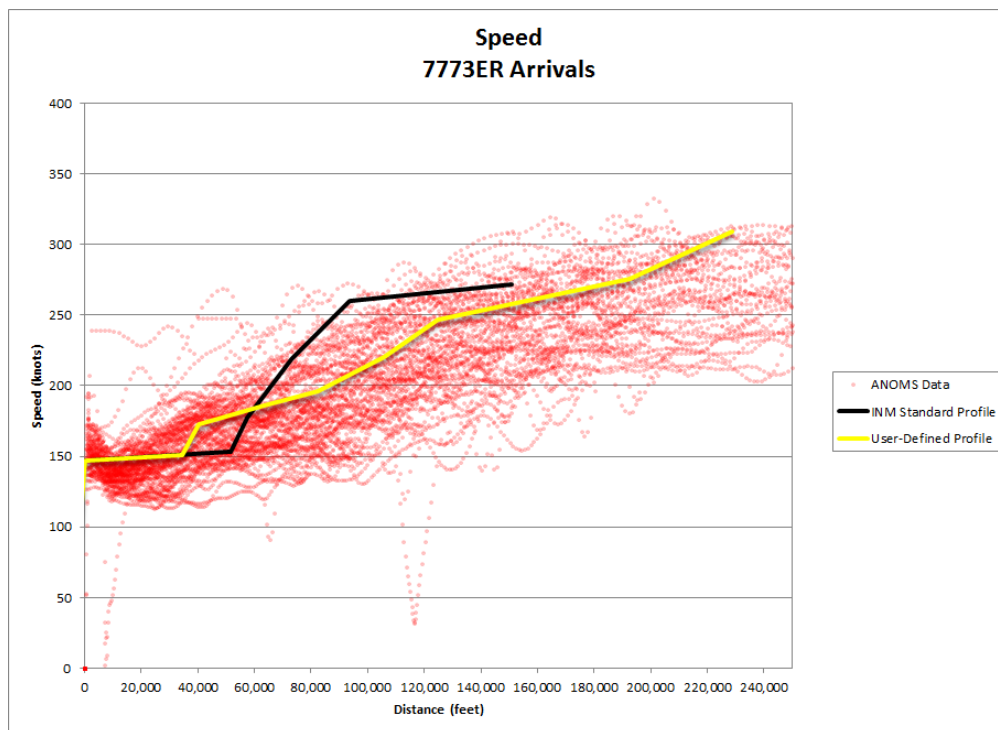
Figure 9

Plan View of 777-3ER Radar Arrival Tracks
Runway 22L Arrivals from the Northwest

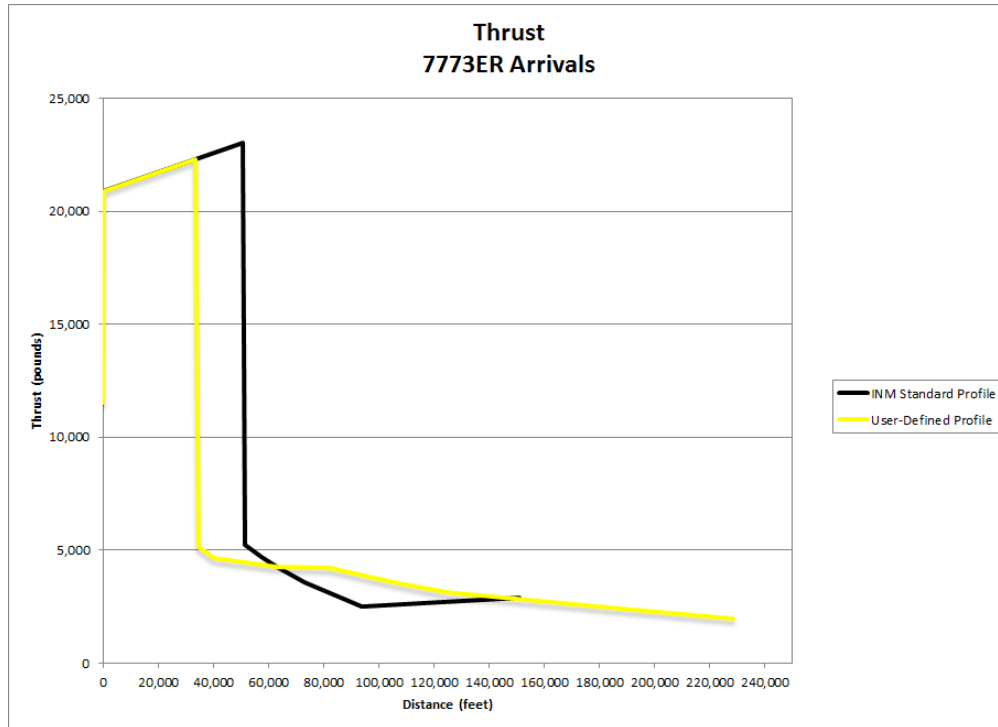
**Figure 10: Altitude vs. Distance Graph – 7773ER
Runway 22L Arrivals from the Northwest**



**Figure 11: Speed vs. Distance Graph – 7773ER
Runway 22L Arrivals from the Northwest**



**Figure 12: Thrust vs. Distance Graph – 7773ER
Runway 22L Arrivals from the Northwest**



**Table 7: Procedural Profiles – 7773ER
Runway 22L Arrivals from the Northwest**

Standard Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
7773ER	A	STANDARD	1	Descend-Idle			6000.0	249.9	3.0
7773ER	A	STANDARD	2	Level-Idle			3000.0	249.9	20776.0
7773ER	A	STANDARD	3	Level-Idle			3000.0	210.6	10088.0
7773ER	A	STANDARD	4	Level-Idle			3000.0	185.4	5926.0
7773ER	A	STANDARD	5	Descend-Idle			3000.0	170.4	3.0
7773ER	A	STANDARD	6	Descend	F_30		2700.0	147.8	3.0
7773ER	A	STANDARD	7	Land	F_30		427.1	147.8	0.0
7773ER	A	STANDARD	8	Decelerate		REVERSE	3843.5	140.8	10.0
7773ER	A	STANDARD	9	Decelerate		NORMAL	0.0	30.0	10.0
User-Defined Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
7773ER	A	USER	1	Descend-Idle			6000.0	263.4	3.0
7773ER	A	USER	2	Level-Idle			4100.0	256.7	68655.9
7773ER	A	USER	3	Descend-Idle			4100.0	227.6	3.0
7773ER	A	USER	4	Level-Idle			3100.0	206.3	23632.8
7773ER	A	USER	5	Descend-Idle			3100.0	186.6	3.0
7773ER	A	USER	6	Level-Idle			2100.0	174.6	23194.1
7773ER	A	USER	7	Descend-Idle			2100.0	164.0	3.0
7773ER	A	USER	8	Descend	F_30		1800.0	156.8	3.0
7773ER	A	USER	9	Land	F_30		427.1	147.8	0.0
7773ER	A	USER	10	Decelerate		REVERSE	3843.5	140.8	10.0
7773ER	A	USER	11	Decelerate		NORMAL	0.0	30.0	10.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 8: INM Flight Path Report – 7773ER
Runway 22L Arrivals from the Northwest

Standard Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	7773ER	A	STANDARD	154190.3	5998.8	263.8	2919.5
1	7773ER	A	STANDARD	96946.9	2998.8	251.7	2530.9
2	7773ER	A	STANDARD	89695.6	2998.8	238.1	2886.4
3	7773ER	A	STANDARD	82845.9	2998.8	224.5	3241.9
4	7773ER	A	STANDARD	76398	2998.8	211	3597.4
5	7773ER	A	STANDARD	71244.1	2998.8	197.9	3940.7
6	7773ER	A	STANDARD	66420.5	2998.8	184.8	4284.1
7	7773ER	A	STANDARD	60559.6	2998.8	169.2	4692.8
8	7773ER	A	STANDARD	57620.3	2844.8	157.1	4981.4
9	7773ER	A	STANDARD	54898.8	2702.1	145	5270.0
10	7773ER	A	STANDARD	53898.8	2649.7	144.9	23094.5
11	7773ER	A	STANDARD	4270.3	48.8	139.3	20969.6
12	7773ER	A	STANDARD	3316.2	-1.2	139.1	20926.6
13	7773ER	A	STANDARD	2889.1	-1.2	132.1	11500.0
14	7773ER	A	STANDARD	1911.5	-1.2	115.0	11500.0
15	7773ER	A	STANDARD	1068.7	-1.2	98.0	11500.0
16	7773ER	A	STANDARD	360.7	-1.2	80.9	11500.0
17	7773ER	A	STANDARD	-212.4	-1.2	63.9	11500.0
18	7773ER	A	STANDARD	-650.8	-1.2	46.9	11500.0
19	7773ER	A	STANDARD	-954.4	-1.2	29.8	11500.0
User-Defined Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	7773ER	A	USER	232017.5	5998.8	278.5	2551.6
1	7773ER	A	USER	195763.3	4098.8	263.1	2490.3
2	7773ER	A	USER	160766.5	4098.8	247.8	2884.3
3	7773ER	A	USER	127862.9	4098.8	232.6	3278.2
4	7773ER	A	USER	118039.1	3584.0	219.5	3507.0
5	7773ER	A	USER	108781.8	3098.8	206.5	3735.9
6	7773ER	A	USER	96794.5	3098.8	196.4	4000.2
7	7773ER	A	USER	85408.2	3098.8	186.3	4264.5
8	7773ER	A	USER	66327.1	2098.8	170.9	4465.3
9	7773ER	A	USER	43386.6	2098.8	160.2	4749.3
10	7773ER	A	USER	37726.2	1802.1	152.2	4906.9
11	7773ER	A	USER	36726.2	1749.7	151.8	22344.3
12	7773ER	A	USER	4270.3	48.8	139.5	20968.4
13	7773ER	A	USER	3316.2	-1.2	139.1	20926.6
14	7773ER	A	USER	2889.1	-1.2	132.1	11500.0

15	7773ER	A	USER	1911.5	-1.2	115	11500.0
16	7773ER	A	USER	1068.7	-1.2	98	11500.0
17	7773ER	A	USER	360.7	-1.2	80.9	11500.0
18	7773ER	A	USER	-212.4	-1.2	63.9	11500.0
19	7773ER	A	USER	-650.8	-1.2	46.9	11500.0
20	7773ER	A	USER	-954.4	-1.2	29.8	11500.0

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 9: SEL Comparison – 7773ER
Runway 22L Arrivals from the Northwest

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	120.0	120.0	0.0
0.5	118.3	118.3	0.0
1.0	102.7	102.6	-0.1
1.5	98.4	98.3	-0.1
2.0	95.6	95.5	-0.1
2.5	93.6	93.5	-0.1
3.0	92.1	91.9	-0.2
3.5	90.8	90.7	-0.1
4.0	89.7	89.5	-0.2
4.5	88.7	88.5	-0.2
5.0	87.8	87.7	-0.1
5.5	87.0	86.9	-0.1
6.0	86.3	86.1	-0.2
6.5	85.6	84.5	-1.1
7.0	85.0	83.9	-1.1
7.5	84.4	83.5	-0.9
8.0	83.9	83.4	-0.5
8.5	83.4	83.4	0.0
9.0	82.4	83.5	1.1
9.5	81.3	83.4	2.1
10.0	80.6	83.4	2.8
10.5	80.3	83.4	3.1
11.0	80.1	83.1	3.0
11.5	80.0	82.4	2.4
12.0	79.8	81.9	2.1
12.5	79.5	81.4	1.9
13.0	79.4	80.9	1.5
13.5	79.3	80.5	1.2
14.0	79.2	80.0	0.8

14.5	79.1	79.8	0.7
15.0	79.0	79.7	0.7
15.5	78.9	79.7	0.8
16.0	78.6	79.6	1.0
16.5	78.2	79.5	1.3
17.0	77.8	79.4	1.6
17.5	77.4	79.5	2.1
18.0	77.1	79.2	2.1
18.5	76.7	78.8	2.1
19.0	76.4	78.4	2.0
19.5	76.1	77.9	1.8
20.0	75.7	77.5	1.8
20.5	75.4	77.1	1.7
21.0	75.1	76.7	1.6
21.5	74.8	76.6	1.8
22.0	74.5	76.5	2.0
22.5	74.2	76.4	2.2
23.0	73.9	76.4	2.5
23.5	73.5	76.4	2.9
24.0	73.2	76.4	3.2
24.5	72.6	76.4	3.8
25.0	71.5	76.4	4.9

Source: Integrated Noise Model (INM) Version 7.0d

Attachment B

Sample User-Defined Departure Profile – JFK

The sample departure profile included in this technical memorandum was developed for A320-232 aircraft departing from Runway 4L and generally heading to the northwest. See **Figure 1** for a plan view depiction of the ANOMS records that were used to inform the development of the User-defined departure profile for the A320-232 aircraft. **Figure 2** presents an altitude vs. distance graph for the same radar flight tracks. On Figure 2, the blue dots represent the radar flight profiles from the Port Authority’s ANOMS. The black line represents the INM standard Stage Length 4 (1,501-2,500 nm) departure profile for the A320-232 aircraft. The yellow line represents the proposed User-defined profile for the A320-232 aircraft for departure Stage Length 4.

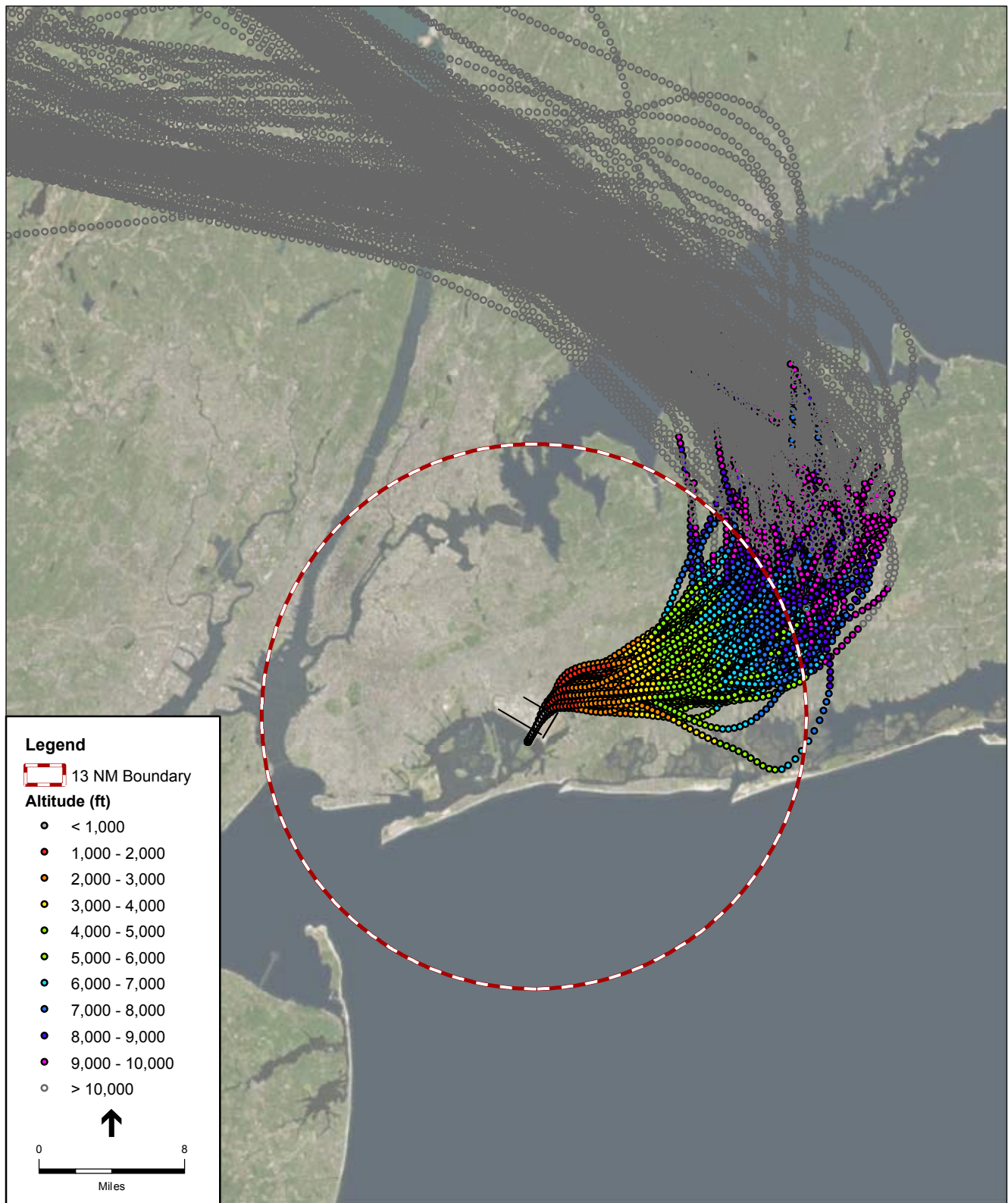
Statement of Benefit

In accordance with Appendix B of the INM User’s Guide, the ESA Study Team developed three graphs (**Figures 2 through 4**) comparing the User-defined arrival profile to the INM Standard arrival profile for the A320-232. The three graphs include: 1) Altitude vs. Distance, 2) Speed vs. Distance, and 3) Thrust vs. Distance. The data presented in these three graphs for the INM standard profile were derived from the INM profile database. The User-defined departure profile represents the distant Noise Abatement Departure Profile (NADP) described on page 183 of the INM User’s Guide. **Table 1** presents the procedure steps for the INM standard profile and the User-defined profile, and **Table 2**, the INM flight path report for the A320-232.

Based on the radar flight profiles exported from the Port Authority’s ANOMS, it is clear that A320-232 aircraft departing Runway 04L at JFK to the northwest are not following the INM standard profile. For this particular example the ANOMS data suggest that A320-232 aircraft are generally at a lower altitude than shown in Figure 2 for the INM standard profile. Figure 2 also reveals that A320-232 aircraft departing Runway 4 at JFK (i.e., represented by the ANOMS data) are climbing at a slower rate after reaching an altitude of 1,500 feet above ground level.

Sound Exposure Level Calculations

As described in Appendix B of INM User’s Manual, **Table 3** presents SEL values for a series of grid points spaced 0.5 nm apart underneath an INM departure flight track developed for Runway 4L that fits within the flight corridor shown on Figure 1. Table 1 presents a comparison of SEL values for the INM standard departure profile to SEL values for the User-defined profile.



SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

John F. Kennedy International Airport 14 CFR Part 150 Study140037

Figure 1

Plan View of A320-232 Radar Departure Tracks
Runway 04L Stage Length 4 Departures to the Northwest

Figure 2: Altitude vs. Distance Graph – A320-232
Runway 04L Stage Length 4 Departures to the Northwest

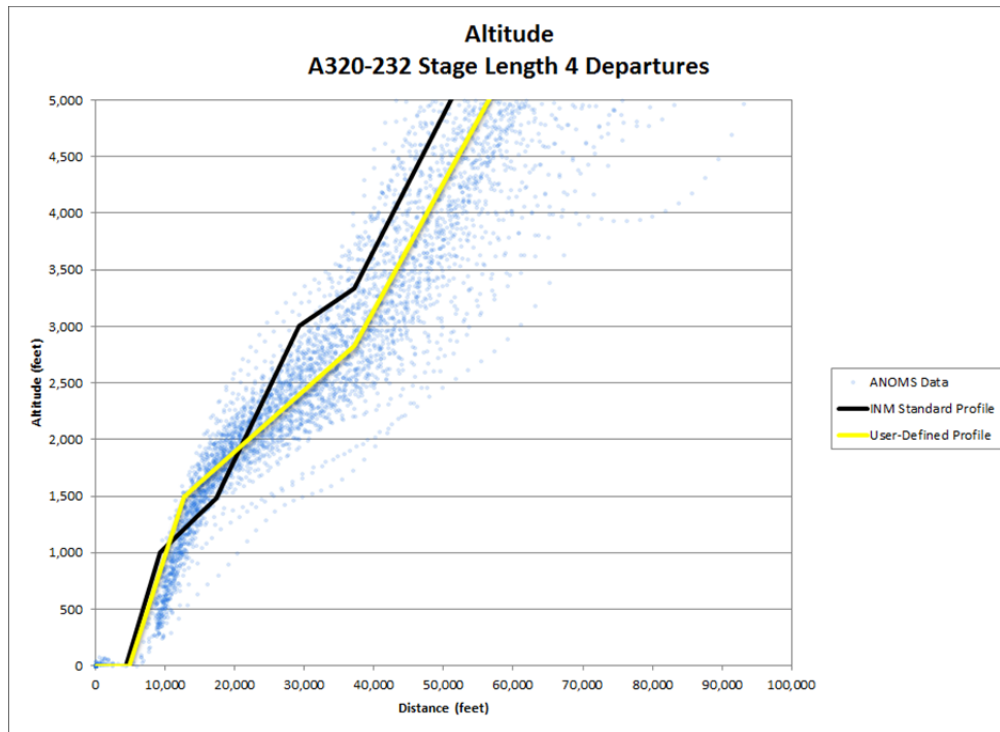


Figure 3: Speed vs. Distance Graph – A320-232
Runway 04L Stage Length 4 Departures to the Northwest

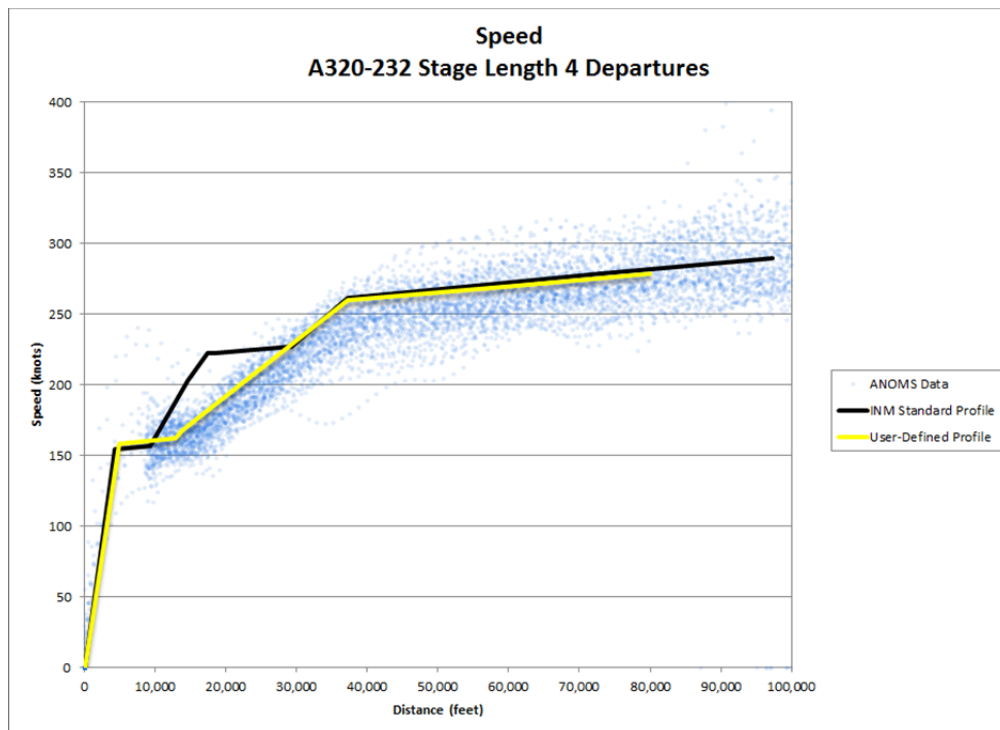


Figure 4: Thrust vs. Distance Graph – A320-232
Runway 04L Stage Length 4 Departures to the Northwest

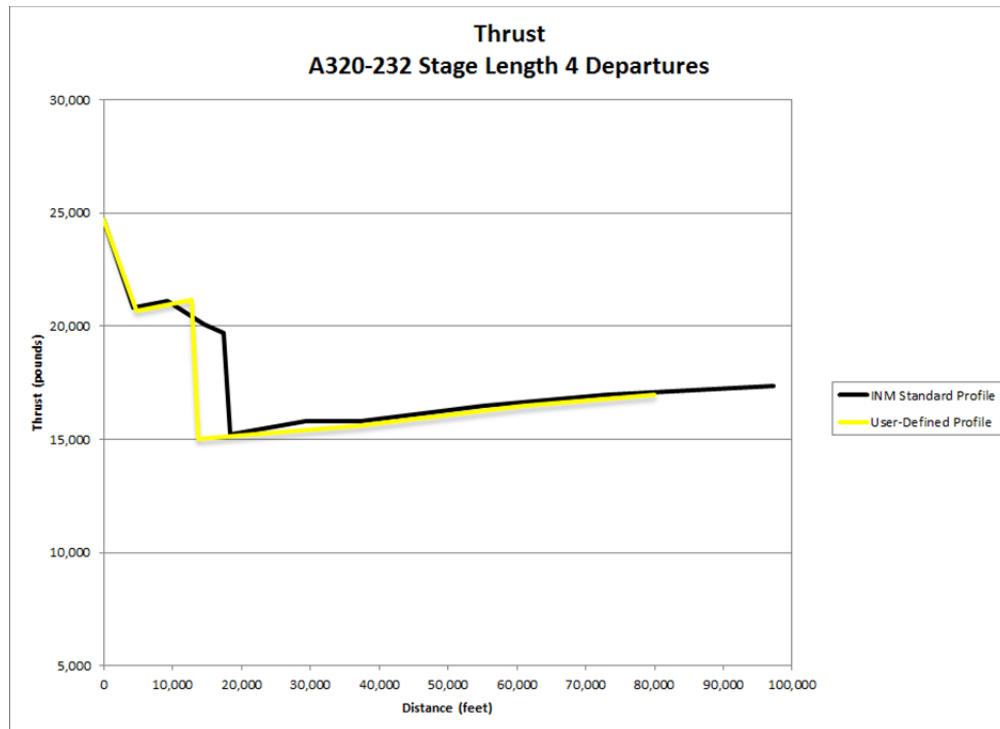


Table 1: Procedural Profiles – A320-232
Runway 04L - Stage Length 4 – Departures to the Northwest

Standard Profile - Stage Length 4, 154,300 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
A320-232	D	STANDARD	1	Takeoff	1+F	MaxTakeoff	0.0	0.0	0.0
A320-232	D	STANDARD	2	Climb	1+F	MaxTakeoff	1000.0	0.0	0.0
A320-232	D	STANDARD	3	Accelerate	1+F	MaxTakeoff	1040.6	199.9	0.0
A320-232	D	STANDARD	4	Accelerate	1	MaxTakeoff	1170.7	218.4	0.0
A320-232	D	STANDARD	5	Climb	ZERO	MaxClimb	3000.0	0.0	0.0
A320-232	D	STANDARD	6	Accelerate	ZERO	MaxClimb	1001.5	250.0	0.0
A320-232	D	STANDARD	7	Climb	ZERO	MaxClimb	5500.0	0.0	0.0
A320-232	D	STANDARD	8	Climb	ZERO	MaxClimb	7500.0	0.0	0.0
A320-232	D	STANDARD	9	Climb	ZERO	MaxClimb	10000.0	0.0	0.0
User-Defined Profile - Stage Length 4, 161,800 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
A320-232	D	USER	1	Takeoff	1+F	MaxTakeoff	0.0	0.0	0.0
A320-232	D	USER	2	Climb	1+F	MaxTakeoff	1500.0	0.0	0.0
A320-232	D	USER	3	Accelerate	1+F	MaxTakeoff	1040.6	150.0	0.0
A320-232	D	USER	4	Accelerate	1	MaxTakeoff	1170.7	155.0	0.0
A320-232	D	USER	5	Accelerate	ZERO	MaxClimb	1100.0	250.0	0.0
A320-232	D	USER	6	Climb	ZERO	MaxClimb	5500.0	0.0	0.0
A320-232	D	USER	7	Climb	ZERO	MaxClimb	7500.0	0.0	0.0
A320-232	D	USER	8	Climb	ZERO	MaxClimb	10000.0	0.0	0.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 2: INM Flight Path Report – A320-232
Runway 04L - Stage Length 4 – Departures to the Northwest

Standard Profile- Stage Length 4, 154,300 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	A320-232	D	STANDARD	0.0	-1.2	0.0	24730.5
1	A320-232	D	STANDARD	67.3	-1.2	18.3	24240.0
2	A320-232	D	STANDARD	269.3	-1.2	36.7	23749.5
3	A320-232	D	STANDARD	606.0	-1.2	55.0	23259.0
4	A320-232	D	STANDARD	1077.3	-1.2	73.3	22768.5
5	A320-232	D	STANDARD	1683.3	-1.2	91.6	22278.0
6	A320-232	D	STANDARD	2423.9	-1.2	110.0	21787.5
7	A320-232	D	STANDARD	3299.2	-1.2	128.3	21297.0
8	A320-232	D	STANDARD	4309.2	-1.2	146.6	20806.4
9	A320-232	D	STANDARD	4586.7	55.3	146.7	20824.2
10	A320-232	D	STANDARD	4917.8	122.7	146.9	20845.4
11	A320-232	D	STANDARD	5311.7	202.8	147.1	20870.6
12	A320-232	D	STANDARD	5808.4	303.9	147.3	20902.3
13	A320-232	D	STANDARD	6475.3	439.6	147.6	20944.8
14	A320-232	D	STANDARD	7464.4	640.9	148.1	21007.6
15	A320-232	D	STANDARD	9223.2	998.8	148.9	21118.9
16	A320-232	D	STANDARD	10848.6	1096.6	164.2	20779.4
17	A320-232	D	STANDARD	12632.7	1203.9	179.5	20440.0
18	A320-232	D	STANDARD	14575.5	1320.7	194.7	20100.5
19	A320-232	D	STANDARD	17324.9	1478.3	214.0	19685.3
20	A320-232	D	STANDARD	18324.9	1605.3	214.4	15242.6
21	A320-232	D	STANDARD	29295.5	2998.8	219.1	15813.3
22	A320-232	D	STANDARD	33093.9	3160.8	236.2	15807.3
23	A320-232	D	STANDARD	37177.4	3334.9	253.2	15801.3
24	A320-232	D	STANDARD	55257.0	5498.8	261.9	16477.9
25	A320-232	D	STANDARD	73032.0	7498.8	270.3	16975.1
26	A320-232	D	STANDARD	97337.1	9998.8	281.3	17382.3
User-Defined Profile - Stage Length 4, 161,800 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	A320-232	D	USER	0.0	-1.2	0.0	24730.5
1	A320-232	D	USER	74.4	-1.2	18.8	24228.2
2	A320-232	D	USER	297.5	-1.2	37.6	23725.9
3	A320-232	D	USER	669.4	-1.2	56.4	23223.6
4	A320-232	D	USER	1190.0	-1.2	75.2	22721.4
5	A320-232	D	USER	1859.3	-1.2	93.9	22219.1
6	A320-232	D	USER	2677.4	-1.2	112.7	21716.8
7	A320-232	D	USER	3644.2	-1.2	131.5	21214.5
8	A320-232	D	USER	4759.8	-1.2	150.3	20712.2

9	A320-232	D	USER	5007.7	45.3	150.4	20727.1
10	A320-232	D	USER	5303.5	100.8	150.6	20744.9
11	A320-232	D	USER	5655.4	166.8	150.7	20766.0
12	A320-232	D	USER	6099.1	250.1	150.9	20792.6
13	A320-232	D	USER	6694.8	361.8	151.2	20828.3
14	A320-232	D	USER	7578.3	527.5	151.6	20881.1
15	A320-232	D	USER	9149.5	822.3	152.3	20974.7
16	A320-232	D	USER	12755.6	1498.8	153.8	21187.8
17	A320-232	D	USER	12767.9	1499.7	153.9	21185.6
18	A320-232	D	USER	12780.6	1500.7	154.0	21183.4
19	A320-232	D	USER	13780.6	1554.9	159.1	15030.3
20	A320-232	D	USER	17623.8	1763.5	177.6	15148.8
21	A320-232	D	USER	21887.6	1995.0	196.0	15267.3
22	A320-232	D	USER	26572.0	2249.2	214.4	15385.8
23	A320-232	D	USER	31677.0	2526.3	232.8	15504.2
24	A320-232	D	USER	37202.6	2826.2	251.3	15622.7
25	A320-232	D	USER	60977.1	5498.8	261.9	16477.9
26	A320-232	D	USER	80051.5	7498.8	270.3	16975.1
27	A320-232	D	USER	106184.8	9998.8	281.3	17382.3

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

**Table 3: SEL Comparison – A320-232
Runway 04L Departures to the Northwest**

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	128.6	128.5	-0.1
0.5	118.8	118.7	-0.1
1.0	101.0	102.9	1.9
1.5	95.0	95.8	0.8
2.0	92.5	92.3	-0.2
2.5	90.5	85.9	-4.6
3.0	86.5	84.5	-2.0
3.5	83.2	83.6	0.4
4.0	81.8	82.7	0.9
4.5	80.7	81.9	1.2
5.0	79.9	81.2	1.3
5.5	79.1	80.5	1.4
6.0	78.5	79.8	1.3
6.5	77.8	79.0	1.2
7.0	77.0	78.1	1.1
7.5	76.3	77.5	1.2
8.0	75.7	76.8	1.1
8.5	75.2	76.2	1.0
9.0	74.6	75.6	1.0
9.5	74.1	75.1	1.0
10.0	73.5	74.5	1.0

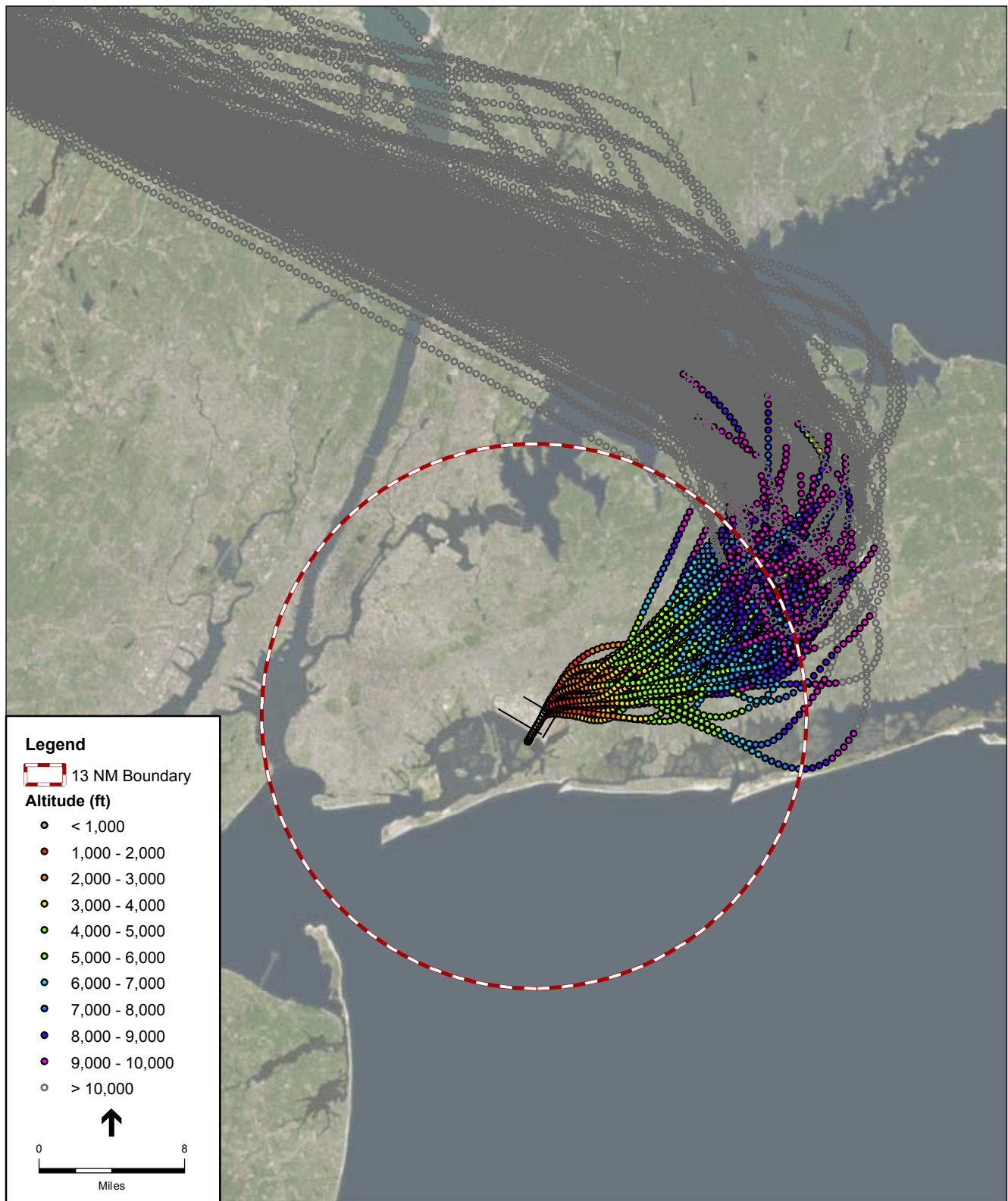
Source: Integrated Noise Model (INM) Version 7.0d.

Additional Sample Profile Charts – EMB190 and 767400

Sample User-defined departure profiles were also developed for the EMB190 and 767400 aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the EMB190 and 767400 are presented on the following pages. These charts present a comparison of the INM standard profile to ANOMS data and also depict a User-defined profile.

Figure 5 presents a plan view of the ANOMS flight track records used in the profile analysis for the EMB190 aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the EMB190 are presented on **Figures 6 – 8**. **Table 4** presents the procedural profiles and **Table 5**, the INM flight path report for the EMB190. **Table 6** presents a comparison of SEL values for the INM standard arrival profile for the EMB190 aircraft to SEL values for the User-defined profile.

Figure 9 presents a plan view of the ANOMS flight track records used in the profile analysis for the 767400 aircraft. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 767400 are presented on **Figures 10 – 12**. **Table 7** presents the procedural profiles and **Table 8**, the INM flight path report for the 767400. **Table 9** presents a comparison of SEL values for the INM standard arrival profile for the 767400 aircraft to SEL values for the User-defined profile.



SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

John F. Kennedy International Airport 14 CFR Part 150 Study.140037

Figure 5

Plan View of EMB-190 Radar Departure Tracks
Runway 04L Stage Length 1 Departures to the Northwest

Figure 6: Altitude vs. Distance Graph – EMB190
Runway 04L Stage Length 1 Departures to the Northwest

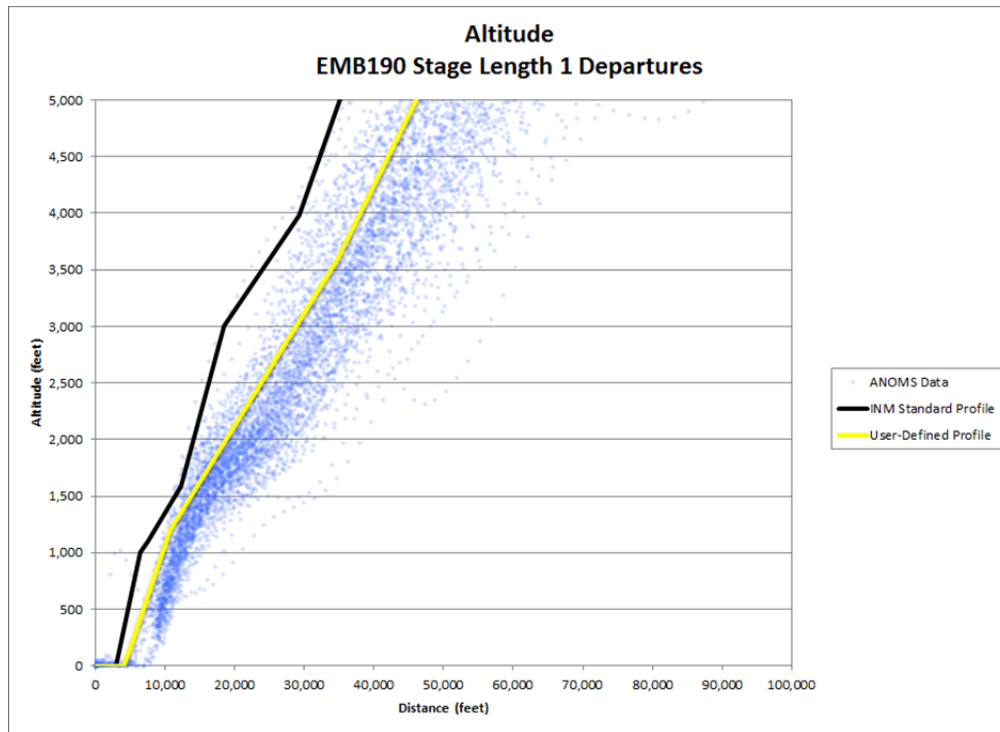
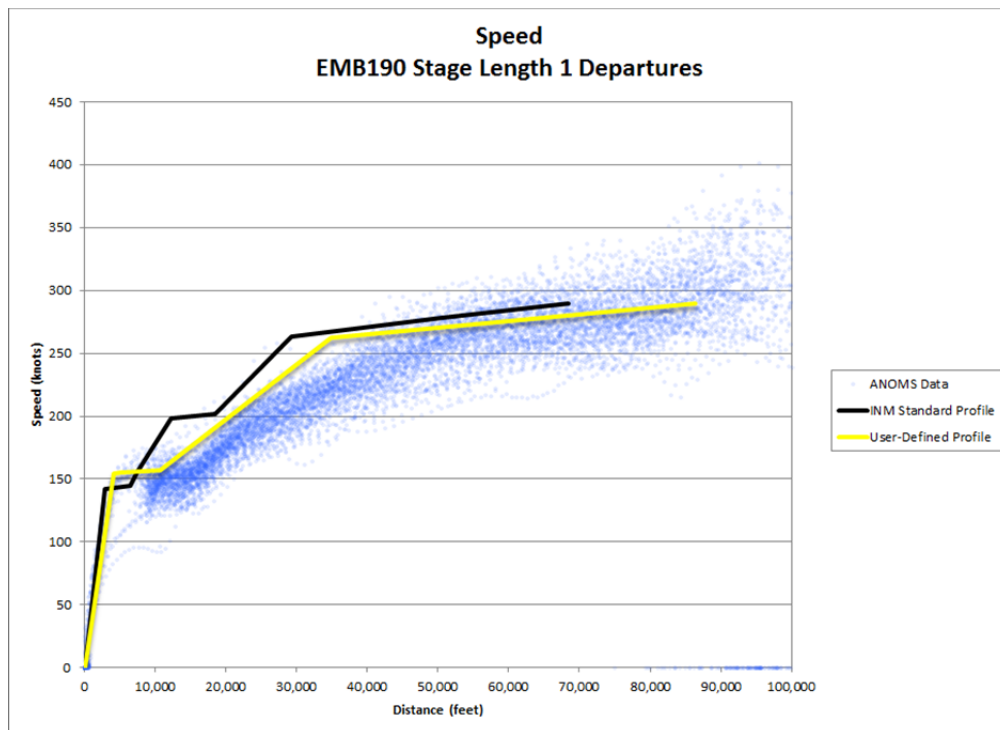


Figure 7: Speed vs. Distance Graph – EMB190
Runway 04L Stage Length 1 Departures to the Northwest



**Figure 8: Thrust vs. Distance Graph – EMB190
Runway 04L Stage Length 1 Departures to the Northwest**

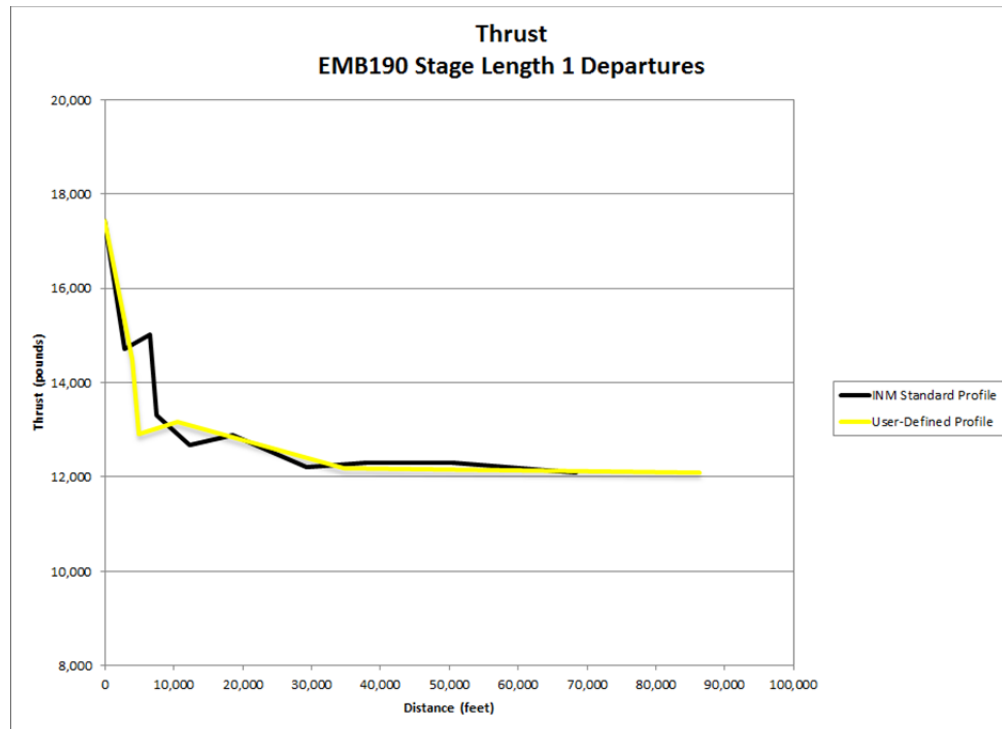


Table 4: Procedural Profiles – EMB190
Runway 04L - Stage Length 1 – Departures to the Northwest

Standard Profile- Stage Length 1, 83,520 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
EMB190	D	STANDARD	1	Takeoff	1	MaxTakeoff	0.0	0.0	0.0
EMB190	D	STANDARD	2	Climb	1	MaxTakeoff	1000.0	0.0	0.0
EMB190	D	STANDARD	3	Accelerate	ZERO	MaxClimb	1685.0	194.5	0.0
EMB190	D	STANDARD	4	Climb	ZERO	MaxClimb	3000.0	0.0	0.0
EMB190	D	STANDARD	5	Accelerate	ZERO	MaxClimb	2041.0	250.0	0.0
EMB190	D	STANDARD	6	Climb	ZERO	MaxClimb	5500.0	0.0	0.0
EMB190	D	STANDARD	7	Climb	ZERO	MaxClimb	7500.0	0.0	0.0
EMB190	D	STANDARD	8	Climb	ZERO	MaxClimb	10000.0	0.0	0.0
User-Defined Profile- Stage Length 1, 98,000 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
EMB190	D	STANDARD	1	Takeoff	1	MaxTakeoff	0.0	0.0	0.0
EMB190	D	STANDARD	2	Climb	1	MaxClimb	1200.0	0.0	0.0
EMB190	D	STANDARD	3	Accelerate	ZERO	MaxClimb	1685.0	150.0	0.0
EMB190	D	STANDARD	4	Accelerate	ZERO	MaxClimb	2000.0	250.0	0.0
EMB190	D	STANDARD	5	Climb	ZERO	MaxClimb	10000.0	0.0	0.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 5: INM Flight Path Report – EMB190
Runway 04L - Stage Length 1 – Departures to the Northwest

Standard Profile- Stage Length 1, 83,520 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	EMB190	D	STANDARD	0.0	-1.2	0.0	17428.7
1	EMB190	D	STANDARD	58.8	-1.2	19.2	17041.0
2	EMB190	D	STANDARD	235.1	-1.2	38.3	16653.2
3	EMB190	D	STANDARD	528.9	-1.2	57.5	16265.4
4	EMB190	D	STANDARD	940.2	-1.2	76.7	15877.6
5	EMB190	D	STANDARD	1469.1	-1.2	95.8	15489.8
6	EMB190	D	STANDARD	2115.5	-1.2	115.0	15102.1
7	EMB190	D	STANDARD	2879.5	-1.2	134.2	14714.3
8	EMB190	D	STANDARD	3080.4	55.3	134.3	14731.9
9	EMB190	D	STANDARD	3320.2	122.7	134.4	14753.0
10	EMB190	D	STANDARD	3605.4	202.8	134.6	14778.0
11	EMB190	D	STANDARD	3965.1	303.9	134.8	14809.5
12	EMB190	D	STANDARD	4448.0	439.6	135.1	14851.7
13	EMB190	D	STANDARD	5164.3	640.9	135.5	14914.1
14	EMB190	D	STANDARD	6437.9	998.8	136.3	15024.7
15	EMB190	D	STANDARD	7437.9	1101.1	146.9	13302.8
16	EMB190	D	STANDARD	8897.8	1250.5	161.3	13095.0
17	EMB190	D	STANDARD	10493.9	1413.8	175.7	12887.2
18	EMB190	D	STANDARD	12226.1	1591.1	190.0	12679.5
19	EMB190	D	STANDARD	18523.2	2998.8	194.2	12897.7
20	EMB190	D	STANDARD	20934.4	3218.3	209.6	12726.3
21	EMB190	D	STANDARD	23529.3	3454.6	225.0	12555.0
22	EMB190	D	STANDARD	26307.9	3707.6	240.4	12383.6
23	EMB190	D	STANDARD	29270.2	3977.3	255.8	12212.2
24	EMB190	D	STANDARD	37988.0	5498.8	261.9	12309.1
25	EMB190	D	STANDARD	50499.2	7498.8	270.3	12304.7
26	EMB190	D	STANDARD	68434.6	9998.8	281.3	12088.9
User-Defined Profile- Stage Length 1, 98,000 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	EMB190	D	USER	0.0	-1.2	0.0	17425.8
1	EMB190	D	USER	63.0	-1.2	19.3	17058.2
2	EMB190	D	USER	251.8	-1.2	38.5	16690.7
3	EMB190	D	USER	566.5	-1.2	57.8	16323.1
4	EMB190	D	USER	1007.2	-1.2	77.0	15955.6
5	EMB190	D	USER	1573.8	-1.2	96.3	15588.0
6	EMB190	D	USER	2266.2	-1.2	115.5	15220.5
7	EMB190	D	USER	3084.6	-1.2	134.8	14852.9

8	EMB190	D	USER	4028.8	-1.2	154.0	14485.4
9	EMB190	D	USER	4305.6	49.5	154.1	14048.4
10	EMB190	D	USER	4635.9	110.1	154.2	13527.3
11	EMB190	D	USER	5028.8	182.1	154.4	12908.2
12	EMB190	D	USER	10575.7	1198.8	156.7	13170.8
13	EMB190	D	USER	10592.0	1200.6	156.8	13169.7
14	EMB190	D	USER	13778.0	1516.7	174.4	13003.7
15	EMB190	D	USER	17301.9	1866.3	191.9	12837.7
16	EMB190	D	USER	21163.9	2249.5	209.5	12671.8
17	EMB190	D	USER	25363.9	2666.2	227.1	12505.8
18	EMB190	D	USER	29901.8	3116.4	244.6	12339.8
19	EMB190	D	USER	34777.8	3600.2	262.2	12173.8
20	EMB190	D	USER	59936.1	6721.2	275.7	12132.0
21	EMB190	D	USER	86357.2	9998.8	289.2	12090.2

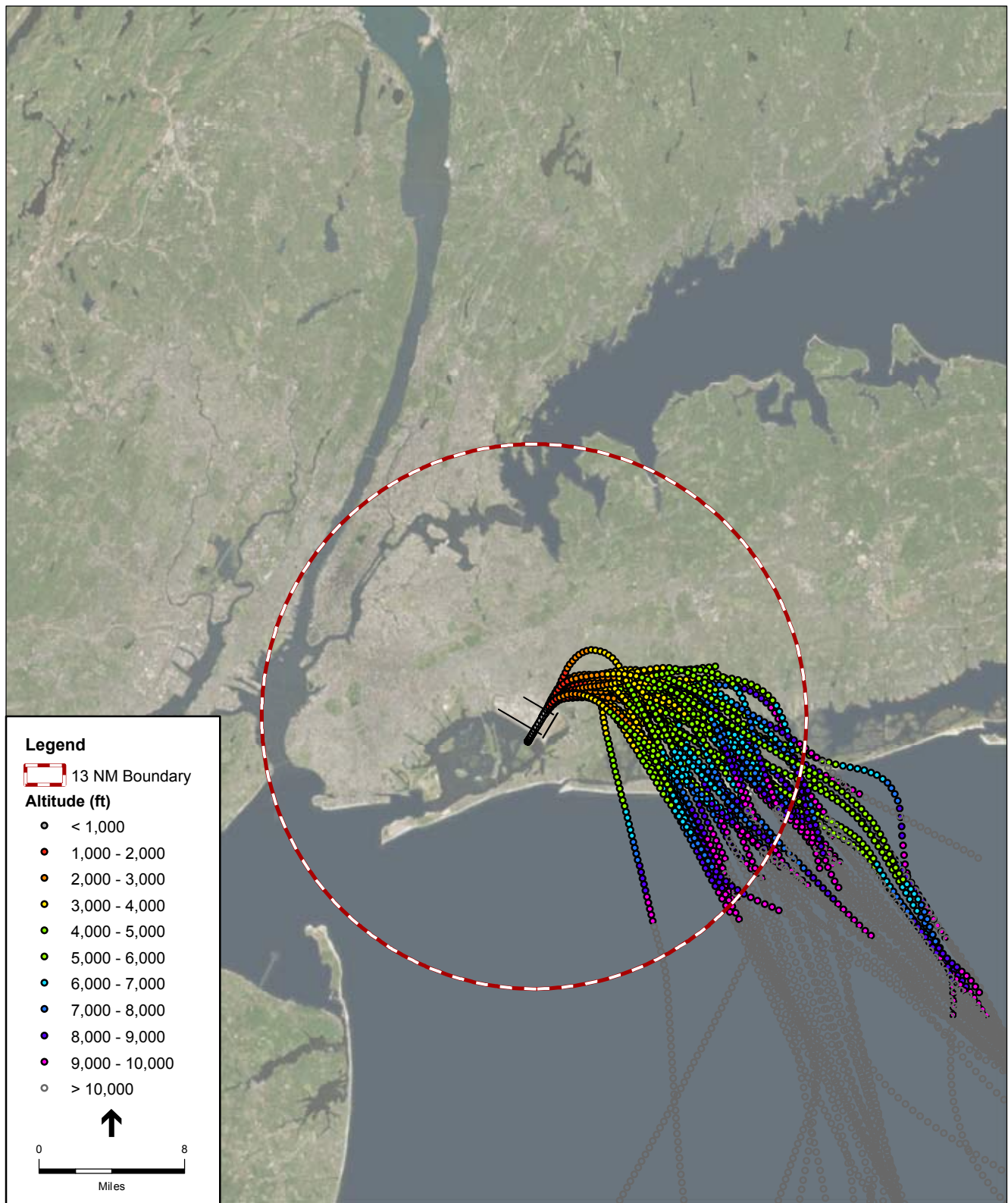
Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 6: SEL Comparison – EMB190
Runway 04L Departures to the Northwest

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	129.3	129.2	-0.1
0.5	112.0	118.5	6.5
1.0	96.9	98.9	2.0
1.5	91.5	93.7	2.2
2.0	88.7	91.0	2.3
2.5	86.6	89.1	2.5
3.0	84.9	87.5	2.6
3.5	83.4	85.9	2.5
4.0	82.1	84.6	2.5
4.5	80.9	83.4	2.5
5.0	79.8	82.3	2.5
5.5	78.8	81.3	2.5
6.0	77.9	80.4	2.5
6.5	77.1	79.5	2.4
7.0	76.4	78.8	2.4
7.5	75.6	78.1	2.5
8.0	74.9	77.4	2.5
8.5	74.2	76.8	2.6
9.0	73.6	76.3	2.7
9.5	73.0	75.7	2.7
10.0	72.3	75.1	2.8

Source: Integrated Noise Model (INM) Version 7.0d.



SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

John F. Kennedy International Airport 14 CFR Part 150 Study.140037

Figure 9

Plan View of 767-400 Radar Departure Tracks
Runway 04L Stage Length 5 Departures to the Southeast

Figure 10: Altitude vs. Distance Graph – 767400
Runway 04L Stage Length 5 Departures to the Southeast

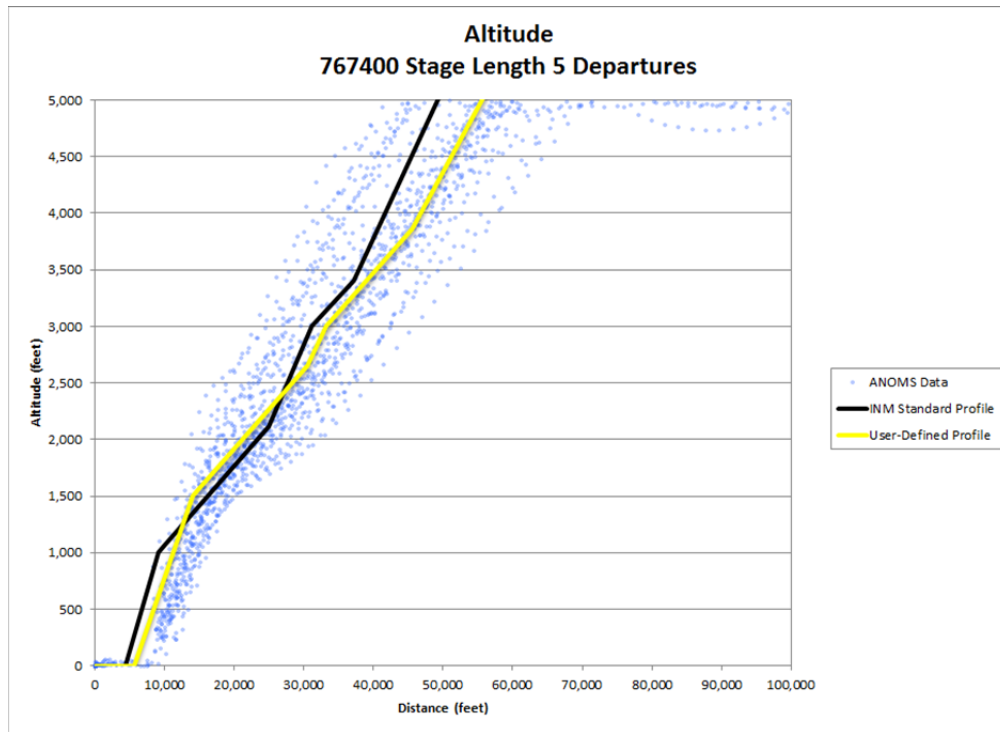


Figure 11: Speed vs. Distance Graph – 767400
Runway 04L Stage Length 5 Departures to the Southeast

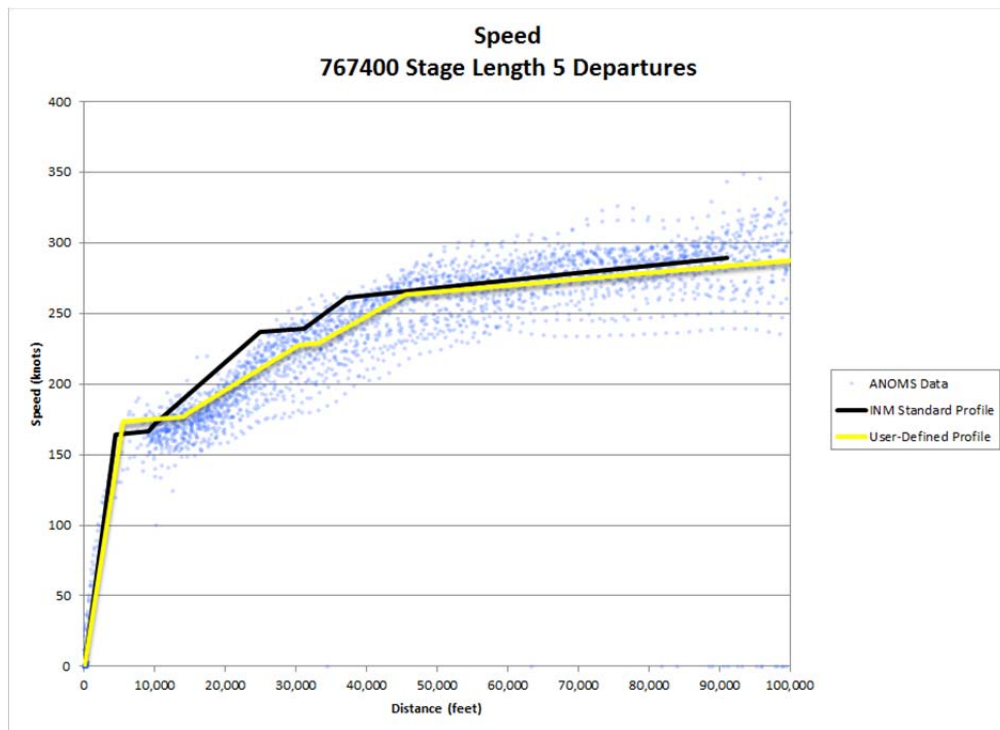


Figure 12: Thrust vs. Distance Graph – 767400
Runway 04L Stage Length 5 Departures to the Southeast

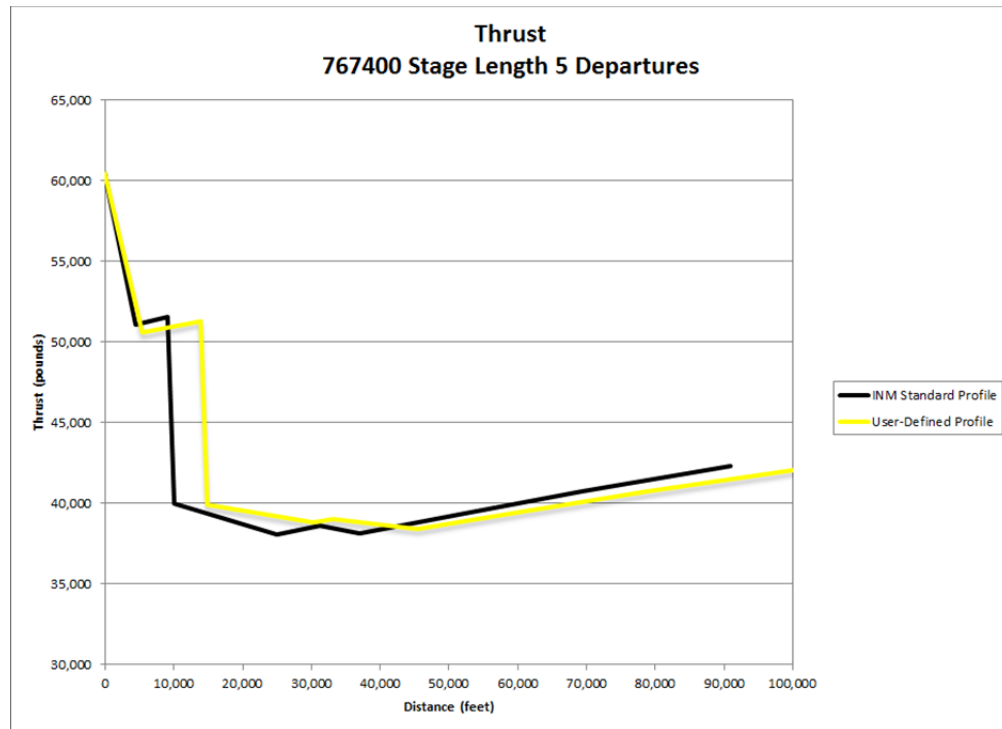


Table 7: Procedural Profiles – 767400
Runway 04L - Stage Length 5 – Departures to the Southeast

Standard Profile- Stage Length 5, 354,427 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
767400	D	STANDARD	1	Takeoff	T_20_U	MaxTakeoff	0.0	0.0	0.0
767400	D	STANDARD	2	Climb	T_20_U	MaxTakeoff	1000.0	0.0	0.0
767400	D	STANDARD	3	Accelerate	T_05_U	MaxClimb	1360.1	230.5	0.0
767400	D	STANDARD	4	Climb	T_00_U	MaxClimb	3000.0	0.0	0.0
767400	D	STANDARD	5	Accelerate	T_00_U	MaxClimb	1661.5	250.0	0.0
767400	D	STANDARD	6	Climb	T_00_U	MaxClimb	5500.0	0.0	0.0
767400	D	STANDARD	7	Climb	T_00_U	MaxClimb	7500.0	0.0	0.0
767400	D	STANDARD	8	Climb	T_00_U	MaxClimb	10000.0	0.0	0.0
User-Defined Profile- Stage Length 5, 393,366 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
767400	D	USER	1	Takeoff	T_20_U	MaxTakeoff	0.0	0.0	0.0
767400	D	USER	2	Climb	T_20_U	MaxTakeoff	1500.0	0.0	0.0
767400	D	USER	3	Accelerate	T_05_U	MaxClimb	1360.1	220.0	0.0
767400	D	USER	4	Climb	T_00_U	MaxClimb	3000.0	0.0	0.0
767400	D	USER	5	Accelerate	T_00_U	MaxClimb	1661.5	250.0	0.0
767400	D	USER	6	Climb	T_00_U	MaxClimb	5500.0	0.0	0.0
767400	D	USER	7	Climb	T_00_U	MaxClimb	7500.0	0.0	0.0
767400	D	USER	8	Climb	T_00_U	MaxClimb	10000.0	0.0	0.0

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

Table 8: INM Flight Path Report – 767400
Runway 04L - Stage Length 5 – Departures to the Southeast

Standard Profile- Stage Length 5, 354,427 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	767400	D	STANDARD	0.0	-1.2	0.0	60450.7
1	767400	D	STANDARD	68.8	-1.2	19.5	59277.6
2	767400	D	STANDARD	275.1	-1.2	39.1	58104.6
3	767400	D	STANDARD	619.1	-1.2	58.6	56931.5
4	767400	D	STANDARD	1100.6	-1.2	78.2	55758.5
5	767400	D	STANDARD	1719.6	-1.2	97.7	54585.4
6	767400	D	STANDARD	2476.2	-1.2	117.3	53412.4
7	767400	D	STANDARD	3370.4	-1.2	136.8	52239.3
8	767400	D	STANDARD	4402.2	-1.2	156.3	51066.3
9	767400	D	STANDARD	4668.4	55.3	156.5	51093.5
10	767400	D	STANDARD	4986.1	122.7	156.6	51126.0
11	767400	D	STANDARD	5363.9	202.8	156.8	51164.5
12	767400	D	STANDARD	5840.5	303.9	157.1	51213.1
13	767400	D	STANDARD	6480.2	439.6	157.4	51278.2
14	767400	D	STANDARD	7429.1	640.9	157.9	51374.5
15	767400	D	STANDARD	9116.4	998.8	158.8	51545.0
16	767400	D	STANDARD	10116.4	1068.9	164.0	39963.0
17	767400	D	STANDARD	13379.5	1297.7	180.1	39493.1
18	767400	D	STANDARD	16948.5	1547.9	196.3	39023.3
19	767400	D	STANDARD	20823.5	1819.6	212.4	38553.5
20	767400	D	STANDARD	25004.5	2112.7	228.5	38083.6
21	767400	D	STANDARD	31227.2	2998.8	231.7	38644.9
22	767400	D	STANDARD	34098.9	3196.7	242.6	38387.2
23	767400	D	STANDARD	37103.0	3403.7	253.5	38129.4
24	767400	D	STANDARD	53056.3	5498.8	261.9	39456.5
25	767400	D	STANDARD	69246.8	7498.8	270.3	40723.4
26	767400	D	STANDARD	90994.5	9998.8	281.3	42307.1
User-Defined Profile- Stage Length 5, 393,366 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0.0	767400.0	D	USER	0.0	-1.2	0.0	60450.7
1.0	767400.0	D	USER	67.6	-1.2	18.3	59352.2
2.0	767400.0	D	USER	270.4	-1.2	36.7	58253.7
3.0	767400.0	D	USER	608.5	-1.2	55.0	57155.2
4.0	767400.0	D	USER	1081.8	-1.2	73.4	56056.7
5.0	767400.0	D	USER	1690.3	-1.2	91.7	54958.2
6.0	767400.0	D	USER	2434.0	-1.2	110.1	53859.7
7.0	767400.0	D	USER	3312.9	-1.2	128.4	52761.2

8.0	767400.0	D	USER	4327.1	-1.2	146.8	51662.7
9.0	767400.0	D	USER	5476.5	-1.2	165.1	50564.2
10.0	767400.0	D	USER	5738.5	45.3	165.2	50586.7
11.0	767400.0	D	USER	6051.1	100.8	165.4	50613.6
12.0	767400.0	D	USER	6422.9	166.8	165.6	50645.5
13.0	767400.0	D	USER	6891.9	250.1	165.8	50685.6
14.0	767400.0	D	USER	7521.5	361.8	166.1	50739.5
15.0	767400.0	D	USER	8455.3	527.5	166.5	50819.2
16.0	767400.0	D	USER	10115.8	822.3	167.3	50960.5
17.0	767400.0	D	USER	13926.9	1498.8	169.0	51282.4
18.0	767400.0	D	USER	14926.9	1568.7	172.5	39929.8
19.0	767400.0	D	USER	19673.1	1900.4	188.2	39566.5
20.0	767400.0	D	USER	24832.6	2261.1	203.9	39203.3
21.0	767400.0	D	USER	30405.5	2650.6	219.6	38840.0
22.0	767400.0	D	USER	33208.6	2998.8	220.7	39060.6
23.0	767400.0	D	USER	39133.4	3414.7	238.0	38740.2
24.0	767400.0	D	USER	45504.5	3861.9	255.3	38419.7
25.0	767400.0	D	USER	60036.8	5498.8	261.9	39456.5
26.0	767400.0	D	USER	78828.1	7498.8	270.3	40723.4
27.0	767400.0	D	USER	104144.8	9998.8	281.3	42307.1

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; ESA, 2016.

**Table 9: SEL Comparison – 767400
Runway 04L Departures to the Southeast**

Grid Points (NM)	Standard INM Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	135.5	135.8	0.3
0.5	123.9	124.4	0.5
1.0	106.0	111.4	5.4
1.5	100.4	102.2	1.8
2.0	92.7	98.6	5.9
2.5	91.1	92.4	1.3
3.0	89.7	89.8	0.1
3.5	88.5	88.6	0.1
4.0	87.3	87.6	0.3
4.5	86.1	86.7	0.6
5.0	85.1	85.8	0.7
5.5	84.2	85.0	0.8
6.0	83.2	84.2	1.0
6.5	82.5	83.5	1.0
7.0	81.8	82.9	1.1
7.5	81.2	82.2	1.0
8.0	80.7	81.7	1.0
8.5	80.1	81.1	1.0
9.0	79.6	80.6	1.0
9.5	79.2	80.2	1.0
10.0	78.7	79.7	1.0

Source: Integrated Noise Model (INM) Version 7.0d.

Attachment C

Sample User-Defined Arrival Profile - LGA

The sample arrival profile included in this technical memorandum was developed using the predefined methodology for the CRJ9-ER INM-type aircraft. This aircraft is forecast to account for the greatest number of operations at LGA in 2016 and 2021.

Statement of Benefit

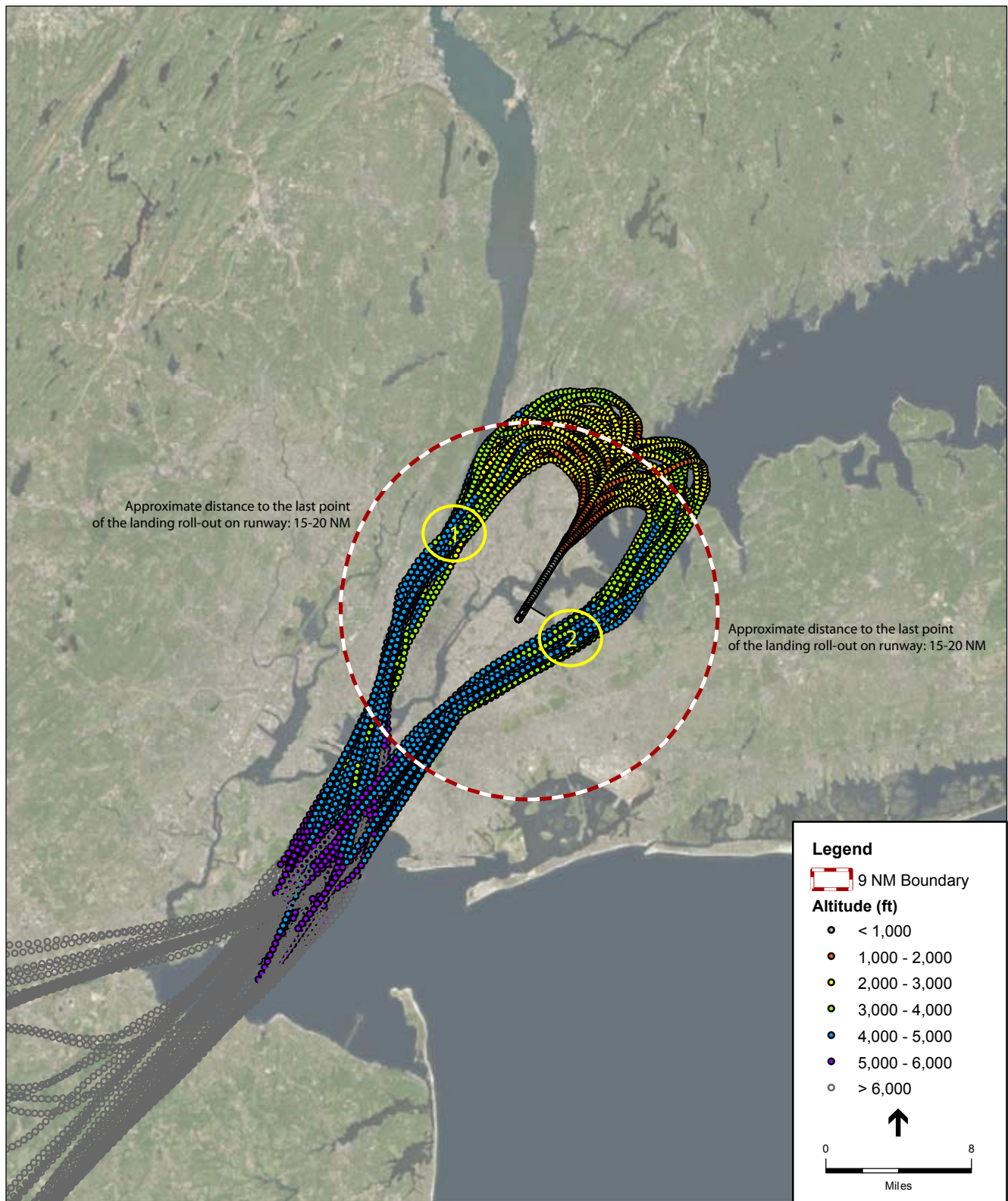
Figure 1 depicts a plan-view of the CRJ9-ER aircraft altitudes from ANOMS on the left and right-downwind approaches to Runway 22. As discussed earlier in this technical memorandum, the ANOMS flight profile data were analyzed to identify the altitudes of the aircraft following these approaches to Runway 22. The ANOMS data indicate that the aircraft are on a level-fly segment at an altitude of 4,000 feet above ground level on the downwind leg of the approaches to Runway 22 (see areas “1” and “2” on Figure 1). As shown on Figure 1, the distances to the areas that have the greatest potential to affect the DNL contours for these approach tracks range from 15-25 nautical miles from the runway.

Three graphs (**Figures 2 through 4**) were developed showing the User-defined arrival profile and the INM standard arrival profile for the CRJ9-ER. The three graphs include: 1) Altitude vs. Distance, 2) Speed vs. Distance, and 3) Thrust vs. Distance. On Figures 2 through 4, the red dots represent the radar flight profiles from the Port Authority’s ANOMS. The black line represents the INM standard arrival profile for the CRJ9-ER aircraft. The yellow line represents the proposed User-defined arrival profile for the CRJ9-ER aircraft. **Table 1** presents the procedure steps of the INM standard profile and the User-defined profile, and **Table 2**, the INM flight path report for the CRJ9-ER.

The User-defined profile for the CRJ9-ER begins at an altitude of 4,000 feet at a distance approximately 230,000 feet (38 nautical miles) from the last point of the landing roll-out on the runway. This is the location where the aircraft enters the LGA profile analysis boundary, which is the area within which overflights have the potential to influence the noise contours. The profile continues the level-fly segment at 4,000 feet above ground level until the aircraft intercepts the 3-degree glideslope to the runway. Speeds for the User-defined level-fly segment were identified and modeled based on the speeds identified in the ANOMS dataset. Once the aircraft intercepts the 3-degree approach to Runway 22, the standard INM arrival profile is used for the remainder of the flight profile as there is a good correlation between the INM standard profile and the ANOMS data for this portion of the flight profile.

Sound Exposure Level Calculations

As described in Appendix B of INM User’s Manual, **Table 3** presents Sound Exposure Level (SEL) values for a series of grid points spaced 0.5 nm apart underneath the INM arrival flight track. The table presents a comparison of SEL values for the INM standard arrival profile to SEL values for the draft User-defined profile. Figure 1 identifies the range of distances from the yellow circles to the last point of the landing roll-out on the runway for the two downwind approaches to the Runway 22. When comparing the SEL values for the INM standard profile to the User-defined profiles in the table, it is clear that the yellow circles on Figure 1 represent the areas in which the User-defined profile will have the greatest effect on the DNL contours.

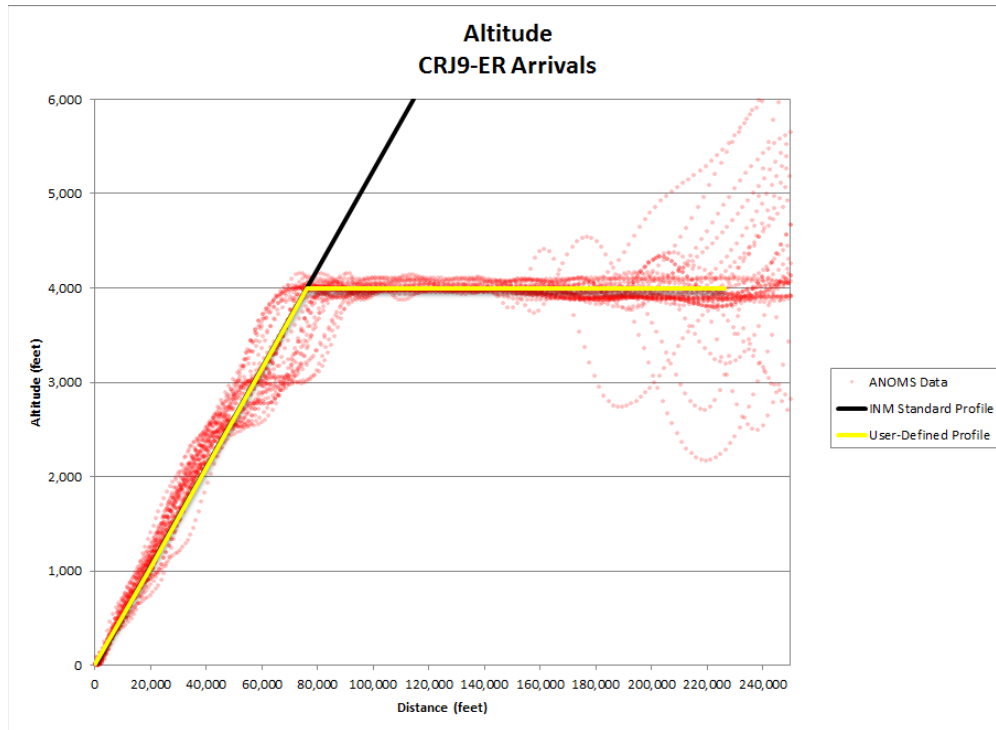


SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

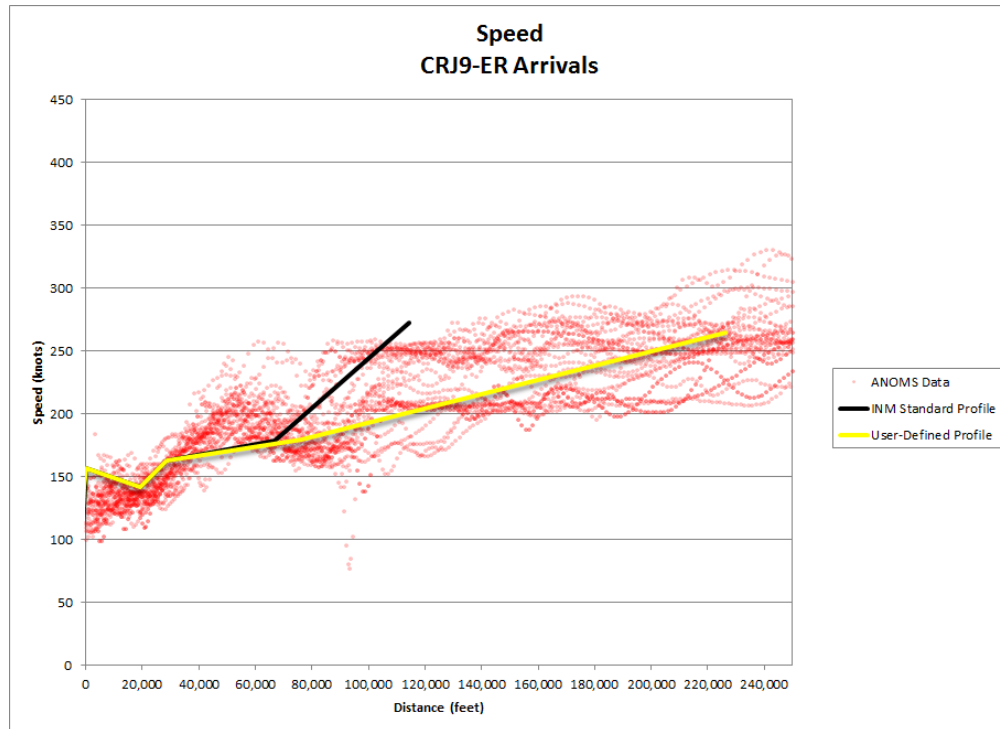
LaGuardia Airport 14 CFR Part 150 Study . 140037
Figure 1
Plan View of CRJ9-ER Radar Arrival Tracks
Runway 22 Arrivals from the Southwest

The SEL data in Table 3 for the areas 15-25 nautical miles from touchdown show considerable differences when comparing the INM standard profiles with the User-defined profiles in this area. The primary reason for these differences is that for the CRJ9-ER, the INM does not calculate sound levels beyond 19 nautical miles if the standard arrival profile is used. There are areas well beyond 19 nautical miles from touchdown that are exposed to sound levels being generated by aircraft on a level-fly segment with an altitude of 4,000 feet above ground level. In this case, the User-defined profile more accurately models the sound levels being generated by the aircraft passing through the profile analysis boundary.

**Figure 2: Altitude vs. Distance Graph – CRJ9-ER
Runway 22 Arrivals from the Left and Right-Downwind**



**Figure 3: Speed vs. Distance Graph – CRJ9-ER
Runway 22 Arrivals from the Left and Right-Downwind**



**Figure 4: Thrust vs. Distance Graph – CRJ9-ER
Runway 22 Arrivals from the Left and Right-Downwind**

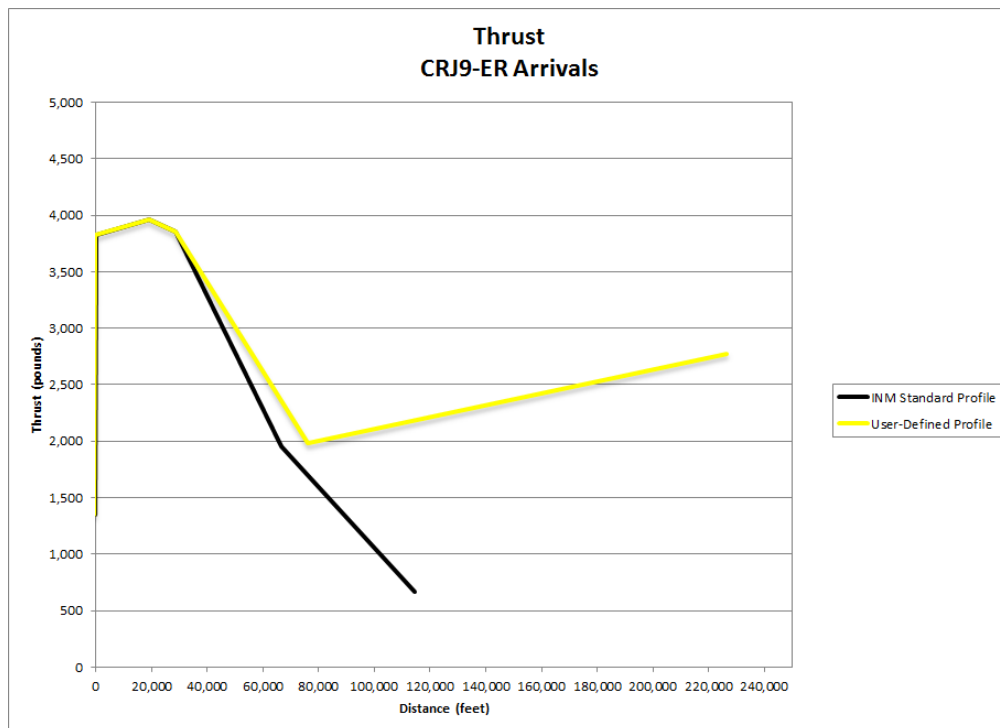


Table 1: Procedural Profiles – CRJ9-ER
Runway 22 - Left and Right-Downwind Arrivals

Standard Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
CRJ9-ER	A	STANDARD	1	Descend	ZERO		6000.0	250.0	3.0
CRJ9-ER	A	STANDARD	2	Descend	20		3500.0	170.0	3.0
CRJ9-ER	A	STANDARD	3	Descend	U-45		1500.0	160.0	3.0
CRJ9-ER	A	STANDARD	4	Descend	D-45		1000.0	140.0	3.0
CRJ9-ER	A	STANDARD	5	Land	D-45		415.8	0.0	0.0
CRJ9-ER	A	STANDARD	6	Decelerate		NORMAL	2528.0	143.0	10.0
CRJ9-ER	A	STANDARD	7	Decelerate		NORMAL	0.0	30.0	10.0
User-Defined Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
CRJ9-ER	A	USER	1	Level	ZERO		4000.0	250.0	150000.0
CRJ9-ER	A	USER	2	Descend	20		4000.0	170.0	3.0
CRJ9-ER	A	USER	3	Descend	U-45		1500.0	160.0	3.0
CRJ9-ER	A	USER	4	Descend	D-45		1000.0	140.0	3.0
CRJ9-ER	A	USER	5	Land	D-45		415.8	0.0	0.0
CRJ9-ER	A	USER	6	Decelerate		NORMAL	2528.0	143.0	10.0
CRJ9-ER	A	USER	7	Decelerate		NORMAL	0.0	30.0	10.0

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

**Table 2: INM Flight Path Report – CRJ9-ER
Runway 22 - Left and Right-Downwind Arrivals**

Standard Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	CRJ9-ER	A	STANDARD	116152.3	5990.5	264.3	672.0
1	CRJ9-ER	A	STANDARD	104961.0	5404.0	245.5	927.6
2	CRJ9-ER	A	STANDARD	94595.1	4860.7	226.7	1183.1
3	CRJ9-ER	A	STANDARD	85054.5	4360.7	207.9	1438.7
4	CRJ9-ER	A	STANDARD	76339.3	3904.0	189.1	1694.3
5	CRJ9-ER	A	STANDARD	68449.4	3490.5	170.3	1949.8
6	CRJ9-ER	A	STANDARD	30287.1	1490.5	154.9	3856.1
7	CRJ9-ER	A	STANDARD	25339.8	1231.2	144.2	3910.6
8	CRJ9-ER	A	STANDARD	20746.6	990.5	133.5	3965.2
9	CRJ9-ER	A	STANDARD	2943.9	57.5	147.7	3833.6
10	CRJ9-ER	A	STANDARD	2361.1	27.0	148.1	3829.2
11	CRJ9-ER	A	STANDARD	1665.4	-9.5	148.6	3824.0
12	CRJ9-ER	A	STANDARD	1249.6	-9.5	134.4	1352.5
13	CRJ9-ER	A	STANDARD	604.9	-9.5	117.0	1352.5
14	CRJ9-ER	A	STANDARD	49.5	-9.5	99.6	1352.5
15	CRJ9-ER	A	STANDARD	-416.5	-9.5	82.2	1352.5
16	CRJ9-ER	A	STANDARD	-793.1	-9.5	64.7	1352.5
17	CRJ9-ER	A	STANDARD	-1080.4	-9.5	47.3	1352.5
18	CRJ9-ER	A	STANDARD	-1278.4	-9.5	29.9	1352.5
User-Defined Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	CRJ9-ER	A	USER	227990.0	3990.5	256.2	2780.7
1	CRJ9-ER	A	USER	193247.6	3990.5	239.3	2621.8
2	CRJ9-ER	A	USER	160876.4	3990.5	222.4	2462.9
3	CRJ9-ER	A	USER	130876.4	3990.5	205.5	2304.1
4	CRJ9-ER	A	USER	103247.6	3990.5	188.6	2145.2
5	CRJ9-ER	A	USER	77990.0	3990.5	171.6	1986.3
6	CRJ9-ER	A	USER	30287.1	1490.5	154.9	3856.1
7	CRJ9-ER	A	USER	25339.8	1231.2	144.2	3910.6
8	CRJ9-ER	A	USER	20746.6	990.5	133.5	3965.2
9	CRJ9-ER	A	USER	2943.9	57.5	147.7	3833.6
10	CRJ9-ER	A	USER	2361.1	27.0	148.1	3829.2
11	CRJ9-ER	A	USER	1665.4	-9.5	148.6	3824.0
12	CRJ9-ER	A	USER	1249.6	-9.5	134.4	1352.5
13	CRJ9-ER	A	USER	604.9	-9.5	117.0	1352.5
14	CRJ9-ER	A	USER	49.5	-9.5	99.6	1352.5
15	CRJ9-ER	A	USER	-416.5	-9.5	82.2	1352.5
16	CRJ9-ER	A	USER	-793.1	-9.5	64.7	1352.5

17	CRJ9-ER	A	USER	-1080.4	-9.5	47.3	1352.5
18	CRJ9-ER	A	USER	-1278.4	-9.5	29.9	1352.5

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

**Table 3: SEL Comparison – CRJ9-ER
Runway 22 - Left and Right-Downwind Arrivals**

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	105.8	105.8	0.0
0.5	99.3	99.3	0.0
1.0	93.9	93.9	0.0
1.5	90.8	90.8	0.0
2.0	88.8	88.8	0.0
2.5	87.2	87.2	0.0
3.0	85.8	85.8	0.0
3.5	84.7	84.7	0.0
4.0	83.6	83.6	0.0
4.5	82.4	82.4	0.0
5.0	81.6	81.5	-0.1
5.5	80.5	80.5	0.0
6.0	79.9	79.9	0.0
6.5	79.3	79.3	0.0
7.0	78.6	78.6	0.0
7.5	78.0	78.0	0.0
8.0	77.3	77.4	0.1
8.5	76.8	76.8	0.0
9.0	76.2	76.3	0.1
9.5	75.7	75.8	0.1
10.0	75.1	75.3	0.2
10.5	74.6	74.8	0.2
11.0	74.1	74.3	0.2
11.5	73.4	73.9	0.5
12.0	72.8	73.4	0.6
12.5	72.3	73.0	0.7
13.0	71.7	72.7	1.0
13.5	71.1	72.4	1.3
14.0	70.7	72.4	1.7
14.5	70.0	72.4	2.4
15.0	69.5	72.4	2.9
15.5	69.1	72.4	3.3
16.0	68.6	72.4	3.8
16.5	68.1	72.3	4.2
17.0	67.7	72.3	4.6
17.5	67.3	72.1	4.8
18.0	66.7	72.0	5.3
18.5	65.8	72.1	6.3
19.0	64.1	72.1	8.0
19.5	60.7	72.1	11.4
20.0	56.0	72.1	16.1
20.5	51.4	72.1	20.7
21.0	47.4	72.0	24.6
21.5	44.0	72.0	28.0
22.0	41.1	71.8	30.7
22.5	38.6	71.7	33.1
23.0	36.3	71.8	35.5
23.5	34.3	71.8	37.5
24.0	32.5	71.8	39.3

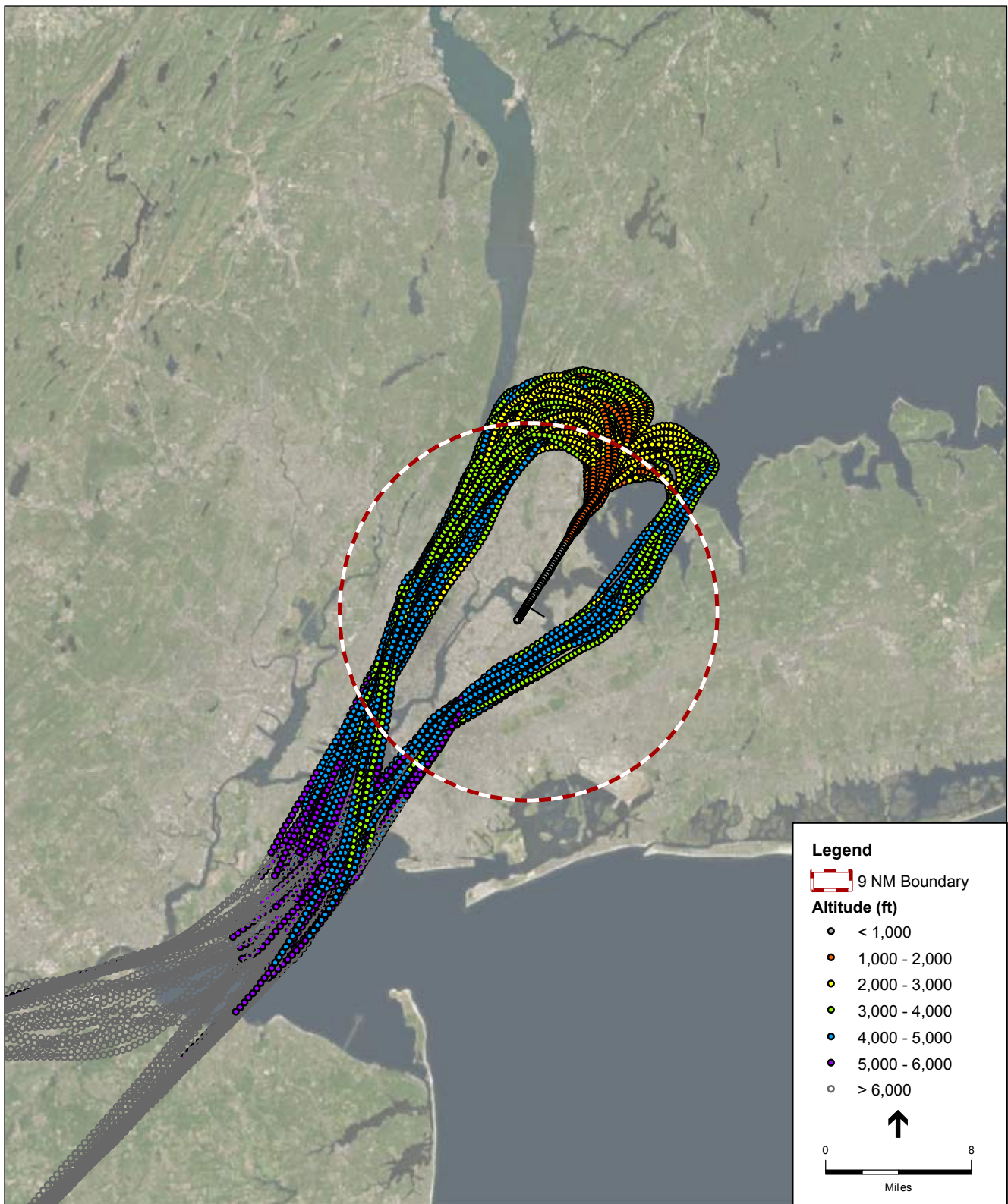
24.5	30.9	71.8	40.9
25.0	29.4	71.8	42.4
25.5	28.0	71.7	43.7
26.0	26.7	71.7	45.0
26.5	25.5	71.7	46.2
27.0	24.4	71.5	47.1
27.5	23.3	71.5	48.2
28.0	22.4	71.5	49.1
28.5	21.5	71.5	50.0
29.0	20.6	71.5	50.9
29.5	19.8	71.5	51.7
30.0	19.0	71.5	52.5
30.5	18.3	71.5	53.2
31.0	17.5	71.5	54.0
31.5	16.9	71.4	54.5
32.0	16.2	71.3	55.1
32.5	15.5	71.2	55.7
33.0	14.9	71.2	56.3
33.5	14.3	71.3	57.0
34.0	13.7	71.3	57.6
34.5	13.1	71.3	58.2
35.0	12.6	71.3	58.7

Source: Integrated Noise Model (INM) Version 7.0d.

Additional Sample Profile Charts - 737700

The airline fleet at LGA is comprised of two categories of aircraft: single-aisle narrow-body jets and regional jets. Therefore, an additional sample User-defined arrival profile was also developed for the 737700. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 737700 are presented on the following pages. These charts present a comparison of the INM standard profile to ANOMS data and also depict a User-defined profile.

Figure 5 presents a plan view of the ANOMS flight track records used in the profile analysis for the 737700. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 737700 are presented on **Figures 6 – 8**. **Table 4** presents the profile procedure steps and **Table 5**, the INM flight path report for the 737700. **Table 6** presents a comparison of SEL values for the INM standard arrival profile for the 737700 aircraft to SEL values for the User-defined profile.



SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 5

Plan View of 737-700 Radar Arrival Tracks
Runway 22 Arrivals from the Southwest

Figure 6: Altitude vs. Distance Graph – 737700
Runway 22 Arrivals from the Left and Right-Downwind

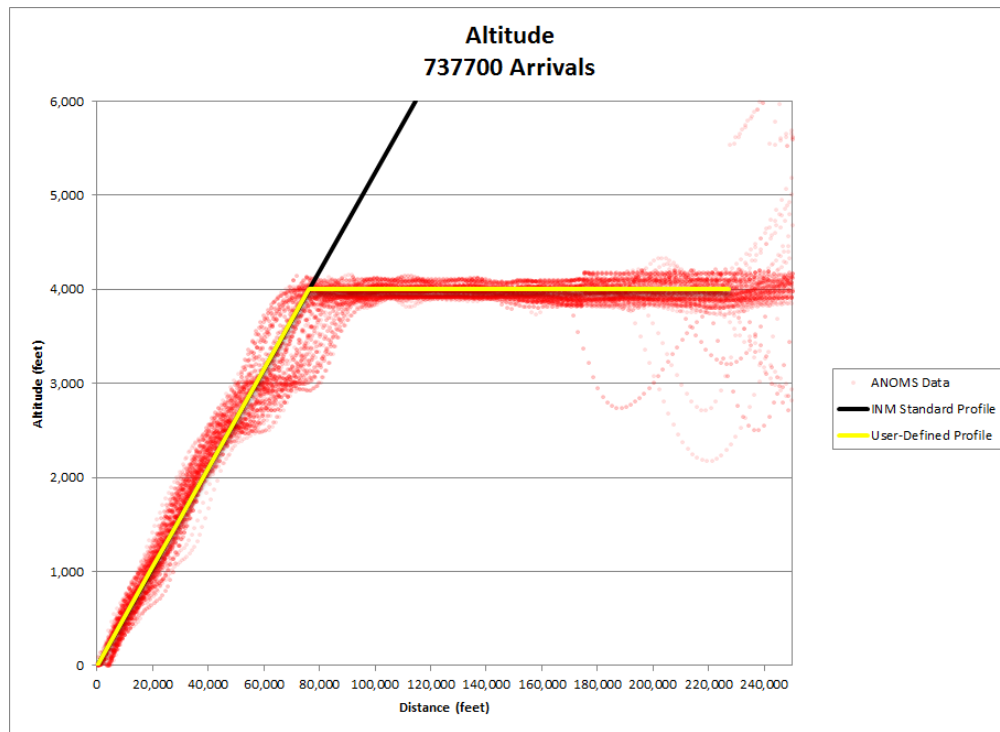


Figure 7: Speed vs. Distance Graph – 737700
Runway 22 Arrivals from the Left and Right-Downwind

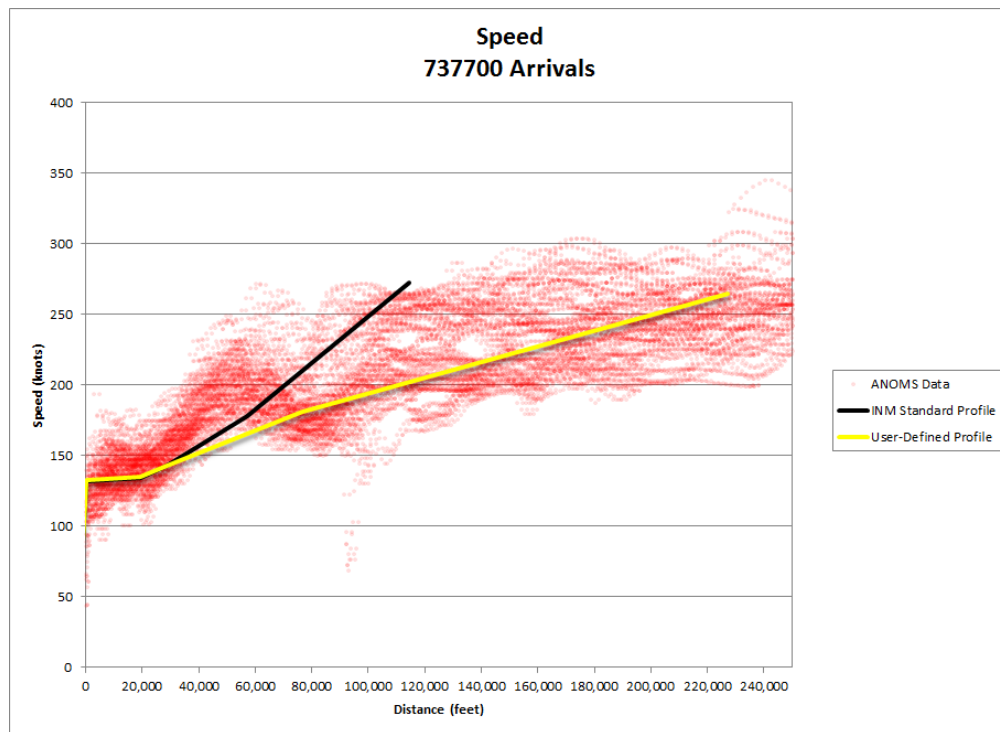


Figure 8: Thrust vs. Distance Graph – 737700
Runway 22 Arrivals from the Left and Right-Downwind

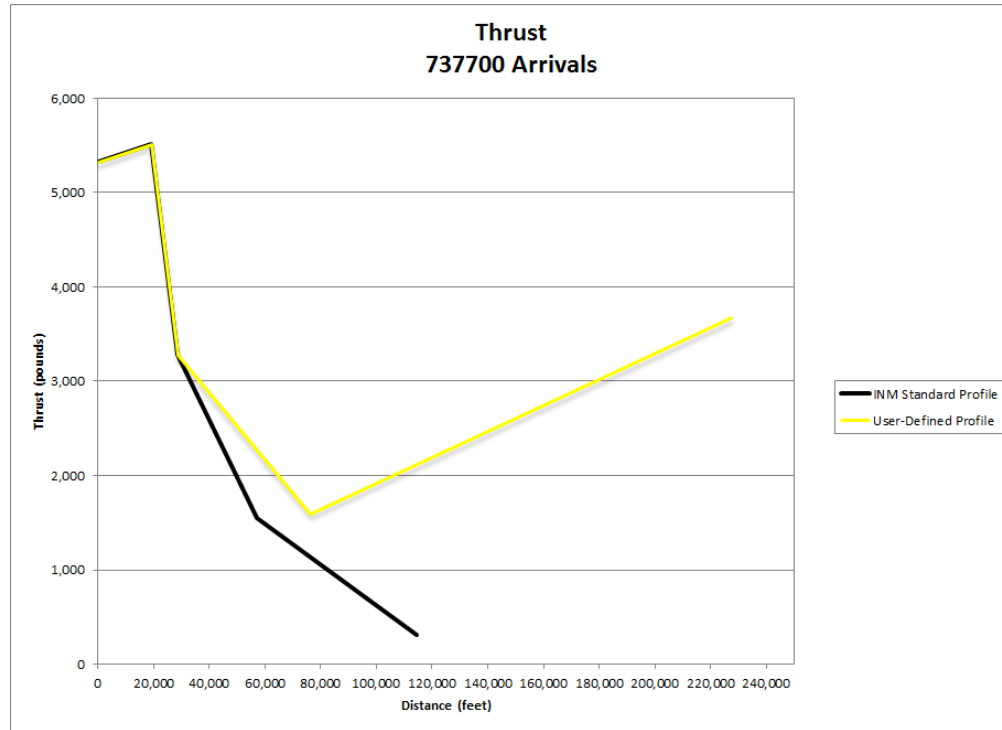


Table 4: Procedural Profiles – 737700
Runway 22 - Left and Right-Downwind Arrivals

Standard Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
737700	A	STANDARD	1	Descend	T_ZERO		6000.0	250.0	3.0
737700	A	STANDARD	2	Descend	T_5		3000.0	171.0	3.0
737700	A	STANDARD	3	Descend	A_15		1500.0	140.0	3.0
737700	A	STANDARD	4	Descend	A_40		1000.0	133.0	3.0
737700	A	STANDARD	5	Land	A_40		304.7	0.0	0.0
737700	A	STANDARD	6	Decelerate		REVERSE	2741.9	116.0	40.0
737700	A	STANDARD	7	Decelerate		NORMAL	0.0	30.0	10.0
User-Defined Profile									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
737700	A	USER	1	Level	T_ZERO		4000.0	250.0	151000.0
737700	A	USER	2	Descend	T_5		4000.0	171.0	3.0
737700	A	USER	3	Descend	A_15		1500.0	140.0	3.0
737700	A	USER	4	Descend	A_40		1000.0	133.0	3.0
737700	A	USER	5	Land	A_40		304.7	0.0	0.0
737700	A	USER	6	Decelerate		REVERSE	2741.9	116.0	40.0
737700	A	USER	7	Decelerate		NORMAL	0.0	30.0	10.0

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

Table 5: INM Flight Path Report – 737700
Runway 22 - Left and Right-Downwind Arrivals

Standard Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	737700	A	STANDARD	116254.9	5990.5	264.3	314.7
1	737700	A	STANDARD	102818.1	5286.3	245.4	560.7
2	737700	A	STANDARD	90375.4	4634.2	226.6	806.6
3	737700	A	STANDARD	78926.7	4034.2	207.7	1052.6
4	737700	A	STANDARD	68472.1	3486.3	188.9	1298.6
5	737700	A	STANDARD	59011.5	2990.5	170.0	1544.6
6	737700	A	STANDARD	43867.1	2196.8	152.3	2410.5
7	737700	A	STANDARD	30389.8	1490.5	134.5	3276.4
8	737700	A	STANDARD	20849.3	990.5	126.4	5517.5
9	737700	A	STANDARD	3046.6	57.5	124.2	5334.5
10	737700	A	STANDARD	2463.7	27.0	124.2	5328.4
11	737700	A	STANDARD	1768.1	-9.5	124.1	5321.1
12	737700	A	STANDARD	1463.4	-9.5	107.5	9600.0
13	737700	A	STANDARD	487.4	-9.5	88.1	7800.0
14	737700	A	STANDARD	-294.9	-9.5	68.7	6000.0
15	737700	A	STANDARD	-883.5	-9.5	49.3	4200.0
16	737700	A	STANDARD	-1278.5	-9.5	29.9	2400.0
User-Defined Profile							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	737700	A	USER	229092.7	3990.5	256.2	3672.9
1	737700	A	USER	194190.0	3990.5	239.5	3258.9
2	737700	A	USER	161638.6	3990.5	222.8	2844.9
3	737700	A	USER	131438.6	3990.5	206.1	2430.9
4	737700	A	USER	103590.0	3990.5	189.4	2016.8
5	737700	A	USER	78092.7	3990.5	172.7	1602.8
6	737700	A	USER	52760.0	2662.9	153.6	2439.6
7	737700	A	USER	30389.8	1490.5	134.5	3276.4
8	737700	A	USER	20849.3	990.5	126.4	5517.5
9	737700	A	USER	3046.6	57.5	124.2	5334.5
10	737700	A	USER	2463.7	27.0	124.2	5328.4
11	737700	A	USER	1768.1	-9.5	124.1	5321.1
12	737700	A	USER	1463.4	-9.5	107.5	9600.0
13	737700	A	USER	487.4	-9.5	88.1	7800.0
14	737700	A	USER	-294.9	-9.5	68.7	6000.0
15	737700	A	USER	-883.5	-9.5	49.3	4200.0
16	737700	A	USER	-1278.5	-9.5	29.9	2400.0

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

Table 6: SEL Comparison – 737700
Runway 22 - Left and Right-Downwind Arrivals

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	111.6	111.6	0.0
0.5	103.6	103.6	0.0
1.0	97.7	97.7	0.0
1.5	94.5	94.5	0.0
2.0	92.2	92.2	0.0
2.5	90.5	90.5	0.0
3.0	89.1	89.1	0.0
3.5	87.9	87.9	0.0
4.0	86.2	86.2	0.0
4.5	84.9	84.9	0.0
5.0	83.4	83.4	0.0
5.5	82.3	82.3	0.0
6.0	81.5	81.6	0.1
6.5	80.7	80.9	0.2
7.0	79.9	80.1	0.2
7.5	78.9	79.4	0.5
8.0	78.0	78.8	0.8
8.5	77.3	78.1	0.8
9.0	76.6	77.3	0.7
9.5	76.0	76.5	0.5
10.0	75.2	75.9	0.7
10.5	74.5	75.4	0.9
11.0	74.0	74.9	0.9
11.5	73.3	74.4	1.1
12.0	72.7	74.0	1.3
12.5	72.2	73.6	1.4
13.0	71.6	73.1	1.5
13.5	71.1	72.9	1.8
14.0	70.4	72.9	2.5
14.5	69.9	72.9	3.0
15.0	69.3	72.9	3.6
15.5	68.8	73.0	4.2
16.0	68.2	73.0	4.8
16.5	67.8	73.1	5.3
17.0	67.2	72.9	5.7
17.5	66.7	72.9	6.2
18.0	66.0	72.8	6.8
18.5	65.2	72.8	7.6
19.0	63.4	72.9	9.5
19.5	60.0	72.9	12.9
20.0	55.7	72.9	17.2
20.5	51.2	73.0	21.8
21.0	47.4	73.0	25.6
21.5	44.2	72.9	28.7
22.0	41.4	72.9	31.5
22.5	38.9	72.8	33.9
23.0	36.8	72.8	36.0
23.5	34.8	72.8	38.0
24.0	33.1	72.9	39.8
24.5	31.5	72.9	41.4
25.0	30.1	72.9	42.8
25.5	28.8	72.9	44.1
26.0	27.6	73.0	45.4
26.5	26.5	72.9	46.4
27.0	25.4	72.9	47.5
27.5	24.5	72.8	48.3
28.0	23.6	72.8	49.2

28.5	22.7	72.8	50.1
29.0	22.0	72.9	50.9
29.5	21.2	72.9	51.7
30.0	20.5	72.9	52.4
30.5	19.9	72.9	53.0
31.0	19.2	73.0	53.8
31.5	18.7	73.0	54.3
32.0	18.0	72.9	54.9
32.5	17.2	72.9	55.7
33.0	16.4	72.8	56.4
33.5	15.6	72.8	57.2
34.0	14.9	72.8	57.9
34.5	14.2	72.9	58.7
35.0	13.6	72.9	59.3

Source: Integrated Noise Model (INM) Version 7.0d.

Attachment D

Sample User-Defined Departure Profile – LGA

The sample User-defined departure profile included in this technical memorandum was developed using the predefined methodology for the CRJ9-ER INM-type aircraft departing from Runway 13. This aircraft is forecast to account for the greatest number of operations at LGA in 2016 and 2021. **Figure 1** depicts a plan-view of an INM departure flight track from Runway 13.

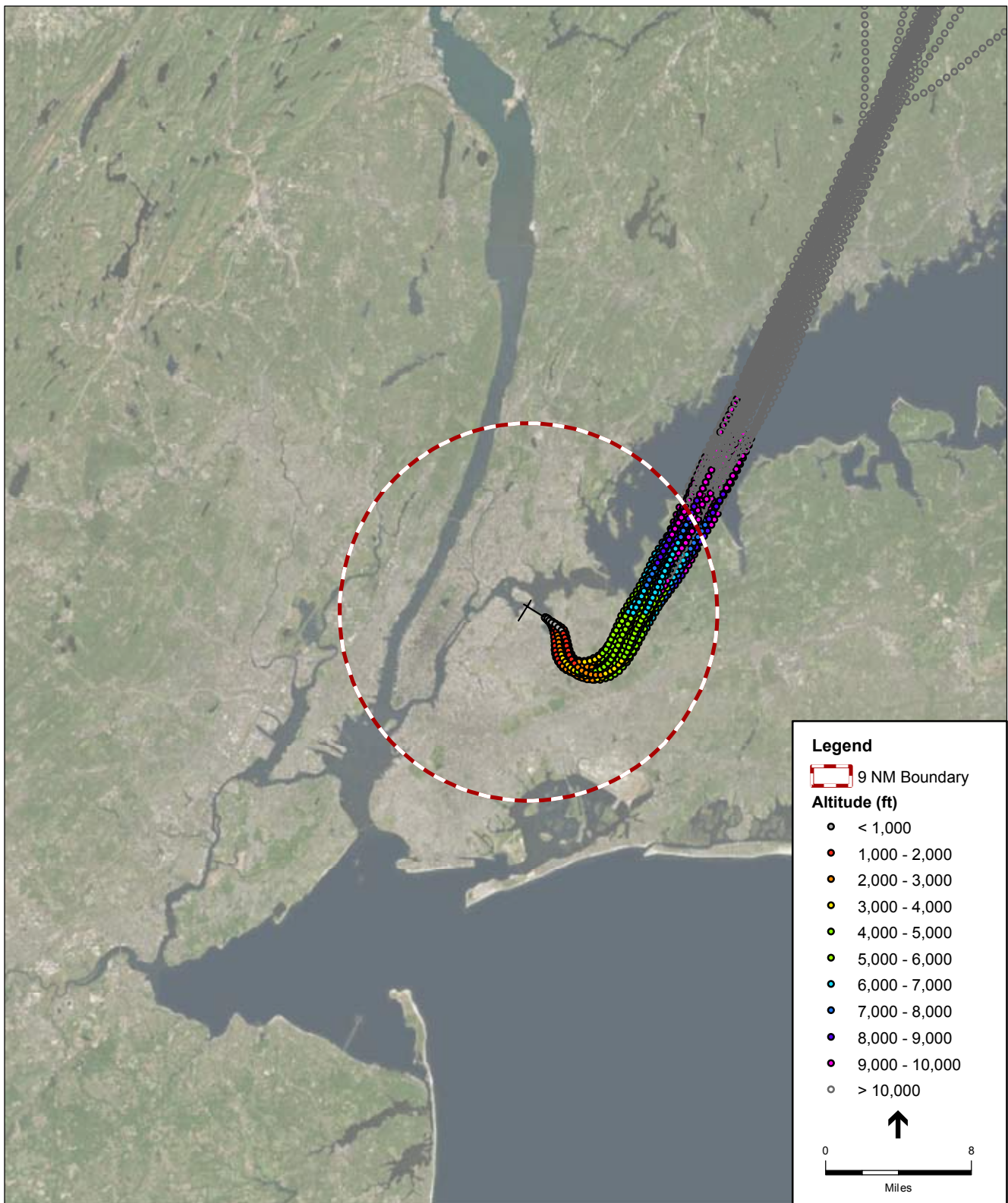
Three graphs (**Figures 2 through 4**) have been developed depicting standard INM profiles for the CRJ9-ER, the ANOMS data, and the user defined parameters resulting from this analysis. The three graphs include: 1) Altitude vs. Distance, 2) Speed vs. Distance, and 3) Thrust vs. Distance. The blue dots on Figure 2 represent the radar flight profiles for the months of April and October 2014 for the CRJ9-ER aircraft traveling to destinations less than 500 nautical miles (nm). The black line represents the INM Standard Stage Length 1 (0-500 nm) departure profile, which is the most frequently used INM stage length for this aircraft at LGA. The yellow line represents an example of a User-defined profile which is more consistent with the operational data in ANOMS. **Table 1** presents the INM standard procedural and fixed-point profiles and the User-defined fixed-point profile (no procedural profile was created for the User-defined case), and **Table 2**, the INM flight path report for the CRJ9-ER.

Statement of Benefit

As shown on Figure 2, there are noticeable differences when comparing the radar profiles with the INM standard profile. For this example, modifications to the INM standard departure profile should be considered to more accurately model the sound levels being generated from these aircraft departing LGA.

Sound Exposure Level Calculations

As described in Appendix B of INM User's Manual, **Table 3** presents Sound Exposure Level (SEL) values for a series of grid points spaced 0.5 nm apart underneath the INM departure flight track. The table includes the SEL values calculated from the INM Standard Stage Length 1 departure profile compared to SEL values calculated for the User-defined profile.



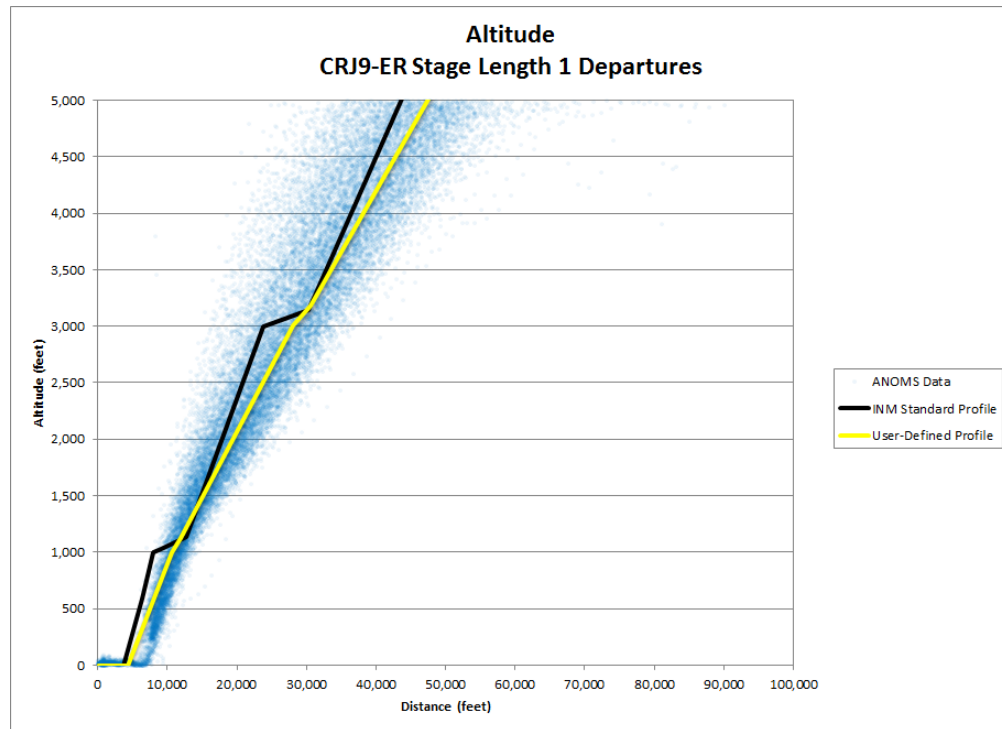
SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

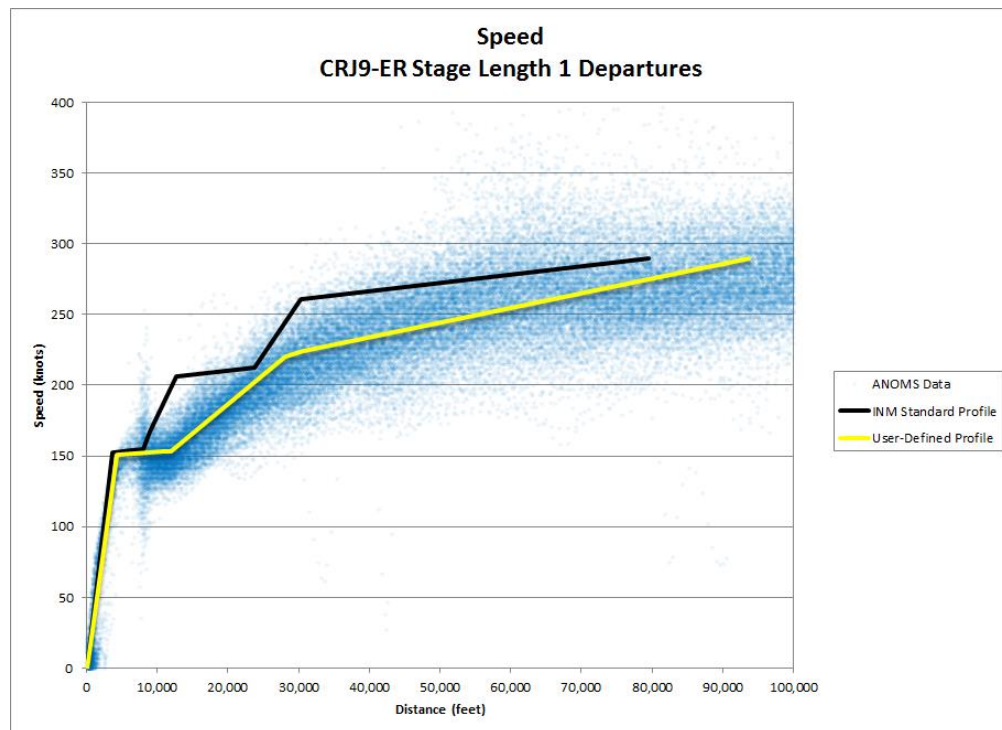
Figure 1

Plan View of CRJ9-ER Radar Departure Tracks
Runway 13 Stage Length 1 Departures to the Northeast

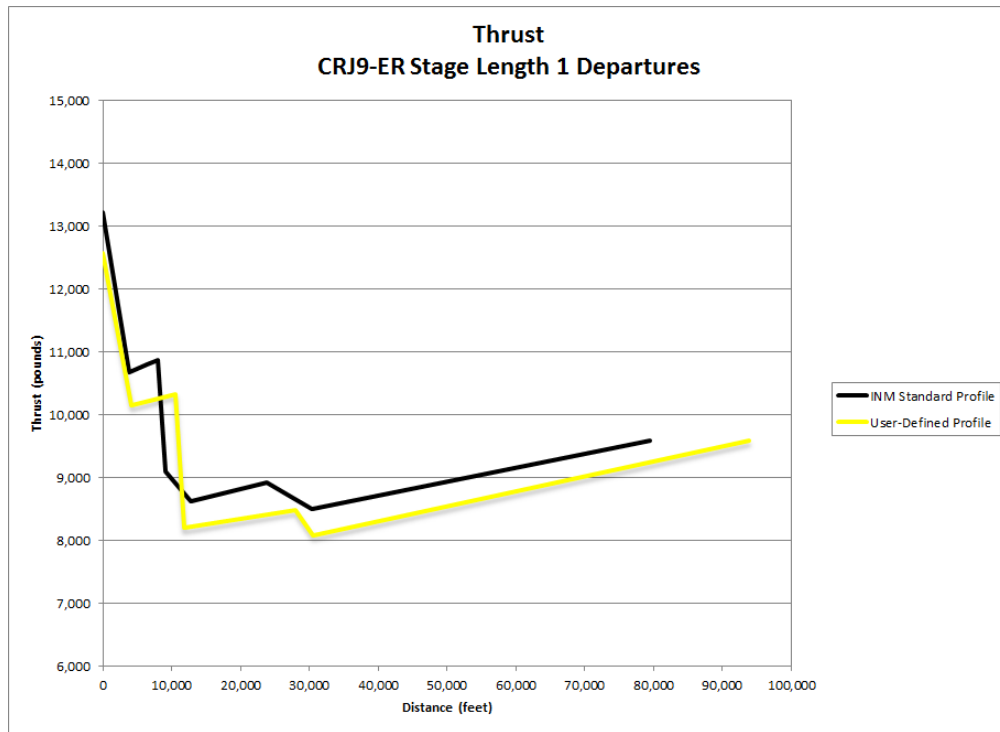
**Figure 2: Altitude vs. Distance Graph – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast**



**Figure 3: Speed vs. Distance Graph – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast**



**Figure 4: Thrust vs. Distance Graph – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast**



**Table 1: Procedural and Fixed-Point Profiles – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast**

Standard Procedural Profile- Stage Length 1, 67,500 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
CRJ9-ER	D	STANDARD	1	Takeoff	D-8	T	0.0	0.0	0.0
CRJ9-ER	D	STANDARD	2	Climb	D-8	T	595.0	0.0	0.0
CRJ9-ER	D	STANDARD	3	Climb	U-8	T	1000.0	0.0	0.0
CRJ9-ER	D	STANDARD	4	Accelerate	0-204	C	500.0	204.0	0.0
CRJ9-ER	D	STANDARD	5	Climb	ZERO	C	3000.0	0.0	0.0
CRJ9-ER	D	STANDARD	6	Accelerate	0-250	C	500.0	250.0	0.0
CRJ9-ER	D	STANDARD	7	Climb	ZERO	C	10000.0	0.0	0.0
Standard Fixed-Point Profile- Stage Length 1, 67,500 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	PT_NUM	DISTANCE	ALTITUDE	SPEED	THR_SET		
CRJ9-ER	D	STANDARD	1	0.0	0.0	0.0	13226.61		
CRJ9-ER	D	STANDARD	2	3711.0	0.0	152.7	10677.45		
CRJ9-ER	D	STANDARD	3	6351.6	595.0	154.1	10795.50		
CRJ9-ER	D	STANDARD	4	8008.6	1000.0	155.0	10873.02		
CRJ9-ER	D	STANDARD	5	9008.6	1028.8	167.2	9093.39		
CRJ9-ER	D	STANDARD	6	12740.1	1136.0	206.6	8626.75		
CRJ9-ER	D	STANDARD	7	23716.6	3000.0	212.4	8924.88		
CRJ9-ER	D	STANDARD	8	30305.5	3144.7	260.8	8504.41		
CRJ9-ER	D	STANDARD	9	79522.2	10000.0	289.7	9582.31		
User-Defined Fixed-Point Profile- Stage Length 1, 66,000 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	PT_NUM	DISTANCE	ALTITUDE	SPEED	THR_SET		
CRJ9-ER	D	USER	1	0.0	0.0	0.0	12566.0		
CRJ9-ER	D	USER	2	4228.0	0.0	151.0	10143.0		
CRJ9-ER	D	USER	3	10556.0	1000.0	153.0	10329.4		
CRJ9-ER	D	USER	4	11802.9	1121.4	153.0	8195.4		
CRJ9-ER	D	USER	5	27998.0	3000.0	220.0	8478.6		
CRJ9-ER	D	USER	6	30555.0	3176.0	224.0	8079.2		
CRJ9-ER	D	USER	7	93771.0	10000.0	289.7	9582.3		

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

**Table 2: INM Flight Path Report – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast**

Standard Profile- Stage Length 1, 67,500 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	CRJ9-ER	D	STANDARD	0.0	-9.4	0.0	13226.6
1	CRJ9-ER	D	STANDARD	58.0	-9.4	18.1	12908.0
2	CRJ9-ER	D	STANDARD	231.9	-9.4	36.2	12589.3
3	CRJ9-ER	D	STANDARD	521.9	-9.4	54.3	12270.7
4	CRJ9-ER	D	STANDARD	927.8	-9.4	72.4	11952.0
5	CRJ9-ER	D	STANDARD	1449.6	-9.4	90.5	11633.4

6	CRJ9-ER	D	STANDARD	2087.4	-9.4	108.5	11314.7
7	CRJ9-ER	D	STANDARD	2841.2	-9.4	126.6	10996.1
8	CRJ9-ER	D	STANDARD	3711.0	-9.4	144.7	10677.4
9	CRJ9-ER	D	STANDARD	3943.2	42.9	144.8	10687.9
10	CRJ9-ER	D	STANDARD	4220.4	105.4	145.0	10700.3
11	CRJ9-ER	D	STANDARD	4550.0	179.6	145.1	10715.1
12	CRJ9-ER	D	STANDARD	4965.8	273.3	145.4	10733.7
13	CRJ9-ER	D	STANDARD	5523.9	399.1	145.6	10758.6
14	CRJ9-ER	D	STANDARD	6351.6	585.6	146.1	10795.5
15	CRJ9-ER	D	STANDARD	8008.6	990.6	147.0	10873.0
16	CRJ9-ER	D	STANDARD	9008.6	1019.4	159.2	9093.4
17	CRJ9-ER	D	STANDARD	10771.7	1070.0	178.9	8860.1
18	CRJ9-ER	D	STANDARD	12740.1	1126.6	198.6	8626.8
19	CRJ9-ER	D	STANDARD	23716.6	2990.6	204.4	8924.9
20	CRJ9-ER	D	STANDARD	25757.8	3035.4	220.5	8784.7
21	CRJ9-ER	D	STANDARD	27954.0	3083.7	236.7	8644.6
22	CRJ9-ER	D	STANDARD	30305.5	3135.3	252.8	8504.4
23	CRJ9-ER	D	STANDARD	54250.0	6470.5	267.2	9043.4
24	CRJ9-ER	D	STANDARD	79522.2	9990.6	281.7	9582.3
User-Defined Profile- Stage Length 1, 66,000 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	CRJ9-ER	D	USER	0.0	-9.4	0.0	12566.0
1	CRJ9-ER	D	USER	66.1	-9.4	18.9	12263.1
2	CRJ9-ER	D	USER	264.3	-9.4	37.8	11960.3
3	CRJ9-ER	D	USER	594.6	-9.4	56.6	11657.4
4	CRJ9-ER	D	USER	1057.0	-9.4	75.5	11354.5
5	CRJ9-ER	D	USER	1651.6	-9.4	94.4	11051.6
6	CRJ9-ER	D	USER	2378.3	-9.4	113.3	10748.8
7	CRJ9-ER	D	USER	3237.1	-9.4	132.1	10445.9
8	CRJ9-ER	D	USER	4228.0	-9.4	151.0	10143.0
9	CRJ9-ER	D	USER	4585.3	47.1	151.1	10153.6
10	CRJ9-ER	D	USER	5011.8	114.5	151.2	10166.2
11	CRJ9-ER	D	USER	5519.0	194.6	151.4	10181.2
12	CRJ9-ER	D	USER	6158.7	295.7	151.6	10200.1
13	CRJ9-ER	D	USER	7017.4	431.4	151.9	10225.5
14	CRJ9-ER	D	USER	8291.1	632.7	152.3	10263.0
15	CRJ9-ER	D	USER	10556.0	990.6	153.0	10329.4
16	CRJ9-ER	D	USER	11802.9	1112.0	153.0	8195.4
17	CRJ9-ER	D	USER	15306.2	1518.4	169.8	8266.2
18	CRJ9-ER	D	USER	19173.2	1966.9	186.5	8337.0
19	CRJ9-ER	D	USER	23403.8	2457.7	203.3	8407.8
20	CRJ9-ER	D	USER	27998.0	2990.6	220.0	8478.6

21	CRJ9-ER	D	USER	30555.0	3166.6	224.0	8079.2
22	CRJ9-ER	D	USER	44843.1	4709.0	240.4	8455.0
23	CRJ9-ER	D	USER	60141.7	6360.4	256.9	8830.8
24	CRJ9-ER	D	USER	76451.1	8121.0	273.3	9206.5
25	CRJ9-ER	D	USER	93771.0	9990.6	289.7	9582.3

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

Table 3: SEL Comparison – CRJ9-ER
Runway 13 - Stage Length 1 – Departures to the Northeast

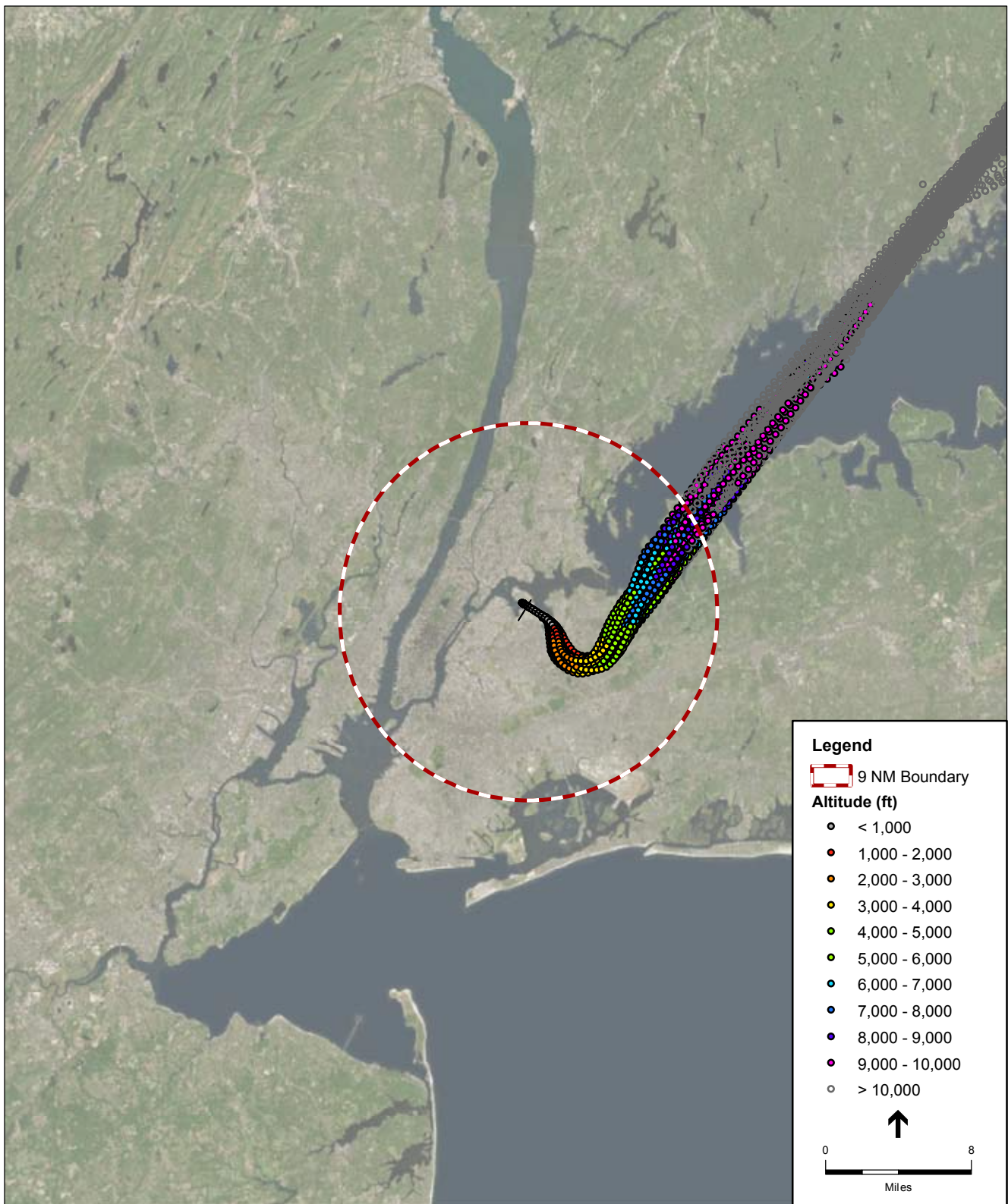
Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	121.8	121.0	-0.8
0.5	111.0	111.0	0.0
1.0	94.6	97.5	2.9
1.5	88.7	91.7	3.0
2.0	86.6	86.9	0.3
2.5	84.3	84.9	0.6
3.0	82.5	83.1	0.6
3.5	80.7	81.5	0.8
4.0	79.5	80.1	0.6
4.5	78.3	78.9	0.6
5.0	77.3	77.7	0.4
5.5	76.4	76.7	0.3
6.0	75.6	76.1	0.5
6.5	74.8	75.5	0.7
7.0	73.9	74.8	0.9
7.5	73.1	74.0	0.9
8.0	72.4	73.3	0.9
8.5	71.8	72.7	0.9
9.0	71.1	72.2	1.1
9.5	70.3	71.7	1.4
10.0	69.6	71.2	1.6

Source: Integrated Noise Model (INM) Version 7.0d.

Additional Sample Profile Charts - 737700

The airline fleet at LGA is comprised of two categories of aircraft: single-aisle narrow-body jets and regional jets. Therefore, an additional sample User-defined arrival profile was also developed for the 737700. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 737700 are presented on the following pages. These charts present a comparison of the INM standard profile to ANOMS data and also depict a User-defined profile.

Figure 5 presents a plan view of the ANOMS flight track records used in the profile analysis for the 737700. Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance charts for the 737700 are presented on **Figures 6 – 8**. **Table 4** presents the procedural and fixed-point profiles (no procedural profile was created for the User-defined case), and **Table 5**, the INM flight path report for the 737700. **Table 6** presents a comparison of SEL values for the INM standard arrival profile for the 737700 aircraft to SEL values for the User-defined profile.



SOURCE: Port Authority of New York and New Jersey ANOMS, 2014;
ESA Airports, 2016

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 5

Plan View of 737-700 Radar Departure Tracks
Runway 13 Stage Length 2 Departures to the Northeast

Figure 6: Altitude vs. Distance Graph – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

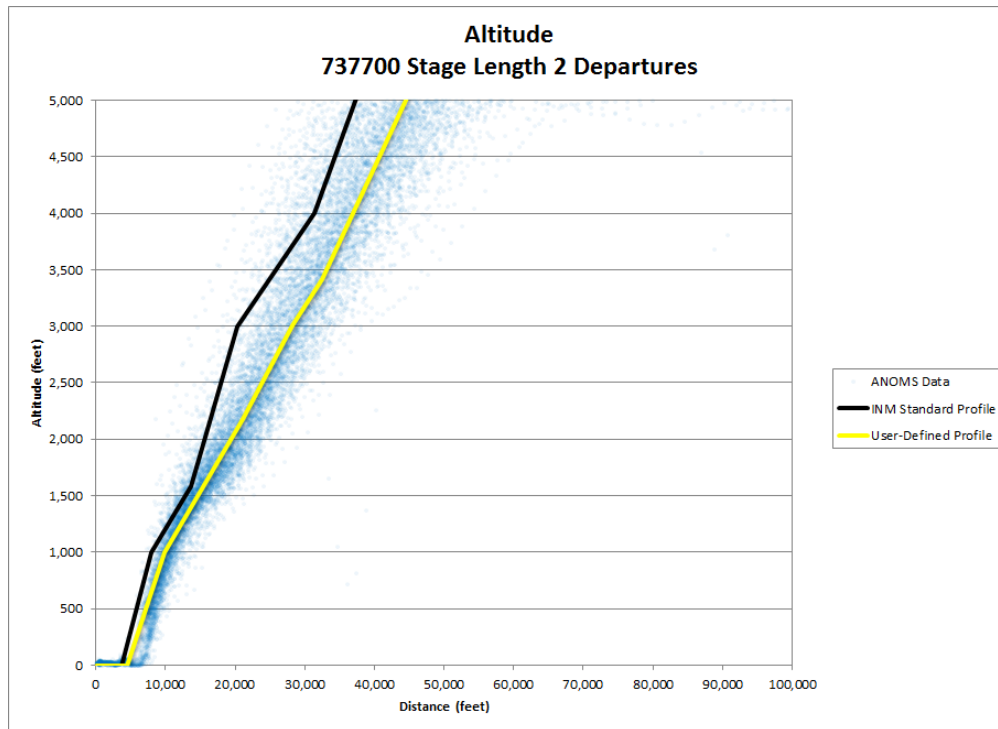


Figure 7: Speed vs. Distance Graph – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

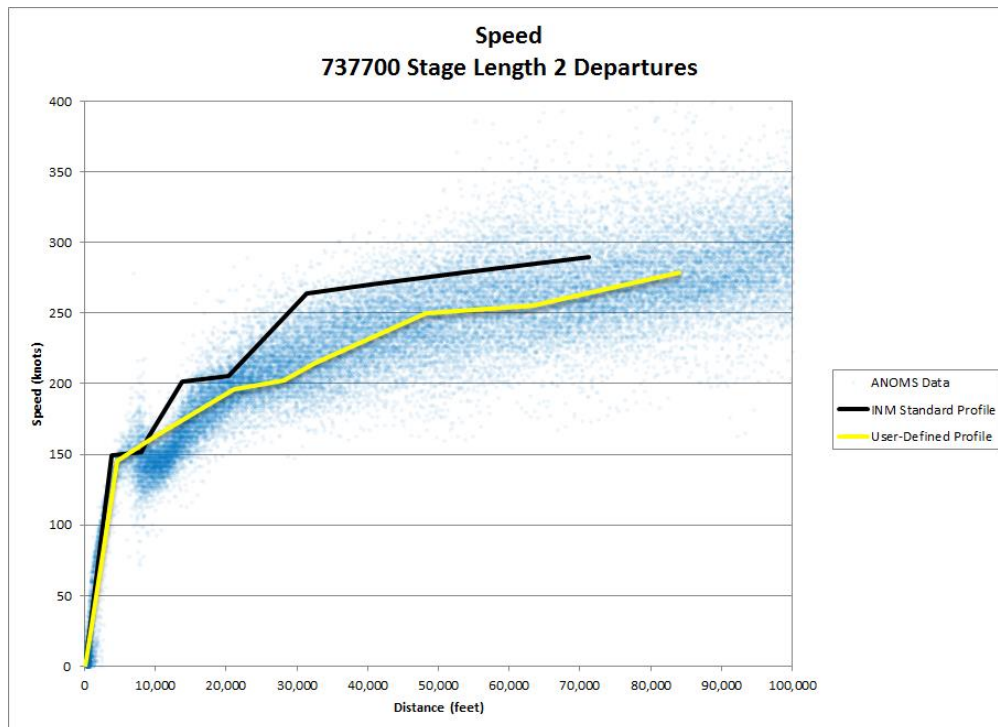


Figure 8: Thrust vs. Distance Graph – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

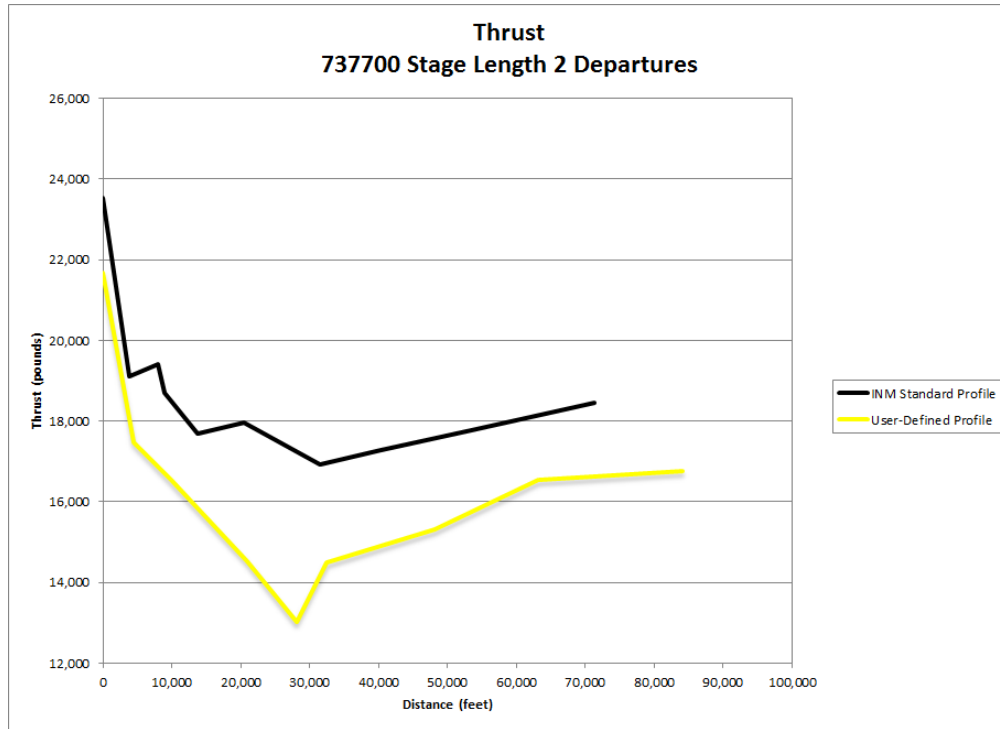


Table 4: Procedural and Fixed-Point Profiles – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

Standard Procedural Profile- Stage Length 2, 125,000 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	STEP_NUMBER	STEP_TYPE	FLAP_ID	THR_TYPE	PARAM1	PARAM2	PARAM3
737700	D	STANDARD	1	Takeoff	T_5	T	0.0	0.0	0.0
737700	D	STANDARD	2	Climb	T_5	T	1000.0	0.0	0.0
737700	D	STANDARD	3	Accelerate	T_ZERO	C	1710.1	197.7	0.0
737700	D	STANDARD	4	Climb	T_ZERO	C	3000.0	0.0	0.0
737700	D	STANDARD	5	Accelerate	T_ZERO	C	2056.7	250.0	0.0
737700	D	STANDARD	6	Climb	T_ZERO	C	5500.0	0.0	0.0
737700	D	STANDARD	7	Climb	T_00H	C	7500.0	0.0	0.0
737700	D	STANDARD	8	Climb	T_00H	C	10000.0	0.0	0.0
Standard Fixed-Point Profile- Stage Length 2, 125,000 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	PT_NUM	DISTANCE	ALTITUDE	SPEED	THR_SET		
737700	D	STANDARD	1	0.0	0.0	0.0	23515.64		
737700	D	STANDARD	2	3736.1	0.0	149.7	19103.76		
737700	D	STANDARD	3	7954.4	1000.0	151.9	19412.16		
737700	D	STANDARD	4	8954.4	1100.6	161.6	18703.47		
737700	D	STANDARD	5	13734.1	1581.3	201.5	17684.81		
737700	D	STANDARD	6	20346.7	3000.0	205.8	17960.76		
737700	D	STANDARD	7	31390.9	4004.6	264.2	16931.72		
737700	D	STANDARD	8	40257.1	5500.0	270.2	17270.45		
737700	D	STANDARD	9	53441.3	7500.0	278.6	17768.93		
737700	D	STANDARD	10	71218.0	10000.0	289.7	18465.15		
User-Defined Fixed-Point Profile- Stage Length 2, 134,511 lbs									
ACFT_ID	OP_TYPE	PROF_ID1	PT_NUM	DISTANCE	ALTITUDE	SPEED	THR_SET		
737700	D	USER	1	0.0	0.0	0.0	21687.0		
737700	D	USER	2	4487.9	0.0	145.3	17491.0		
737700	D	USER	3	9863.5	1000.0	162.6	16554.0		
737700	D	USER	4	21003.1	2173.7	196.0	14537.0		
737700	D	USER	5	28116.6	3000.0	202.5	13027.0		
737700	D	USER	6	32502.5	3412.7	215.0	14500.0		
737700	D	USER	7	48203.3	5500.0	250.0	15324.0		
737700	D	USER	8	63236.8	7500.0	255.0	16554.0		
737700	D	USER	9	84106.2	10000.0	278.6	16771.0		

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

Table 5: INM Flight Path Report – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

Standard Profile- Stage Length 2, 125,000 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	737700	D	STANDARD	0.0	-9.4	0.0	23515.6
1	737700	D	STANDARD	58.4	-9.4	17.7	22964.2
2	737700	D	STANDARD	233.5	-9.4	35.4	22412.7
3	737700	D	STANDARD	525.4	-9.4	53.1	21861.2
4	737700	D	STANDARD	934.0	-9.4	70.8	21309.7
5	737700	D	STANDARD	1459.4	-9.4	88.6	20758.2
6	737700	D	STANDARD	2101.5	-9.4	106.3	20206.7
7	737700	D	STANDARD	2860.4	-9.4	124.0	19655.2
8	737700	D	STANDARD	3736.1	-9.4	141.7	19103.8
9	737700	D	STANDARD	3974.2	47.1	141.8	19121.3
10	737700	D	STANDARD	4258.5	114.5	142.0	19142.2
11	737700	D	STANDARD	4596.6	194.6	142.1	19167.1
12	737700	D	STANDARD	5023.1	295.7	142.4	19198.4
13	737700	D	STANDARD	5595.5	431.4	142.7	19240.3
14	737700	D	STANDARD	6444.6	632.7	143.1	19302.3
15	737700	D	STANDARD	7954.4	990.6	143.9	19412.2
16	737700	D	STANDARD	8954.4	1091.2	153.6	18703.5
17	737700	D	STANDARD	11206.7	1317.7	173.6	18194.1
18	737700	D	STANDARD	13734.1	1571.9	193.5	17684.8
19	737700	D	STANDARD	20346.7	2990.6	197.8	17960.8
20	737700	D	STANDARD	23712.5	3296.8	217.3	17617.7
21	737700	D	STANDARD	27393.9	3631.6	236.7	17274.7
22	737700	D	STANDARD	31390.9	3995.2	256.2	16931.7
23	737700	D	STANDARD	40257.1	5490.6	262.2	17270.5
24	737700	D	STANDARD	53441.3	7490.6	270.6	17768.9
25	737700	D	STANDARD	71218.0	9990.6	281.7	18465.2
User-Defined Profile- Stage Length 2, 134,511 lbs							
Point Number	Aircraft	Operation	Profile	Distance Along Flight Path (ft)	Altitude (ft AFE)	Airspeed (kts)	Corrected Net Thrust (lbs)
0	737700	D	USER	0.0	-9.4	0.0	21687.0
1	737700	D	USER	70.1	-9.4	18.2	21162.5
2	737700	D	USER	280.5	-9.4	36.3	20638.0
3	737700	D	USER	631.1	-9.4	54.5	20113.5
4	737700	D	USER	1122.0	-9.4	72.7	19589.0
5	737700	D	USER	1753.1	-9.4	90.8	19064.5
6	737700	D	USER	2524.4	-9.4	109.0	18540.0
7	737700	D	USER	3436.0	-9.4	127.1	18015.5
8	737700	D	USER	4487.9	-9.4	145.3	17491.0

9	737700	D	USER	4791.4	47.1	146.3	17435.1
10	737700	D	USER	5153.7	114.5	147.6	17369.0
11	737700	D	USER	5584.6	194.6	149.0	17291.0
12	737700	D	USER	6128.0	295.7	150.8	17193.7
13	737700	D	USER	6857.5	431.4	153.2	17064.9
14	737700	D	USER	7939.4	632.7	156.6	16877.5
15	737700	D	USER	9863.5	990.6	162.6	16554.0
16	737700	D	USER	15173.9	1550.1	179.3	15545.5
17	737700	D	USER	21003.1	2164.3	196.0	14537.0
18	737700	D	USER	28116.6	2990.6	202.5	13027.0
19	737700	D	USER	32502.5	3403.3	215.0	14500.0
20	737700	D	USER	40057.5	4407.7	232.5	14912.0
21	737700	D	USER	48203.3	5490.6	250.0	15324.0
22	737700	D	USER	63236.8	7490.6	255.0	16554.0
23	737700	D	USER	73440.8	8713.0	266.8	16662.5
24	737700	D	USER	84106.2	9990.6	278.6	16771.0

Note: AFE = Above Field Elevation

Source: Integrated Noise Model (INM) Version 7.0d; KB Environmental Sciences, 2016.

Table 6: SEL Comparison – 737700
Runway 13 - Stage Length 2 - Departures to the Northeast

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	129.9	128.0	-1.9
0.5	117.2	116.6	-0.6
1.0	99.4	101.1	1.7
1.5	94.4	94.2	-0.2
2.0	91.5	91.1	-0.4
2.5	89.2	88.9	-0.3
3.0	87.3	87.0	-0.3
3.5	86.0	85.3	-0.7
4.0	84.6	83.6	-1.0
4.5	83.4	82.0	-1.4
5.0	82.3	81.5	-0.8
5.5	81.4	81.3	-0.1
6.0	80.7	80.7	0.0
6.5	80.0	80.0	0.0
7.0	79.4	79.3	-0.1
7.5	78.9	78.7	-0.2
8.0	78.3	78.2	-0.1
8.5	77.8	77.8	0.0
9.0	77.2	77.5	0.3
9.5	76.7	77.2	0.5
10.0	76.2	76.8	0.6

Source: Integrated Noise Model (INM) Version 7.0d .

Appendix A

October 26, 2015 Memorandum to Andrew Brooks - FAA

Departure and Arrival Profiles -

14 CFR Part 150 Studies for JFK and LGA

memorandum

date October 26, 2015

to Andrew Brooks

from Adrian Jones and Mike Arnold

subject Departure and Arrival Profiles - 14 CFR Part 150 Studies for JFK and LGA

As identified in Appendix B of the Integrated Noise Model (INM) 7.0 User's Guide, the Federal Aviation Administration's Office of Environment and Energy (FAA AEE) requires prior written approval for all user changes to INM standard departure and arrival profiles. This requirement applies to the development of nonstandard arrival and departure profiles for the JFK and LGA 14 CFR Part 150 studies.

Section 3 of Appendix B describes the data required for the analysis demonstrating the benefit of the modified profiles. These data requirements include the calculation of sound exposure levels (SELs) for a series of grid points along the flight track with the modified profile. Specifically for arrivals, Appendix B states: "For arrival tracks, place grid points 0.5 nautical miles apart underneath the flight track, beginning at the start of the profile, or at 10 nautical miles away from the runway threshold (whichever is shorter), and ending at the last point of the landing roll-out on the runway." Specifically for departures Appendix B states: "For departure tracks, provide SEL values for a series of grid points spaced 0.5 nautical miles apart underneath the flight track, beginning at the start of takeoff role and ending at the end of the profile, or at 10 nautical miles from the start of takeoff role (whichever is shorter)." While typical profile analysis only considers a distance of 10 nautical miles, the flight track analysis for LGA and JFK indicates that aircraft are routed over or in near proximity to both airports at altitudes that have the potential to influence the contours for the respective airports even though those aircraft are more than 10 nautical miles from touchdown or the beginning of takeoff roll.

As discussed in the memorandum addressed to you and dated October 9, 2015, in reviewing the ANOMS arrivals data for JFK and LGA, we note that many aircraft fly a level-flight segment at altitudes below 6,000 feet above ground level for several nautical miles often starting at points more than 20 nautical miles from touchdown. In reviewing radar departure tracks for JFK and LGA, the departure profile data show that some departures are held down (i.e., below 10,000 feet above ground level) and fly a level segment in areas that extend beyond 10 nautical miles from the start of takeoff roll. As we discussed in our October 9, 2015 memorandum, for these operations, we propose modeling a level-flight segment using the "standard" INM level-flight profile for the specified aircraft at altitude(s) that match the level flight segment that we see in the ANOMS data.

During a conference call on October 20, 2015 you advised the Port Authority and the New York and New Jersey Part 150 Study Teams to use the "study area" boundaries to define a geographic limit/boundary for the arrival and departure profiles analysis. You explained that the evaluation of altitude profiles for arriving aircraft would begin at the point where the aircraft initially enters the study area and would continue to touchdown. The evaluation of

altitude profiles for departing aircraft would begin at takeoff role and would continue to the point where the aircraft exits the study area. The Port Authority and the New York and New Jersey Part 150 Study Teams agreed to the concept of a limit/boundary for the arrival and departure profiles analysis but requested additional time to determine an appropriate limit/boundary for the arrival and departure profiles analysis conducted for each airport.

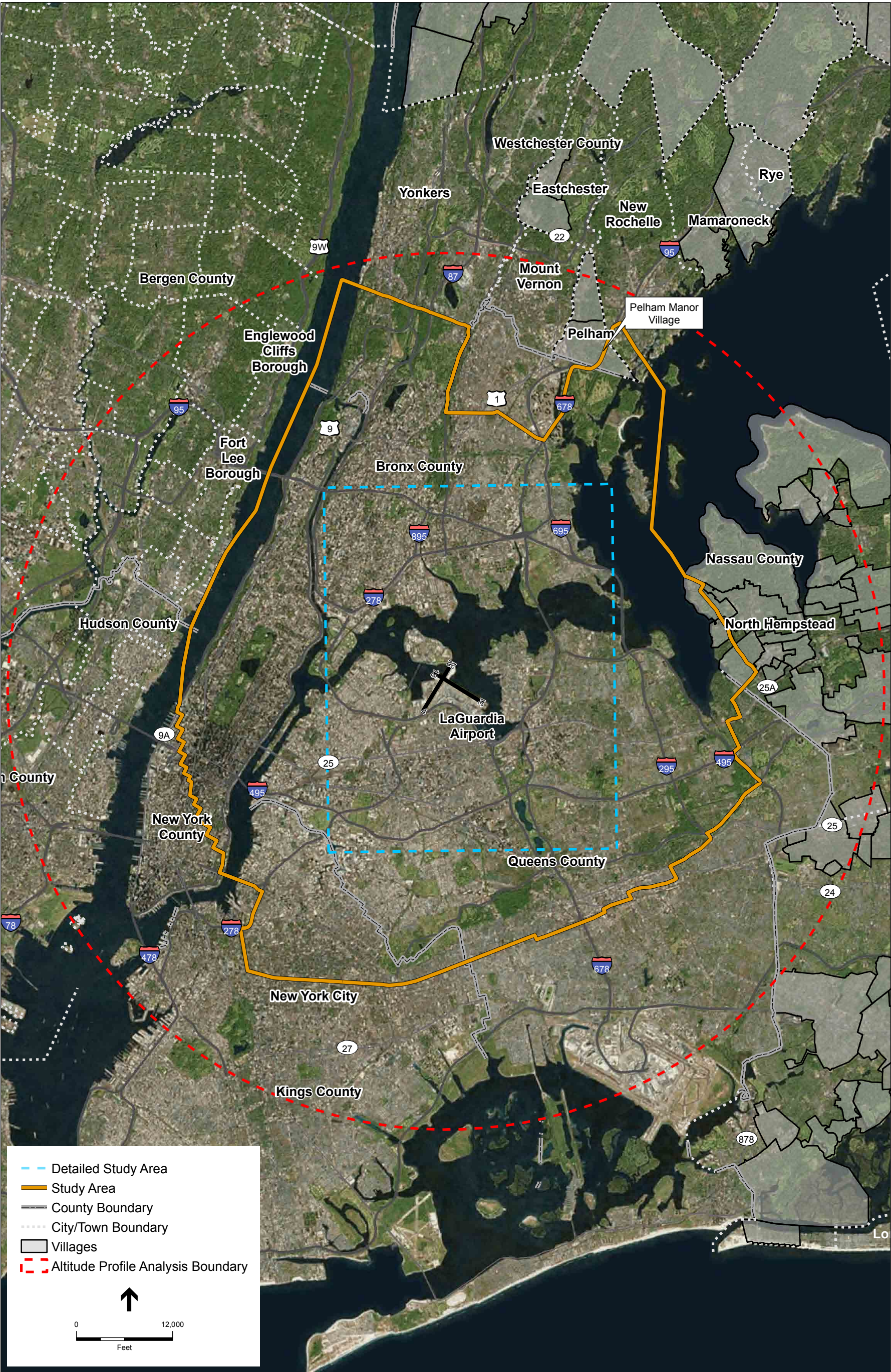
For the JFK and LGA Part 150 studies you stated that the “larger” study area depicted on Figures 7-1 and 7-2 in the Study Protocol document (i.e., the Data Collection Area) would be an appropriate limit/boundary for the arrival and departure profiles analysis. Due to the irregular shape of the JFK data collection area boundary we propose using a circle centered on JFK with a radius of 13 nautical miles to act as the limit for the arrival and departure profiles analysis for JFK. Due to the irregular shape of the LGA data collection area boundary we propose using a circle centered on LGA with a radius of 9 nautical miles to act as the limit for the arrival and departure profiles analysis for LGA. These areas are expected to encompass the 55 day-night average sound level (DNL) contour and would allow capture of those profiles with the greatest potential to affect the contours. **Figure 1** attached to this memorandum depicts a circle with a 13 nautical mile radius, the data collection area, and the detailed study area for JFK as defined in the Study Protocol. **Figure 2** attached to this memorandum depicts a circle with a 9 nautical mile radius, the data collection area, and the detailed study area for LGA as defined in the Study Protocol. We respectfully request FAA concurrence that the circles shown on Figures 1 and 2 are appropriate limits/boundaries for the arrival and departure profiles analyses conducted for JFK and LGA, respectively.

Please feel free to contact me at (415) 572-6466 or ajones@esassoc.com should you have any questions.



SOURCE: EarthStar Geogrpahics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA, 2015

Figure 1
Boundary for Altitude Profile Analysis – John F. Kennedy International Airport



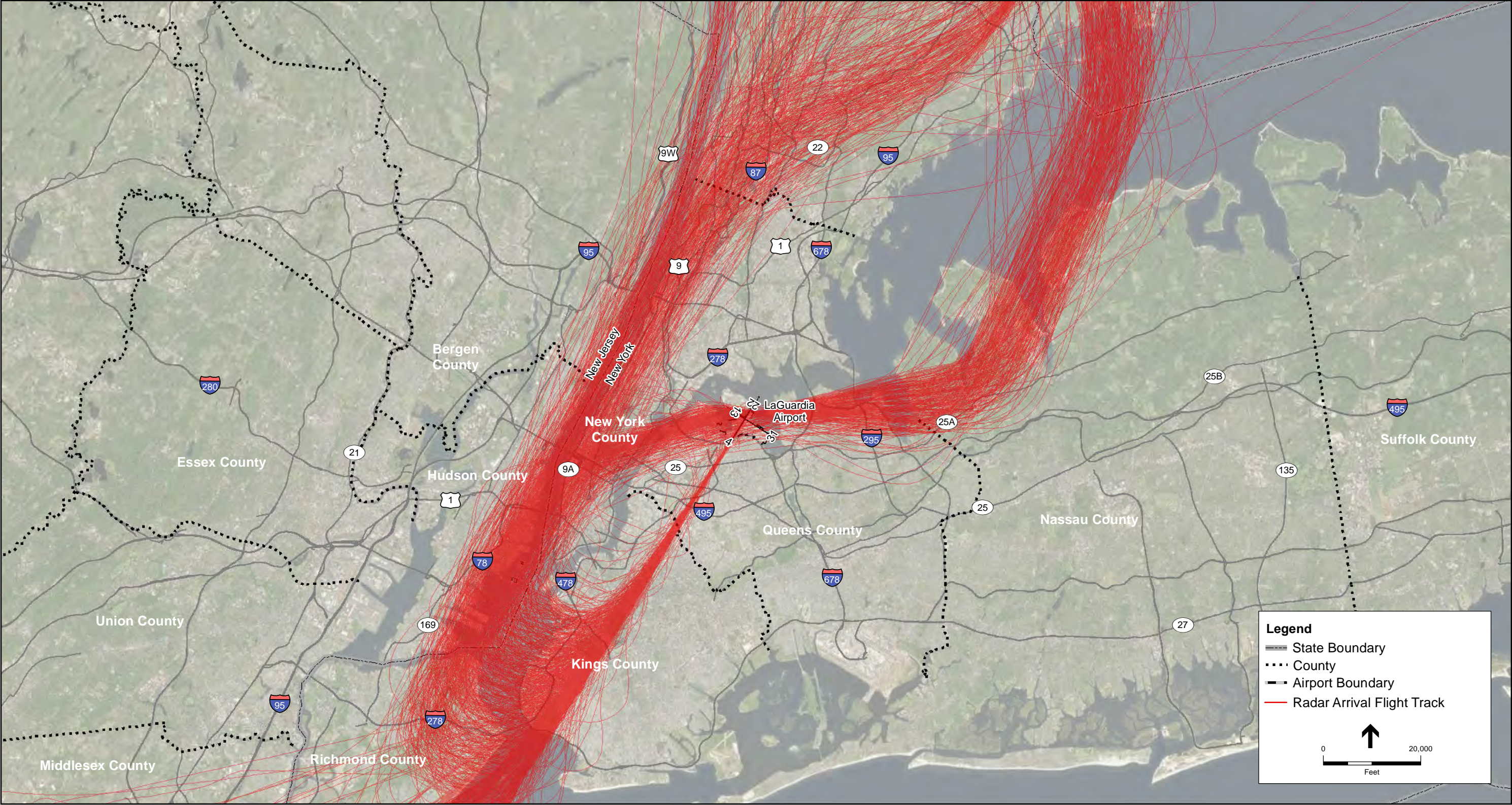
SOURCE: EarthStar Geographics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA, 2015

PANYNJ FAR Part 150 Studies. 140037

Figure 2
Boundary for Altitude Profile Analysis – LaGuardia Airport

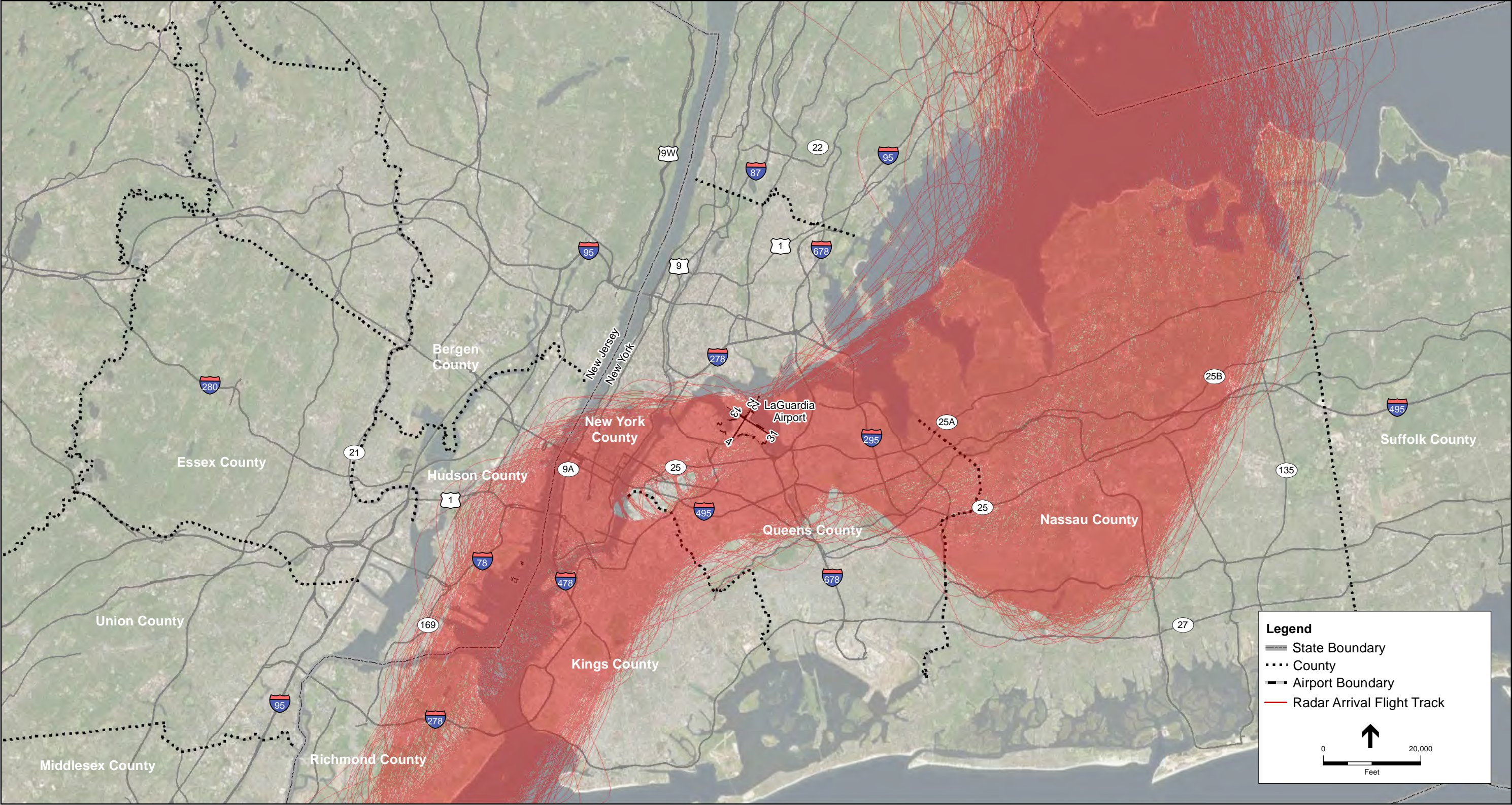
APPENDIX E-3

Radar Tracks



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

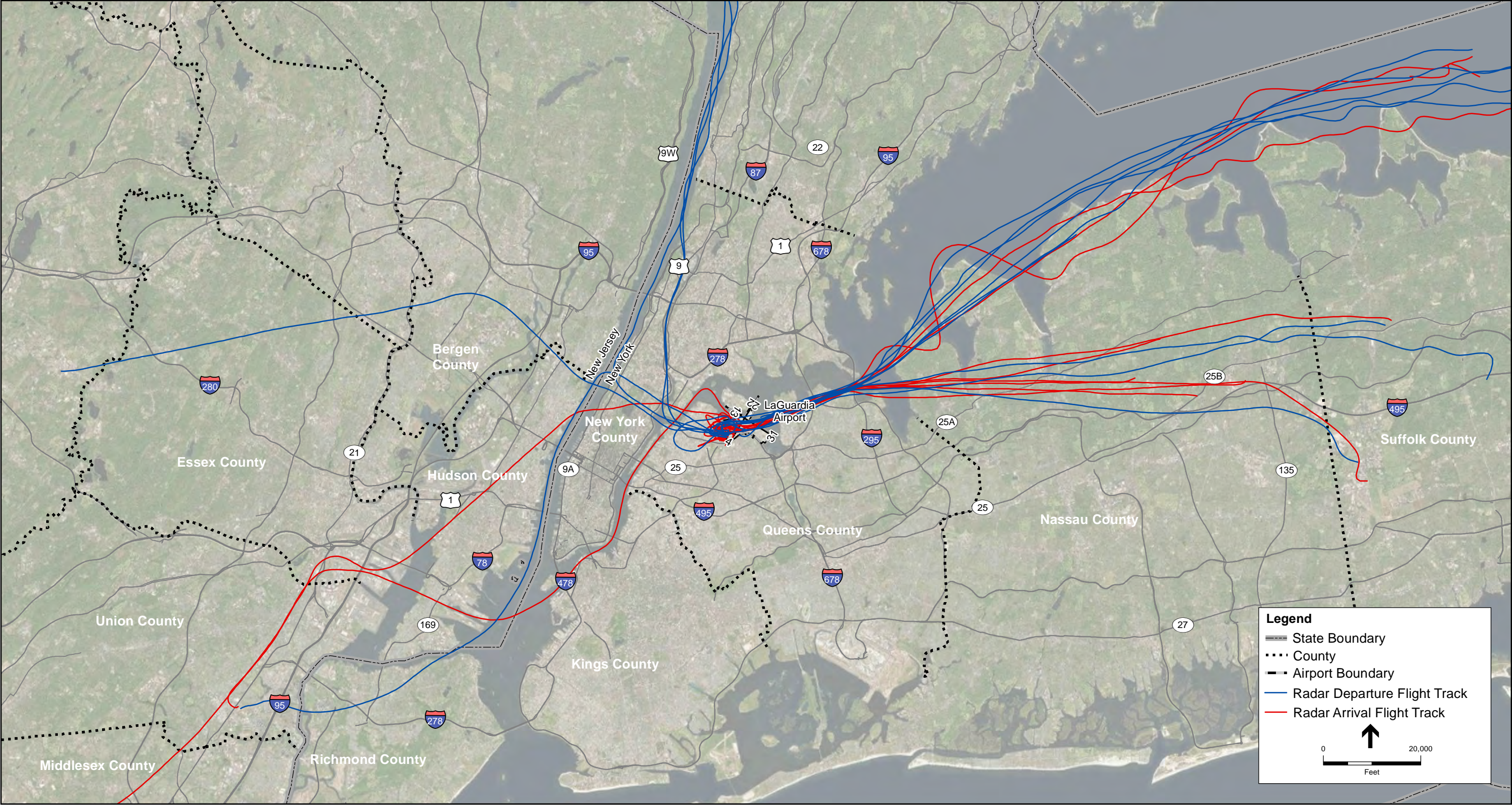
Figure 1
Radar Arrival Flight Tracks - Runway 4
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

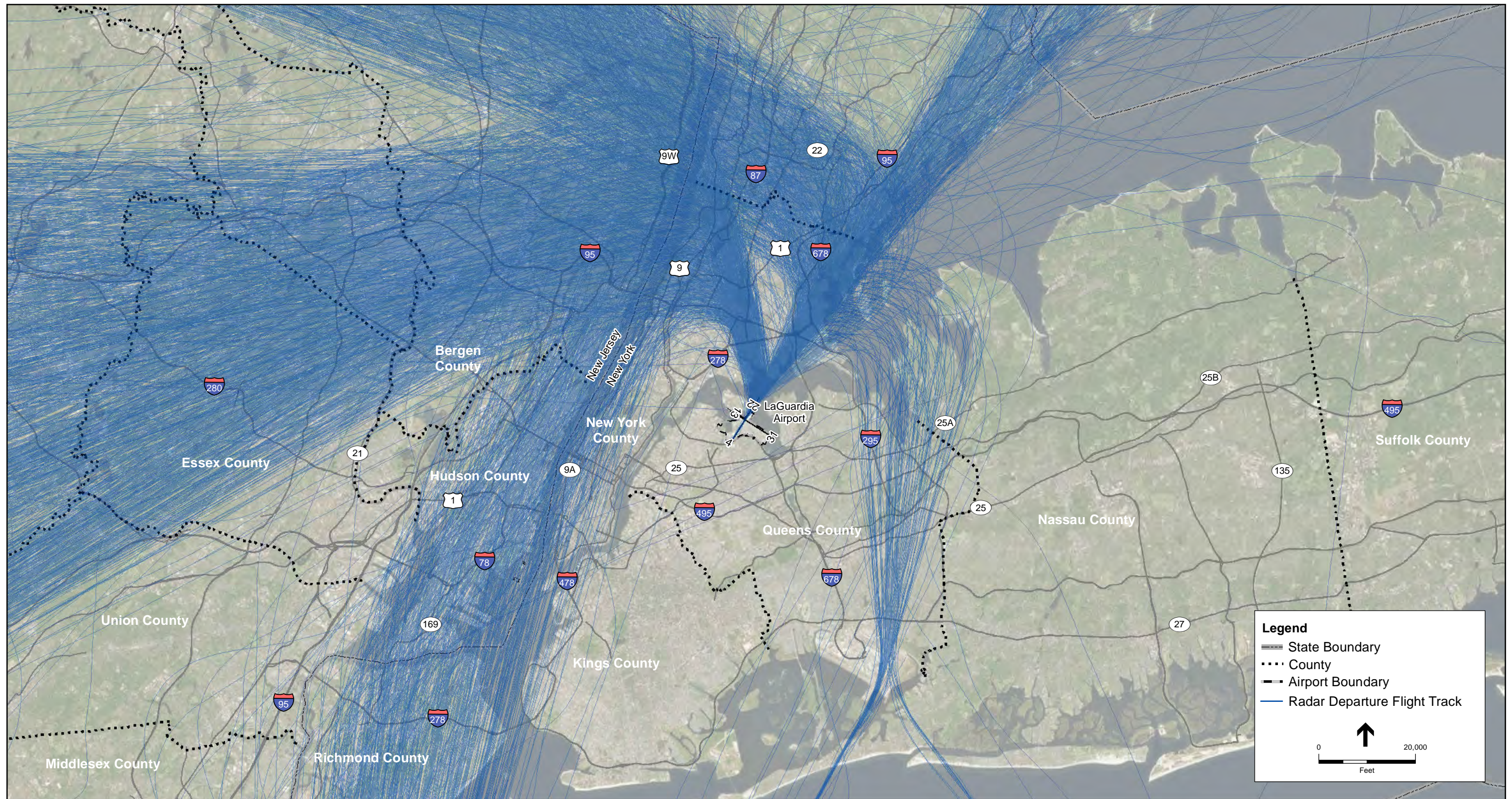
LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 4
Radar Arrival Flight Tracks - Runway 31
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

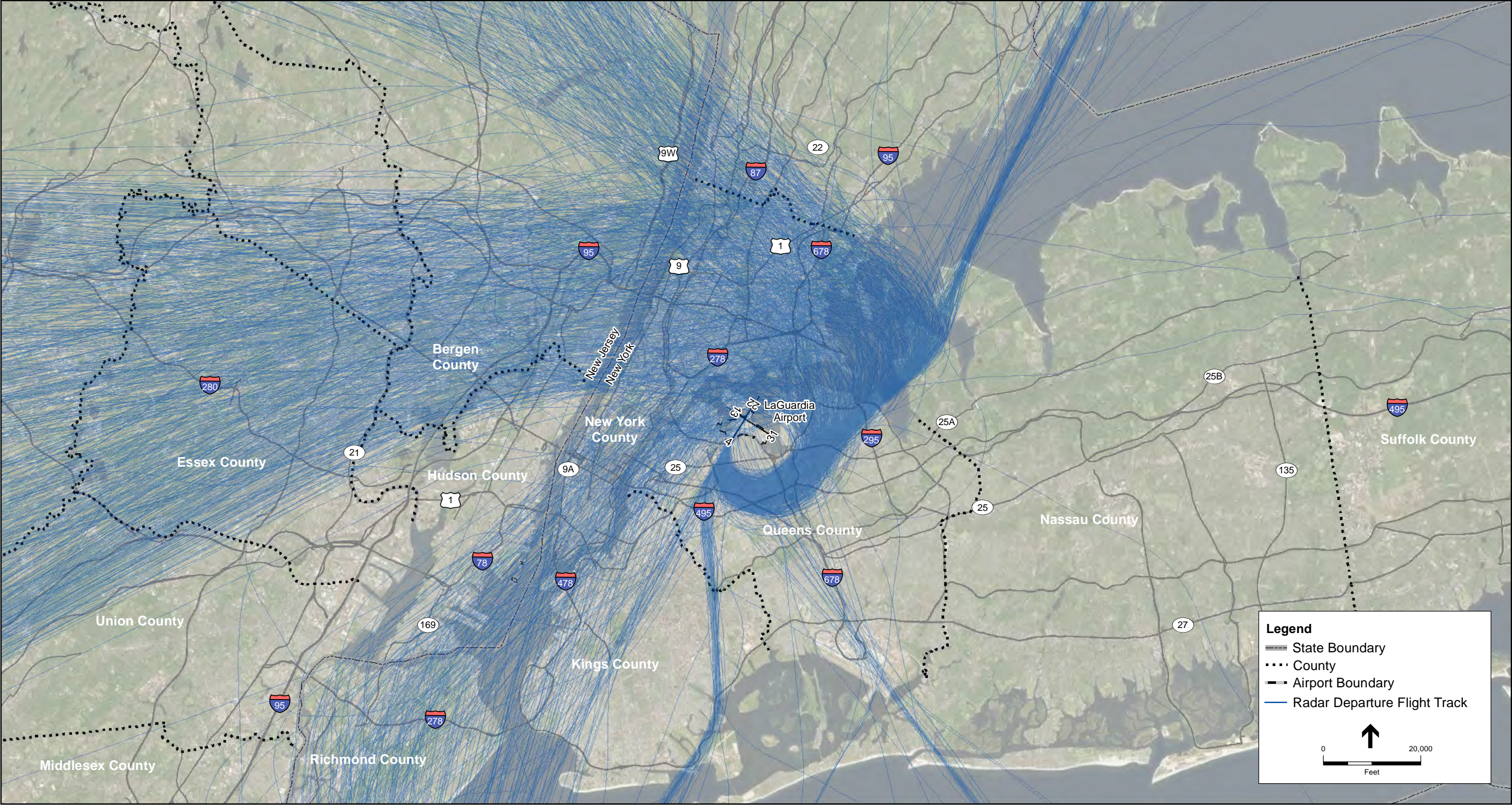
Figure 5
Radar Helicopter Flight Tracks
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

LaGuardia Airport 14 CFR Part 150 Study . 140037

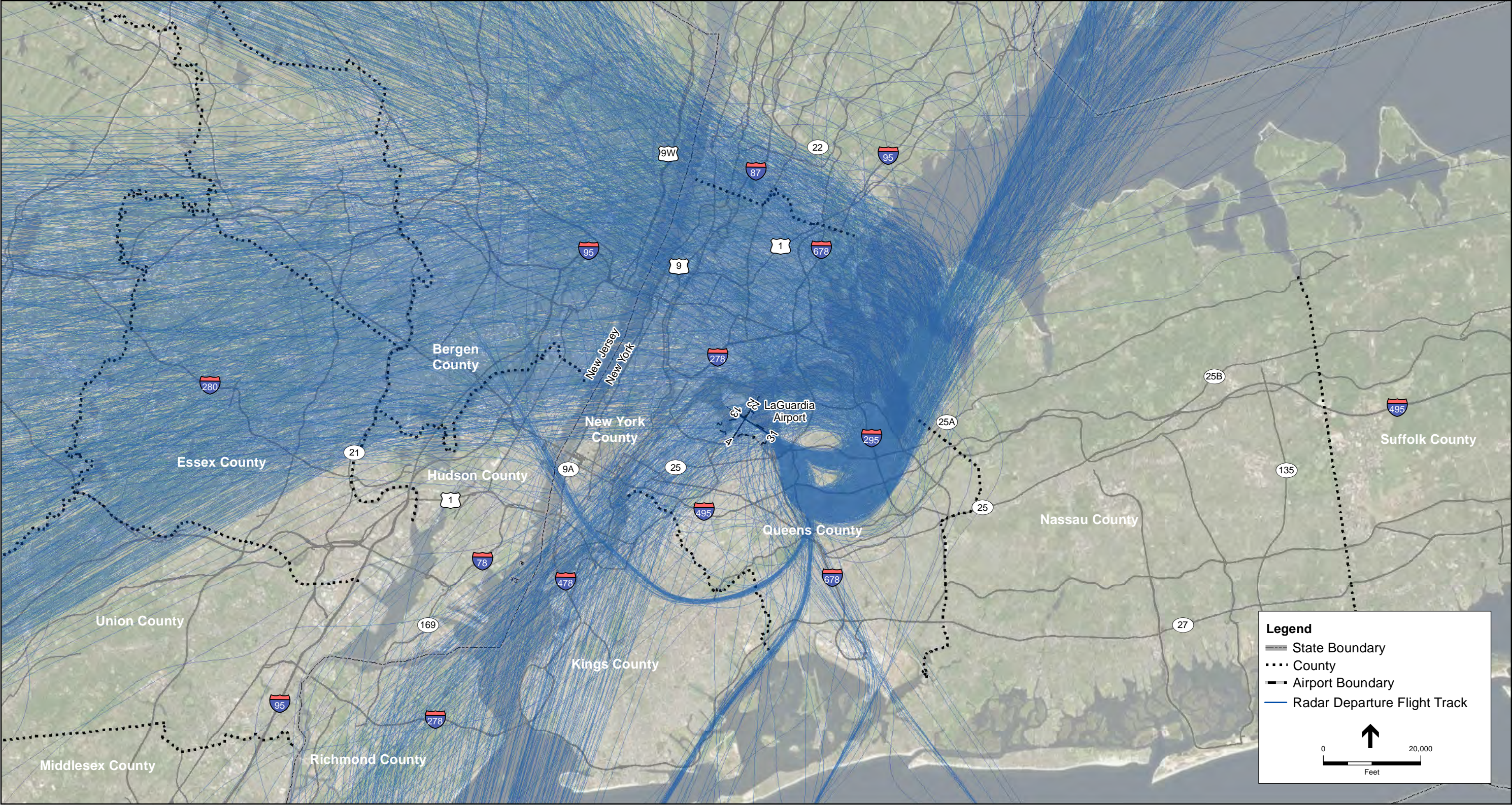
Figure 6
Radar Departure Flight Tracks - Runway 4
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

LaGuardia Airport 14 CFR Part 150 Study . 140037

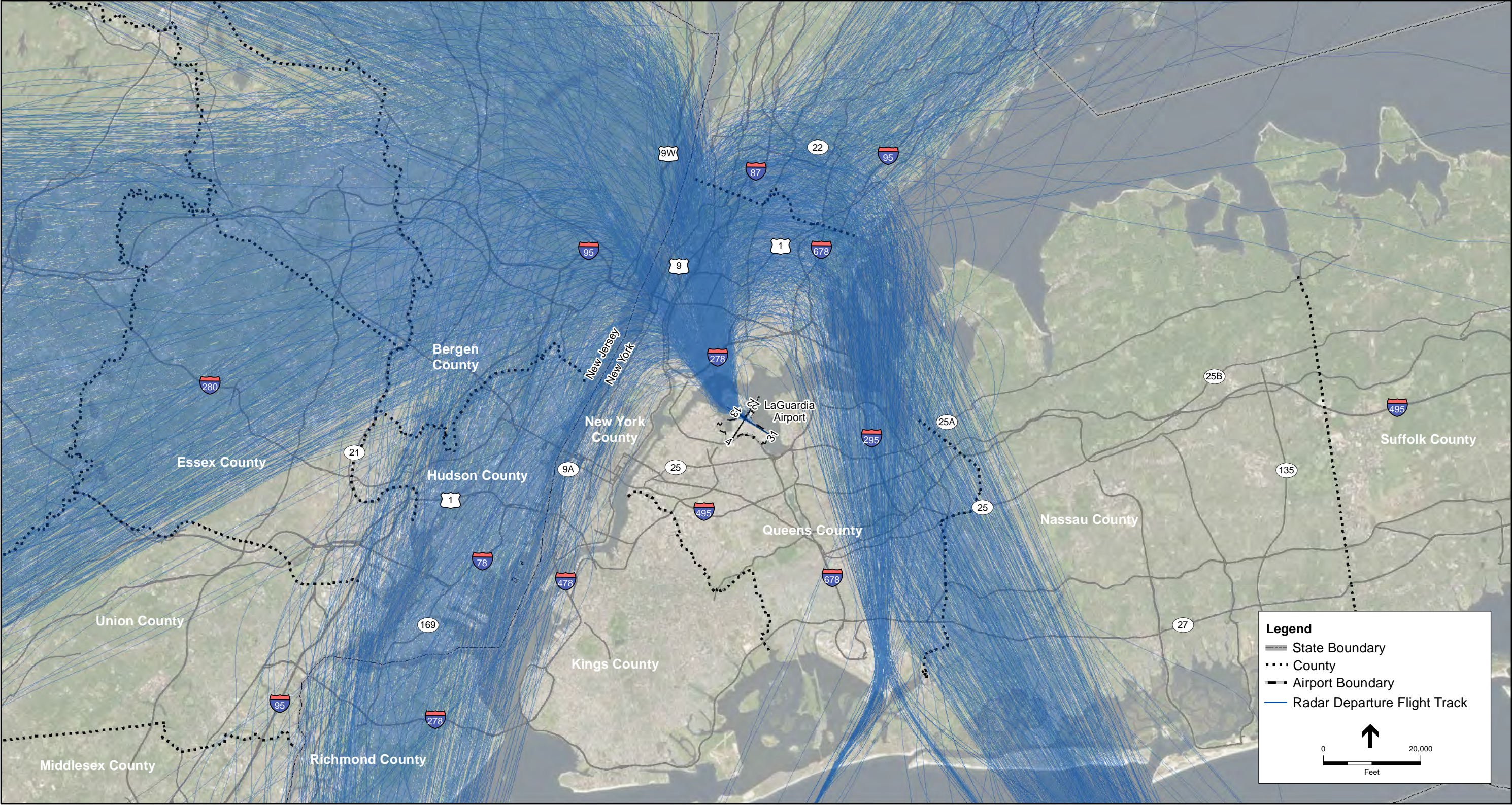
Figure 7
Radar Departure Flight Tracks - Runway 22
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 8
Radar Departure Flight Tracks - Runway 13
LaGuardia Airport



SOURCE: NAIP, 2013; Port Authority of New York and New Jersey Airport Noise and Operations Management System (ANOMS), 2014; KB Environmental Sciences Inc., 2016.

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 9
Radar Departure Flight Tracks - Runway 31
LaGuardia Airport

APPENDIX F

Forecast and Operational Data

This appendix contains the operational data and forecast related to development of the LaGuardia Airport's 14 CFR Part 150 Study's Noise Exposure Maps.

- Appendix F-1 Forecast and FAA Approval
- Appendix F-2 Operational Data

APPENDIX F-1

Forecast and FAA Approval



U.S. Department
of Transportation
**Federal Aviation
Administration**

Eastern Region, Airports Division

1 Aviation Plaza, Room 516
Jamaica, NY 11434-4809

T: (718) 553-3330
F: (718) 995-5615

March 28, 2016

Mr. Edward C. Knoesel
Manager, Aviation Environmental Programs
The Port Authority of New York and New Jersey
4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10006

**Re: Derivative Aviation Activity Forecast Memorandum, LaGuardia Airport 14 CFR
Part 150 Study**

Dear Mr. Knoesel,

We received the Derivative Aviation Activity Forecast Memorandum for the LaGuardia Airport 14 CFR Part 150 Study electronically for review and approval on March 28, 2016. The Derivative Forecast Memorandum has been revised to address our comments transmitted via letter to you on March 17, 2016 and we have no additional comments on the Memorandum. We also note that our previous comments on the Aircraft Fleet Mix and Operations Forecast 2014-2033 for LaGuardia Airport, contained as Attachment A to the Memorandum, have all been addressed.

Therefore, the use of the Aircraft Fleet Mix and Operations Forecast 2014-2033 for LaGuardia Airport and the Derivative Aviation Activity Forecast for the LaGuardia Airport 14 CFR Part 150 Study are approved. This approval is specific to the use of this forecast in the LaGuardia Airport CFR Part 150 Study. Additionally, the approval is limited to the data through the year 2021, as that is the year of development for the future Noise Exposure Map associated with the 14 CFR Part 150 Study.

If you have any questions, please call me at 718-553-2511.

Sincerely,


Andrew Brooks
Environmental Program Manager
Airports Division, AEA-610

cc: K. Mitchell, PANYNJ
A. Yousuf, PANYNJ
T. Middleton, PANYNJ



4200 West Cypress Street
Suite 450
Tampa, FL 33607
813.207.7200 **phone**
813.207.7201 **fax**

F-4
www.esassoc.com

memorandum

date March 28, 2016

to Kelly Mitchell, Ed Knoesel, and Adeel Yousuf (Port Authority)

from Douglas DiCarlo and Steve Alverson

subject Derivative Aviation Activity Forecast - LGA 14 CFR Part 150 Study

1.1 Introduction

While aviation activity forecasts provide a significant component of the data required to support the development of a 14 CFR Part 150 study, they do not typically meet all of the requisite data requirements for the development of the Day-Night Average Sound Level (DNL) contours. Aircraft fleet mix and additional details must be derived from other sources to provide the data required for DNL contour development. Derivative forecasts provide the specific aircraft fleet mix that will be modeled in the Integrated Noise Model (INM), the time of day for operations, and departure stage lengths required for modeling the DNL contours. For the LaGuardia Airport (LGA) 14 CFR Part 150 study, derivative forecasts have been prepared for the 2016 base year and the five-year future condition in 2021.

1.2 Aircraft Operations

For 14 CFR Part 150 studies, a new aviation activity forecast must either be developed or an existing forecast needs to be identified for use in the development of the Noise Exposure Maps (NEMs) and associated Noise Compatibility Program. The Port Authority of New York and New Jersey (Port Authority) developed the *LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033* (LGA NEM Forecast) through an independent consultant for use in the 14 CFR Part 150 study. **Table 1-1** presents the annual aircraft operations and aircraft fleet mix for 2016 and 2021 prepared as part of the LGA NEM Forecast. A complete copy of the LGA NEM Forecast has been included as **Attachment A** to this memo.

Section 5.1 of the “Study Protocol for JFK and LGA 14 CFR Part 150 Studies” (September 2015), details that the FAA 2014 Terminal Area Forecast (TAF) would serve as the basis for developing the new forecasts. Therefore, the LGA NEM Forecast utilized the 2014 TAF passenger forecast for 2016, but adjusted the projection for the passenger enplanements expected by 2021. Annual operations from the 2014 TAF were not changed; however, they were used with the expected passenger levels to determine the 2016 and 2021 aircraft fleet mix.

Since a new forecast was developed, it had to be reviewed and approved by the FAA before it could be utilized in the 14 CFR Part 150 study. The FAA considers an airport’s forecasts consistent with their Terminal Area Forecast (TAF) if, “For all classes of airports, forecasts for total enplanements, based aircraft, and total operations are considered consistent with the TAF if they meet the following criterion: Forecasts differ by less than 10

percent in the 5-year forecast period, and 15 percent in the 10-year forecast period.”¹ As shown in **Table 1-2**, the adjusted forecast of passenger enplanements for 2021 is within 10 percent of the 2014 TAF.

TABLE 1-1 LGA NEM FORECAST ANNUAL AIRCRAFT OPERATIONS LAGUARDIA AIRPORT			
Aircraft Category	Aircraft Fleet Mix	2016 Annual Operations	2021 Annual Operations
Widebody	Boeing 767-300	30	30
	Widebody Total	30	30
Narrowbody	Boeing 757-200	576	600
	Boeing 737-900	1,401	2,152
	Boeing 737-800	34,355	35,771
	Boeing 737-700	24,307	24,869
	Boeing 737-600	3,870	3,959
	Boeing 717-200	17,094	20,530
	Airbus A321neo	186	1,901
	Airbus A321	6,290	6,653
	Airbus A320neo	186	1,901
	Airbus A320	34,363	34,273
	Airbus A319	15,309	19,065
	MD-88	16,972	7,132
	MD-90	5,696	6,579
	Embraer 190	25,196	24,713
	Narrowbody Total	185,801	190,098
Regional Jet	Canadair RJ 900	24,020	32,524
	Canadair RJ 700	68,472	71,288
	Canadair RJ 200	12,899	-
	Embraer 175	31,604	48,192
	Embraer 170	23,918	38,000
	Embraer RJ145	18,100	-
	Embraer RJ140	6,818	-
	Regional Jet Total	185,831	190,004
General Aviation	Business Jet	6,398	6,420
	Turboprop	248	234
	Helicopter	396	398
	Piston	60	50
	General Aviation Total	7,102	7,102
All Aircraft		378,764	387,234
NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016.			

¹ FAA Director of Airport Planning and Programming (APP-1) guidance paper entitled, *Review and Approval of Aviation Forecasts*, June 2008.

TABLE 1-2 COMPARISON OF LGA NEM FORECAST TO FAA 2014 TAF (ISSUED JANUARY 2015) LAGUARDIA AIRPORT				
	Year	LGA NEM Forecast	FAA 2014 TAF	Difference
Passenger Enplanements	2016	13,915,943	13,915,943	0.0%
	2021	15,080,533	14,203,966	6.2%
Annual Operations	2016	378,764	378,764	0.0%
	2021	387,234	387,234	0.0%
NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016 and Federal Aviation Administration 2014 Terminal Area Forecast - issued January 2015.				

Additionally, as the LGA NEM Forecast was being completed, the FAA issued their 2015 TAF in January of 2016. The figures from this most recent TAF are shown in **Table 1-3** for comparative purposes.

TABLE 1-3 COMPARISON OF LGA NEM FORECAST TO FAA 2015 TAF (ISSUED JANUARY 2016) LAGUARDIA AIRPORT				
	Year	LGA NEM Forecast	FAA 2015 TAF	Difference
Passenger Enplanements	2016	13,915,943	13,779,173	1.0%
	2021	15,080,533	14,685,212	2.7%
Annual Operations	2016	378,764	370,964	2.1%
	2021	387,234	387,324	0.0%
NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016 and Federal Aviation Administration 2015 Terminal Area Forecast - issued January 2016.				

1.3 Development of Derivative Forecasts

Information from the Port Authority's Airport Noise and Operations Management System (ANOMS) provided the basis for the 2016 base year condition. When combined with the operations and aircraft fleet mix included in the LGA NEM Forecast, the actual 2014 ANOMS data provided additional detail for the data required for use in the INM. All of the data for calendar year 2014 recorded by the ANOMS were reviewed. The incomplete records were identified (3.9 percent) and subsequently not used in the analysis. Supplemental information was then added to refine the dataset and prepare it for analysis. This included, but was not limited to:

- Federal Aviation Administration (FAA) and Transport Canada aircraft registration records that identify the specific aircraft type and engine configurations.
- Assignment of INM Aircraft Types or FAA-approved substitutes.
- Categorization as a Daytime or Nighttime operation.

- Verification of all aircraft departure stage lengths, including a check of those operations beyond the 1,500 statute-mile (sm) limit of the LGA Perimeter Rule.² The 1,500 sm limit is equivalent to 1,303 nautical miles (nm).

In support of the fleet changes expected for 2016 as well as 2021, supplemental information used in the LGA NEM Forecast and derivative forecast development included published airline fleet data, aircraft orders, interviews with airlines, proposed flight schedules, and manufacturer publications. Combined, these provided the ability to define the specific INM aircraft/engine combinations; expected daytime and nighttime activity levels; and projected departure stage lengths, each of which are described in more detail in the following sections.

1.3.1 Aircraft Fleet Mix

Aircraft registration information was utilized to identify the actual aircraft/engine combinations that operated at LGA in 2014. This information was used to assign the appropriate INM aircraft (or FAA-approved substitute aircraft). Aircraft that have not been assigned an INM Aircraft Type or pre-approved substitute in the model database must utilize an aircraft approved by the FAA's Office of Environment and Energy (AEE).

Details pertaining to the more significant INM Aircraft Types assigned and/or modifications made to further develop the 2016 and 2021 fleet mixes are described in the following sections, while the resultant annual operations for each are included in **Table 1-4**. It should be noted that the annual operations will be converted to average annual day (AAD) operations, which are the input parameter required by the INM. Summary tables providing activity breakdowns in AAD operations are included at the end of the memo.

1.3.1.1 Widebody

Widebody activity at LGA is limited to a few flights by Air Canada to Toronto Pearson International Airport (YYZ). While the Air Canada Boeing 767-300 fleet is utilized on this route, the 767400 INM Aircraft Type has been assigned as it represents the actual engines on Air Canada's aircraft based on the aircraft registration data. The use of the 767400 INM Aircraft Type to model the Boeing 767-300 series operations has been approved by the FAA AEE.

1.3.1.2 Narrowbody

The 2014 ANOMS data show that narrowbody aircraft conducted approximately 47 percent of the total operations and regional jets nearly 52 percent. As explained in the LGA NEM Forecast (Attachment A), the air carriers at LGA are expected to continue the current process of upgauging³ their regional and mainline aircraft fleets in order to provide more seat capacity to the market. This shift results in nearly an equal distribution of operations conducted by narrowbody and regional jet aircraft in 2016. Therefore, adjustments to 2014 ANOMS records were required for the narrowbody fleet, as well as those for the regional jets, to properly represent the 2016 conditions. Between 2016 and 2021, both narrowbody and regional jet operations are expected to increase at the same level, thus the nearly equal distribution of operations is anticipated to remain unchanged for the five-year condition of 2021. Utilizing the fleet mix assumptions of the NEM Forecasts, the more significant adjustments to the narrowbody fleet and assignment of INM Aircraft Types for the derivative forecast are described below.

² Flights operating beyond 1,500 sm included mostly general aviation flights, exempted commercial flights to Denver International Airport (DEN), and the Saturday commercial flights to Queen Beatrix International Airport (TNCA) in Aruba and Bozeman Yellowstone International Airport (BZN) in Montana.

³ Upgauge of aircraft or aircraft upgauging refers to the airline practice of assigning an aircraft with more seats to a particular market or route to increase passenger capacity.

TABLE 1-4 ANNUAL AIRCRAFT OPERATIONS BY INM AIRCRAFT TYPES LAGUARDIA AIRPORT				
Aircraft Category	Aircraft Fleet Mix	INM Aircraft Type	2016 Annual Operations	2021 Annual Operations
Widebody	Boeing 767-300	767400 (sub for B763)	30	30
		Widebody Total	30	30
Narrowbody	Boeing 757-200	757PW	553	576
		757RR	23	24
	Boeing 737-900	737800 (sub for B739)	1,401	2,152
	Boeing 737-800	737800	34,355	35,771
	Boeing 737-700	737700	24,307	24,869
	Boeing 737-600	737700 (sub for B736)	3,870	3,959
	Boeing 717-200	717200	17,094	20,530
	Airbus A321neo	A321neo (TBD)	186	1,901
	Airbus A321	A321-232	6,290	6,653
	Airbus A320neo	A320neo (TBD)	186	1,901
	Airbus A320	A320-211	8,859	8,836
		A320-232	25,504	25,437
	Airbus A319	A319-131	2,909	3,622
		A320-211 (sub for A319)	12,400	15,443
	MD-88	MD83 (sub for MD88)	16,972	7,132
	MD-90	MD9025	982	1,134
		MD9028	4,714	5,445
	Embraer 190	EMB190	25,196	24,713
		Narrowbody Total	185,801	190,098
Regional Jet	Canadair RJ 900	CRJ9-ER	24,020	32,524
	Canadair RJ 700	CRJ9-ER (sub for CRJ7)	68,472	71,288
	Canadair RJ 200	CL601	12,899	-
	Embraer 175	EMB175	31,604	48,192
	Embraer 170	EMB170	23,918	38,000
	Embraer RJ145	EMB14L	18,100	-
	Embraer RJ140	EMB145	6,818	-
		Regional Jet Total	185,831	190,004
General Aviation	Business Jet	CL600	872	875
		CNA525C	93	93
		CNA55B	100	100
		CNA560E	272	274
		CNA560XL	772	775
		CNA680	412	413
		CNA750	759	762
		F10062	162	162
		GIV	736	738
		GV	1,052	1,056

		LEAR35	614	616
		MU3001	554	556
	Turboprop	CNA208	196	185
		CNA441	52	49
	Helicopter	B407	106	106
		S76	106	106
		SA355F	184	186
	Piston	GASEPV	60	50
		General Aviation Total	7,102	7,102
All Aircraft			378,764	387,234
NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016 and ESA, 2016.				

All modifications to the narrowbody departures were made taking stage length into consideration (based on nm trip lengths as described in a subsequent section). In general, approximately 30 percent of the narrowbody fleet operates on routes less than 500 nm, while more than half serve routes between 500 and 1,000 nm for both 2016 and 2021. Of the remaining, most routes are less than 1,500 nm with only a few beyond 1,500 nm due to the LGA Perimeter Rule (based on sm).⁴ For the fleet changes in 2021, a weighted average for the stage lengths was computed using the upgauging assumptions of the LGA NEM Forecast with corresponding data from the 2014 ANOMS.

Boeing 757 Aircraft

The LGA NEM Forecast identifies that American Airlines plans to retire their Boeing 757 aircraft equipped with Pratt & Whitney engines. However, both Delta Airlines and United Airlines predominately operate versions with the Pratt & Whitney engines, while a small number of non-commercial 757 operations utilize the Rolls Royce. As such, INM Aircraft Types for both the Pratt & Whitney and Rolls Royce engine options have been included in the fleet mix. The Boeing 737-900 and Airbus A321 are the expected replacement aircraft for the commercial Boeing 757 aircraft. All Boeing 757 series operations will be modeled using the 757PW and 757RR INM Aircraft Types.

Boeing 737-900 Aircraft

The 737800 is the approved substitute in the INM for the Boeing 737-900 series. All Boeing 737-900 series operations will be modeled using the 737800 INM Aircraft Type.

Boeing 737-800 Aircraft

All Boeing 737-800 series operations will be modeled using the 737800 INM Aircraft Type.

Boeing 737-700 Aircraft

All Boeing 737-700 series operations will be modeled using the 737700 INM Aircraft Type.

⁴ Commercial narrowbody aircraft operating beyond 1,500 sm include exempted flights to DEN at approximately 1,620 sm; Saturday flights to TNCA in Aruba at approximately 1,970 sm and to BZN in Montana at approximately 1,890 nm.

Boeing 737-600 Aircraft

The 737700 is the approved substitute in the INM for the Boeing 737-600 series. All Boeing 737-600 series operations will be modeled using the 737700 INM Aircraft Type.

Boeing 717 Aircraft

As documented in the LGA NEM Forecast, Boeing 717 operations are projected to increase as a result of Delta Airlines' expanded utilization of this aircraft in the LGA market. The airline's intention is to continue to use the aircraft on short- and medium-haul routes, eventually replacing many of the larger regional jet aircraft in Delta's affiliate airline fleets. It should be noted that the 2014 ANOMS data included operations of the Boeing 717 by AirTran Airways. Even though AirTran's Boeing 717 activity stopped in August of 2014 as part of their acquisition by Southwest Airlines, it represented 42 percent of the total activity at LGA by this aircraft. Therefore, the AirTran operations and their corresponding routes were removed from the Boeing 717 datasets and incorporated into Southwest's Boeing 737 activity for 2016. All Boeing 717 series operations will be modeled using the 717200 INM Aircraft Type.

Airbus A321neo and A320neo

Based upon the airline fleet plans and orders, the LGA NEM Forecast reflect that the Airbus A321neo and A320neo aircraft are expected to replace retiring Airbus A321 and A320 aircraft in the LGA market. A small number of the NEO aircraft have been included in the 2016 operations with a greater share anticipated by 2021. In developing the derivative forecast, it was assumed that these newer models are likely to be deployed on the most predominant stage lengths for the aircraft they are replacing.

The A321neo would be primarily used on flights less than 500 nm as the predominant operations in 2014 were by US Airways (now American Airlines) operating 80 percent of all Airbus A321 flights out of LGA to Charlotte Douglas International Airport (CLT), while the remaining 20 percent were mostly to Fort Lauderdale-Hollywood International Airport (FLL) by Spirit Airlines. Both airlines are adding A321neo aircraft to their fleets. Conversely, 67 percent of the Airbus A320 flights out of LGA in 2014 were to destinations between 500 and 1,000 nm. More than half of these were by JetBlue Airways to nearly every one of their Florida markets and the others on high density routes served by Delta Airlines and Spirit. Both JetBlue and Spirit have a number of orders for A320neo aircraft. Of the remaining, nearly 20 percent were to destinations between 1,000 and 1,500 nm and only 13 percent on trips less than 500 nm.

An INM substitute request for the A321neo and A320neo aircraft will be submitted to the FAA AEE for approval.

Airbus A321 Aircraft

All Airbus A321 series operations will be modeled using the A321-232 INM Aircraft Type.

Airbus A320 and A319 Aircraft

Two INM Aircraft Types have been assigned to both the current Airbus A320 and current A319 aircraft. Utilizing the aircraft registration data, these two groups of aircraft were divided into those equipped with CFM56 (GE/Safran) or IAE V2500 engine options. For the A320, there are two different INM Aircraft Types for the different engines, but only one for the A319 with the IAE V2500. Based on the registration data, over 80 percent of the A319s operating at LGA in 2014 were equipped with CFM56 engines. Therefore, the A320 INM Aircraft Type with these engines was assigned to those A319 aircraft with CFM56 engines. These substitutions have been approved by the FAA AEE. All Airbus A320 series operations will be modeled using the A320-211 and A320-232 INM Aircraft Types, while all Airbus A319 series operations will utilize the A319-131 and the approved A320-211 substitute INM Aircraft Types.

MD-82/83 Aircraft

In 2014, American Airlines operated a limited number of both MD-82 and MD-83 aircraft between LGA and Chicago O'Hare International Airport (ORD). As documented in the LGA NEM Forecast, American is retiring these aircraft as quickly as possible and plans to replace them with either Boeing 737 or Airbus A320 aircraft. As such, no MD-82 or MD-83 operations are included in the 2016 or 2021 fleet mix.

MD-88 Aircraft

The LGA NEM Forecast documents that while Delta Airlines is still acquiring some MD-88 aircraft, they are doing so primarily for aircraft parts. For 2016, the overall MD-88 operations level is expected to be slightly lower than those documented in the 2014 ANOMS data. A considerable decrease in the use of the MD-88 is expected by 2021, since it is expected to be out of service by 2023. Initially in 2016, the primary replacement for the Delta MD-88s is expected to be Delta's MD-90s. Beyond 2016 both the Boeing 737-800 and Boeing 737-900 aircraft are anticipated to take over the markets formerly served by the MD-88s. The MD83 is the approved substitute in the INM for the MD-88 series. All MD-88 series operations will be modeled using the MD83 INM Aircraft Type.

MD-90 Aircraft

In 2014, Delta Airlines was the only operator of the MD-90 aircraft at LGA. While the LGA NEM Forecast indicates that the airline is still purchasing some used MD-90s, it also documents that this aircraft is expected to be out of service by 2026. Until then, the LGA NEM Forecast shows an increase in the use of the MD-90 for 2016 and to a lesser extent, in 2021.

Aircraft registration information shows that a majority of the MD-90s that operated at LGA in 2014 had the optional IAE V2528-D5 engines versus the standard V2525-D5 engines. Since there are INM Aircraft Types for both, these were applied as appropriate to the different versions of the MD-90 aircraft operated at LGA. Therefore, all MD-90 series operations will be modeled using the MD9025 and MD9028 INM Aircraft Types.

Embraer 190 Aircraft

As one of the smallest narrowbody aircraft serving LGA, operations by the Embraer 190 are expected to remain at similar levels for 2016 and 2021. However, an assumption of the LGA NEM Forecast is that some of the Embraer 190 activity is likely to be upgauged to Airbus A319s. This is in support of the expected fleet-wide upgauging, which includes the Embraer 190 becoming the replacement aircraft for some of the Embraer 175 and Canadair RJ900 aircraft. All Embraer 190 series operations will be modeled using the EMB190 INM Aircraft Type.

1.3.1.3 Regional Jet

As indicated previously, the ANOMS data showed that regional jet (including some turboprop) aircraft, conducted nearly 52 percent of the total operations in 2014. It is also shown in the LGA NEM Forecast (Attachment A) that the required upgauge in aircraft to meet passenger demand would result in a fairly equal distribution of narrowbody and regional jet operations for 2016 and 2021. Utilizing the fleet mix assumptions of the LGA NEM Forecast, the more significant adjustments to the regional jet fleet and assignment of INM Aircraft Types for the derivative forecast are described in the sections that follow.

Modifications to any regional jet departures took stage length into consideration just like the narrowbody aircraft in previous section. Overall, nearly two thirds of the regional jet fleet operates on routes less than 500 nm, with most others between 500 and 1,000 nm for both 2016 and 2012. Stage length adjustments for the individual aircraft were made using weighted averages based on the upgauging assumptions of the LGA NEM Forecast with the corresponding data from the 2014 ANOMS. This was most notable in 2021 where the regional jet fleet mix changes from seven to four primary aircraft types.

It should be noted that any aircraft seat examples provided in the following sections are only intended to illustrate some of the upgauging assumptions from the LGA NEM Forecast. Those included are from the individual aircraft airport planning manuals as actual seating configurations may vary depending on the aircraft operator and/or affiliated airline requirements.

Canadair RJ900 Aircraft

The LGA NEM Forecast show that use of the Canadair RJ900 is expected to continue to increase beyond 2021. However, even as one of the largest regional jet aircraft utilized, it too, in part, is expected to be upgauged in 2016 and 2021. Smaller narrowbody aircraft such as the Embraer 190, Boeing 717, and Airbus A319 are stated as the likely replacements for the Canadair RJ900. All Canadair RJ900 series operations will be modeled using the CRJ9-ER INM Aircraft Type.

Canadair RJ700 Aircraft

As reflected in the 2014 ANOMS data and carried forward in the LGA NEM Forecast, the Canadair RJ700 has been the predominant regional jet aircraft at LGA. This is due to its popularity among a number of the regional airlines serving most of the mainline carriers. As such, it is expected to continue to be an integral part of the aircraft upgauging, replacing many of the smaller 37 to 50-seat regional jets while in part, also being upgauged itself to aircraft such as the Canadair RJ900 in certain markets for 2016 and 2021. The CRJ9-ER is the approved substitute in the INM for the Canadair RJ700 series. All Canadair RJ700 series operations will be modeled using the CRJ9-ER INM Aircraft Type.

Canadair RJ200 Aircraft

One of the more significant changes to the regional jet fleet is that a number of the 50-seat Canadair RJ200 aircraft are expected to come out of the LGA market in 2016 due to airline economic conditions. By 2021, none of these aircraft are anticipated to be in the fleet. Based on the LGA NEM Forecast, the replacement during the transition period into retirement is expected to be the 70-seat Canadair RJ700. For 2016, all Canadair RJ200 series operations will be modeled using the CL601 INM Aircraft Type.

Embraer 175 Aircraft

As with the Canadair RJ900, utilization of the equally large Embraer 175 regional jet is projected to continue to increase beyond 2021. The only difference is that the Embraer 175 is utilized by more of the regional airlines. Nonetheless, the LGA NEM Forecast show that it is also anticipated to be upgauged, in part between 2016 and 2021, with smaller narrowbody aircraft such as the Embraer 190, Boeing 717, and Airbus A319. All Embraer 175 series operations will be modeled using the EMB175 INM Aircraft Type.

Embraer 170 Aircraft

Use of the Embraer 170 regional jet has slowly increased as documented in the LGA NEM Forecast. However, this aircraft is forecast to serve a much larger role by 2021 as it is anticipated to become the primary replacement aircraft for the smaller Embraer RJ145 and RJ140 aircraft exiting the market. As part of the shift, the larger Embraer 175 is expected to be the primary replacement aircraft for the Embraer 170 through 2021. All Embraer 170 series operations will be modeled using the EMB170 INM Aircraft Type.

Embraer RJ145 and RJ140 Aircraft

Similar to the Canadair RJ200 aircraft, a significant change to the regional jet fleet is that in 2016 there are expected to be less of the smaller 37-, 44-, and 50-seat Embraer regional jets than those that operated in 2014. By

2021, none of these aircraft are anticipated to be in the fleet. The LGA NEM Forecast indicates that the 78-seat Embraer 170 is projected to be the replacement for the smaller aircraft as they transition out of the LGA market. For 2016, all Embraer RJ145 and RJ140 series operations will be modeled using the EMB14L and EMB145 INM Aircraft Types.

Dash DHC-8-200/300 Aircraft

The 2014 ANOMS dataset included the 200- and 300-series Dash DHC-8 operations conducted by American Airlines between LGA and Philadelphia International Airport (PHL). American is planning to replace these aircraft with the Embraer 175 aircraft in their regional fleet. As such, no Dash DHC-8 operations are included in the 2016 or 2021 fleet mix.

1.3.1.4 General Aviation Aircraft

For each of the four general aviation aircraft categories, the 2014 ANOMS data allowed a detailed fleet mix to be assigned to the total operations as reflected in the LGA NEM Forecast. The following sections summarize how the different general aviation operations documented in the 2014 ANOMS data were evaluated to assign the different INM Aircraft Types for each group.

General Aviation Jets

Of the 43 different general aviation jet aircraft identified in the 2014 ANOMS data, the top 12 aircraft types represented 83 percent of the activity conducted in 2014. These range from the smaller and lighter jets such as some of the Cessna Citation models to the larger and heavier Grumman Gulfstream series aircraft. While the general aviation aircraft are not subject to the limitations of the LGA Perimeter Rule, nearly 95 percent have stage lengths less than 1,500 nm (1,726 sm). Regardless, the 12 INM Aircraft Types applied to the LGA NEM Forecast also provide a realistic mix of the different aircraft performance, especially as it relates to the fleets' departure profiles and to a lesser extent, the arrival profile capabilities. It should be noted that after December 31, 2015, Stage 2 jet aircraft weighing 75,000 pounds or less must meet Stage 3 noise-level standards. Therefore, no Stage 2 jets such as the Grumman Gulfstream II were included in the INM fleet assumptions for 2016 or 2021.

General Aviation Turboprops

There were 12 different types of general aviation turboprops identified in the 2014 ANOMS dataset. The approved INM substitutes for all these aircraft resulted in two INM Aircraft Types. The 2014 ANOMS data showed that 95 percent of the departures were within 500 nm of LGA.

Helicopters

Nine different types of helicopters were identified as operating at LGA in the 2014 ANOMS data. The approved substitutes for these nine types resulted in three INM Aircraft (Helicopter) Types. While helicopter operations are different from those of fixed-wing aircraft, all of the departures were within 500 nm of LGA. The three different models utilized represent the different helicopter activity by including models with one or two turboshaft engines and three or four bladed rotor heads; each of which having its own performance characteristics.

Single-Engine Piston Aircraft

The ANOMS dataset includes a general group of single-engine piston aircraft that conducted 52 operations at LGA in 2014. Within the INM there are general aircraft types that are representative of and can be used to model a wide variety of aircraft types. One of the best examples is the GASEPV INM Aircraft Type which characterizes most single-engine propeller-driven aircraft. The single-engine piston aircraft will be modeled using the GASEPV INM Aircraft Type; all of which operate within 500 nm of the airport.

1.3.2 Time of Day

Every aircraft operation is defined as either a daytime or nighttime operation. This designation is based on whether the operation occurred between 7:00:00 a.m. and 9:59:59 p.m. (daytime) or 10:00:00 p.m. and 6:59:59 a.m. (nighttime). The INM assigns a 10-dB “weighting” for those flights occurring during nighttime hours to account for the increased sensitivity of noise during these hours. Acoustically, the 10-dB penalty is equivalent to multiplying each operation by ten.

Table 1-5 presents the 2016 annual operations from the LGA NEM Forecast split into arrivals and departures, as well as the daytime/nighttime percentages for each individual INM Aircraft Type. The same information is reflected in **Table 1-6** for the 2021 operations. The 2014 ANOMS data served as the primary source for the operational splits and time of day information since it captures actual arrival and departure times, versus scheduled times. This accounts for delayed departures that sometimes occur at LGA. While it has been assumed that the time of day splits for 2021 should be similar to the base conditions, the expected fleet changes result in some small differences as shown.

It is important to note that the arrival/departure operations and daytime/nighttime percentages differ from the LGA NEM Forecast since those from that forecast (see Attachment A) are presented using average annual day (AAD) operations rounded to the nearest whole number, which results in less precise daytime/nighttime splits. Additionally, the values shown in Tables 1-5 and 1-6 are presented for each individual INM Aircraft Type. Finally, while the LGA NEM Forecast daytime/nighttime splits differ from the more detailed information included herein, the overall daytime/ nighttime splits are consistent.

TABLE 1-5 ANNUAL AIRCRAFT OPERATIONS BY TIME OF DAY – 2016 CONDITIONS LAGUARDIA AIRPORT							
Aircraft Category INM Aircraft Type	Arrivals			Departures			Total Operations
	Operations	Day	Night	Operations	Day	Night	
Widebody							
767400 (sub for B763)	15.0	93.94%	6.06%	15.0	76.47%	23.53%	30
Narrowbody							
757PW	276.4	76.77%	23.23%	276.4	90.92%	9.08%	553
757RR	11.6	91.67%	8.33%	11.6	89.55%	10.45%	23
737800 (sub for B739)	700.5	76.81%	23.19%	700.5	91.99%	8.01%	1,401
737800	17,177.5	81.64%	18.36%	17,177.5	88.07%	11.93%	34,355
737700	12,153.5	86.87%	13.13%	12,153.5	91.27%	8.73%	24,307
737700 (sub for B736)	1,935.0	95.05%	4.95%	1,935.0	84.48%	15.52%	3,870
717200	8,547.0	97.11%	2.89%	8,547.0	97.28%	2.72%	17,094
A321neo (TBD)	93.0	81.29%	18.71%	93.0	83.53%	16.47%	186
A321-232	3,145.0	81.29%	18.71%	3,145.0	83.53%	16.47%	6,290
A320neo (TBD)	93.0	85.63%	14.37%	93.0	91.16%	8.84%	186
A320-211	4,429.7	83.73%	16.27%	4,429.7	95.36%	4.64%	8,859
A320-232	12,751.8	87.52%	12.48%	12,751.8	86.97%	13.03%	25,504
A319-131	1,454.4	86.30%	13.70%	1,454.4	92.25%	7.75%	2,909
A320-211 (sub for A319)	6,200.1	87.16%	12.84%	6,200.1	93.03%	6.97%	12,400
MD83 (sub for MD88)	8,486.0	91.51%	8.49%	8,486.0	94.79%	5.21%	16,972
MD9025	490.8	83.80%	16.20%	490.8	93.30%	6.70%	982
MD9028	2,357.2	80.98%	19.02%	2,357.2	92.13%	7.87%	4,714

EMB190	12,598.0	92.06%	7.94%	12,598.0	92.37%	7.63%	25,196
Regional Jet							
CRJ9-ER	12,010.0	95.16%	4.84%	12,010.0	90.53%	9.47%	24,020
CRJ9-ER (sub for CRJ7)	34,236.0	95.67%	4.33%	34,236.0	93.35%	6.65%	68,472
CL601	6,449.5	90.33%	9.67%	6,449.5	92.91%	7.09%	12,899
EMB175	15,802.0	93.59%	6.41%	15,802.0	91.82%	8.18%	31,604
EMB170	11,959.0	91.23%	8.77%	11,959.0	91.82%	8.18%	23,918
EMB14L	9,050.0	93.80%	6.20%	9,050.0	92.71%	7.29%	18,100
EMB145	3,409.0	97.78%	2.22%	3,409.0	97.24%	2.76%	6,818
Business Jet							
CL600	435.8	91.41%	8.59%	435.8	91.67%	8.33%	872
CNA525C	46.3	84.38%	15.63%	46.3	90.63%	9.38%	93
CNA55B	49.9	94.12%	5.88%	49.9	100.00%	0.00%	100
CNA560E	136.6	91.76%	8.24%	136.6	94.23%	5.77%	272
CNA560XL	386.0	92.31%	7.69%	386.0	94.16%	5.84%	772
CNA680	206.0	91.24%	8.76%	206.0	88.51%	11.49%	412
CNA750	379.5	91.27%	8.73%	379.5	92.31%	7.69%	759
F10062	81.0	92.00%	8.00%	81.0	94.59%	5.41%	162
GIV	367.9	90.08%	9.92%	367.9	88.33%	11.67%	736
GV	526.2	88.28%	11.72%	526.2	87.77%	12.23%	1,052
LEAR35	307.2	91.71%	8.29%	307.2	93.18%	6.82%	614
MU3001	276.8	92.93%	7.07%	276.8	92.96%	7.04%	554
Turboprop							
CNA208	97.8	90.06%	9.94%	97.8	84.44%	15.56%	196
CNA441	26.2	96.00%	4.00%	26.2	96.88%	3.13%	52
Helicopter							
B407	53.0	98.21%	1.79%	53.0	100.00%	0.00%	106
S76	53.0	97.50%	2.50%	53.0	100.00%	0.00%	106
SA355F	92.1	98.96%	1.04%	92.1	100.00%	0.00%	184
Piston							
GASEPV	30.0	96.88%	3.13%	30.0	100.00%	0.00%	60
All Aircraft							
	189,382.0	90.92%	9.08%	189,382.0	91.82%	8.18%	378,764

NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. Values may not equal 100 percent due to rounding.
 SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016 and ESA, 2016.

**TABLE 1-6
ANNUAL AIRCRAFT OPERATIONS BY TIME OF DAY – 2021 CONDITIONS
LAGUARDIA AIRPORT**

Aircraft Category INM Aircraft Type	Arrivals			Departures			Total Operations
	Operations	Day	Night	Operations	Day	Night	
Widebody							
767400 (sub for B763)	15.0	93.94%	6.06%	15.0	76.47%	23.53%	30
Narrowbody							
757PW	287.9	76.77%	23.23%	287.9	90.92%	9.08%	576
757RR	12.1	91.67%	8.33%	12.1	89.55%	10.45%	24
737800 (sub for B739)	1,076.0	89.38%	10.62%	1,076.0	94.32%	5.68%	2,152
737800	17,885.5	84.75%	15.25%	17,885.5	90.39%	9.61%	35,771
737700	12,434.5	86.87%	13.13%	12,434.5	91.27%	8.73%	24,869
737700 (sub for B736)	1,979.5	95.05%	4.95%	1,979.5	84.48%	15.52%	3,959
717200	10,265.5	94.36%	5.64%	10,265.5	91.70%	8.30%	20,530
A321neo (TBD)	950.5	81.29%	18.71%	950.5	83.53%	16.47%	1,901
A321-232	3,326.5	81.29%	18.71%	3,326.5	83.53%	16.47%	6,653
A320neo (TBD)	950.5	85.63%	14.37%	950.5	91.16%	8.84%	1,901
A320-211	4,418.1	83.73%	16.27%	4,418.1	95.36%	4.64%	8,836
A320-232	12,718.4	87.52%	12.48%	12,718.4	86.97%	13.03%	25,437
A319-131	1,811.2	92.11%	7.89%	1,811.2	91.78%	8.22%	3,622
A320-211 (sub for A319)	7,721.3	92.11%	7.89%	7,721.3	91.78%	8.22%	15,443
MD83 (sub for MD88)	3,566.0	91.51%	8.49%	3,566.0	94.79%	5.21%	7,132
MD9025	566.9	90.25%	9.75%	566.9	94.48%	5.52%	1,134
MD9028	2,722.6	90.25%	9.75%	2,722.6	94.48%	5.52%	5,445
EMB190	12,356.5	93.58%	6.42%	12,356.5	91.63%	8.37%	24,713
Regional Jet							
CRJ9-ER	16,262.0	95.56%	4.44%	16,262.0	92.73%	7.27%	32,524
CRJ9-ER (sub for CRJ7)	35,644.0	94.72%	5.28%	35,644.0	93.27%	6.73%	71,288
EMB175	24,096.0	92.70%	7.30%	24,096.0	91.82%	8.18%	48,192
EMB170	19,000.0	93.86%	6.14%	19,000.0	93.64%	6.36%	38,000
Business Jet							
CL600	437.3	91.41%	8.59%	437.3	91.67%	8.33%	875
CNA525C	46.4	84.38%	15.63%	46.4	90.63%	9.38%	93
CNA55B	50.0	94.12%	5.88%	50.0	100.00%	0.00%	100
CNA560E	137.1	91.76%	8.24%	137.1	94.23%	5.77%	274
CNA560XL	387.3	92.31%	7.69%	387.3	94.16%	5.84%	775
CNA680	206.7	91.24%	8.76%	206.7	88.51%	11.49%	413
CNA750	380.8	91.27%	8.73%	380.8	92.31%	7.69%	762
F10062	81.2	92.00%	8.00%	81.2	94.59%	5.41%	162
GIV	369.2	90.08%	9.92%	369.2	88.33%	11.67%	738
GV	528.0	88.28%	11.72%	528.0	87.77%	12.23%	1,056
LEAR35	308.2	91.71%	8.29%	308.2	93.18%	6.82%	616
MU3001	277.8	92.93%	7.07%	277.8	92.96%	7.04%	556
Turboprop							
CNA208	92.3	90.06%	9.94%	92.3	84.44%	15.56%	185

CNA441	24.7	96.00%	4.00%	24.7	96.88%	3.13%	49
Helicopter							
B407	53.2	98.21%	1.79%	53.2	100.00%	0.00%	106
S76	53.2	97.50%	2.50%	53.2	100.00%	0.00%	106
SA355F	92.5	98.96%	1.04%	92.5	100.00%	0.00%	186
Piston							
GASEPV	25.0	96.88%	3.13%	25.0	100.00%	0.00%	50
All Aircraft	193,617.5	91.50%	8.50%	193,617.5	91.77%	8.23%	387,234

NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff. Values may not equal 100 percent due to rounding.
 SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033 (LGA NEM Forecast), March 2016 and ESA, 2016.

1.3.3 Departure Stage Length

Noise exposure from aircraft departures varies depending on takeoff weight. For example, a fully loaded aircraft departing on a long-haul flight typically weighs more on departure than the same fully loaded aircraft departing on a short-haul flight because the longer flight requires more fuel. It usually takes the heavier aircraft longer to reach its takeoff speed, thereby using more runway length. The heavier aircraft also climbs at a slower rate than a lighter aircraft. Therefore, more land area can be exposed to higher levels of aircraft noise by departures of heavier aircraft than by departures of the same aircraft with lighter loads. In the INM, nine different stage length categories have been established, representing the route or trip distances shown in **Table 1-7**.

TABLE 1-7
INM DEPARTURE STAGE LENGTH CATEGORIES

Stage Length Category	Departure Route/Trip Length (nautical miles)
1	0 - 500
2	501 - 1,000
3	1,001 - 1,500
4	1,501 - 2,500
5	2,501 - 3,500
6	3,501 - 4,500
7	4,501 - 5,500
8	5,501 - 6,500
9	Over 6,500

SOURCE: Federal Aviation Administration, 2007.

The 2014 ANOMS data did not record any flights beyond Stage Length 6. **Tables 1-8** and **1-9** present the stage length percentages that will be applied to the annual departures expected in 2016 and 2021 for each of the INM Aircraft Types.

**TABLE 1-8
DEPARTURE STAGE LENGTH BY INM AIRCRAFT TYPE – 2016 CONDITIONS
LAGUARDIA AIRPORT**

Aircraft Category	Stage Length (%)					
	1	2	3	4	5	6
Widebody						
767400 (sub for B763)	85.29%	11.76%	2.94%	0.00%	0.00%	0.00%
Narrowbody						
757PW	1.19%	69.43%	29.18%	0.20%	0.00%	0.00%
757RR	19.40%	55.22%	16.42%	2.99%	4.48%	1.49%
737800 (sub for B739)	10.09%	89.76%	0.15%	0.00%	0.00%	0.00%
737800	1.36%	63.63%	34.79%	0.22%	0.00%	0.00%
737700	12.03%	66.69%	21.26%	0.01%	0.00%	0.01%
737700 (sub for B736)	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
717200	45.74%	54.26%	0.00%	0.00%	0.00%	0.00%
A321neo (TBD)	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A321-232	81.19%	18.81%	0.00%	0.00%	0.00%	0.00%
A320neo (TBD)	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
A320-211	19.36%	55.10%	25.49%	0.05%	0.00%	0.00%
A320-232	11.20%	71.72%	17.08%	0.00%	0.00%	0.00%
A319-131	33.18%	58.47%	8.35%	0.00%	0.00%	0.00%
A320-211 (sub for A319)	36.43%	49.30%	14.09%	0.19%	0.00%	0.00%
MD83 (sub for MD88)	12.18%	86.99%	0.84%	0.00%	0.00%	0.00%
MD9025	8.13%	91.87%	0.00%	0.00%	0.00%	0.00%
MD9028	7.48%	92.42%	0.10%	0.00%	0.00%	0.00%
EMB190	99.90%	0.10%	0.00%	0.00%	0.00%	0.00%
Regional Jet						
CRJ9-ER	48.13%	48.82%	3.06%	0.00%	0.00%	0.00%
CRJ9-ER (sub for CRJ7)	63.76%	36.22%	0.03%	0.00%	0.00%	0.00%
CL601	80.26%	19.06%	0.17%	0.51%	0.00%	0.00%
EMB175	59.75%	29.62%	10.62%	0.00%	0.00%	0.00%
EMB170	52.57%	32.72%	14.72%	0.00%	0.00%	0.00%
EMB14L	77.35%	22.65%	0.00%	0.00%	0.00%	0.00%
EMB145	83.66%	16.19%	0.11%	0.05%	0.00%	0.00%
Business Jet						
CL600	58.01%	31.73%	5.13%	5.13%	0.00%	0.00%
CNA525C	75.00%	21.88%	3.13%	0.00%	0.00%	0.00%
CNA55B	54.29%	42.86%	2.86%	0.00%	0.00%	0.00%
CNA560E	68.27%	28.85%	2.88%	0.00%	0.00%	0.00%
CNA560XL	73.72%	24.82%	1.46%	0.00%	0.00%	0.00%
CNA680	68.92%	20.27%	6.08%	4.73%	0.00%	0.00%
CNA750	52.75%	29.67%	11.36%	6.23%	0.00%	0.00%
F10062	62.16%	32.43%	2.70%	2.70%	0.00%	0.00%
GIV	59.14%	25.29%	5.84%	7.39%	1.95%	0.39%
GV	62.69%	15.29%	5.20%	5.81%	8.56%	2.45%
LEAR35	65.45%	25.91%	5.91%	2.73%	0.00%	0.00%

MU3001	76.38%	20.10%	3.52%	0.00%	0.00%	0.00%
Turboprop						
CNA208	96.30%	3.70%	0.00%	0.00%	0.00%	0.00%
CNA441	90.63%	6.25%	3.13%	0.00%	0.00%	0.00%
Helicopter						
B407	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S76	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SA355F	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Piston						
GASEPV	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Aircraft	47.23%	43.04%	9.60%	0.11%	0.02%	0.01%
NOTE: Values may not equal 100 percent due to rounding. SOURCE: ESA, 2016.						

**TABLE 1-9
DEPARTURE STAGE LENGTH BY INM AIRCRAFT TYPE – 2021 CONDITIONS
LAGUARDIA AIRPORT**

Aircraft Category INM Aircraft Type	Stage Length (%)					
	1	2	3	4	5	6
Widebody						
767400 (sub for B763)	85.29%	11.76%	2.94%	0.00%	0.00%	0.00%
Narrowbody						
757PW	1.19%	69.43%	29.18%	0.20%	0.00%	0.00%
757RR	19.40%	55.22%	16.42%	2.99%	4.48%	1.49%
737800 (sub for B739)	11.51%	87.79%	0.71%	0.00%	0.00%	0.00%
737800	5.06%	72.31%	22.49%	0.14%	0.00%	0.00%
737700	12.03%	66.69%	21.26%	0.01%	0.00%	0.01%
737700 (sub for B736)	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
717200	54.83%	37.84%	7.33%	0.00%	0.00%	0.00%
A321neo (TBD)	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A321-232	81.19%	18.81%	0.00%	0.00%	0.00%	0.00%
A320neo (TBD)	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
A320-211	19.36%	55.10%	25.49%	0.05%	0.00%	0.00%
A320-232	11.20%	71.72%	17.08%	0.00%	0.00%	0.00%
A319-131	49.79%	40.87%	9.30%	0.04%	0.00%	0.00%
A320-211 (sub for A319)	49.79%	40.87%	9.30%	0.04%	0.00%	0.00%
MD83 (sub for MD88)	12.18%	86.99%	0.84%	0.00%	0.00%	0.00%
MD9025	11.60%	87.65%	0.74%	0.00%	0.00%	0.00%
MD9028	11.60%	87.65%	0.74%	0.00%	0.00%	0.00%
EMB190	67.86%	26.51%	5.63%	0.00%	0.00%	0.00%
Regional Jet						
CRJ9-ER	60.32%	38.98%	0.69%	0.00%	0.00%	0.00%
CRJ9-ER (sub for CRJ7)	66.69%	33.17%	0.05%	0.09%	0.00%	0.00%
EMB175	57.04%	30.79%	12.17%	0.00%	0.00%	0.00%
EMB170	68.39%	25.16%	6.44%	0.01%	0.00%	0.00%

Business Jet						
CL600	58.01%	31.73%	5.13%	5.13%	0.00%	0.00%
CNA525C	75.00%	21.88%	3.13%	0.00%	0.00%	0.00%
CNA55B	54.29%	42.86%	2.86%	0.00%	0.00%	0.00%
CNA560E	68.27%	28.85%	2.88%	0.00%	0.00%	0.00%
CNA560XL	73.72%	24.82%	1.46%	0.00%	0.00%	0.00%
CNA680	68.92%	20.27%	6.08%	4.73%	0.00%	0.00%
CNA750	52.75%	29.67%	11.36%	6.23%	0.00%	0.00%
F10062	62.16%	32.43%	2.70%	2.70%	0.00%	0.00%
GIV	59.14%	25.29%	5.84%	7.39%	1.95%	0.39%
GV	62.69%	15.29%	5.20%	5.81%	8.56%	2.45%
LEAR35	65.45%	25.91%	5.91%	2.73%	0.00%	0.00%
MU3001	76.38%	20.10%	3.52%	0.00%	0.00%	0.00%
Turboprop						
CNA208	96.30%	3.70%	0.00%	0.00%	0.00%	0.00%
CNA441	90.63%	6.25%	3.13%	0.00%	0.00%	0.00%
Helicopter						
B407	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S76	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SA355F	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Piston						
GASEPV	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Aircraft	47.90%	43.24%	8.73%	0.10%	0.03%	0.01%
NOTE: Values may not equal 100 percent due to rounding. SOURCE: ESA, 2016.						

1.4 Final Derivative Forecast Data

Tables 1-10 and 1-11 provide a breakdown of the INM aircraft fleet mix by time of day and type of operation for 2016 and 2021. As indicated previously, these data are presented in the average annual day (AAD) operations as required in 14 CFR Part 150 for use in the INM.

TABLE 1-10
AVERAGE ANNUAL DAY (ADD) OPERATIONS - 2016 CONDITIONS
LAGUARDIA AIRPORT

Aircraft Category		Daytime Operations						Nighttime Operations										Total		Grand Total
		Departures (Stage Length)						Arrivals	Daytime	Departures (Stage Length)						Arrivals	Nighttime			
INM Aircraft Type	1	2	3	4	5	6					1	2	3	4	5			6		
Widebody																				
767400 (sub for B763)	0.027	0.004	0.001	-	-	-	0.039	0.070	0.008	0.001	-	-	-	-	0.002	0.012	0.082			
Narrowbody																				
757PW	0.008	0.473	0.206	0.002	-	-	0.581	1.270	0.002	0.053	0.015	-	-	-	0.176	0.245	1.514			
757RR	0.006	0.017	0.004	0.001	0.001	-	0.029	0.058	0.000	0.001	0.001	-	-	0.000	0.003	0.006	0.064			
737800 (sub for B739)	0.185	1.577	0.003	-	-	-	1.474	3.240	0.009	0.145	-	-	-	-	0.445	0.599	3.838			
737800	0.529	26.191	14.622	0.103	-	-	38.422	79.868	0.111	3.754	1.751	-	-	-	8.639	14.255	94.123			
737700	3.692	20.232	6.463	0.003	-	-	28.925	59.316	0.315	1.975	0.614	-	-	0.003	4.372	7.279	66.595			
737700 (sub for B736)	4.479	-	-	-	-	-	5.039	9.517	0.823	-	-	-	-	-	0.263	1.085	10.603			
717200	10.156	12.623	-	-	-	-	22.739	45.518	0.556	0.081	-	-	-	-	0.677	1.315	46.833			
Airbus A321neo (TBD)	0.213	-	-	-	-	-	0.207	0.420	0.042	-	-	-	-	-	0.048	0.090	0.510			
A321-232	6.085	1.112	-	-	-	-	7.004	14.202	0.911	0.508	-	-	-	-	1.612	3.031	17.233			
Airbus A320neo (TBD)	-	0.232	-	-	-	-	0.218	0.450	-	0.023	-	-	-	-	0.037	0.059	0.510			
A320-211	1.919	6.581	3.067	0.006	-	-	10.162	21.735	0.430	0.106	0.027	-	-	-	1.974	2.537	24.272			
A320-232	3.889	21.103	5.392	-	-	-	30.576	60.960	0.024	3.953	0.576	-	-	-	4.360	8.913	69.873			
A319-131	1.126	2.233	0.317	-	-	-	3.439	7.115	0.196	0.097	0.016	-	-	-	0.546	0.855	7.969			
A320-211 (sub for A319)	5.448	7.948	2.375	0.032	-	-	14.805	30.608	0.740	0.426	0.018	-	-	-	2.181	3.365	33.973			
MD83 (sub for MD88)	2.411	19.433	0.195	-	-	-	21.276	43.315	0.420	0.791	-	-	-	-	1.973	3.184	46.499			
MD9025	0.103	1.152	-	-	-	-	1.127	2.382	0.006	0.084	-	-	-	-	0.218	0.308	2.690			
MD9028	0.439	5.511	-	-	-	-	5.229	11.179	0.044	0.458	0.006	-	-	-	1.229	1.737	12.916			
EMB190	31.849	0.034	-	-	-	-	31.775	63.658	2.633	-	-	-	-	-	2.740	5.372	69.030			
Regional Jet																				
CRJ9-ER	13.654	15.162	0.972	-	-	-	31.311	61.097	2.183	0.901	0.034	-	-	-	1.593	4.711	65.808			
CRJ9-ER (sub for CRJ7)	55.863	31.672	0.024	-	-	-	89.733	177.293	3.938	2.297	0.003	-	-	-	4.064	10.302	187.595			
CL601	13.100	3.218	0.026	0.073	-	-	15.961	32.379	1.082	0.149	0.005	0.017	-	-	1.708	2.961	35.340			
EMB175	23.503	12.031	4.215	-	-	-	40.519	80.269	2.366	0.793	0.383	-	-	-	2.774	6.317	86.586			
EMB170	15.617	10.119	4.348	-	-	-	29.891	59.975	1.606	0.601	0.473	-	-	-	2.874	5.554	65.529			
EMB14L	17.573	5.414	-	-	-	-	23.258	46.245	1.605	0.202	-	-	-	-	1.536	3.344	49.589			
EMB145	7.562	1.505	0.010	0.004	-	-	9.132	18.214	0.251	0.007	-	-	-	-	0.207	0.465	18.679			
Business Jet																				
CL600	0.624	0.352	0.061	0.057	-	-	1.091	2.186	0.069	0.027	-	0.004	-	-	0.103	0.202	2.388			
CNA525C	0.083	0.028	0.004	-	-	-	0.107	0.222	0.012	-	-	-	-	-	0.020	0.032	0.253			
CNA55B	0.074	0.059	0.004	-	-	-	0.129	0.265	-	-	-	-	-	-	0.008	0.008	0.273			
CNA560E	0.248	0.094	0.011	-	-	-	0.343	0.696	0.007	0.014	-	-	-	-	0.031	0.052	0.749			
CNA560XL	0.733	0.247	0.015	-	-	-	0.976	1.972	0.046	0.015	-	-	-	-	0.081	0.143	2.115			
CNA680	0.336	0.111	0.027	0.027	-	-	0.515	1.014	0.053	0.004	0.008	-	-	-	0.049	0.114	1.129			
CNA750	0.503	0.282	0.110	0.065	-	-	0.949	1.908	0.046	0.027	0.008	-	-	-	0.091	0.171	2.079			
F10062	0.126	0.072	0.006	0.006	-	-	0.204	0.414	0.012	-	-	-	-	-	0.018	0.030	0.444			
GIV	0.529	0.227	0.055	0.067	0.012	-	0.908	1.798	0.067	0.027	0.004	0.008	0.008	0.004	0.100	0.218	2.016			
GV	0.807	0.212	0.066	0.075	0.093	0.013	1.273	2.538	0.097	0.009	0.009	0.009	0.031	0.022	0.169	0.345	2.883			
LEAR35	0.505	0.210	0.046	0.023	-	-	0.772	1.556	0.046	0.008	0.004	-	-	-	0.070	0.127	1.683			
MU3001	0.537	0.141	0.027	-	-	-	0.705	1.410	0.042	0.011	-	-	-	-	0.054	0.107	1.517			
Turboprop																				
CNA208	0.216	0.010	-	-	-	-	0.241	0.468	0.042	-	-	-	-	-	0.027	0.068	0.536			
CNA441	0.063	0.004	0.002	-	-	-	0.069	0.138	0.002	-	-	-	-	-	0.003	0.005	0.144			
Helicopter																				
B407	0.145	-	-	-	-	-	0.143	0.288	-	-	-	-	-	-	0.003	0.003	0.290			
S76	0.145	-	-	-	-	-	0.142	0.287	-	-	-	-	-	-	0.004	0.004	0.290			
SA355F	0.252	-	-	-	-	-	0.250	0.502	-	-	-	-	-	-	0.003	0.003	0.504			
Piston																				
GASEPV	0.082	-	-	-	-	-	0.080	0.162	-	-	-	-	-	-	0.003	0.003	0.164			
All Aircraft	225.444	207.626	42.675	0.543	0.106	0.013	471.768	948.176	20.842	17.546	3.954	0.037	0.039	0.029	47.087	89.534	1,037.710			

NOTE: Values may not equal 100 percent due to rounding.

TABLE 1-11
AVERAGE ANNUAL DAY (ADD) OPERATIONS - 2021 CONDITIONS
LAGUARDIA AIRPORT

Aircraft Category		Daytime Operations						Nighttime Operations									
		Departures (Stage Length)						Arrivals	Total Daytime	Departures (Stage Length)						Arrivals	Total Nighttime
INM Aircraft Type	1	2	3	4	5	6	1			2	3	4	5	6			
Widebody																	
767400 (sub for B763)	0.027	0.004	0.001	-	-	-	0.039	0.070	0.008	0.001	-	-	-	-	0.002	0.012	0.082
Narrowbody																	
757PW	0.008	0.493	0.215	0.002	-	-	0.606	1.323	0.002	0.055	0.015	-	-	-	0.183	0.255	1.577
757RR	0.006	0.017	0.004	0.001	0.001	-	0.030	0.060	0.000	0.001	0.001	-	-	0.000	0.003	0.006	0.066
737800 (sub for B739)	0.292	2.468	0.021	-	-	-	2.635	5.415	0.047	0.120	0.000	-	-	-	0.313	0.480	5.896
737800	2.112	32.255	9.854	0.069	-	-	41.531	85.821	0.368	3.177	1.166	-	-	-	7.470	12.182	98.003
737700	3.777	20.700	6.613	0.003	-	-	29.594	60.687	0.322	2.020	0.628	-	-	0.003	4.473	7.447	68.134
737700 (sub for B736)	4.582	-	-	-	-	-	5.155	9.736	0.842	-	-	-	-	-	0.269	1.110	10.847
717200	13.823	10.063	1.904	-	-	-	26.536	52.326	1.598	0.578	0.157	-	-	-	1.587	3.920	56.247
Airbus A321neo (TBD)	2.175	-	-	-	-	-	2.117	4.292	0.429	-	-	-	-	-	0.487	0.916	5.208
A321-232	6.436	1.177	-	-	-	-	7.409	15.021	0.964	0.537	-	-	-	-	1.705	3.206	18.227
Airbus A320neo (TBD)	-	2.374	-	-	-	-	2.230	4.604	-	0.230	-	-	-	-	0.374	0.604	5.208
A320-211	1.914	6.564	3.059	0.006	-	-	10.135	21.678	0.429	0.106	0.027	-	-	-	1.969	2.531	24.209
A320-232	3.879	21.047	5.378	-	-	-	30.496	60.800	0.024	3.942	0.574	-	-	-	4.349	8.890	69.690
A319-131	2.198	1.916	0.438	0.002	-	-	4.571	9.125	0.272	0.112	0.023	-	-	-	0.391	0.799	9.924
A320-211 (sub for A319)	9.372	8.166	1.868	0.009	-	-	19.485	38.901	1.161	0.478	0.099	-	-	-	1.669	3.407	42.309
MD83 (sub for MD88)	1.013	8.166	0.082	-	-	-	8.941	18.202	0.176	0.332	-	-	-	-	0.829	1.338	19.540
MD9025	0.154	1.302	0.011	-	-	-	1.402	2.869	0.026	0.060	0.000	-	-	-	0.151	0.237	3.106
MD9028	0.741	6.251	0.055	-	-	-	6.732	13.779	0.124	0.287	0.001	-	-	-	0.728	1.139	14.918
EMB190	20.812	8.447	1.760	-	-	-	31.681	62.700	2.161	0.529	0.145	-	-	-	2.172	5.007	67.707
Regional Jet																	
CRJ9-ER	24.767	16.249	0.298	-	-	-	42.573	83.887	2.109	1.119	0.011	-	-	-	1.980	5.219	89.107
CRJ9-ER (sub for CRJ7)	60.689	30.277	0.046	0.072	-	-	92.498	183.583	4.434	2.113	0.007	0.016	-	-	5.157	11.726	195.310
EMB175	34.191	19.116	7.308	-	-	-	61.198	121.813	3.468	1.210	0.724	-	-	-	4.818	10.220	132.033
EMB170	33.159	12.553	3.026	0.007	-	-	48.857	97.602	2.440	0.543	0.327	-	-	-	3.197	6.508	104.110
Business Jet																	
CL600	0.626	0.353	0.061	0.058	-	-	1.095	2.194	0.069	0.027	-	0.004	-	-	0.103	0.203	2.396
CNA525C	0.083	0.028	0.004	-	-	-	0.107	0.223	0.012	-	-	-	-	-	0.020	0.032	0.254
CNA55B	0.074	0.059	0.004	-	-	-	0.129	0.266	-	-	-	-	-	-	0.008	0.008	0.274
CNA560E	0.249	0.094	0.011	-	-	-	0.345	0.698	0.007	0.014	-	-	-	-	0.031	0.053	0.751
CNA560XL	0.736	0.248	0.015	-	-	-	0.979	1.979	0.046	0.015	-	-	-	-	0.082	0.144	2.122
CNA680	0.337	0.111	0.027	0.027	-	-	0.517	1.018	0.054	0.004	0.008	-	-	-	0.050	0.115	1.133
CNA750	0.504	0.283	0.111	0.065	-	-	0.952	1.915	0.046	0.027	0.008	-	-	-	0.091	0.171	2.086
F10062	0.126	0.072	0.006	0.006	-	-	0.205	0.415	0.012	-	-	-	-	-	0.018	0.030	0.445
GIV	0.531	0.228	0.055	0.067	0.012	-	0.911	1.804	0.067	0.028	0.004	0.008	0.008	0.004	0.100	0.218	2.023
GV	0.810	0.212	0.066	0.075	0.093	0.013	1.277	2.547	0.097	0.009	0.009	0.009	0.031	0.022	0.170	0.346	2.893
LEAR35	0.507	0.211	0.046	0.023	-	-	0.774	1.561	0.046	0.008	0.004	-	-	-	0.070	0.128	1.689
MU3001	0.539	0.141	0.027	-	-	-	0.707	1.415	0.042	0.011	-	-	-	-	0.054	0.107	1.522
Turboprop																	
CNA208	0.204	0.009	-	-	-	-	0.228	0.441	0.039	-	-	-	-	-	0.025	0.064	0.506
CNA441	0.059	0.004	0.002	-	-	-	0.065	0.131	0.002	-	-	-	-	-	0.003	0.005	0.135
Helicopter																	
B407	0.146	-	-	-	-	-	0.143	0.289	-	-	-	-	-	-	0.003	0.003	0.292
S76	0.146	-	-	-	-	-	0.142	0.288	-	-	-	-	-	-	0.004	0.004	0.292
SA355F	0.253	-	-	-	-	-	0.251	0.504	-	-	-	-	-	-	0.003	0.003	0.507
Piston																	
GASEPV	0.068	-	-	-	-	-	0.066	0.135	-	-	-	-	-	-	0.002	0.002	0.137
All Aircraft	232.128	211.660	42.377	0.491	0.106	0.013	485.344	972.119	21.943	17.695	3.939	0.037	0.039	0.030	45.113	88.796	1,060.915

NOTE: Values may not equal 100 percent due to rounding.

Attachment A

LaGuardia Airport
Aircraft Fleet Mix and
Annual Aircraft Operations
Forecast 2014-2033

The Port Authority of New York and New Jersey

March 23, 2016

CONTENTS

1.1: FORECAST OVERVIEW	1
1.2: LGA PASSENGER FORECAST	3
1.2.1: LGA Domestic Passenger Market.....	3
1.2.2: LGA International Passenger Market.....	5
1.2.3: Revised TAF Enplanement Summary	7
1.3: PASSENGER CARRIER FLEET MIX AND NEM FORECAST	9
1.3.1: LGA Airline Operations Assumptions.....	9
1.3.2: LGA Fleet Mix Assumptions	10
1.4: GENERAL AVIATION AND MILITARY FLEET MIX AND NEM FORECAST	16

1.1: FORECAST OVERVIEW

In order to evaluate existing and future noise exposure resulting from aircraft operations at LaGuardia Airport (LGA), it is necessary to quantify the anticipated level of airport activity (aircraft operations), as well as the types of aircraft expected to be operating at the Airport. The FAR Part 150 Airport Noise Compatibility Planning process requires consideration of existing noise levels, and the prediction of noise levels five years into the future based on the forecasted level of operations and anticipated fleet mix. Therefore, this forecast provides average annual day (AAD) aircraft operations by aircraft type at LaGuardia Airport (LGA) for the years 2015, 2016, 2021 and 2022. In addition to the years required for the Part 150 study, a detailed fleet mix and passenger forecast for the years 2023, 2028, and 2033 are also provided.

The assumptions inherent in this forecast are based on numerous sources of data and input from the Federal Aviation Administration (FAA), The Port Authority of New York and New Jersey (PANYNJ), airlines operating at the Airport, and third party data sources. These sources include the following:

- FAA 2014 Terminal Area Forecast (TAF) for New York LaGuardia Airport (LGA)
- Port Authority of New York and New Jersey
- PANYNJ Airport Noise and Operations Monitoring System Data (ANOMS)
- Official Airline Guide (OAG) Commercial Carrier Schedule Data
- Consultation with airline officials
- FAA Aerospace Forecast FY2015-2035
- Boeing Current Market Outlook 2015-2034
- Boeing, Airbus, Embraer, and Bombardier aircraft order and delivery data
- Woods & Poole Economics, Inc.

Per FAA requirements, the LGA forecast for the Part 150 is presented in terms of average annual day operations (arrivals and departures) by aircraft type and time of day. Average annual day operations depict a representative day of all aircraft operations that occur over the course of a year. As such, the total forecast of existing and future annual operations are divided by annual days to determine the AAD operations. The forecast will specify the number of operations by specific aircraft type, arrival or departure, and time of day (i.e., daytime or nighttime). For the purposes of the Day-Night Average Sound Level (DNL) metric used in Part 150 studies, daytime is defined as 7:00 a.m. to 9:59 p.m. while nighttime is defined as 10:00 p.m. to 6:59 a.m.

The 2014 LGA TAF, presented in **Table 1.1** is used as the baseline for the operations and passenger forecasts. However, moving beyond 2014, adjustments have been made to the TAF passenger forecasts to reflect stronger growth in both the domestic and international markets, and to particularly address years 2017 through 2026 where the TAF predicts only a modest 0.09 percent average annual growth

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

rate (AAGR) in total enplaned passengers (enplanements). The TAF Forecast of LGA operations show no growth beyond 2021, thus reflecting air carrier slot constraints that are currently in effect at LGA.

Table 1.1: FAA 2014 LGA TAF – Enplanements and Operations

Fiscal Year	Enplanements			Operations				
	Air Carrier	Commuter	Total Enplanements	Air Carrier	AT & Commuter	GA	Military	Total Operations
2010	8,800,460	2,999,395	11,799,855	209,318	147,957	7,028	349	364,652
2011	8,911,019	3,111,017	12,022,036	242,305	121,170	6,401	311	370,187
2012	9,287,598	3,350,963	12,638,561	265,301	104,339	6,535	344	376,519
2013	9,509,944	3,716,164	13,226,108	299,500	64,766	6,903	271	371,440
2014	9,455,374	3,893,308	13,348,682	313,952	49,364	6,831	228	370,375
2015	10,084,523	3,617,661	13,702,184	318,012	49,437	6,874	228	374,551
2016	10,297,559	3,618,384	13,915,943	322,508	49,154	6,874	228	378,764
2017	10,514,124	3,635,028	14,149,152	327,003	49,086	6,874	228	383,191
2018	10,707,498	3,471,815	14,179,313	331,050	46,387	6,874	228	384,539
2019	10,894,299	3,297,877	14,192,176	334,851	43,597	6,874	228	385,550
2020	11,078,667	3,120,121	14,198,788	338,518	40,807	6,874	228	386,427
2021	11,265,749	2,938,217	14,203,966	342,114	38,018	6,874	228	387,234
2022	11,455,535	2,752,227	14,207,762	345,742	35,228	6,874	228	388,072
2023	11,592,978	2,622,597	14,215,575	347,647	33,323	6,874	228	388,072
2024	11,731,652	2,489,106	14,220,758	349,552	31,418	6,874	228	388,072
2025	11,872,797	2,367,139	14,239,936	351,457	29,513	6,874	228	388,072
2026	12,016,845	2,246,888	14,263,733	353,362	27,608	6,874	228	388,072
2027	12,119,733	2,206,219	14,325,952	353,743	27,227	6,874	228	388,072
2028	12,225,356	2,187,024	14,412,380	354,124	26,846	6,874	228	388,072
2029	12,333,753	2,188,554	14,522,307	354,505	26,465	6,874	228	388,072
2030	12,443,975	2,199,496	14,643,471	354,886	26,084	6,874	228	388,072
2031	12,556,047	2,220,171	14,776,218	355,267	25,703	6,874	228	388,072
2032	12,657,076	2,230,827	14,887,903	355,305	25,665	6,874	228	388,072
2033	12,758,920	2,241,534	15,000,454	355,343	25,627	6,874	228	388,072

Source: FAA 2014 LGA TAF

1.2: LGA PASSENGER FORECAST

Coupled with individual airline fleet plans, it is the passenger forecast that will drive the eventual fleet mix at LGA as airlines adjust fleet gauge to accommodate anticipated demand. As illustrated in **Table 1.2**, for the previous 20 years (1994-2014) enplanements at LGA have grown at an AAGR of 1.3 percent, with average passengers per plane increasing from 64.6 to 73.5 (a 13.8 percent increase). TAF Forecasted enplanement growth 2014 through 2033 is less than half the historic rate at 0.6 percent AAGR with average passengers per plane increasing only 7.2 percent over the period.

Table 1.2: 2014 LGA TAF – Actual vs. Forecast Growth

2014 LGA TAF	1994-2014 Actual			2014-2033 Forecast		
	1994	2014	AAGR	2014	2033	AAGR
Total Passengers	20,489,434	26,697,364	1.3%	26,697,364	30,000,908	0.6%
Air Carrier-Commuter Operations	317,266	363,316	0.7%	363,316	380,970	0.3%
Average Passengers per Plane	64.6	73.5	0.6%	73.5	78.7	0.4%
Source: 2014 LGA TAF						

A review of both the international and domestic markets served from LGA has been conducted and a revised passenger forecast has been developed that aligns with historical LGA trends, airline fleet growth plans, and local forecast socio-economic growth.

1.2.1: LGA Domestic Passenger Market

There are multiple variables and factors that can affect the aviation activity at a particular airport. Commercial service airports are typically influenced by national and regional trends in population, economic activity, per capita personal income (PCPI), employment, airport prominence, and flights offered. Gross domestic product (GDP) or catchment area gross regional product (GRP) and per capita personal income, an indicator of discretionary income, are typically the strongest indicators of a community's propensity toward air travel. Strong indicators in these metrics will contribute to an increase in overall air travel.

The Boeing Current Market Outlook, 2015-2034 contends that the drivers of future air travel demand differ between emerging and mature markets. In emerging markets, GDP per capita growth is the better indicator of travel demand. For developed markets Boeing states the following:

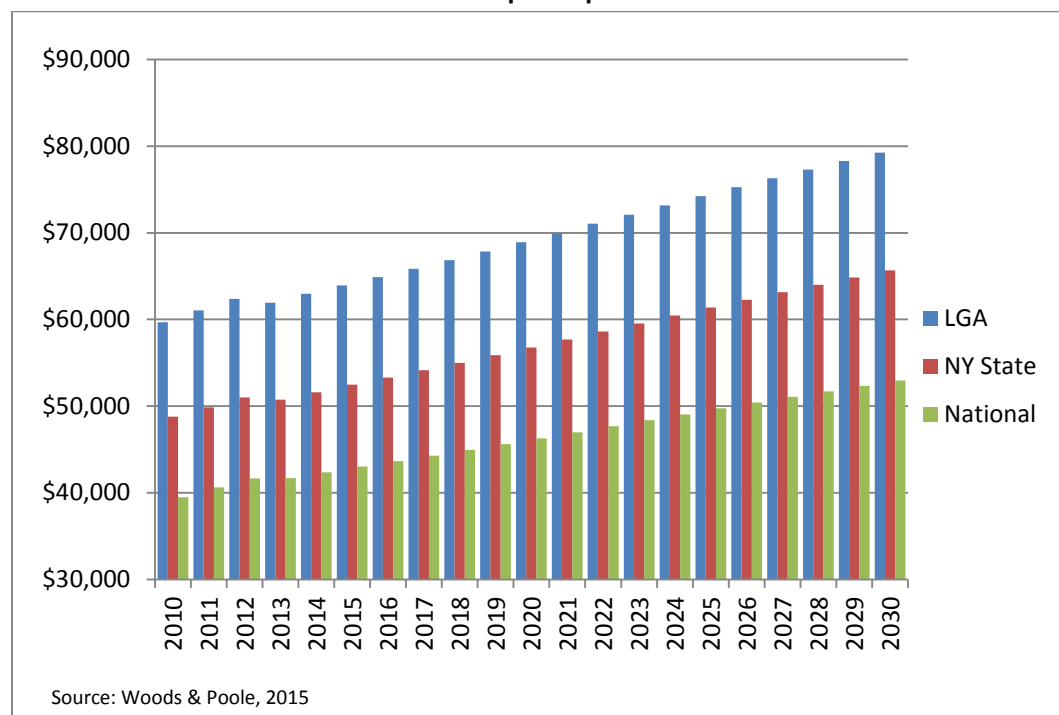
Once demand for essential travel has been met, growth comes from discretionary travel. GDP per capita matters less in these market contexts. Factors such as the availability of vacation days earned and the funds needed to travel, consumer confidence, service pricing, and service quality, tend to have a greater impact. Within a given region, propensity to travel as

measured in trips or in revenue passenger kilometers (RPK) generally increases with per capita income.¹

In a mature market such as LGA, the strength and projected growth of catchment area's PCPI will be the best indicator of future travel demand. A correlation analysis pairing LGA catchment area PCPI to LGA enplanements from 2010 through 2014 shows a strong correlation between the two, generating a correlation coefficient of 0.85.

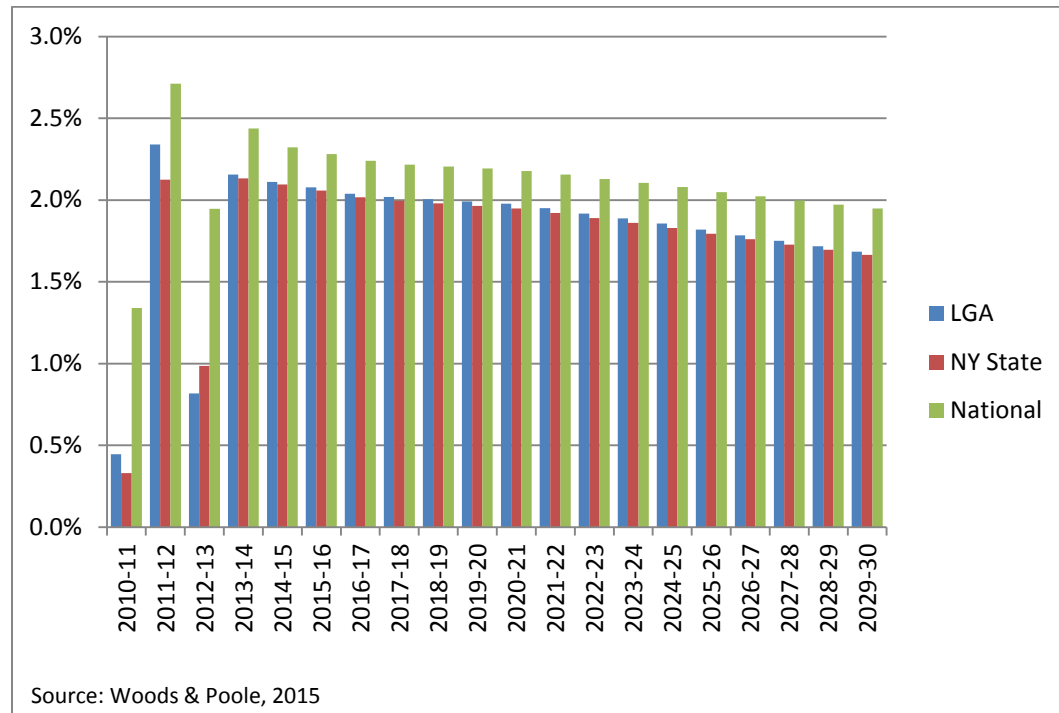
Examination of Woods & Poole Economics data for the LGA catchment area reveals strong annual PCPI levels in comparison to state and national benchmarks. The LGA PCPI is well above the New York State and national average, and is forecasted to remain so as illustrated in **Exhibit 1.1**. In 2014 LGA PCPI was \$11,300 above the New York State average and \$20,600 above the national average. In an unconstrained environment this should indicate travel demand growth at or above the national average.

Exhibit 1.1: LGA Catchment Area Annual per Capita Income



LGA catchment area GRP is projected to grow at 1.9 percent annually through 2030, solid growth that outpaces New York State, but as illustrated in **Exhibit 1.2**, slightly below the national average.

¹ Boeing Current Market Outlook, 2015-2034, p. 22

Exhibit 1.2: LGA Catchment Area Annual GRP Growth

However, if the findings of Boeing’s research regarding mature markets are accepted, catchment area PCPI will be the best indicator for LGA future demand. PCPI in the LGA catchment area are robust and strongly correlate to LGA enplanements. There are no current or forecasted economic indicators within the LGA catchment area that would signal nearly flat air travel demand for a nine year period (2017 through 2026) as indicated in the TAF.

1.2.2: LGA International Passenger Market

In 2014, international traffic accounted for 6.7 percent of LGA passengers and 8.9 percent of LGA scheduled passenger operations (air carrier and commuter combined).² LGA international activity is comprised almost entirely of four Canadian markets. As illustrated in **Table 1.3** Toronto, Montreal, Ottawa, and Halifax account for 99.7 percent of international departures and 99.4 percent of international seat capacity in 2015, with the Toronto market accounting for the majority of operations and capacity.

² 2014 PANYNJ Airport Traffic Report

Table 1.3: 2014 and 2015 LGA International Capacity and Frequency

Market	2014				2015			
	Frequency		Capacity		Frequency		Capacity	
	Departures	Share	Seats	Share	Departures	Share	Seats	Share
Toronto (YYZ)	9,810	58.6%	900,424	67.3%	8,811	56.5%	863,602	67.0%
Montreal (YUL)	5,225	31.2%	321,583	24.0%	5,493	35.2%	352,481	27.3%
Ottawa (YOW)	915	5.5%	45,750	3.4%	911	5.8%	45,550	3.5%
Halifax (YHZ)	505	3.0%	32,825	2.5%	320	2.1%	20,800	1.6%
Caribbean*	282	1.7%	36,969	2.8%	48	0.3%	7,298	0.6%
Total	16,737	100%	1,337,551	100%	15,583	100%	1,289,731	100%

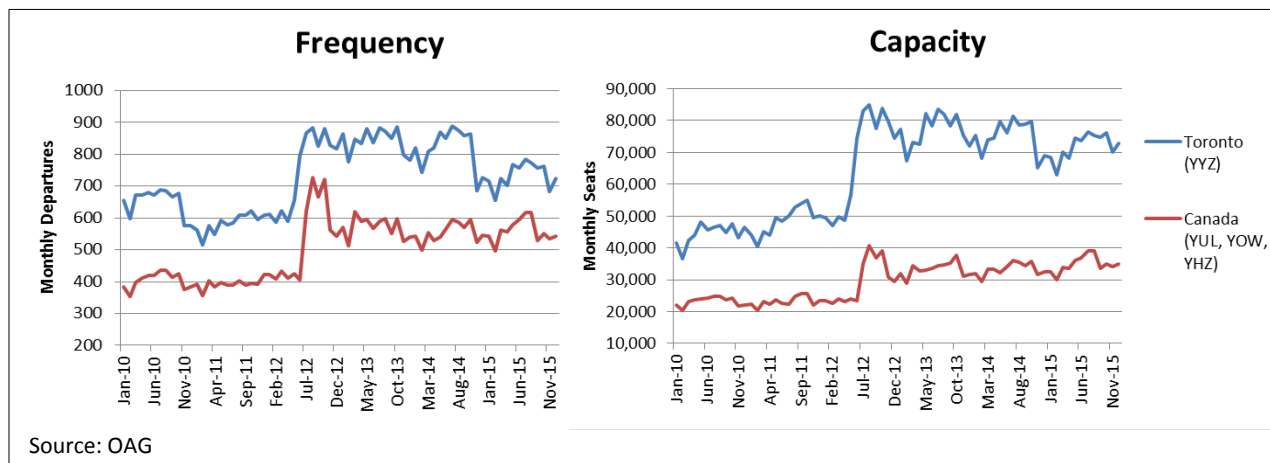
Source: OAG * Bermuda, Aruba, Bahamas

In essence, Canada is LGA's international market and it has seen robust service increases since 2010, particularly to Toronto and Montreal as illustrated by the 2010-2015 growth in frequency and capacity:

- 2010 to 2015: Toronto frequency up 12.7 percent (+993 departures)
- 2010 to 2015: Toronto capacity up 61.7 percent (+329,498 seats)
- 2010 to 2015: Montreal frequency up 48.4 percent (+1,791 departures)
- 2010 to 2015: Montreal capacity up 59.5 percent (+131,423 seats)

However, that growth has not been linear as illustrated in **Exhibit 1.3**. The primary drivers of the sudden 2012 spike in service are WestJet and Delta:

- June 4, 2012 WestJet enters LGA-YYZ market with 8 weekday flights (+986 daily seats)
- July 11, 2012 Delta enters LGA-YUL market with 5 weekday flights (+250 daily seats)
- July 11, 2012 Delta enters LGA-YOW market with 3 weekday flights (+150 daily seats)

Exhibit 1.3: 2010-2015 Canadian Market Growth – Frequency and Capacity by Month

Source: OAG

Since the capacity peak in mid-2012, American and Delta moved to reduce service levels and eliminate the excess capacity caused by the service spikes, thus causing the 2013 to 2015 downward trend in frequency and capacity. These cuts include:

- October 2012 Delta exits LGA-YOW market.
- January 2013 Delta reduces LGA-YUL frequency to four weekday flights from five.
- January 2015 American reduces weekday LGA-YHZ flights from nine departures to five.

The 2013 to 2015 frequency and capacity reductions are not considered to constitute a long-term trend in the LGA Canadian market. However, the international component of the TAF as provided by PANYNJ predicts declining passenger demand through 2026 at a rate of -2.6 percent per year. This downward pressure on international passengers is one factor contributing to LGA's 2017 to 2026 anemic growth projections. Based upon the LGA catchment area's strong socioeconomic indicators (current and projected), historical 3.5 percent AAGR in international passengers between 2001 and 2014³, and strong 2010-2015 growth in scheduled service to Canadian markets (4.2 percent AAGR in frequency and 9.5 percent AAGR in capacity)⁴, there appear to be no indicators that would signal a protracted decline in LGA-Canada service levels.

1.2.3: Revised TAF Enplanement Summary

The Port Authority forecast uses a revised TAF forecast of enplaned passengers that includes a more robust growth rate for domestic and international travel that are in line with historical growth rates, more recent trends in international air service, local socio-economic forecasts, and 2030 to 2040 TAF projected growth rates. However, air carrier and commuter aircraft operations are slot constrained and most slots are used. Airline fleet plans show a rapid phase-out of 50 seat aircraft and installation of more seats in larger aircraft. Thus, seating capacity increases are expected to keep up with increasing passenger demand. The Port Authority passenger forecast has the following characteristics:

- Domestic air carrier enplanements remain consistent with TAF growth at 1.6 percent AAGR.
- Commuter enplanements are grown at a 0.8 percent AAGR, consistent with TAF's 2030-2040 air carrier and commuter growth rates.
- Growth from the commuter passenger pool is transferred to the air carrier column at a rate of 3.5 percent a year, yielding an overall 1.3 percent domestic AAGR.
- International traffic will grow at a projected rate of 1.3 percent annually in line with domestic growth and reflecting the strong 2010-2015 transborder growth in operations and capacity.
- Aircraft operations forecast remains unchanged from the TAF since it reflects existing airport slot constraints.

³ PANYNJ 2014 Annual Traffic Report

⁴ OAG, 2010-2015 Published LGA-Canada Schedules

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

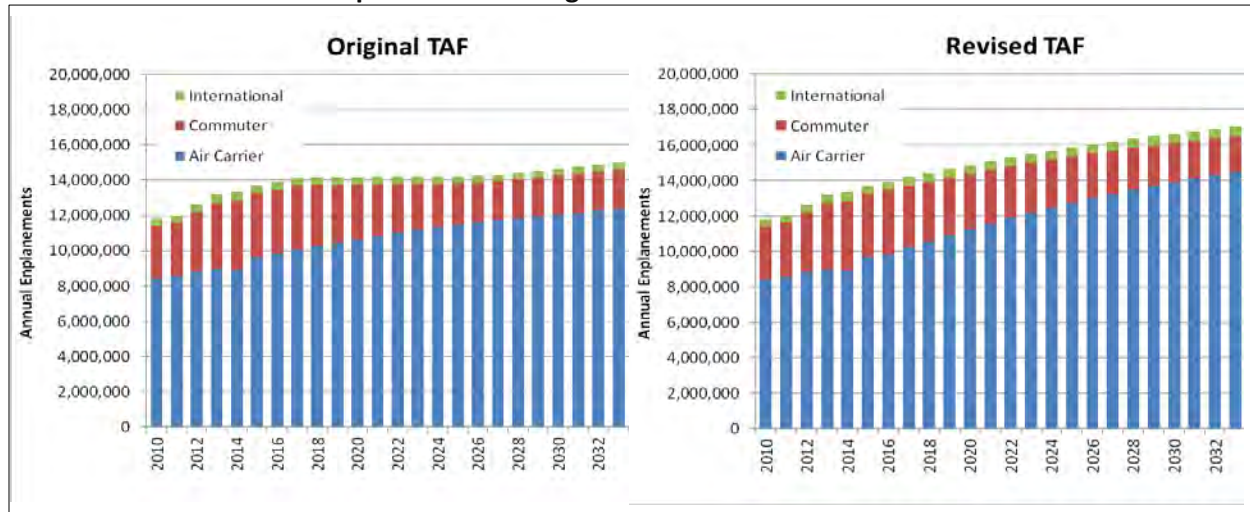
Table 1.4 presents the Port Authority forecast of enplaned passengers as compared to the original TAF. By 2021, the LGA fleet will need to accommodate 15.1 million enplanements (30.2 million total passengers); 877,000 more than predicted in the original TAF. By 2033, the LGA fleet will need to accommodate 17.1 million enplanements, a number 13.7 percent above the original TAF projections.

Table 1.4: 2014 LGA TAF Enplanements – Original and Revised

Year	Enplanements			Air Carrier & Commuter Operations	Average Passengers per Plane
	Original TAF	Revised TAF	Original vs. Revised		
2014	13,348,682	13,348,682	-	363,316	73.5
2015	13,702,184	13,702,184	-	367,449	74.6
2016	13,915,943	13,915,943	-	371,662	74.9
2017	14,149,152	14,160,621	11,469	376,089	75.3
2018	14,179,313	14,394,013	214,700	377,437	76.3
2019	14,192,176	14,622,414	430,238	378,448	77.3
2020	14,198,788	14,849,554	650,766	379,325	78.3
2021	14,203,966	15,080,533	876,567	380,132	79.3
2022	14,207,762	15,315,420	1,107,658	380,970	80.4
2023	14,215,575	15,495,792	1,280,217	380,970	81.3
2024	14,220,758	15,678,368	1,457,610	380,970	82.3
2025	14,239,936	15,863,177	1,623,241	380,970	83.3
2026	14,263,733	16,051,393	1,787,660	380,970	84.3
2027	14,325,952	16,193,094	1,867,142	380,970	85.0
2028	14,412,380	16,336,059	1,923,679	380,970	85.8
2029	14,522,307	16,480,299	1,957,992	380,970	86.5
2030	14,643,471	16,625,826	1,982,355	380,970	87.3
2031	14,776,218	16,772,651	1,996,433	380,970	88.1
2032	14,887,903	16,909,843	2,021,940	380,970	88.8
2033	15,000,454	17,048,171	2,047,717	380,970	89.5

Sources: 2014 LGA TAF, Landrum & Brown

As illustrated in **Exhibit 1.4**, the revised TAF eliminates the 2017 to 2026 no-growth period presented in the original TAF and while maintaining the shift of commuter enplanements to air carrier in order to reflect the continued upgauging of the LGA fleet through the forecast period.

Exhibit 1.4: 2014 LGA TAF Enplanements – Original and Revised

Sources: 2014 TAF, PANYNJ, Landrum & Brown

1.3: PASSENGER CARRIER FLEET MIX AND NEM FORECAST

Based on airline provided guidance, general fleet trends based on aircraft orders and retirements, and LGA slot constraints, the LGA fleet mix forecast establishes an average gauge designed to accommodate the forecasted passenger demand.

1.3.1: LGA Airline Operations Assumptions

General assumptions regarding LGA airline operations include:

- Perimeter rule remains in effect through the forecast period; introduction of regularly scheduled widebody aircraft service is unlikely.
- Slot constraints will remain in effect through the forecast period; slot utilization edges upward until 2022 when slots are expected to reach 100 percent utilization.

Construction of the LGA Central Terminal Building (CTB) is not anticipated to impact airside operations during the forecast period. Construction of the CTB is scheduled to begin in the second quarter of 2016 and be completed in the first quarter of 2022. The CTB Redevelopment Program is divided into multiple phases in which existing infrastructure is demolished and replaced with new facilities. This phasing approach allows for the continued operation of 35 gates through the redevelopment program and is not expected to limit airline operations. In addition, the landside passenger terminal capacity for ticketing, security screening, and baggage processing is approximately 30.5 million annual passengers. The phasing program for the passenger terminal preserves the existing landside terminals and curbside fronts until their replacements are completed. The annual capacity of the landside terminals is not forecast to be exceeded until the replacements have been completed.

1.3.2: LGA Fleet Mix Assumptions

Aircraft fleet trends are based on airline consultations regarding LGA specific fleet plans and are supplemented with aircraft order information which is used to gauge which aircraft will be entering the fleet with each airline. LGA specific fleet plans that were provided by Delta and American include:

- Delta reports CRJ50/ERJ145 will likely be out of the LGA market by 2017. These aircraft will be replaced by larger 2 class RJ aircraft such as the C700/900 and the ERJ-170/175.
- American reports fleet-wide plan to retire all types of 35-50 seat RJ aircraft. Similar to Delta, these aircraft will be replaced by larger 2 class RJ aircraft such as the C700 and the ERJ-170.
- American indicates that Dash-8 aircraft to PHL will be replaced by 75-seat aircraft (ERJ75).
- American to retire MD80 aircraft as quickly as possible and replace with B-737 or A320 series aircraft.
- Delta has indicated that they are still selectively purchasing used MD90 aircraft. Delta MD88 purchases are primarily for parts.
- Delta is likely to continue deploying a major portion of its B717 fleet to LGA. These aircraft will be deployed on short and medium haul large markets like Boston or Chicago currently served by large RJ aircraft such as the ERJ-175 or the C900.
- Delta has indicated that they will retain B757 aircraft for hot and high markets and long-haul markets served from airports with shorter runways. A few B-757 may remain in the LGA market.
- United is likely to retain B757 on some service to Denver.
- American B757s to be retired, except those with Rolls Royce engines.
- Overall, capacity in existing fleet is expected to increase due to increasing seat density (thin seat retrofits).
 - Delta and American report per aircraft capacity increase of 5 percent to 10 percent depending on type.
 - JetBlue, Southwest and United also engaging in aircraft seating reconfiguration projects to increase capacity by 5 percent to 10 percent.

In-line with the predicted national fleet shift toward newer, larger and more efficient aircraft, LGA specific fleet mix characteristics and trends have been identified and applied directly to the fleet mix and NEM forecast. In order to provide a detailed picture of future LGA operations, the following assumptions are based upon airline-specific fleet plans and aircraft orders, as well as overall industry trends:

- As per American and Delta provided guidance, the forecast phases out 35-50 seat regional jets by 2019. It is assumed that other carriers will also rapidly phase small regional jets out of the LGA market.
- B757s and MD80/90s will gradually be retired:
 - B757 is out of service by 2023.
 - MD88 is out of service by 2023.
 - MD90 is out of service by 2026.

- A320-Neo and A321-Neo are forecasted to replace retiring A320 and A321 aircraft.
- Forecast gradually introduces increased seats per aircraft through the forecast period; increase is capped at 5 percent per aircraft.
- Density increases are not applied to new aircraft entering the fleet (e.g., A320-Neo, B737 MAX); it is assumed these aircraft are delivered with thin seats/max density.

Table 1.5 presents to forecasted LGA commercial passenger carrier fleet through 2033 by number of annual operations and annual capacity. Annual capacity is compared to the forecasted passenger numbers presented in the previous section to arrive at anticipated LGA load factor and average passengers per plane.

As illustrated in Table 1.5, load factors are anticipated to increase gradually despite the addition of larger capacity aircraft. However, through continued up-gauging and increased seat density, the forecasted fleet is anticipated to be adequate to meet anticipated demand through the forecast period. Forecast highlights include:

- Total commercial passenger operations grow 4.9 percent between 2014 and 2022 when the 380,970 slot limit is reached.
- Average LGA load factor increases from 73.4 percent in 2014 to 77.3 percent by 2033.
- Average LGA gauge increases from 100.1 seats in 2014 to 115.8 seats by 2033.
- Total seating capacity (in and outbound) will grow from 36.4 million seats in 2014 to 44.1 million in 2033.
- The Dash-8, CRJ200, ERJ140/145, and B757 all exit the LGA fleet by 2021.
- The MD80 series will be phased out and retired by 2023 – MD-90 series aircraft by 2026
- Total RJ operations remain relatively flat through 2021 as increasing large RJ operations (70-76 seats) offset reduced operations by small RJs.

Table 1.5: Commercial Passenger Carrier Operations and Capacity Forecast by Aircraft Type

Aircraft	2014		2015		2016		2021		2023		2028		2033	
	Ops	Seats	Ops	Seats	Ops	Seats	Ops	Seats	Ops	Seats	Ops	Seats	Ops	Seats
Widebody														
Boeing 767-300	-	-	28	5,908	30	6,330	30	6,330	30	6,330	30	6,330	30	6,330
Narrowbody														
Boeing 757-300	2	468	2	468	-	-	-	-	-	-	-	-	-	-
Boeing 757-200	3,350	608,202	801	145,268	576	104,462	600	108,815	600	108,815	-	-	-	-
Boeing 737-900	1,316	236,880	1,277	229,860	1,401	252,180	2,152	387,360	3,028	545,040	4,190	754,200	5,714	1,028,520
Boeing 737-800	34,412	5,248,291	34,645	5,493,906	34,355	5,447,919	35,771	5,785,913	41,867	6,805,129	43,232	7,026,998	47,620	7,740,231
Boeing 737-700	20,001	2,798,733	24,039	3,370,388	24,307	3,407,963	24,869	3,556,494	26,411	3,795,528	27,407	3,938,664	29,899	4,296,789
Boeing 737-600	3,722	442,918	3,827	450,332	3,870	455,392	3,959	475,182	4,205	507,182	4,363	526,240	4,760	574,123
Boeing 717-200	6,034	681,579	14,357	1,579,270	17,094	1,880,340	20,530	2,303,466	20,794	2,344,524	21,369	2,409,355	22,855	2,576,901
Airbus A321-Neo	-	-	-	-	186	38,316	1,901	391,606	3,028	623,768	5,238	1,079,028	6,857	1,412,542
Airbus A321	5,920	1,142,504	6,179	1,201,831	6,290	1,223,421	6,653	1,319,906	6,055	1,207,156	5,238	1,044,274	4,571	911,298
Airbus A320-Neo	-	-	-	-	186	29,760	1,901	304,160	3,028	484,480	5,238	838,080	6,857	1,097,120
Airbus A320	31,147	4,852,258	33,986	5,274,831	34,363	5,333,344	34,273	5,425,763	38,669	6,151,703	41,901	6,665,869	41,139	6,544,646
Airbus A319	21,625	2,724,203	14,424	1,829,469	15,309	1,941,718	19,065	2,466,473	25,236	3,280,830	30,377	3,949,191	37,710	4,902,524
MD-82/83	530	74,200	450	63,000	-	-	-	-	-	-	-	-	-	-
MD-88	17,406	2,593,494	19,213	2,862,737	16,972	2,528,828	7,132	1,062,632	-	-	-	-	-	-
MD-90	2,400	384,000	5,425	868,000	5,696	911,400	6,579	1,052,667	4,737	757,920	-	-	-	-
Embraer 190	21,704	2,134,666	25,130	2,473,000	25,196	2,479,495	24,713	2,480,603	24,226	2,443,640	20,950	2,113,194	20,570	2,074,864
Narrowbody Total	169,569	23,922,396	183,755	25,842,360	185,801	26,034,538	190,098	27,121,040	201,884	29,055,715	209,503	30,345,093	228,552	33,159,558
Regional Jet / Turboprop														
Canadair RJ 900	20,038	1,524,863	22,443	1,705,686	24,020	1,825,539	32,524	2,471,850	40,727	3,095,284	47,195	3,586,857	48,147	3,659,210
Canadair RJ 700	74,063	4,765,997	59,974	3,870,108	68,472	4,418,482	71,288	4,600,198	57,102	3,684,778	46,472	2,998,827	35,112	2,265,769
Canadair RJ 200	15,627	781,350	16,998	849,900	12,899	644,950	-	-	-	-	-	-	-	-
Embraer 175	33,302	2,523,301	28,835	2,186,000	31,604	2,395,920	48,192	3,653,467	45,415	3,442,941	43,483	3,296,475	38,651	2,930,158
Embraer 170	21,395	1,479,037	21,645	1,494,148	23,918	1,651,052	38,000	2,623,128	35,812	2,472,091	34,287	2,366,821	30,478	2,103,887
Embraer RJ145	13,139	656,950	23,852	1,192,600	18,100	905,000	-	-	-	-	-	-	-	-
Embraer RJ140	14,477	636,988	8,985	395,340	6,818	299,992	-	-	-	-	-	-	-	-
DHC-8-200	1,653	61,161	933	34,521	-	-	-	-	-	-	-	-	-	-
DHC-8-300	52	2,600	-	-	-	-	-	-	-	-	-	-	-	-
Regional Jet/Turboprop Total	193,746	12,432,247	183,665	11,728,303	185,831	12,140,935	190,004	13,348,643	179,056	12,695,094	171,437	12,248,980	152,388	10,959,024
Grand Total	363,315	36,354,643	367,448	37,576,571	371,662	38,181,803	380,132	40,476,013	380,970	41,757,139	380,970	42,600,403	380,970	44,124,912
Passenger Forecast		26,697,364		27,404,368		27,831,886		30,161,066		30,991,583		32,672,118		34,096,341
Load Factor		73.4%		72.9%		72.9%		74.5%		74.2%		76.7%		77.3%
Average Gauge		100.1		102.3		102.7		106.5		109.6		111.8		115.8
Passengers per Plane		73.5		74.6		74.9		79.3		81.3		85.8		89.5

Sources: OAG, 2014 LGA ANOMS, Landrum & Brown

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

Table 1.6 and **Table 1.7** present the commercial passenger carrier NEM forecast for 2021 and 2022 respectively. Using the commercial passenger carrier fleet mix forecast as the basis for operations and aircraft type, ADD operations (total annual operations divided by 365) are shown by arrivals and departures and time of day. Time of day indicates a day operation or a night operation and is defined as follows:

- Day Operations: 7:00am to 9:59pm
- Night Operations: 10:00pm to 6:59am

PANYNJ Airport Noise and Operations Monitoring System (ANOMS) data for 2014 is used to determine the average annual day-night split by aircraft type.

Table 1.6: 2015-2021 Passenger Carrier NEM Forecast

Aircraft	2015						2021						2015				2021			
	Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Arrivals		Departures	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Widebody																				
Boeing 767-300	-	-	-	-	-	-	-	-	-	-	-	-	94.9%	5.1%	75.8%	24.2%	94.9%	5.1%	75.8%	24.2%
Narrowbody																				
Boeing 757-300	-	-	-	-	-	-	-	-	-	-	-	-								
Boeing 757-200	1	-	1	-	2	-	1	-	1	-	2	-	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Boeing 737-900	2	-	2	-	4	-	2	1	3	-	5	1	100.0%	0.0%	100.0%	0.0%	66.7%	33.3%	100.0%	0.0%
Boeing 737-800	39	9	42	6	81	15	40	9	43	6	83	15	81.3%	18.8%	87.5%	12.5%	81.6%	18.4%	87.8%	12.2%
Boeing 737-700	28	5	30	3	58	8	29	5	31	3	60	8	84.8%	15.2%	90.9%	9.1%	85.3%	14.7%	91.2%	8.8%
Boeing 737-600	5	-	4	1	9	1	6	-	5	1	11	1	100.0%	0.0%	80.0%	20.0%	100.0%	0.0%	83.3%	16.7%
Boeing 717-200	20	-	19	1	39	1	28	1	27	2	55	3	100.0%	0.0%	95.0%	5.0%	96.6%	3.4%	93.1%	6.9%
Airbus A321-Neo	-	-	-	-	-	-	2	-	2	-	4	-					100.0%	0.0%	100.0%	0.0%
Airbus A321	6	2	7	1	13	3	8	2	8	2	16	4	75.0%	25.0%	87.5%	12.5%	80.0%	20.0%	80.0%	20.0%
Airbus A320-Neo	-	-	-	-	-	-	2	-	2	-	4	-					100.0%	0.0%	100.0%	0.0%
Airbus A320	40	6	41	5	81	11	41	6	42	5	83	11	87.0%	13.0%	89.1%	10.9%	87.2%	12.8%	89.4%	10.6%
Airbus A319	17	3	19	1	36	4	23	3	24	2	47	5	85.0%	15.0%	95.0%	5.0%	88.5%	11.5%	92.3%	7.7%
MD-82/83	1	-	1	-	2	-	-	-	-	-	-	-	100.0%	0.0%	100.0%	0.0%				
MD-88	23	3	25	1	48	4	9	1	9	1	18	2	88.5%	11.5%	96.2%	3.8%	90.0%	10.0%	90.0%	10.0%
MD-90	6	1	7	-	13	1	8	1	9	-	17	1	85.7%	14.3%	100.0%	0.0%	88.9%	11.1%	100.0%	0.0%
Embraer 190	32	3	32	3	64	6	31	3	31	3	62	6	91.4%	8.6%	91.4%	8.6%	91.2%	8.8%	91.2%	8.8%
Narrowbody Total	220	32	230	22	450	54	230	32	237	25	467	57	87.3%	12.7%	91.3%	8.7%	87.8%	12.2%	90.5%	9.5%
Regional Jet / Turboprop																				
Canadair RJ 900	30	1	28	3	58	4	42	2	40	4	82	6	96.8%	3.2%	90.3%	9.7%	95.5%	4.5%	90.9%	9.1%
Canadair RJ 700	79	4	78	5	157	9	93	4	91	6	184	10	95.2%	4.8%	94.0%	6.0%	95.9%	4.1%	93.8%	6.2%
Canadair RJ 200	22	2	23	1	45	3	-	-	-	-	-	-	91.7%	8.3%	95.8%	4.2%	-	-	-	-
Embraer 175	37	3	37	3	74	6	61	5	60	6	121	11	92.5%	7.5%	92.5%	7.5%	92.4%	7.6%	90.9%	9.1%
Embraer 170	27	2	27	2	54	4	48	4	48	4	96	8	93.1%	6.9%	93.1%	6.9%	92.3%	7.7%	92.3%	7.7%
Embraer RJ145	31	2	31	2	62	4	-	-	-	-	-	-	93.9%	6.1%	93.9%	6.1%	-	-	-	-
Embraer RJ140	12	-	12	-	24	-	-	-	-	-	-	-	100.0%	0.0%	100.0%	0.0%	-	-	-	-
DHC-8-200	1	-	1	-	2	-	-	-	-	-	-	-	100.0%	0.0%	100.0%	0.0%	-	-	-	-
DHC-8-300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RJ/Turboprop Total	239	14	237	16	476	30	244	15	239	20	483	35	94.5%	5.5%	93.7%	6.3%	94.2%	5.8%	92.3%	7.7%
Grand Total	459	46	467	38	926	84	474	47	476	45	950	92	90.9%	9.1%	92.5%	7.5%	91.0%	9.0%	91.4%	8.6%
Sources: OAG, 2014 LGA ANOMS, Landrum & Brown																				

Table 1.7: 2022 Passenger Carrier NEM Forecast

Aircraft	2016						2022						2016				2022			
	Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Arrivals		Departures	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Widebody																				
Boeing 767-300	-	-	-	-	-	-	-	-	-	-	-	-	94.9%	5.1%	75.8%	24.2%	94.9%	5.1%	75.8%	24.2%
Narrowbody																				
Boeing 757-300	-	-	-	-	-	-	-	-	-	-	-	-								
Boeing 757-200	1	-	1	-	2	-	1	-	1	-	2	-	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Boeing 737-900	2	-	2	-	4	-	3	1	4	-	7	1	100.0%	0.0%	100.0%	0.0%	75.0%	25.0%	100.0%	0.0%
Boeing 737-800	38	9	41	6	79	15	44	10	47	7	91	17	80.9%	19.1%	87.2%	12.8%	81.5%	18.5%	87.0%	13.0%
Boeing 737-700	28	5	30	3	58	8	30	5	32	3	62	8	84.8%	15.2%	90.9%	9.1%	85.7%	14.3%	91.4%	8.6%
Boeing 737-600	5	-	4	1	9	1	5	-	4	1	9	1	100.0%	0.0%	80.0%	20.0%	100.0%	0.0%	80.0%	20.0%
Boeing 717-200	23	1	23	1	46	2	28	1	28	1	56	2	95.8%	4.2%	95.8%	4.2%	96.6%	3.4%	96.6%	3.4%
Airbus A321-Neo	-	-	-	-	-	-	3	1	3	1	6	2					75.0%	25.0%	75.0%	25.0%
Airbus A321	6	2	7	1	13	3	7	2	8	1	15	3	75.0%	25.0%	87.5%	12.5%	77.8%	22.2%	88.9%	11.1%
Airbus A320-Neo	-	-	-	-	-	-	3	-	3	-	6	-					100.0%	0.0%	100.0%	0.0%
Airbus A320	41	6	42	5	83	11	43	6	44	5	87	11	87.2%	12.8%	89.4%	10.6%	87.8%	12.2%	89.8%	10.2%
Airbus A319	17	3	19	1	36	4	26	4	28	2	54	6	85.0%	15.0%	95.0%	5.0%	86.7%	13.3%	93.3%	6.7%
MD-82/83	-	-	-	-	-	-	-	-	-	-	-	-								
MD-88	21	2	22	1	43	3	4	-	4	-	8	-	91.3%	8.7%	95.7%	4.3%	100.0%	0.0%	100.0%	0.0%
MD-90	6	1	7	-	13	1	7	1	8	-	15	1	85.7%	14.3%	100.0%	0.0%	87.5%	12.5%	100.0%	0.0%
Embraer 190	32	3	32	3	64	6	31	3	31	3	62	6	91.4%	8.6%	91.4%	8.6%	91.2%	8.8%	91.2%	8.8%
Narrowbody Total	220	32	230	22	450	54	235	34	245	24	480	58	87.3%	12.7%	91.3%	8.7%	87.4%	12.6%	91.1%	8.9%
Regional Jet / Turboprop																				
Canadair RJ 900	31	2	30	3	61	5	48	2	45	5	93	7	93.9%	6.1%	90.9%	9.1%	96.0%	4.0%	90.0%	10.0%
Canadair RJ 700	90	4	88	6	178	10	84	4	82	6	166	10	95.7%	4.3%	93.6%	6.4%	95.5%	4.5%	93.2%	6.8%
Canadair RJ 200	17	1	17	1	34	2	-	-	-	-	-	-	94.4%	5.6%	94.4%	5.6%				
Embraer 175	41	3	40	4	81	7	59	5	59	5	118	10	93.2%	6.8%	90.9%	9.1%	92.2%	7.8%	92.2%	7.8%
Embraer 170	31	2	30	3	61	5	46	4	46	4	92	8	93.9%	6.1%	90.9%	9.1%	92.0%	8.0%	92.0%	8.0%
Embraer RJ145	23	2	23	2	46	4	-	-	-	-	-	-	92.0%	8.0%	92.0%	8.0%				
Embraer RJ140	9	-	9	-	18	-	-	-	-	-	-	-	100.0%	0.0%	100.0%	0.0%				
DHC-8-200	-	-	-	-	-	-	-	-	-	-	-	-								
DHC-8-300	-	-	-	-	-	-	-	-	-	-	-	-								
RJ/Turboprop Total	242	14	237	19	479	33	237	15	232	20	469	35	94.5%	5.5%	92.6%	7.4%	94.0%	6.0%	92.1%	7.9%
Grand Total	462	46	467	41	929	87	473	49	478	44	951	93	90.9%	9.1%	91.9%	8.1%	90.6%	9.4%	91.6%	8.4%
Sources: OAG, 2014 LGA ANOMS, Landrum & Brown																				

The FAA requires that airport sponsors' locally generated forecasts be consistent with the FAA's TAF for the airport. Specifically per FAA guidance, forecasts for total enplanements, based aircraft, and total operations are considered consistent with the TAF if they differ by less than 10 percent in the 5-year forecast period. The LGA NEM Forecast utilized the 2014 TAF passenger forecast for 2016, but adjusted the projection for the passenger enplanements expected by 2021. Annual operations from the 2014 TAF were not changed; however, they were used with the expected passenger levels to determine the 2016 and 2021 aircraft fleet mix. As shown in **Table 1.8**, the adjusted forecast of passenger enplanements for 2021 is within ten percent of the 2014 TAF.

Table 1.8: Comparison of LGA NEM Forecast to 2014 LGA TAF

Comparison Category	Year	FAA 2014 TAF	NEM Forecast	Difference
Passenger Enplanements	2016	13,915,943	13,915,943	0.0%
	2021	14,203,966	15,080,533	6.2%
Annual Operations	2016	378,764	378,764	0.0%
	2021	387,234	387,234	0.0%
Sources: FAA 2014 LGA TAF, LGA 2014-2033 Fleet Mix & NEM Forecast, Landrum & Brown				

1.4: GENERAL AVIATION AND MILITARY FLEET MIX AND NEM FORECAST

General aviation and military operations are combined for the purposes of the fleet mix and NEM forecasts. The aircraft types for the fleet mix are divided into four air categories: business jet, turboprop, helicopter, and piston. Two forecast scenarios are provided, a Low Helicopter scenario and a High Helicopter scenario. The Low Helicopter scenario will follow the LGA TAF and PANYNJ guidance with GA and military operations remaining flat at 7,102 annual operations through the forecast period with a fleet mix shift toward business jet and helicopter operations at the expense of turboprop and piston operations. This fleet mix forecast through 2033 is presented in **Table 1.9** and the NEM forecast for 2021 and 2022 is presented in **Table 1.11**. The ANOMS data for 2014 is used to determine the AAD day-night split for GA and military operations. Note that the phase out of stage 2 business jet aircraft will be complete by the end of 2015.

As shown in Table 1.9, business jet and helicopter gradually gain share of LGA GA operations; turboprop and piston aircraft see a steady decline in operations. Total fleet mix shift is as follows:

- 2014-2033 business jet operations: +1.9 percent
- 2014-2033 turboprop operations: -19.8 percent
- 2014-2033 helicopter operations: +2.0 percent
- 2014-2033 piston operations: -53.1 percent

The High Helicopter scenario is the result of proposed Helicopter Flight Services aerial tour operations out of LGA. The plan is to operate 10 flights per day (20 operations) between the hours of 9:00am and 9:00pm beginning in 2016. This equates to 7,300 additional annual operations. In this scenario, presented in **Table 1.10** and **Table 1.12** (fleet mix and NEM forecast respectively), business jet, turboprop and piston operations remain the same as in the Low Helicopter scenario with the additional Helicopter Flight Services activity added into the helicopter category. This will effectively double total GA and military operations at LGA.

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

Table 1.9: General Aviation and Military Operations Forecast by Aircraft Type – Low Helicopter Scenario

Aircraft Type	2014		2015		2016		2021		2023		2028		2033	
	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA
Business Jet	6,349	89.9%	6,394	90.0%	6,398	90.1%	6,420	90.4%	6,430	90.5%	6,451	90.8%	6,468	91.1%
Turboprop	252	3.6%	250	3.5%	248	3.5%	234	3.3%	228	3.2%	214	3.0%	202	2.8%
Helicopter	394	5.6%	396	5.6%	396	5.6%	398	5.6%	398	5.6%	400	5.6%	402	5.7%
Piston	64	0.9%	62	0.9%	60	0.8%	50	0.7%	46	0.6%	37	0.5%	30	0.4%
Total GA Operations	7,059	100%	7,102	100%	7,102	100%	7,102	100%	7,102	100%	7,102	100%	7,102	100%

Sources: 2014 LGA ANOMS, 2014 LGA TAF, PANYNJ, Landrum & Brown

Table 1.10: General Aviation and Military Operations Forecast by Aircraft Type – High Helicopter Scenario

Aircraft Type	2014		2015		2016		2021		2023		2028		2033	
	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA	Ops	% of GA
Business Jet	6,349	89.9%	6,394	90.0%	6,398	44.4%	6,420	44.6%	6,430	44.6%	6,451	44.8%	6,468	44.9%
Turboprop	252	3.6%	250	3.5%	248	1.7%	234	1.6%	228	1.6%	214	1.5%	202	1.4%
Helicopter	394	5.6%	396	5.6%	7,696	53.4%	7,698	53.5%	7,698	53.5%	7,700	53.5%	7,702	53.5%
Piston	64	0.9%	62	0.9%	60	0.4%	50	0.3%	46	0.3%	37	0.3%	30	0.2%
Total GA Operations	7,059	100%	7,102	100%	14,402	100%	14,402	100%	14,402	100%	14,402	100%	14,402	100%

Sources: 2014 LGA ANOMS, 2014 LGA TAF, PANYNJ, Landrum & Brown

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

Table 1.11: 2021 and 2022 General Aviation and Military NEM Forecast – Low Helicopter Scenario

Aircraft	2015						2016						2021						2022					
	Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Annual Operations																								
Business Jet	2,884	313	2,884	313	5,768	626	2,886	313	2,886	313	5,772	626	2,896	314	2,896	314	5,792	628	2,898	314	2,898	314	5,796	628
Turboprop	116	9	109	16	225	25	115	9	108	16	223	25	108	9	102	15	210	24	107	9	101	15	208	24
Helicopter	193	5	198	-	391	5	193	5	198	-	391	5	194	5	199	-	393	5	194	5	199	-	393	5
Piston	30	1	29	2	59	3	29	1	28	2	57	3	24	1	23	2	47	3	23	1	22	2	45	3
Total GA Operations	3,223	328	3,220	331	6,443	659	3,223	328	3,220	331	6,443	659	3,222	329	3,220	331	6,442	660	3,222	329	3,220	331	6,442	660
Percent of Annual Operations																								
Business Jet	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%
Turboprop	92.8%	7.2%	87.2%	12.8%	90.0%	10.0%	92.7%	7.3%	87.1%	12.9%	89.9%	10.1%	92.3%	7.7%	87.2%	12.8%	89.7%	10.3%	92.2%	7.8%	87.1%	12.9%	89.7%	10.3%
Helicopter	97.5%	2.5%	100%	0.0%	98.7%	1.3%	97.5%	2.5%	100%	0.0%	98.7%	1.3%	97.5%	2.5%	100%	0.0%	98.7%	1.3%	97.5%	2.5%	100%	0.0%	98.7%	1.3%
Piston	96.8%	3.2%	93.5%	6.5%	95.2%	4.8%	96.7%	3.3%	93.3%	6.7%	95.0%	5.0%	96.0%	4.0%	92.0%	8.0%	94.0%	6.0%	96%	4.2%	91.7%	8.3%	93.8%	6.3%
Average Annual Day Operation																								
Business Jet	8	1	8	1	16	2	8	1	8	1	16	2	8	1	8	1	16	2	8	1	8	1	16	2
Turboprop	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-
Helicopter	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
Piston	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Average Day GA Operations	9	1	9	1	18	2	9	1	9	1	18	2	9	1	9	1	18	2	9	1	9	1	18	2

Sources: 2014 LGA ANOMS, 2014 LGA TAF, PANYNJ, Landrum & Brown

LAGUARDIA AIRPORT

FLEET Mix and NEM Forecast

Port Authority of New York and New Jersey

Table 1.12: 2021 and 2022 General Aviation and Military NEM Forecast – High Helicopter Scenario

Aircraft	2015						2016						2021						2022					
	Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Annual Operations																								
Business Jet	2,884	313	2,884	313	5,768	626	2,886	313	2,886	313	5,772	626	2,896	314	2,896	314	5,792	628	2,898	314	2,898	314	5,796	628
Turboprop	116	9	109	16	225	25	115	9	108	16	223	25	108	9	102	15	210	24	107	9	101	15	208	24
Helicopter	193	5	198	-	391	5	3,843	5	3,848	-	7,691	5	3,844	5	3,849	-	7,693	5	3,844	5	3,849	-	7,693	5
Piston	30	1	29	2	59	3	29	1	28	2	57	3	24	1	23	2	47	3	23	1	22	2	45	3
Total GA Operations	3,223	328	3,220	331	6,443	659	6,873	328	6,870	331	13,743	659	6,872	329	6,870	331	13,742	660	6,872	329	6,870	331	13,742	660
Percent of Annual Operations																								
Business Jet	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%	90.2%	9.8%
Turboprop	92.8%	7.2%	87.2%	12.8%	90.0%	10.0%	92.7%	7.3%	87.1%	12.9%	89.9%	10.1%	92.3%	7.7%	87.2%	12.8%	89.7%	10.3%	92.2%	7.8%	87.1%	12.9%	89.7%	10.3%
Helicopter	97.5%	2.5%	100%	0.0%	98.7%	1.3%	99.9%	0.1%	100%	0.0%	99.9%	0.1%	99.9%	0.1%	100%	0.0%	99.9%	0.1%	99.9%	0.1%	100%	0.0%	99.9%	0.1%
Piston	96.8%	3.2%	93.5%	6.5%	95.2%	4.8%	96.7%	3.3%	93.3%	6.7%	95.0%	5.0%	96.0%	4.0%	92.0%	8.0%	94.0%	6.0%	96%	4.2%	91.7%	8.3%	93.8%	6.3%
Average Annual Day Operations																								
Business Jet	8	1	8	1	16	2	8	1	8	1	16	2	8	1	8	1	16	2	8	1	8	1	16	2
Turboprop	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-
Helicopter	1	-	1	-	1	-	11	-	11	-	21	-	11	-	11	-	21	-	11	-	11	-	21	-
Piston	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Average Day GA Operations	9	1	9	1	18	2	19	1	19	1	38	2	19	1	19	1	38	2	19	1	19	1	38	2
Sources: 2014 LGA ANOMS, 2014 LGA TAF, PANYNJ, Landrum & Brown																								

APPENDIX F-2

Operational Data

Annual Average Day INM Aircraft Operations for 2016 and 2021

The tables in this appendix provide the the aircraft operations data used in the INM for 2016 and 2021. Average Annual Day (AAD) operations are required for use in 14 CFR Part 150, as modeled by the INM. This appendix includes the following summary tables:

- Table F-1: 2016 Annual Average Day INM Aircraft Arrival Operations
- Table F-2: 2016 Annual Average Day INM Aircraft Departure Operations
- Table F-3: 2021 Annual Average Day INM Aircraft Arrival Operations
- Table F-4: 2021 Annual Average Day INM Aircraft Departure Operations

The data utilized to develop the above summary tables is provided in:

- Table F-5: Annual Aircraft Operations by Time of Day – 2016 Conditions
- Table F-6: Annual Aircraft Operations by Time of Day – 2021 Conditions
- Table F-7: Departure Stage Length by INM Aircraft Type – 2016 Conditions
- Table F-8: Departure Stage Length by INM Aircraft Type – 2021 Conditions
- Table F-9: Arrival Runway Use by Aircraft Category and Time of Day
- Table F-10: Departure Runway Use by Aircraft Category and Time of Day
- Table F-11: Arrival Flight Track Use
- Table F-12: Departure Flight Track Use

TABLE F-1
2016 ANNUAL AVERAGE DAY INM AIRCRAFT ARRIVAL OPERATIONS

Aircraft Category	INM Aircraft Type	Day	Night	Total
Widebody	767400	0.038597	0.002498	0.041095
	757PW	0.581559	0.175979	0.757538
	757RR	0.028886	0.002634	0.031520
	737800	39.894889	9.085942	48.980831
	737700	33.962938	4.635702	38.598640
	717200	22.739713	0.676743	23.416456
Narrowbody	A321-232	7.211421	1.659795	8.871216
	A320-211	24.966217	4.155691	29.121908
	A320-232	30.796326	4.395462	35.191788
	A319-131	3.438984	0.545935	3.984919
	MD83	21.275446	1.973869	23.249315
	MD9025	1.127292	0.217914	1.345206
	MD9028	5.229302	1.228224	6.457526
	EMB190	31.774573	2.740490	34.515063
	CRJ9-ER	121.050495	5.650889	126.701384
	CL601	15.961178	1.708674	17.669852
Regional Jet	EMB175	40.518058	2.775093	43.293151
	EMB170	29.890942	2.873442	32.764384
	EMB14L	23.257261	1.537270	24.794531
	EMB145	9.132405	0.207349	9.339754
	CL600	1.091937	0.102606	1.194543
Business Jet	CNA525C	0.107500	0.019901	0.127401
	CNA55B	0.128942	0.008048	0.136990
	CNA560E	0.341891	0.030692	0.372583
	CNA560XL	0.976217	0.081324	1.057541
	CNA680	0.514957	0.049434	0.564391
	CNA750	0.948961	0.090785	1.039746
	F10062	0.204182	0.017762	0.221944
	GIV	0.908203	0.100028	1.008231
	GV	1.272198	0.168907	1.441105
	LEAR35	0.771380	0.069724	0.841104
	MU3001	0.705248	0.053659	0.758907
	CNA208	0.241810	0.026682	0.268492
Turboprop	CNA441	0.068379	0.002845	0.071224
	B407	0.142606	0.002600	0.145206
Helicopter	S76	0.141576	0.003630	0.145206
	SA355F	0.249434	0.002622	0.252056
Piston	GASEPV	0.079642	0.002567	0.082209
All Aircraft		471.771545	47.083411	518.854956

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

TABLE F-2
2016 ANNUAL AVERAGE DAY INM AIRCRAFT DEPARTURE OPERATIONS

Aircraft Category	INM Aircraft Type	Stage 1		Stage 2		Stage 3		Stage 4		Stage 5		Stage 6		Total Day	Total Night	Total All
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night			
Widebody	767400	0.026800	0.008249	0.003708	0.001127	0.000934	0.00024							0.031442	0.009621	0.041063
	757PW	0.008186	0.000802	0.478221	0.047766	0.200951	0.02009	0.001371	0.000083					0.688729	0.068747	0.757476
	757RR	0.005492	0.000603	0.015587	0.001816	0.004628	0.00051	0.000831	0.000052	0.00125	0.000086	0.000389	0.000010	0.028178	0.003079	0.031257
	737800	0.734590	0.098096	27.940167	3.730842	14.44538	1.92889	0.090727	0.012118					43.210865	5.769949	48.980814
	737700	8.407159	0.899002	20.064194	2.145455	6.395175	0.68385	0.003470	0.000327					34.869998	3.728638	38.598636
	717200	10.41935	0.291318	12.360156	0.345607									22.779514	0.636925	23.416439
Narrowbody	A321-232	6.056296	1.194151	1.353804	0.266945									7.410100	1.461096	8.871196
	A320-211	8.026260	0.512301	14.158143	0.903720	5.157374	0.32919	0.032855	0.002074					27.374632	1.747292	29.121924
	A320-232	3.404586	0.508730	22.019635	3.290303	5.192629	0.77588							30.616850	4.574916	35.191766
	A319-131	1.219733	0.102476	2.149415	0.180592	0.306960	0.02578							3.676108	0.308855	3.984963
	MD83	2.684206	0.147544	19.170898	1.053708	0.182910	0.01005							22.038014	1.211304	23.249318
	MD9025	0.102041	0.007324	1.153040	0.082809									1.255081	0.090133	1.345214
	MD9028	0.445027	0.038013	5.498362	0.469687	0.005937	0.00048							5.949326	0.508184	6.45751
	EMB190	31.84967	2.630844	0.031879	0.002633									31.881553	2.633477	34.51503
	CRJ9-ER	70.05842	5.582280	46.330082	3.691594	0.962279	0.07668							117.350789	9.350556	126.701345
	CL601	16.41708	1.252799											16.417080	1.252799	17.669879
Regional Jet	EMB175	23.75169	2.115985	11.778423	1.049319	4.221647	0.37609							39.751765	3.541400	43.293165
	EMB170	15.81528	1.408945	9.843555	0.876952	4.425386	0.39426							30.084223	2.680166	32.764389
	EMB14L	17.78044	1.398121	5.206568	0.409396									22.987008	1.807517	24.794525
	EMB145	7.597967	0.215645	1.470372	0.041720	0.009077	0.00022	0.004522	0.000080					9.081938	0.257672	9.339610
	CL600	1.095018	0.099499											1.095018	0.099499	1.194517
	CNA525C	0.115468	0.011934											0.115468	0.011934	0.127402
Business Jet	CNA55B	0.136999	0.000000											0.136999	0.000000	0.136999
	CNA560E	0.351102	0.021507											0.351102	0.021507	0.372609
	CNA560XL	0.995789	0.061735											0.995789	0.061735	1.057524
	CNA680	0.499565	0.064845											0.499565	0.064845	0.564410
	CNA750	0.959768	0.079955											0.959768	0.079955	1.039723
	F10062	0.209909	0.011995											0.209909	0.011995	0.221904
	GIV	0.890574	0.117672											0.890574	0.117672	1.008246
	GV	1.264849	0.176239											1.264849	0.176239	1.441088
	LEAR35	0.783729	0.057366											0.783729	0.057366	0.841095
	MU3001	0.705460	0.053436											0.705460	0.053436	0.758896
Turboprop	CNA208	0.226721	0.041766											0.226721	0.041766	0.268487
	CNA441	0.069006	0.002225											0.069006	0.002225	0.071231
Helicopter	B407	0.145206	0.000000											0.145206	0.000000	0.145206
	S76	0.145206	0.000000											0.145206	0.000000	0.145206
	SA355F	0.252054	0.000000											0.252054	0.000000	0.252054
Piston	GASEPV	0.082188	0.000000											0.082188	0.000000	0.082188
All Aircraft		233.7389	19.21340	201.02620	18.59199	41.51126	4.62227	0.133776	0.014734	0.00125	0.000086	0.000389	0.000010	476.411804	42.442500	518.854304

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

TABLE F-3
2021 ANNUAL AVERAGE DAY INM AIRCRAFT ARRIVAL OPERATIONS

Aircraft Category	INM Aircraft Type	Day	Night	Total
Widebody	767400	0.038597	0.002498	0.041095
	757PW	0.605742	0.183300	0.789042
	757RR	0.030137	0.002743	0.032880
	737800	44.162124	7.787207	51.949331
	737700	34.747620	4.742795	39.490415
	717200	26.537127	1.586145	28.123272
Narrowbody	A321-232	9.525395	2.192387	11.717782
	A320-211	29.620361	3.638521	33.258882
	A320-232	32.726957	4.722354	37.449311
	A319-131	4.570161	0.391484	4.961645
	MD83	8.940400	0.829454	9.769854
	MD9025	1.401953	0.151453	1.553406
	MD9028	6.731663	0.727237	7.458900
	EMB190	31.680033	2.173393	33.853426
	CRJ9-ER	135.069375	7.138872	142.208247
	EMB175	61.197235	4.819186	66.016421
Regional Jet	EMB170	48.858641	3.196159	52.054800
	CL600	1.095671	0.102956	1.198627
	CNA525C	0.107500	0.019901	0.127401
Business Jet	CNA55B	0.128942	0.008048	0.136990
	CNA560E	0.344415	0.030922	0.375337
	CNA560XL	0.980004	0.081656	1.061660
	CNA680	0.516204	0.049554	0.565758
	CNA750	0.952704	0.091127	1.043831
	F10062	0.204182	0.017762	0.221944
	GIV	0.910661	0.100286	1.010947
	GV	1.277033	0.169554	1.446587
	LEAR35	0.773897	0.069954	0.843851
	MU3001	0.707803	0.053852	0.761655
	CNA208	0.228251	0.025199	0.253450
Turboprop	CNA441	0.064439	0.002683	0.067122
	B407	0.142606	0.002600	0.145206
Helicopter	S76	0.141576	0.003630	0.145206
	SA355F	0.252144	0.002650	0.254794
Piston	GASEPV	0.066365	0.002142	0.068507
All Aircraft		485.337918	45.119664	530.457582

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

TABLE F-4
2021 ANNUAL AVERAGE DAY INM AIRCRAFT DEPARTURE OPERATIONS

Aircraft Category	INM Aircraft Type	Stage 1		Stage 2		Stage 3		Stage 4		Stage 5		Stage 6		Total Day	Total Night	Total All
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night			
Widebody	767400	0.026800	0.008249	0.003708	0.001127	0.000934	0.00024							0.031442	0.009621	0.041063
	757PW	0.008528	0.000834	0.498064	0.049735	0.209329	0.02090	0.001439	0.000084					0.717360	0.071561	0.788921
	757RR	0.005696	0.000645	0.016239	0.001888	0.004824	0.00052	0.000872	0.000059	0.00131	0.000095	0.000400	0.000010	0.029345	0.003226	0.032571
	737800	2.555962	0.264891	34.451455	3.570244	10.00267	1.03658	0.061174	0.006346					47.071267	4.878064	51.949331
	737700	8.601401	0.919748	20.527767	2.195025	6.542914	0.69963	0.003558	0.000330					35.675640	3.814742	39.490382
	717200	14.14014	1.279870	9.758567	0.883265	1.890343	0.17110							25.789059	2.334241	28.123300
Narrowbody	A321-232	8.355900	1.647573	1.431968	0.282341									9.787868	1.929914	11.717782
	A320-211	11.98670	0.891140	14.255889	1.059851	4.702420	0.34960	0.012382	0.000903					30.957392	2.301499	33.258891
	A320-232	3.405088	0.497130	24.080612	3.515799	5.192584	0.75814							32.678284	4.771071	37.449355
	A319-131	2.267345	0.203069	1.861139	0.166689	0.423494	0.03791	0.001809	0.000107					4.553787	0.407779	4.961566
	MD83	1.127968	0.062018	8.056026	0.442771	0.076876	0.00422							9.260870	0.509011	9.769881
	MD9025	0.170255	0.009947	1.286424	0.075152	0.011009	0.00061							1.467688	0.085713	1.553401
	MD9028	0.817467	0.047768	6.176835	0.360874	0.052835	0.00308							7.047137	0.411725	7.458862
	EMB190	21.05010	1.922833	8.223391	0.751169	1.746417	0.15953							31.019915	2.833532	33.853447
	CRJ9-ER	85.64687	6.347611	46.325322	3.433352	0.330983	0.02452	0.092675	0.006864					132.395852	9.812353	142.208205
	EMB175	34.57555	3.080242	18.663762	1.662718	7.376977	0.65719							60.616289	5.400152	66.016441
Regional Jet	EMB170	33.33609	2.264192	12.264015	0.832963	3.143992	0.21353							48.744104	3.310685	52.054789
	CL600	1.098805	0.099843											1.098805	0.099843	1.198648
Business Jet	CNA525C	0.115468	0.011934											0.115468	0.011934	0.127402
	CNA55B	0.136999	0.000000											0.136999	0.000000	0.136999
	CNA560E	0.353684	0.021676											0.353684	0.021676	0.375360
	CNA560XL	0.999634	0.061994											0.999634	0.061994	1.061628
	CNA680	0.500748	0.064988											0.500748	0.064988	0.565736
	CNA750	0.963545	0.080278											0.963545	0.080278	1.043823
	F10062	0.209909	0.011995											0.209909	0.011995	0.221904
	GIV	0.892969	0.117990											0.892969	0.117990	1.010959
	GV	1.269646	0.176925											1.269646	0.176925	1.446571
	LEAR35	0.786288	0.057543											0.786288	0.057543	0.843831
	MU3001	0.708023	0.053625											0.708023	0.053625	0.761648
	CNA208	0.214008	0.039427											0.214008	0.039427	0.253435
Turboprop	CNA441	0.065047	0.002084											0.065047	0.002084	0.067131
	B407	0.145206	0.000000											0.145206	0.000000	0.145206
Helicopter	S76	0.145206	0.000000											0.145206	0.000000	0.145206
	SA355F	0.254794	0.000000											0.254794	0.000000	0.254794
Piston	GASEPV	0.068471	0.000000											0.068471	0.000000	0.068471
All Aircraft		237.0063	20.24806	207.88118	19.28496	41.70860	4.13736	0.173909	0.014693	0.00131	0.000095	0.000400	0.000010	486.771749	43.685191	530.456940

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

**TABLE F-5
ANNUAL AIRCRAFT OPERATIONS BY TIME OF DAY – 2016 CONDITIONS**

Aircraft Category	INM Aircraft	Arrivals		Departures	
		Day	Night	Day	Night
Widebody	767400	93.93%	6.07%	76.57%	23.43%
Narrowbody	757PW	76.77%	23.23%	90.92%	9.08%
	757RR	91.67%	8.33%	90.15%	9.85%
	737800	81.45%	18.55%	88.22%	11.78%
	737700	87.99%	12.01%	90.34%	9.66%
	717200	97.11%	2.89%	97.28%	2.72%
	A321-232	81.29%	18.71%	83.53%	16.47%
	A320-211	85.73%	14.27%	94.00%	6.00%
	A320-232	87.51%	12.49%	87.00%	13.00%
	A319-131	86.30%	13.70%	92.25%	7.75%
	MD83	91.51%	8.49%	94.79%	5.21%
	MD9025	83.80%	16.20%	93.30%	6.70%
	MD9028	80.98%	19.02%	92.13%	7.87%
	EMB190	92.06%	7.94%	92.37%	7.63%
	CRJ9-ER	95.54%	4.46%	92.62%	7.38%
	CL601	90.33%	9.67%	92.91%	7.09%
Regional Jet	EMB175	93.59%	6.41%	91.82%	8.18%
	EMB170	91.23%	8.77%	91.82%	8.18%
	EMB14L	93.80%	6.20%	92.71%	7.29%
	EMB145	97.78%	2.22%	97.24%	2.76%
	CL600	91.41%	8.59%	91.67%	8.33%
	CNA525C	84.38%	15.62%	90.63%	9.37%
Business Jet	CNA55B	94.13%	5.87%	100.00%	0.00%
	CNA560E	91.76%	8.24%	94.23%	5.77%
	CNA560XL	92.31%	7.69%	94.16%	5.84%
	CNA680	91.24%	8.76%	88.51%	11.49%
	CNA750	91.27%	8.73%	92.31%	7.69%
	F10062	92.00%	8.00%	94.59%	5.41%
	GIV	90.08%	9.92%	88.33%	11.67%
	GV	88.28%	11.72%	87.77%	12.23%
	LEAR35	91.71%	8.29%	93.18%	6.82%
	MU3001	92.93%	7.07%	92.96%	7.04%
Turboprop	CNA208	90.06%	9.94%	84.44%	15.56%
	CNA441	96.00%	4.00%	96.88%	3.12%
Helicopter	B407	98.21%	1.79%	100.00%	0.00%
	S76	97.50%	2.50%	100.00%	0.00%
	SA355F	98.96%	1.04%	100.00%	0.00%
Piston	GASEPV	96.88%	3.12%	100.00%	0.00%
All Aircraft		90.93%	9.07%	91.82%	8.18%

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

TABLE F-6
ANNUAL AIRCRAFT OPERATIONS BY TIME OF DAY – 2021 CONDITIONS

Aircraft Category	INM Aircraft	Arrivals		Departures	
		Day	Night	Day	Night
Widebody	767400	93.92%	6.08%	76.57%	23.43%
Narrowbody	757PW	76.77%	23.23%	90.93%	9.07%
	757RR	91.66%	8.34%	90.10%	9.90%
	737800	85.01%	14.99%	90.61%	9.39%
	737700	87.99%	12.01%	90.34%	9.66%
	717200	94.36%	5.64%	91.70%	8.30%
	A321-232	81.29%	18.71%	83.53%	16.47%
	A320-211	89.06%	10.94%	93.08%	6.92%
	A320-232	87.39%	12.61%	87.26%	12.74%
	A319-131	92.11%	7.89%	91.78%	8.22%
	MD83	91.51%	8.49%	94.79%	5.21%
	MD9025	90.25%	9.75%	94.48%	5.52%
	MD9028	90.25%	9.75%	94.48%	5.52%
	EMB190	93.58%	6.42%	91.63%	8.37%
	CRJ9-ER	94.98%	5.02%	93.10%	6.90%
	EMB175	92.70%	7.30%	91.82%	8.18%
Regional Jet	EMB170	93.86%	6.14%	93.64%	6.36%
	CL600	91.41%	8.59%	91.67%	8.33%
	CNA525C	84.38%	15.62%	90.63%	9.37%
Business Jet	CNA55B	94.13%	5.87%	100.00%	0.00%
	CNA560E	91.76%	8.24%	94.23%	5.77%
	CNA560XL	92.31%	7.69%	94.16%	5.84%
	CNA680	91.24%	8.76%	88.51%	11.49%
	CNA750	91.27%	8.73%	92.31%	7.69%
	F10062	92.00%	8.00%	94.59%	5.41%
	GIV	90.08%	9.92%	88.33%	11.67%
	GV	88.28%	11.72%	87.77%	12.23%
	LEAR35	91.71%	8.29%	93.18%	6.82%
	MU3001	92.93%	7.07%	92.96%	7.04%
	CNA208	90.06%	9.94%	84.44%	15.56%
	CNA441	96.00%	4.00%	96.90%	3.10%
Helicopter	B407	98.21%	1.79%	100.00%	0.00%
	S76	97.50%	2.50%	100.00%	0.00%
	SA355F	98.96%	1.04%	100.00%	0.00%
Piston	GASEPV	96.87%	3.13%	100.00%	0.00%
All Aircraft		91.49%	8.51%	91.76%	8.24%

SOURCE: *LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033*. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

**TABLE F-7
DEPARTURE STAGE LENGTH BY INM AIRCRAFT TYPE – 2016 CONDITIONS**

Aircraft Category	INM Aircraft Type	Stage Lengths						Total
		1	2	3	4	5	6	
Widebody	767400	85.35%	11.77%	2.87%	-	-	-	100.00%
Narrowbody	757PW	1.19%	69.44%	29.18%	0.19%	-	-	100.00%
	757RR	19.50%	55.68%	16.44%	2.82%	4.28%	1.28%	100.00%
	737800	1.70%	64.66%	33.43%	0.21%	-	-	100.00%
	737700	24.11%	57.54%	18.34%	0.01%	-	-	100.00%
	717200	45.74%	54.26%	-	-	-	-	100.00%
	A321-232	81.73%	18.27%	-	-	-	-	100.00%
	A320-211	29.32%	51.72%	18.84%	0.12%	-	-	100.00%
	A320-232	11.12%	71.92%	16.96%	-	-	-	100.00%
	A319-131	33.18%	58.47%	8.35%	-	-	-	100.00%
	MD83	12.18%	86.99%	0.83%	-	-	-	100.00%
	MD9025	8.13%	91.87%	-	-	-	-	100.00%
	MD9028	7.48%	92.42%	0.10%	-	-	-	100.00%
	EMB190	99.90%	0.10%	-	-	-	-	100.00%
	Regional Jet	CRJ9-ER	59.70%	39.48%	0.82%	-	-	100.00%
		CL601	100.00%	-	-	-	-	100.00%
		EMB175	59.75%	29.63%	10.62%	-	-	100.00%
		EMB170	52.57%	32.72%	14.71%	-	-	100.00%
		EMB14L	77.35%	22.65%	-	-	-	100.00%
		EMB145	83.66%	16.19%	0.10%	0.05%	-	100.00%
Business Jet	CL600	100.00%	-	-	-	-	-	100.00%
	CNA525C	100.00%	-	-	-	-	-	100.00%
	CNA55B	100.00%	-	-	-	-	-	100.00%
	CNA560E	100.00%	-	-	-	-	-	100.00%
	CNA560XL	100.00%	-	-	-	-	-	100.00%
	CNA680	100.00%	-	-	-	-	-	100.00%
	CNA750	100.00%	-	-	-	-	-	100.00%
	F10062	100.00%	-	-	-	-	-	100.00%
	GIV	100.00%	-	-	-	-	-	100.00%
	GV	100.00%	-	-	-	-	-	100.00%
	LEAR35	100.00%	-	-	-	-	-	100.00%
	MU3001	100.00%	-	-	-	-	-	100.00%
	Turboprop	CNA208	100.00%	-	-	-	-	100.00%
		CNA441	100.00%	-	-	-	-	100.00%
Helicopter	B407	100.00%	-	-	-	-	-	100.00%
	S76	100.00%	-	-	-	-	-	100.00%
	SA355F	100.00%	-	-	-	-	-	100.00%
Piston	GASEPV	100.00%	-	-	-	-	-	100.00%

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

**TABLE F-8
DEPARTURE STAGE LENGTH BY INM AIRCRAFT TYPE – 2021 CONDITIONS**

Aircraft Category	INM Aircraft Type	Stage Lengths						Total
		1	2	3	4	5	6	
Widebody	767400	85.35%	11.77%	2.87%	-	-	-	100.00%
Narrowbody	757PW	1.19%	69.44%	29.18%	0.19%			100.00%
	757RR	19.47%	55.65%	16.43%	2.86%	4.33%	1.26%	100.00%
	737800	5.43%	73.19%	21.25%	0.13%	-	-	100.00%
	737700	24.11%	57.54%	18.34%	0.01%	-	-	100.00%
	717200	54.83%	37.84%	7.33%	-	-	-	100.00%
	A321-232	85.37%	14.63%	-	-	-	-	100.00%
	A320-211	38.72%	46.05%	15.19%	0.04%	-	-	100.00%
	A320-232	10.42%	73.69%	15.89%	-	-	-	100.00%
	A319-131	49.79%	40.87%	9.30%	0.04%	-	-	100.00%
	MD83	12.18%	86.99%	0.83%	-	-	-	100.00%
	MD9025	11.60%	87.65%	0.75%	-	-	-	100.00%
	MD9028	11.60%	87.65%	0.75%	-	-	-	100.00%
	EMB190	67.86%	26.51%	5.63%	-	-	-	100.00%
	Regional Jet	CRJ9-ER	64.69%	34.99%	0.25%	0.07%	-	100.00%
		EMB175	57.04%	30.79%	12.17%	-	-	100.00%
		EMB170	68.39%	25.16%	6.45%	-	-	100.00%
Business Jet	CL600	100.00%	-	-	-	-	-	100.00%
	CNA525C	100.00%	-	-	-	-	-	100.00%
	CNA55B	100.00%	-	-	-	-	-	100.00%
	CNA560E	100.00%	-	-	-	-	-	100.00%
	CNA560XL	100.00%	-	-	-	-	-	100.00%
	CNA680	100.00%	-	-	-	-	-	100.00%
	CNA750	100.00%	-	-	-	-	-	100.00%
	F10062	100.00%	-	-	-	-	-	100.00%
	GIV	100.00%	-	-	-	-	-	100.00%
	GV	100.00%	-	-	-	-	-	100.00%
	LEAR35	100.00%	-	-	-	-	-	100.00%
	MU3001	100.00%	-	-	-	-	-	100.00%
	Turboprop	CNA208	100.00%	-	-	-	-	100.00%
		CNA441	100.00%	-	-	-	-	100.00%
	Helicopter	B407	100.00%	-	-	-	-	100.00%
		S76	100.00%	-	-	-	-	100.00%
		SA355F	100.00%	-	-	-	-	100.00%
Piston	GASEPV	100.00%	-	-	-	-	-	100.00%

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey. March 23, 2016. Adapted by KB Environmental and ESA, 2016.

**TABLE F-9
ARRIVAL RUNWAY USE BY AIRCRAFT CATEGORY AND TIME OF DAY**

Aircraft Category	Runway 4	Runway 22	Runway 13	Runway 31
Daytime Arrivals				
Widebody	32.25%	38.69%	3.24%	25.82%
Narrowbody	20.31%	47.51%	2.79%	29.39%
Regional Jet	20.43%	48.19%	2.43%	28.95%
Business Jet	19.63%	48.93%	2.99%	28.45%
Turboprops	18.48%	49.62%	1.80%	30.10%
Piston	9.68%	54.83%	3.23%	32.27%
All Aircraft	20.36%	47.88%	2.61%	29.15%
Nighttime Arrivals				
Widebody	0.00%	49.86%	0.00%	50.14%
Narrowbody	18.10%	45.37%	6.38%	30.15%
Regional Jet	19.58%	46.65%	5.58%	28.19%
Business Jet	22.39%	44.28%	5.47%	27.86%
Turboprops	23.83%	47.61%	14.27%	14.30%
Piston	0.00%	100.00%	0.00%	0.00%
All Aircraft	18.64%	45.76%	6.12%	29.49%

NOTE: Does not include helicopter operations. Values may not add to 100 percent due to rounding.

SOURCE: KB Environmental Sciences, 2016; Port Authority of New York and New Jersey, ANOMS data for calendar year 2014.

**TABLE F-10
DEPARTURE RUNWAY USE BY AIRCRAFT CATEGORY AND TIME OF DAY**

Aircraft Category	Runway 4	Runway 22	Runway 13	Runway 31
Daytime Departures				
Widebody	23.07%	0.00%	38.47%	38.45%
Narrowbody	26.17%	1.36%	46.13%	26.34%
Regional Jet	26.14%	0.99%	48.63%	24.24%
Business Jet	27.02%	1.53%	45.02%	26.43%
Turboprops	22.57%	1.13%	51.13%	25.17%
Piston	15.00%	9.99%	30.00%	45.01%
All Aircraft	26.17%	1.18%	47.35%	25.30%
Nighttime Departures				
Widebody	25.04%	0.00%	62.67%	12.30%
Narrowbody	24.99%	2.30%	43.62%	29.09%
Regional Jet	26.61%	0.85%	46.72%	25.82%
Business Jet	26.84%	3.16%	44.21%	25.79%
Turboprops	34.32%	2.86%	39.99%	22.83%
Piston	0.00%	0.00%	0.00%	0.00%
All Aircraft	25.75%	1.67%	45.01%	27.57%

NOTE: Does not include helicopter operations. Values may not add to 100 percent due to rounding.

SOURCE: KB Environmental Sciences, 2016; Port Authority of New York and New Jersey, ANOMS data for calendar year 2014.

**TABLE F-11
ARRIVAL FLIGHT TRACK USE**

Flight Track	Daytime	Nighttime	Flight Track	Daytime	Nighttime
Runway 4			Runway 22		
04AP1	79.10%	82.70%	22AP1	20.00%	0.01%
04AP2	6.20%	4.90%	22AP2	1.20%	5.90%
04AP3	6.00%	4.70%	22AP3	16.70%	22.79%
04AP4	6.00%	4.70%	22AP4	16.20%	22.00%
04AP5	0.90%	1.00%	22AP5	16.20%	22.00%
04AP6	0.90%	1.00%	22AP6	10.10%	9.30%
04AP7	0.90%	1.00%	22AP7	9.80%	9.00%
			22AP8	9.80%	9.00%
Total	100.00%	100.00%	Total	100.00%	100.00%
Runway 13			Runway 31		
13AP1	22.70%	28.40%	31AP1	76.10%	75.10%
13AP2	22.70%	28.30%	31AP2	1.80%	2.30%
13AP3	16.30%	5.10%	31AP3	1.70%	2.20%
13AP4	17.30%	15.90%	31AP4	1.70%	2.20%
13AP5	17.30%	15.90%	31AP5	2.60%	5.10%
13AP6	3.70%	6.40%	31AP6	2.60%	5.10%
			31AP7	2.70%	1.60%
			31AP8	2.70%	1.60%
			31AP9	2.70%	1.60%
			31AP10	2.70%	1.60%
			31AP11	2.70%	1.60%
Total	100.00%	100.00%	Total	100.00%	100.00%
Helipad H1					
HA1	50.00%	50.00%			
HA2	50.00%	50.00%			
Total	100.00%	100.00%			

SOURCE: KB Environmental Sciences, 2016; Port Authority of New York and New Jersey, Airport Noise and Operations Management System (ANOMS) data for calendar year 2014.

**TABLE F-12
DEPARTURE FLIGHT TRACK USE**

Flight Track	Daytime	Nighttime	Flight Track	Daytime	Nighttime
Runway 4			Runway 22		
04P1	5.20%	6.50%	K22PD1	10.90%	9.50%
04P2	5.20%	6.50%	K22DP2	10.30%	11.20%
04P4	3.00%	3.50%	K22DP3	10.30%	11.20%
04P5	2.90%	3.40%	K22DP4	13.70%	12.80%
04P6	2.90%	3.40%	K22DP5	13.40%	12.40%
04P7	4.60%	5.80%	K22DP6	13.40%	12.40%
04P8	4.50%	5.60%	K22DP7	7.60%	7.50%
04P9	4.50%	5.60%	K22DP8	7.60%	7.50%
04P11	15.80%	13.80%	K22PD9	2.60%	4.30%
04P12	15.30%	13.40%	K22DP10	5.70%	5.60%
04P13	15.30%	13.40%	K22DP11	4.50%	5.60%
04P14	2.30%	2.70%			
04P17	2.20%	0.60%			
04P18	5.50%	5.40%			
04P19	5.40%	5.20%			
04P20	5.40%	5.20%			
Total	100.00%	100.00%	Total	100.00%	100.00%
Runway 13			Runway 31		
13P1	4.10%	3.50%	K31DP1	3.40%	4.00%
13P2	4.10%	3.50%	K31DP2	3.30%	3.90%
13P5	4.20%	5.20%	K31DP3	3.30%	3.90%
13P6	4.10%	5.00%	K31DP4	3.20%	3.40%
13P7	4.10%	5.00%	K31DP5	3.10%	3.30%
13P8	2.40%	1.40%	K31DP6	3.10%	3.30%
13P9	2.30%	1.40%	K31DP7	4.50%	5.40%
13P10	2.30%	1.40%	K31DP8	4.40%	5.20%
13P11	7.90%	8.50%	K31DP9	4.40%	5.20%
13P12	7.60%	8.20%	K31DP10	15.30%	14.20%
13P13	7.60%	8.20%	K31DP11	15.20%	13.60%
13P14	3.50%	3.40%	K31DP12	15.20%	13.60%
13P15	3.50%	3.40%	K31DP13	5.40%	5.90%
13P16	1.00%	1.10%	K31DP14	5.30%	5.70%
13P17	4.50%	5.60%	K31DP15	5.30%	5.70%
13P18	4.00%	10.90%	K31DP16	0.20%	0.10%
13P19	0.60%	0.30%	K31DP17	2.20%	2.80%
13DP20	2.10%	2.80%	K31DP18	0.80%	0.20%
13DP21	2.10%	2.80%	K31DP19	0.80%	0.20%
13DP22	1.90%	2.00%	K31DP20	0.80%	0.20%
13DP23	1.80%	2.00%	K31DP21	0.80%	0.20%
13DP24	1.80%	2.00%			
13DP25	1.10%	0.70%			
13DP26	1.10%	0.60%			
13DP27	1.10%	0.60%			
13DP28	12.30%	6.60%			
13DP29	5.20%	2.60%			
13DP30	0.70%	0.80%			
13DP31	1.00%	0.50%			
Total	100.00%	100.00%	Total	100.00%	100.00%
Helipad H1					
HD1	50.00%	0.00%			
HD2	50.00%	0.00%			
Total	100.00%	0.00%			

SOURCE: KB Environmental Sciences, 2016; Port Authority of New York and New Jersey, Airport Noise and Operations Management System (ANOMS) data for calendar year 2014.

APPENDIX G

Correspondence and Consultation

This appendix includes documentation of the correspondence conducted in support of the development of the noise exposure maps prepared for the LaGuardia Airport 14 CFR Part 150 Study.

- Appendix G-1 Federal Aviation Administration (FAA) consultation for INM modeling and substitution approvals:
 - FAA to Port Authority of New York and New Jersey, Memorandum on Continued Use of INM from ESA Airports (July 21, 2015).
 - FAA AEE (Office of Environment and Energy) to FAA Eastern Regional Office, Summary of AEE Review of Aircraft Substitutions (August 13, 2015). Also included is the referenced ESA Airports to Port Authority of New York and New Jersey (submitted to FAA), Memorandum on Proposed INM 7.0d Aircraft Type Substitutions (July 16, 2015).
 - FAA AEE to FAA Eastern Regional Office, Summary of AEE Review of Additional Aircraft Substitutions (March 15, 2016). Also included is the referenced ESA Airports to Port Authority of New York and New Jersey (submitted to FAA), Additional Proposed INM 7.0d Aircraft Type Substitutions (February 11, 2016).
 - FAA AEE to FAA Eastern Regional Office, Approval of Proposed INM User-Defined Departure and Arrival Profiles for the LGA 14 CFR Part 150 Study (June 13, 2016).
- Appendix G-2 Airline consultation seeking concurrency regarding user-defined INM profiles:
 - Concurrence from JetBlue Airways (May 18, 2016)
 - Concurrence from Sky Regional Airlines (May 18, 2016)
 - Concurrence from Delta Airlines (May 23, 2016)
 - Concurrence from American Airlines (May 26, 2016)
 - Concurrence from GoJet Airlines (May 26, 2016)
 - Concurrence from United Airlines (May 26, 2016)
 - Concurrence from Southwest Airlines (June 1, 2016)

- Appendix G-3 Elected Official Consultation
 - Assembly of the State of New York Member, Edward C. Braunstein to Port Authority of New York and New Jersey, Assemblyman Braunstein's requests of the Port Authority on behalf of his constituents regarding the Part 150 Noise Studies for John F. Kennedy International and LaGuardia Airports (December 17, 2014).
 - Port Authority of New York and New Jersey to Assembly of the State of New York Member, Edward C. Braunstein, The Port Authority's response to Assemblyman Braunstein's letter regarding the Part 150 Noise Studies for John F. Kennedy International and LaGuardia Airports (January 28, 2015).
 - Port Authority of New York and New Jersey to Assembly of the State of New York Member, Edward C. Braunstein, The Port Authority's response to Assemblyman Braunstein's request regarding the Part 150 Noise Studies for John F. Kennedy International and LaGuardia Airports (February 5, 2015).
 - Letter from New York State Senator Tony Avella, 11th Senatorial District to Port Authority of New York and New Jersey, Senator Avella's comments for the Part 150 Technical Advisory Committee. Also included are a set of requests and questions for the Port Authority and ESA from Senator Avella (August 4, 2015).
 - Congressman Joseph Crowley, United States House of Representatives to Port Authority of New York and New Jersey, Letter regarding the impact of an airport runway safety project on the communities around LaGuardia Airport (October 27, 2015).
 - Five (5) Letters: Port Authority of New York and New Jersey to U.S. Congressman Joseph Crowley, New York State Senator Tony Avella, New York State Assemblyman Michael Dendekker, New York State Assemblyman Francisco Moya, New York City Councilman Daniel Dromm, The Port Authority's Response regarding the impact of an airport runway safety project on the communities around LaGuardia Airport (November 30, 2015).
 - Port Authority of New York and New Jersey to Congressman Joseph Crowley, United States House of Representatives, The Port Authority's Response to Congressman Crowley's letter regarding the airplane noise concerns of one of his constituents (January 22, 2016).
 - Port Authority of New York and New Jersey to United States Senator Charles E. Schumer, New York, The Port Authority's response to Senator Schumer's letter urging the agency to expedite completion of the two 14 CFR Part 150 Noise Compatibility Planning Studies being conducted at John F. Kennedy International and LaGuardia Airports (June 9, 2016).

- Letter from State Senator Todd Kaminsky and Representative Kathleen M. Rice to Administrator Michael P. Huerta, Federal Aviation Administration, requesting adoption of DNL 55 as the new acceptable standard (October 11, 2016).
- Appendix G-4 Other Correspondence
 - E-mail from Len Schaier to Kelly Mitchell, Port Authority of New York and New Jersey, with response, regarding comments on the TAC membership list (June 10, 2015).
 - Letter from Port Authority of New York and New Jersey to Community Board District Managers, Request to forward information and data pertaining to land use and zoning for their Districts (August 18, 2015).
 - Four letters between Mr. Peter Boran, President of Monsignor Scanlon High School; Mr. Joseph Solimine Sr., Director of Facilities at Monsignor Scanlon High School; Congressman Joseph Crowley, United States House of Representatives; and Carmine Gallo, Eastern Region Regional Administrator, Federal Aviation Administration, in regards to potential noise mitigation for the Monsignor Scanlan High School and Grand Course Academy Charter School (September 1, 2015; March 3, 2016; October 26, 2016; November 10, 2016 and November 16, 2016).
 - Two letters to the Port Authority of New York and New Jersey requesting the DNL 55-60 contours for John F. Kennedy International and LaGuardia Airports (July 7, 2016 and July 19-20, 2016).

APPENDIX G-1

Federal Aviation Administration Consultation



U.S. Department
of Transportation
**Federal Aviation
Administration**

Eastern Region, Airports Division

1 Aviation Plaza, Room 516
Jamaica, NY 11434-4809

T: (718) 553-3330
F: (718) 995-5615

July 21, 2015

Ms. Kelly Mitchell
Aviation Noise Office
The Port Authority of New York and New Jersey
4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10006

Re: Memorandum on Continued Use of INM from ESA Airports

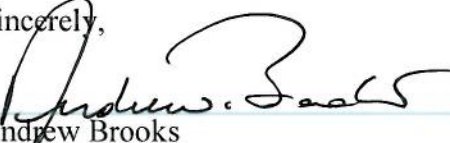
Dear Ms. Mitchell,

Thank you for your e-mail of April 14, 2015 transmitting a memorandum from your consultant, ESA Airports, to the Port Authority of New York and New Jersey regarding the use of the Integrated Noise Model (INM) Version 7.0d for the Part 150 Noise Studies at LaGuardia and John F. Kennedy International Airports. Additionally, we have been provided a memorandum from your other consultant, HMMH, via e-mail from Timothy Middleton, documenting work done with INM 7.0d to date for the Part 150 Noise Studies for Newark Liberty International and Teterboro Airports. The Federal Aviation Administration (FAA) concurs with the overarching recommendations of both memos and agrees that sufficient work using INM 7.0d has been completed to date to warrant the continued use of the INM for the Part 150 Studies at all four airports. The FAA will not seek to require any conversion to the use of the newly released Airport Environmental Design Tool (AEDT) Model Version 2b, released on May 29, 2015 for the remainder of these studies. Please be aware that any future updates to Noise Exposure Maps or Noise Compatibility Plans resulting from the current Part 150 Studies will require the use of the FAA-approved model that is current at the time those updates begin.

We would like to raise a concern with the language used in the third paragraph of the memorandum from ESA Airports. The memorandum cites the project kickoff meeting notes by quoting that “The FAA stated further that they are aware of potential issues of INM vs. AEDT and have started internal discussions regarding how to address this topic.” We would like to clarify that the FAA at no time raised any issues regarding the performance, capabilities, or accuracy of the new AEDT Model and that we fully support its use for all studies initiated following its release. The kickoff meeting cited occurred in October 2014, approximately seven months prior to the release of AEDT, and the “issues” cited in the meeting notes were actually discussions between FAA staff present at the meeting regarding uncertainty at the time of the meeting as to when AEDT would be released for use. Additionally, FAA staff discussed areas of policy development regarding the release of AEDT that had not yet been finalized as of the date of the kickoff meeting for the Part 150 Studies.

Thank you for taking our clarification of the language provided in the memo into consideration. If you would like to discuss this further, please call me at 718-553-2511.

Sincerely,



Andrew Brooks
Environmental Program Manager
Airports Division, AEA-610

cc: T. Middleton, PANYNJ
A. Yousuf, PANYNJ
E. Knoesel, PANYNJ



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of Environment and Energy

800 Independence Ave., S.W.
Washington, D.C. 20591

Date: August 13, 2015

Andrew Brooks
Environmental Program Manager
Federal Aviation Administration
Eastern Regional Office
1 Aviation Plaza
Jamaica, NY 11434

Dear Andrew,

The Office of Environment and Energy (AEE) has received the memo from ESA Airports dated July 16, 2015 regarding the LaGuardia Airport (LGA) Part 150 Study. The memo requests FAA review and approval of user-defined aircraft substitutions for 11 aircraft that do not have a direct Integrated Noise Model (INM) type or pre-approved FAA substitute defined in INM version 7.0d.

AEE has reviewed the request and concurs with the aircraft substitutions proposed by ESA – see Table 1 attached.

Please understand that this approval is limited to this Part 150 noise study for LGA airport. Any additional projects or non-standard aircraft input at LGA or any other airport will require separate approval.

Sincerely,

Rebecca Cointin, Manager
AEE/Noise Division

cc: Jim Byers, APP-400

Table 1 - Summary of AEE review of Aircraft Substitution for the LGA Part 150.

Group	Aircraft Code	Aircraft Model	ESA Recommended Substitution	AEE review
Jet	B736	Boeing 737-600	737700	Concur
Jet	B763	Boeing 767-300 / General Electric	767400	Concur
Jet	A319	Airbus 319-100 Series / General Electric	A320-211	Concur
Jet	B737	Boeing 737-700 / CFM56-7B26 Engines	737700	Concur
Jet	E45X	Embraer 145XR	EMB14L	Concur
Jet	G550	Gulfstream 550	GV	Concur
Jet	G450	Gulfstream 450	GIV	Concur
Jet	E55P	Embraer Phenom 300	CNA560E	Concur
Jet	H25B	Raytheon Hawker 800XP	LEAR35	Concur
Jet	H25C	Raytheon Hawker 900XP	LEAR35	Concur
Turboprop	DH8D	Bombardier Q400	DHC830	Concur

technical memorandum

date July 16, 2015

to Kelly Mitchell, Port Authority of New York and New Jersey

from Steve Alverson, ESA Airports

subject Proposed INM 7.0d Aircraft Type Substitutions

reference LaGuardia Airport 14 CFR Part 150 Study

ESA Airports is assisting the Port Authority of New York and New Jersey (Port Authority) with the preparation of a 14 CFR Part 150 Study for LaGuardia Airport (LGA). The 14 CFR Part 150 Study for LGA is being prepared with the Integrated Noise Model (INM), Version 7.0d. Upon evaluating the aircraft fleet mix at LGA¹, several commercial and general aviation aircraft were identified that do not have a direct INM type or pre-approved Federal Aviation Administration (FAA) substitute defined in the model. **Table 1** shows the 11 aircraft that do not have a pre-approved substitution in the INM for which we are proposing substitute aircraft. These aircraft currently operate at LGA and are anticipated to operate at LGA in 2021 which is the future-year scenario being evaluated in the 14 CFR Part 150 Study.

Table 1
Aircraft Types and Recommended INM Substitutions

Group	Aircraft Code	Aircraft Model	Recommended Substitution
Jet	B736	Boeing 737-600	737700
Jet	B763	Boeing 767-300 / General Electric	767400
Jet	A319	Airbus 319-100 Series / General Electric	A320-211
Jet	B737	Boeing 737-700 / CFM56-7B26 Engines	737700
Jet	E45X	Embraer 145XR	EMB14L
Jet	G550	Gulfstream 550	GV
Jet	G450	Gulfstream 450	GIV
Jet	E55P	Embraer Phenom 300	CNA560E
Jet	H25B	Raytheon Hawker 800XP	LEAR35
Jet	H25C	Raytheon Hawker 900XP	LEAR35
Turboprop	DH8D	Bombardier Q400	DHC830

¹ ESA Airports reviewed calendar year 2014 data from the Port Authority's Airport Noise and Operations Management System (ANOMS).

The following is a description of the aircraft listed in **Table 1** as well as a suitable substitution based on research of engine types, 14 CFR Part 36 published noise data, and performance characteristics for the FAA’s review and approval.

1. Boeing 737-600

The Boeing 736 or Boeing 737-600 is a version of the Boeing 737 series aircraft. Upon evaluation of the INM 7.0d Aircraft Database and Aircraft Substitutions lists, we identified the 737-500 and 737-700 as suitable candidates for an appropriate substitute aircraft. After reviewing the engine noise and airframe characteristics, we concluded the 737-700 to be a more appropriate substitute for the 737-600. Engine noise and airframe characteristics for the 737-500, 737-600 and 737-700 are presented in **Table 2** below.

Table 2
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Boeing	737-500	133,500	111,000	CFM56-3C1	20,000	86.0	88.6	97.3
Boeing	737-600	124,000	120,500	CFM56-7B20	20,600	81.9	91.3	95.5
Boeing	737-700	154,500	129,200	CFM56-7B24	24,200	85.9	93.0	95.9

Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/, Appendix 1
Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.

We propose to model the Boeing 737-600 operations with the INM type 737700 aircraft.

2. Boeing 767-300ER Aircraft Equipped with General Electric Engines

The Boeing 767-300ER is a version on the Boeing 767 aircraft. Upon evaluation of the INM 7.0d Aircraft Database and Substitutions lists, there is one INM model of aircraft to be utilized, the 767-300 that is equipped with Pratt & Whitney (PW) 4060 engines. After conducting research into the air carriers that utilize the 767-300ER aircraft at LGA, we determined that the operator utilizes a version that is equipped with GE CF6-80C2B6 engines.²

Although the INM 7.0d Aircraft Database Substitutions list identifies only one variant of the 767-300, the INM 7.0d Aircraft Database shows the 767-400 is equipped with GE CF6-80C2B(F) engines. The engine noise and airframe characteristics for the 767-300ER with GE CF6-80C2B6 engines, 767-300 with PW 4060 engines, and the 767-400 with GE CF6-80C2B(F) engines are shown in **Table 3** below.

² ESA Airports obtained airline fleet and engine type information from JP Fleets.

Table 3
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Boeing	767-300ER	407,000	320,000	CF6-80C2B6	61,500	91.1	96.3	98.4
Boeing	767-300	407,000	320,000	PW 4060	60,000	93.2	97.0	100.2
Boeing	767-400	450,000	340,000	CF6-80C2B(F)	63,500	91.2	96.8	98.7
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Boeing 767-300ER operations utilizing GE CF6-80C2B6 engines with the INM type 767400 aircraft equipped with GE CF6-80C2B(F) engines as they are comparable in performance and noise output.

3. Airbus 319-100 Series Aircraft Equipped with General Electric Engines

The Airbus 319-100 series (A319) aircraft operated at LGA during the base year of analysis. Upon evaluation of the INM 7.0d Aircraft Database and Substitutions lists, the A319-131 equipped with International Aero Engines (IAE) V2522-A5 is utilized for the A319. However, a review of the air carriers utilizing the A319 aircraft at LGA concluded that operators were utilizing variants of the A319 equipped with GE CFM56-5 series engines; the A319-112, and the A319-114.

In finding a suitable substitute for the A319 aircraft equipped with GE CFM56-5 series engines, two aircraft included in the INM 7.0d Aircraft Database were identified. The A319-131 is equipped with IAE V2522-A5 engines, and the A320-211 is equipped with GE CFM56-5A1 engines. Engine noise and airframe characteristics for the A319 variants described above and the A320-211 are shown in **Table 4** below.

Table 4
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Airbus	A319-112	168,650	137,790	CFM56-5B6	23,500	87.0	91.8	92.6
Airbus	A319-114	168,650	137,790	CFM56-5A5	23,500	87.4	93.5	94.6
Airbus	A319-131	158,730	149,910	V2522-A5	22,000	85.3	91.4	94.5
Airbus	A320-211	162,000	142,200	CFM56-5A1	25,000	87.8	94.3	96.4
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the A319-112 and the A319-114 operations with the INM type A320-211 aircraft as they are similar in performance and noise output.

4. Boeing 737-700 Aircraft Equipped with General Electric CFM56-7B26 Engines

The Boeing 737-700 aircraft can be equipped with a variety of engine types. Through research, we found the predominant engine type used on the 737-700 aircraft that operate at LGA is the GE CFM56-7B26. The INM 7.0d Aircraft Database includes a 737-700 equipped with GE CFM56-7B24 engines. The Database also includes the 737-800 with GE CFM56-7B26 engines – the same engines used by a number of carriers on their 737-700 aircraft that operate at LGA.

Because there is a mix of aircraft/engine combinations included in the INM 7.0d Aircraft Database, we investigated which aircraft/engine best represents the 737-700 with the GE CFM56-7B26 engines. **Table 5** includes the airframe characteristics and certified noise levels for three aircraft types/engine combinations.

Table 5
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Boeing	737-700	153,000	129,200	CFM56-7B26	26,300	84.6	94.7	95.9
Boeing	737-700	154,500	129,200	CFM56-7B24	24,000	85.9	93.0	95.9
Boeing	737-800	174,200	146,300	CFM56-7B26	26,300	86.7	93.1	96.8
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Boeing 737-700 operations utilizing CFM56-7B26 engines with the INM type 737700 aircraft.

5. Embraer 145XR

The Embraer 145XR is an enhanced version of the Embraer 145LR featuring a longer range and is powered by two Allison/Rolls-Royce AE3007-A1E engines rated at 7,950 lbs at takeoff thrust.³ The certified noise level data for the Embraer 145XR and the Embraer 145LR are shown in **Table 6** below.

Table 6
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Embraer	145XR	53,131	44,092	AE3007-A1E	7,950	80.1	85.0	92.5
Embraer	145LR	48,500	42,540	AE3007-A1	7,580	79.4	84.6	92.5
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1; www.embraercommercialaviation.com/Pages/ERJ-145XR.asp Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Embraer 145XR operations with the INM type EMB14L aircraft.

³ www.embraercommercialaviation.com/Pages/ERJ-145XR.asp

6. Gulfstream G550

The Gulfstream G550 (GV-SP) is a variant of the Gulfstream GV aircraft featuring a longer range and is powered by two Rolls-Royce (RR) BR 710 C4-11 engines rated at 15,385 lbs at takeoff thrust.⁴ The certified noise level data for the G550 was obtained from the FAA approved GV-SP Airplane Flight Manual and are shown in **Table 7** below.

Table 7
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Gulfstream	G550	91,000	75,300	BR 710 C4-11	15,385	79.3	90.2	90.8
Gulfstream	V	90,500	75,300	BR 700-710A1	14,700	80.3	89.1	90.8
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1; FAA Approved GV-SP Airplane Flight Manual, Appendix D Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Gulfstream G550 operations with the INM type GV aircraft.

7. Gulfstream G450

The Gulfstream G450 is a successor to the Gulfstream GIV-SP aircraft featuring a longer range and is powered by two RR TAY MK 611-6C engines rated at 13,850 lbs at takeoff thrust.⁵ The certified noise level data for the G450 was obtained from Gulfstream Aerospace Corporation's Manufacturer Noise Data Sheet for the G450 and are shown in **Table 8** below.

Table 8
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Gulfstream	G450	74,600	66,000	TAY 611-8C	13,850	76.2	89.5	92.3
Gulfstream	IV	74,600	66,000	TAY 611-8	13,850	77.5	86.6	92.0
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1; Gulfstream Aerospace Corporation Manufacturer Noise Data Sheet, Gulfstream G450 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Gulfstream G450 operations with the INM type GIV aircraft.

⁴ www.gulfstream.com/aircraft/gulfstream-g550

⁵ www.gulfstream.com/aircraft/gulfstream-g450

8. Embraer Phenom 300

The Phenom 300 is light jet aircraft that serves the corporate jet market. The Phenom 300 has a MTOW of 17,968 lbs and is powered by two Pratt and Whitney Canada PW535E engines rated at 3,360 lbs at takeoff thrust.⁶ Through research, we found that the aircraft most closely matches the Cessna Citation Encore aircraft. Engine noise and airframe characteristics for both aircraft are shown in **Table 9**.

Table 9
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Embraer	Phenom 300	17,968	16,865	PW535E	3,360	69.9	88.8	88.5
Cessna	560 Encore	16,630	15,200	PW535A	2,900	70.3	89.9	90.5
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1; FAA Flight Standardization Board Report on the EMB-505, Revision 3, 06/26/2013 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Embraer Phenom 300 operations with the INM type CNA560E aircraft.

9. Raytheon Hawker 800XP and 900XP

The Raytheon Hawker 800XP (H25B) is a mid-size business jet developed from the British Aerospace (BAe) 125-800 aircraft. The 800XP features a MTOW of 28,000 lbs. and is equipped with two Honeywell TFE731-5BR engines rated at 4,660 lbs at takeoff thrust.⁷ The Raytheon Hawker 900XP (H25C) is a newer version of the 800XP utilizing the same airframe and is equipped with two Honeywell TFE731-50R engines rated at 4,660 lbs at takeoff thrust.⁸ Since the INM 7.0d Aircraft Substitutions list includes the LEAR35 as the substitute aircraft for the Raytheon Hawker 800, we determined that the 800XP and 900XP can be substituted by the INM type LEAR35 aircraft due to the similar aircraft characteristics shown in **Table 10** below.

Table 10
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Raytheon	Hawker 125-800	27,400	23,350	TFE731-5R-1H	4,300	80.9	87.2	96.5
Raytheon	Hawker 125-800XP	28,000	23,350	TFE731-5BR	4,660	79.3	87.1	93.3
Raytheon	Hawker 125-900XP	28,000	23,350	TFE731-50R	4,660	76.7	86.6	94.9
Learjet	35	18,000	14,300	TFE731-2-2B	3,500	84.5	87.9	92.2
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1; Hawker Beechcraft Corporation, FAA Approved Airplane Flight Manuals - Hawker 800XP and 900XP Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Hawker 800XP and Hawker 900XP operations with the INM type LEAR35 aircraft.

⁶ www.embraerexecutivejets.com/en-us/jets/phenom-300/pages/performance.aspx

⁷ www.legacyaviationgroup.com/PDF/hawker_800xp_specs.pdf

⁸ www.corporatejet.com/documents/Hawker900XPReport.pdf

10. Bombardier Q400

The Bombardier Q400 is the most recent in the line of the de Havilland Dash 8 series of aircraft. Bombardier is currently producing the Q-series of these aircraft. The Q400 has a MTOW of 65,200 lbs and is powered by two PW105A turboprop engines. Engine noise and airframe characteristics for the Q400 are shown in **Table 11**.

Table 11
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	SHP	Takeoff	Side-Line	Approach
Bombardier	Q400	65,200	62,000	PW150A	5,070	78.6	84.0	93.1
Bombardier	Dash 8-300	43,000	42,000	PW123	2,142	80.0	86.8	93.3
<small>Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/, Appendix 6 Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight; SHP – Shaft Horsepower</small>								

We propose to model the Bombardier Q400 operations with the INM type DHC830 aircraft.

We are requesting that the Port Authority forward this technical memorandum to Andrew Brooks, Environmental Program Manager, in FAA's Eastern Region, so that the FAA can approve these recommended INM 7.0d substitutes, or provide FAA recommended substitutes for each of the aircraft types for use in the 14 CFR Part 150 Study for LGA.

We appreciate your assistance in this matter.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of Environment and Energy

800 Independence Ave., S.W.
Washington, D.C. 20591

Date: March 15, 2016

Andrew Brooks
Environmental Program Manager
Federal Aviation Administration
Eastern Regional Office
1 Aviation Plaza
Jamaica, NY 11434

Dear Andrew,

The Office of Environment and Energy (AEE) has reviewed the technical memorandum from ESA Airports dated February 11, 2016 requesting approval of modeling two additional aircraft types that do not have Integrated Noise Model (INM) standard substitutions. This request is to evaluate noise in support of the LaGuardia Airport (LGA) Part 150 Study.

ESA Airports is assisting the Port Authority of New York and New Jersey with the preparation of the Part 150 Study for LGA using INM, Version 7.0d. ESA identified two additional aircraft types that do not have INM standard substitutions. The list of those aircraft is displayed in the table below along with AEE's recommendations.

Aircraft	ESA Proposed Substitution	AEE Recommendation
Airbus 320neo	A320-232	Concur
Airbus 321neo	A321-232	Concur

Please understand that this approval is limited to this particular project for LGA. Any additional projects or non-standard INM input at LGA or any other airport will require separate approval.

Sincerely,

Rebecca Cointin, Manager
AEE/Noise Division

cc: Jim Byers, APP-400

technical memorandum

date February 11, 2016

to Kelly Mitchell, Port Authority of New York and New Jersey

from Steve Alverson and Mike Alberts (KBE)

subject Additional Proposed INM 7.0d Aircraft Type Substitutions

reference LaGuardia Airport 14 CFR Part 150 Study

ESA Airports is assisting the Port Authority of New York and New Jersey (Port Authority) with the preparation of a 14 CFR Part 150 Study for LaGuardia Airport (LGA). The 14 CFR Part 150 Study for LGA is being prepared with the Integrated Noise Model (INM), Version 7.0d. Upon evaluating the forecast aircraft fleet mix at LGA¹, two commercial aircraft were identified that do not have a direct INM type or pre-approved Federal Aviation Administration (FAA) substitute defined in the model. One aircraft substitution has previously been approved by the FAA's Office of Environment and Energy in prior 14 CFR Part 150 studies as shown in **Table 1** on the next page. However, there is one additional aircraft that does not have a pre-approved substitution in the INM for which we are proposing a substitute aircraft. These aircraft are anticipated to operate at LGA in 2016 and 2021, which are the existing and future-year scenarios, respectively, being evaluated in the 14 CFR Part 150 Study.

The following is a description of the aircraft listed in Table 1 as well as a suitable substitute based on research of engine types, 14 CFR Part 36 published noise data, and performance characteristics for the FAA's review and approval.

¹ ESA Airports reviewed forecast data provided by the Port Authority and Landrum & Brown.

Table 1
Aircraft Types and Recommended INM Substitutions

Group	Aircraft Code	Aircraft Model	Previously Approved Substitution	Recommended Substitution
Jet	A320neo	Airbus 320neo	A320-232	A320-232
Jet	A321neo	Airbus 321neo	None	A321-232

1. Airbus 320 New Engine Option

The Airbus 320 New Engine Option (A320neo) is a version of the Airbus 320 family that provides a maximum benefit to air carriers with two new jet engine choices, the CFM International's LEAP-1A, and the Pratt & Whitney (PW) 1100G PurePower engines. Both engines advertise meeting ICAO's Chapter 14 noise standards. Upon evaluation of the INM aircraft database and substitutions lists, we've determined that the A320-232 is the most suitable substitute INM aircraft. The engine noise and airframe characteristics are shown in **Table 2** below.

Table 2
FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Airbus	A320-217n	174,137	148,591	PW1127G-JM	N/A	N/A	87.1	92.2
Airbus	A320-232	171,960	145,510	IAE V2500	26,500	84.9	91.3	94.4
Source: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/aircraft_noise_levels/ , Appendix 1 https://easa.europa.eu/document-library/noise-type-certificates-approved-noise-levels Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Airbus A320neo with the INM type A320-232.

2. Airbus 321 New Engine Option

The Airbus 321 New Engine Option (A321neo) is a new addition to Airbus' A320neo family, which features the longest fuselage as well as greater capacity, range, and payload capabilities. The Airbus 321neo will provide the maximum benefit to air carriers by incorporating the same new engine options, CFM International's LEAP-1A, and the PW 1100G PurePower engines. Both engines advertise meeting ICAO's Chapter 14 noise standards; however, our research determined that there is no certified noise information readily available to determine the best suitable substitute INM aircraft for the A321neo.² Therefore, we propose conservatively substituting the A321neo with the Airbus 321-232 with IAE V2530-A5 engines as shown in the certification table below.

Table 3

² <http://www.airbus.com/aircraftfamilies/passengeraircraft/a320family/spotlight-on-a320neo/>

FAA Noise Certification Data

Aircraft Data						Noise (EPNdB)		
Manufacturer	Aircraft Model	MTOW (lbs)	MLW (lbs)	Engine Type	Thrust (lbs)	Takeoff	Side-Line	Approach
Airbus	A321-232	196,211	166,448	IAE V2530-A5	N/A	N/A	94.1	95.5
Source: https://easa.europa.eu/document-library/noise-type-certificates-approved-noise-levels Note: MTOW = Maximum Takeoff Weight; MLW = Maximum Landing Weight.								

We propose to model the Airbus A321neo aircraft with the INM type A321-232.

We are requesting that Port Authority forward this technical memorandum to Andrew Brooks, Environmental Program Manager, in the FAA's Eastern Region, so that the FAA can approve these recommended INM 7.0d substitutes, or provide FAA recommended substitutes for each of the aircraft types for use in the 14 CFR Part 150 Study for LGA.

We appreciate your assistance in this matter.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of Environment and Energy

800 Independence Ave., S.W.
Washington, D.C. 20591

June 13, 2016

Andrew Brooks
Environmental Program Manager
Federal Aviation Administration
Eastern Regional Office
1 Aviation Plaza
Jamaica, NY 11434

Dear Andrew,

The Office of Environment and Energy (AEE) has reviewed the proposed non-standard Integrated Noise Model (INM) user-defined departure and arrival profiles for the Part 150 studies being prepared for John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA).

ESA Airports is assisting the Port Authority of New York and New Jersey in preparing the JFK and LGA Part 150 studies using the most current release of the INM; i.e., Version 7.0d. The ESA Study Team has determined that some level of customization of arrival and departure profiles will be required based on a review of arrival and departure flight track data contained in the Port Authority's Airport Noise and Operations Management System (ANOMS). ESA provided a draft memorandum dated February 9, 2016 for review by the FAA Office of Environment and Energy (AEE) describing the approach ESA took to develop the user-defined arrival and departure profiles.

AEE reviewed the memorandum and had comments and questions regarding the method for developing the user-defined profiles that needed to be addressed before AEE could approve the user-defined profiles. AEE also required that ESA provide concurrence from the aircraft operators that the user-defined profiles were within reasonable bounds of the aircraft's performance at JFK and LGA.

ESA provided a revised memorandum on June 10, 2016 addressing the concerns raised by AEE and providing the additional information requested by AEE including concurrence from aircraft operators on the reasonableness of the user-defined profiles. AEE has reviewed the revised memorandum and concurs that the issues raised by AEE have been addressed and all additional required documentation has been submitted.

AEE approves the use of the user-defined profiles described in the June 10 profile request memorandum from ESA for JFK and LGA. Please understand that this approval is limited

to this particular Part 150 for JFK and LGA. Any additional projects or non-standard INM input at JFK and LGA or any other site will require separate approval.

Sincerely,

A handwritten signature in cursive script, reading "Rebecca Cointin".

Rebecca Cointin, Manager
AEE/Noise Division

cc: Jim Byers, APP-400
Timothy Middleton, Port Authority of New York and New Jersey
Ed Knoesel, Port Authority of New York and New Jersey
Adeel Yousuf, Port Authority of New York and New Jersey

APPENDIX G-2

Airline Consultation

memorandum

date May 16, 2016

to Captain Robert Kircher, Jetblue Airways

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including Jetblue Airways, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by Jetblue Airways and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

Table 1		
User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
Jetblue Airways	A320	A320-232

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by Jetblue Airways in the 14 CFR Part 150 Noise Exposure Map Report.

Jetblue Airways reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. Jetblue Airways confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.

Kircher, Robert

Digitally signed by Kircher, Robert
 DN: dc=com, dc=jetblue, ou=New AD Structure,
 ou=Accounts, ou=Users, ou=Pilots, cn=Kircher,
 Robert, email=Robert.Kircher@jetblue.com
 Date: 2016.05.18 17:07:53 -04'00'

Name and Title

5/18/2016
 Date

memorandum

date May 16, 2016

to Chris McCabe, Sky Regional Airlines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including Sky Regional Airlines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by Sky Regional Airlines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

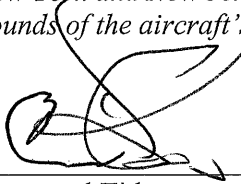
Table 1		
User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
Sky Regional Airlines	E175	EMB175

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by Sky Regional Airlines in the 14 CFR Part 150 Noise Exposure Map Report.

Sky Regional Airlines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. Sky Regional Airlines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.



C. McCabe

Name and Title

18 May 2016

Date

memorandum

date May 16, 2016

to Julia Lundrigan, Delta Air Lines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including Delta Air Lines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by Delta Air Lines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

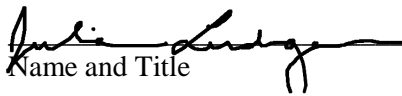
Table 1 User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
Delta Air Lines	A320	A320-232
	B717	717200
	B738	737800
	MD88	MD83
	E170 (Shuttle America)	EMB170

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by Delta Air Lines in the 14 CFR Part 150 Noise Exposure Map Report.

Delta Air Lines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. Delta Air Lines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.

 Engineer - Performance Engineering
Name and Title

05/23/2016
Date

memorandum

date May 16, 2016

to Michael Byham, American Airlines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including American Airlines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by American Airlines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

Table 1 User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
American Airlines	B738	737800
	E190	EMB190

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by American Airlines in the 14 CFR Part 150 Noise Exposure Map Report.

American Airlines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. American Airlines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.



Name and Title

Michael Byham Director Operations Engineering

5/26/16

Date

memorandum

date May 16, 2016

to Captain Michael Braun, GoJet Airlines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including GoJet Airlines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by GoJet Airlines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.


Table 1 User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
GoJet Airlines	CRJ7	CRJ9-ER

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by GoJet Airlines in the 14 CFR Part 150 Noise Exposure Map Report.

GoJet Airlines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. GoJet Airlines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.

 for Brad Sargeant, Chief Pilot
Name and Title

5/26/16
Date

memorandum

date May 16, 2016

to Michael Brask, United Airlines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including United Airlines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by United Airlines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

Table 1		
User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
United Airlines	B738	737800

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by United Airlines in the 14 CFR Part 150 Noise Exposure Map Report.

United Airlines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. United Airlines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance at LaGuardia Airport.

Michael Brask, Engineer
Name and Title

May 26, 2016
Date

memorandum

date May 16, 2016

to Matthew Vigen, Southwest Airlines

from Steve Alverson and Adrian Jones

subject User-defined profiles - 14 CFR Part 150 Study for LaGuardia Airport

The ESA Study Team is using the Federal Aviation Administration's Integrated Noise Model (INM) for all aircraft noise modeling conducted in support of the LaGuardia Airport (LGA) 14 CFR Part 150 Study. The INM contains a standard set of arrival and departure profiles for each of the aircraft types included in the model's database. Consistent with FAA policies and procedures, any changes to the standard INM arrival and departure profiles require prior written approval from the Office of Environment and Energy Noise Division (AEE-100). This requirement applies to the use of User-defined profiles in the noise modeling conducted for the LGA 14 CFR Part 150 Study.

Based on a review of one year of radar data from the Port Authority of New York and New Jersey's (Port Authority's) Airport Noise and Operations Management System (ANOMS) and information provided by several airlines that operate at LGA including Southwest Airlines, the ESA Study Team has determined that actual procedures flown at LGA by the aircraft listed below in **Table 1** do not match the standard profiles in the INM. Attached are a series of charts for the same aircraft types that compare the INM standard arrival and departure profiles to (1) actual radar data from the Port Authority's ANOMS and (2) user-defined arrival and departure profiles developed by the ESA Study Team. The User-defined arrival and departure profiles were developed using the ANOMS data and information provided by Southwest Airlines and other airlines that operate at LGA. For each aircraft type we have attached three charts: Altitude vs. Distance, Speed vs. Distance, and Thrust vs. Distance.

Table 1		
User-Defined Profiles Analysis - LaGuardia Airport		
Airline Name	Aircraft Type	INM Aircraft Type
Southwest Airlines	B737	737700

AEE-100 personnel have reviewed the User-defined profiles developed by the Port Authority and the ESA Study Team and have instructed us to obtain written concurrence from aircraft operators at LGA that the User-defined profiles that have been developed fall within the reasonable bounds of the aircraft's performance at the airport.

Before we seek final approval of these User-defined profiles from AEE-100, we request that you sign the statement below confirming that you have reviewed the attached arrival and departure profile charts for each aircraft type and that the User-defined profiles fall within the reasonable bounds of the aircraft's performance at LGA. Please forward the signed page to: salverson@esassoc.com or ajones@esassoc.com by May 27, 2016.

The Port Authority appreciates the time you took to review the ANOMS profiles data for LGA, complete the aircraft profile survey form(s), and to sign the memorandum that was sent to you earlier this month. Signing this memorandum is the final step in the process. The Port Authority will not be publishing the data provided by Southwest Airlines in the 14 CFR Part 150 Noise Exposure Map Report.

Southwest Airlines reviewed aircraft profile data for operations at LaGuardia Airport for the aircraft types listed in Table 1. Southwest Airlines confirms that the User-defined profiles developed by the Port Authority of New York and New Jersey and the ESA Study Team for each aircraft listed in Table 1 fall within the reasonable bounds of the aircraft's performance as established by the aircraft manufacturer at LaGuardia Airport.



Rich Teilborg
Manager ATC Systems
Flight Operations
Southwest Airlines
469-603-0775
rich.teilborg@wnco.com

Date 6/1/2016

APPENDIX G-3

Elected Official Consultation



EDWARD C. BRAUNSTEIN
Assemblyman 26TH District
Queens County

THE ASSEMBLY
STATE OF NEW YORK
ALBANY

CHAIRMAN
Subcommittee on Trust and Estates

COMMITTEES
Aging
Cities
Insurance
Judiciary
Small Business
Transportation

December 17, 2014

BY FAX, MAIL & EMAIL

Hon. Patrick J. Foye, Executive Director
Port Authority of New York and New Jersey
Corporate Offices
225 Park Avenue South
New York, NY 10003

Dear Executive Director Foye:

I am writing on behalf of my many, many constituents who are deeply concerned about the negative impact of noise created by airplane flights from both LaGuardia and JFK Airports. But because they also know that significant improvements are possible, community leaders in my district have been actively involved in educating the general public about the benefits of the Part 150 Noise Compatibility Planning Studies currently underway.

I have three requests of the Port Authority:

1. I request a complete electronic or paper copy of the ESA proposal to perform the Part 150 Studies at JFK and LaGuardia, including work plans from ESA's six subcontractors who have been hired to perform portions of the studies.
2. What is the Port Authority's plan for eliciting, what is expected to be significant, community input, and incorporating all of it, including serious requests for noise abatement flight procedures, into the noise studies? Along those lines, I suggest that the JFK and LGA Noise Compatibility Programs include recommendations for new noise reduction flight procedures as a parallel effort in conjunction with new NextGen flight procedures being prepared by the FAA in the same timeframe. It would seem counterproductive to complete the Part 150 Noise Compatibility Program and its recommendations without considering and coordinating all possible and known flight changes.
3. I understand that Steve Alverson of ESA is the Part 150 project leader for the Port Authority, and that, according to my constituents, he comes highly recommended. I request that Mr. Alverson come to NYC to meet with elected officials and other community leaders in January.

Thank you for your time and attention to this matter. I look forward to your response.

Sincerely,

Edward C. Braunstein
Member of Assembly

THE PORT AUTHORITY OF NY & NJ

Thomas L. Bosco
Director

January 28, 2015

The Honorable Edward C. Braunstein
The Assembly State of New York
Assemblyman, 26th District
213-33 39th Avenue, Suite 238
Bayside, New York 11361

Dear Assemblyman Braunstein:

Thank you for your letter addressed to Executive Director Foye dated December 18, 2014, in which you express the concern of your constituents about on-going Part 150 Noise Compatibility Studies for John F. Kennedy (JFK) and LaGuardia (LGA) airports. In response to aircraft noise concerns in certain communities in the New York/New Jersey region, including those voiced by your constituents, we have recently launched a comprehensive effort to commence Part 150 Studies, establish aviation community roundtables, and create a dedicated Port Authority Aircraft Noise Office. These efforts are in addition to previous initiatives that implemented enhanced web-based flight tracking software and a noise-complaint system, as well as the purchase and installation of new noise monitors throughout the region.

With respect to the Part 150 studies, please be assured there will be abundant opportunity for public input. Steve Alverson of Environmental Science Associates (ESA) is the project director for the Part 150 Studies for JFK and LGA. He is expected to participate in the next airport roundtable meeting in order to address the progress of the studies, in addition to the process involved, scheduling, and any questions raised by the roundtable members and other members of the public. We believe that the roundtable will provide an excellent opportunity for public input as Mr. Alverson will be an integral part of this process.

The Part 150 Studies will certainly consider efforts under development by the FAA. ESA will prepare a base year noise exposure map (NEM) as well as a future NEM for five years out. For the future NEM, ESA in close consultation with the FAA will incorporate future flight procedures to be implemented by the FAA within the five year time window. Any proposed noise abatement procedures found to be safe and efficient by the FAA and Technical Advisory Committee for the Part 150 Studies will be evaluated under the Noise Compatibility Plan (NCP) phase of the study and submitted to the FAA for consideration in the final Part 150 NCP report. As you are aware, the FAA is responsible for controlling aircraft in the national airspace and will likely approve only those noise abatement procedures that are safe, do not increase air traffic delays, and do not simply shift noise from one community to another.

Please contact Ed Knoesel at (212) 435-747 should you need more information or clarification on responses provided above.

Sincerely,



Thomas L. Bosco
Director, Aviation Department

4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10006
T: 212 435 3720 F: 212 435 3833
tbosco@panynj.gov

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

February 5, 2015

The Honorable Edward C. Braunstein
The Assembly, State of New York
Assemblyman, 26th District
213-33 39th Avenue, Suite 238
Bayside, New York 11361

Re: Freedom of Information Reference No. 15765

Dear Assemblyman Braunstein:

This is in response to your December 17, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy enclosed) for "a complete copy of the ESA proposal to perform the Part 150 Studies at JFK and Laguardia, including work plans from ESA's six subcontractors who have been hired to perform portions of the studies."

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/15765-C.pdf>. Paper copies of the available records are available upon request.

Pursuant to the Code, certain portions of the material responsive to your request are exempt from disclosure as, among other classifications, personal privacy.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,



Daniel D. Duffy
FOI Administrator

Enclosure

4 World Trade Center, 18th Floor
150 Greenwich Street
New York, NY 10006
T: 212 435 3642 F: 212 435 7555

THE SENATE
STATE OF NEW YORK



TONY AVELLA
SENATOR, 11TH DISTRICT

ASSISTANT CONFERENCE LEADER
FOR POLICY & ADMINISTRATION OF THE
INDEPENDENT DEMOCRATIC CONFERENCE

CHAIR
ETHICS
VICE-CHAIR
ENVIRONMENTAL CONSERVATION
COMMITTEES
BANKS
CULTURAL AFFAIRS & TOURISM,
PARKS & RECREATION
EDUCATION
ELECTIONS
HOUSING
INSURANCE
JUDICIARY
TRANSPORTATION
NYC EDUCATION SUBCOMMITTEE
LIBRARIES SELECT COMMITTEE

ALBANY OFFICE: ☐
ROOM 902, LOB
ALBANY, NEW YORK 12247
(518) 455-2210 OFFICE
(518) 426-6736 FAX

DISTRICT OFFICE: ☐
38-50 BELL BOULEVARD
SUITE C
BAYSIDE, NEW YORK 11361
(718) 357-3094 OFFICE
(718) 357-3491 FAX

INTERNET ADDRESS:
AVELLA@NYSENATE.GOV

August 4, 2015

BY FAX & MAIL

IMMEDIATE ATTENTION REQUIRED

Mr. Patrick Foye
Executive Director
Port Authority of New York and New Jersey
225 Park Avenue South, 9th Floor
New York, NY 10003

Dear Executive Director Foye:

I am writing to you to ask that my comments below be considered by the Part 150 Technical Advisory Committee (TAC) and made a permanent part of the record of the committee's meeting.

As you know, this has been an extremely important issue for my constituents for more than 4 years and while I am pleased that the TAC has been formed, I am concerned that significant issues being raised by members of the New York Airports Community Roundtable ("Roundtable") and TAC members are not being given the consideration they deserve. As a result, I am restating those concerns and ask that you ensure they are fully and thoughtfully considered by the Port Authority during its preparation for the Part 150 study.

First and foremost, data accuracy must be the paramount focus of the Part 150 study. It is essential that flight track data being used for the production of the Noise Exposure Map (NEM) is accurate and up to date, or the noise mitigation plan will be ineffectual. I have been advised that during the first meeting of the LaGuardia TAC members were told that data is currently being collected for the production of the FAR PART 150 NEM and that data will be collected and processed quickly and will result in the formation of a draft NEM in a few months.

Following this initial meeting, Roundtable representative and TAC member Brian Will consulted with an independent Part 150 expert who voiced serious concerns about how the data is being acquired and how it will be used for the study. His concerns were based on a recently released proposal submitted by ESA. I have been told that only areas within 65 DNL on the NEM will be used to recommend noise abatement procedures within the noise mitigation plan (NMP). The map will go out to 55 DNL, but only as a courtesy to the Roundtable which asked for it. The 55 DNL contour will not be used for

recommendations on noise mitigation. If the NEM is inaccurate or the 65 DNL noise contour is reduced through poor modeling, there is great concern that the NMP will be ineffectual.

It is critical at this point in time, while flight track data is being gathered and processed, that the Roundtable and TAC have the ability to view the data that is being collected and they should not have to wait until the draft NEM is produced.

Below is a set of requests for access to documents/information and questions that have been put forth by members of the Roundtable and TAC that I believe should be granted and responded to as soon as possible and certainly prior to commencement of the Part 150 Study:

1. Acquire the "Schedule D" paperwork from the Port Authority. The "Schedule D" lists all the costs and fees associated with the study. An itemized list of contractors, their specific work plan, and their fees for this work is listed on the Schedule D. The Port Authority has likely collected the Schedule D or similar list, but we have not seen it. The Schedule D will provide an idea of what data ESA is prioritizing for this study.
2. Acquire a list that itemizes the scope of each subcontractors work. A noise exposure map that isn't accurate will lead to a poor noise mitigation plan (or a nonexistent mitigation plan). We need to know the specific tasks of each subcontractor. We need an itemized work plan of each contractor. We cannot rely on outdated and inaccurate flight track data from the Central Terminal Building study some other outdated data source.
3. Demand visibility into data that is being used for the Noise Exposure Map (NEM). This must be done *before* the draft NEM is prepared. By then it will be too late. We have access to independent and respected consultants that can help to interpret and review any data that we don't understand, but we are requesting the raw data on flight tracks and utilization rates *immediately*. Even a cursory review of flight track data and utilization rates could be extremely beneficial.
4. Additional questions for the Port and ESA, based on the accepted ESA proposal:
 - a. Will flight track data from the Central Terminal Building study be used in any way for the Part 150? Will any data used in Part 150 modeling process be acquired from any previous studies? Which ones?
 - b. How will ANOMS be used in the INM modeling?
 - c. How will ESA assess LaGuardia capacity for the study and for the 5 year advance projection? What will they base the capacity assumptions on? The FAA maintains that it will meet passenger demand with larger aircraft, without adjusting slot limits. Is this feasible?
 - d. NextGen was not mentioned once in the ESA study proposal. Why not?
 - e. How will the study account for RECAT? (The "Recategorization of Wake Turbulence Separations", or RECAT, drastically reduces separations between two aircraft on the same route). Will RECAT end hourly slot limits at LaGuardia? What effect will this have on the LGA capacity projection? Currently LGA has an hourly cap of 71 scheduled flights per hour.
 - f. With regard to the 5 year projection, will ESA account for runway enhancements at both airports, and the constricting effect that these enhancements will have on airspace flows? For

example, the extension of runway 22R at JFK will make use of the LGA noise abatement route “Whitestone Climb” nearly impossible. Without any other option LGA will increasingly resort to TNNIS. Will this be included in the projection? Will the Whitestone Climb be converted into an RNAV?

- g. How will ESA account for non-essential use of TNNIS? We are increasingly aware of the TNNIS route being used for purposes of “operational efficiency”, even when there is no airspace conflict that would preclude the use a noise abatement route like the Whitestone, Coney or Maspeth Climbs. Given the increasing demand for air travel and likely end of slot limits of LGA, how will TNNIS overuse be factored into the NEM and future projection? (Note: TNNIS was approved under CATEX 1 for usage at 18% of the time, and is now likely double that rate.)
- h. There are several ongoing ARC 77 initiatives. One was the subject of a recent letter from Senator Charles Schumer to the FAA. The initiative concerns a transition from the EXPWY Visual 31 approach to the Localizer 31 approach. It is being considered to establish more efficient sequencing of planes into runway 31. This initiative implies that Localizer 31 will become the standard entry arrival route into runway 31, and could replace EXPWY 31. How will this change be included in the 5 year projection? (Note: EXPWY Visual 31 utilizes Flushing Meadows for noise abatement while LOC31 is a low altitude route affecting thousands of residents in Flushing, Auburndale, Fresh Meadows, Hollis Hills and Queens Village)
- i. Will “Continuous Decent Approach” become a part of LGA’s standard operating procedure and how will this affect the projection for the Jackson Heights and Woodside noise contours?
- j. Flushing and Jackson Heights feature a great deal of housing in which homes have been subdivided into multiple units. Occupants of many of these subdivisions were likely overlooked in the 2010 census. When assessing census tract data within 65 DNL, will the study try to incorporate the true residency rates of subdivided buildings within the 65 DNL contour? (The CUNY Center for Urban Studies assessed the population of downtown Flushing was much higher than what was represented in 2010 census.)
- k. Please provide all information on flight track and utilization of the TNNIS route. We would like to know every aspect of the process that was used to determine its track and utilization rate. Please also provide methodology in which the projected use of TNNIS was determined.
- l. LGA puts its arrivals into the wind, but it JFK very often does not. It has been well documented that JFK will “force” the landings into the 22’s, regardless of wind direction. This occurs now on a regular basis, as I said, regardless of wind direction. Will wind guidelines be relaxed at LGA as well? How will this be incorporated into the projection?
- m. There are 77 airspace initiatives listed in ARC 77. Some have been completed, some cancelled, but most are still ongoing. Along with the continuing Airspace Redesign, NextGen, RECAT and any number of unpublicized initiatives that could be implemented, how ill ESA assure accuracy in its 5 year projection? The scope and magnitude of these many changes, happening all at once, must be accounted for. *This is a general question, but we are asking for a specific answer.*

I appreciate your attention to this matter.

Sincerely,



Tony Avella
State Senator
11th Senatorial District

TA/ras

Cc: Ed Knoesel, Manager, Aviation Environmental Programs, PANYNJ **(BY HAND DELIVERY)**
Brian F. Will, LaGuardia Community Aviation Roundtable/Technical Advisory Committee



U.S. House of Representatives New York State Legislature New York City Council

October 27, 2015

Patrick Foye
Executive Director
Port Authority of New York & New Jersey
225 Park Avenue South, 15th Floor
New York, NY 10003

Dear Mr. Foye,

Over the past few months, the Port Authority has conducted needed construction on the runways at LaGuardia Airport in order to maintain their quality and safety. However, it has come to our attention that much of this work, which causes air traffic to be diverted over communities surrounding the airport, is conducted on weekends in the early morning and late at night. On behalf of the many Queens residents affected by this peak in noise, we ask that the Port Authority adjust the hours during which construction takes place on weekends.

We appreciate the investment the Port Authority is making into improving LaGuardia Airport and understand how important it is to conduct work on the airport's runways. We are also aware that air traffic demands impose restrictions on when this construction can be conducted. That said, it is important to note that weekend nights and early mornings are the times with the greatest impact on the residents of communities in the path of diverted air traffic. As you can imagine, the last thing hard-working families need is to be awoken from their sleep on their days off.

Members of the communities affected by this increased noise would greatly appreciate if the Port Authority could refrain from closing runways during the early-morning and late-night hours on weekends. While we understand the work must be completed in a timely manner, we hope the Port Authority can find alternate times that would be less disruptive to residents. Thank you for your attention to this matter and we look forward to your response.

Sincerely,

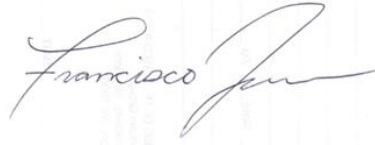
Joseph Crowley
Member of Congress, 14th District

Jose Peralta
New York State Senator, 13th District

Patrick Foye
October 27, 2015
Page 2

A handwritten signature in cursive script, reading "Michael DenDekker".

Michael DenDekker
New York State Assembly, 34th District

A handwritten signature in cursive script, reading "Francisco Moya".

Francisco Moya
New York State Assembly, 39th District

A handwritten signature in cursive script, reading "Daniel Dromm".

Daniel Dromm
NYC Council Member, 25th District

November 30, 2015

THE PORT AUTHORITY OF NY & NJPatrick J. Foye
*Executive Director*The Honorable Joseph Crowley
United States House of Representatives
1436 Longworth House Office Building
Washington, D.C. 20515

Dear Representative Crowley:

Thank you for your recent letter regarding the impact of recent airport runway safety project construction on air traffic patterns over the communities around LaGuardia Airport. The Port Authority understands the neighboring communities' concerns regarding aircraft noise. We will continue to encourage the FAA, which is responsible for flight patterns, to identify ones that reduce and more equitably distribute aircraft operations on neighboring communities. Additionally, when possible, we will phase our runway construction activities to minimize these flight pattern impacts.

The FAA is limited to a small number of aircraft arrival/departure configurations when one of the two runways is taken out of service for construction at LaGuardia Airport. In addition, because of flight schedules, the Port Authority cannot typically plan major construction outside of limited windows on nights and weekends when there is less aircraft activity. This results in the impacts noted in your letter. The paving and milling of Runway 13-31 is scheduled for completion in December 2015. Please note in Second Quarter 2016 there will be a limited handful of weekend closures for the rehabilitation of the associated taxiways.

To identify appropriate mitigation measures and provide information to our community stakeholders, the Port Authority regularly schedules public meetings to discuss airport construction projects and seeks community feedback. We are committed to the success of the Airport Roundtable, which is primarily comprised of community representatives. The Roundtables provide a venue for dialogue regarding the airport and its relationship with the surrounding communities.

In addition, at Governor Cuomo's direction, the Port Authority has committed significant increases in resources and staff to address aircraft noise. Specifically, the Agency has invested \$6.2 million over nine years in an Airport Noise and Operations Monitoring System (ANOMS) to monitor noise in the communities that host and border LaGuardia, JFK and Newark Airports. In Queens and Nassau County, we have doubled the number of portable noise monitors in the community to monitor and track excessive aircraft noise. In partnership with the FAA, over \$286 million has been invested in soundproofing over 77 schools that reside in the current or previous noise contours. Additionally, in October 2014, we commenced Part 150 Noise Compatibility Studies to assess the noise profiles around our airports and determine methods to alleviate excess noise.

We will continue to keep our stakeholders apprised of planned construction activities in advance of the commencement of any such work.

Thank you again for your interest in this matter. Please feel free to contact me if you would like to discuss this issue further.

Sincerely,


Patrick J. Foye
Executive Director4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

CC: The Honorable Jose Peralta
New York State Senate
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Michael Dendekker
New York State Assembly
75-35 31st Avenue – Suite 206B
East Elmhurst, NY 11370

CC: The Honorable Francisco Moya
New York State Assembly
82-11 37th Avenue – Suite 607
Jackson Heights, NY 11372

CC: The Honorable Daniel Dromm
New York City Council
37-32 75th Street
Jackson Heights, NY 11372

November 30, 2015

THE PORT AUTHORITY OF NY & NJ

Patrick J. Foye
Executive Director

The Honorable Jose Peralta
New York State Senate
32-77 Junction Boulevard
East Elmhurst, NY 11369

Dear Senator Peralta:

Thank you for your recent letter regarding the impact of recent airport runway safety project construction on air traffic patterns over the communities around LaGuardia Airport. The Port Authority understands the neighboring communities' concerns regarding aircraft noise. We will continue to encourage the FAA, which is responsible for flight patterns, to identify ones that reduce and more equitably distribute aircraft operations on neighboring communities. Additionally, when possible, we will phase our runway construction activities to minimize these flight pattern impacts.

The FAA is limited to a small number of aircraft arrival/departure configurations when one of the two runways is taken out of service for construction at LaGuardia Airport. In addition, because of flight schedules, the Port Authority cannot typically plan major construction outside of limited windows on nights and weekends when there is less aircraft activity. This results in the impacts noted in your letter. The paving and milling of Runway 13-31 is scheduled for completion in December 2015. Please note in Second Quarter 2016 there will be a limited handful of weekend closures for the rehabilitation of the associated taxiways.

To identify appropriate mitigation measures and provide information to our community stakeholders, the Port Authority regularly schedules public meetings to discuss airport construction projects and seeks community feedback. We are committed to the success of the Airport Roundtable, which is primarily comprised of community representatives. The Roundtables provide a venue for dialogue regarding the airport and its relationship with the surrounding communities.

In addition, at Governor Cuomo's direction, the Port Authority has committed significant increases in resources and staff to address aircraft noise. Specifically, the Agency has invested \$6.2 million over nine years in an Airport Noise and Operations Monitoring System (ANOMS) to monitor noise in the communities that host and border LaGuardia, JFK and Newark Airports. In Queens and Nassau County, we have doubled the number of portable noise monitors in the community to monitor and track excessive aircraft noise. In partnership with the FAA, over \$286 million has been invested in soundproofing over 77 schools that reside in the current or previous noise contours. Additionally, in October 2014, we commenced Part 150 Noise Compatibility Studies to assess the noise profiles around our airports and determine methods to alleviate excess noise.

We will continue to keep our stakeholders apprised of planned construction activities in advance of the commencement of any such work.

Thank you again for your interest in this matter. Please feel free to contact me if you would like to discuss this issue further.

Sincerely,

Patrick J. Foye
Executive Director

4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

CC: The Honorable Joseph Crowley
United States House of Representatives
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Michael Dendekker
New York State Assembly
75-35 31st Avenue – Suite 206B
East Elmhurst, NY 11370

CC: The Honorable Francisco Moya
New York State Assembly
82-11 37th Avenue – Suite 607
Jackson Heights, NY 11372

CC: The Honorable Daniel Dromm
New York City Council
37-32 75th Street
Jackson Heights, NY 11372

THE PORT AUTHORITY OF NY & NJ

November 30, 2015

Patrick J. Foye
Executive Director

The Honorable Michael Dendekker
New York State Assembly
75-35 31st Avenue – Suite 206B
East Elmhurst, NY 11370

Dear Assembly Member Dendekker:

Thank you for your recent letter regarding the impact of recent airport runway safety project construction on air traffic patterns over the communities around LaGuardia Airport. The Port Authority understands the neighboring communities' concerns regarding aircraft noise. We will continue to encourage the FAA, which is responsible for flight patterns, to identify ones that reduce and more equitably distribute aircraft operations on neighboring communities. Additionally, when possible, we will phase our runway construction activities to minimize these flight pattern impacts.

The FAA is limited to a small number of aircraft arrival/departure configurations when one of the two runways is taken out of service for construction at LaGuardia Airport. In addition, because of flight schedules, the Port Authority cannot typically plan major construction outside of limited windows on nights and weekends when there is less aircraft activity. This results in the impacts noted in your letter. The paving and milling of Runway 13-31 is scheduled for completion in December 2015. Please note in Second Quarter 2016 there will be a limited handful of weekend closures for the rehabilitation of the associated taxiways.


To identify appropriate mitigation measures and provide information to our community stakeholders, the Port Authority regularly schedules public meetings to discuss airport construction projects and seeks community feedback. We are committed to the success of the Airport Roundtable, which is primarily comprised of community representatives. The Roundtables provide a venue for dialogue regarding the airport and its relationship with the surrounding communities.

In addition, at Governor Cuomo's direction, the Port Authority has committed significant increases in resources and staff to address aircraft noise. Specifically, the Agency has invested \$6.2 million over nine years in an Airport Noise and Operations Monitoring System (ANOMS) to monitor noise in the communities that host and border LaGuardia, JFK and Newark Airports. In Queens and Nassau County, we have doubled the number of portable noise monitors in the community to monitor and track excessive aircraft noise. In partnership with the FAA, over \$286 million has been invested in soundproofing over 77 schools that reside in the current or previous noise contours. Additionally, in October 2014, we commenced Part 150 Noise Compatibility Studies to assess the noise profiles around our airports and determine methods to alleviate excess noise.

We will continue to keep our stakeholders apprised of planned construction activities in advance of the commencement of any such work.

Thank you again for your interest in this matter. Please feel free to contact me if you would like to discuss this issue further.

Sincerely,


Patrick J. Foye
Executive Director

4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

CC: The Honorable Joseph Crowley
United States House of Representatives
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Jose Peralta
New York State Senate
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Francisco Moya
New York State Assembly
82-11 37th Avenue – Suite 607
Jackson Heights, NY 11372

CC: The Honorable Daniel Dromm
New York City Council
37-32 75th Street
Jackson Heights, NY 11372

THE PORT AUTHORITY OF NY & NJ

November 30, 2015

Patrick J. Foye
Executive Director

The Honorable Francisco Moya
New York State Assembly
82-11 37th Avenue – Suite 607
Jackson Heights, NY 11372

Dear Assembly Member Moya:

Thank you for your recent letter regarding the impact of recent airport runway safety project construction on air traffic patterns over the communities around LaGuardia Airport. The Port Authority understands the neighboring communities' concerns regarding aircraft noise. We will continue to encourage the FAA, which is responsible for flight patterns, to identify ones that reduce and more equitably distribute aircraft operations on neighboring communities. Additionally, when possible, we will phase our runway construction activities to minimize these flight pattern impacts.

The FAA is limited to a small number of aircraft arrival/departure configurations when one of the two runways is taken out of service for construction at LaGuardia Airport. In addition, because of flight schedules, the Port Authority cannot typically plan major construction outside of limited windows on nights and weekends when there is less aircraft activity. This results in the impacts noted in your letter. The paving and milling of Runway 13-31 is scheduled for completion in December 2015. Please note in Second Quarter 2016 there will be a limited handful of weekend closures for the rehabilitation of the associated taxiways.

To identify appropriate mitigation measures and provide information to our community stakeholders, the Port Authority regularly schedules public meetings to discuss airport construction projects and seeks community feedback. We are committed to the success of the Airport Roundtable, which is primarily comprised of community representatives. The Roundtables provide a venue for dialogue regarding the airport and its relationship with the surrounding communities.

In addition, at Governor Cuomo's direction, the Port Authority has committed significant increases in resources and staff to address aircraft noise. Specifically, the Agency has invested \$6.2 million over nine years in an Airport Noise and Operations Monitoring System (ANOMS) to monitor noise in the communities that host and border LaGuardia, JFK and Newark Airports. In Queens and Nassau County, we have doubled the number of portable noise monitors in the community to monitor and track excessive aircraft noise. In partnership with the FAA, over \$286 million has been invested in soundproofing over 77 schools that reside in the current or previous noise contours. Additionally, in October 2014, we commenced Part 150 Noise Compatibility Studies to assess the noise profiles around our airports and determine methods to alleviate excess noise.

We will continue to keep our stakeholders apprised of planned construction activities in advance of the commencement of any such work.

Thank you again for your interest in this matter. Please feel free to contact me if you would like to discuss this issue further.

Sincerely,


Patrick J. Foye
Executive Director

4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

CC: The Honorable Joseph Crowley
United States House of Representatives
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Jose Peralta
New York State Senate
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Michael Dendekker
New York State Assembly
75-35 31st Avenue – Suite 206B
East Elmhurst, NY 11370

CC: The Honorable Daniel Dromm
New York City Council
37-32 75th Street
Jackson Heights, NY 11372

THE PORT AUTHORITY OF NY & NJ

November 30, 2015

Patrick J. Foye
Executive Director

The Honorable Daniel Dromm
New York City Council
37-32 75th Street
Jackson Heights, NY 11372

Dear Council Member Dromm:

Thank you for your recent letter regarding the impact of recent airport runway safety project construction on air traffic patterns over the communities around LaGuardia Airport. The Port Authority understands the neighboring communities' concerns regarding aircraft noise. We will continue to encourage the FAA, which is responsible for flight patterns, to identify ones that reduce and more equitably distribute aircraft operations on neighboring communities. Additionally, when possible, we will phase our runway construction activities to minimize these flight pattern impacts.

The FAA is limited to a small number of aircraft arrival/departure configurations when one of the two runways is taken out of service for construction at LaGuardia Airport. In addition, because of flight schedules, the Port Authority cannot typically plan major construction outside of limited windows on nights and weekends when there is less aircraft activity. This results in the impacts noted in your letter. The paving and milling of Runway 13-31 is scheduled for completion in December 2015. Please note in Second Quarter 2016 there will be a limited handful of weekend closures for the rehabilitation of the associated taxiways.

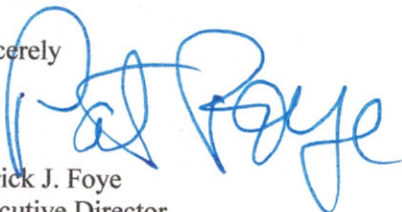
To identify appropriate mitigation measures and provide information to our community stakeholders, the Port Authority regularly schedules public meetings to discuss airport construction projects and seeks community feedback. We are committed to the success of the Airport Roundtable, which is primarily comprised of community representatives. The Roundtables provide a venue for dialogue regarding the airport and its relationship with the surrounding communities.

In addition, at Governor Cuomo's direction, the Port Authority has committed significant increases in resources and staff to address aircraft noise. Specifically, the Agency has invested \$6.2 million over nine years in an Airport Noise and Operations Monitoring System (ANOMS) to monitor noise in the communities that host and border LaGuardia, JFK and Newark Airports. In Queens and Nassau County, we have doubled the number of portable noise monitors in the community to monitor and track excessive aircraft noise. In partnership with the FAA, over \$286 million has been invested in soundproofing over 77 schools that reside in the current or previous noise contours. Additionally, in October 2014, we commenced Part 150 Noise Compatibility Studies to assess the noise profiles around our airports and determine methods to alleviate excess noise.

We will continue to keep our stakeholders apprised of planned construction activities in advance of the commencement of any such work.

Thank you again for your interest in this matter. Please feel free to contact me if you would like to discuss this issue further.

Sincerely



Patrick J. Foye
Executive Director

4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

CC: The Honorable Joseph Crowley
United States House of Representatives
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Jose Peralta
New York State Senate
32-77 Junction Boulevard
East Elmhurst, NY 11369

CC: The Honorable Michael Dendekker
New York State Assembly
75-35 31st Avenue – Suite 206B
East Elmhurst, NY 11370

CC: The Honorable Francisco Moya
New York State Assembly
82-11 37th Avenue – Suite 607
Jackson Heights, NY 11372

THE PORT AUTHORITY OF NY & NJ

Ian R. Van Praagh
Acting Director
Government & Community Relations, New York

January 22, 2016

Honorable Joseph Crowley
United States House of Representatives
2800 Bruckner Boulevard – Suite 201
Bronx, NY 10465

Dear Congressman Crowley:

Thank you for contacting the Port Authority regarding the airplane noise concerns of your constituent, Ms. Madeline Yonki. Please note below a detailed analysis of flight activity in the Country Club section of your district, where Ms. Yonki resides, during the specified period.

The location of Ms. Yonki's residence was estimated to be about 4.5 miles Northeast of LaGuardia Airport. In the absence of an exact address, we investigated the area centered around Stadium Avenue. Based on this approximate location, we determined the arrivals onto Runway 22 primarily affect her area.

Analysis of the flight tracks in the month of December and specifically at the time of her complaint during night time hours (between 12 AM and 6 AM), concluded that 37 flights flew over that area during the 31 day period, at an approximate average altitude of 1500 feet, all arriving on Runway 22. Each of these flights arrived between 12 AM and as late as 1:18 AM during this period.

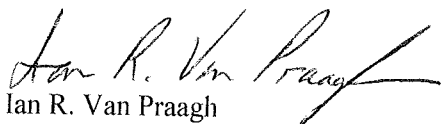
Similar to most commercial airports in the United States, LaGuardia operates 24 hours per day, 365 days per year. However, in order to minimize the impacts of our airport operations to the surrounding communities, the Port Authority works closely with both the FAA and airlines, specifically requesting that the airlines voluntarily refrain from scheduling aircraft operations before 6 AM and after 12 midnight. Thus recent flight activity occurring between 12 AM and 6 AM in your district is not attributable to scheduled flights but rather anomalous circumstances such as flights delayed by inclement weather conditions, etc.

Nonetheless, recognizing the impact of airplane noise on the communities that surround our airports, the Port Authority will continue to work with the FAA to mitigate these noise impacts to the extent possible. Specifically, in order to help address this critical quality-of-life issue, the Agency has invested significant resources to implement noise monitoring and mitigation efforts. Further information on these initiatives may be found on our website at:

<http://www.panynj.gov/airports/aircraft-noise-information.html>.

Please feel free to contact me if I may be of any further assistance on this issue.

Sincerely,



Ian R. Van Praagh
Acting Director
Government & Community Relations-New York

4 World Trade Center
150 Greenwich Street, 24th Floor
New York, NY 10007
T: 212 435 6938 F: 212 435 6541
ivanpraa@panynj.gov

THE PORT AUTHORITY OF NY & NJ

June 9, 2016

Patrick J. Foye
Executive Director

The Honorable Charles E. Schumer
322 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Schumer:

Thank you for your June 1, 2016, letter urging the Port Authority (the Agency) to expedite completion of the two 14 CFR Part 150 Airport Noise Compatibility Planning Studies, currently being undertaken at John F. Kennedy International and LaGuardia Airports. I have directed staff to move with expedition in order to accelerate completion of these studies, in compliance with all FAA requirements, in order to obtain federal approval of the Noise Exposure Maps (NEMs) and Noise Compatibility Programs (NCPs) for each airport.

The Port Authority has established dedicated teams to conduct and manage our ongoing Part 150 Studies and partnered with the Federal Aviation Administration (FAA), which is responsible for accepting the NEMs and approving the noise program recommendations in the NCP.

Our expert consultant team, who have conducted nearly 40 such studies for major airports nationwide, advise that time frames for conducting a thorough Part 150 study range from three to five years. Some of the factors which impact timing include: extensiveness of the public outreach process and complexities of both the technical analyses to develop NEMs and NCPs. The Port Authority is conducting studies for each of its major airports, which serve a complex, highly congested airspace, necessitating an even more comprehensive approach and thorough analysis.

Since the New York airport studies kicked off in October of 2014, Port Authority staff, the consultant team, and FAA have been working closely to complete the technical analyses and obtain the required FAA approvals as quickly as possible. The Port Authority has conducted several public workshops, provided regular study updates and received input from two Technical Advisory Committees (TACs), comprised of key stakeholders including airlines, airport businesses, local planning departments, and community representatives in the vicinity of both airports.

The consultant team is currently drafting the NEM documents for both LGA and JFK, which the Port Authority expects to submit to the FAA for review in July and August, respectively. In addition, the Agency plans to host public workshops in the fall to share these documents and receive public input.

4 World Trade Center, 23rd Floor
150 Greenwich Street
New York, NY 10007
T: 212 435 7271 F: 212 435 6670

THE PORT AUTHORITY OF NY & NJ

The Honorable Charles E. Schumer


Page 2

June 9, 2016

In early fall, the Agency will begin the process of examining ways to reduce aircraft noise impacts through the NCP process, working closely with the FAA. In addition, the TACs will also continue to play a key role throughout this process and noise program recommendations will be solicited from the affected communities during the public workshops. Based on this planned process and input, the Port Authority currently anticipates submitting draft NCPs for both airports to the FAA for its review and comment in the fall of 2017. Once finalized, the NCPs will be submitted to the FAA for approval of the recommended noise program measures.

As noted in your letter, the FAA's approval will allow the Port Authority to seek federal funding, as appropriate, for the approved noise program measures. Your willingness to assist with the process of procuring Airport Improvement Program (AIP) grant funds, necessary to implement the approved noise mitigation measures resulting from the Studies, is greatly appreciated. In closing, the Port Authority and its consultant team have devoted significant resources to the effort and is focused on completing the Part 150 Studies as quickly as possible, while ensuring that the work meets all federal requirements and keeping the public informed regarding progress.

Sincerely,

A handwritten signature in blue ink, appearing to read "Pat Foye", written over the printed name.

Patrick J. Foye
Executive Director

Congress of the United States
Washington, DC 20515

October 11, 2016

The Honorable Michael P. Huerta
Administrator
Federal Aviation Administration
800 Independence Avenue SW
Washington, DC 20591

Dear Administrator Huerta:

We write to you today on behalf of thousands of our constituents who are adversely affected by excessive airplane noise. Many of the towns in Nassau County that we represent lie directly in the pathways of departing and approaching flights from John F. Kennedy International (JFK) and LaGuardia (LGA) airports, two of the busiest in the nation. Our communities have to struggle with airplane noise that negatively affects the health of their residents and reduces their overall quality of life. We appreciate the efforts of the Federal Aviation Administration (FAA) and the Port Authority of New York and New Jersey (PANYNJ) to study and reduce the impact of airplane noise on surrounding areas in the Part 150 program, but more needs to be done.

In 1976, the Environmental Protection Agency (EPA) recommended the adoption of the Day-Night Average Sound Level (DNL) to be the metric for quantifying aviation noise exposure. The FAA then set 65 decibels to be the DNL value at which federal funding would be available for soundproofing or other noise mitigation. The DNL represents the average noise levels over a 24-hour period, but a marked increase in the concentration of flights during the daytime hours may not result in a dramatic change in the DNL because of fewer flights during the overnight hours. Further, this threshold is outdated, relying on research that does not consider the complete effects of noise on individual residents. Therefore, we ask you to lower the acceptable DNL standard from 65 to 55 DNL.

We often hear from our constituents that their government does not listen to or care about their problems. As we continue to increase air travel in the U.S., we need to ensure robust community engagement as we research the environmental impacts of such expansion. Lowering the acceptable DNL threshold to 55 DNL would demonstrate that the FAA is committed to reducing the impact of airplane noise on local communities and including our citizens in federal policymaking.

Thank you in advance for your consideration of this request. We look forward to working with you to achieve quieter skies for our constituents.

Sincerely,



Todd Kaminsky
New York State Senator, 9th District



Kathleen M. Rice
Member of Congress, New York's 4th District

APPENDIX G-4

Other Correspondence

From: "Mitchell, Kelly" <kmitchell@panynj.gov>
Date: June 10, 2015 at 11:43:31 AM EDT
To: "lschaier@quietskies.net" <lschaier@quietskies.net>
Cc: "Van Praagh, Ian" <ivanpraa@panynj.gov>, "Knoesel, Edward" <eknoesel@panynj.gov>, "Rizzuto, Teresa" <trizzuto@panynj.gov>
Subject: RE: quietskies.net

Len,

As I stated to you yesterday, the category we have placed you and your alternate under is based on the recommendation letter of the Supervisor of the Town of North Hempstead. As stated in the TAC Charter "TAC members are also expected to advise their organizations of the TAC's discussions and shall bring input from their organizations back to the TAC discussions." So your category and the category of any other member doesn't limit them from disseminating and providing input to and from other organizations they may be affiliated with. In fact we encourage it.

If you see a need to discuss this matter further, please contact Teresa Rizzuto.

Sincerely,

Kelly M.
 PA Aviation – Noise Office
 P: 212.435.3728 | M: 646.596.2215

-----Original Message-----

From: Len Schaier [<mailto:lschaier@gmail.com>]
 Sent: Wednesday, June 10, 2015 10:41 AM
 To: Mitchell, Kelly
 Cc: Van Praagh, Ian; Knoesel, Edward; Rizzuto, Teresa
 Subject: quietskies.net

Kelly,

I thought the meeting went very well last night. Thank you.

I would ask a favor though. As you know, the first issue of the membership list had Marilyn and me listed as representing quietskies.net but last night our place cards listed us as representing the Town Of North Hempstead. I would like us shown in a way that represents who we really are, what we do and who we represent.

I asked you about the labeling and you said you had only seen only one letter of recommendation and that was from the Supervisor of the Town of North Hempstead (TONH) so you listed us as representing the Town.

We are proud to be on the TAC and happy that elected officials think enough of us to submit recommendations. Furthermore the Brooklyn in me says "what's in a name".

Unfortunately the reality of the life in the fight against increased noise is not that simple.

Further it is possible that a contributing issue could have been that quietskies.net was shown as representing the roundtable.

If that is the case, then please have us shown under "Environmental-Noise". Another solution might be to make another category such as "Ombudsman" or "At Large" and place quietskies.net under one of those.

If the letters of recommendation are also an issue then please ask those on the cc list if they have the other letters. If necessary I can ask the Assembly members to send in another letter or email explicitly mentioning quietskies.net as an independent organization.

Lastly, I was always concerned about quietskies.net membership on the TAC and whether its membership would be influenced by our status with regard to the roundtable(s). When asked about that, both Ian and Ed confirmed to me that our

membership on the both TAC's was independent of anything the Roundtable(s) or anybody else did or didn't do.

Simply placing quietskies.net under a different category would appear to solve everything.

Thanks for listening,

Len

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

THE PORT AUTHORITY OF NY & NJ

August 18, 2015

Dear Community Board District Manager:

As you know, the Port Authority has undertaken Federal 14 CFR Part 150 Noise Compatibility Studies for both John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA). We are currently in the data collection phase. It was brought to our attention during August 4, 2015 Part 150 Study LGA Technical Advisory Committee (TAC) meeting that Community Boards may have useful data pertaining to land use and zoning for their Districts outside of what is available to us from the City.

If your Community Board has such information, please forward it to the attention and address listed below thirty (30) days from the date of this letter. Additionally, if you are unsure whether or not any data would be useful to us, please contact Jennifer Hogan at 212-857-7315 or jhogan@vhb.com who can help make an assessment.

Lastly, should you have any questions or concerns, please do not hesitate to contact me at (212) 435-3746 or ndmytryszyn@panynj.gov.

Thank you for your attention to this matter.

Sincerely,



Nicholas Dmytryszyn, P.E.
Port Authority of New York & New Jersey
Aviation Department
4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10007

4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10007



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Associate Administrator
Eastern Region

1 Aviation Plaza
Jamaica, N.Y. 11434-4809

SEP 01 2015

Mr. Peter Boran, President
Monsignor Scanlan High School
915 Hutchinson River Parkway
Bronx, NY 10465

Dear Mr. Boran:

Thank you for your August 5, 2015, email in support of securing funding for the soundproofing of Monsignor Scanlan High School under the Federal Aviation Administration's Airport Improvement Program (AIP). We could not locate a copy of any application for funding filed by the Port Authority of New York and New Jersey (PANYNJ) on behalf of this project.

To advance this project, we advise you to work with the PANYNJ in regards to filing an AIP project application for this work. To justify this project, the PANYNJ must demonstrate that:

- The school is within the 65 DNL contour.
- Internal monitoring must show exceedances of 45 dBA in eligible areas of the school.

You may wish to contact Mr. Tom Felix, Program Manager for the PANYNJ at the following address and phone number:

Mr. Thomas Felix
Program Manager, Regional Airport Programs
Port Authority of New York & New Jersey
Aviation Department
4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10006
Phone: 212- 435-3765

If further information is needed, please contact Evelyn Martinez of our New York Airports District Office at 718-995-5771.

Sincerely,

Carmine W. Gallo
Regional Administrator



U.S. Department
of Transportation
Federal Aviation
Administration

MAR 3 2016

Office of the Associate Administrator
Eastern Region

1 Aviation Plaza
Jamaica, N.Y. 11434-4809

Mr. Joseph Solimine, Sr.
Director of Facilities
Monsignor Scanlon High School
915 Hutchinson River Parkway
Bronx, New York 10465

Dear Mr. Solimine, Sr.:

Thank you for the recent emails regarding the potential soundproofing of the Monsignor Scanlon High School.

The Port Authority of New York and New Jersey (Port Authority) is currently conducting a noise study under Title 14, Code of Federal Regulations Part 150, also called Part 150 Studies, for four New York Metropolitan area airports: John F. Kennedy International and LaGuardia Airports in New York; and Newark Liberty International and Teterboro Airports in New Jersey.

The FAA is working with the Port Authority on the development of Noise Exposure Maps (NEM). Alongside publication of the maps, the Port Authority will begin developing a Noise Compatibility Plan (NCP) that will suggest various methods of reducing the noise footprint of the airports, including, but not limited to, examining different potential aircraft routes and sound insulation. Eligibility determination of mitigating measures will not be completed until the acceptance of the NEM's and approval of the NCP.

There is extensive community outreach through community roundtables, Technical Advisory Committee (TAC) meetings, and public meetings and hearings. Status updates are provided at the quarterly Roundtable Meetings as well as the bi-monthly TAC Meetings, which are open to the general public. These meetings are run by the Port Authority of New York and New Jersey and are open to members of the public.

The Port Authority manages a website for the Part 150 Studies that provides information to stakeholders and the public at <http://panynjpart150.com/>.

Once the NCP has been approved we encourage you to work with the Port Authority with regard to this issue.

Sincerely,

Carmine W. Gallo
Regional Administrator

VICE CHAIR,
HOUSE DEMOCRATIC CAUCUS

Congress of the United States
House of Representatives

Washington, DC 20515-3214

October 26, 2016

COMMITTEE ON
WAYS AND MEANS

WEB PAGE
<http://www.crowley.house.gov>

Carmine Gallo
Regional Administrator, Eastern Region
Federal Aviation Administration
159-30 Rockaway Boulevard
Jamaica, NY 11434-4848

Dear Mr. Gallo,

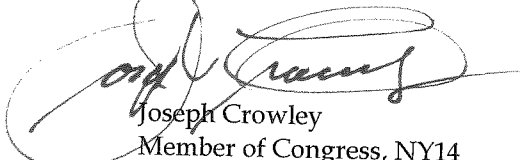
I am reaching out on behalf of Monsignor Scanlan High School regarding their application for noise abatement funding from the FAA. According to the most recent Title 14 CFR Part 150 Airport Noise Compatibility Planning Study, Msgr. Scanlan High School's campus, located at 915 Hutchinson River Parkway, Bronx, NY, is not within the boundaries of the 65 DNL (day night average sound level) contour, and thus no longer considered noise impacted. While I am cognizant of the FAA's need to have clearly defined criteria in place for the assessment of noise impact, there are a number of reasons why Msgr. Scanlan's request for noise abatement funding should be properly considered.

On June 18th 1993, The Port Authority of New York and New Jersey sent a letter to Msgr. Scanlan HS confirming that they were noise impacted, and as such were eligible for the Port Authority School Soundproofing Program. This was reiterated to them in 1994, and again in 2000. However, by 2006, the goalposts had shifted, and the campus was no longer considered to be within the 65 decibel zone. Msgr. Scanlan HS maintains that they filed the necessary paperwork for the soundproofing program long before the contour changes, but that their applications were destroyed in the attacks on 9/11. If this is the case, then their request should be judged based on the contours as they existed at the time that their initial application was filed.

Beyond that, I find the use of the 24 hour decibel average to be problematic when applied to a school. Based on the Port Authority's own noise monitor readings from September 27, 2016, 154 planes flew directly over the campus throughout the course of that school day. The lowest recorded decibel reading was 68.7, the highest was 80.1, and the overall average was 78.0 db, well over the 65 db threshold the FAA requires to be considered noise impacted. Without factoring in the hours of silence between midnight and 6am, there would be no question as to Msgr. Scanlan's status as significantly noise impacted.

There are currently 860 students attending classes in the buildings directly under the flight path. These students are subjected to the disruption of plane traffic overhead on average of once every three minutes throughout the course of the school day. Given the circumstances surrounding their initial application and the data from the Port Authority's noise monitoring equipment, I implore you to allow their request for funding under the PA School Soundproofing Program to move forward. Thank you for your time and attention to this matter.

Sincerely,



Joseph Crowley
Member of Congress, NY14

WASHINGTON OFFICE:

1436 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3985

QUEENS OFFICE:

82-11 37TH AVENUE, SUITE 402
JACKSON HEIGHTS, NY 11372
(718) 779-1400

BRONX OFFICE:

2800 BRUCKNER BLVD., SUITE 201
BRONX, NY 10465
(718) 931-1400

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)

Noise Levels

9/27/2016		
Weather: Clear & Sunny, Winds from SW @4-6MPH		
#	TIME	dBA (DECIBALS)
1	8:29	78.6
2	8:30	79.8
3	8:33	78.6
4	8:34	78.6
5	8:35	79.9
6	8:37	73.3
7	8:38	78.4
8	8:39	78.2
9	8:41	76.1
10	8:45	78.8
11	8:46	78.4
12	8:48	78.2
13	8:50	68.7
14	8:54	79.1
15	8:57	73.3
16	8:59	78.0
17	9:00	78.0
18	9:02	70.6
19	9:03	79.1
20	9:05	78.8
21	9:06	78.8
22	9:08	76.1
23	9:09	74.3
24	9:11	77.8
25	9:12	78.9
26	9:13	78.0
27	9:15	78.8
28	9:16	73.3
29	9:18	74.8
30	9:20	79.5
31	9:23	78.6

[Type here]

*Ensign Engineering, P.C*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com

32	9:20	77.6
33	9:26	78.6
34	9:27	78.4
35	9:29	78.2
36	9:30	78.6
37	9:32	78.8
38	9:35	75.9
39	9:38	78.2
40	9:40	78.6
41	9:42	79.3
42	9:45	78.9
43	9:49	78.8
44	9:51	73.6
45	9:52	78.2
46	9:56	75.4
47	9:59	78.6
48	10:01	78.6
49	10:09	78.9
50	10:11	78.2
51	10:16	78.6
52	10:18	78.2
53	10:23	78.8
54	10:26	79.1
55	10:27	78.6
56	10:31	78.2
57	10:32	78.8
58	10:34	78.8
59	10:35	78.8
60	10:36	78.2
61	10:37	78.6
62	10:39	78.6
63	10:40	77.6
64	10:43	78.9
65	10:44	78.8
66	10:46	75.9
67	10:47	79.8
68	10:49	78.8
69	10:50	78.4
70	10:55	79.5

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com

71	10:58	68.9
72	10:59	79.1
73	11:00	78.2
74	11:03	78.4
75	11:08	78.6
76	11:11	79.1
77	11:15	80.1
78	11:23	79.6
79	11:27	74.8
80	11:29	68.9
81	11:33	79.3
82	11:34	79.1
83	11:36	78.3
84	11:46	78.4
85	11:49	79.6
86	11:51	80.1
87	11:53	78.4
88	11:54	78.2
89	11:57	78.6
90	11:59	78.4
91	12:01	79.1
92	12:03	78.9
93	12:04	78.8
94	12:07	78.8
95	12:10	78.6
96	12:12	80.1
97	12:14	78.8
98	12:16	78.4
99	12:20	78.8
100	12:22	77.0
101	12:24	79.5
102	12:26	80.1
103	12:27	78.8
104	12:31	78.4
105	12:32	79.1
106	12:33	78.2
107	12:35	79.1
108	12:36	78.8
109	12:44	79.1

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com

110	12:47	77.6
111	12:49	78.8
112	12:50	77.6
113	12:52	78.2
114	12:54	79.8
115	12:56	75.6
116	12:57	78.4
117	12:59	78.6
118	1:00	78.4
119	1:01	78.6
120	1:48	77.6
121	1:50	79.3
122	1:51	78.6
123	1:52	79.3
124	1:54	76.6
125	1:56	74.5
126	1:59	79.6
127	2:01	79.3
128	2:03	78.8
129	2:05	79.1
130	2:10	78.4
131	2:13	78.0
132	2:16	78.0
133	2:17	79.3
134	2:19	79.5
135	2:22	79.6
136	2:24	78.6
137	2:26	78.2
138	2:27	77.6
139	2:29	74.5
140	2:31	79.6
141	2:34	79.6
142	2:38	78.6
143	2:50	79.3
144	2:53	78.0
145	2:59	78.2
146	3:03	68.8
147	3:05	68.9
148	3:06	79.5

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com

149	3:11	78.8
150	3:14	79.8
151	3:16	78.9
152	3:24	78.2
153	3:26	78.9
154	3:28	78.9
	MAXIMUM	80.1
	MINIMUM	68.7
	AVERAGE	78.0
		AM
KEY		PM

THE PORT AUTHORITY OF NY & NJ

Thomas L. Bosco
Director

November 10, 2016

Carmine Gallo
Eastern Region Regional Administrator
Federal Aviation Administration
159-30 Rockaway Boulevard
Jamaica, NY 11434-4848

Dear Mr. Gallo:

I am writing to you on behalf of the Monsignor Scanlan High School and Grand Concourse Academy Charter School, situated on a 13-acre campus and home to over 950 students in the Throgs Neck Section of the Bronx. I respectfully request your consideration of these educational facilities for noise mitigation funding. Both in 1993 and again in 2000, the schools were identified by the Port Authority of NY & NJ to be significantly noise impacted by flight activity from LaGuardia Airport (LGA) and notified, via correspondence, of their eligibility for noise mitigation measures, specifically soundproofing insulation.

Results of the recently released draft Noise Exposure map from the current LGA Part 150 Study have determined that Monsignor Scanlan and Grand Concourse Academy fall outside of the 65 DNL contour, thereby rendering the campus buildings ineligible for federal aid for soundproofing. Despite the draft study results, however, it is acknowledged that peak noise events (aircraft arrivals to LGA) do at times exceed 65 decibels (A scale) at both schools.

Further, please know nearly 90% of students attending the aforementioned charter school are of minority and economically disadvantaged backgrounds and we request your consideration of the disproportionate impact and burden from airplane noise on these populations.

I thank you again for your thoughtful consideration and look forward to your further comment on this matter at your earliest convenience. Please feel free to contact me should you require any additional information.

Sincerely,



Thomas L. Bosco
Director
Aviation Department

CC: Congressman Joseph Crowley, District 14

4 World Trade Center
150 Greenwich Street, 18th Floor
New York, NY 10006
T: 212 435 3720 F: 212 435 3833
tbosco@panynj.gov



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Regional Administrator
Eastern Region

1 Aviation Plaza
Jamaica, NY 11434-4809

NOV 16 2016

The Honorable Joseph Crowley
House of Representatives
Washington, DC 20515

Dear Congressman Crowley:

Thank you for your recent letter regarding the potential soundproofing of the Monsignor Scanlon High School (High School).

In your letter, you asked the Federal Aviation Administration (FAA) to consider the application for the High School based on the contours that existed at the time they applied for the soundproofing program. According to our policy, Noise Exposure Maps (NEMs) that are older than 10 years old cannot be used for issuing an Airport Improvement Program (AIP) grant for noise mitigation.

The Port Authority of New York and New Jersey (Port Authority) is currently conducting a noise study under Title 14, Code of Federal Regulations Part 150, also called Part 150 Studies, for four New York Metropolitan area airports: John F. Kennedy International (JFK) and LaGuardia (LGA) Airport in New York; and Newark Liberty International (EWR) and Teterboro Airport (TEB) in New Jersey.

The Port Authority will begin developing a Noise Compatibility Plan (NCP) that will suggest various methods of reducing the noise footprint of the airports, including, but not limited to, examining different potential aircraft routes. After our review of the NEMs and NCP, we will determine the eligibility of soundproofing measures. We encourage the High School to work with the Port Authority about this issue.

Sincerely,

Carmine Gallo
Regional Administrator

Enclosure
Transmitted Correspondence

From: [Mitchell, Kelly](#)
To: ChpFam@aol.com
Cc: Ischaier@gmail.com; [Yousuf, Adeel](#); [Knoesel, Edward](#)
Subject: RE: 55 highre resoluton drafts

Your welcome Marilyn.

Regarding the 55-60DNL contours, we will not be producing them in higher resolution at this time since as we have stated in the past, those contours are for information purposes only. However as you know, the 60-55 DNL contours will be in the appendices section of our draft NEM report, so we should be able to produce a higher resolutions to present during the public review/workshop.

Thanks and you have a good weekend as well.

Kelly M.

PA Aviation – Noise Office

P: 212.435.3728 | M: 646.596.2215

From: ChpFam@aol.com [mailto:ChpFam@aol.com]
Sent: Thursday, July 07, 2016 7:52 PM
To: Mitchell, Kelly <kmitchell@panynj.gov>
Cc: Ischaier@gmail.com
Subject: 55 highre resoluton drafts

Kelly,

Thanks for the higher resolution draft NEM contours.

Would you lease send the 55 DNL higher resolution draft NEM contours so we can more easily compare them to the measured noise monitor values.

Thanks,

Have a good weekend.

Marilyn

From: Mitchell, Kelly [<mailto:kmitchell@panynj.gov>]
Sent: Wednesday, July 20, 2016 1:39 PM
To: Steven Alverson
Cc: Yousuf, Adeel; Knoesel, Edward
Subject: FW: JFK Airport Technical Advisory Committee_DNL Inquiry

Hi Steve,

FYI & files: Below & attached are our responses to TAC member's request for high resolution 60-55 DNL contours for JFK & LGA airports.

Kelly M.

PA Aviation – Noise Office
P: 212.435.3728 | M: 646.596.2215

From: David Hopkins [<mailto:dhopkins@edc.nyc>]
Sent: Wednesday, July 20, 2016 1:55 PM
To: Mitchell, Kelly <kmitchell@panynj.gov>
Subject: RE: JFK Airport Technical Advisory Committee_DNL Inquiry

thanks

From: Mitchell, Kelly [<mailto:kmitchell@panynj.gov>]
Sent: Wednesday, July 20, 2016 10:48 AM
To: David Hopkins
Subject: RE: JFK Airport Technical Advisory Committee_DNL Inquiry

Hi David,

Your welcome. Regarding the 55-60DNL contours, we have had similar requests by a couple of the TAC members. But, at this time we will not be producing higher resolution JFK & LGA 60-55 DNL contours for public distribution. However, we should be able to produce them to present during the public review/workshops.

Hope all is well and looking forward to seeing you at the next TAC meetings in August.

Thanks,

Kelly Mitchell, PMP, LEED AP BD+C
Aviation Department
The Port Authority of NY & NJ

4 World Trade Center | 150 Greenwich Street, 18th Floor | New York, NY 10007
P: 212.435.3728 | M: 646.596.2215

From: David Hopkins [<mailto:dhopkins@edc.nyc>]
Sent: Tuesday, July 19, 2016 4:47 PM
To: Mitchell, Kelly <kmitchell@panynj.gov>
Subject: RE: JFK Airport Technical Advisory Committee_Website Posting of June 2016 Meeting Summary Notes

Kelly, thanks for sending out the detailed 65 dnl noise contour map last week. Would it be possible to get a similar map that shows the 50 and 55 dnl contours for both JFK and LGA. I think it would be useful to have that information available, even though there is no NCP associated with those contours.

Thanks, David.

David Hopkins

Sr. Director of Aviation
 New York City Economic Development Corporation
www.nycedc.com

212-312-3771 (w)



From: Mitchell, Kelly [<mailto:kmitchell@panynj.gov>]
Sent: Tuesday, July 19, 2016 4:25 PM
To: Mitchell, Kelly
Subject: JFK Airport Technical Advisory Committee_Website Posting of June 2016 Meeting Summary Notes

Dear JFK TAC Member,

This is to inform you that our June 22, 2016 TAC meeting # 7 summary notes has been posted on the project website (http://panynjpart150.com/JFK_documents.asp).

As a friendly reminder, your homework assignment is to review the preliminary draft NEM contours & the measured vs. modeled noise values and present any question you might have at our next TAC meeting (Set for August 17, 2016).

Sincerely,

Kelly Mitchell, PMP, LEED AP BD+C

Aviation Department

The Port Authority of NY & NJ

4 World Trade Center | 150 Greenwich Street, 18th Floor | New York, NY 10007
 P: 212.435.3728 | M: 646.596.2215

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

APPENDIX H

Technical Advisory Committee

This appendix includes documentation of the LaGuardia Airport 14 CFR Part 150 Study's Technical Advisory Committee (TAC) meeting. Documentation for each meeting includes copies of meeting notices, agendas, attendance sheets, materials presented, and meeting summaries.

- Appendix H-1 TAC Meeting #1 – June 9, 2015
- Appendix H-2 TAC Meeting #2 – August 4, 2015
- Appendix H-3 TAC Meeting #3 – October 7, 2015
- Appendix H-4 TAC Meeting #4 – December 8, 2015
- Appendix H-5 TAC Meeting #5 – March 15, 2016
- Appendix H-6 TAC Meeting #6 – April 12, 2016
- Appendix H-7 TAC Meeting #7 – June 21, 2016
- Appendix H-8 TAC Meeting #8 – August 16, 2016
- Appendix H-9 TAC Meeting #9 – October 20, 2016
- Appendix H-10 TAC Meeting #10 – December 15, 2016

Appendix H-1
Technical Advisory Committee
Meeting #1
June 9, 2015

**Technical Advisory Committee
Meeting #1**

Meeting Notice and
Attendance Roster



**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS**

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and is advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Tuesday, June 9, 2015
TIME: 1:00PM - 4:00PM
LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, June 10, 2015
TIME: 2:00PM - 5:00PM
LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
Jamaica, NY 11430

LGA TAC Meeting #1 June 9, 2015

	First	Last	Representing	Alternates	In Attendance
1	Mike	Alberts	KB Environmental		/
2	Steve	Alverson	ESA Airports		/
3	Mike	Arnold	ESA Airports		/
4	Debbie	Bearden	NY Airport Liaison	Sal Debono	/
5	Andrew	Brooks	FAA - Airport Division	Lindsay Butler	/ ✓
6	Peter	Byrne	VHB		/
7	Maura	Fitzpatrick	FHI		/
8	Sophia	Ganosis	Queens Chamber of Commerce		
9	Robert	Goldman	Delta Airlines	Mark Hopkins	/
10	Mark	Guiod	FAA - TRACON	Steve Kelley	/
11	Jennifer	Hogan	VHB		/
12	David	Hopkins	NYC Economic Development Corp (EDC)		/
13	Andra	Horsch	Nicholas Lence		/
14	Adrian	Jones	ESA Airports		/
15	Ed	Knoessel	Port Authority		✓
16	Josh	Knoller	Nicholas Lence		
17	Kendall	Lampkin	Town of Hempstead		/
18	James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland	✓
19	Michael	Levine	Town of North Hempstead	Neal Stone	/
20	Tom	Malone	FAA - Flight Standards Division	Dave Swanson	
21	Ron	Marsico	Port Authority		
22	Kelly	Mitchell	Port Authority		/
23	John	Moretto	FAA - NY ADO	Suki Gill	/
24	Susan	O'Donnell	VHB		/
25	Chris	Rhoads	Port Authority		

26	Chung	S. Chan	NYC Department of Environmental Protection (NYCDEP)	✓ Charles Shamoon	/
27	Sean	Sallie	Nassau County Planning	Mark Buttice	/
28	Len	Schaier	Town of North Hempstead	Marilyn Chapoteau	/
29	Scott	Solomon	NYC Department of City Planning		/
30	Zendra	Spence	Shelt Air	Cesar Rizik	✓
31	Doug	Stearns	Port Authority		✓
32	Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	/
33	Ian	Van Praagh	Port Authority	Steve Giber	/
34	Elisa	Velasquez	Queens Borough President		
35	Ryan	Walsh	FHI		/
36	Brian	Will	New York Community Aviation Roundtable (NYCAR)	Susan Carroll	/
37	Adeel	Yousuf	Port Authority		✓

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #1

June 9, 2015 (1:00 p.m. – 4:00 p.m.)

LaGuardia Airport

Sign-In Sheet

[illegible]

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #1

June 9, 2015 (1:00 p.m. – 4:00 p.m.)

LaGuardia Airport

Sign-In Sheet

[illegible]

Technical Advisory Committee
Meeting #1
Materials Presented at Meeting

Meeting Agenda
Technical Advisory Committee #1
14 CFR Part 150 Study – LaGuardia Airport
June 9, 2015 – 1:00 PM to 4:00 PM EDT

1. Welcome and Introductions
2. Purpose and Objectives of the Technical Advisory Committee (TAC)
3. Role of the TAC Meeting Facilitator
4. TAC Charter and Participation Agreement
 - a. Ground Rules
 - b. Observers
 - c. Media
5. Study Protocol
 - a. Project Schedule
 - b. Project Deliverables
6. LaGuardia Airport Overview
7. 14 CFR Part 150 Overview
8. Questions from TAC Members
9. Public Comment
10. Adjourn



LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Meeting Agenda

- Welcome and Introductions
- Purpose and Objectives of the Technical Advisory Committee (TAC)
- Role of the TAC Meeting Facilitator
- TAC Charter and Participation Agreement
- Study Protocol

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Meeting Agenda

- LaGuardia Airport Overview
- 14 CFR Part 150 Overview
- Questions from TAC Members
- Public Comment
- Adjourn

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



Environmental Science Associates (ESA)
Prime Consultant



Kimley-Horn and Associates, Inc. (KHA)
Land Use Planning



VHB Engineering, Surveying and
Landscape Architecture, PC (VHB)
Technical and Project Management Support;
Public Outreach



Nicholas & Lence Communications (NLC)
Stakeholder Outreach



Fitzgerald & Halliday, Inc. (FHI)
Public Meeting Facilitation



Planning Technology, Inc. (PTI)
Port Authority Data



KB Environmental Sciences, Inc. (KBE)
Aircraft Noise Modeling

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



**ESA - full-service, employee-owned
multidisciplinary environmental consulting
and planning firm**

- **More than 350 professionals nationwide**
- **ESA Airports, an aviation consulting practice dedicated to serving airport clients**
- **ESA staff have prepared more than three dozen 14 CFR Part 150 studies**

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



VHB - over 1,000 engineers, planners, designers, and environmental scientists

- 22 offices along the East Coast, including New York City
- On-call consultant to the Port Authority since 1990
- History of collaboration with the Port Authority on environmental and transportation studies at New York City metropolitan airports

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



NLC - New York strategic communications firm

- Implemented successful outreach programs for the Better Airports Alliance and the Port Authority's Airport Capacity Study



FHI - innovative, multidisciplinary, and environmentally-conscious planners, engineers, and scientists

- Decades of experience working with the Port Authority on public involvement and other planning activities

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



KBE – aircraft noise modeling firm specializing in airport-related noise assessments

- Prepared three 14 CFR Part 150 noise exposure map updates for Atlanta airport



KHA – extensive land use planning and zoning expertise at national airports, including work for the Port Authority

- More than 30 aviation forecasts

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



PTI – data collection, public website, and visualization

- Worked with the Port Authority implementing technology tools for over 20 years
- Prepared the Interactive Airport Layout Plan for the Port Authority

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions



- Steve Alverson – Project Director



- Peter Byrne – Deputy Project Director



- Adrian Jones – Technical Director (*JFK*)



- Mike Arnold – Technical Director (*LGA*)

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions

- The Port Authority of New York and New Jersey (Port Authority) has formed a Technical Advisory Committee (TAC) for the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Study for LaGuardia Airport (LGA)
- During the 14 CFR Part 150 Study the Port Authority and its consultants will quantify existing and future aircraft noise exposure levels in the LGA environs and will evaluate methods to reduce aircraft noise exposure or minimize the effects of aircraft noise exposure in the LGA environs
- The Port Authority has invited a cross section of key stakeholders to serve on the TAC

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Welcome and Introductions

- The TAC is composed of primary and alternate members who are authorized to represent their organization and/or constituents for the duration of the 14 CFR Part 150 Study
- The TAC will operate on a consensus basis
- TAC meetings will be conducted in a professional and respectful manner
- TAC meetings will be open to the public
- The Port Authority will issue an agenda in advance of each TAC meeting

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Purpose and Objectives of the TAC

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Role of the TAC Meeting Facilitator

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

TAC Charter and Participation Agreement

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

TAC Charter and Participation Agreement

- The TAC Charter and Participation Agreement were mailed with the TAC invitation letter
- The TAC Charter describes the role of the TAC and describes the conduct of the TAC meetings
- Please return the signed participation agreements to the Port Authority today

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

TAC Charter and Participation Agreement

- The Port Authority anticipates there will be 18 TAC meetings during the Study
- TAC meetings will be held every other month on average
- Every effort will be made to schedule TAC meeting dates and times that will be convenient to the majority of TAC members
- TAC membership is voluntary and TAC members will not be compensated for their time

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Study Protocol

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Study Protocol

- A draft Study Protocol has been developed for the JFK and LGA 14 CFR Part 150 studies
- The study protocol has been developed to guide each study; to clarify roles and responsibilities of the ESA Team, the Port Authority, and the FAA; and to delineate the details of the technical aspects of the studies
- The study protocol is intended for the internal use of the ESA Team, the Port Authority, and the FAA

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Study Protocol Outline

- Chapter 1: Introduction
- Chapter 2: Roles and Responsibilities of Stakeholders
- Chapter 3: Communications Strategy Protocol
- Chapter 4: Data Management Plan
- Chapter 5: Aviation Activity Forecast Protocol

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Study Protocol Outline

- Chapter 6: Aircraft Noise Modeling Protocol
- Chapter 7: Land Use Protocol
- Chapter 8: Project Measures
- Appendix A

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study

Technical Advisory Committee Meeting #1

Project Schedule



ESA Study Team



LaGuardia Airport – 14 CFR Part 150 Study

Technical Advisory Committee Meeting #1

Project Schedule



ESA Study Team



LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

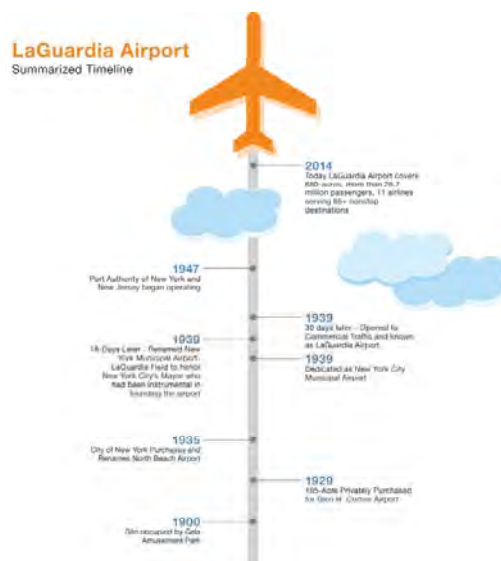
LaGuardia Airport Overview

ESA Study Team

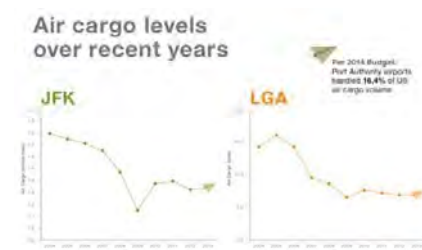
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Facts and Figures



Source: Port Authority of New York and New Jersey, 2015



ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Existing Airport Facilities



ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Airport Layout Plan



Source: Port Authority of New York and New Jersey, 2015

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Roles and Responsibilities

- **Three core organizations involved in aircraft operations at LGA**
 - Federal Aviation Administration (FAA)
 - Directs the safe movement of aircraft in the air and on the ground
 - The Port Authority
 - Manages the airport(s), improves and maintains airport facilities
 - No control over where aircraft fly
 - Pilots
 - Pilot in command has ultimate responsibility for the safe operation of his/her aircraft

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

14 CFR Part 150 Overview

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Project Overview

The 14 CFR Part 150 process is the Airport Sponsor's mechanism to improve the compatibility between the airport and surrounding communities

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Project Overview

- The Port Authority of New York & New Jersey (Port Authority) has initiated a Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Study for LGA
- Environmental Science Associates (ESA) has been selected by the Port Authority to prepare the LGA 14 CFR Part 150 Study
- The Port Authority anticipates submitting noise exposure maps (NEMs) for LGA to the Federal Aviation Administration (FAA) in the Fall of 2016
- The Port Authority anticipates submitting a noise compatibility program (NCP) for LGA to the FAA in the Spring of 2018

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Project Overview

- The Port Authority is conducting this study with the goal of finding potential mitigation measures reducing significant levels of aircraft noise exposure
- The NEM and NCP reports must be prepared in accordance with the guidance provided in 14 CFR Part 150
- 14 CFR Part 150 includes detailed guidance and a checklist of the items that must be included in the 14 CFR Part 150 NEM and NCP reports

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Overview of 14 CFR Part 150 Study

- Interim Rule on Federal Aviation Regulations (FAR) Part 150, *Airport Noise Compatibility Planning* issued in 1981
- FAR Part 150 finalized in 1985
- Issued in response to provisions contained in the *Aviation Safety and Noise Abatement Act of 1979*
- Voluntary program allowed airport sponsors to become eligible for grant funds for approved airport noise programs
- Sets forth the methodology to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Overview of 14 CFR Part 150 Study

- FAA issued its final policy on approval of Part 150 noise mitigation measures in October 1998
- FAA issued its Draft *Aviation Noise Abatement Policy 2000* in July 2000 – it was never adopted
- FAA issued its Final Rule on Amendment Number 150-4 to FAR Part 150 on May 19, 2005

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Overview of 14 CFR Part 150 Study

- **Why conduct a 14 CFR Part 150 noise study?**
 - Determine existing and future noise conditions in the vicinity of an airport
 - Evaluate the feasibility of possible flight procedure/land use changes
 - Educate communities on the Federal process and what **can and cannot** be done to address aircraft noise concerns
 - Submit locally-endorsed recommendations to the FAA regarding noise reduction measures
- **14 CFR Part 150 studies are *voluntary***
- **14 CFR Part 150 studies must adhere to 14 CFR Part 150 guidelines to be considered and accepted by FAA**

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Overview of 14 CFR Part 150 Study

- **A Part 150 Study:**
 - Assesses the impacts of aircraft noise on the area surrounding the airport
 - Identifies measures to reduce aircraft noise (noise abatement) and limit its impacts (noise mitigation)
 - Outlines a program for implementation of noise abatement and mitigation measures
 - Allows FAA-approved measures to be eligible for federal funding

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Overview of 14 CFR Part 150 Study

- **Key stakeholders in 14 CFR Part 150 studies include:**
 - The Airport Proprietor (the Port Authority)
 - The Federal Aviation Administration
 - Aircraft operators – airlines, cargo carriers, corporate and general aviation operators
 - Representatives of neighborhoods and communities affected by aircraft noise
 - Local planning agencies
 - The general public

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Who Can Regulate Airport Noise?

- **Federal Aviation Administration**
 - Controls aircraft while in flight
 - Responsible for controlling noise at its source (i.e., aircraft engines)
 - Certifies aircraft and pilots
- **Airport Proprietors/The Port Authority**
 - Limited authority to adopt local restrictions
 - Responsible for capital improvement projects and infrastructure
- **Local Governments and States**
 - Promote compatible land use through zoning
 - Require real estate disclosure
 - Mandate sound-insulating building materials

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Regulatory Framework

- **Federal law** sets aircraft noise standards, prescribes operating rules, establishes the compatibility planning process, and limits airport proprietor's ability to restrict aircraft operations
- **State law** sets forth compatibility planning guidelines and noise standards but exempts aircraft
- **Local noise ordinances** set noise standards and provide for compatible land use planning but exempts aircraft

FEDERAL LAW PREEMPTS STATE AND LOCAL REGULATIONS

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

14 CFR Part 150 Study Process

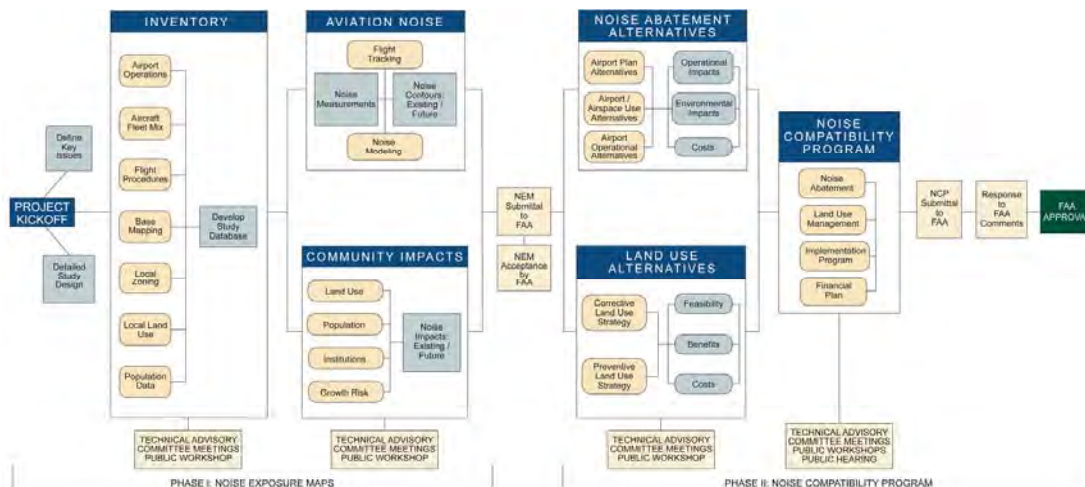
- A 14 CFR Part 150 Study typically results in two volumes:
 - Noise Exposure Map (NEM) Report
 - Noise Compatibility Program (NCP)
- NEM Report documents existing and future (at least five years) aircraft noise exposure in terms of DNL contours
 - FAA “accepts” the NEMs
- NCP explores operational, land use, and administrative measures to minimize aircraft noise exposure
 - FAA “approves” individual measures in the NCP

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

14 CFR Part 150 Study Process



ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

14 CFR Part 150 Study Process

- **FAA review and acceptance of NEMs**
 - Technical review only
- **FAA reviews NCP for completeness**
 - Technical, policy, effectiveness review
- **180-day review period for NCP**
 - FAA conducts separate review for each measure
 - FAA actions for each measure at end of review period
 - Approve
 - Reject/Disapprove
 - Further study

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

14 CFR Part 150 Study Process

- The FAA has developed “checklists” which are used during the review of the NEMs and NCP
- The checklists are available here:

http://www.faa.gov/airports/environmental/airport_noise/part_150/checklists/

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Questions from TAC Members

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Public Comment

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Adjourn

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Preliminary Agenda for TAC Meeting #2

- Feedback regarding TAC Meeting #1
- Acoustic Principles and Noise Metrics
- Aircraft Noise Assessment 101
- Data Collection Process and Status
- Questions from TAC Members
- Public Comment
- Adjourn

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting #1

Project Contacts and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

Technical Advisory Committee
Meeting #1
Meeting Summary

Technical Advisory Committee No. 1
14 CFR Part 150 Study – LaGuardia Airport
June 9, 2015 – 1:00 PM to 3:00 PM
Attendees:

TAC Members	
Name	Representing
Robert Goldman	Delta Airlines
Andrew Brooks	FAA - Airports Division
Lindsay Butler	FAA - Airports Division
Suki Gill	FAA - NY Airports District Office (ADO)
Mark Guidod	FAA – Terminal Radar Approach Control (TRACON)
James Hayden	FAA - New York TRACON
James Law	FAA - LGA Airport (Airport Traffic Control Tower)
John Moretto	FAA - NY ADO
Laura Stensland	FAA - LGA Airport Traffic Control Tower)
Margherite LaMorte	MarketPlace Development
Mark Buttice	Nassau County Planning
Susan Carroll	New York Community Aviation Roundtable (NYCAR)
Brian Will	NYCAR
Debbie Bearden	NY Airport Liaison
Scott Solomon	NYC Department of City Planning
Charles Shamoon	NYC Department of Environmental Protection (NYCDEP)

Name	Representing
David Hopkins	NYC Economic Development Corporation (EDC)
Michael Chisolm	Port Authority of NY & NJ (PANYNJ)
Lydia Davenport	PANYNJ
Stacey Gilber	PANYNJ
Ed Knoesel	PANYNJ
Limoni Ma	PANYNJ
Kelly Mitchell	PANYNJ
Doug Stearns	PANYNJ
Adeel Yousuf	PANYNJ
Sophia Ganosis	Queens Chamber of Commerce
Zendra Spence	Shelt Air
Kendall Lampkin	Town of Hempstead
Marilyn Chapoteau	Town of North Hempstead/QuietSkies.net
Michael Levine	Town of North Hempstead
Len Schaier	Town of North Hempstead/QuietSkies.net
Neal Stone	Town of North Hempstead

Non-TAC Members	
Name	Representing
Warren Schreiber	NY Aviation Roundtable
Lacy Dickinsen	
Roberta Goldstein	Queens Quiet Skies
Stan Goldstein	Queens Quiet Skies

Name	Representing
George Haikalis	
John Kelly	
Phil Konigsberg	
Natalia Kozikowski	

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Mike Arnold	ESA Airports
Adrian Jones	ESA Airports
Maura Fitzpatrick	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Andra Horsch	Nicholas Lence
Cristyne Nicholas	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell welcomed the Technical Advisory Committee (TAC) members and other meeting attendees. Attendees introduced themselves.

Steve Alverson introduced the project team members and consulting firms. Mr. Alverson provided background information on the scope of work for the study.

Purpose and Objectives of the TAC

Mr. Alverson explained the PANYNJ's process to form the TAC. The TAC will operate on a consensus basis and TAC meetings will be open to the public. The TAC is advisory to the

PANYNJ. The PANYNJ is the ultimate decision maker about actions resulting from this study.

Ryan Walsh and Susan O'Donnell served as co-facilitators for the meeting. They explained the role of the meeting facilitator and the ground rules for how the meetings will be conducted. They said a TAC member's role is to: review study materials, provide input to the PANYNJ, and bring back information about the study to their constituents. Mr. Walsh and Ms. O'Donnell reminded TAC members that a TAC Charter and Participation Agreement had been sent with the invitation to join the committee, and that the PANYNJ requests that each TAC member sign the Participation Agreement. They stated that it is anticipated that the TAC will meet 18 times over the course of the study, typically every other month. TAC members will not be compensated for their time.

Study Protocol

Mike Arnold reviewed the study protocol outline and project schedule. The study will generate a Noise Exposure Map (NEM) report and a Noise Compatibility Program (NCP).

Overview of LaGuardia Airport

Doug Stearns presented an overview of the history and current functions at LaGuardia Airport. Steve Alverson reviewed the roles and responsibilities of the Federal Aviation Administration (FAA), which directs the movement of aircraft within the National Airspace System; the PANYNJ, which manages the airport; and the pilots who operate the planes.

Overview of 14 CFR Part 150 and FAA Role

Mike Arnold reviewed the regulatory context for this study. The goal of the study is to find land use compatibility, potential noise abatement and mitigation measures to reduce significant levels of aircraft noise exposure. The PANYNJ is conducting this study on a voluntary basis. He reviewed the major deliverables and their expected completion timeframe. The PANYNJ expects to submit NEMs to the FAA by the Fall of 2016, and it anticipates submitting the NCP to FAA by the Spring of 2018.

Comments from TAC Members

Len Schaier (Town of North Hempstead) asked when the draft Study Protocol would be available for TAC review. The study team anticipates that the Study Protocol would be available in 2-4 weeks.

Charles Shamoon (NYCDEP) asked whether measurements were taken from automated noise monitors. The team responded that 14 CFR Part 150 requires that the noise exposure be modeled rather than using measurements from existing monitors. It is challenging to distinguish road noise and other background noise from the 24/7 monitor data readings. The next TAC meeting will include a segment on noise modeling. There will also be a demonstration at the upcoming public workshops of the PANYNJ's current WebTrak flight tracking and noise monitoring system at the airport.

David Hopkins (NYCEDC) asked whether the study would deal with potential changes to flight paths in the future. The team responded that if these changes in flight paths are reasonably foreseeable within the five-year study period, then they will be included in the modeling. 14 CFR Part 150 studies must always account for reasonably expected changes in activity or operations. The contour maps can be modified in the future if additional changes occur.

Brian Will (NY Community Aviation Roundtable) asked about the source and availability of flight track data. They asked if the raw data would be available, and what the baseline year is for the flight tracks. The project team responded that they would share depictions of the flight tracks at the public workshops. They explained that the NEM includes images of the actual radar flight tracks and modeled flight tracks on top of that. The baseline year for flight tracks is 2014.

Kendall Lampkin (Town of Hempstead) complimented the new study website. They asked whether the study would use a 55 DNL threshold. The project team stated that the 55 DNL contour map would be a separate map in the report for information only as the 14 CFR Part 150 threshold for land use compatibility is 65 DNL.

Kendall Lampkin (Town of Hempstead) recommended that for future TAC meetings the PowerPoint presentations be emailed in advance to attendees and that printouts be available at the meeting with space for taking notes on the side of the slides.

Len SChaiier (Town of North Hempstead) asked what effect take-off gross weight has on noise levels. The team responded that they will compare the Integrated Noise Model (INM) departure profiles with actual departure profiles from the radar data.

David Hopkins (NYCEDC) asked whether the modeling would maintain the perimeter rule or if it would include flights beyond Denver. The team responded that currently the perimeter rule is in effect and operations will be modeled to reflect that the perimeter rule is in place.

Charles Shamoon (NYCDEP) asked which entities select the location of noise monitors. The team explained the current placement of the PANYNJ's permanent noise monitors and stated that additional portable noise monitors can be placed at the request of communities or elected officials.

Kendall Lampkin (Town of Hempstead) asked whether there were existing flight caps. The team explained that they will review airport operations and slot limits. If there are changes in the future that can be quantified, such as if the perimeter rule changes, then they will account for them in the study.

Public Comments

A member of the public asked if the information presented would be available on line. The study team gave the study website address and said that presentations and future memoranda would be available to the public on the site.

A member of the public asked whether 2014 was an appropriate baseline year of study as changes to flight tracks started in 2012. The team explained that the 14 CFR Part 150 regulations require that the baseline year represent the year the map is submitted and five years in the future. The plan is to submit the map in 2016. So the NEMs will represent 2016 and 2021. They added 2014 represents the most recent full year of flight track data. There was a follow up question from the Town of North Hempstead about whether the baseline

year was 2014 or 2016. The team responded that they would be using 2014 flight tracks and runway use percentages to prepare the 2016 and 2021 NEMs.

A member of the public asked whether expansion plans for LaGuardia will be accounted for in this study. The team responded that once plans are formalized, they will be included in the study.

A member of the public asked for clarification as to whether state or local governments can regulate aircraft noise levels. The team responded that noise from aircraft in flight is regulated at the federal level.

A member of the public asked whether ideas from the community would be taken into consideration in the study. The team responded in the affirmative and gave the study email address for community members to use to provide their input.

A member of the public asked whether the study would determine a long-term solution to airport noise levels. The team responded that the 14 CFR Part 150 study has a five-year time frame.

A member of the public asked about the format for the upcoming public workshops. The team responded that the workshops would be in an open-house format from 6-8 PM and that attendees could drop by any time during that period to interact with study team members at board stations.

A member of the public expressed concern about the impact on student learning at local schools from airport noise. The team responded that many of the local schools already have soundproofing. Those locations will be shown at the public workshops.

A member of the public asked what the hours of operation are at LaGuardia. The team responded 6 AM to midnight, however if weather delays flights, they are allowed to land after midnight.

Closing Remarks

Steve Alverson presented the proposed agenda for the next TAC meeting, which will present information on acoustics and noise to further educate TAC members. He presented the project contacts and website. The presentation from this meeting will be posted on the project website at <http://www.panynj.gov/airports/aircraft-noise-information.html>. He also presented an email address for comments to be submitted at NYPart150@panynj.gov.

Kelly Mitchell thanked the attendees for their time and input.

Appendix H-2
Technical Advisory Committee
Meeting #2
August 4, 2015

Technical Advisory Committee
Meeting #2

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF SECOND TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Tuesday, August 4, 2015
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, August 5, 2015
 TIME: 1:00PM - 4:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA TAC Meeting #2 August 4, 2015

	First	Last	Representing	Alternates	Primary	Alternate
✓ 1	Mike	Alberts	KB Environmental		✓	
1	Steve	Alverson	ESA Airports		✓	
1	Mike	Arnold	ESA Airports		✓	
1	Debbie	Bearden	NY Airport Liaison	Sal Debono	✓	
1	Arnold	Bloch	FHI			
1	Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
1	Peter	Byrne	VHB		✓	
1	Chung	Chang	NYCDEP	Charles Shamoon		✗
7	Fred	Dixon	New York & Company			
8	Sophia	Ganosis	Queens Chamber of Commerce			
9	Robert	Goldman	Delta Airlines	Mark Hopkins		
	Thomas	Grech	Queens Chamber of Commerce			
10	Mark	Guiod	FAA - TRACON	Steve Kelley		
11	Jennifer	Hogan	VHB		✓	
12	David	Hopkins	NYC Economic Development Corp (EDC)		✓	
13	Andra	Horsch	Nicholas Lence		✓	
	Bill	Huisman	Aviation Development Council			
14	Adrian	Jones	ESA Airports			
15	Ed	Knoesel	Port Authority			
16	Josh	Knoller	Nicholas Lence			
	Natalia	Kozikowska	Nicholas Lence	Cristyne Nicholas		✓
17	Kendall	Lampkin	Town of Hempstead			
18	James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		
19	Michael	Levine	Town of North Hempstead	Wes Sternberg Neal Stone		✓

20	Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
21	Ron	Marsico	Port Authority			
22	Kelly	Mitchell	Port Authority		✓	
23	John	Moretto	FAA - NY ADO	Suki Gill		✓
	Glenn	Morse	United Airlines		✓	
	Christyne	Nicholas	Nicholas Lence		✓	
24	Susan	O'Donnell	VHB		✓	
25	Chris	Rhoads	Port Authority		✓	
	Teresa	Rizzuto	Port Authority			
26	Chung	S. Chan	NYC Department of Environmental Protection (NYCDEP)	Charles Shamoon		
27	Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz	3	✓
	Dean	Saucier	National Business Aviation Association			
28	Len	Schaier	Town of North Hempstead	Marilyn Chapoteau	✓	✓
	Lisa	Scully	Port Authority			
29	Scott	Solomon	NYC DCP		✓	
30	Zendra	Spence	Shelt Air	Cesar Rizik	✓	
31	Doug	Stearns	Port Authority	Chris Rhoads		
	Laura	Stensland	JFK Tower	James Law		
32	Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	✓	
33	Ian	Van Praagh	Port Authority			
34	Elisa	Velasquez	Queens Borough President	Jack Leibler	✓	✓
35	Ryan	Walsh	FHI		✓	
36	Brian	Will	New York Community Aviation Roundtable (NYCAR)	Susan Carroll	✓	✓
37	Adeel	Yousuf	Port Authority		✓	

**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #2
August 4, 2015 (1:00 p.m. – 4:00 p.m.)
LaGuardia Airport

Sign-In Sheet

Name/Organization	Address	Phone or Email
WARREN SCHREIBER CBT	132Y BELL BLVD, BAYSIDE, 11360	WARRENW4C@GMAIL.COM
PHAMODA SAGGI	PANTANO 4 WTC	psaggi@peranynj.gov
Suki Gill	FAA - NYADO	
Andrew Soares	FAA AEA 600	
Lydia Davenport	GOCOR Port Authority	
Tom Schneider	GOCOR Port Authority	
Phil Kencigsberg	2325 BELL BLVD	any/cora cph. Kansa
John Kelly	46-49 157 ST SUSHING	John J Kelly III @ Gmail
REBECCA STEFELMAN	SENATOR AVELLA	rstefelman@nySENATE.Gov
Stan Goldstein	35-37 170 ST	GoldsteinUSA@Gmail.com
Roberte	" "	
Edward Braunstein		EB Braunstein@assembly.state.ny.us
Edward Walker	1 RUM	E. Walker

2

Technical Advisory Committee
Meeting #2
Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting #2
14 CFR Part 150 Study – LaGuardia Airport
August 4, 2015 – 1:00 PM to 4:00 PM EDT

1. TAC Member Feedback regarding Meeting #1
2. Acoustic Principles and Noise Metrics
3. Aircraft Noise Assessment 101
4. Data Collection Process and Status
5. Study Protocol
6. TAC Member Homework Assignment
7. Public Comment
8. Adjourn

Welcome!

LaGuardia Airport Title 14 Code of Federal Regulations Part 150 Study Technical Advisory Committee Meeting No. 2

August 4, 2015

LA GUARDIA AIRPORT

THE PORT AUTHORITY
OF NY & NJ

1

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 2

Meeting Agenda

- TAC Member Feedback Regarding TAC Meeting No. 1
- Acoustic Principles and Noise Metrics
- Aircraft Noise Assessment 101
- Data Collection Process and Status

Meeting Agenda

- Study Protocol
- TAC Homework Assignment
- Future TAC Meetings
- Public Comment
- Adjourn

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

Role of the TAC Meeting Facilitator

- **To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator**
- **The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda**
- **The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion**
- **The facilitator will assist the TAC in reaching a consensus on items brought before the TAC**

Feedback Regarding TAC Meeting No. 1

Acoustic Principles and Noise Metrics

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- **Sound can be described in terms of its amplitude (pressure) and frequency (pitch)**
 - **Amplitude** – a direct measure of the magnitude of sound without consideration for other factors that may influence the perception of it
 - **Frequency** – expressed as a Hertz (Hz) or cycles per second

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

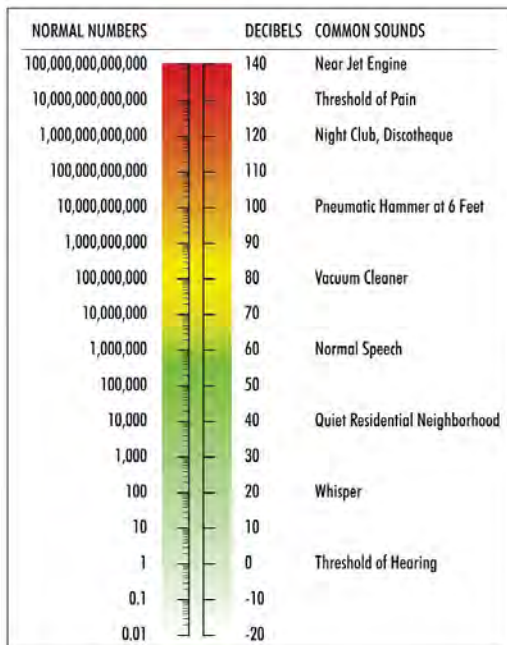
Acoustic Principles and Noise Metrics

- **Amplitude**
 - Sound pressure ranges are very large, therefore they are expressed on a logarithmic scale
 - Logarithmic scale compresses the wide range in sound pressures to a more useable range
 - Standard unit of measurement is the decibel (dB)

Acoustic Principles and Noise Metrics

- **Amplitude – continued**
 - A sound level of 70 dB has 10 times the acoustic energy as a level of 60 dB, while a sound level of 80 dB has 100 times the acoustic energy as a level of 60 dB
 - A sound 10 dB higher than another is usually judged to be twice as loud

Acoustic Principles and Noise Metrics



The Decibel Scale

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- Decibel Mathematics (logarithmic)

$$70 \text{ dB} + 70 \text{ dB} = 73 \text{ dB}$$

$$70 \text{ dB} + 50 \text{ dB} = 70 \text{ dB}$$

$$70 \text{ dB} \times 10 = 80 \text{ dB}$$

$$70 \text{ dB} \times 100 = 90 \text{ dB}$$

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- **Frequency**
 - Normal audible frequency range for young adults is 20 Hz to 20,000 Hz
 - Frequency range for aircraft noise is between 50 Hz and 5,000 Hz
 - The human ear is not equally sensitive to all frequencies

Acoustic Principles and Noise Metrics

- **Noise is unwanted sound**
 - What is music to my ears may be noise to you
 - By its very nature noise is subjective
 - We measure or model sound levels and relate them to social surveys to assess the potential for annoyance

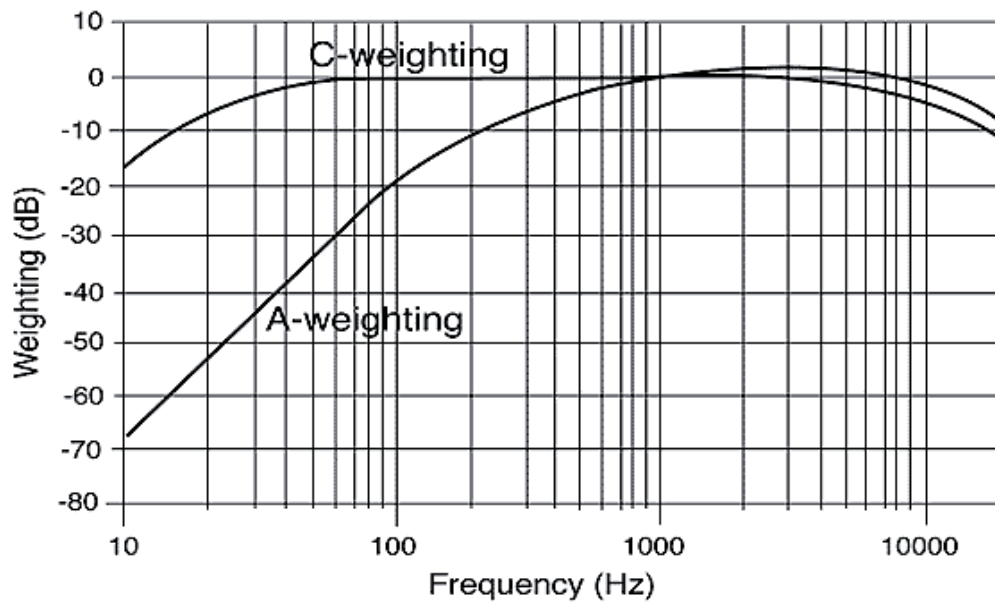
Acoustic Principles and Noise Metrics

- Noise metrics used in aircraft noise assessments are based upon the following frequency weighting scales:
 - Frequency-weighted contours (dBA and dBC)
 - Perceived Noise Level

Acoustic Principles and Noise Metrics

- Frequency-weighted contours
 - dBA approximates the sensitivity of the human ear
 - dBC is used for low frequency noise

Acoustic Principles and Noise Metrics



ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- **Perceived Noise Level**
 - Originally developed for assessment of aircraft noise
 - EPNL is still used for aircraft certification

ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- **Single Event Metrics**
 - Frequency-weighted metrics (dBA)
 - Maximum Noise Level (Lmax)
 - Sound Exposure Level (SEL)
- **Cumulative Metrics**
 - Equivalent Noise Level (LEQ)
 - Day-Night Noise Level (DNL)

Acoustic Principles and Noise Metrics

- **Frequency-Weighted Metrics (dBA)**
 - To simplify measurement and computation of sound loudness levels, frequency weighted networks have obtained wide acceptance
 - A-weighting (dBA) has become the most prominent of these scales
 - Replicates the way we hear sounds

Acoustic Principles and Noise Metrics

- **Frequency-Weighted Metrics (dBA)**
 - Shows good correlation with community response and is easily measured
 - Most aircraft noise studies are based upon the dBA scale
 - 14 CFR Part 150 requires the use of A-weighting

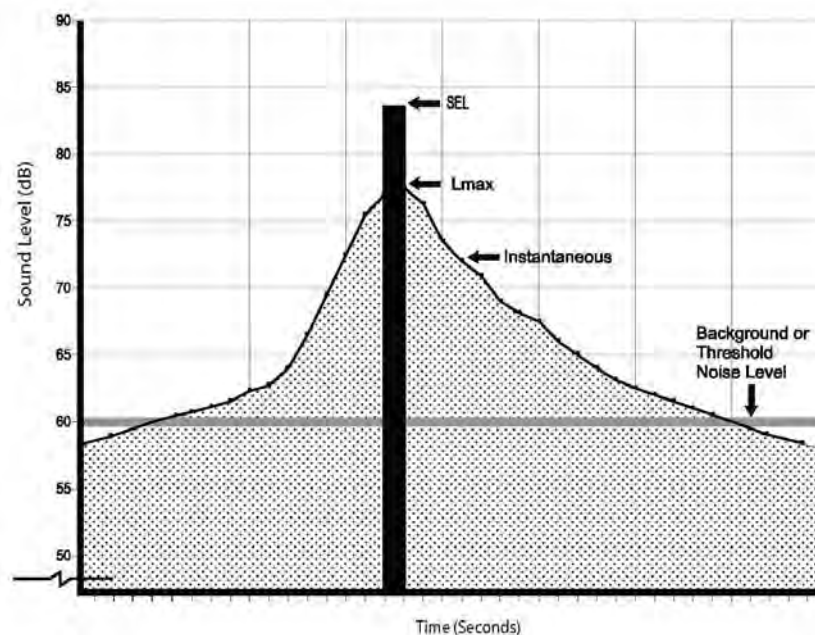
Acoustic Principles and Noise Metrics

- **Maximum Noise Level (Lmax)**
 - Highest noise level reached during a noise event
 - Lmax achieved when aircraft is at its closest point (typically, directly overhead)
 - Generally, it is this metric that people instantaneously respond to when an aircraft flyover occurs

Acoustic Principles and Noise Metrics

- **Sound Exposure Level (SEL)**
 - Another metric for aircraft flyovers
 - Computed from dBA sound levels
 - Integration of all the acoustic energy contained within the event

Instantaneous Level, Lmax, SEL, Background Level



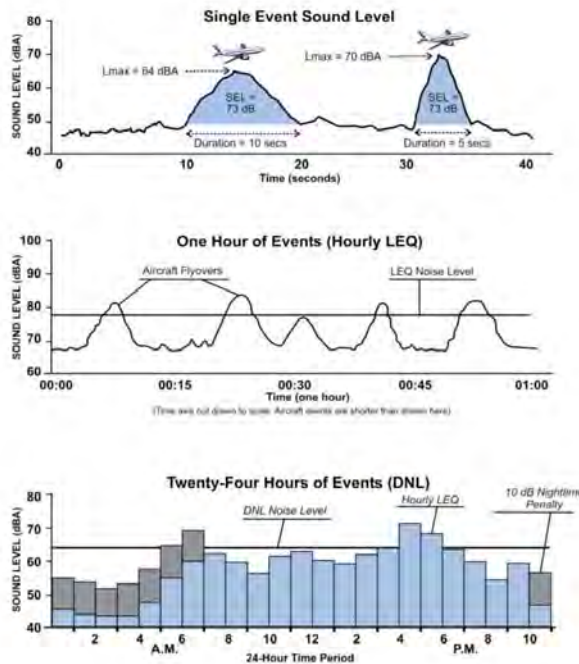
Acoustic Principles and Noise Metrics

- **Equivalent Noise Level (LEQ)**
 - “Energy” average noise level during the time period of a sample
 - Based on the observation that the potential for a noise to “impact” is dependent on the total acoustical energy content
 - Can be measured for any time period, but typically measured in 15 minutes, 1 hour, and 24 hours

Acoustic Principles and Noise Metrics

- **Day-Night Noise Level (DNL)**
 - 24-hour time weighted energy average noise level based on dBA
 - Noise occurring between 10 p.m. to 7 a.m. is penalized by 10 dB
 - Penalty was selected to account for the higher sensitivity to noise in the nighttime
 - Penalty also accounts for the expected further decrease in background levels that typically occur in the nighttime
 - FAA specifies DNL for airport noise assessment
 - Environmental Protection Agency (EPA) specifies DNL for community noise and airport noise assessment

Acoustic Principles and Noise Metrics



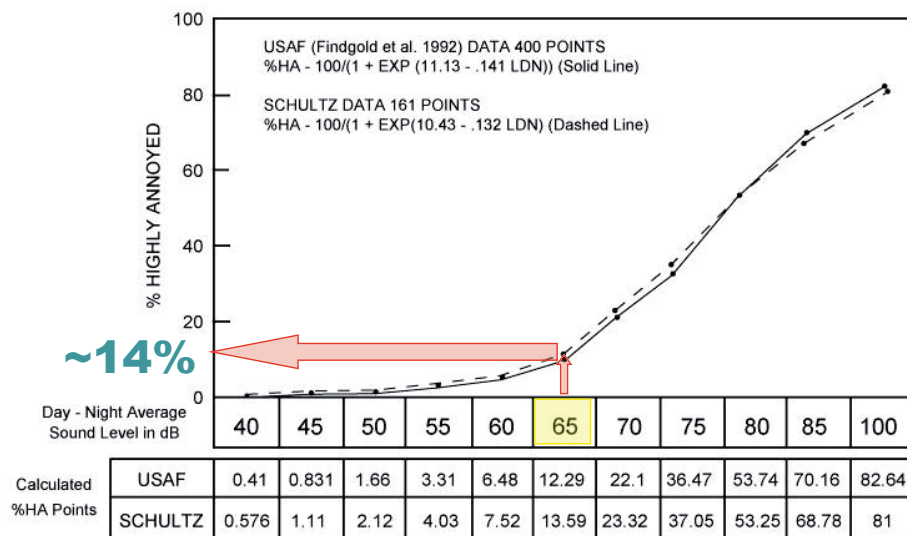
ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

Comparison of Schultz Data (1978) and USAF Data (1992) on Annoyance



Source: (USAF, 1992)

FAA's Guideline

28

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

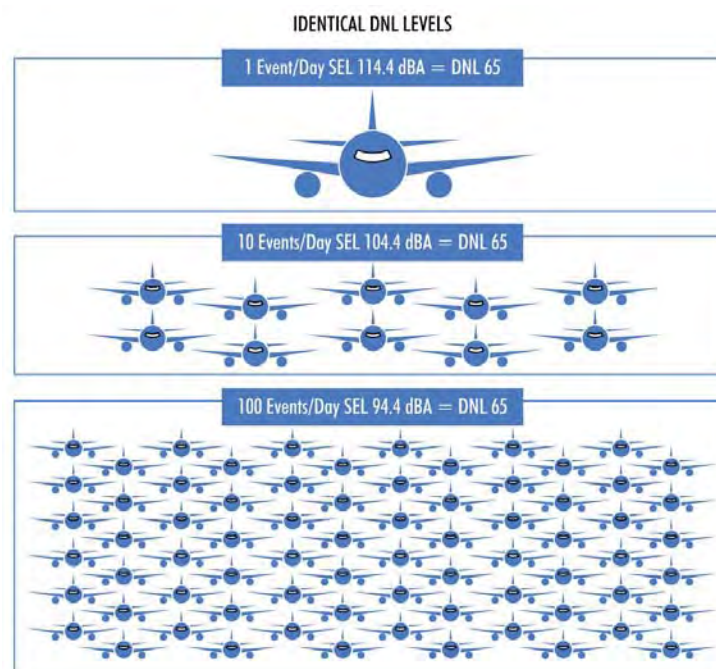


ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics



ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

Acoustic Principles and Noise Metrics

- It takes a 3 dB change in the sound level from a source for most people to notice a difference
- A 10 dB increase or decrease is typically perceived as doubling or halving of the loudness, respectively
- Doubling or halving of the distance from the source the receiver equates to +/- 6 dB sound level change

Acoustic Principles and Noise Metrics

- A doubling or halving the airport operations equates to a +/- 3 dB change in DNL
- Using DNL, one nighttime flight will be equivalent to 10 flights during the day
- People are more sensitive to changes in noise exposure than the absolute noise level

Aircraft Noise Assessment 101

ESA Study Team

33

THE PORT AUTHORITY
OF NY & NJ

Aircraft Noise Assessment 101

- **Mathematical models are used everyday to depict a variety of real life conditions such as:**
 - **Bridge loading, aerodynamic performance, fuel economy, computer animation**
- **Model accuracy is a function of the modeling algorithms, the empirical databases, and user sophistication**
- **When used properly, aircraft noise models have proven to be highly accurate**

ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

Aircraft Noise Assessment 101

- Modeling tools quantify aircraft noise exposure in the vicinity of airports
- Commonly used aircraft noise modeling tools
 - FAA’s Integrated Noise Model (INM)
 - FAA’s Noise Integrated Routing System (NIRS)
 - US Air Force’s NOISEMAP
 - Aviation Environmental Design Tool (AEDT) 2b*
- Two screening models are also used to assess the need for more detailed modeling
 - The Area Equivalent Method (AEM)
 - The Air Traffic Noise Screening (ATNS)

*AEDT 2b was released by the FAA on May 29, 2015

ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

Aircraft Noise Assessment 101

- The INM 7.0d has been the FAA-approved model for use in preparing:
 - Noise exposure maps (NEMs) for 14 CFR Part 150 and Part 161 studies
 - Noise elements of environmental assessments (EAs) and environmental impact statements (EISs)
 - Noise elements of airport master plans
- While AEDT 2b was released on May 29, 2015, FAA’s policy provides for continued use of the current noise model for a project already underway
- INM 7.0d will be used for the LGA 14 CFR Part 150 NEMs

ESA Study Team

36

THE PORT AUTHORITY
OF NY & NJ

Aircraft Noise Assessment 101

- **NIRS** is approved for use in assessing changes in aircraft noise exposure resulting from changes in air traffic procedures over large geographic areas
- **NOISEMAP** is approved for noise studies involving predominately military aircraft operations

Aircraft Noise Assessment 101

- The **AEM** may be used for screening certain airport improvement projects to see if the change in noise exposure reaches the threshold of significance:
 - If there is greater than 17% change in the area of the 65 dB DNL contour a more detailed modeling effort is required
- The **ATNS** may be used for screening modifications to air traffic procedures above 3,000 feet AGL:
 - Used to identify potential increases of 5 dB or more in community noise levels
 - FAA considers whether there are extraordinary circumstances that warrant preparation of an environmental assessment

Aircraft Noise Assessment 101

- Aircraft noise modeling tools have many analytical uses:
 - Depicting annual aircraft noise exposure
 - Depicting single-event noise exposure
 - Predicting future aircraft noise exposure
 - Assessing changes in noise impacts resulting from runway configuration changes or new runways
 - Assessing changes in fleet mix and/or number of operations
 - Evaluating operational procedures

Aircraft Noise Assessment 101

Integrated Noise Model

- FAA's standard tool since 1978 for determining the predicted noise impacts around airports
- INM handles fixed wing and rotary wing aircraft and is a state-of-the-art aircraft noise model*
- Model produces noise exposure contours that are used for determining land use compatibility

*AEDT 2B was released by the FAA on May 29, 2015

Aircraft Noise Assessment 101

Integrated Noise Model

- The INM was designed to depict the cumulative 24-hour noise exposure for the annual-average day at an airport
- Primary area of focus is the 65 dB DNL contour
- Annual-average day DNL contours will not always match short-term measured values due variables such as:
 - Runway use
 - Fleet mix
 - Wind and weather conditions
 - Pilot/controller techniques

Aircraft Noise Assessment 101

Integrated Noise Model

- The INM can also predict noise at a specific location that may be sensitive to noise impacts (school, hospital, noise measurement sites, etc.)
- 16 predefined noise metrics are supported, including:
 - DNL
 - Lmax
 - Leq
 - SEL

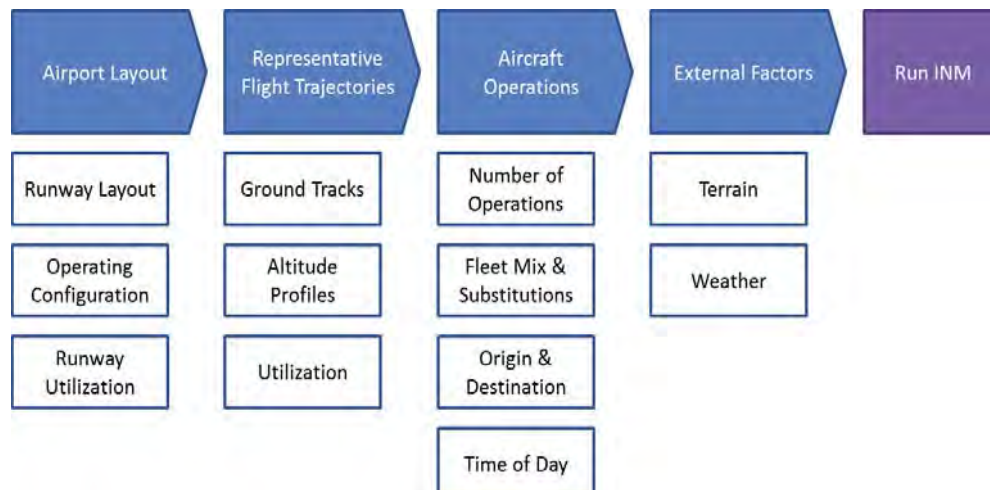
Aircraft Noise Assessment 101

Integrated Noise Model

- The INM has been in use for more than 35 years and is continually being updated to improve its accuracy
- The INM contains an extensive aircraft performance and noise level database derived from actual noise measurements of aircraft in flight
- Results from the INM have been validated on several occasions with overall modeled and measured levels falling within a couple of decibels of each other

Aircraft Noise Assessment 101

Integrated Noise Model: Inputs



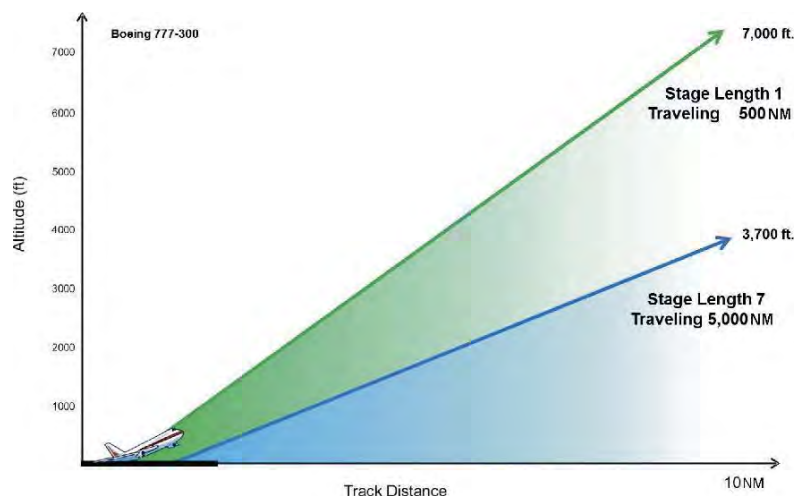
Aircraft Noise Assessment 101

Integrated Noise Model: Computation

- Each aircraft type “flies”:
 - off the runways as they are used
 - departure profiles based on aircraft weight, annual-average temperature, and airport altitude
 - the flight tracks as they are used during the year
 - approach profiles as they are flown

Aircraft Noise Assessment 101

Integrated Noise Model: Computation



Aircraft Noise Assessment 101

Integrated Noise Model: Computation

- INM computes the exposure of each operation:
 - as it would be measured in the airport environs accounting for the annual-average runway and flight track use
- The noise exposure of each aircraft operation is:
 - energy-summed over a user-specified grid to determine the annual-average noise exposure
- Values of equal noise exposure are connected using “contour lines”

Aircraft Noise Assessment 101

Integrated Noise Model: Computation

- Sophisticated algorithms use aircraft noise-power-distance curves to calculate noise exposure
- Algorithms are based on guidance documents published by the Society of Automotive Engineers (SAE)
- Primarily SAE-AIR-1845 “Procedure for the Calculation of Airplane Noise in the Vicinity of Airports”

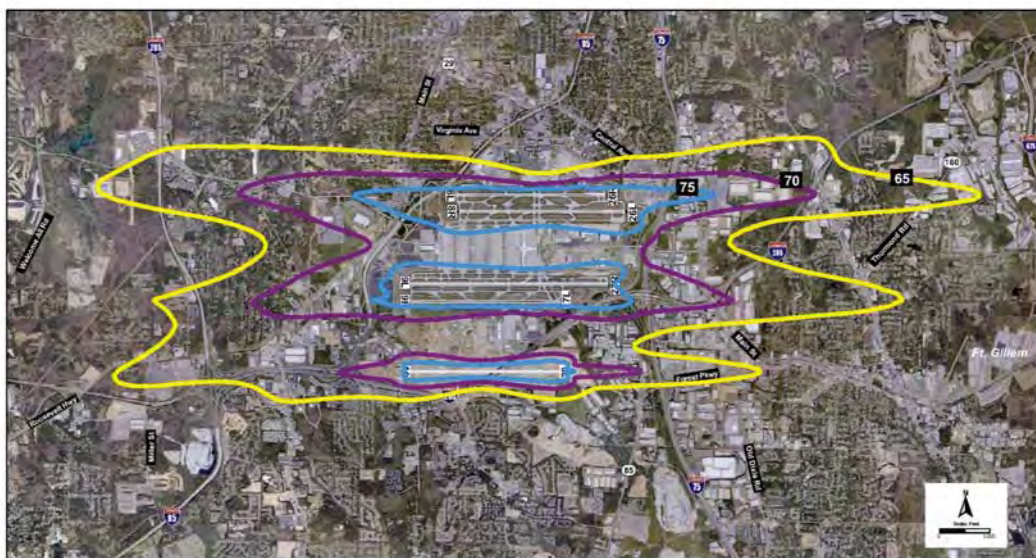
Aircraft Noise Assessment 101

Integrated Noise Model: Output

- Depictions of aircraft noise exposure
 - DNL contours
 - SEL or Lmax contours
 - DNL values across a grid
- Noise levels at specific points
 - home
 - noise monitor
 - school
 - place of worship

Aircraft Noise Assessment 101

Integrated Noise Model: Output



AESAL SOURCE: Orbitalcomm, January 2004

Aircraft Noise Assessment 101

- Aircraft noise exposure contours are only as good as the people using the noise models
- Improper use of the models can produce inaccurate depictions of aircraft noise exposure
- There is no substitute for experience and depth of knowledge about aircraft operations

Aircraft Noise Assessment 101

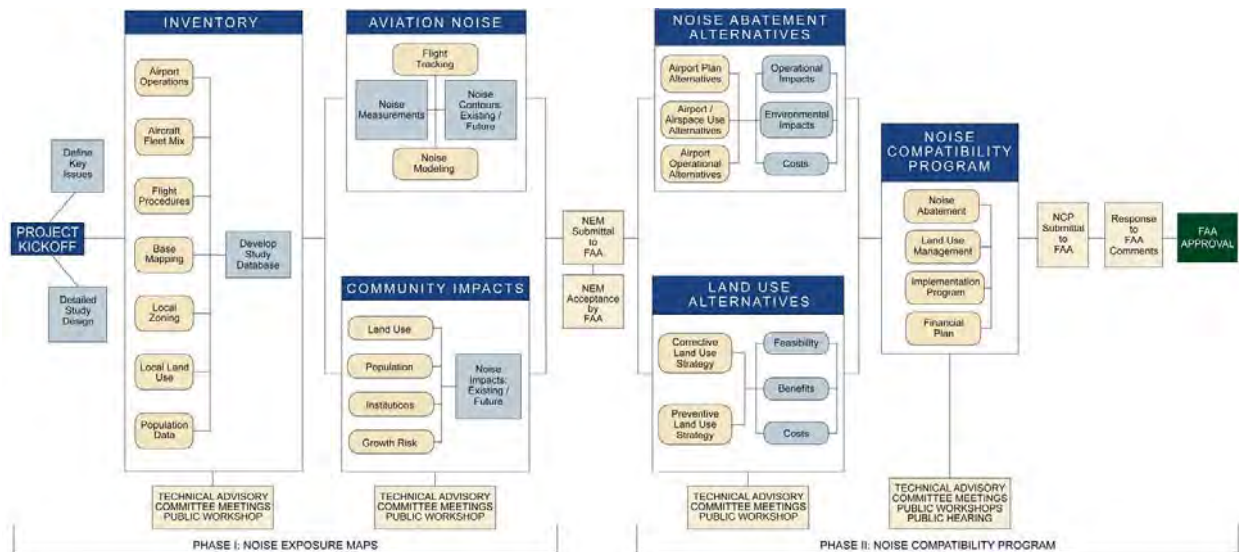
- **Noise Exposure Contours**
 - A noise exposure contour identifies areas of equal noise exposure around an airport. Noise exposure contours are similar to contours on topographic maps which show areas of equal elevation
- **Noise Exposure Maps**
 - A noise exposure map is a map showing noise exposure contour lines (or footprints) which identify areas of specific noise levels around an airport. NEMs also include a graphic depiction of geographical features and land uses that surround an airport
- **Noise Compatibility Programs**
 - A noise compatibility program report includes descriptions and a detailed evaluation of noise abatement and noise mitigation options applicable to an airport

Aircraft Noise Assessment 101

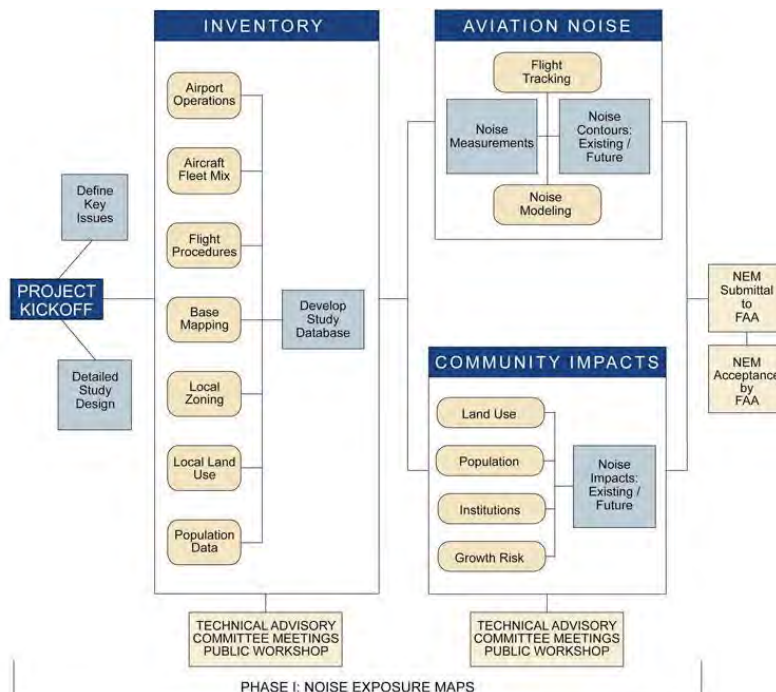
- **Noise Abatement Options** are intended to reduce actual aircraft noise levels in noise-sensitive areas by either reducing aircraft noise at the source by using quieter aircraft, shielding noise sensitive areas, or by instituting operational measures, such as changes in aircraft flight tracks or in approach or departure flight profiles
- **Noise Mitigation Options** are intended to reduce the effects of aircraft noise on the receiver. Noise mitigation strategies may include outright property acquisition, acoustical treatment/soundproofing programs, purchase of aviation easements, and land use control measures

Data Collection Process and Status

Data Collection Process and Status



Data Collection Process and Status



Data Collection Process and Status

- **CY 2014 data from the Port Authority's Airport Noise and Operations Management System (ANOMS):**
 - **Airport Operations**
 - **Aircraft Fleet Mix**
 - **Time of Day of Operation**
 - **Arrival and Departure Flight Tracks**
 - **Flight Profiles**
- **ANOMS data analysis will be complete in August/September**

Data Collection Process and Status

- **Reviewed the aeronautical charts for the greater New York/New Jersey metropolitan area**
- **Reviewed the published arrival and departure procedures**
- **Briefed by FAA on the region's airspace**

Data Collection Process and Status

- **Land use and zoning data for surrounding jurisdictions**
 - City of New York
 - Nassau County
 - Other
- **Population and household data**
- **Noise sensitive facilities data**
 - Schools
 - Places of Worship
 - Nursing Homes
 - Hospitals
 - Structures on or Eligible for the National Register of Historic Places
- **Draft land use and zoning maps will be complete by October**

Study Protocol

Study Protocol

- A study protocol has been developed for the JFK and LGA 14 CFR Part 150 studies
- The study protocol will guide each study by clarifying the roles and responsibilities of the ESA Team, the Port Authority, and the FAA; and will delineate the details of the technical aspects of the studies
- The study protocol is intended for the internal use of the ESA Team, the Port Authority, and the FAA
- The study protocol will be provided to the members of the LGA TAC and uploaded to the project website soon

TAC Discussion of Study Protocol

- Chapter 1: Introduction
- Chapter 2: Roles and Responsibilities of Stakeholders
- Chapter 3: Communications Strategy Protocol
- Chapter 4: Data Management Plan
- Chapter 5: Aviation Activity Forecast Protocol

TAC Discussion of Study Protocol

- **Chapter 6: Aircraft Noise Modeling Protocol**
- **Chapter 7: Land Use Protocol**
- **Chapter 8: Project Measures**
- **Appendices**

TAC Homework Assignment

Future TAC Meetings

ESA Study Team

65

THE PORT AUTHORITY
OF NY & NJ

Preliminary Agenda for TAC Meeting No. 3

- TAC Member Feedback Regarding TAC Meeting No. 2
- Review Preliminary INM Inputs
 - Aircraft Operations and Fleet Mix
 - Time of Day (Day vs. Night)
 - Departure Stage Length
 - Runway Use
 - Flight Tracks
- Review Airport Activity Forecast
- Review Aircraft Noise Measurement Data

ESA Study Team

66

THE PORT AUTHORITY
OF NY & NJ

Tentative Meeting Dates for TAC Meetings 3 and 4

- **TAC Meeting 3 – Tuesday, October 6, 2015**
- **TAC Meeting 4 – Tuesday, December 8, 2015**

Public Comment

Adjourn

ESA Study Team

69

THE PORT AUTHORITY
OF NY & NJ

Project Contacts and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

70

THE PORT AUTHORITY
OF NY & NJ

Technical Advisory Committee
Meeting #2
Meeting Summary



Technical Advisory Committee No. 2

14 CFR Part 150 Study – LaGuardia Airport

August 4, 2015 – 1:00 PM to 3:30 PM

Attendees:

TAC Members	
Name	Representing
Andrew Brooks	FAA - Airports Division
Suki Gill	FAA - NY Airports District Office (ADO)
Lillian Tan	MarketPlace Development
Mark Buttice	Nassau County Planning
Susan Carroll	New York Community Aviation Roundtable (NYCAR)
Debbie Bearden	NY Airport Liaison
Scott Solomon	NYC Department of City Planning
Charles Shamoon	NYC Department of Environmental Protection (NYCDEP)
David Hopkins	NYC Economic Development Corp (EDC)
Lydia Davenport	Port Authority of NY & NJ (PANYNJ)
Kelly Mitchell	PANYNJ
Chris Rhoads	PANYNJ
Pramod Saggi	PANYNJ
Tom Schneider	PANYNJ
Adeel Yousuf	PANYNJ
Jack Leibler	Queens Borough President's Office

Name	Representing
Elisa Velasquez	Queens Borough President's Office
Zendra Spence	Shelt Air
Marilyn Chapoteau	Town of North Hempstead/QuietSkies.net
Len Schaier	Town of North Hempstead/QuietSkies.net
Wes Sternberg	Town of North Hempstead
Glenn Morse	United Airlines

Non-TAC Members	
Name	Representing
Edward Braunstein	NYS Assembly
Roberta Goldstein	Queens Quiet Skies
Stan Goldstein	Queens Quiet Skies
John Kelly	
Phil Konigsberg	
Warren Schreiber	Community Board 7
Rebecca Sheehan	Senator Avella's Office
Edward Waltin	IRUM

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Mike Arnold	ESA Airports
Maura Fitzpatrick	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Andra Horsch	Nicholas Lence
Cristyne Nicholas	Nicholas Lence

Name	Representing
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell welcomed the TAC Members and other meeting attendees.

Steve Alverson reviewed the meeting agenda. He gave an overview of the regulatory context for conducting the 14 CFR Part 150 study. He explained that the study team had intended to have the Study Protocol document available to the TAC members by the time of this meeting, but they expect to distribute this shortly to TAC members for their review.

Ryan Walsh served as the meeting facilitator. He explained the purpose and role of the TAC and his role as facilitator. He provided ground rules by which the group would function.

TAC Member Feedback regarding Meeting No. 1

Steve Alverson asked attendees of the first TAC meeting for feedback. The following feedback was given by TAC members:

Len Schaier (Town of North Hempstead/QuietSkies.net) asked that these meetings be recorded using a stenographer, and that transcriptions be made available to TAC members. They stated that summaries will not capture all that is stated. The team pointed out that the meeting was being documented by a note-taker from FHI who was taking down the comments.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked that speakers be able to make multiple comments or ask multiple questions without interruption by the facilitator. Len Schaier (Town of North Hempstead/QuietSkies.net) continued that this would allow topics to be fully aired and that there would still likely be sufficient time for all TAC members to speak. The Team responded that it is not the facilitator's intent to stifle conversation but that in order to keep the meeting on time and on topic, some moderation is necessary.

Elisa Velasquez (Queens Borough President's office) asked that the meeting summary from TAC Meeting No. 1 be distributed. She also suggested that it would be helpful for TAC members to have access to the presentation prior to the meeting for review. If this could not be emailed due to size, she suggested, it should be available on the study website.

Steve Alverson asked the group whether it would be helpful to alternate meeting times between the morning and afternoon, and the group agreed this would be helpful.

Kelly Mitchell stated that the first two TAC meetings are largely informational to help TAC members get acclimated to the study. For future meetings, TAC members will be given materials ahead of time and homework assignments to prepare between meetings. She stated that meeting summaries would be distributed to TAC members first, and then posted on the study website.

Acoustic Principles and Noise Metrics

Steve Alverson made a detailed presentation on acoustic principles and noise metrics.

Aircraft Noise Assessment 101

Steve Alverson presented the Integrated Noise Model used for this study to quantify aircraft noise exposure.

Data Collection Process and Status

Mike Arnold provided an update on where the team was in their data collection efforts. Jennifer Hogan supplemented this information by speaking about how land use and zoning information is being collected, including coordination efforts with New York City and Nassau County. She asked for any assistance that TAC members could provide in terms of future land use development plans or proposals.

Study Protocol

Mike Arnold presented a status update on the development of the study protocol. The forecast element is still being completed, but the document will be made available to TAC members for review shortly.

TAC Member Homework Assignment

Steve Alverson stated that as homework, TAC members are asked to review the Study Protocol document when it is made available, and bring their questions to the next TAC meeting. He also requested that TAC members review the 14 CFR Part 150 regulations.

Future TAC Meetings

Steve Alverson presented the agenda for the next TAC meeting, as well as the proposed dates for the following two TAC meetings.

The full presentation provided by Steve and Mike is available at <http://panynjpart150.com/AdminPages/GetProjectFile.asp?a=LGA&f=LGA%20TAC%20Meeting%20No.%202%20Presentation%20-%20August%204,%202015.pdf>.

Comments from TAC Members

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that using the A-weighted scale does not measure the low frequency of airplanes, and that helicopters are a particular problem. They stated that this is not just a matter of annoyance, but also of health due to low-frequency vibrations shaking the body.

Elisa Velasquez (Queens Borough President's office) asked how long the 65 DNL (day-night average noise level) metric has been in place. The team responded that FAA has used the 65 DNL standard since the early 1980s, and the FAA and other federal agencies have reviewed the metric since that time and concluded that DNL is still the appropriate metric for assessing community annoyance. The team added that the 65 DNL standard is currently under another review by FAA. Elisa Velasquez (Queens Borough President's office) asked whether there was anything more recently adopted. The team stated that other organizations have their own standards, and that the World Health Organization has additional information. The 14 CFR Part 150 study, however, is guided by FAA standards. They added that in its 1973 "Levels" document, the EPA recommended 60 DNL, but subtracted 5 dB to provide an adequate margin of safety. Andrew Brooks (FAA) explained that the agency did not adopt these standards on its own, but is part of a Federal Interagency Committee. Andrew Brooks (FAA) added that the 65 DNL standard has also been adopted by the Federal Highway Administration. The FAA is currently revisiting this threshold. Andrew Brooks (FAA) added that Congress wants to add this assessment to their agency reauthorization bill.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that the International Civil Aviation Organization will be publishing a new recommended threshold for annoyance. This should be at 60 or 55 DNL.

Susan Carroll (NYCAR) stated that DNL does not measure concentrated noise levels that are currently present, as this scale looks at average noise levels over 18 hours/day of airport operations. They stated that this is not a fair or true assessment as flight paths stay the same over 18 hours.

Jack Leibler (Queens Borough President's office) expressed concern about the airport operations component of the Integrated Noise Model. With the PANYNJ's redesign of LaGuardia Airport, they recommend a discussion about other data that should be included in the study, as there is a proposed increase in operations at the airport. There is concern that these increases won't be reflected in the current study, and that the next one will not take place for five more years. The team responded that they are obligated to include in the 14 CFR Part 150 study any reasonably foreseeable future development proposed to be in place at LGA by 2021. They added that the PANYNJ is conducting this study on a voluntary basis. Andrew Brooks (FAA) added that the outcome of the study is a Noise Compatibility Program (NCP) with mitigation measures. Noise Exposure Map (NEMs) typically have about a five-year shelf life. After that timeframe, the PANYNJ may need to update the NEM and Noise Compatibility Program (NCP) if it wishes to seek additional federal funding. If there is a substantial change to the NEM, then it is no longer considered valid and would need to be reissued. Jack Leibler (Queens Borough President's office) asked about the shelf life of a DNL map. The FAA responded that they are valid for five years, and typically there is a 10-year window for the FAA to revisit the map.

Glenn Morse (United Airlines) asked whether pilot technique and take-off profiles were considered in the model. The team explained how stage length is used in the model, stating that the heavier planes flying longer distances depart at lower altitudes. This is matched up with the altitude profiles in the PANYNJ's ANOMS database and then checked with the airlines.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked whether stage length was a surrogate for load factor. They added that the default load factor is 65%. The team

responded that the load factor for LaGuardia and JFK Airports is closer to 85%. This will be compared to the flight profile, and the goal is to match the INM altitude profiles to the actual altitude profiles. Glenn Morse (United Airlines) added that stage length is a bigger factor than load factor since fuel load is the higher percentage of total aircraft weight instead of passenger weight. The team stated that this would be explained and demonstrated at the next TAC meeting.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that the LaGuardia Central Terminal Building (CTB) Environmental Assessment (EA) skipped months in its data analysis. The team explained that for the 14 CFR Part 150 study, there would be 365 days of analysis from 2014 with review procedures for the data post 2014. This would be to understand the changes between 2014 and 2016, which is the base year for the study. That is then adjusted to a 2021 future projection.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked when the cut-off date will be for looking at future planned developments. The team stated that they were nearing that cut-off date in the study. Len Schaier (Town of North Hempstead/QuietSkies.net) added that if significant changes such as the lifting of the Perimeter Rule occur much later, these changes will not be included in the analysis. The team stated that this is a balancing act because certain decisions will not be resolved within the 2016 study timetable.

A TAC member asked FAA how frequently the agency updates its forecasting. Andrew Brooks (FAA) responded that this is done annually and is available on line at the Terminal Area Forecast or TAF data query site. The TAF forecasts operations through 2040.

David Hopkins (NYCEDC) asked if the Perimeter Rule is lifted, whether the FAA or the PANYNJ will be responsible for updating the noise contours. Andrew Brooks (FAA) responded that if the Perimeter Rule is lifted, the PANYNJ would be responsible for updating the noise contours, and that the two agencies would work together on it.

David Hopkins (NYCEDC) stated that by 2021, LaGuardia may have flights to California, but this will not occur in 2016. The FAA responded that if substantial changes occur over these years, they would still go forward with the 14 CFR Part 150 study as currently scheduled. Jack Leibler (Queens Borough President's office) added that sound mitigation in public

schools is a good example of this type of assistance. David Hopkins (NYCEDC) asked whether the federal assistance had to be expended within the five-year time period, or obligated. Andrew Brooks (FAA) responded that it would have to be obligated within the five-year time period, and reminded the TAC that there was a nationwide competition for these funds.

Susan Carroll (NYCAR) distributed a handout written by Brian Will and requested that the study team and TAC members read it. She requested that the study team share the Schedule D concerning ESA's subcontractor list. The team stated that the list of subcontractors was introduced in the TAC Meeting No. 1 presentation, which is posted on the PANYNJ's 14 CFR Part 150 website.

Susan Carroll (NYCAR) expressed concern about the accuracy of US Census data for areas such as Downtown Flushing, which may have underreporting. The team responded that if updates to the Census data are made available, then the team will use those data. The team added that future planning will be coordinated with the local jurisdictions to capture new development.

Elisa Velasquez (Queens Borough President's office) asked if the EA for the CTB captured the changes in airport operations and flight patterns after the construction project is completed. Andrew Brooks (FAA) responded that the EA footprint does not affect operations of the airport. The FAA reviewed the EA for the project. The team stressed that the overwhelming impacts from this construction are on the landside, not the airside of the airport.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked if changes in airspace can be overlaid on grids to show traffic from both LaGuardia and JFK Airports combined. The team responded that the study's grids are not currently set up that way, and the noise for each airport will be modeled separately. The team added that running combined noise contours is out of scope. Susan Carroll (NYCAR) supported the above request because people live under flight paths from both airports. The team stated that the 14 CFR Part 150s for LaGuardia and JFK Airports are two separate studies.

Len Schaier (Town of North Hempstead/QuietSkies.net) requested that the study team compare the noise model predictions with the noise monitor data to see if they are consistent. The team stated that this would be done.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked what populations are experiencing noise impacts outside the 65 DNL contour. The team stated that the PANYNJ would consider evaluating this question.

Mark Buttice (Nassau County) asked whether the noise monitoring data could be shared to compare the model with the on-the-ground data. The team stated that the PANYNJ maintains monthly noise measurement reports, which will be emailed to the Nassau County TAC member.

Public Comments

A member of the public asked whether vibration was part of the 14 CFR Part 150 study in addition to noise. The team responded that it was not. They added that numerous studies have shown that noise-induced vibrations from commercial aircraft do not damage homes. Normal activities within a home such as closing doors, closing windows create much greater vibration levels than do aircraft.

A member of the public asked whether OSHA used the dBA scale. The team stated that it did.

A member of the public made a statement that the greatest nuisance is the frequency of planes. It is not the noise created by any one plane, but by the number of times they are flying overhead. This is a concern for communities throughout the US since planes are using flight paths over houses all the time even though there are other options.

A member of the public stated that NY State Legislature proposed a bill that did not pass, which required that the PANYNJ perform this 14 CFR Part 150 study. The member of the public was skeptical that PANYNJ would have undertaken the study without this political pressure.

A member of the public asked about how the potential change to the Perimeter Rule would impact LaGuardia's operations. They have read that this would result in a 30% increase in

passengers if the Perimeter Rule is lifted and transcontinental flights are introduced at LaGuardia. They asked if the 14 CFR Part 150 study anticipated these changes. The team responded that they are obligated to include changes in airport operations that are reasonably foreseeable for the study period. Andrew Brooks (FAA) added that they are engaged with the PANYNJ on the status of the Perimeter Rule and the changes that could come about if the Rule is lifted. Andrew Brooks (FAA) added that an increase in passengers does not necessarily mean more flights.

It was stated that if the proposed changes included in the 14 CFR Part 150 study are different from those included in the CTB EA document, then there would need to be a supplement to the EA. Len Schaier (Town of North Hempstead/QuietSkies.net) stated that if there is no change between the results of the CTB EA and the 14 CFR Part 150 study, then this will be a waste of money. The team stated that the fleet mix is changing, which the 14 CFR Part 150 study will consider.

A member of the public stated that FAA is not just responsible for mitigation funds, but also to consider changes to flight paths in the Noise Compatibility Program (NCP). Andrew Brooks (FAA) affirmed this statement.

A member of the public asked that the study team make all data collected available to the TAC before completing the analysis. The team responded that these data will be presented at the next TAC meeting. The member of the public stressed that every single piece of data should be available for TAC review.

Another member of the public reiterated this request.

A member of the public asked about the source of data land use from NYC. The team explained that they used the Primary Land Use Tax Lot Output (PLUTO) database. The member of the public expressed concern that each neighborhood in Queens has different land uses and zoning. The team stated that there would be coordination with these individual communities. They added that planned development would also be captured.

A member of the public asked whether there was anticipation of the judgement of the potential lifting of the Perimeter Rule. They stated that if the airport is already at capacity, then a 30% increase in passenger volume and international flights using LaGuardia would be

significant changes. They suggested that it might be better to wait until a decision regarding the future of the perimeter rule is made before the study team progresses with operations forecasts. Andrew Brooks (FAA) added that there are ongoing discussions about the Perimeter Rule and its ramifications for study forecasts. Passenger increases will be accounted for in the forecasting methodology. If the Perimeter Rule is lifted, the team would look at the 2014 fleet mix and ratchet it up. The member of the public asked whether the team was confident that the model will include the potential increase in passengers, and the team stated that they were.

A member of the public stated that Community Board 7 represents the largest population impacted by LaGuardia and expressed concern about the makeup of the TAC membership. They stated that with the exception of the New York Community Aviation Roundtable, the membership does not include community stakeholders. They added that land use is best known by local communities, and expressed concern that Community Board 7 was not consulted on land use issues. They made an official request that more community stakeholders be added to the TAC.

A member of the public thanked the representatives from the State Legislature present for bringing pressure on the PANYNJ to conduct this study. They stated that local citizens found the PANYNJ's disregard for communities unacceptable. They asked who the study team had contacted at Community Board 11 regarding land use. The team reiterated who they had contacted regarding land use. The member of the public stated that the community pushed for this study, and that capitalism should not be at the expense of public health issues.

Susan Carroll (NYCAR) supported the statements above and added that Flushing residents who are now protected could be impacted with changes to flight patterns in the future.

Closing Remarks

Kelly Mitchell thanked attendees for their time and input.

Appendix H-3
Technical Advisory Committee
Meeting #3
October 7, 2015

Technical Advisory Committee
Meeting #3

Meeting Notice and
Attendance Roster

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF THIRD TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDY
LAGUARDIA AIRPORT

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for LaGuardia (LGA) Airport. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the LGA 14 CFR Part 150 Study by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TAC will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the LGA 14 CFR Part 150 Study.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Wednesday, October 7, 2015
TIME: 1:00PM - 4:00PM
LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371

LGA TAC Meeting #3 October 7, 2015

First	Last	Representing	Alternates	Primary	Alternate
Mike	Alberts	KB Environmental			
Steve	Alverson	ESA Airports		✓	
Mike	Arnold	ESA Airports			
Debbie	Bearden	NY Airport Liaison	Sal Debono		
Arnold	Bloch	FHI			
Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
Peter	Byrne	VHB		✓	
Chung	Chang	NYCDEP	Charles Shamoon		✓
Fred	Dixon	New York & Company			
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins	✓	
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guiod	FAA - TRACON	Steve Kelley		
Jennifer	Hogan	VHB		✓	
David	Hopkins	NYC Economic Development Corp (EDC)			
Andra	Horsch	Nicholas Lence			
Bill	Huisman	Aviation Development Council		✓	
Adrian	Jones	ESA Airports		✓	
Ed	Knoesel	Port Authority		✓	
Josh	Knoller	Nicholas Lence		✓	
Natalia	Kozikowska	Nicholas Lence			
Kendall	Lampkin	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		✓
Michael	Levine	Town of North Hempstead	Neal Stone		✓

Dena	Libner	NYC & Company	Fred Dixon		
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Kelly	Mitchell	Port Authority		✓	
John	Moretto	FAA - NY ADO	Suki Gill	✓	
Glenn	Morse	United Airlines			
Christyne	Nicholas	Nicholas Lence			
Susan	O'Donnell	VHB		✓	
Chris	Rhoads	Port Authority		✓	
Teresa	Rizzuto	Port Authority			
Chung	S. Chan	NYC Department of Environmental Protection (NYCDEP)	Charles Shamoon		
Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz	✓	
Dean	Saucier	National Business Aviation Association			
Len	Schaier	Town of North Hempstead/QuietSkies.net	Marilyn Chapoteau	✓	✓
Lisa	Scully	Port Authority			
Scott	Solomon	NYC DCP			
Zendra	Spence	Shelt Air	Cesar Rizik		
Doug	Stearns	Port Authority	Chris Rhoads	✓	
Laura	Stensland	JFK Tower	James Law		
Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	✓	
Ian	Van Praagh	Port Authority			
Elisa	Velasquez	Queens Borough President	Jack Leibler	✓	
Ryan	Walsh	FHI		✓	

Brian	Will	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber	✓	✓
Adeel	Yousuf	Port Authority			

**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #3
October 7, 2015 (1:00 p.m. – 4:00 p.m.)
LaGuardia Airport

Sign-In Sheet

Name/Organization	Address	Phone or Email
John Rokosny	78-10 34 th Ave NY 11372	JohnRokosny@gmail.com
Andriette Redman	78-10 34 th Ave. NY 11372	AndrietteR@aol.com
Rudy Luo	45-32 158 th Street Flushing NY 11358	rudyluo@hotmail.com
John Kelly	H6-49 152 nd NY 11351	JohnJKellyIII@aol.com
Marilyn Chapote	183-18 Palmy Rd. 11432	Chpfam@aol.com
JOHN MORETTO	FAA FED	
Laura Stenslow	FAA LGA ATCT	Laura.G.Stenslow@faa.gov
Nathan Christensen	SEIU 32BJ	nchristensen@seiu32bj.org
Rupa Mitra	35-55 76 th St #1, Jackson Heights	rupamitra99@gmail.com
Stacy Gilbert	4 WTC	sgilbert@panynj.gov
Nicole KURUSZKO	4 WTC	NKURUSZKO@panynj.gov
Stewart Weiss	35-30 73 street JH 11372	stewart.weiss@aem.org
Des Stensberg North Hempstead	TAC members	
Stan Goldstein	35-37 170 th St Flushing	GoldsteinUSA@gmail.com
Phil Konigsberg	23-25 Bell Blvd Bay Terrace	bayterracephil@msa.com

TAC
members
✓
✓
✓

Technical Advisory Committee
Meeting #3
Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 3
14 CFR Part 150 Study – LaGuardia Airport

Wednesday, October 7, 2015

1:00 PM to 4:00 PM EDT

1. Highlights of the Previous TAC Meeting
2. Port Authority Update on Perimeter Rule, CTB and Other Relevant Items
3. Review Homework Assignment
4. Study Protocol Update
5. Review Preliminary INM Inputs
6. Review Airport Activity Forecast
7. Review Aircraft Noise Measurement Data
8. TAC Homework Assignment
9. Future TAC Meeting Dates
10. Public Comment
11. Adjourn

Welcome!

LaGuardia Airport Title 14 Code of Federal Regulations Part 150 Study Technical Advisory Committee Meeting No. 3

October 7, 2015

LA GUARDIA AIRPORT

THE PORT AUTHORITY
OF NY & NJ

1

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 3

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

Role of the TAC Meeting Facilitator

- **To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator**
- **The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda**
- **The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion**
- **The facilitator will assist the TAC in reaching a consensus on items brought before the TAC**

Meeting Agenda

- **Previous TAC Meeting Highlights**
- **Review Homework Assignment (14 CFR Part 150)**
- **Study Protocol Update**
- **Review Preliminary Integrated Noise Model (INM) Inputs**
- **Review Airport Activity Forecast**

Meeting Agenda

- Review Aircraft Noise Measurement Data
- TAC Homework Assignment #2
- Future TAC Meeting Dates
- Public Comment
- Adjourn

Previous TAC Meeting Highlights

Review Homework Assignment

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

14 CFR Part 150

- **14 Code of Federal Regulations (CFR) Part 150 (commonly referred to as FAR Part 150) establishes the parameters of the Airport Noise and Land Use Compatibility Planning process**
- **14 CFR Part 150 also establishes the methods and metrics to be used in aircraft noise analyses for other types of federal and state aircraft noise analyses**
- **Voluntary program established to allow airports to become eligible for grant funds for approved airport noise programs**
- **Sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs**

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

14 CFR Part 150

- **Assesses the impacts of aircraft noise on the area surrounding an airport**
 - **Deems noise levels below 65 dB Day-Night Average Sound Level (DNL) to be compatible with all land uses**
- **Identifies measures to reduce aircraft noise (noise abatement) and limit its impacts (noise mitigation)**
- **Outlines a program for implementation of noise abatement and mitigation measures**
- **Allows FAA-approved measures to be eligible for FAA funding**

ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

Study Protocol Update

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

Study Protocol

- A study protocol has been developed for the JFK and LGA 14 CFR Part 150 studies
- The study protocol has been provided to the members of the LGA TAC and uploaded to the project website

Review Preliminary INM Inputs

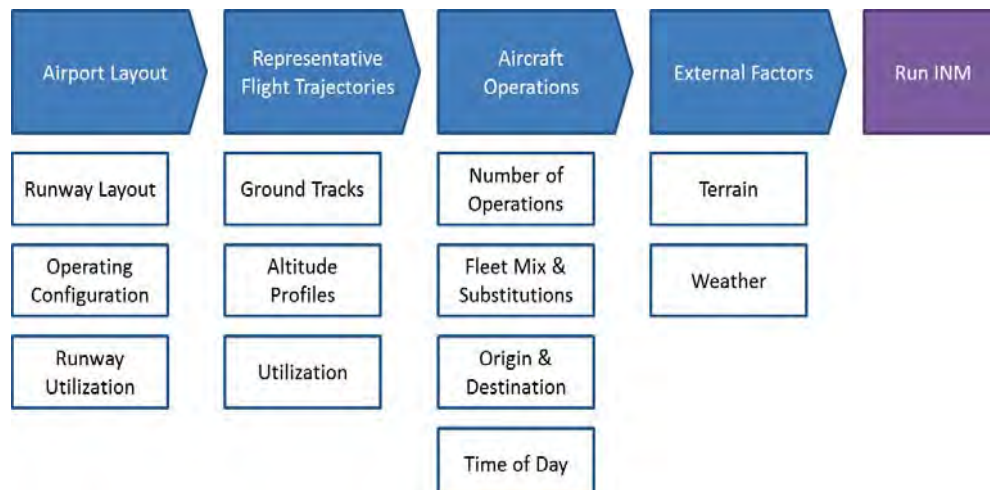
Review Preliminary INM Inputs

Integrated Noise Model

- The INM was designed to depict the cumulative 24-hour noise exposure for the annual average day at an airport
- Primary area of focus is the 65 dB DNL contour
- Annual-average day DNL contours will not always match short-term measured values due to variables such as:
 - Runway use
 - Operational levels
 - Fleet mix
 - Wind and weather conditions
 - Pilot/controller techniques

Review Preliminary INM Inputs

Integrated Noise Model: Inputs



Review Preliminary INM Inputs

- **Annual Aircraft Operations (*FAA, Air Traffic Activity Data System*)**
 - 2014 Annual Operations – 370,012
- **Meteorological Data (*NOAA NCDC*)**
 - 2014 annual average temperature – 54.4 F
 - 2014 annual average relative humidity – 59%
 - 2014 annual average pressure – 30.02 in
 - 30-year annual average temperature – 56.0 F
 - 30-year annual average relative humidity – 63.0%
 - 30-year annual average pressure – 30.01 in
- **National Elevation Dataset (NED) terrain data (*USGS*)**

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Airport Noise and Operations Management System (ANOMS) Data

- Flight and aircraft radar data originate from the Passive Surveillance Radar (PASSUR) system that collects both the flight track and flight identification from PASSUR's radar sensors
- Data collected by PASSUR are downloaded and processed by Bruel & Kjaer and incorporated into the Port Authority's ANOMS
- The flight track data are also uploaded to the Port Authority's on-line WebTrak system
- WebTrak displays air traffic patterns within the New York Metropolitan area

ESA Study Team

16

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Airport Noise and Operations Management System (ANOMS) Data

- Total ANOMS records (2014) – 368,340
- Records with incomplete data – 14,275 (3.9%)
- Records used in the 2014 operations analysis – 354,065 (96.1%)

ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only

Review Preliminary INM Inputs Annual Operations by INM Aircraft Type

TABLE 1
ANNUAL AIRCRAFT OPERATIONS BY INM AIRCRAFT TYPE - 2014
LAGUARDIA AIRPORT

INM Aircraft Type	Aircraft Category	Operations	Percent of Fleet
CRJ9-ER	Regional Jet	92,852	25.11%
737-800	Narrow-Body	37,087	10.03%
EMB175	Regional Jet	32,951	8.91%
A320-211	Narrow-Body	26,310	7.12%
A320-232	Narrow-Body	24,118	6.52%
737-700	Narrow-Body	23,446	6.34%
EMB190	Regional Jet	21,240	5.74%
EMB170	Regional Jet	20,885	5.65%
MD83	Narrow-Body	18,203	4.92%
CL801	Regional Jet	15,844	4.23%
EMB145	Regional Jet	14,080	3.80%
EMB14L	Regional Jet	13,021	3.52%
717-200	Narrow-Body	6,239	1.69%
A321-232	Narrow-Body	5,955	1.62%
A319-131	Narrow-Body	4,208	1.14%
757PW	Narrow-Body	3,153	0.85%
MD9028	Narrow-Body	2,131	0.58%
DHC8	Turboprop	1,567	0.42%
QV	General Aviation Jet	769	0.21%
CL800	General Aviation Jet	630	0.17%
CNA560XL	General Aviation Jet	558	0.15%
CNA750	General Aviation Jet	548	0.15%
QV	General Aviation Jet	467	0.13%
MD9025	Narrow-Body	444	0.12%
LEAR35	General Aviation Jet	444	0.12%
MJ3001	General Aviation Jet	400	0.11%
737-300	Narrow-Body	382	0.11%
CNA208	Turboprop	320	0.09%
CNA680	General Aviation Jet	298	0.08%
MD82	Narrow-Body	278	0.08%
CNA560E	General Aviation Jet	197	0.05%
707R	Narrow-Body	133	0.04%
F100Q2	General Aviation Jet	117	0.03%
SA355F	Helicopter	111	0.03%
CNA441	Turboprop	88	0.02%
CNA55B	General Aviation Jet	72	0.02%
787-400	Wide-Body	70	0.02%
CNA525C	General Aviation Jet	67	0.02%
Q1B	General Aviation Jet	65	0.02%
S76	Helicopter	64	0.02%
B407	Helicopter	64	0.02%
GASEPV	Propeller	54	0.01%
Military TBD	TBD	279	0.08%
Total		370,912	100.00%

NOTE: Values may not sum to totals shown due to rounding.
SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014; Federal Aviation Administration Air Traffic Activity Data System (ATAADS), 2014.

TABLE 1
ANNUAL AIRCRAFT OPERATIONS BY INM AIRCRAFT TYPE - 2014
LAGUARDIA AIRPORT

INM Aircraft Type	Aircraft Category	Operations	Percent of Fleet
CRJ9-ER	Regional Jet	92,852	25.11%
737-800	Narrow-Body	37,087	10.03%
EMB175	Regional Jet	32,951	8.91%
A320-211	Narrow-Body	26,310	7.12%
A320-232	Narrow-Body	24,118	6.52%
737-700	Narrow-Body	23,446	6.34%
EMB190	Regional Jet	21,240	5.74%
EMB170	Regional Jet	20,885	5.65%
MD83	Narrow-Body	18,203	4.92%
CL801	Regional Jet	15,844	4.23%

Top 10 aircraft accounted for approximately 84% of total operations in 2014.

ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Annual Average Day Operations

TABLE 1A
ANNUAL AVERAGE DAY OPERATIONS BY INM AIRCRAFT TYPE – 2014
LAGUARDIA AIRPORT

INM Aircraft Type	Aircraft Category	Arrivals	Departures	Total
CRJ9-ER	Regional Jet	127.19	127.19	254.39
737800	Narrow-Body	50.80	50.80	101.61
EMB175	Regional Jet	45.14	45.14	90.28
A320-211	Narrow-Body	33.04	33.04	66.08
A320-232	Narrow-Body	33.04	33.04	66.08
737700	Narrow-Body	32.12	32.12	64.23
EMB190	Regional Jet	28.10	28.10	56.19
EMB170	Regional Jet	28.01	28.01	56.02
MD83	Narrow-Body	24.54	24.54	49.07
CL601	Regional Jet	21.43	21.43	42.86
EMB145	Regional Jet	19.26	19.26	38.52
EMB14L	Regional Jet	17.84	17.84	35.67
717200	Narrow-Body	8.55	8.55	17.09
A321-232	Narrow-Body	8.20	8.20	16.40
A319-131	Narrow-Body	5.76	5.76	11.52
757FW	Narrow-Body	4.32	4.32	8.64
MD9028	Narrow-Body	2.92	2.92	5.84
DHC8	Turboprop	2.15	2.15	4.29
GV	General Aviation Jet	1.04	1.04	2.08
CL600	General Aviation Jet	0.86	0.86	1.73
CNA360XL	General Aviation Jet	0.76	0.76	1.53
CNA750	General Aviation Jet	0.75	0.75	1.50
GV	General Aviation Jet	0.64	0.64	1.28
MD9025	Narrow-Body	0.61	0.61	1.22
LEAR35	General Aviation Jet	0.61	0.61	1.22
MU3001	General Aviation Jet	0.55	0.55	1.10
737300	Narrow-Body	0.54	0.54	1.07
CNA308	Turboprop	0.44	0.44	0.88
CNA880	General Aviation Jet	0.41	0.41	0.82
MD82	Narrow-Body	0.38	0.38	0.76
CNA360E	General Aviation Jet	0.27	0.27	0.54
757RR	Narrow-Body	0.18	0.18	0.36
F100B2*	General Aviation Jet	0.16	0.16	0.32
SA355F	Helicopter	0.15	0.15	0.30
CNA441	Turboprop	0.12	0.12	0.23
CNA558	General Aviation Jet	0.10	0.10	0.20
757A00	Wide-Body	0.10	0.10	0.19
CNA525C	General Aviation Jet	0.09	0.09	0.18
GIIS	General Aviation Jet	0.09	0.09	0.18
S76	Helicopter	0.09	0.09	0.17
B407	Helicopter	0.09	0.09	0.17
GASEPV	Propeller	0.07	0.07	0.15
TBD Military	TBD	0.38	0.38	0.76
All Aircraft		566.87	566.87	1,013.73

NOTE: Values may not sum to totals shown due to rounding.
SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014.
Federal Aviation Administration, Air Traffic Activity Data System (ATAADS), 2014.

19

THE PORT AUTHORITY
OF NY & NJ

ESA Study Team

Review Preliminary INM Inputs

Aircraft Operations by Time of Day

TABLE 2
AIRCRAFT OPERATIONS BY TIME OF DAY - 2014
LAGUARDIA AIRPORT

Aircraft Category	Arrivals			Departures		
	Day	Night	Total	Day	Night	Total
Regional Jet	94.08%	5.92%	100.00%	92.72%	7.28%	100.00%
Narrow-Body	85.93%	14.07%	100.00%	90.41%	9.59%	100.00%
General Aviation Jet	90.90%	9.10%	100.00%	91.43%	8.57%	100.00%
Turboprop	97.83%	2.17%	100.00%	96.20%	3.80%	100.00%
Helicopter	98.44%	1.56%	100.00%	100.00%	0.00%	100.00%
Wide-Body	93.94%	6.06%	100.00%	76.47%	23.53%	100.00%
Propeller	96.88%	3.13%	100.00%	100.00%	0.00%	100.00%
All Aircraft	90.71%	9.29%	100.00%	91.77%	8.23%	100.00%

NOTE: Values may not sum to 100% due to rounding.
SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014.

Approximately 91% of the operations occur during the day (7:00 a.m. to 10:00 p.m.)
Approximately 9% of the operations occur during the night (10:00 p.m. to 7:00 a.m.)

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Departure Stage Length by INM Aircraft Type

TABLE 3
DEPARTURE STAGE LENGTH BY INM AIRCRAFT TYPE - 2014
LAGUARDIA AIRPORT

INM Aircraft Type	Departures by Stage Length (%)					
	1	2	3	4	5	6
CRJ9-ER	80.33%	18.96%	0.60%	0.00%	0.00%	0.00%
737-900	1.71%	64.14%	33.93%	0.21%	0.00%	0.00%
EMB175	57.83%	31.04%	11.13%	0.00%	0.00%	0.00%
A320-211	31.00%	51.14%	17.72%	0.14%	0.00%	0.00%
A320-232	11.20%	71.72%	17.05%	0.00%	0.00%	0.00%
737-700	22.44%	56.50%	21.04%	0.01%	0.01%	0.00%
EMB100	99.00%	0.10%	0.00%	0.00%	0.00%	0.00%
EMB170	52.57%	32.72%	14.72%	0.00%	0.00%	0.00%
MD83	11.99%	87.13%	0.88%	0.00%	0.00%	0.00%
CL601	80.25%	19.07%	0.17%	0.51%	0.00%	0.00%
EMB145	83.66%	16.15%	0.11%	0.05%	0.00%	0.00%
EMB14L	77.35%	22.85%	0.00%	0.00%	0.00%	0.00%
717-200	38.18%	61.82%	0.00%	0.00%	0.00%	0.00%
A321-232	81.19%	18.81%	0.00%	0.00%	0.00%	0.00%
A319-131	33.18%	58.47%	8.35%	0.00%	0.00%	0.00%
737-700	1.19%	69.43%	29.18%	0.20%	0.00%	0.00%
MD9028	7.48%	92.42%	0.10%	0.00%	0.00%	0.00%
DHC8	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
GV	62.69%	15.29%	5.20%	5.81%	8.58%	2.45%
CL600	58.01%	31.73%	5.13%	5.13%	0.00%	0.00%
CNA560XL	73.72%	24.82%	1.48%	0.00%	0.00%	0.00%
CNA750	52.75%	29.67%	11.38%	6.23%	0.00%	0.00%
GIV	58.25%	26.79%	6.25%	8.04%	2.23%	0.45%
LEAR35	65.45%	25.91%	5.91%	2.73%	0.00%	0.00%
MD9025	8.13%	91.87%	0.00%	0.00%	0.00%	0.00%
ML3001	76.38%	20.10%	3.52%	0.00%	0.00%	0.00%
737-300	7.94%	91.01%	1.05%	0.00%	0.00%	0.00%
CNA680	68.92%	20.27%	6.08%	4.73%	0.00%	0.00%
MD82	0.00%	94.12%	5.88%	0.00%	0.00%	0.00%
CNA300	90.30%	3.70%	0.00%	0.00%	0.00%	0.00%
CNA560E	68.27%	28.85%	2.88%	0.00%	0.00%	0.00%
757-RR	19.40%	55.22%	16.42%	2.99%	4.48%	1.49%
F10302	62.16%	32.45%	2.70%	2.70%	0.00%	0.00%
CNA558	54.29%	42.86%	2.85%	0.00%	0.00%	0.00%
757-400	85.28%	11.76%	2.94%	0.00%	0.00%	0.00%
GIIB	78.79%	15.15%	3.03%	3.03%	0.00%	0.00%
CNA525C	75.00%	21.86%	3.13%	0.00%	0.00%	0.00%
CNA441	90.63%	6.25%	3.13%	0.00%	0.00%	0.00%
S76	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
GASEPV	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SA355F	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
B407	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Stage Length Category	Range of Departure Trip Length (nautical miles)
1	0-500
2	501-1000
3	1,001-1,500
4	1,501-2,500
5	2,501-3,500
6	3,501-4,500
7	4,501-5,500
8	5,501-6,500
9	Over 6,500

SOURCE: U.S. Department of Transportation, Federal Aviation Administration, *INM User's Guide*, April 2007.

ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Arrival Runway Use by Aircraft Category and Time of Day

TABLE 4
ARRIVAL RUNWAY USE BY AIRCRAFT CATEGORY - 2014
LAGUARDIA AIRPORT

Aircraft Category	04	13	22	31	Total
Daytime Arrivals (7:00 a.m. to 10:00 p.m.)					
Regional Jet	20.43%	2.43%	48.19%	28.95%	100.00%
Narrow-Body	20.31%	2.79%	47.51%	29.39%	100.00%
General Aviation Jet	19.63%	2.99%	48.93%	28.45%	100.00%
Turboprop	18.48%	1.80%	49.63%	30.10%	100.00%
Wide-Body	32.26%	3.23%	38.71%	25.81%	100.00%
Propeller	9.68%	3.23%	54.84%	32.26%	100.00%
All Aircraft	20.36%	2.57%	47.94%	29.12%	100.00%
Nighttime Arrivals (10:00 p.m. to 7:00 a.m.)					
Regional Jet	19.58%	5.58%	46.65%	28.19%	100.00%
Narrow-Body	18.10%	6.38%	45.37%	30.15%	100.00%
General Aviation Jet	22.39%	5.47%	44.28%	27.86%	100.00%
Turboprop	23.81%	14.29%	47.62%	14.29%	100.00%
Wide-Body	0.00%	0.00%	50.00%	50.00%	100.00%
Propeller	0.00%	0.00%	100.00%	0.00%	100.00%
All Aircraft	18.70%	6.08%	45.83%	29.39%	100.00%

NOTES: Values may not sum to 100% due to rounding.
Does not include helicopter operations.

SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014

ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Departure Runway Use by Aircraft Category and Time of Day

TABLE 5
DEPARTURE RUNWAY USE BY AIRCRAFT CATEGORY - 2014
LAGUARDIA AIRPORT

Aircraft Category	04	13	22	31	Total
Daytime Departures (7:00 a.m. to 10:00 p.m.)					
Regional Jet	26.14%	48.63%	0.99%	24.24%	100.00%
Narrow-Body	26.17%	46.13%	1.36%	26.34%	100.00%
General Aviation Jet	27.02%	45.02%	1.53%	26.43%	100.00%
Turboprop	22.57%	51.13%	1.13%	25.17%	100.00%
Wide-Body	23.08%	38.46%	0.00%	38.46%	100.00%
Propeller	15.00%	30.00%	10.00%	45.00%	100.00%
All Aircraft	26.14%	47.58%	1.15%	25.13%	100.00%
Nighttime Departures (10:00 p.m. to 7:00 a.m.)					
Regional Jet	26.61%	46.72%	0.86%	25.82%	100.00%
Narrow-Body	24.99%	43.62%	2.29%	29.09%	100.00%
General Aviation Jet	26.84%	44.21%	3.16%	25.79%	100.00%
Turboprop	34.29%	40.00%	2.86%	22.86%	100.00%
Wide-Body	25.00%	62.50%	0.00%	12.50%	100.00%
Propeller	0.00%	0.00%	0.00%	0.00%	100.00%
All Aircraft	25.85%	45.19%	1.58%	27.37%	100.00%

NOTES: Values may not sum to 100% due to rounding.
Does not include helicopter operations.

SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014.

ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Runway Use by Operation Type and Time of Day

TABLE 6
RUNWAY USE BY TIME OF DAY - 2014
LAGUARDIA AIRPORT

Runway	Arrivals		Departures	
	Day	Night	Day	Night
04	20.36%	18.70%	26.14%	25.85%
13	2.57%	6.08%	47.58%	45.19%
22	47.94%	45.83%	1.15%	1.58%
31	29.12%	29.39%	25.13%	27.37%
Total	100.00%	100.00%	100.00%	100.00%

NOTES: Values may not sum to 100% due to rounding.

Does not include helicopter operations.

SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014.

Day (7:00 a.m. to 10:00 p.m.)

Night (10:00 p.m. to 7:00 a.m.)

Primary Departure Runways

- 04, 13, and 31

Primary Arrival Runways

- 04, 22, and 31

ESA Study Team

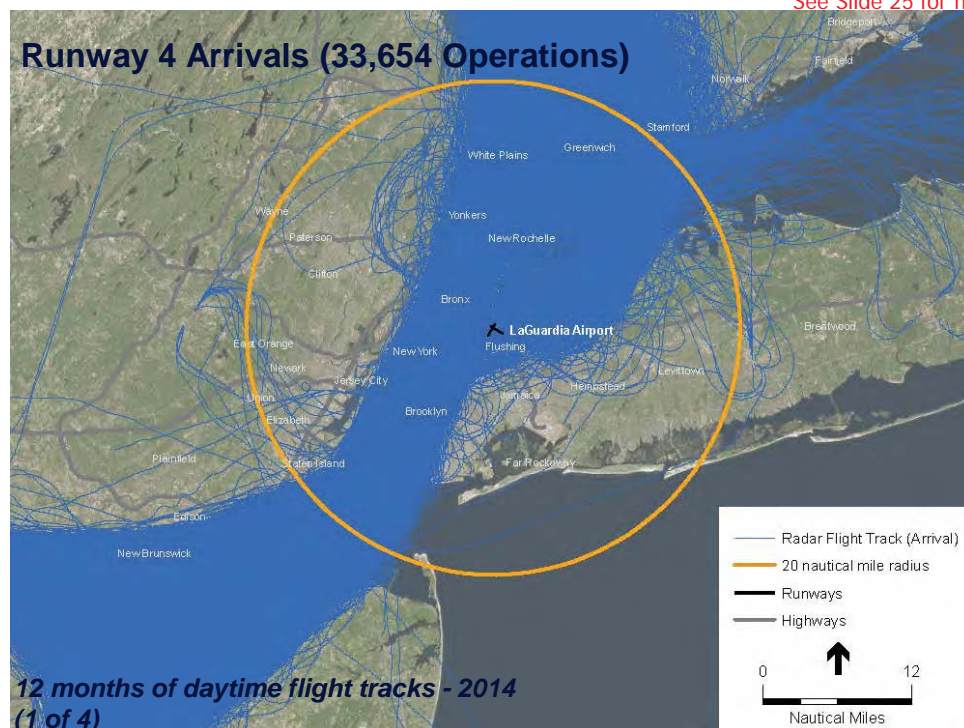
24

THE PORT AUTHORITY
OF NY & NJ

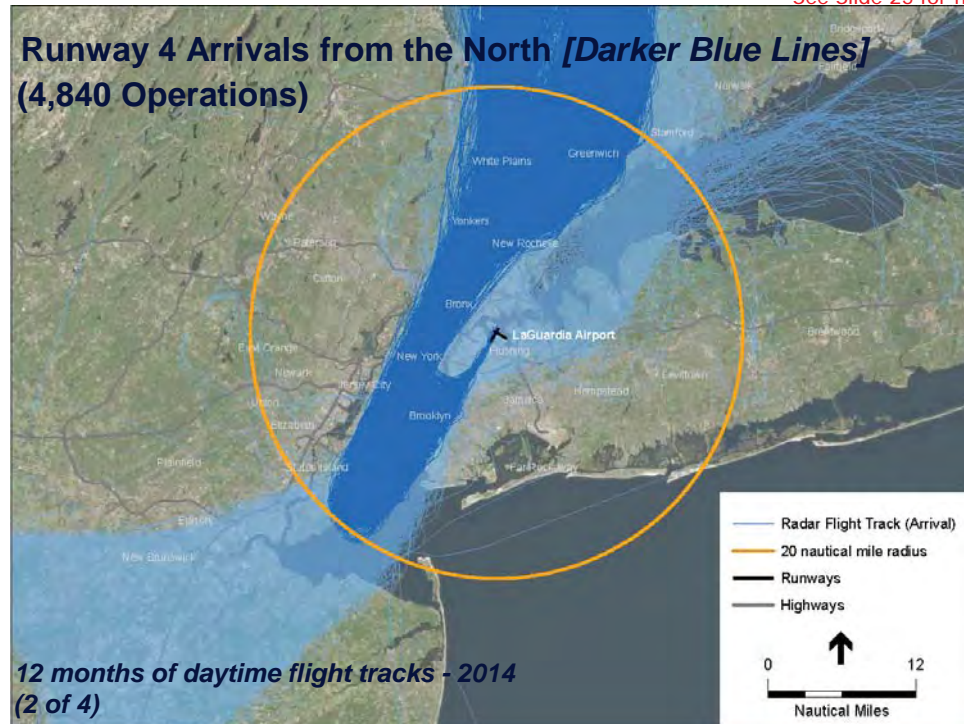
Review Preliminary INM Inputs Arrival and Departure Flight Tracks

- Slides 26-33 depict flight path information for aircraft arriving at LGA and departing from LGA
- The images on Slides 26-33 were developed using calendar year 2014 radar flight track data from the Port Authority's Airport Noise and Operations Management System (ANOMS)
- Slides 26-33 conceptually illustrate the process that will be used to develop arrival and departure flight tracks (base tracks and sub-tracks) in the Integrated Noise Model (INM)
- A sample INM arrival track is depicted on Slide 29
- A sample INM departure track is depicted on Slide 33
- Slides 26-33 do not depict flight paths for every aircraft operation that occurred at LGA in 2014

Draft For Deliberative Purposes Only
See Slide 25 for more information



Draft For Deliberative Purposes Only
See Slide 25 for more information

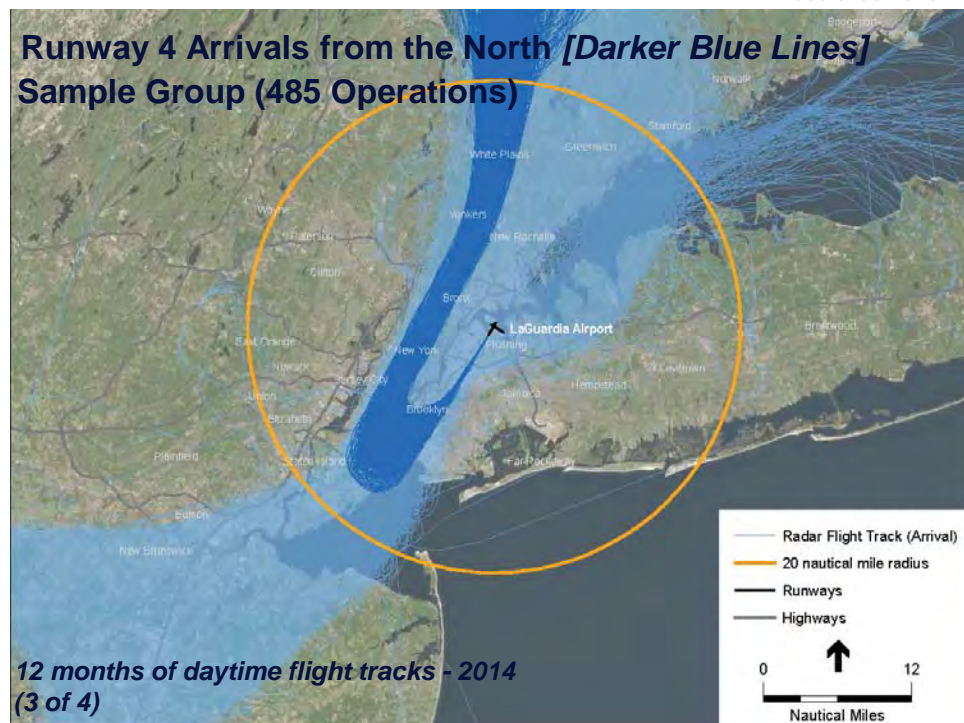


ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information

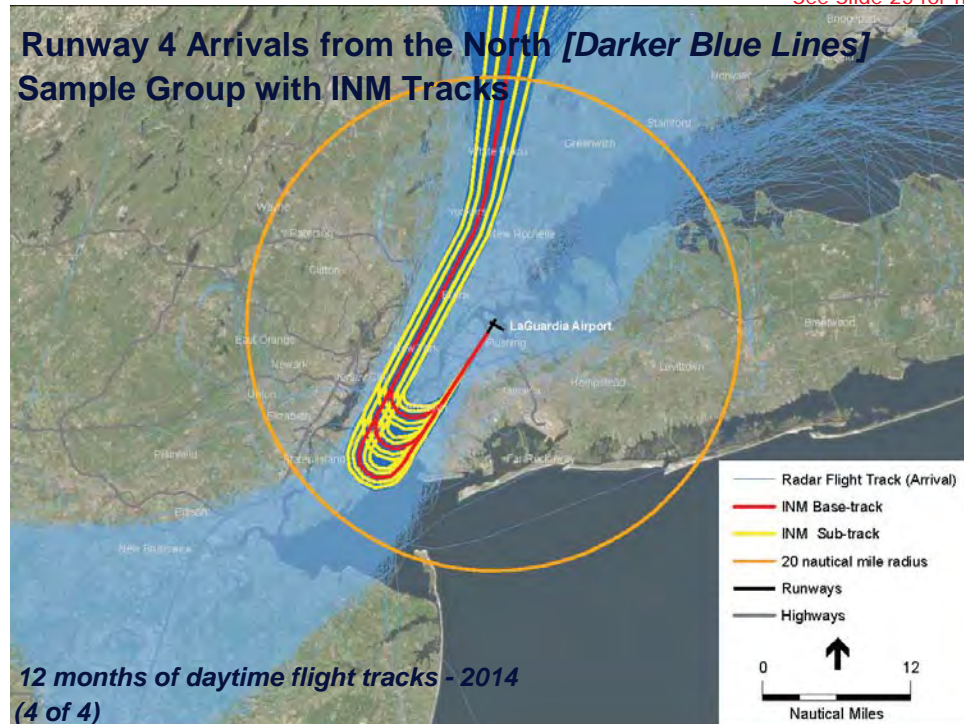


ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information

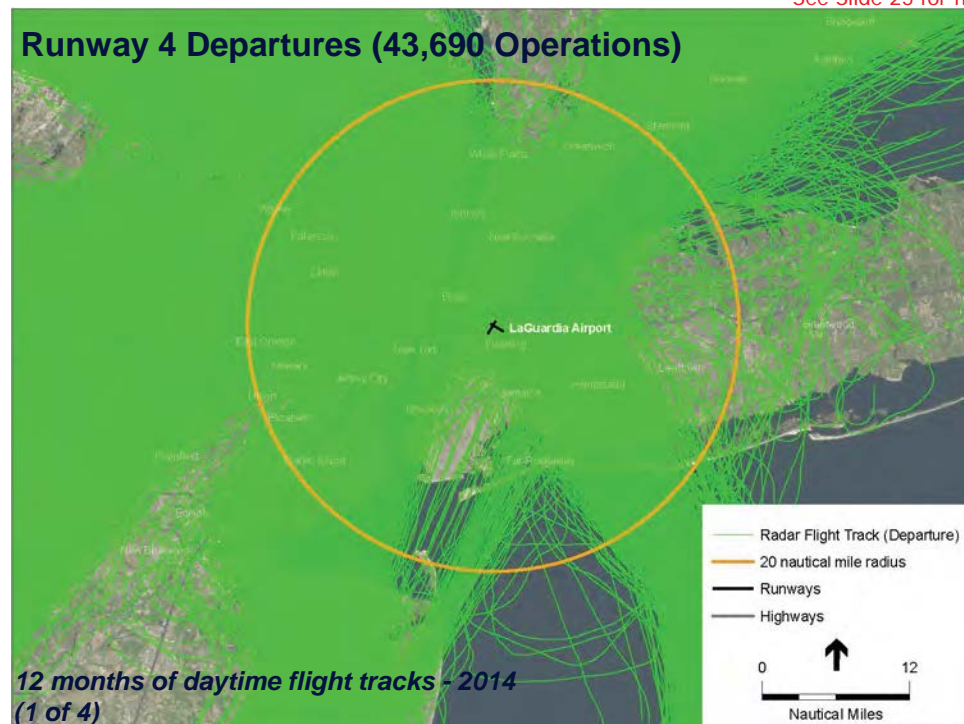


ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information

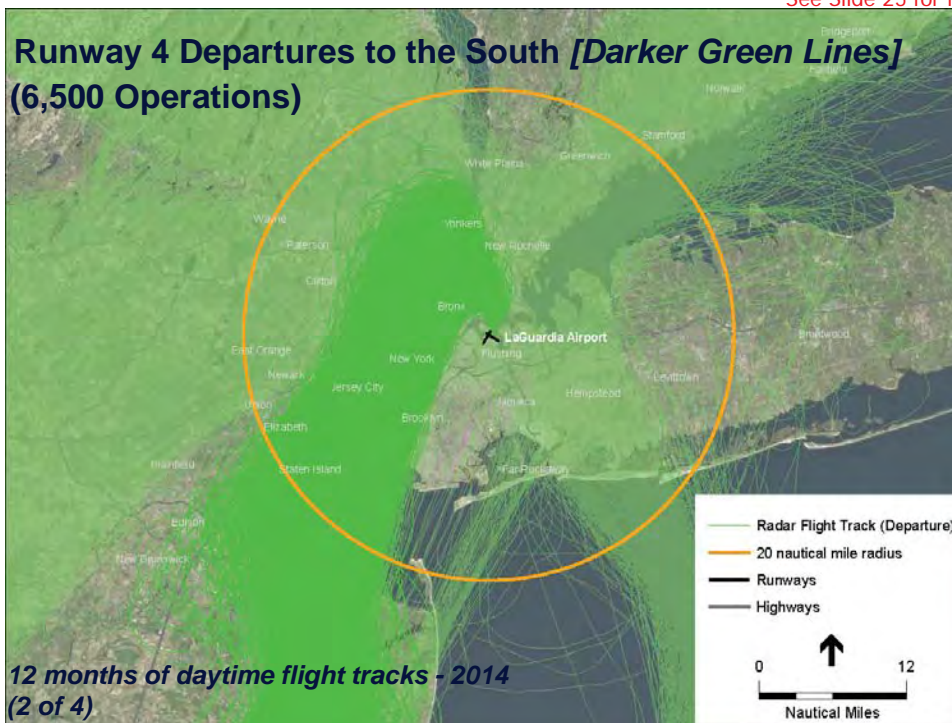


ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information

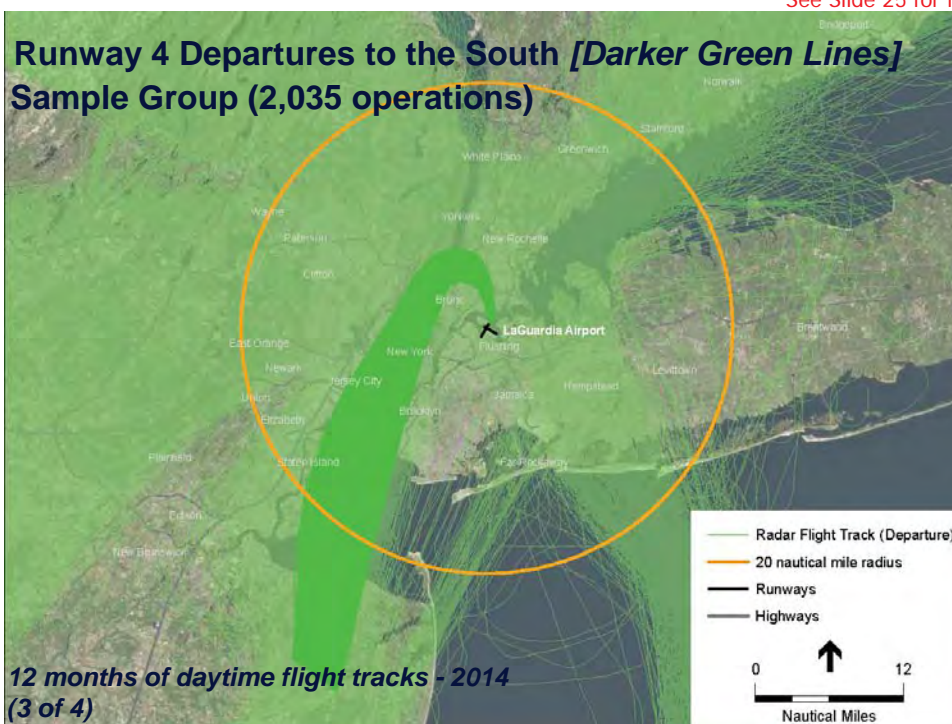


ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information

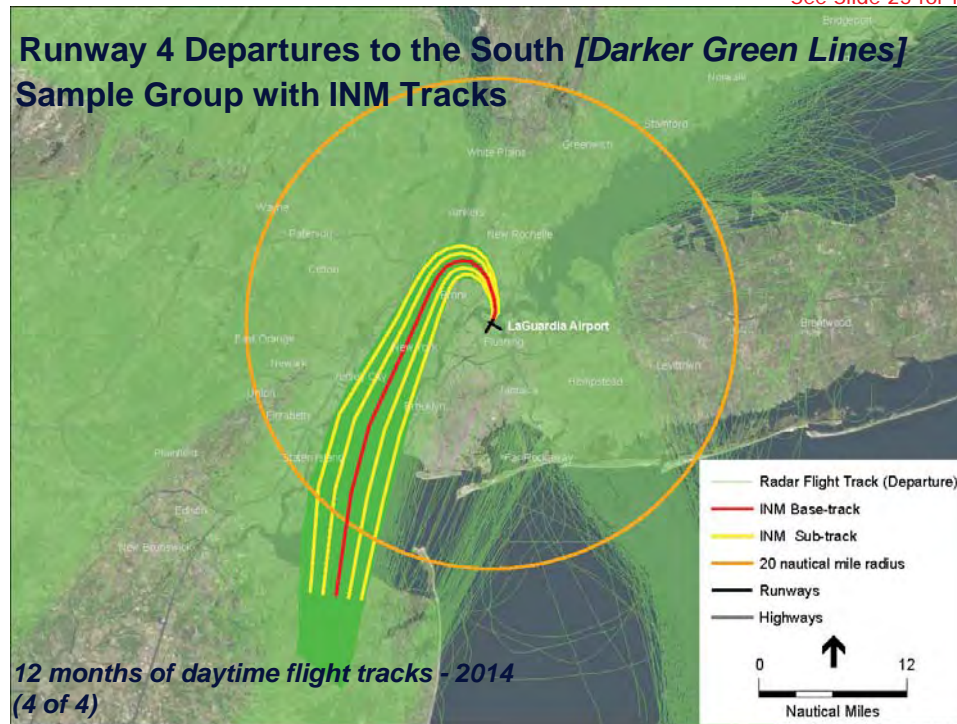


ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

Draft For Deliberative Purposes Only
See Slide 25 for more information



ESA Study Team

33

THE PORT AUTHORITY
OF NY & NJ

Review Airport Activity Forecast

ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

14 CFR Part 150 Forecast Will Be Based on FAA's 2014 Terminal Area Forecast (TAF)

- The TAF is prepared annually by the FAA for its long-range planning and is used in aviation planning studies such as 14 CFR Part 150 studies, environmental assessments, and airport master plans
- The actual 2014 aircraft fleet mix will serve as the starting point for the fleet mix update
- Once developed, the 2016 and 2021 forecast operations will be presented at a future TAC meeting

Review Aircraft Noise Measurement Data

Review Aircraft Noise Measurement Data

- **Aircraft DNL** – represents noise levels associated with aircraft noise events only
- **Community DNL** – represents ambient noise levels in the vicinity of the noise monitors (i.e., noise levels associated with sources other than aircraft including traffic on highways and major streets, railroad operations, barking dogs, children playing, mechanical equipment, wind in the trees, and residential maintenance activities)
- **Total DNL** – The sum of Aircraft DNL and Community DNL

The 14 CFR Part 150 Study will document aircraft DNL values in the vicinity of LGA. Information regarding Community DNL values and Total DNL values on the following slides is provided for informational purposes only.

ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

Review Aircraft Noise Measurement Data

Location of Noise Monitors near LaGuardia Airport - 2014



Site Number	Site ID
58	L13_P
11	L22_P
16*	FLUSH
52	KEWHI
59	SCNLN
61	L205BYSD
62	LFRNKLN
63	LDKLB
71	LCLGPT
70	LMDLVLG

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

Review Aircraft Noise Measurement Data

2014 Measured DNL Values – Noise Monitors near LaGuardia Airport

Site Number	Site ID	Location	Aircraft DNL	Community DNL	Total DNL
58	L13_P	39th Ave., Flushing, NY 11354	67.2	70.4	71.8
11	L22_P	78th St., Jackson Heights, NY 11370	69.0	64.9	71.0
16*	FLUSH	163rd St., Queens, NY 11358	60.4	64.8	66.3
52	KEWHI	72nd Ave., Flushing, NY 11367	57.6	59.9	61.9
59	SCNLN	Hutchinson River Parkway, Bronx, NY 10465	64.0	67.8	70.3
61	L205BYSD	205th St., Bayside, NY 11360	54.8	56.8	59.0
62	LFRNKLN	Franklin Ave., Flushing, NY 11355	63.9	67.2	68.7
63	LDKLB	Dekalb Ave., Brooklyn, NY 11216	57.8	58.7	60.8

*Does not include data for October - December 2014.

2015 Measured DNL Values – Noise Monitors near LaGuardia Airport

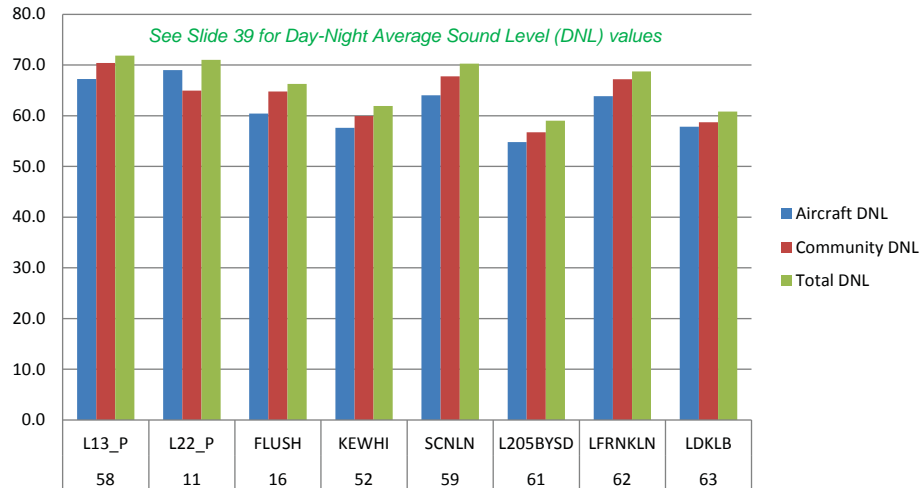
Site Number	Site ID	Location	Aircraft DNL	Community DNL	Total DNL
58	L13_P	39th Ave., Flushing, NY 11354	68.0	70.4	72.3
11	L22_P	78th St., Jackson Heights, NY 11370	69.8	65.3	70.7
52	KEWHI	72nd Ave., Flushing, NY 11367	57.8	59.9	62.1
59	SCNLN	Hutchinson River Parkway, Bronx, NY 10465	64.2	66.5	68.4
61	L205BYSD	205th St., Bayside, NY 11360	53.2	55.3	57.3
62	LFRNKLN	Franklin Ave., Flushing, NY 11355	62.5	66.8	68.2
63	LDKLB	Dekalb Ave., Brooklyn, NY 11216	56.3	59.9	61.3
71	LCLGPT	23rd Ave., College Point, NY 11356	62.0	66.2	67.8
70	LMDLVLG	78th St., Middle Village, NY 11379	55.6	60.9	62.0

Review Aircraft Noise Measurement Data

- In 2014, aircraft noise levels were the highest at noise monitor sites 58 and 11 (DNL 67.2 dB and DNL 69.0 dB) as shown on Slide 39
- In 2014, aircraft noise levels were the lowest at noise monitor sites 52 and 61 (DNL 57.6 dB and DNL 54.8 dB) as shown on Slide 39
- Through July 2015, aircraft noise levels are generally highest at sites 58 and 11 (DNL 68.0 dB and DNL 69.8 dB) as shown on Slide 39
- Through July 2015, aircraft noise levels are generally the lowest at sites 52, 61, and 70 (DNL 57.8 dB, DNL 53.2 dB, and 55.6 dB) as shown on Slide 39

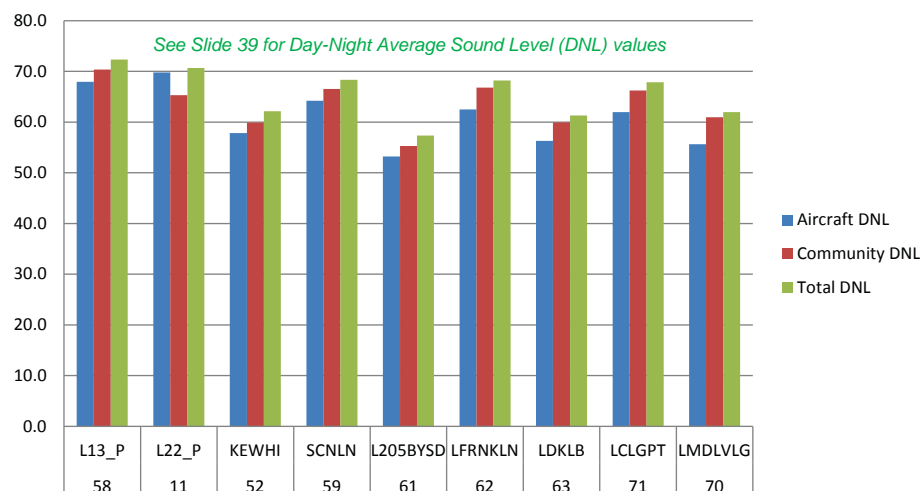
Review Aircraft Noise Measurement Data

2014 Noise Measurement Data Summary - LGA



Review Aircraft Noise Measurement Data

2015 Noise Measurement Data Summary - LGA



TAC Homework Assignment #2

ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

Future TAC Meeting Dates

ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

Preliminary Agenda for TAC Meeting No. 4

- **Review Study Protocol**
- **Review INM Inputs**
- **Review Land Use Base Maps**
- **Review Altitude Profile Analysis**

Tentative Meeting Dates for TAC Meetings 4 and 5

- **TAC Meeting 4 – Tuesday, December 8, 2015 (1 p.m. – 4 p.m.)**
- **TAC Meeting 5 – Tuesday, February 9, 2016 (10 a.m. – 1 p.m.)**

Public Comment

ESA Study Team

47

THE PORT AUTHORITY
OF NY & NJ

Adjourn

ESA Study Team

48

THE PORT AUTHORITY
OF NY & NJ

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director

Website:

<http://www.panynj.gov/airports/aircraft-noise-information.html>

- E-Mail: NYPart150@panynj.gov

ESA Study Team

49

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 3

Draft For Deliberative Purposes Only

Supplemental Aircraft Noise Measurement Data

2014 Measured Aircraft DNL Values – Noise Monitors near LaGuardia Airport

Site Number	Site ID	Month												Average DNL
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
58	L13_P	61.6	61.8	68.3	69.6	67.7	68.2	68.3	67.5	67.0	67.0	65.7	67.9	67.2
11	L22_P	66.8	67.9	70.1	68.6	70.5	68.4	65.4	67.5	69.4	68.8	65.4	72.9	69.0
16	FLUSH	61.8	57.4	57.6	60.2	60.0	62.1	60.6	61.1	60.6	n.a.	n.a.	n.a.	60.4
52	KEWHI	59.3	58.9	57.0	58.8	58.2	57.5	57.9	56.0	57.2	56.8	55.2	56.8	57.6
59	SCNIN	64.6	63.4	63.2	60.1	66.0	65.3	65.1	64.3	61.7	64.0	64.5	62.9	64.0
61	L205BYSD	n.a.	n.a.	n.a.	n.a.	n.a.	56.0	54.8	55.3	55.2	55.0	53.3	53.4	54.8
62	LFRNKLN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	63.2	64.1	64.7	63.6	63.6	63.9
63	LDKLB	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	58.5	57.4	55.0	59.3	57.8

Site removed as requested by the homeowner
n.a. = No data available

2015 Measured Aircraft DNL Values – Noise Monitors near LaGuardia Airport

Site Number	Site ID	Month												Average DNL
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
58	L13_P	65.3	67.5	67.0	68.3	69.0	69.0	68.5	n.a.	n.a.	n.a.	n.a.	n.a.	68.0
11	L22_P	68.8	68.4	71.8	70.6	68.8	70.6	68.2	n.a.	n.a.	n.a.	n.a.	n.a.	69.8
52	KEWHI	54.0	54.6	55.7	58.8	59.7	59.8	58.5	n.a.	n.a.	n.a.	n.a.	n.a.	57.8
59	SCNIN	62.2	62.1	64.0	64.9	65.3	64.7	65.1	n.a.	n.a.	n.a.	n.a.	n.a.	64.2
61	L205BYSD	50.6	51.4	54.0	55.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	53.2
62	LFRNKLN	62.3	64.6	63.6	63.0	61.0	60.9	60.2	n.a.	n.a.	n.a.	n.a.	n.a.	62.5
63	LDKLB	55.2	54.0	57.3	57.8	55.1	58.1	54.6	n.a.	n.a.	n.a.	n.a.	n.a.	56.3
71	LCLGPT	n.a.	59.1	61.0	62.6	63.3	62.9	61.7	n.a.	n.a.	n.a.	n.a.	n.a.	62.0
70	LMDLVLG	n.a.	54.7	54.7	57.1	54.9	54.4	57.0	n.a.	n.a.	n.a.	n.a.	n.a.	55.6

n.a. = No data available

ESA Study Team

50

THE PORT AUTHORITY
OF NY & NJ

Technical Advisory Committee
Meeting #3
Meeting Summary

Technical Advisory Committee No. 3
14 CFR Part 150 Study – LaGuardia Airport
October 7, 2015 – 1:00 PM to 4:00 PM

Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Robert Goldman	Delta Airlines
Andrew Brooks	FAA - Airports Division
John Moretto	FAA – NY ADO
Laura Stensland	FAA – LGA Airport Traffic Control Tower
Lillian Tan	MarketPlace Development
Mark Buttice	Nassau County Planning
Brian Will	New York Community Aviation Roundtable (NYCAR)
Charles Shamoon	NYC Department of Environmental Protection (NYCDEP)
Stacey Gilber	Port Authority of NY & NJ (PANYNJ)
Ed Knoesel	PANYNJ
Nicole Kuruszeko	PANYNJ
Kelly Mitchell	PANYNJ
Chris Rhoads	PANYNJ
Doug Stearns	PANYNJ
Adeel Yousuf	PANYNJ
Elisa Velasquez	Queens Borough President's Office
Wes Steinberg	Town of North Hempstead
Neal Stone	Town of North Hempstead
Marilyn Chapoteau	Town of North Hempstead/QuietSkies.net
Len Schaier	Town of North Hempstead/QuietSkies.net

Non-TAC Members	
Name	Representing
Edward Braunstein	NYS Assembly
Nathan Christensen	SEIU 32BJ
Stan Goldstein	Queens Quiet Skies
John Kelly	Kissena Park Civic Association
Phil Konigsberg	
Rudy Luo	
Rupa Mitra	
Andriette Redmon	
John Rokosny	
Warren Schreiber	Community Board 7
Stewart Weiss	

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Adrian Jones	ESA Airports
Maura Fitzpatrick	FHI
Ryan Walsh	FHI
Andra Horsch	Nicholas Lence
Josh Knoller	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC Members and other meeting attendees. She explained that the meeting space was equipped with microphones for assisting the note taker, rather than to produce meeting transcripts. She reminded TAC members who have not yet done so to sign the TAC Agreement, and provide contact information for alternate members.

Ryan Walsh (FHI) served as the meeting facilitator. He explained the purpose and role of the TAC and his role as facilitator. He provided ground rules by which the group would function. He asked attendees to introduce themselves.

Steve Alverson (ESA) reviewed the meeting agenda.

Review of Homework Assignment (14 CFR Part 150)

At the previous TAC meeting, attendees were asked to review the regulations governing this study (14 CFR Part 150). Steve Alverson reviewed some of the timetables in the regulation.

Study Protocol Update

TAC members received the draft Study Protocol for review several days prior to the meeting. This Study Protocol is also posted on the project website. Steve Alverson asked that TAC members review this document before the next TAC meeting.

Elisa Velasquez (Queens Borough President's office) stated that the document covers both JFK and LGA but where and how the airports differ. The Team replied the document addresses those differences sufficiently.

Review Preliminary Integrated Noise Model (INM) Inputs

Adrian Jones (ESA) gave a presentation on the preliminary INM inputs. He explained that some of the slides shown at the meeting would be updated prior to being posted on the study website to help with the clarity of the information and to provide additional details.

He added that the presentation would focus on the calendar year 2014 data. He explained that this is the starting point and that the study team will then be forecasting to years 2016 and 2021 from there. He explained that the TAC will be given opportunity to comment on the 2016 and 2021 aircraft activity forecasts.

He stated that 55 and 60 dB DNL contours will be mapped as part of this 14 CFR Part 150 study, but only for informational purposes. The primary focus of the 14 CFR Part 150 study is 65 dB DNL contour as required by the regulation.

Elisa Velasquez (Queens Borough President's office) asked whether the projections for 2016 and 2021 for LaGuardia Airport (LGA) will take into consideration construction and potential changes to runway use and fleet mix. Adrian Jones responded that the study would consider ongoing construction activities and their potential to impact airport operations.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked for clarification regarding how airport construction will be taken into account. Adrian Jones (ESA) responded that if a completed construction project would impact how the airport operates in 2016 or 2021 on an annual average day basis it would be considered. The 2016 and 2021 noise analyses will not address temporary changes in noise directly attributable to construction activities or due to temporary runway closures for regular maintenance.

Charles Shamoan (NYCDEP) stated that Honeywell's SmartPath GBAS system is used at Newark Airport, and suggests that the LGA and JFK studies look at the latest technologies for improvements considering the population density in the area. Adrian Jones (ESA) responded that they would look at new technologies in the next study phase and how they would impact operations and noise exposure. Mr. Shamoan added that SeaTac Airport gives airlines awards for having the quietest profiles. He suggested that digital information on flight paths should help determine which have the least noise impact. These practices could then be used in training pilots via flight simulators to emphasize low-noise approaches.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked, regarding slide 29, whether planes further out in the first turn of their approaches are area navigation (RNAV) approaches or vectored. Adrian Jones responded that they could be either RNAVs or vectored and that the specific path of an individual flight

track can be affected by weather phenomenon or other air traffic in the airspace. Andrew Brooks (FAA) responded that Terminal Radar Approach Control (TRACON) personnel were not available to participate in this meeting and that this question could not be answered definitively by those present, but FAA can take the question to TRACON. Robert Goldman (Delta Airlines) stated that pilots are typically not flying on their own, but are controlled. It is a congested airspace so there is a lot of interaction with TRACON for arrivals and departures.

Referring to Slide 29, Ed Knoesel (PANYNJ) asked if there is a fixed distance between separate tracks, and if so how many nautical miles are between the tracks. Adrian Jones responded that there is not a fixed distance, and it involves a judgment call on the part of the noise modeler.

Referring to Slide 29, Elisa Velasquez (Queens Borough President's office) asked if the study team was modeling each track in red, and whether the yellow area around the track is weighted to the right and left of the red area to account for dispersion. She asked whether the model would identify a distinct track if there is too much dispersion. Adrian Jones (ESA) clarified the study team's approach and stated that every distinct radar flight track will be considered. The radar flight tracks (the blue lines) will then be grouped together into base-tracks (the red lines) that represent a similar flight path. Sub-tracks (the yellow lines) will be modeled to account for the dispersion or divergence from that base-track.

Brian Will (NYCAR) asked whether the activities from Runway 13 follow one main INM track. Adrian Jones (ESA) replied this is not the case and that the study team will have to develop multiple base-tracks and sub-tracks in the INM. The flight track analysis for LGA is not yet complete; the purpose of slides 26-33 is to conceptually illustrate the process the study team is using to develop INM arrival and departure tracks.

Review Airport Activity Forecast

Steve Alverson (ESA) presented a slide with information about the airport activity forecast. Steve noted that the FAA's 2014 Terminal Area Forecast (TAF) would form the basis for the forecast used in the LGA Part 150 study.

Review Aircraft Noise Measurement Data

Adrian Jones (ESA) presented the aircraft noise measurement data from permanent and portable noise monitors near the airport.

Charles Shamon (NYCDEP) asked whether the team is looking at complaint data when it selects new noise monitoring sites. Adeel Yousuf (PANYNJ) stated that the PANYNJ is always looking for new monitoring locations, based on noise complaints.

Doug Stearns (PANYNJ) asked whether the noise measurement figures were only for LGA airplane traffic. Adrian Jones responded that it is very difficult to distinguish LGA-specific aircraft noise from aircraft noise associated with airplanes passing through the airspace on the way to other airports in the region. Adeel Yousuf added the PANYNJ and its consultants try to isolate aircraft noise events specific to flights departing from or arriving to LGA. He added that the PANYNJ and its consultants have developed techniques to exclude other aircraft noise events from being included in the DNL values calculated for the LGA noise monitors.

Charles Shamon (NYCDEP) stated that Bruel & Kjaer is used by the City. Audio clips are available for each noise event captured by the noise monitor and that it is possible to go back to the audio clips to double check. Adeel Yousuf (PANYNJ) stated that the PANYNJ uses that technology as well.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that the Sound Exposure Level (SEL) is typically measured 10 dB below the peak. He asked what happens if the community noise level is the same as aircraft noise. Adeel Yousuf (PANYNJ) responded that it is characterized as a mixed noise event. Mr. Schaier is concerned that the ambient noise in Flushing is sufficiently high that an airplane fly-over would not register as an aircraft noise event. Mr. Yousuf explained that the noise monitors do register the airplane noise events in those situations and offered to share information on the algorithm that the PANYNJ Airport Noise & Operations Management System (ANOMS) uses for segregating the noise and identifying aircraft noise events. [NOTE: SEL is actually measured 10 dB *above* the peak.]

Brian Will (NYCAR) asked if there is a reading of 55 DNL in Bayside, does that mean the noise contour would go to Bayside. Adrian Jones responded that the modeled DNL might not match the measured DNL but there should be a rough correlation.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that the bigger problem is the statement in the Study Protocol regarding situations where there are differences between the measured and modeled noise levels of ± 2 dB which may change where the DNL 65 contour lies. Steve Alverson explained that the study team is confident about the modeling accuracy of the INM.

TAC Member Homework Assignment #2

Steve Alverson (ESA) stated that as homework, TAC members are asked to review the Study Protocol document which is now available on the project website, and bring their questions to the next TAC meeting.

Future TAC Meetings

Steve Alverson (ESA) presented the agenda for the next TAC meeting, as well as the proposed dates for the following two TAC meetings which are 12/8/15 from 1-4 PM and 2/9/16 from 10 AM - 1 PM.

Comments from TAC Members

Charles Shamoan (NYCDEP) stated that FAA has set clean goals for aircraft, (e.g. reduce fuel burned by 40%, and cut noise by 32 dB). These are laudable goals and it would be great if they were implemented.

Marilyn Chapoteau (Town of North Hempstead/QuietSkies.net) asked if there was a limit to the number of tracks and aircraft types that can be input into the INM. Adrian Jones (ESA) responded that they can model hundreds of flight tracks, and there are more than 200 distinct aircraft types in the INM database. He stated that while the number of flight tracks that can be modeled is very large the volume of model inputs will impact the model's processing time/run time.

Marilyn Chapoteau (Town of North Hempstead/QuietSkies.net) requested that at the next meeting, when altitudes will be discussed, that altitudes are shown on the maps with a more visible color for lower altitude aircraft when the higher altitude aircraft are overlaid on the same map. It would be helpful to use a suitable color scheme that will allow the TAC to clearly view the different layers of flight tracks.

Len Schaier (Town of North Hempstead/QuietSkies.net) expressed concern over the proposed Slot Rule. He submitted comments during the public comment period and asked if the decision had been made on the Slot Rule. He is concerned that the FAA is not changing the number of slots but that the slots will be used more efficiently so there is the potential for increased noise. Andrew Brooks (FAA) responded that

changes to the Slot Rule are still under consideration and the FAA is analyzing the impacts of the rule change.

Brian Will (NYCAR) asked whether the Whitestone climb could be turned into an RNAV procedure and could it still use Flushing Meadows Park for noise mitigation. Andrew Brooks (FAA) responded that there is no one from the FAA Procedures Group present but he will take this question back to them. Mr. Will added that he is concerned because Runway 4L-22R at JFK is now longer, and the Whitestone climb could go extinct. If LGA Air Traffic Control stop using the Whitestone climb it could be TNNIS SIX departures all the time. He asked if potential changes in departure procedures are going to be addressed in the forecast in anyway. [NOTE: The Runway Safety Enhancements (RSA) project did not lengthen the operational length of the runway. The additional area is for runway safety and not for aircraft operations. The RSA project should not result in an increase in operations.]

Mark Buttice (Nassau County Planning) asked whether the PANYNJ's ANOMS and FAA's ATADS databases were cross-referenced and was surprised that 3.9% of the ANOMS records had incomplete data. Adrian Jones (ESA) explained how data from ATADS and the PANYNJ's ANOMS are used. Adeel Yousuf (PANYNJ) explained that the incomplete records in the ANOMS database might include helicopters, law enforcement operations, and military planes. Andrew Brooks (FAA) stated that the ANOMS dataset is very complete considering that 96.1% of the records are complete. He noted that ANOMS datasets for other airports typically have a higher percentage of incomplete records.

Public Comments

Ryan Walsh (FHI) acknowledged Assemblyman Braunstein in attendance.

Warren Schreiber (Community Board 7) stated that in the previous week CB7 had a meeting with NYC Department of City Planning (NYCDCP) to discuss future forecasting. The Flushing West development will be built. He asked if NYCDCP is in discussion with this study team concerning future development. Jennifer Hogan (VHB) responded that the team has met with both NYC and Nassau County to develop a list of what development is coming on-line, and Flushing West is on the list.

Elisa Velasquez (Queens Borough President's office) asked whether the TAC would be given the opportunity to review the list of future development projects that will be addressed in the 2016 and 2021 noise and land use impacts evaluation. Jennifer Hogan (VHB) stated that the list is being developed during Phase 1 of the study (Noise Exposure Maps) and will be finalized during Phase 2 (Noise Compatibility Program). Steve Alverson explained that a list of study deliverables is provided in the Study Protocol Document that the TAC has been asked to review. Andrew Brooks (FAA) added that the public would also have the opportunity to review the Noise Exposure Map Report and Noise Compatibility Program Report.

Warren Schreiber (Community Board 7) stated that development in the CB7 area includes high rises. He asked how the FAA and PANYNJ determine that there is no hazard. He asked if the determination is based on existing conditions or if future flight patterns are considered. Peter Byrne (VHB) responded that potential impacts to airport airspace are considered early in the project development process and that planners are required to look at height limitations, including height limitations related to airspace protection surfaces. The no hazard determination is performed by the FAA in coordination with the PANYNJ. The determination is based on operations at the time the determination is made. Development would not drive changes in flight paths. Andrew Brooks (FAA) stated that the airspace determination is based on existing conditions and current runway thresholds, and explained how the FAA makes these determinations.

Rudy Luo stated that slide 15 lists temperature and humidity as an INM input but not wind direction and velocity. Slide 23 states that over 50% of wide-body nighttime flights leaving Runway 13 are heading east over a quiet neighborhood. He asked if this is based on wind or destination. Adrian Jones responded that the INM does allow the user to define average headwind values. He added that wind and weather conditions are just two factors that affect runway use. Laura Stensland (FAA – LGA Airport Traffic Control Tower) explained that there are many reasons why runways are selected including availability, wind, weather, operational necessity, and noise abatement. Certain runways may be closed overnight for multiple reasons including construction. The use of Runway 13 would not be based on flight destination, but on runway availability and the other factors listed above.

John Kelly (Kissena Park Civic Association) asked how community impacts are weighted as a factor in determining runway choice, vs. cost to airlines in terms of fuel savings. He recommended that community impacts be a more significant factor. Laura Stensland (FAA – LGA Airport Traffic Control Tower) explained that there are a number of factors that determine runway choice by the air traffic controllers. These factors include availability, wind, weather, and noise.

Stewart Weiss asked for clarification about the noise measurement data on slide 41 whether they are maximum or average sound levels. Adrian Jones (ESA) stated that the values are annual averages. Mr. Weiss followed with a question about noise volume levels for background noise vs. a noise event. Steve Alverson (ESA) explained how noise events are heard and referred to the Noise 101 presentation at TAC Meeting #2, which is posted to the project website, for further information.

Stewart Weiss pointed out that neighborhoods have different densities and asked if the model factored this in. Adrian Jones (ESA) responded that the impacts of noise on surrounding communities will be evaluated and disclosed in the NEM Report but technically the noise and land use analysis is not performed using the INM. The Study Team will use U.S. Census block data plus parcel level data from the City and Nassau County to assess how many homes and public facilities such as schools are located in areas exposed to aircraft noise of DNL 65 dB and higher in a given neighborhood. During Phase 2 (Noise Compatibility Program) of the Part 150 study, this information will be considered further to determine what actions/programs could be implemented to reduce noise in populated areas. The current phase of the study is focused on documenting existing noise levels and future noise levels in the environs of the airport.

Edward Braunstein (NYS Assembly) asked for an update on the potential change to the Perimeter Rule. Ed Knoesel (PANYNJ) responded that nothing has been decided yet and that public input will be considered in the decision-making process. No timeframe is set for this decision.

Edward Braunstein (NYS Assembly) asked whether the impact on fleet mix will be considered as part of the potential change to the Perimeter Rule. Adrian Jones (ESA) explained that this would be considered and adjustments to the aircraft fleet mix would be made as necessary if the forecast identifies that there will be changes to the Perimeter Rule before 2021. Assemblyman Braunstein suggested that information about the impact on fleet mix should be made available for public review before the decision is made on the Perimeter Rule. Robert Goldman (Delta Airlines) added that aircraft that can travel longer distances would be newer and more efficient with less noise.

Andrew Brooks (FAA) explained that FAA's 2014 Terminal Area Forecast (TAF) will serve as the basis for the forecast being prepared by the PANYNJ. The 2014 TAF does not contemplate a change in the Perimeter Rule at LGA. The FAA is in ongoing discussions with the PANYNJ about how changes to the Perimeter Rule would impact aircraft operations at LGA. Mr. Brooks clarified that any changes to the Perimeter Rule would not be made in the context of the 14 CFR Part 150 study (i.e., those changes would

not be approved through FAA's approval of the 14 CFR Part 150 Noise Compatibility Program for LGA), and noted that any changes to the Perimeter Rule could trigger an environmental review under the National Environmental Policy Act (NEPA).

John Rokosny asked whether noise was measured on average levels or event to event. Steve Alverson answered that all noise events are considered and explained the process used to calculate DNL values. He recommended that those who were not in attendance at TAC Meeting #2 may review the Noise 101 presentation to better understand the noise metrics used in 14 CFR Part 150 studies including the DNL. The presentation is on the project website.

John Rokosny asked why daytime hours are measured from 7 a.m. to 10 p.m. and nighttime hours are 10 p.m. to 7 a.m., when the evening hours between 7 – 10 p.m. are times when many people are home and could be disturbed by aircraft noise events. Steve Alverson (ESA) explained that the FAA and U.S. EPA have required the use of the DNL metric (which adds a 10dB increase to noise events between 10 p.m. and 7 a.m.) in aircraft noise and other transportation noise assessments since the 1960s. He noted that in California, transportation noise studies use a metric called the Community Noise Equivalent Level (CNEL) which does give consideration to evening noise events. For the 14 CFR Part 150 studies for JFK and LGA, we are required by 14 CFR Part 150 to use the DNL metric.

Warren Schreiber (Community Board 7) suggested that communities have input into determining the locations of new noise monitors. Monitors located near LGA may not fully capture the impacts to communities as evidenced by the lack of aircraft noise in the TAC meeting room despite its proximity to the airport. Ed Knoesel (PANYNJ) responded that the PANYNJ can provide information about the current locations of noise monitors, which is also available on WebTrak and welcomes input from community groups for suggestions of additional locations, and would appreciate the help of CB7 in coordinating with civic associations.

John Kelly (Kissena Park Civic Association) suggested that the PANYNJ coordinate with the City to place monitors in parks and other City-owned properties. Ed Knoesel (PANYNJ) stated that PANYNJ has worked with schools and there are currently noise monitors located at schools.

Andriette Redmon stated that while she wants airlines to thrive, she is shocked by the levels of aircraft noise in Jackson Heights. She suggested that this group work together to lift planes out of the public sphere and find a workable solution to address the noise volumes.

Closing Remarks

Kelly Mitchell (PANYNJ) stated that a public workshop would be held at Nassau Community College from 6-8 PM on October 29th. The public workshop on October 29th will present the same information that was presented at the JFK and LGA public workshops held in June 2015. She thanked attendees for their time and input. The full presentation slides will be available in pdf format at http://panynjpart150.com/LGA_TAC.asp

Appendix H-4
Technical Advisory Committee
Meeting #4
December 8, 2015

Technical Advisory Committee
Meeting #4

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF FOURTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDY
LAGUARDIA AIRPORT

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for LaGuardia (LGA) Airport. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the LGA 14 CFR Part 150 Study by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TAC will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the LGA 14 CFR Part 150 Study.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting


DATE: Tuesday, December 8, 2015
TIME: 1:00PM - 4:00PM
LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371

4 December 8, 2015

LGA TAC Meeting ~~#3~~ October 7, 2015

First	Last	Representing	Alternates	Primary	Alternate
✓ Mike	Alberts	KB Environmental		✓	
✓ Steve	Alverson	ESA Airports		✓	
✓ Mike	Arnold	ESA Airports		✓	
Debbie	Bearden	NY Airport Liaison	Sal Debono		
✓ Arnold	Bloch <i>mf</i>	FHI		✓	
✓ Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
✓ Peter	Byrne	VHB		✓	
Chung	Chang	NYCDEP	Charles Shamoon		
✓ Fred	Dixon	New York & Company			✓
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins		
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guiod	FAA - TRACON	Steve Kelley		
✓ Jennifer	Hogan	VHB		✓	
✓ David	Hopkins	NYC Economic Development Corp (EDC)		✓	
✓ Andra	Horsch	Nicholas Lence		✓	
✓ Bill	Huisman	Aviation Development Council		✓	
✓ Adrian	Jones	ESA Airports		✓	
✓ Ed	Knoesel	Port Authority		✓	
✓ Josh	Knoller	Nicholas Lence		✓	
Natalia	Kozikowska	Nicholas Lence			
Kendall	Lampkin	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		✓

✓ Michael	Levine	Town of North Hempstead	Neal Stone		✓
	Dena	Libner	NYC & Company	Fred Dixon	
	Tom	Malone	FAA - Flight Standards Division	Dave Swanson	
	Ron	Marsico	Port Authority		
✓ Kelly	Mitchell	Port Authority		✓	
✓ John	Moretto	FAA - NY ADO	Suki Gill		
✓ Glenn	Morse	United Airlines		✓	
	Christyne	Nicholas	Nicholas Lence		
✓ Susan	O'Donnell	VHB		✓	
✓ Chris	Rhoads	Port Authority		✓	
	Teresa	Rizzuto	Port Authority		
✓ Chung	S. Chan	NYC Department of Environmental Protection (NYCDEP)	Charles Shamoon		✓
✓ Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz		✓
	Dean	Saucier	National Business Aviation Association		
✓ Len	Schaier	Town of North Hempstead/QuietSkies.net	Marilyn Chapoteau	✓	✓
✓ Lysa	Scully	Port Authority			
✓ Scott	Solomon	NYC DCP		✓	
	Zendra	Spence	Shelt Air	Cesar Rizik	
	Doug	Stearns	Port Authority	Chris Rhoads	
✓ Laura	Stensland	JFK Tower	James Law	✓	
	Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	
✓ Ian	Van Praagh	Port Authority	<i>Symon</i>		✓
	Elisa	Velasquez	Queens Borough President	Jack Leibler	✓ ✓



✓	Ryan	Walsh	FHI		✓	
✓	Brian	Will	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber	✓	✓
✓	Adeel	Yousuf	Port Authority		✓	

Technical Advisory Committee Meeting #4
December 8, 2015 (1:00 p.m. – 4:00 p.m.)
LaGuardia Airport

Sign-In Sheet

[illegible]

Technical Advisory Committee
Meeting #4
Materials Presented at Meeting

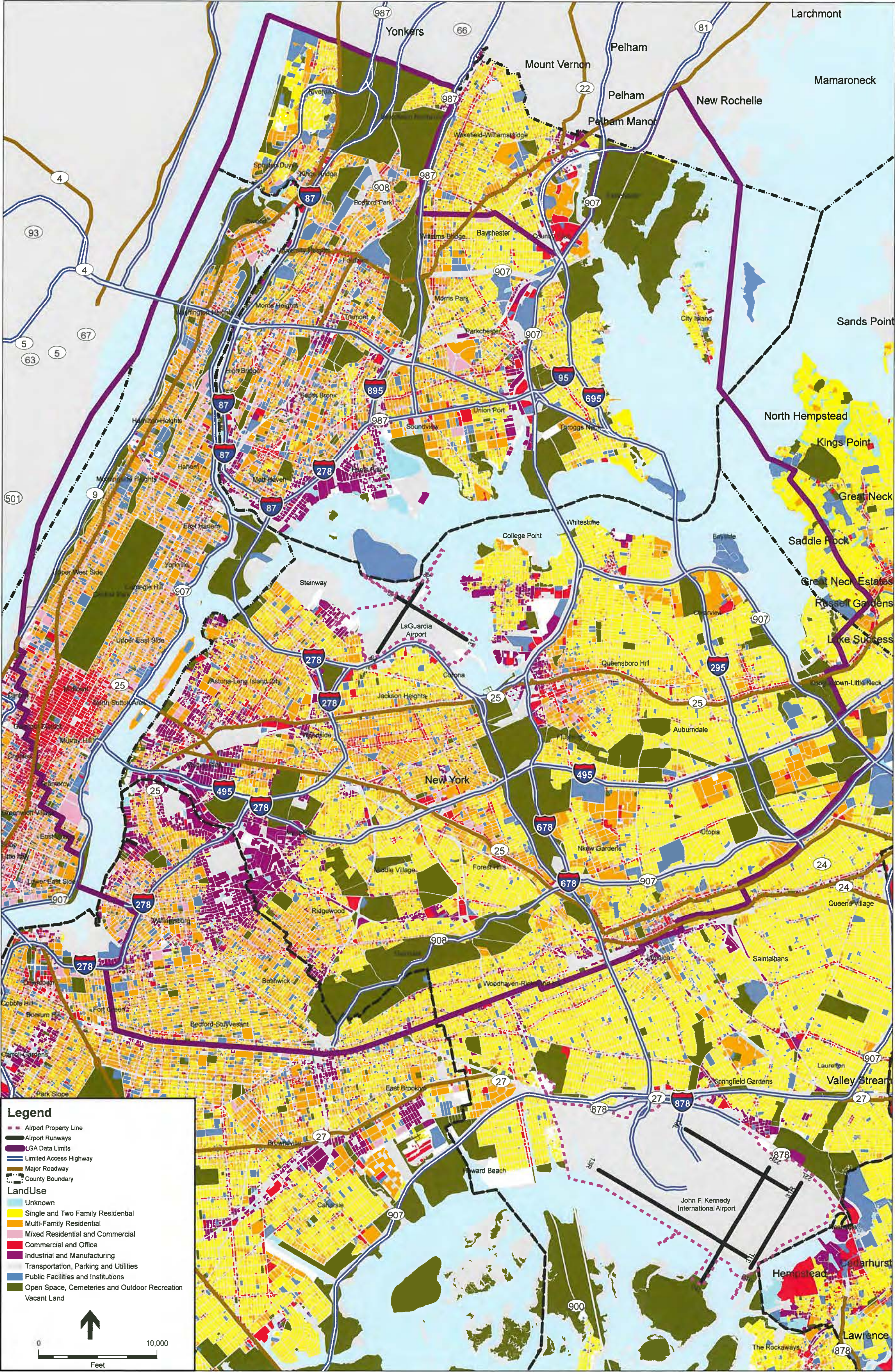
Agenda
Technical Advisory Committee Meeting No. 4
14 CFR Part 150 Study – LaGuardia Airport

Tuesday, December 8, 2015

1:00 PM to 4:00 PM EDT

1. TAC Member Feedback Regarding TAC Meeting No. 3
2. Review Homework Assignment (Study Protocol)
3. Review Preliminary Generalized Existing Land Uses Map
4. Review Preliminary INM Inputs
 - a. INM Flight Tracks
 - b. Flight Profiles
5. Review Airport Activity Forecast
6. TAC Homework Assignment #3
7. Future TAC Meeting Dates
8. Public Comment
9. Adjourn

DRAFT FOR DELIBERATIVE PURPOSES ONLY



SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2015.

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure X-X
Generalized Existing Land Uses
LaGuardia Airport

DRAFT FOR DELIBERATIVE PURPOSES ONLY

Welcome!

LaGuardia Airport
Title 14 Code of Federal Regulations Part 150 Study
Technical Advisory Committee Meeting No. 4

December 8, 2015

LA GUARDIA AIRPORT

**THE PORT AUTHORITY
OF NY & NJ**

1

LaGuardia Airport – 14 CFR Part 150 Study
Technical Advisory Committee Meeting No. 4

Purpose and Objectives of the TAC

- **TAC members represent the interests of their organization and/or constituents**
- **The TAC's role is advisory**
 - **Review study documents**
 - **Provide input to the Port Authority related to the noise exposure maps and noise compatibility program**
- **TAC members are also expected to advise their organization and/or constituents of the TAC's discussions**

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

Meeting Agenda

- Previous TAC Meeting Highlights
- Review Homework Assignment (Study Protocol)
- Review Preliminary Generalized Existing Land Uses Map
- Review Preliminary Integrated Noise Model (INM) Inputs
 - INM Flight Tracks
 - Arrival and Departure Altitude Profiles
- Review Airport Activity Forecast

Meeting Agenda

- TAC Homework Assignment No. 3
- Future TAC Meeting Dates
- Public Comment
- Adjourn

Previous TAC Meeting Highlights

Review Homework Assignment (Study Protocol)

ESA Study Team

7

**THE PORT AUTHORITY
OF NY & NJ**

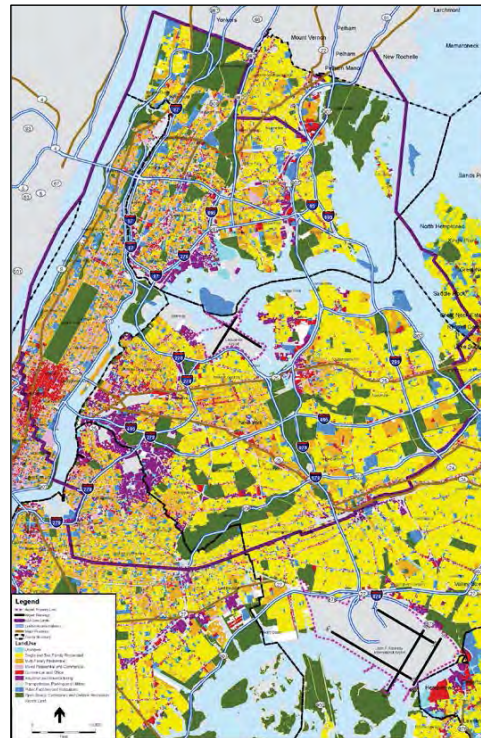
Review Preliminary Generalized Existing Land Uses Map

ESA Study Team

8

**THE PORT AUTHORITY
OF NY & NJ**

Review Preliminary Generalized Existing Land Uses Map



ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

Entitled Projects within the LGA Study Area

Project Name	Agency	Borough	Approval Date	Agency Status
Major Projects				
Rheingold Rezoning	DCP	Brooklyn	2013	Approved
Willeys Point	EDC	Queens	2018	Approved
Astoria Cove	DCP	Queens	2014	Approved
Halletts Point	DCP	Queens	2013	Approved
Rockefeller University Expansion	DCP	Manhattan	2014	Approved
One Vanderbilt	DCP	Manhattan	2015	Approved
Medium Sized/Private Developments				
North Conduit Avenue Zoning Map Amendment	DCP	Queens	2013	Approved
Domino Sugar Rezoning	DCP	Brooklyn	2014	Approved
22-44 Jackson Avenue	DCP	Queens	2013	Approved
The XU Hotel and Residences	DCP	Queens	2015	Approved
West 106 th Street Rezoning	DCP	Manhattan	2013	Approved
Greenpoint Landing Newtown Barge Park Expansion	DCP	Brooklyn	2013	Approved
77 Commercial Street	DCP	Brooklyn	2013	Approved
1380 Rockaway Park Rezoning	DCP	Brooklyn	2013	Approved
West 117 th Street Rezoning	DCP	Manhattan	2013	Approved
11-55 49 th Avenue Rezoning	DCP	Queens	2014	Approved
Woodward Avenue Rezoning	DCP	Queens	2014	Approved
580 Gerard	DCP	Bronx	2012	Approved
River Plaza	DCP	Bronx	2013	Approved

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Inputs Covered at TAC Meeting No. 3

- 2014 annual aircraft operations – 370,012
- 2014 annual average day (AAD) operations
- Operation type (i.e., arrival or departure) by time of day and aircraft category
- Departure stage length by INM aircraft type
- Arrival and departure runway use by aircraft category

TABLE 6
RUNWAY USE BY TIME OF DAY - 2014
LAGUARDIA AIRPORT

Runway	Arrivals		Departures	
	Day	Night	Day	Night
04	20.36%	18.70%	26.14%	25.85%
13	2.57%	6.08%	47.58%	45.19%
22	47.94%	45.83%	1.15%	1.59%
31	29.12%	29.39%	25.13%	27.37%
Total	100.00%	100.00%	100.00%	100.00%

NOTES: Values may not sum to 100% due to rounding.
Does not include helicopter operations.

SOURCE: Port Authority of New York & New Jersey, Airport Noise and Operations Management System (ANOMS) data for Calendar Year 2014.

Day (7:00 a.m. to 10:00 p.m.)
Night (10:00 p.m. to 7:00 a.m.)

ESA Study Team

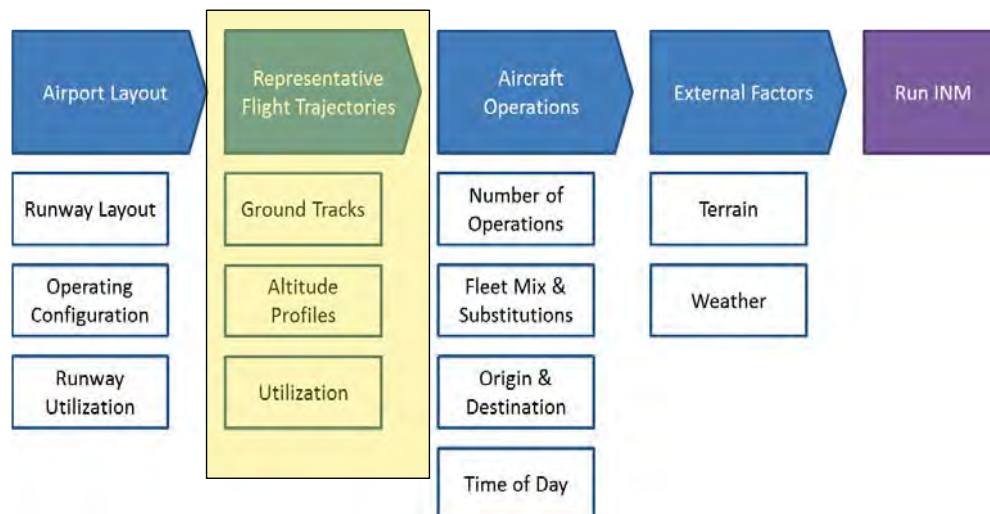
12

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs

Topics to be discussed today
Are highlighted in **Yellow**

Integrated Noise Model: Inputs



ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Flight Tracks

- Radar flight track data originate from the Passive Surveillance Radar (PASSUR) system
- PASSUR collects both the flight track and flight identification from its radar sensors
- Data collected by PASSUR are downloaded and processed by Brüel & Kjær and incorporated into the Port Authority's Airport Noise and Operations Management System (ANOMS)
- The flight track data are also uploaded to the Port Authority's on-line WebTrak system
- WebTrak displays air traffic patterns within the New York Metropolitan area

ESA Study Team

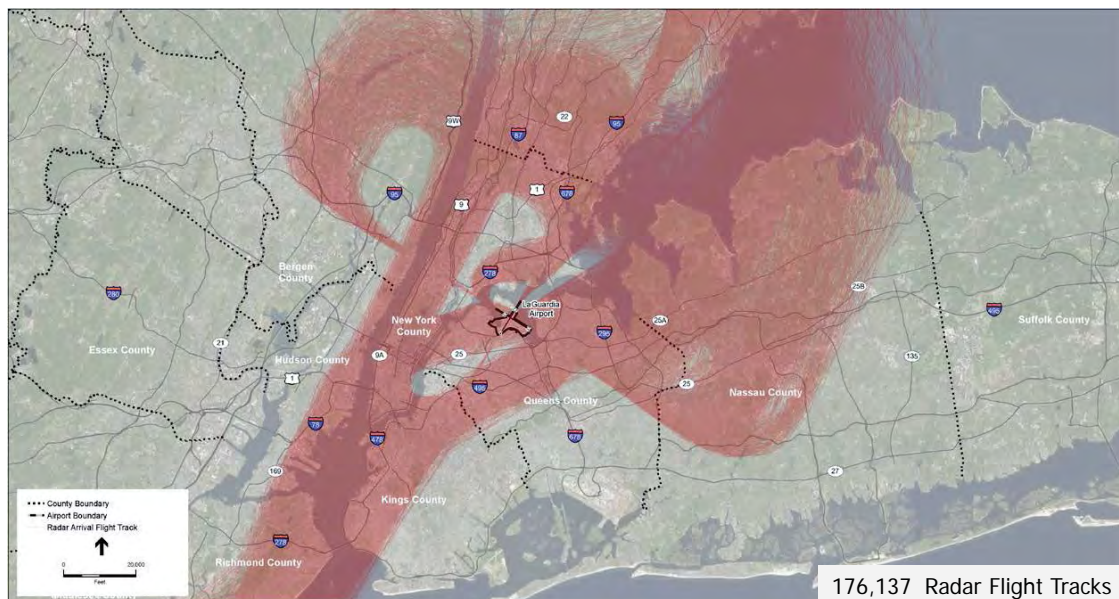
14

THE PORT AUTHORITY
OF NY & NJ

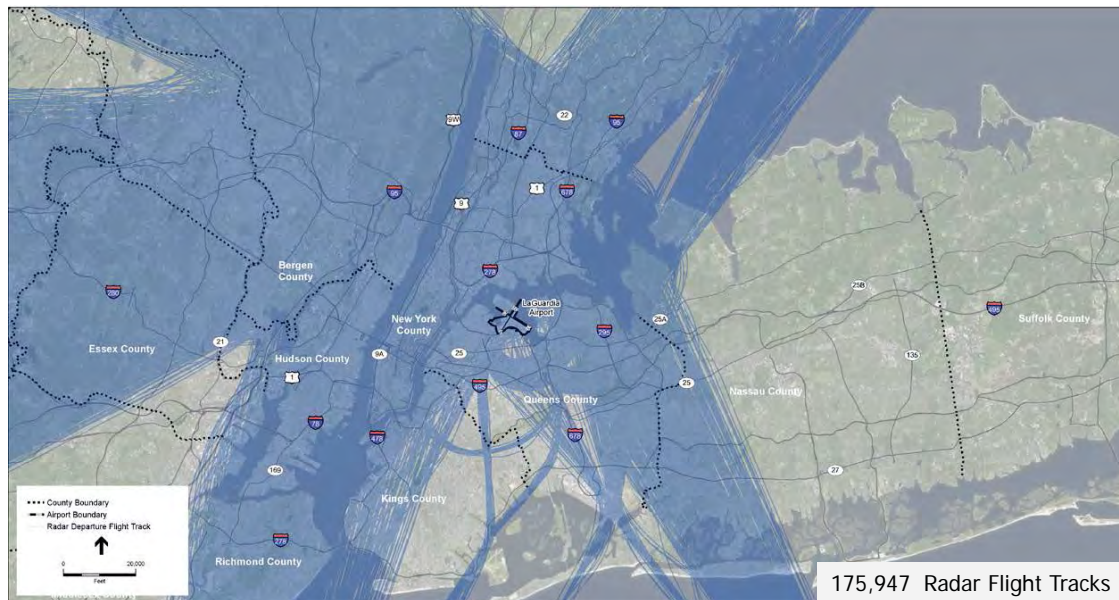
Review Preliminary INM Inputs Flight Tracks

- Total flight track records captured by ANOMS (2014) – 368,340
- Helicopter flight track records – Less than 1%
- Incomplete flight track records – Approximately 4%
 - Partial tracks, overflights, etc.
- Radar flight tracks used to develop INM flight tracks
 - Arrival tracks – 176,137
 - Departure tracks – 175,947
 - Total tracks – 352,084

Review Preliminary INM Inputs Radar Arrival Flight Tracks



Review Preliminary INM Inputs Radar Departure Flight Tracks

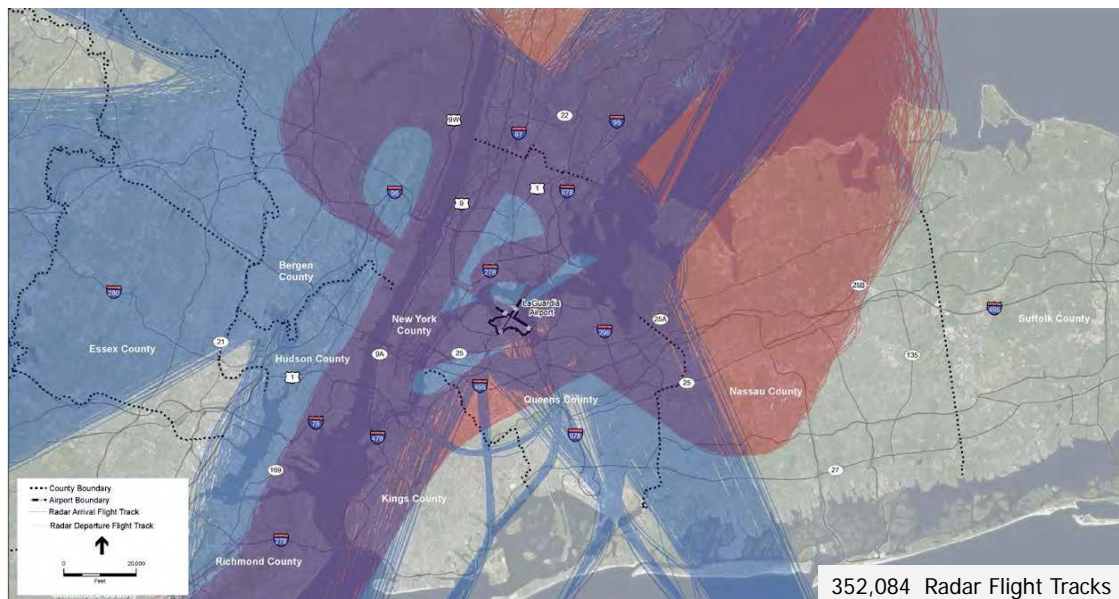


ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Radar Arrival and Departure Flight Tracks



ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

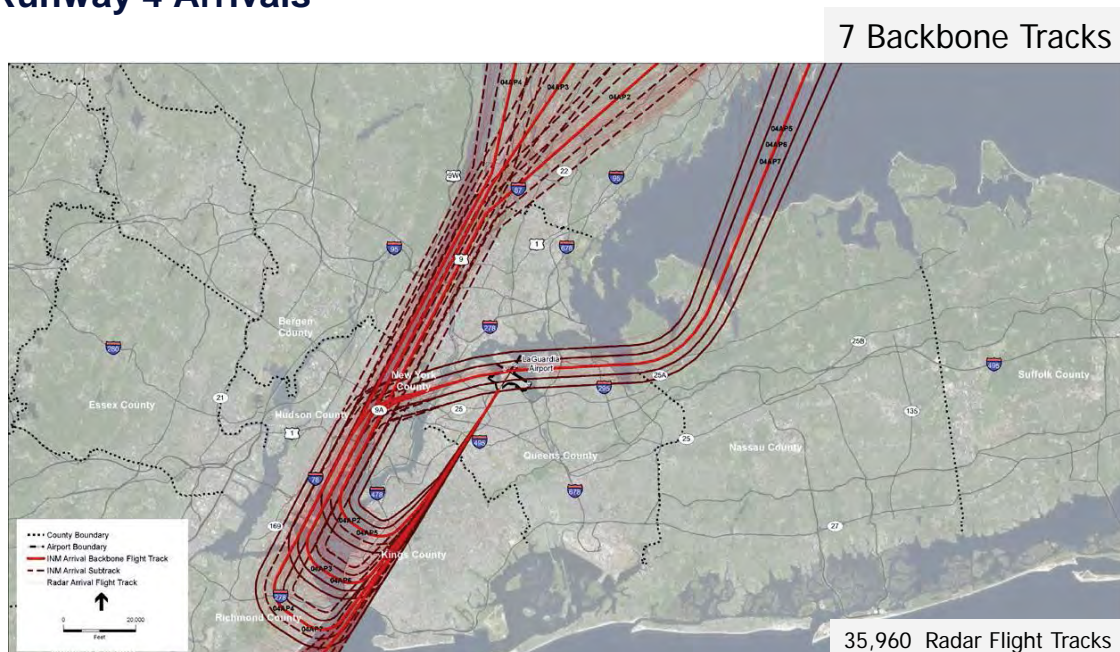
Review Preliminary INM Inputs

Arrival and Departure Flight Tracks

- Slides 20-27 depict flight track information for aircraft arriving at LGA and departing from LGA
- Each slide shows flight track information for one runway end and shows either arriving aircraft (red lines) or departing aircraft (blue lines)
- The images on Slides 20-27 were developed using calendar year 2014 radar flight track data from the Port Authority's Airport Noise and Operations Management System (ANOMS)
- The images on Slides 20-27 also depict the flight tracks that will be used in the Integrated Noise Model (INM) to model flight trajectories at LGA
- A handout with larger format versions of these slides has been provided to members of the TAC

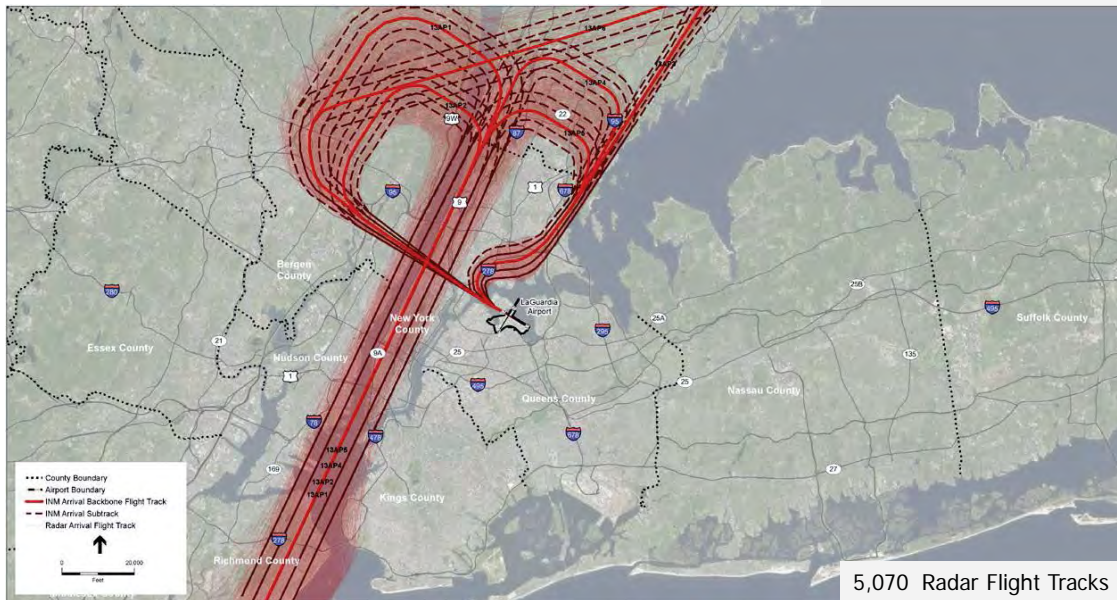
Review Preliminary INM Inputs

Runway 4 Arrivals



Review Preliminary INM Inputs Runway 13 Arrivals

6 Backbone Tracks



5,070 Radar Flight Tracks

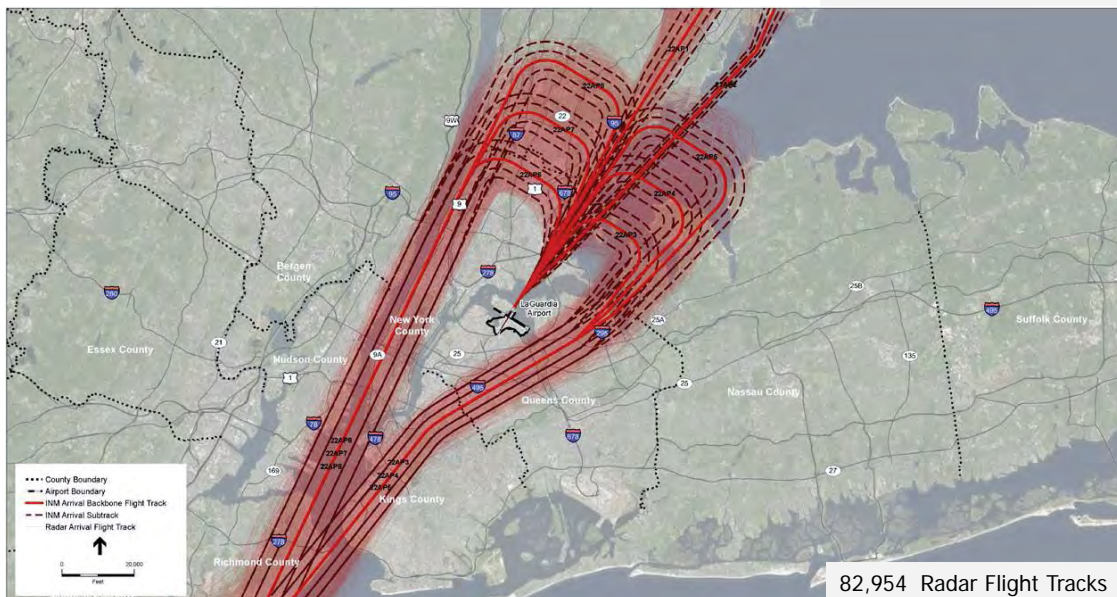
ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 22 Arrivals

8 Backbone Tracks



82,954 Radar Flight Tracks

ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 31 Arrivals

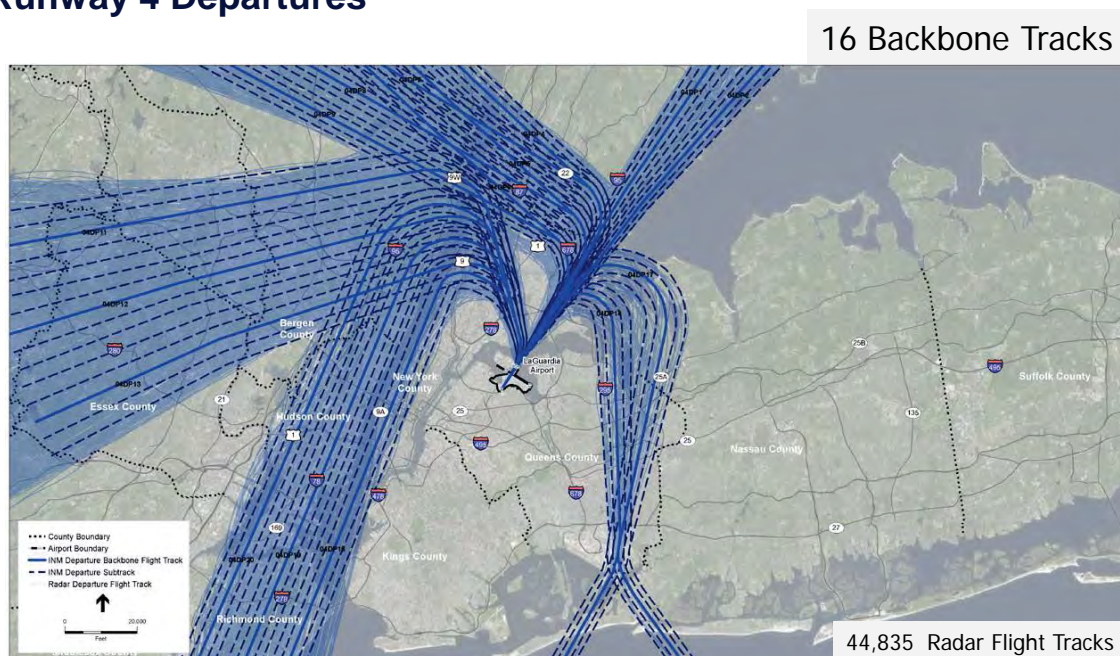


ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 4 Departures



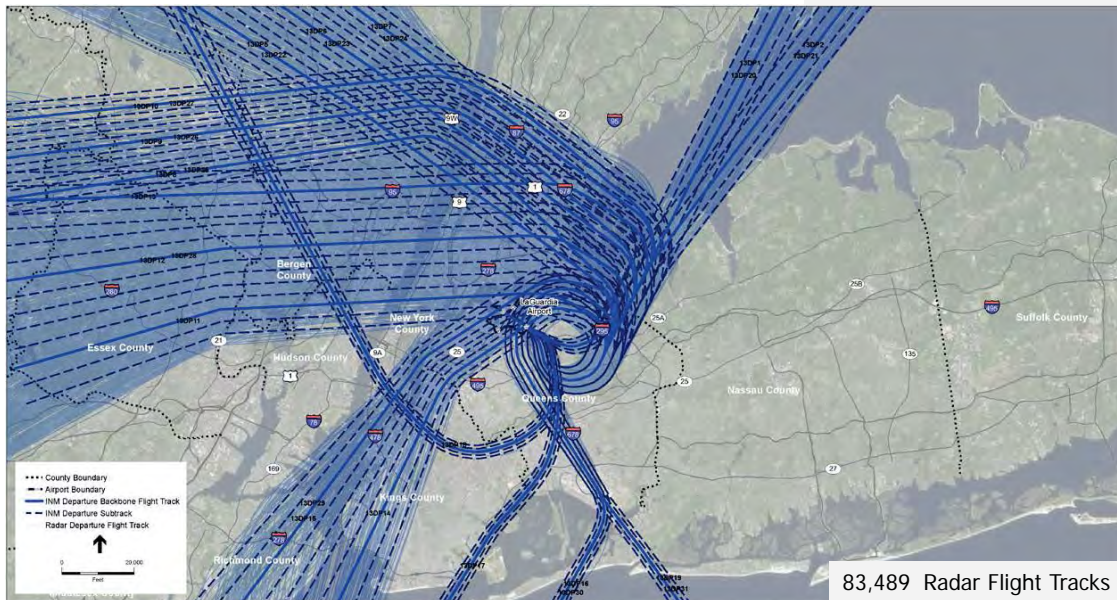
ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 13 Departures

29 Backbone Tracks



83,489 Radar Flight Tracks

ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 22 Departures

11 Backbone Tracks



2,188 Radar Flight Tracks

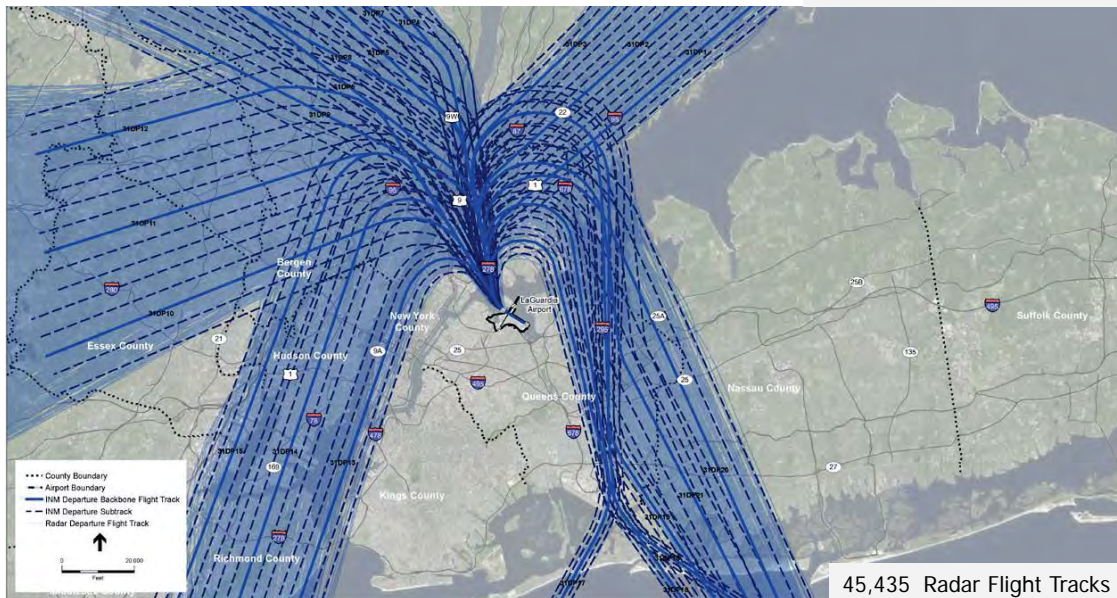
ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Runway 31 Departures

21 Backbone Tracks



45,435 Radar Flight Tracks

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Flight Track Summary

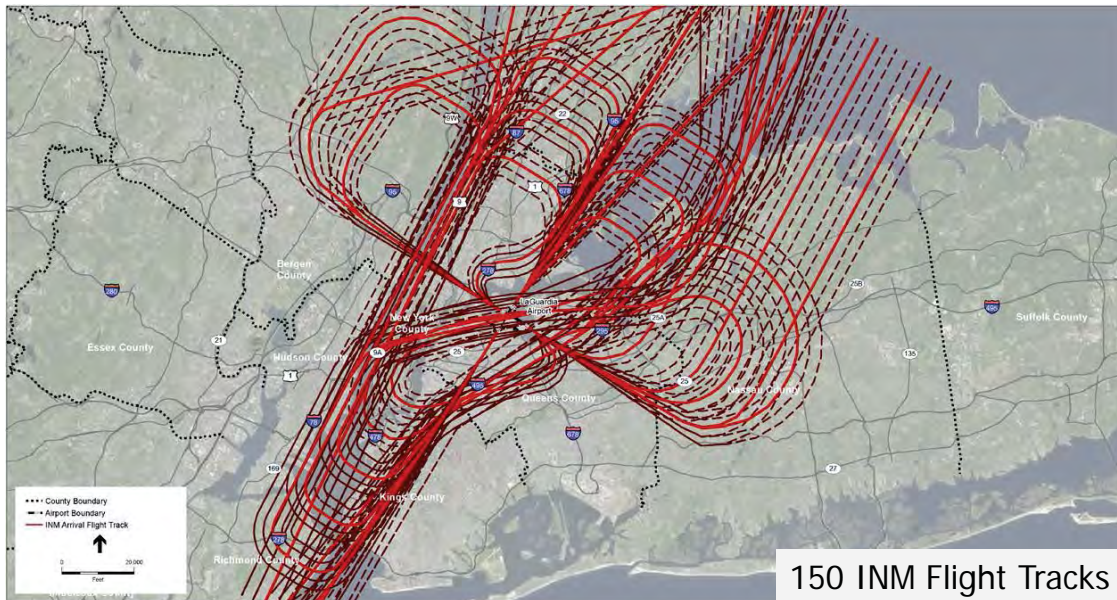
Runway	Number of INM Arrival Tracks (with sub-tracks)	Number of INM Departure Tracks (with sub-tracks)
4	7 (35)	16 (80)
22	8 (40)	11 (55)
13	6 (30)	29 (145)
31	9 (45)	21 (105)
Total	30 (150)	77 (385)

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Arrival Flight Tracks – All Runways

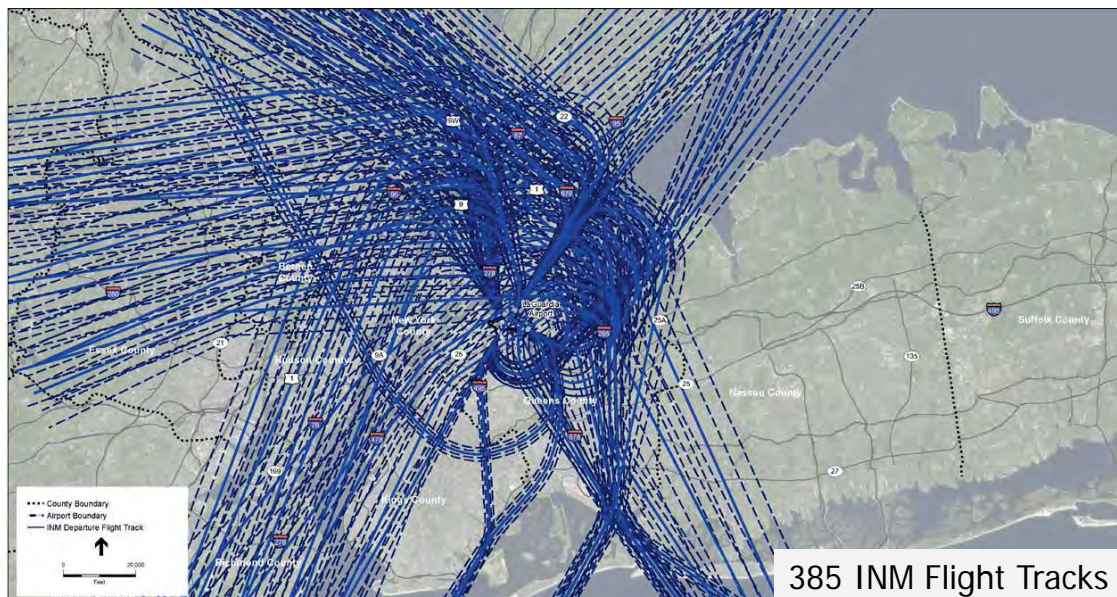


ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Departure Flight Tracks – All Runways

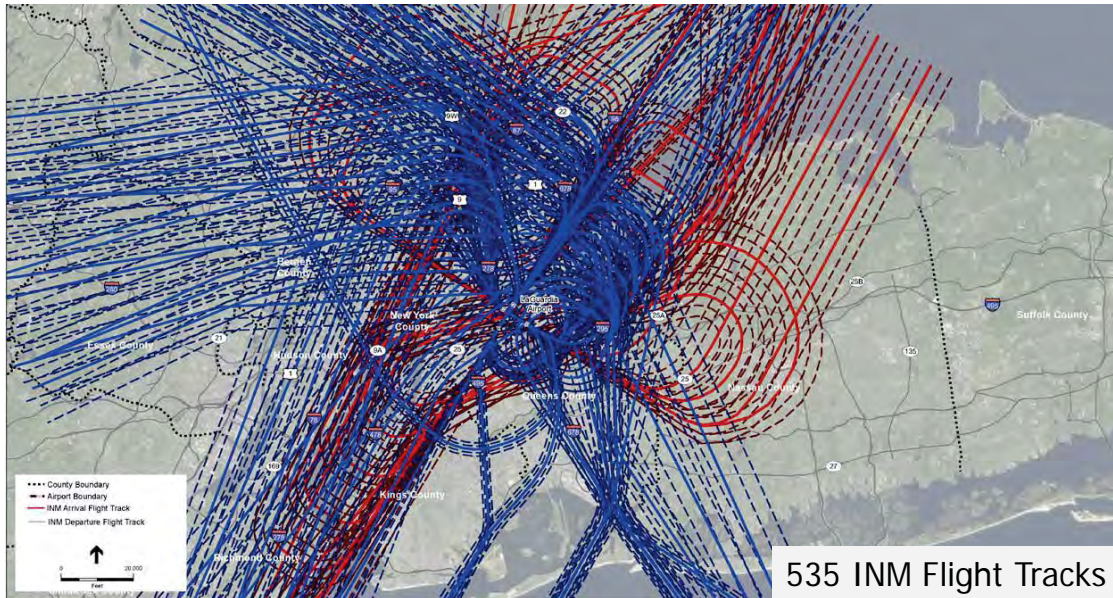


ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Arrival and Departure Flight Tracks – All Runways



ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Flight Track Use - Arrivals

TABLE 1
ARRIVAL FLIGHT TRACK USE BY TIME OF DAY
LAGUARDIA AIRPORT

Runway	Corridor	Track ID	Day	Night
4	Straight-In	04AP1	79.3%	82.6%
		04AP2	6.2%	4.9%
	Left-Downwind	04AP3	6.0%	4.7%
		04AP4	6.0%	4.7%
	Crossover	04AP5	0.9%	1.0%
		04AP6	0.9%	1.0%
		04AP7	0.9%	1.0%
		Total	100.0%	100.0%
22	Straight-In	22AP1	20.0%	<0.1%
		22AP2	1.2%	5.9%
	Right-Downwind	22AP3	16.7%	22.7%
		22AP4	16.2%	22.0%
		22AP5	16.2%	22.0%
		22AP6	10.1%	9.3%
	Left-Downwind	22AP7	9.8%	9.0%
		22AP8	9.8%	9.0%
Total		100.0%	100.0%	

ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs INM Flight Track Use - Departures

TABLE 2
DEPARTURE FLIGHT TRACK USE BY TIME OF DAY
LAGUARDIA AIRPORT

Runway	Corridor	Track ID	Day	Night
4	Straight-Out	04DP1	5.2%	6.5%
		04DP2	5.2%	6.5%
	North-Northwest	04DP4	3.0%	3.5%
		04DP5	2.9%	3.4%
		04DP6	2.9%	3.4%
	Northwest	04DP7	4.6%	5.8%
		04DP8	4.5%	5.6%
		04DP9	4.5%	5.6%
	West	04DP11	15.8%	13.8%
		04DP12	15.3%	13.4%
		04DP13	15.3%	13.4%
	Southeast 1	04DP14	2.3%	2.7%
	Southeast 2	04DP17	2.2%	0.6%
	Southwest	04DP18	5.5%	5.4%
		04DP19	5.4%	5.2%
		04DP20	5.4%	5.2%
	Total		100.0%	100.0%

Review Preliminary INM Inputs Arrival and Departure Profiles

- Aircraft altitude profiles (i.e., the distance an aircraft is above the ground) are defined separately from ground tracks/flight tracks in the INM
- The INM database includes default or “standard” arrival and departure profiles for each aircraft type
- The “standard” profiles are defined by aircraft manufacturers
- The actual climb or descent profiles utilized at an airport may differ from the INM standard profiles

Review Preliminary INM Inputs

Arrival and Departure Profiles

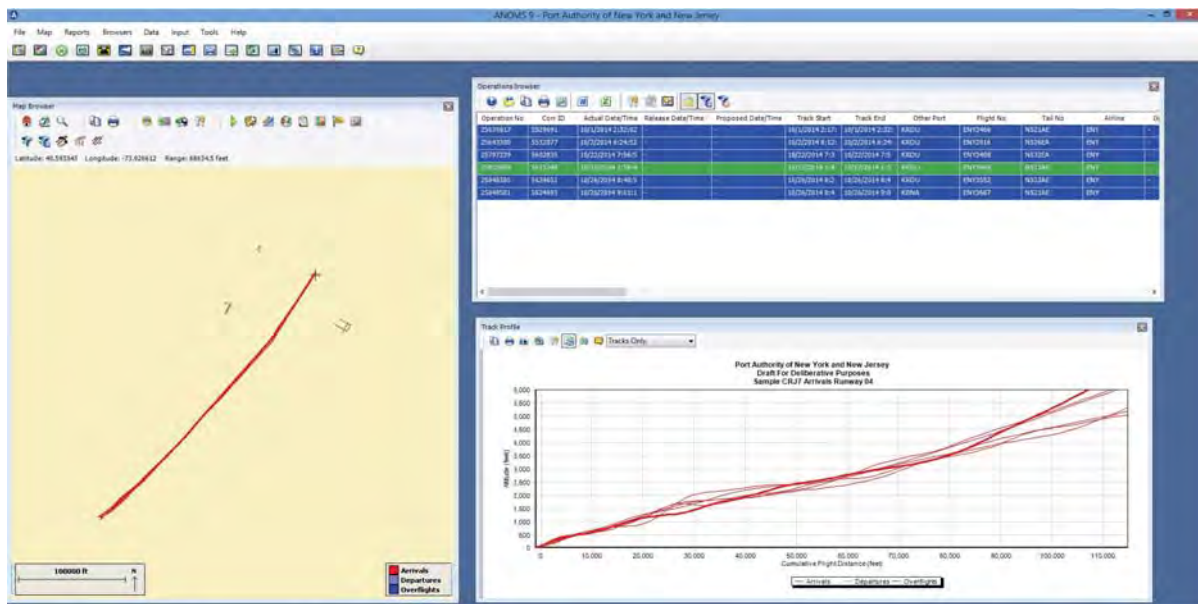
- An analysis of radar data may show that aircraft are climbing at a slower or faster rate than shown in the “standard” profile or that arriving aircraft are leveling-off during approach
- Arrival and departure profiles in the INM database can be modified to better match aircraft altitudes and speeds shown in the radar data
- Data from the Port Authority’s ANOMS is being used to evaluate arrival and departure profiles at LGA

Review Preliminary INM Inputs

Arrival and Departure Profiles

- The next six slides (37-42) illustrate how the ESA Study Team is using data from ANOMS to evaluate arrival and departure altitude profiles
- Slides 38, 40, and 42 provide comparisons between “standard” altitude profiles contained within the INM to altitude profiles for actual flights that occurred at LGA in 2014
- Slides 38 and 42 provide examples of good correlation between the profiles for actual flights and standard flight profiles contained in the INM
- Slide 40 provides an example of where the profiles for actual flights do not match the “standard “ arrival profile in the INM

Review Preliminary INM Inputs Sample Arrival Profiles

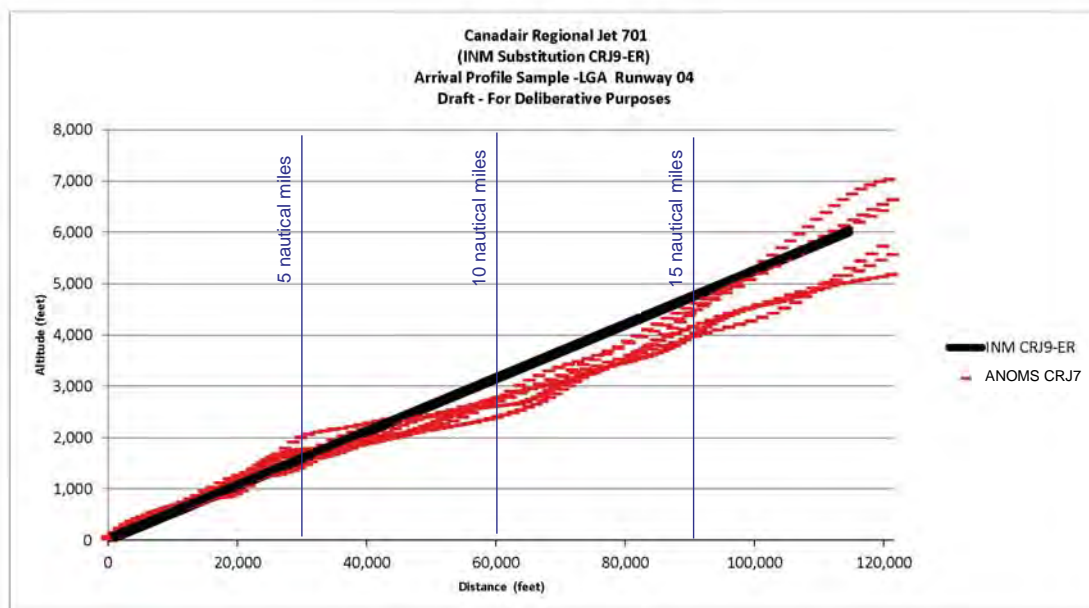


ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Sample Arrival Profiles



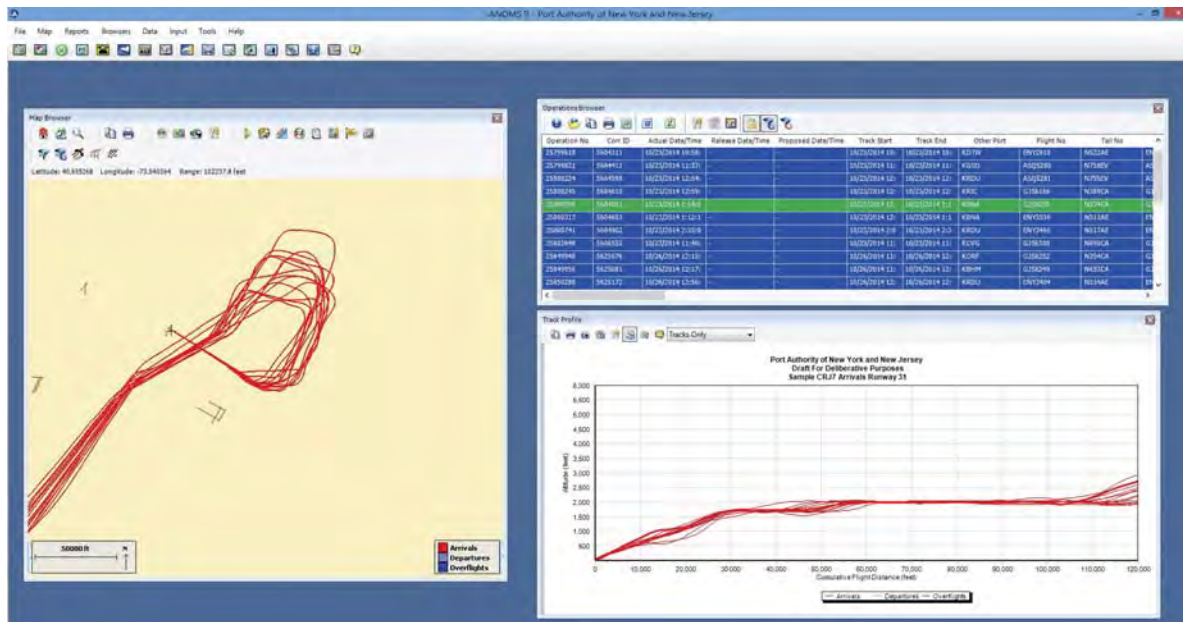
ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

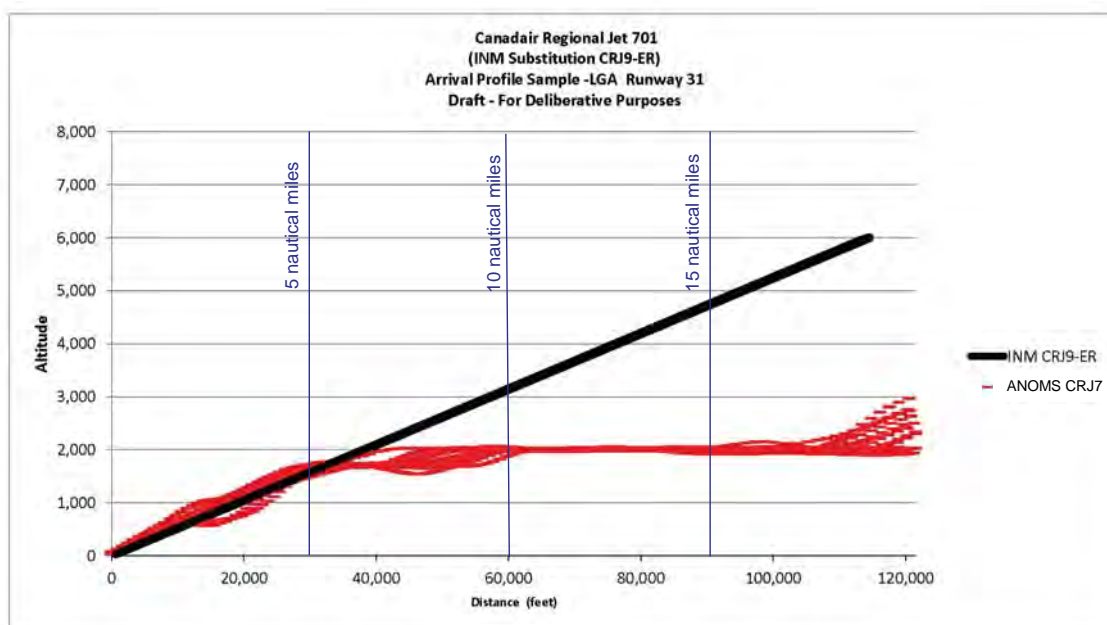
Review Preliminary INM Inputs

Sample Arrival Profiles

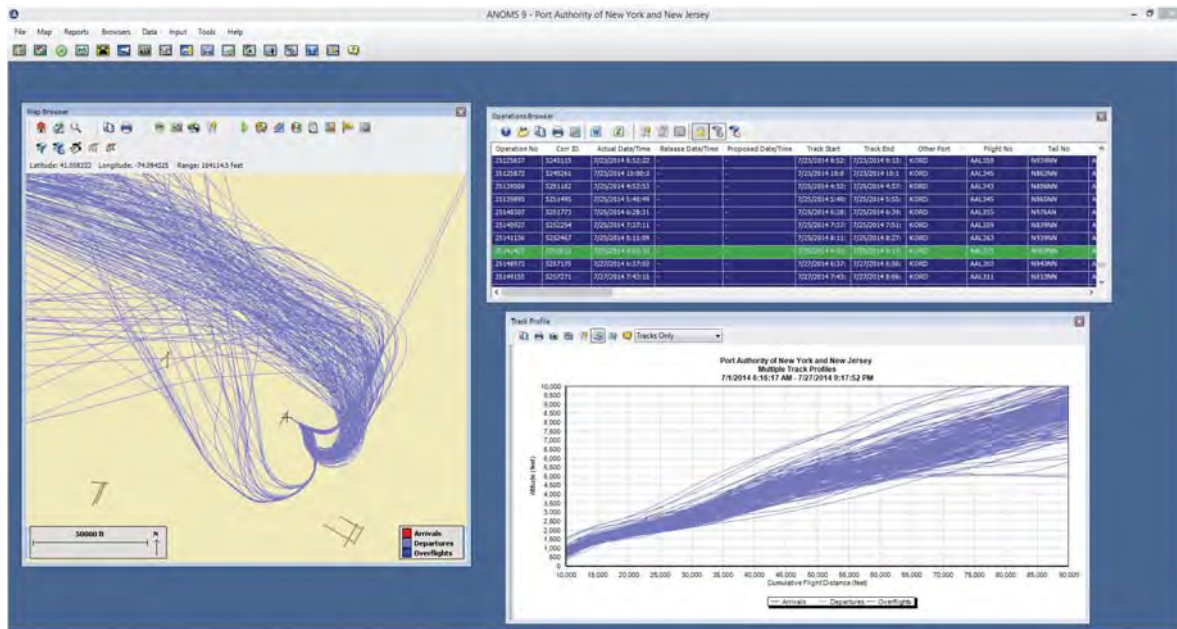


Review Preliminary INM Inputs

Sample Arrival Profiles



Review Preliminary INM Inputs Sample Departure Profiles

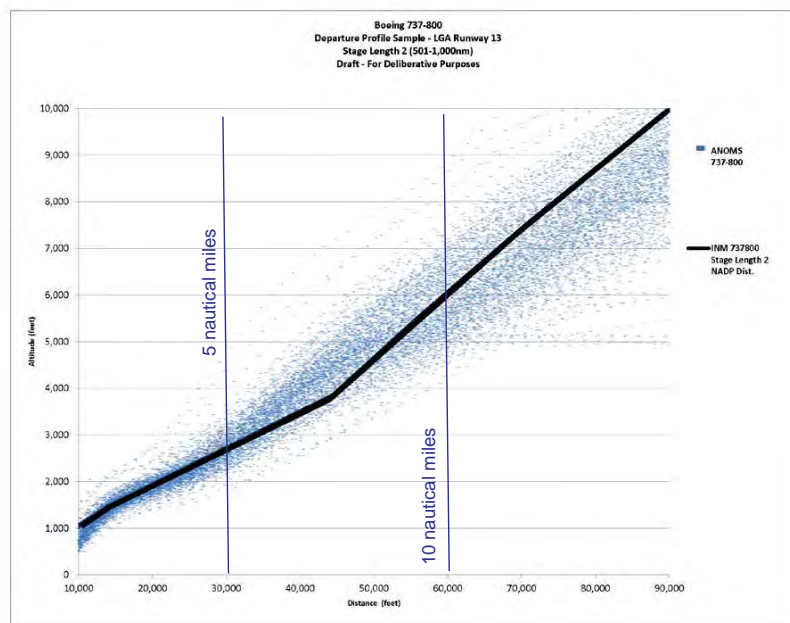


ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

Review Preliminary INM Inputs Sample Departure Profiles



ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

Review Airport Activity Forecast

ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

14 CFR Part 150 Forecast Will Be Based on FAA's 2014 Terminal Area Forecast (TAF)

- The TAF is prepared annually by the FAA for its long-range planning and is used in aviation planning studies such as 14 CFR Part 150 studies, environmental assessments, and airport master plans
- The ESA Study Team is currently working with the Port Authority to develop 2016 and 2021 aircraft fleet mix information
- A detailed aircraft fleet mix forecast for 2016 and 2021 will be presented at a future TAC meeting

ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 3

ESA Study Team

45

THE PORT AUTHORITY
OF NY & NJ

Future TAC Meeting Dates

ESA Study Team

46

THE PORT AUTHORITY
OF NY & NJ

Tentative Meeting Dates for TAC Meetings 5 and 6

- **TAC Meeting 5 – Tuesday, March 15, 2016 (10 a.m. – 1 p.m.)**
- **TAC Meeting 6 – Tuesday, April 12, 2016 (1 p.m. – 4 p.m.)**

Preliminary Agenda for TAC Meeting No. 5

- **Update on the CTB and Perimeter Rule**
- **Review Homework Assignment No. 3**
- **Review the 2016 and 2021 Aircraft Operations Forecast**
- **Review the Non-Standard Arrival and Departure Profiles**
- **Review the NEM Schedule**

Public Comment

ESA Study Team

49

THE PORT AUTHORITY
OF NY & NJ

Adjourn

ESA Study Team

50

THE PORT AUTHORITY
OF NY & NJ

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

Technical Advisory Committee
Meeting #4
Meeting Summary

Technical Advisory Committee No. 4
14 CFR Part 150 Study – LaGuardia Airport
December 8, 2015 – 1:00 PM to 4:00 PM

Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Corp
Andrew Brooks	FAA - Airports Division
Lisa Lesperance	FAA
Laura Stensland	FAA – LGA Airport Traffic Control Tower
Mark Buttice	Nassau County Planning
Warren Schreiber	New York Community Aviation Roundtable
Rosina Barbastefano	NYC and Company
Scott Solomon	NYC Department of City Planning
Charles Shamoon	NYC Department of Environmental Protection
David Hopkins	NYC Economic Development Corporation
Stacey Gilbert	Port Authority of NY & NJ (PANYNJ)
Ed Knoesel	PANYNJ
Tim Middleton	PANYNJ
Kelly Mitchell	PANYNJ
Chris Rhoads	PANYNJ
Adeel Yousuf	PANYNJ

Jack Liebler	Queens Borough President's Office
Jasmine Narang	Queens Borough President's Office
Elisa Velasquez	Queens Borough President's Office
Neal Stone	Town of North Hempstead
Marilyn Chapoteau	Town of North Hempstead/QuietSkies.net
Len Schaier	Town of North Hempstead/QuietSkies.net
Glenn Morse	United Airlines

Non-TAC Members	
Name	Representing
Rudy Luo	
Mark Wang	

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Mike Arnold	ESA Airports
Adrian Jones	ESA Airports
Maura Fitzpatrick	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Dave Rickerson	Kimley-Horn and Associates, Inc.
Andra Horsch	Nicholas Lence
Josh Knoller	Nicholas Lence

Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members and other meeting attendees. She stated that a newsletter regarding the LGA 14 CFR Part 150 study has been posted on the PANYNJ website and encouraged TAC members to forward the newsletter link to others who might be interested in reading it. She also reminded attendees that the website has a section for signing up to the study mailing list.

Ms. Mitchell explained that meeting materials were not distributed to TAC members in advance of the meeting due to time constraints. Steve Alverson (ESA) explained that the next TAC meeting would be delayed until March 2016 to allow the consultant team sufficient time to generate materials for the TAC's review.

Susan O'Donnell (VHB) and Ryan Walsh (FHI) served as the meeting facilitators. Ms. O'Donnell explained the purpose and role of the TAC and the role of the facilitators. She provided ground rules by which the group would function. She asked attendees to introduce themselves.

Steve Alverson (ESA) reviewed the meeting agenda and highlights from the last TAC meeting.

Review of Homework Assignment (Study Protocol)

Steve Alverson (ESA) explained that at the previous TAC meeting, attendees were asked to review the Final Study Protocol and to be prepared to ask questions about it at today's meeting.

Len Schaier (Town of North Hempstead/QuietSkies.net) had previously submitted comments and questions. The PANYNJ and the consultant team prepared responses to these comments and questions, which were distributed to TAC members at the meeting for review and discussion. Steve Alverson (ESA) requested that Len Schaier clarify the comments listed under Part 2 so that those issues can be addressed by the consultant team. This document is attached to the summary.

- Regarding Question B, Len Schaier (Town of North Hempstead/QuietSkies.net) asked how the consultants can reconcile the difference between the standard manufacturers' data on final approach with the FAA's approach plates. Steve Alverson (ESA) explained that the consultant team is using the actual altitude profiles.
- Regarding Question C, Len Schaier (Town of North Hempstead/QuietSkies.net) commented that the default load factor in the INM is 65%, but that aircraft operating at LaGuardia Airport are currently running at an 85% load factor. He asked whether the team was losing any validity by using stage length in their analysis. Steve Alverson (ESA) responded that they are not only looking at stage length, but also how the aircraft are performing on departure by using the actual altitude profiles.
- Regarding Question D, Steve Alverson (ESA) explained that March 2016 will be the cut-off time for making changes to the input data and the time to begin running the model to generate

the noise contour maps. Andrew Brooks (FAA) added that if there is a significant change such as to the Slot or Perimeter Rule that might occur in 2016 after the modeling begins, 14 CFR Part 150 requires that the Noise Exposure Maps be updated to reflect those changes.

- Regarding Question H, Len Schaier (Town of North Hempstead/QuietSkies.net) questioned the use of the word “prohibit” in the response to the question. Steve Alverson (ESA) explained the process used to make the model results as accurate as possible by not changing the noise data in the model, but changing the aircraft performance inputs.
- Regarding Question I, Len Schaier (Town of North Hempstead/QuietSkies.net) did not find the answer provided to this question satisfactory and reiterated a request for data from which the contours are developed, in Excel format. This request was also made by Elisa Velasquez (Queens Borough President’s Office); Steve Alverson (ESA) and Kelly Mitchell (PANYNJ) responded that this was not in the current consultant scope of work, and that it is not a simple task to accommodate this request. Len Schaier (Town of North Hempstead/QuietSkies.net) requested a cost estimate for the effort to provide this information. Adrian Jones (ESA) explained that the consultant team will be generating the data to the level of detail requested but it may not be available in the format requested. Elisa Velasquez (Queens Borough President’s Office) added that all data should be made available to the TAC for the purpose of transparency. Kelly Mitchell (PANYNJ) assured the group that the information they seek will be provided, but reiterated that it may not be in their preferred format.

Len Schaier (Town of North Hempstead/QuietSkies.net) requested that contours be developed for 60, 58, 56, 55, and 54 DNL. Kelly Mitchell (PANYNJ) stated that this request was out of the current consultant scope of work, but would be discussed further.

Regarding Question J, Len Schaier (Town of North Hempstead/QuietSkies.net) requested that the PANYNJ add areas at 55 DNL that overlap with noise impacts from both LGA and JFK to see the composite noise exposure value. Ed Knoesel (PANYNJ) stated that this was not in the current scope of consultant work, nor is it required by the 14 CFR Part 150 regulation. Steve Alverson (ESA) explained that they would look at these areas separately and review the procedures at each airport to address the noise levels. Kelly Mitchell (PANYNJ) added that a benefit of performing these studies at both airports simultaneously is allowing the team to look at maps from both airports to see areas of impacts.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked what the role of Congressional Representatives is in the study. Steve Alverson (ESA) responded that they could be members of the TAC and participate in consensus building.

Warren Schreiber (New York Community Aviation Roundtable) asked why the aircraft takeoff weights are not provided by the airlines to the PANYNJ. Steve Alverson (ESA) replied that the PANYNJ receives information about aircraft landing weights, but that takeoff weight is proprietary information. Glenn Morse (United) added that the longer the stage length the less the load factor is an issue because fuel far outweighs the payload.

Glenn Morse (United) asked whether the model gets to the level of detail where it looks at the speed when an aircraft is being vectored for arrival and looks at flap setting and thrust settings. Steve Alverson (ESA) responded that they can change all those parameters in the model for increased accuracy.

David Hopkins (NYCEDC) stated that in the protocol most small aircraft in the INM have only one stage length profile. He asked for clarification on the definition of small aircraft. Steve Alverson (ESA) explained that the small aircraft with a single stage length are general aviation aircraft.

Charles Shamoon (NYCDEP) recommended that as the consultant team looks at the contour maps for both LGA and JFK, if there are overlaps of areas with noise exceedances, that these be considered as priority locations for new noise monitors.

David Hopkins (NYCEDC) asked that in Section 3.7 of the Study Protocol that the Mayor of NYC be added to the list.

David Hopkins (NYCEDC) referring to Section 5.2 Terminal Area Forecasts asked why JFK was listed as an unconstrained and LGA as constrained for operations. Andrew Brooks (FAA) explained the process FAA uses to develop their Terminal Area Forecasts, and that LGA is much nearer its slot utilization than JFK due to its size and lack of nighttime operations.

David Hopkins (NYCEDC) asked about commuter air taxis under the fleet mix and if these operate in the area. Steve Alverson (ESA) explained that these are smaller aircraft contracted by larger airlines. Peter Byrne (VHB) explained this service further, but noted that this designation is not important for noise modeling purposes.

Review Preliminary Generalized Existing Land Uses Map

Mike Arnold (ESA) presented this material. He explained that due to the density of the development near LGA, the PDF files on the website offer a clearer view of the land use patterns than the handouts made available at the meeting. He added that similar information for JFK is available on the PANYNJ website. He requested that TAC members look at this map on-line and provide feedback to Kelly Mitchell.

Jennifer Hogan (VHB) distributed handouts of the planned and future projects and zoning changes within the LGA data collection area for both NYC and Nassau County for the TAC to review. She explained the methodology for compiling these data. She explained that the end of 2015 is when the team intends to finalize this list, which will include future projects that are pre-certified. She asked the group to review the memos and provide feedback to Kelly Mitchell.

Elisa Velasquez (Queens Borough President's Office) recommended that the study team contact both the School Construction Authority (SCA) and Health and Hospital Corporation (HHC) for additional projects to add to this list. She recommended Ross Holden, General Counsel or Lorraine Grillo, President of SCA as contacts. She will provide a contact for HHC.

Warren Schreiber (New York Community Aviation Roundtable) expressed concern over large projects getting approved after 2015 and how they will be reflected in the study. He added that certain neighborhoods will have greater noise impacts, and greater impacts to density with future development. Mike Arnold (ESA) explained that if they are included on the list, even if they are not yet approved projects, they will be considered in the study. He reiterated that the team is looking for the TAC to review the list to make sure nothing is missing.

Glenn Morse (United) asked if NY City has sound proofing regulations within existing noise contours. Scott Solomon (NYCDCP) explained the City's regulations and added that the NYC Department of Buildings is responsible for enforcing sound attenuation regulations.

Review Preliminary INM Inputs

A series of handouts depicting the Draft INM flight tracks for arrivals and departures for each runway at LGA were distributed to the attendees. Mike Arnold (ESA) presented this information and described in detail how the INM flight tracks and their usage were developed from the actual radar flight tracks for LGA.

Glenn Morse (United) asked how to accommodate irregular patterns of flight tracks such as weekend closures. Andrew Brooks (FAA) explained that the PANYNJ construction schedule will need to be examined to determine if these irregular patterns are appropriate to model.

Warren Schreiber (New York Community Aviation Roundtable) asked whether these flight tracks can be in conflict with JFK flight tracks, and Mike Arnold (ESA) responded that the flight tracks to be modeled will reflect real world conditions and the track locations will reflect the interrelationships with JFK operations.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked whether the Flushing climb was discontinued in 2014 and the team stated that they believed this to be the case but that it would need to be confirmed by FAA. He asked what volume of takeoffs on Runway 13 are TNNIS VI. Mike Arnold (ESA) responded approximately one-third, but cautioned that the flight paths may not all be TNNIS VI.

Charles Shamoon (NYCDEP) asked whether the team could correlate complaints with flight tracks. The team responded that this is outside the scope of the 14 CFR Part 150 study. Ed Knoesel (PANYNJ) stated that the PANYNJ does correlate complaints with flight tracks using ANOMS.

Marilyn Chapoteau (Town of North Hempstead/QuietSkies.net) asked whether climbs other than TNNIS VI for Runway 13 could be included in the model. Mike Arnold (ESA) stated that the team will look at this, but is hesitant to commit to this based on the information that is available to the team.

Marilyn Chapoteau (Town of North Hempstead/QuietSkies.net) stated that the maps do not show routes that take planes over the Grand Central Parkway even though she has seen these flight patterns. Mike Arnold (ESA) said that the team would look into this.

Charles Shamoon (NYCDEP) asked whether pilots can see a reading of their decibel level. Steve Alverson (ESA) responded that he was not aware of this. He added that the FAA discourages the use of performance-based noise abatement procedures based on measured noise levels as it could distract pilots from safely flying the aircraft.

Mike Arnold (ESA) then presented the process that is being used by the ESA team to develop the flight profiles.

Review Airport Activity Forecast

Mike Arnold (ESA) and Steve Alverson (ESA) provided an update on the airport activity forecast process. They noted that the LGA forecast had been submitted to the FAA for review and the JFK forecast should be submitted to the FAA for review prior to the end of December.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked what would occur to the forecast if the Perimeter or Slot Rules change. Steve Alverson (ESA) responded that a sensitivity analysis would be undertaken to assess what effect such a change might have on the noise exposure.

Charles Shamoon (NYCDEP) suggested that the TAC encourage the use of winglet retrofits to save fuel. Steve Alverson (ESA) stated that mitigation suggestions such as this would be considered in the noise

compatibility phase of the study. Glenn Morse (United) added that the airline industry has embraced the use of winglets.

TAC Member Homework Assignment #3

Steve Alverson (ESA) stated that as homework, TAC members are asked to review all the handouts that will be available on the website in electronic format. He asked for TAC member feedback by the end of the first week in January, and that comments be submitted to Kelly Mitchell using the e-mail address on the LGA Part 150 Study website.

Future TAC Meetings

Steve Alverson (ESA) presented the preliminary agenda for the next TAC meeting, as well as the proposed dates for the following two TAC meetings, which are Tuesday, 3/15/16 from 10 AM – 1 PM and Tuesday, 4/12/15 from 1 PM - 4 PM.

Comments from TAC Members

Len Schaier (Town of North Hempstead/QuietSkies.net) asked if the team is using 2014 data, how changes in flight patterns that occur in 2015 will be identified. Steve Alverson (ESA) responded that the team is spot-checking the 2014 data against the 2015 data in ANOMS, and are reviewing the data with FAA.

Ed Knoesel (PANYNJ) stated that there is no update on the Perimeter Rule. He added that a technical report on the Central Terminal Building is available for public review on the PANYNJ website.

Public Comments

Rudy Luo suggested that wind velocity and direction information be input into the model. He also suggested that a disproportionately high volume of departures use the Flushing climb, particularly late night and early morning. Steve Alverson (ESA) responded that information on departures will be captured by runway use information from 2014. He also reviewed the factors that go into decisions by the air traffic controllers to determine flight paths listed in order of priority: safety; runway availability; capacity and efficiency needs at that time; winds; weather; and noise abatement.

Closing Remarks

Kelly Mitchell (PANYNJ) thanked attendees for their time and input. She added that the full presentation slides will be available in pdf format at http://panynjpart150.com/LGA_TAC.asp

quietskies.net
53 Birch Street Port Washington, NY 11050
516 944 3570

Rev 8/4/15 Format changed and comments added 9/10/15, 11/21/15, and 12/29/15

Introduction:

This paper provides comments and question on both the approach and methodology being used for the part 150 study. The paper is broken into two parts: Part 1 deals with Technical Issues and the Second part deals with Administrative issues

Part 1. Technical Issues The following Technical requirements/considerations should be considered during development of the protocols and Noise Exposure Maps (NEMs) for the Part 150 Study.

A. Consider all relevant flight tracks and profile data to help assure accurate representation of all contours including the 60 and 55 DNL contours.	Study Protocol sections 6.5.8 and 6.5.11 provide information on the development of flight tracks and profiles. The Study Team is collecting a full 12 months of three-dimensional flight paths to develop the INM input data to satisfy the 14 CFR Part 150 requirements.
B. Will NEM include tracks and profile data for aircraft using Visual Flight Rules (VFR), Hold-Down Modes, or other operating modes that may impact the accuracy of noise contours in the NEM.	Study Protocol section 6.5 describes the complete data collection and analyses in the development of the INM input to satisfy 14 CFR Part 150 requirements. The Study Team is developing the flight tracks and profiles from a complete 12 months of data for our analyses, including VFR, hold downs, and other operating modes.
C. Use actual take off gross weights or average load factors for	Study Protocol sections 6.5.7 and 6.5.8 describe the FAA-prescribed

<p>operations at each of the NY airports.</p>	<p>approach for assessing and assigning stage lengths as a surrogate for aircraft takeoff weights. Airlines and other aircraft operators do not provide airports with actual takeoff weights; commercial operators consider this information proprietary. Therefore, there is no way to obtain actual takeoff weights. If the altitude profile data that we obtain from the year of radar data suggest that the observed profiles differ enough from standard INM profiles to merit adjustment, the PANYNJ will submit user-defined profiles to the FAA for approval for use in the noise modeling effort.</p>
---	--

<p>D. Consider New and upcoming changes to our airspace and procedures described below. If changes are defined before NEM's are finalized then we would expect that the impact of the changes will be included in the maps. On the other hand, if they cannot be considered during preparation of the NEM's, but the changes are known before the NCP is published, then sensitivity analyses suitable for estimating the impact of the changes, should be provided.</p> <ul style="list-style-type: none"> • Include normal growth of slot usage and any other slot changes which may become known in the study period. • Include consideration of Multiple Runway Operations (MRO) and operations taking advantage of Wake Recat which may become known in the study period. • Include consideration of any perimeter rule changes which may become known in the study period. • Incorporate remaining tasks under Airspace Redesign and NextGen which may include Required Navigation Performance (RNP) procedures, Continuous Descent Approaches (CDA) as well as implementation of the New York Metroplex and other tasks/changes that may be identified during the five-year study period. 	<p>For development of the NEMs, the 14 CFR Part 150 provides for the incorporation of upcoming changes that will have an effect on the noise contours if the changes have received all required approvals and are expected to be completed/implemented within the time period covered by either NEM; i.e., by the end of 2016 for the existing conditions NEM or by the end of 2021 for the forecast conditions NEM.</p>
--	--

<p>H. Periodically use noise monitors for model data refinement and verification of modeling results. Report results of the comparisons to the Technical Advisory Committee. When will we see a first refinement/verification check using noise meter readings against model predictions?</p>	<p>14 CFR Part 150 prohibits the use of noise monitoring data to refine the noise exposure contours generated by the INM. The Study Protocol section 6.6 discusses the collection and reporting of noise monitoring data.</p>
<p>I. Model outputs shall be provided in graphical and Excel formats or their equivalents with census track information, latitude and longitude data, all suitable to allow a reader to compare model and actual noise levels at noise monitor and all other locations in the analysis area. When would Excel data be available?</p>	<p>The Study Team will provide model output in graphical (contours) format and tabular (noise at existing noise monitoring locations) format, which will provide the direct comparison of measured and modeled values. See section 6.6 of the Study Protocol for further discussion of this matter. Excel tables of the data will not be provided.</p>
<p>J. Provide composite noise exposure maps and excel sheets which show total noise impacts due to both airports (LGA and JFK) added together.</p>	<p>The studies will comply with 14 CFR Part 150 requirements and FAA guidelines for its implementation. The FAA and PANYNJ have agreed to evaluate each airport individually and not add results together for multiple airports.</p>
<p>K. When breaking out approach and departure tracks, please provide total number of TNNIS departures and runway 31 arrivals each as absolute numbers and each as a percentage of total runway 13 departures and total runway 31 arrivals respectively</p>	<p>Section 6.5.11 of the Study Protocol describes the process to be followed in development of modeling flight tracks. The Study Team will use a complete year of flight tracks to develop modeled flight tracks. The NEM documentation will include a detailed description of the process used to develop the modeled tracks as required by 14 CFR</p>

	Part 150 as well as the use of each.
<p>L. Stated tolerance for NEM is +/- 2 db within 65 DB contours (see page Page 6-16 para 6.6.) We note that +/-2db would require a 58% change of yearly operations passing near a particular sensor.</p> <p>What is tolerance at 60 and 55 db contours?</p>	<p>As stated at an earlier TAC meeting, the accuracy of the noise contours is dependent on the noise model inputs. The greater the level of detail in the development of flight tracks, flight track use, runway use, fleet mix, etc., the more accurate the noise contours will be for a given period in time. While the 60 and 55 dB DNL contours are being provided for information only, given the level of detail that is being placed into the noise modeling effort, it is likely that the similar level of tolerance will be achieved.</p>
<p>M.</p> <p>(a) Do the NEM use actual approach plates and departure procedure plates at initial takeoff interval and final approach intervals respectively.</p>	<p>Section 6.5.11 of the Study Protocol describes the process to be followed in development of modeling flight tracks. The actual flight paths and altitudes from the PANYNJ's ANOMS are used to develop the noise model inputs for the NEMs.</p>
<p>(b) Does methodology take into consideration new WAAS capabilities which allow lower altitudes?</p>	<p>Section 6.5.11 of the Study Protocol describes the process to be followed in development of modeling flight tracks. The modeled flight paths and altitudes used to develop the NEMs will be based on the actual information from the PANYNJ's ANOMS for 2014 adjusted to reflect the anticipated conditions in 2016.</p>
<p>(c) Will we be using 2014, 2015 or 2016 approach/departure procedures.</p>	<p>Section 6.5.11 of the Study Protocol describes the process to be followed in development of modeling flight tracks. Actual flight paths and altitudes used to develop the NEMs will use actual information from the PANYNJ's ANOMS for 2014 adjusted to reflect anticipated</p>

	conditions in 2016.
(d) When will draft NEM's be available for TAC review?	We currently anticipate the NEMs for JFK and LGA will be available for review in the Summer of 2016.

Part 2. Administrative Issues Possible Typo's

On page 1 – 1: Last paragraph third sentence add “or planned”	Section 1.2 of the study protocol, paragraph 1, Sentence # 3: The sentence structure already indicates a “or planned” action.
On page 2 – 3: Second paragraph talks about a consensus. Who decides when a consensus should be established and or who asks for a vote.	Section 2.5, Paragraph 7 states, “In general, the TAC will operate on a consensus basis. <i>The facilitator</i> will obtain a sense of the TAC’s position based on the flow of the conversation and the viewpoints being expressed. The facilitator may poll the TAC to confirm the consensus opinion. In cases where the TAC seems divided on an issue, the facilitator may conduct a vote to determine the majority opinion. It is important to note that votes will not result in a specific outcome, but represent an advisory position to the Port Authority.
On page 3 – 8: forth dark bullet down; --Is the stake holder, Citizens for Quietskies over North Hempstead intended to be quiet skies.net. If not please add quiet skies.net --Also, the last community stakeholder is listed as the Congressional Caucus. How will Congressional caucus or its members participate in the TAC?	Section 3.8 of the study protocol under the bullet titled “Community based stakeholder groups formed around the issue, including:”, quiet skies.net will be included under this list in the next study protocol revision. Section 3.8 of the study protocol, Introduction paragraph states, “In a similar fashion to media outreach, the ESA Team, in collaboration with and

	approval from the Port Authority's Government and Community Relations Department (GOCOR- NY), will engage with community representatives and elected officials to ensure their notification and participation in the 14 CFR Part 150 Studies. The Government and Community Outreach efforts will target the following:"
--	---

Page from INM showing default load factor of 65%

Departure Takeoff Weights			
Stage number	Trip length (nm)	Representative Range	Weight (lb)
1	0-500	350	lb
2	500-1000	650	lb
3	1000-1500	1350	lb
4	1500-2500	2200	lb
5	2500-3500	3200	lb
6	3500-4500	4200	lb
7	4500-5500	5200	lb
8	5500-6500	6200	lb
9	>6500		lb

The following guidance has been established to provide common mission planning rules for determining default weights to the stage lengths given in the table above.

Table G-4-14: Guidance for Determining Departure Takeoff Weights

Parameter	Planning Rule
Representative Trip Length	Min Range + 0.70*(Max Range - Min Range)
Load Factor	65% Total Payload
Fuel Load	Fuel Required for Representative Trip Length + ATA Domestic up to 3000 nm and International Reserves for trip length > 3000 nm. As an example, typical domestics reserves include 5% contingency fuel, 200 nm alternate landing with 30 minutes of holding.
Cargo	No additional cargo over and above the assumed payload percentage

Not all nine trip lengths will be required for every aircraft as not all aircraft will be able to fly the higher trip length ranges. In addition to providing the trip length ranges for which an aircraft is able to fly, weights and procedures should also be developed for the aircraft maximum takeoff weight. If relevant, a lower bound weight may also be provided that would be more representative of operations that would occur at weights below trip lengths of 350 nautical miles using the mission planning rules above.

4. AERODYNAMIC COEFFICIENTS

Aerodynamic coefficients for use with the SAE-AIR-1845 equations are required for available flap settings. The flap settings may be identified in degrees and/or abbreviations. Please provide data for all flap settings specified in Sections 6 and 7, and include separate coefficients per flap setting for cases with landing gear up and with landing gear down as appropriate. Fixed gear aircraft do not require gear position information.

Appendix H-5
Technical Advisory Committee
Meeting #5
March 16, 2015

**Technical Advisory Committee
Meeting #5**

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF FIFTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

JFK Technical Advisory Committee Meeting

DATE: Tuesday, March 15, 2016
 TIME: 10:00AM - 1:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA Technical Advisory Committee Meeting

DATE: Wednesday, March 16, 2016
 TIME: 10:00AM - 1:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

LGA TAC Meeting #5 March 16, 2016

First	Last	Representing	Alternates	Primary	Alternate
Mike	Alberts	KB Environmental		✓	
Steve	Alverson	ESA Airports			
Mike	Arnold	ESA Airports			
Debbie	Bearden	NY Airport Liaison	Sal Debono	✓	JAM
Arnold	Bloch	FHI			
Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
Peter	Byrne	VHB		✓	
Chung	Chang	NYCDEP	Charles Shamoon	✓	
Fred	Dixon	New York & Company			
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins	✓	
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guiod	FAA - TRACON	Steve Kelley		
Jennifer	Hogan	VHB		✓	
David	Hopkins	NYC Economic Development Corp (EDC)		✓	
Andra	Horsch	Nicholas Lence		✓	
Bill	Huisman	Aviation Development Council		✓	
Adrian	Jones	ESA Airports			
Ed	Knoesel	Port Authority			
Josh	Knoller	Nicholas Lence			
Natalia	Kozikowska	Nicholas Lence		✓	
Kendall	Lampkin	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland	✓	

Michael	Levine	Town of North Hempstead	Neal Stone		✓
Dena	Libner	NYC & Company	Fred Dixon		
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Kelly	Mitchell	Port Authority		✓	
John	Moretto	FAA - NY ADO	Suki Gill	✓	✓
Glenn	Morse	United Airlines			
Christyne	Nicholas	Nicholas Lence			
Susan	O'Donnell	VHB		✓	
Chris	Rhoads	Port Authority			
Teresa	Rizzuto	Port Authority			
Chung	S. Chan	NYC Department of Environmental Protection (NYCDEP)	Charles Shamoan		
Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz		✓
Dean	Saucier	National Business Aviation Association			
Len	Schaier	Town of North Hempstead/QuietSkies.net	Marilyn Chapoteau	✓	✓
Lysa	Scully	Port Authority		✓	
Scott	Solomon	NYC DCP		✓	
Zendra	Spence	Shelt Air	Cesar Rizik		
Doug	Stearns	Port Authority	Chris Rhoads	✓	
Laura	Stensland	JFK Tower	James Law		
Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	✓	
Ian	Van Praagh	Port Authority - 6060R	Shirley Gifford		✓
Elisa	Velasquez	Queens Borough President	Jack L. Miller		✓

Jasmine Durang ✓

→ Roundtable

Ryan	Walsh	FHI		✓	
Brian	Will	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber		
Adeel	Yousuf	Port Authority			

**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**

Public

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #5
March 16, 2016 (10:00 a.m. – 1:00 p.m.)
LaGuardia Airport

Sign-In Sheet

Christine West
Jordan Klein

Name/Organization	Address	Phone or Email
Rudy Luo	45-32 158th Street Flushing NY 11358	917-930-6071
MARK WANG	133-25 Maple Ave #308 Flushing NY 11354	917-6850788
Debbi		
FAA NY TRACON	1515 Stewart Ave Westbury NY	516-683-2913
FAA NY Traccon	" " " " Joystitcher@gmail.com	516 683 2409
Joyce Serra	36-35 210 Street, Bayside, NY	718-428-8029
Bryan Serra	36-35 210 Street, Bayside, NY	718-428-8029
Stacy Galt	BSerra1948@gmail.com	
Fang Teng	1302 133 St. Fresh Meadows NY 11365	917-698-7887
Rong Rao	5831 201st ST oakland garden NY 11364	646-203-7492
Jenny 10128@hotmail.com	fagteng@yahoo.com	

14 CFR Part 150 Study
LaGuardia Airport

Sign-In Sheet

[illegible]

Technical Advisory Committee
Meeting #5
Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 5
14 CFR Part 150 Study – LaGuardia Airport

Wednesday, March 16, 2016

10:00 AM to 1:00 PM EST

1. Previous TAC Meeting Highlights
2. Port Authority Update on the CTB and Perimeter Rule
3. Review Homework Assignment
 - a. (INM Flight Tracks, Land Use Base Map, and Future Project List)
4. Review the 2016 and 2021 Aircraft Operations Forecast
5. Review Non-Standard Arrival and Departure Profiles
6. Review the NEM Schedule
7. TAC Homework Assignment No. 4
8. Future TAC Meeting Dates
9. Public Comment
10. Adjourn



LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Purpose and Objectives of the TAC

- **TAC members represent the interests of their organization and/or constituents**
- **The TAC's role is advisory**
 - **Review study documents**
 - **Provide input to the Port Authority related to the noise exposure maps and noise compatibility program**
- **TAC members are also expected to advise their organization and/or constituents of the TAC's discussions**

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Meeting Agenda

- Previous TAC Meeting Highlights
- Port Authority Update on the CTB and Perimeter Rule
- Review Homework Assignment No. 3
- Review the 2016 and 2021 Aircraft Operations Forecast
- Review Non-Standard Arrival and Departure Profiles
- Review the NEM Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Meeting Agenda

- TAC Homework Assignment No. 4
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Previous TAC Meeting Highlights

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Port Authority Update on the CTB and Perimeter Rule

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 3

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

Review the 2016 and 2021 Aircraft Operations Forecast

ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

2016 and 2021 Aircraft Operations Forecast

- The Port Authority has submitted a forecast memorandum for LGA to the FAA for review and approval
- The Port Authority has also submitted an INM aircraft substitution request memorandum for LGA to the FAA for review and approval

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

2016 and 2021 Aircraft Operations Forecast

Key Considerations

- Slot-controlled hours limit operational growth
- Passenger enplanements will increase as a result of passenger airline upgauging (assigning an aircraft with more seats to a particular market or route to increase passenger capacity)
- Passenger Airline Fleets will transition to include new aircraft and conversions to greater seat densities on existing aircraft
- General Aviation is expected to remain relatively flat

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

	2016			2021	
Widebody	30	0%		30	0%
Narrowbody	185,801	49%		190,099	49%
Regional Jet	185,831	49%		190,004	49%
General Aviation	7,102	2%		7,102	2%
Totals	378,764			387,235	

SOURCE: Port Authority of New York and New Jersey. LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033, January 2016.

*Currently under FAA Review

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

	2016					2021				
	Airline Operations		Passengers (millions)		Average Passengers per Operation	Airline Operations		Passengers (millions)		Average Passengers per Operation
Widebody	30	0%	0.0	0%	154	30	0%	0.0	0%	157
Narrowbody	185,801	50%	19.0	68%	102	190,099	50%	20.2	67%	106
Regional Jet	185,831	50%	8.8	32%	48	190,004	50%	9.9	33%	52
Totals*	371,662		27.8		75	380,133		30.2		79

*Passenger airlines only.

SOURCE: Port Authority of New York and New Jersey. LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033, January 2016.

*Currently under FAA Review

ESA Study Team

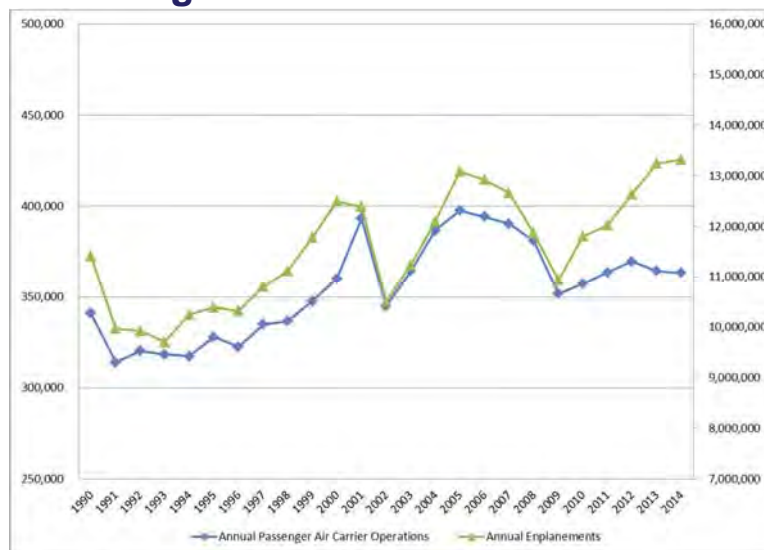
13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

Historic Passenger Air Carrier Trends



Source: Federal Aviation Administration. 2015 Terminal Area Forecast

*Currently under FAA Review

ESA Study Team

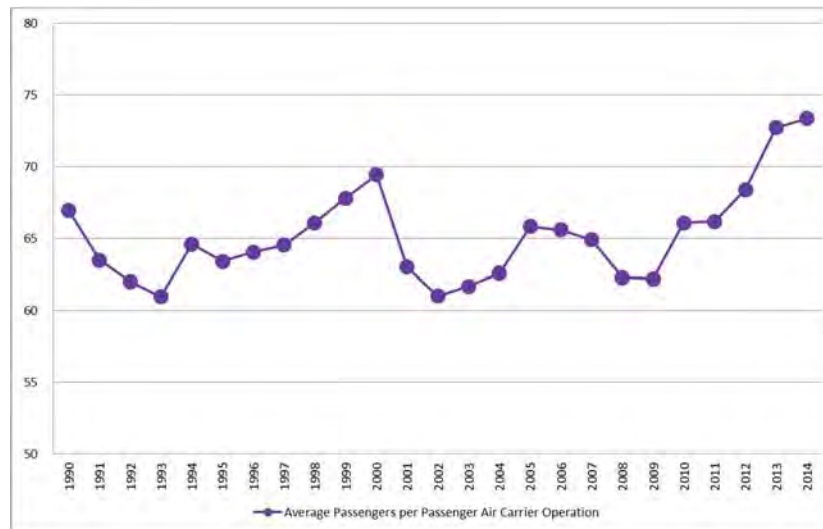
14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

Historic Passengers Per Operation Trend



Source: Federal Aviation Administration. 2015 Terminal Area Forecast

*Currently under FAA Review

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Example: CRJ900 (RJ) vs. A 319 (Narrowbody)



CRJ900
75-86 Seats



A319
124 Seats

Photo and Data Source: www.commercialaircraft.bombardier.com
www.airbus.com

ESA Study Team

16

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Example: Embraer Regional Jet - ERJ140 vs. ERJ170



ERJ140
44 Seats



ERJ170
70-78 Seats

Photo and Data Source: www.embraercommercialaviation.com

ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Table 1 Annual Aircraft Operations LaGuardia Airport			
Aircraft Category	Aircraft Fleet Mix	2016 Annual Operations	2021 Annual Operations
Widebody	Boeing 767-300	30	30
	Widebody Total	30	30
Narrowbody	Boeing 757-200	570	600
	Boeing 737-800	1,401	2,152
	Boeing 737-900	34,351	35,771
	Boeing 737-700	24,307	24,868
	Boeing 737-600	3,870	3,958
	Boeing 717-200	17,094	20,311
	Airbus A321neo	188	1,901
	Airbus A321	6,290	6,653
	Airbus A320neo	188	1,901
	Airbus A320	34,363	34,273
	Airbus A319	15,309	19,065
	MD-88	16,972	7,132
	MD-90	5,696	6,579
	Narrowbody Total	185,801	190,099
Regional Jet	Canadair RJ 900	24,020	32,524
	Canadair RJ 700	68,472	71,288
	Canadair RJ 200	12,899	-
	Embraer 175	31,604	48,152
	Embraer 170	23,918	38,000
	Embraer RJ145	18,200	-
	Embraer RJ140	6,818	-
	Regional Jet Total	185,831	190,004
General Aviation	Business Jet	6,398	6,420
	Turboprop	248	234
	Helicopter	396	398
	Platon	60	50
	General Aviation Total	7,102	7,102
All Aircraft		378,764	387,235

*Currently under FAA Review

ESA Study Team

NOTE: One operation is equivalent to one arrival/landing or one departure/takeoff.

SOURCE: Port Authority of New York and New Jersey - LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033, January 2016.

THE PORT AUTHORITY
OF NY & NJ

18

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Aircraft Category	Aircraft Fleet Mix	INM Aircraft Type	2016 Annual Operations	2021 Annual Operations
Widebody	Boeing 767-300	767400 (sub for B763)	30	30
		Widebody Total	30	30
Narrowbody	Boeing 757-200	757PW	553	576
		757RR	23	24
	Boeing 737-900	737800 (sub for B738)	1,401	2,152
	Boeing 737-800	737800	34,355	35,771
	Boeing 737-700	737700	24,307	24,869
	Boeing 737-600	737700 (sub for B736)	3,870	3,959
	Boeing 717-200	717200	17,094	20,531
	Airbus A321neo	A321neo (TBD)	186	1,901
	Airbus A321	A321-232	6,290	6,653
	Airbus A320neo	A320neo (TBD)	186	1,901
		A320-211	8,859	8,836
	Airbus A320	A320-232	25,504	25,437
	Airbus A319	A319-131	2,909	3,622
		A320-211 (sub for A319)	12,400	15,443
	MD-88	MD83 (sub for MD88)	16,972	7,132
	MD-90	MD9025	982	1,134
		MD9028	4,714	5,445
	Embraer 190	EMB190	25,196	24,713
		Narrowbody Total	185,801	190,099
Regional Jet	Canadair RJ 900	CRJ9-ER	24,020	32,524
	Canadair RJ 700	CRJ9-ER (sub for CRJ7)	68,472	71,288
	Canadair RJ 200	CL601	12,899	-
	Embraer 175	EMB175	31,604	48,192
	Embraer 170	EMB170	23,918	38,000
	Embraer RJ145	EMB14L	18,100	-
	Embraer RJ140	EMB145	6,818	-
		Regional Jet Total	185,831	190,004

*Currently under FAA Review

ESA Study Team

19

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Table 3
Aircraft Operations by Time of Day - 2016
LaGuardia Airport

Aircraft Category	Arrivals			Departures		
	Day	Night	Total	Day	Night	Total
Wide-Body	93.94%	6.06%	100.00%	76.47%	23.53%	100.00%
Narrow-Body	87.64%	12.36%	100.00%	91.06%	8.94%	100.00%
Regional Jet	94.20%	5.80%	100.00%	92.58%	7.42%	100.00%
Business Jet	90.90%	9.10%	100.00%	91.43%	8.57%	100.00%
Turboprop	91.40%	8.60%	100.00%	86.83%	13.17%	100.00%
Helicopter	98.44%	1.56%	100.00%	100.00%	0.00%	100.00%
Piston	96.88%	3.13%	100.00%	100.00%	0.00%	100.00%
All Categories	90.94%	9.06%	100.00%	91.81%	8.19%	100.00%

NOTES:

Values may not sum to 100% due to rounding.

Day = 7:00 a.m. to 10:00 p.m.

Night = 10:00 p.m. to 7:00 a.m.

SOURCE: ESA, February 2016.

*Currently under FAA Review

ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Table 4
Aircraft Operations by Time of Day - 2021
LaGuardia Airport

Aircraft Category	Arrivals			Departures		
	Day	Night	Total	Day	Night	Total
Wide-Body	93.94%	6.06%	100.00%	76.47%	23.53%	100.00%
Narrow-Body	88.86%	11.14%	100.00%	90.61%	9.39%	100.00%
Regional Jet	94.18%	5.82%	100.00%	92.88%	7.12%	100.00%
Business Jet	90.90%	9.10%	100.00%	91.43%	8.57%	100.00%
Turboprop	91.40%	8.60%	100.00%	86.83%	13.17%	100.00%
Helicopter	98.44%	1.56%	100.00%	100.00%	0.00%	100.00%
Piston	96.88%	3.13%	100.00%	100.00%	0.00%	100.00%
All Categories	91.52%	8.48%	100.00%	91.74%	8.26%	100.00%

NOTES:

Values may not sum to 100% due to rounding.

Day = 7:00 a.m. to 10:00 p.m.

Night = 10:00 p.m. to 7:00 a.m.

SOURCE: ESA, February 2016.

*Currently under FAA Review

ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Table 5
Departure Stage Length by Aircraft Category - 2016
LaGuardia Airport

Aircraft Category	Departure Stage Length					
	1	2	3	4	5	6
Wide-Body	85.29%	11.76%	2.94%	0.00%	0.00%	0.00%
Narrow-Body	28.32%	55.58%	16.02%	0.07%	0.00%	0.00%
Regional Jet	63.88%	32.19%	3.89%	0.04%	0.00%	0.00%
Business Jet	63.98%	24.98%	5.32%	3.83%	1.49%	0.41%
Turboprop	95.21%	4.19%	0.60%	0.00%	0.00%	0.00%
Helicopter	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Piston	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Categories	47.23%	43.04%	9.60%	0.11%	0.02%	0.01%

NOTE: Values may not sum to 100% due to rounding.

SOURCE: ESA, February 2016.

*Currently under FAA Review

ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

2016 and 2021 Aircraft Operations Forecast

Table 6
Departure Stage Length by Aircraft Category - 2021
LaGuardia Airport

Aircraft Category	Departure Stage Length					
	1	2	3	4	5	6
Wide-Body	85.29%	11.76%	2.94%	0.00%	0.00%	0.00%
Narrow-Body	31.58%	55.28%	13.09%	0.04%	0.00%	0.00%
Regional Jet	63.49%	31.96%	4.51%	0.04%	0.00%	0.00%
Business Jet	63.98%	24.98%	5.32%	3.83%	1.49%	0.41%
Turboprop	95.21%	4.19%	0.60%	0.00%	0.00%	0.00%
Helicopter	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Piston	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All Categories	47.85%	43.28%	8.74%	0.10%	0.03%	0.01%

NOTE: Values may not sum to 100% due to rounding.
SOURCE: ESA, February 2016.

*Currently under FAA Review

ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Review Non-Standard Arrival and Departure Profiles

ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Aircraft altitude profiles (i.e., the distance an aircraft is above the ground) are defined separately from ground tracks/flight tracks in the INM
- The INM database includes default or “standard” arrival and departure profiles for each aircraft type
- The “standard” profiles are defined by aircraft manufacturers
- The actual climb or descent profiles utilized at an airport may differ from the INM standard profiles

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- An analysis of radar data may show that aircraft are climbing at a slower or faster rate than shown in the “standard” profile or that arriving aircraft are leveling-off during approach
- Arrival and departure profiles in the INM database can be modified to better match aircraft altitudes and speeds shown in the radar data
- Data from the Port Authority’s Airport Noise and Operations Management System (ANOMS) is being used to evaluate arrival and departure profiles at LGA
- National Offload Program (NOP) data maintained by the FAA were also reviewed

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

Non-Standard Arrival and Departure Profiles

- The non-standard profile analysis focused on the ten aircraft types listed below
- These aircraft types accounted for 83% of the operations performed at LGA in 2014

INM Type	2014 Annual Operations	Percentage of 2014 Operations
CRJ9-ER	92,852	25%
737800	37,087	10%
EMB175	32,951	9%
A320-211	26,310	7%
A320-232	24,118	7%
737700	23,446	6%
EMB190	21,240	6%
EMB170	20,885	6%
MD83	18,203	5%
717200	6,239	2%
Total	303,331	83%

Source: Port Authority of New York and New Jersey. Aircraft Noise and Operations Management System (ANOMS).

*Currently under FAA Review

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Profile Analysis Steps
 - Step 1: Chart ANOMS arrival/departure flight profile data for calendar year 2014
 - Step 2: Review the profiles within the LGA profile analysis boundary
 - Step 3: Create a plan view figure and a distance/altitude graph for each aircraft flight track group
 - Step 4: Compare the ANOMS radar profile data to the INM standard profiles

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- **Profile Analysis Steps**
 - Step 5: Develop User-Defined profiles in the INM
 - Step 6: Develop Profile Graphs
 - Step 7: Calculate SEL values for the standard INM profile and User-defined profile for the INM aircraft
 - Step 8: Revise User-Defined Profiles as necessary following consultation with airlines

ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- A technical memorandum summarizing the approach the ESA Team is taking to defining User-defined arrival and departure profiles is being reviewed by the FAA's Office of Environment and Energy (AEE)
- The Port Authority has submitted information requests to several airlines that operate at LGA to obtain additional information about operating procedures for the ten aircraft types listed on Slide 27

ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 1 – CRJ9-ER Runway 22 Arrivals



Source: Port Authority of New York and New Jersey, 2014 ANOMS data.

ESA Study Team

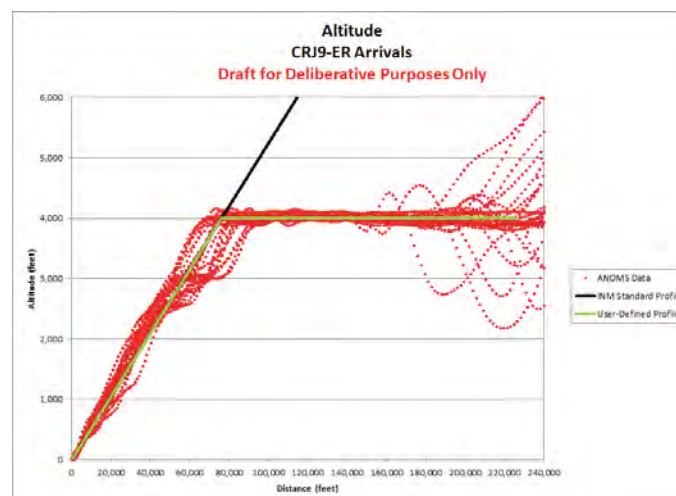
31

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 1 – CRJ9-ER Runway 22 Arrivals



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

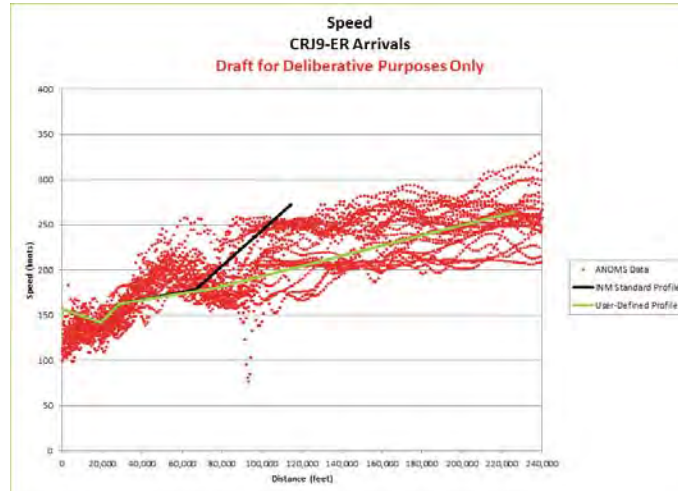
32

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 1 – CRJ9-ER Runway 22 Arrivals



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

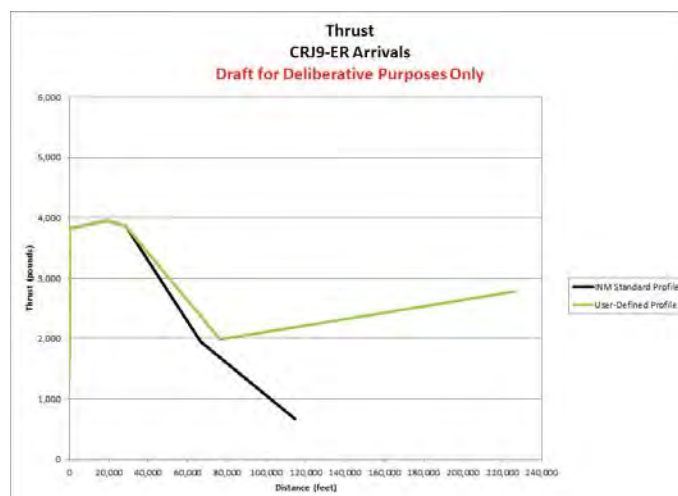
33

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 1 – CRJ9-ER Runway 22 Arrivals



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

Non-Standard Arrival and Departure Profiles

- Example 1 – CRJ9-ER Runway 22 Arrivals

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	106	106	0
0.5	99	99	0
1.0	94	94	0
1.5	91	91	0
2.0	89	89	0
2.5	87	87	0
3.0	86	86	0
3.5	85	85	0
4.0	84	84	0
4.5	82	82	0
5.0	82	82	0
5.5	81	81	0
6.0	80	80	0
6.5	79	79	0
7.0	79	79	0
7.5	78	78	0
8.0	77	77	0
8.5	77	77	0
9.0	76	76	0
9.5	76	76	0
10.0	75	75	0
10.5	75	75	0
11.0	74	74	0
11.5	73	74	1
12.0	73	74	1
12.5	72	73	1
13.0	72	73	1
13.5	71	72	1
14.0	71	72	1
14.5	70	72	2
15.0	70	72	2
15.5	69	72	3
16.0	69	72	3
16.5	68	72	4
17.0	68	72	4
17.5	67	72	5
18.0	67	72	5
18.5	66	72	6
19.0	64	72	8

Source: KB Environmental Sciences, March 2016.

*Currently under FAA Review

ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 2 – CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data.

ESA Study Team

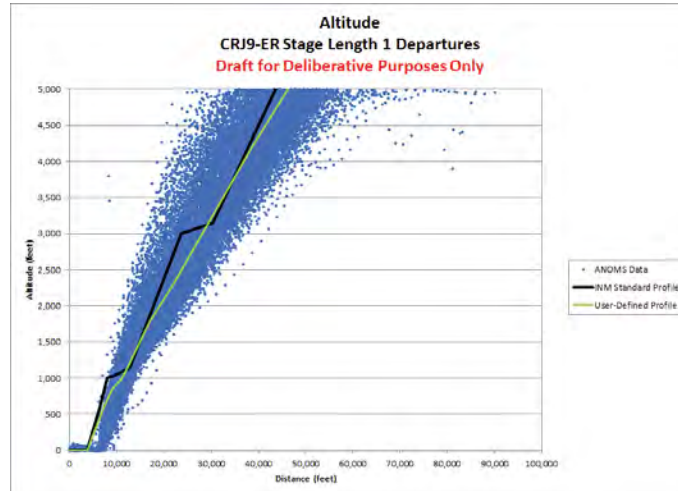
36

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 2 – CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

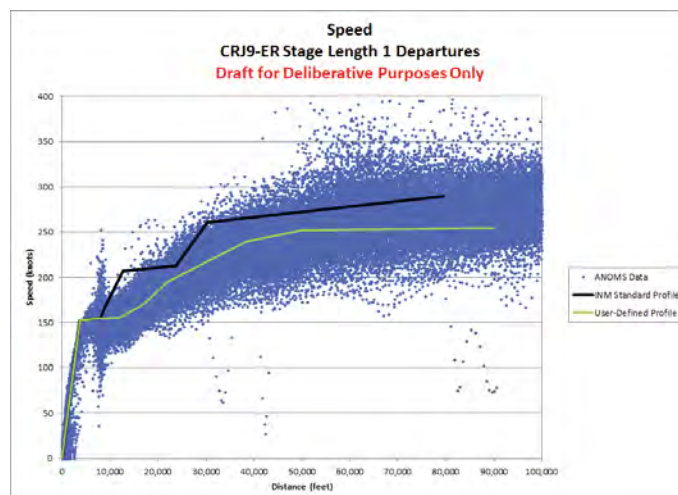
37

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 2 – CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

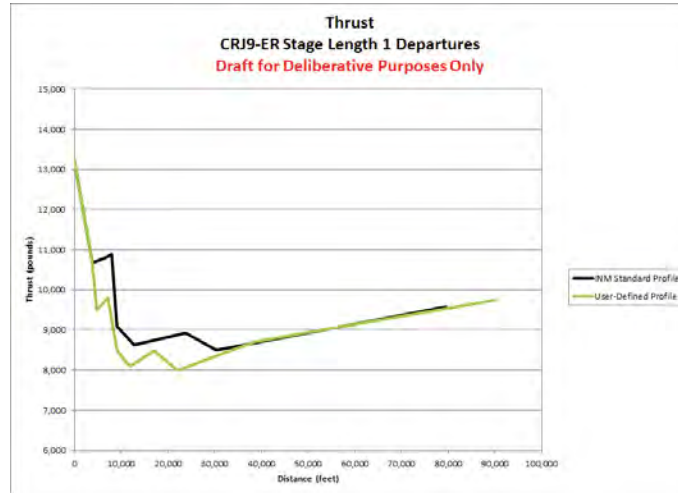
38

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Non-Standard Arrival and Departure Profiles

- Example 2 – CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, March 2016.

ESA Study Team

39

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

DRAFT* - for Preliminary Discussion Purposes Only

Non-Standard Arrival and Departure Profiles

- Example 2 – CRJ9-ER Runway 13 Departures

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	122	122	0
0.5	111	111	0
1.0	95	96	1
1.5	89	90	1
2.0	87	87	0
2.5	84	84	0
3.0	83	83	0
3.5	81	82	1
4.0	80	81	1
4.5	78	79	1
5.0	77	78	1
5.5	76	77	1
6.0	76	77	1
6.5	75	76	1
7.0	74	75	1
7.5	73	74	1
8.0	72	73	1
8.5	72	73	1
9.0	71	72	1
9.5	70	71	1
10.0	70	71	1

Source: KB Environmental Sciences, March 2016.

*Currently under FAA Review

ESA Study Team

40

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Review the NEM Schedule

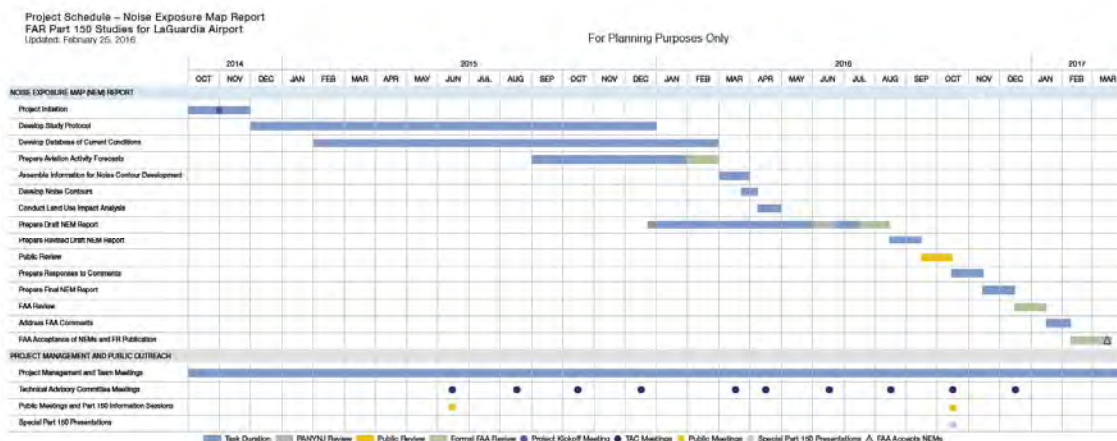
ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Review the NEM Schedule



ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 4

ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

Future TAC Meeting Dates

ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Tentative Meeting Dates for TAC Meetings 6 and 7

- **TAC Meeting 6 – Tuesday, April 12, 2016 (1 p.m. – 4 p.m.)**
- **TAC Meeting 7 – Tuesday, June 14, 2016 (1 p.m. – 4 p.m.)**

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Preliminary Agenda for TAC Meeting No. 6

- **Review Homework Assignment No. 4**
- **Update on FAA Forecast and Noise Modeling Approvals**
- **Status on the Noise Modeling Effort**
- **Status on the NEM Documentation Effort**
- **Review Schedule**

Public Comment

ESA Study Team

47

THE PORT AUTHORITY
OF NY & NJ

Adjourn

ESA Study Team

48

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 5

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

Technical Advisory Committee
Meeting #5
Meeting Summary

Technical Advisory Committee No. 5
14 CFR Part 150 Study – LaGuardia Airport
March 16, 2016 – 10:00 AM to 1:00 PM
Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Corp
Robert Goldman	Delta Airlines
Andrew Brooks	FAA - Airports Division
Ybrahina Cohen	FAA
Suki Gill	FAA – NY ADO
Jordan Klein	FAA TRACON
James Law	FAA – LGA Airport Traffic Control Tower
David Sanchez	FAA – NY ADO
Christine West	FAA TRACON
Lillian Tan	MarketPlace Development
Martin Katz	Nassau County Planning
Debbie Bearden	New York Airport Liaison
Marilyn Chapoteau	New York Community Aviation Roundtable
Scott Solomon	NYC Department of City Planning

Charles Shamoon	NYC Department of Environmental Protection
David Hopkins	NYC Economic Development Corporation
Stacey Gilbert	Port Authority of NY & NJ (PANYNJ)
Ed Knoesel	PANYNJ
Kelly Mitchell	PANYNJ
Lysa Scully	PANYNJ
Doug Stearns	PANYNJ
Jack Liebler	Queens Borough President's Office
Jasmine Narang	Queens Borough President's Office
Neal Stone	Town of North Hempstead
Len Schaier	Town of North Hempstead/QuietSkies.net

Public	
Name	
Rudy Luo	
Rory Rau	
Bryan Serra	
Joyce Serra	
Fang Teng	
Mark Wang	

Study Team	
Name	Representing
Mike Arnold	ESA Airports
Arnold Bloch	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Andra Horsch	Nicholas Lence
Natalia Kozikowska	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members and other meeting attendees. She stated that a newsletter regarding the LGA 14 CFR Part 150 study has been posted on the PANYNJ website and encouraged TAC members to forward the newsletter link to others who might be interested in reading it. She also reminded attendees that the website has a section for signing up to the study mailing list.

Ryan Walsh (FHI) served as the meeting facilitator. Mr. Walsh explained the purpose and role of the TAC and the role of the facilitator. He provided ground rules by which the group would function. He asked attendees to introduce themselves.

Mike Arnold (ESA) reviewed the meeting agenda and highlights from the last TAC meeting.

Port Authority Update on the CTB and Perimeter Rule

Lysa Scully (PANYNJ) noted that the Perimeter Rule study is still ongoing. As for the CTB, she noted that it's still in progress, with an expected contract sometime in May, and construction to start soon after.

Review of Homework Assignment

Mike Arnold (ESA) explained that attendees were asked to review all handouts distributed at the previous TAC meeting and be prepared to ask questions at today's meeting. He noted that questions and comments about those materials had been forwarded by TAC members to Kelly Mitchell and that many of them had to do with the November 19, 2015 and November 23, 2015 memos showing future planned and recently

approved development projects in Nassau County (the November 19th memo) and New York City (the November 23rd memo). Jennifer Hogan (VHB) then spoke about the revisions to those memos that have been made based on TAC comments and presented in two revised memos dated February 1, 2016 (Nassau County) and February 4, 2016 (New York City).

Review 2016 and 2021 Aircraft Operations Forecast

Mike Arnold (ESA) described how the 2016 and 2021 Aircraft Operations Forecast is being developed as part of the Noise Exposure Maps phase. He noted that this work has been submitted to the FAA for its review so it is still a work in progress. Andrew Brooks (FAA) noted that the FAA has completed its review and has approved the forecast methodology. Mike Arnold (ESA) discussed key considerations and the distribution of operations by airplane size. Charles Shamoon (NYC Department of Environmental Protection) asked how many working noise monitors are located in the LGA area. Ed Knoesel (PANYNJ) said that there are 33 noise monitors that the PANYNJ has in the areas around all three of its major airports. *(The distribution is as follows: 11 in the area around LGA; 18 in the area around JFK; and 4 in the area around EWR.)*

Mike Arnold (ESA) continued with a discussion of historic trends of passengers per operation as well as detailed presentation of the airport fleet mix that is being used for 2016 and 2021 forecasts, as broken out by actual airplane model. Charles Shamoon (NYC Department of Environmental Protection) asked if the new high-bypass engines have been modeled, to which Mike Arnold (ESA) said that most new aircraft are using these engines and therefore they will be part of the modeling process. Mr. Shamoon (NYC Department of Environmental Protection) asked if geared turbo fan engines will be modeled. Peter Byrne (VHB) said these are a new development, just being implemented. Mr. Shamoon said it would be good if the model could show how these engines are so much quieter. Andrew Brooks (FAA) said that discussion of geared turbo fan engines is more appropriate during the Noise Compliance Plan phase of the study.

Mike Arnold (ESA) noted that the forecast of airport operations by aircraft type is important because each aircraft type produces different noise profile, so it essential that the right forecasts go into the noise model. He then discussed aircraft category operations forecasts in 2016 and 2021 by day vs. night operations. David Hopkins (NYC Economic Development Corporation) asked if the day/night split indicated scheduled or actual flights, to which Mike Arnold (ESA) said that it reflects 2014 actual usage. He also noted that the same actual usage rate for 2014 would be assumed for future forecasts.

Mike Arnold (ESA) discussed the third factor in aircraft operations forecasts, which is the distribution of aircraft categories by the departure stage length. Len Schaier (Town of North Hempstead/QuietSkies.net) asked if ANOMS data was being used to verify the distribution of aircraft categories by departure stage length, to which Mike Arnold (ESA) said yes. Mr. Schaier asked if the maximum slot rule will be changed and shown in the model. Andrew Brooks (FAA) said that no change in the maximum number of slots will be modeled, since by 2021 the current maximum is unlikely to be reached. Len Schaier (Town of North Hempstead/QuietSkies.net) asked if LGA has scheduled night service, to which Andrew Brooks (FAA) noted that 8 percent of daily operations are occurring during the night. In a discussion about the Perimeter Rule, Andrew Brooks (FAA) said that if the rule is changed while this study is being conducted, this change may need to be incorporated into the analysis.

Review Non-Standard Arrival and Departure Profiles

Mike Arnold (ESA) described how the study is not relying on default or “standard” arrival and departure profiles for each aircraft type, but rather will utilize actual climb and descent profiles at LGA Airport. An eight-step analysis is being followed that will end up revising the noise model’s default profiles as needed, following the analysis completion and consultation with airlines. Mike Arnold (ESA) showed two examples of how non-standard arrival and departure profiles would be calculated (noting that these were draft calculations based on on-going FAA review). Len Schaier (Town of North Hempstead/ QuietSkies.net) asked what the significance of the circles with a radius of 13 miles meant in both examples. Mike Arnold (ESA) explained that these are areas will reasonably include the most significant noise levels around LGA, but that for the NEM, noise exposure will be calculated much further out than these circled areas.

At the end of Mike Arnold’s (ESA) discussion, Len Schaier (Town of North Hempstead/ QuietSkies.net) asked that the eventual NEM report indicate the data that current noise monitors show, to which Mike Arnold (ESA) said that it would.

Review the NEM Schedule

Mike Arnold (ESA) said that the plan is to produce a draft NEM report by late June/early July for review by the FAA. After that it will be shared and reviewed by the TAC. The public will review the NEM around October 2016.

TAC Member Homework Assignment #4

Mike Arnold (ESA) stated that as homework, TAC members are asked to review the information provided to them today and to come to the next meeting with questions and comments. Kelly Mitchell (PANYNJ) noted that the presentation will available on the website by the week of the March 21.

Future TAC Meetings

Mike Arnold (ESA) presented the preliminary agenda for the next TAC meeting, as well as the proposed dates for the following two TAC meetings, which are Tuesday, 4/12/16 from 1 PM—4 PM and Tuesday, 6/14/16 from 1 PM –4 PM.

Comments from TAC Members

Len Schaier (Town of North Hempstead/ QuietSkies.net) asked if the runways at LGA will need to be reconstructed for the new aircraft models. Ed Knoesel (PANYNJ) said that there is no expected runway refurbishing through 2021. Lysa Scully (PANYNJ) said that if bigger aircraft affect the runways, the PANYNJ may need to accelerate its continuous runway state-of-good-repair program.

Public Comments

Bryan Serra asked why noise over Bayside has increased so much in the past few years and why can't departures be spread out over more areas. He wanted everyone to know that flights affect bayside schools, considered some of the best in New York City. Mike Arnold (ESA) said that flight paths are being examined as part of this study. Another member of the public said that the same noise problems exist over Fresh Meadows, Queens, both in the early morning (before 10AM) and at night. Charles Shamoon (NYC Department of Environmental Protection) noted that there are noise monitors in these neighborhoods; Marilyn Chapoteau (New York Community Aviation Roundtable) followed up by saying that the Bayside monitor has recently been replaced, while others are being placed in Kew Gardens Hills and Fresh Meadows. Len Schaier (Town of North Hempstead/ QuietSkies.net) let members of the public know that flight procedures have changed over the last few years. Kelly Mitchell (PANYNJ) reminded everyone about the PANYNJ website's airport noise page, which besides having links to this study, also has information about making complaints concerning airplane noise. She also reminded everyone that the second phase of this study – the Noise Compatibility Plan – will address possible ways to deal with LGA noise issues.

Closing Remarks

Kelly Mitchell (PANYNJ) thanked attendees for their time and input. She added that the full presentation slides will be available in pdf format at http://panynjpart150.com/LGA_TAC.asp.

Appendix H-6
Technical Advisory Committee
Meeting #6
April 12, 2016

Technical Advisory Committee
Meeting #6

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF FIFTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Tuesday, April 12, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, April 13, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA TAC Meeting #6 April 12, 2016

First	Last	Representing	Alternates	Primary	Alternate
Mike	Alberts	KB Environmental		✓	
Steve	Alverson	ESA Airports		✓	
Mike	Arnold	ESA Airports		✓	
Debbie	Bearden	NY Airport Liaison	Sal Debono		
Arnold	Bloch	FHI		✓	
Andrew	Brooks	FAA - Airport Division	Lindsay Butler		
Peter	Byrne	VHB		✓	
Chung	Chan	NYCDEP	Charles Shamoon		✓
Fred	Dixon	New York & Company			
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins		
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guido	FAA - TRACON	Steve Kelley		
Jennifer	Hogan	VHB		✓	
David	Hopkins	NYC Economic Development Corp (EDC)			
Andra	Horsch	Nicholas Lence			
Bill	Huisman	Aviation Development Council		✓	
Adrian	Jones	ESA Airports			
Ed	Knoesel	Port Authority			
Josh	Knoller	Nicholas Lence			
Natalia	Kozikowska	Nicholas Lence		✓	
Kevin	Denning	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		

Michael	Levine	Town of North Hempstead	Neal Stone		✓
Dena	Libner	NYC & Company	Fred Dixon		
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Kelly	Mitchell	Port Authority		✓	
David	Sanchez	FAA - NY ADO	Suki Gill		✓
Glenn	Morse	United Airlines		✓	
Christyne	Nicholas	Nicholas Lence			
Susan	O'Donnell	VHB		✓	
Chris	Rhoads	Port Authority			
Teresa	Rizzuto	Port Authority			
Sean	Sallie	Nassau County Planning	Mark Buttice Martin Katz		✓
Dean	Saucier	National Business Aviation Association			
Len	Schaier	Town of North Hempstead/QuietSkies.net		✓	
Lysa	Scully	Port Authority			
Scott	Solomon	NYC DCP		✓	
Zendra	Spence	Shelt Air	Cesar Rizik		
Doug	Stearns	Port Authority	Chris Rhoads		
Laura	Stensland	JFK Tower	James Law		
Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker	✓	
Ian	Van Praagh	Port Authority			
Angelina	Martinez-Rubio	Queens Borough President	Jack Leibler	✓	✓
Jasmine	Narang	Queens Borough President			
Ryan	Walsh	FHI		✓	

Marilyn	Chapoteau	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber	✓	
Adeel	Yousuf	Port Authority		✓	

Chris Segura ESA

✓

Jim Peters FAA

Joyce Serra Bayside

Bryan Serra Bayside

Rudy Luo public

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #6

April 12, 2016 (1:00 p.m. – 4:00 p.m.)
LaGuardia Airport

Sign-In Sheet

[illegible]

Technical Advisory Committee
Meeting #6
Materials Presented at Meeting

Meeting Agenda
Technical Advisory Committee #6
14 CFR Part 150 Study – LaGuardia Airport
April 12, 2016 – 1:00 PM to 4:00 PM EDT

1. Previous TAC Meeting Highlights
2. Port Authority Updates on the CTB and Perimeter Rule
3. Review Homework Assignment No. 4
4. Update on FAA Forecast and Noise Modeling Approvals
5. Aircraft Noise Levels Comparison
6. Status of the NEM Documentation Effort
7. Review NEM Schedule
8. TAC Homework Assignment No. 5
9. Future TAC Meeting Dates
10. Public Comment
11. Adjourn



LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Purpose and Objectives of the TAC

- **TAC members represent the interests of their organization and/or constituents**
- **The TAC's role is advisory**
 - **Review study documents**
 - **Provide input to the Port Authority related to the noise exposure maps and noise compatibility program**
- **TAC members are also expected to advise their organization and/or constituents of the TAC's discussions**

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Meeting Agenda

- Previous TAC Meeting Highlights
- Port Authority Update on the CTB and Perimeter Rule
- Review Homework Assignment No. 4
- Update on FAA Forecast and Noise Modeling Approvals
- Aircraft Noise Levels Comparison
- Status of the NEM Documentation Effort
- Review NEM Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Meeting Agenda

- TAC Homework Assignment No. 5
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Previous TAC Meeting Highlights

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Port Authority Update on the CTB and Perimeter Rule

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 4

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

FAA-Approved 2016 and 2021 Aircraft Operations Forecast

Review of the Key Considerations

- Slot-controlled hours limit operational growth
- Passenger enplanements will increase as a result of passenger airline aircraft upgauging (assigning an aircraft with more seats to a particular market or route to increase passenger capacity)
- Passenger airline fleets will transition to include new aircraft and conversions to greater seat densities on existing aircraft
- General Aviation operations are expected to remain relatively flat

ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

FAA-Approved 2016 and 2021 Aircraft Operations Forecast

	2016			2021	
Widebody	30	0%		30	0%
Narrowbody	185,801	49%		190,098	49%
Regional Jet	185,831	49%		190,004	49%
General Aviation	7,102	2%		7,102	2%
Totals	378,764			387,234	

SOURCE: Port Authority of New York and New Jersey. LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033, March 2016.

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

Update on FAA Approvals of the Derivative Forecast and Various Noise Modeling-Related Requests

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

The Port Authority has submitted the following items for the LGA 14 CFR Part 150 to the FAA for review and approval:

- a derivative forecast memorandum for the years 2016 and 2021;
- two INM aircraft substitution request memorandums; and
- two memos requesting approval of ESA's approach to develop user-defined profiles for the top ten aircraft

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

The following describes the status of each of these items:

- The derivative forecast memorandum for the years 2016 and 2021 has been approved;
- The INM aircraft substitution request memorandums have been approved; and
- Awaiting the FAA's approval of ESA's approach to develop user-defined profiles for the top ten aircraft

ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Update on the User-Defined Flight Profile Development Effort

- A questionnaire and data request form was sent to the operators of the top ten aircraft types
- The questionnaire requested a confirmation of the thrust settings used on departure
- The data form requested specific aircraft performance data that could be used to develop user-defined flight profiles in the INM
- The majority of the airlines queried were responsive and provided useful performance data

ESA Study Team

14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Update on the User-Defined Flight Profile Development Effort

- The user-defined flight profiles graphs and related data tables have been updated and incorporated into a revised memo to the FAA
- While we are awaiting the FAA's approval, we are creating the INM Study Files for the 2016 and 2021 noise contour runs
- The images on the following slides depict the updated graphs and data tables for the departure flight profiles

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- Example of CRJ9-ER Runway 13 Departure Flight Tracks



ESA Study Team

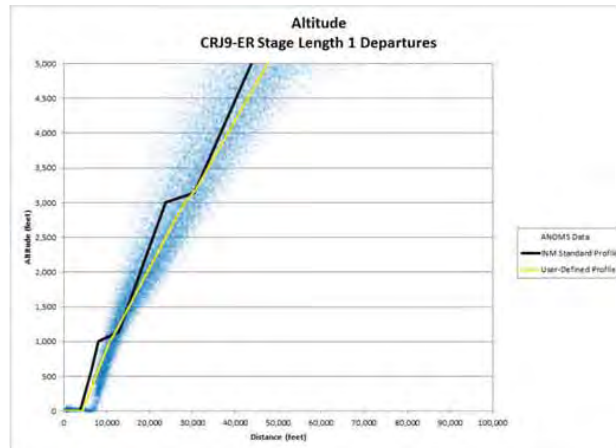
16

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

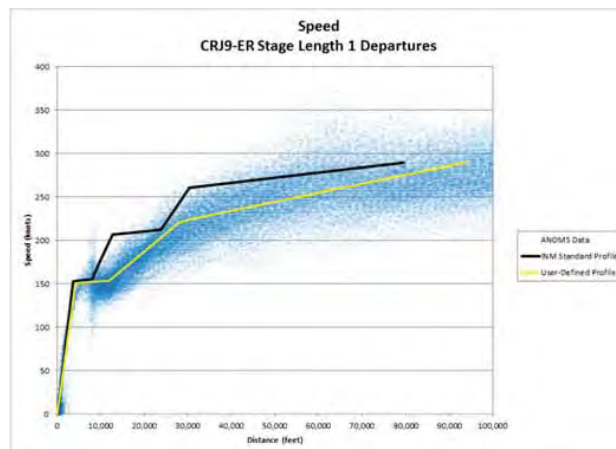
17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

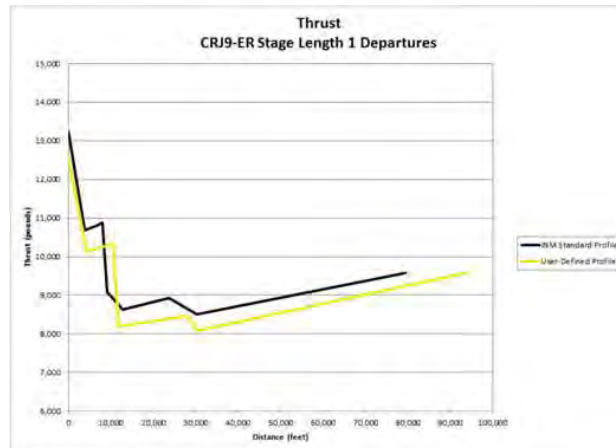
18

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- CRJ9-ER Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

19

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

DRAFT* - for Preliminary Discussion Purposes Only

Revised User-Defined Departure Profiles

- SEL Results

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	121.8	121.0	-0.8
0.5	111.0	111.0	0.0
1.0	94.6	97.5	2.9
1.5	88.7	91.7	3.0
2.0	86.6	86.9	0.3
2.5	84.3	84.9	0.6
3.0	82.5	83.1	0.6
3.5	80.7	81.5	0.8
4.0	79.5	80.1	0.6
4.5	78.3	78.9	0.6
5.0	77.3	77.7	0.4
5.5	76.4	76.7	0.3
6.0	75.6	76.1	0.5
6.5	74.8	75.5	0.7
7.0	73.9	74.8	0.9
7.5	73.1	74.0	0.9
8.0	72.4	73.3	0.9
8.5	71.8	72.7	0.9
9.0	71.1	72.2	1.1
9.5	70.3	71.7	1.4
10.0	69.6	71.2	1.6

Source: INM 7.0d

*Currently under FAA Review

ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- Example of 737-700 Runway 13 Departure Flight Tracks



Source: Port Authority of New York and New Jersey, 2014 ANOMS data.

ESA Study Team

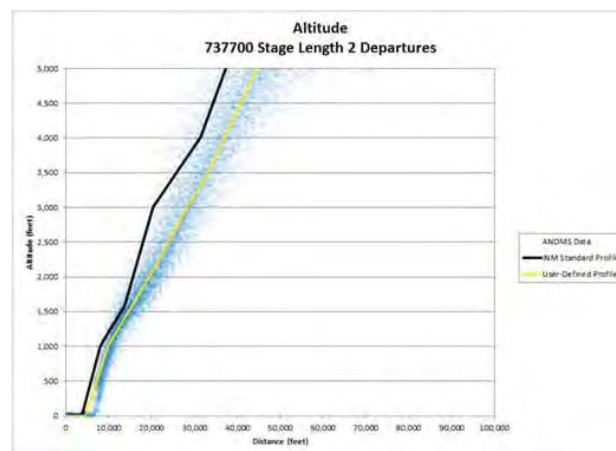
21

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- 737-700 Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

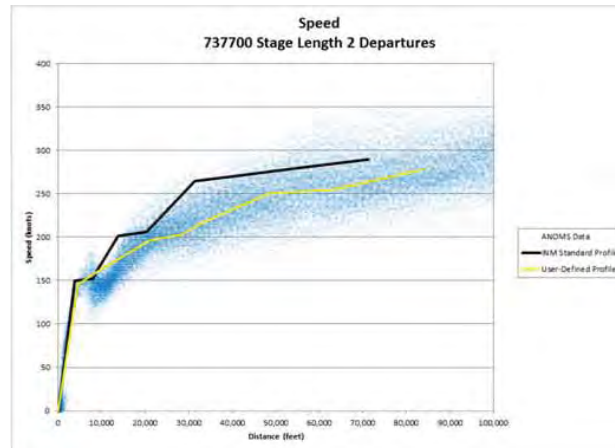
22

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- 737-700 Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

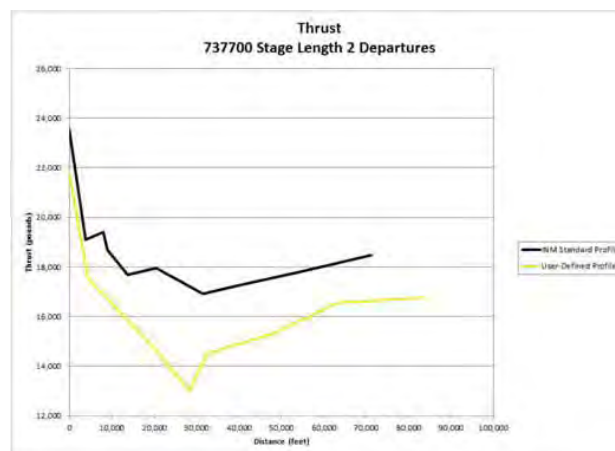
23

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Revised User-Defined Departure Profiles

- 737-700 Runway 13 Departures



Source: Port Authority of New York and New Jersey, 2014 ANOMS data; KB Environmental Sciences analysis, April 2016.

ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

DRAFT* - for Preliminary Discussion Purposes Only

Revised User-Defined Departure Profiles

- SEL Results

Grid Points (NM)	INM Standard Profile (SEL dB)	User-Defined Profile (SEL dB)	Difference (dB)
0.0	129.9	128.0	-1.9
0.5	117.2	116.6	-0.6
1.0	99.4	101.1	1.7
1.5	94.4	94.2	-0.2
2.0	91.5	91.1	-0.4
2.5	89.2	88.9	-0.3
3.0	87.3	87.0	-0.3
3.5	86.0	85.3	-0.7
4.0	84.6	83.6	-1.0
4.5	83.4	82.0	-1.4
5.0	82.3	81.5	-0.8
5.5	81.4	81.3	-0.1
6.0	80.7	80.7	0.0
6.5	80.0	80.0	0.0
7.0	79.4	79.3	-0.1
7.5	78.9	78.7	-0.2
8.0	78.3	78.2	-0.1
8.5	77.8	77.8	0.0
9.0	77.2	77.5	0.3
9.5	76.7	77.2	0.5
10.0	76.2	76.8	0.6

Source: INM 7.0d

*Currently under FAA Review

ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Aircraft Noise Levels Comparison

ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

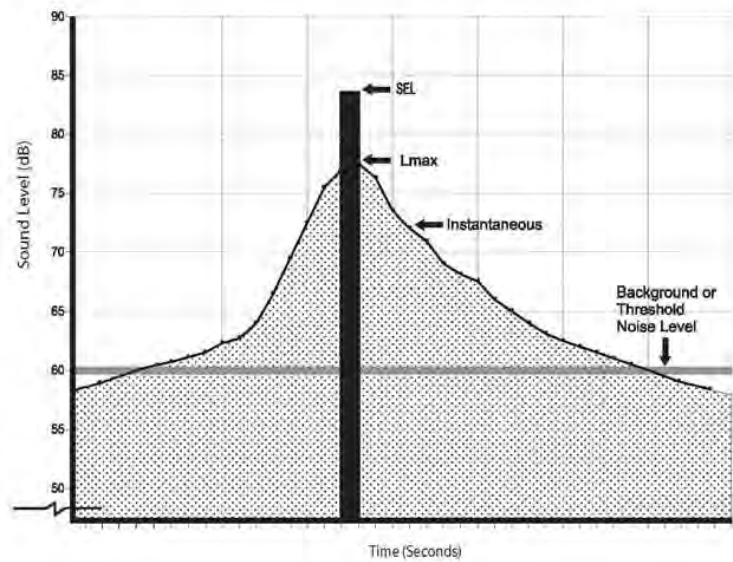
- As described at previous TAC meetings, the number of operations is only one of several inputs to developing aircraft noise exposure contours
- The aircraft/engine type, stage length flown, and flight profile also play a key role in determining aircraft noise exposure
- A larger aircraft isn't always louder than a smaller one and may be more productive in terms of passengers carried per noise event
- The next series of slides highlights some of these concepts using sound exposure level contours

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

- **Sound Exposure Level (SEL)**
 - A metric for quantifying the noise exposure of single aircraft flyovers
 - SEL is computed from A-weighted sound levels
 - Integrates all of the acoustic energy contained within the noise event
 - Uses both the duration and loudness of the event
 - Usually 10 to 12 dB higher than the maximum noise level
 - SEL is used to calculate the Day/Night Average Sound Level (DNL) contours

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Instantaneous Level, Lmax, SEL, Background Level



ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Comparison of Common Aircraft Types at LGA



ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Comparison of Common Aircraft Types at LGA

Aircraft Type	Departure Stage Length	Takeoff Weight (lbs)	Landing Weight (lbs)
EMB-175	1	65,698	67,461
737-700	2	125,000	115,200
EMB-190	1	83,520	87,303
CRJ9-ER	1	67,500	73,500
A320-232	2	138,500	130,954
717-200	1	94,900	99,000
737-800	2	139,200	131,700
MD-83	2	128,361	125,600
757-200(PW)	2	190,000	178,200
767-400	1	288,818	315,600

Source: INM 7.0d

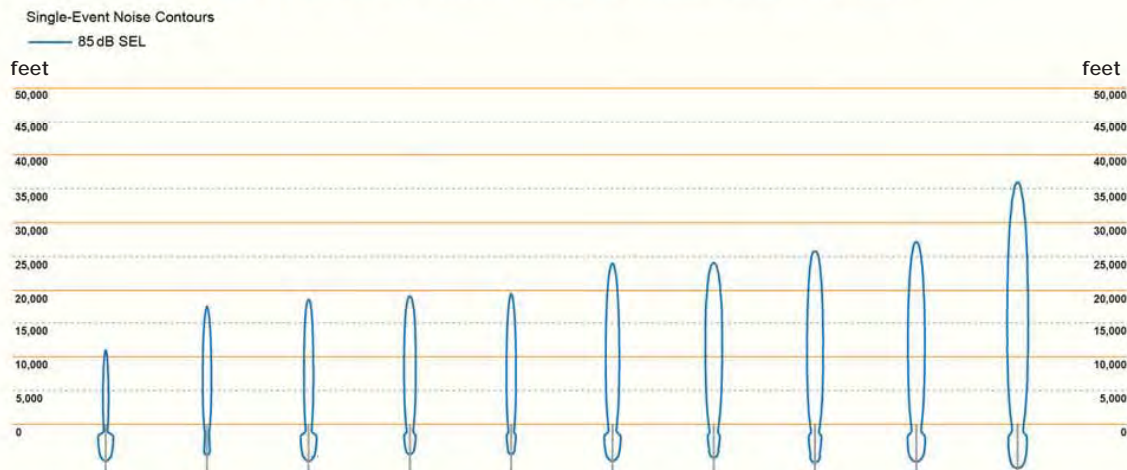
ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

LGA Arrival Sound Exposure Level (SEL) Noise Contour Comparison

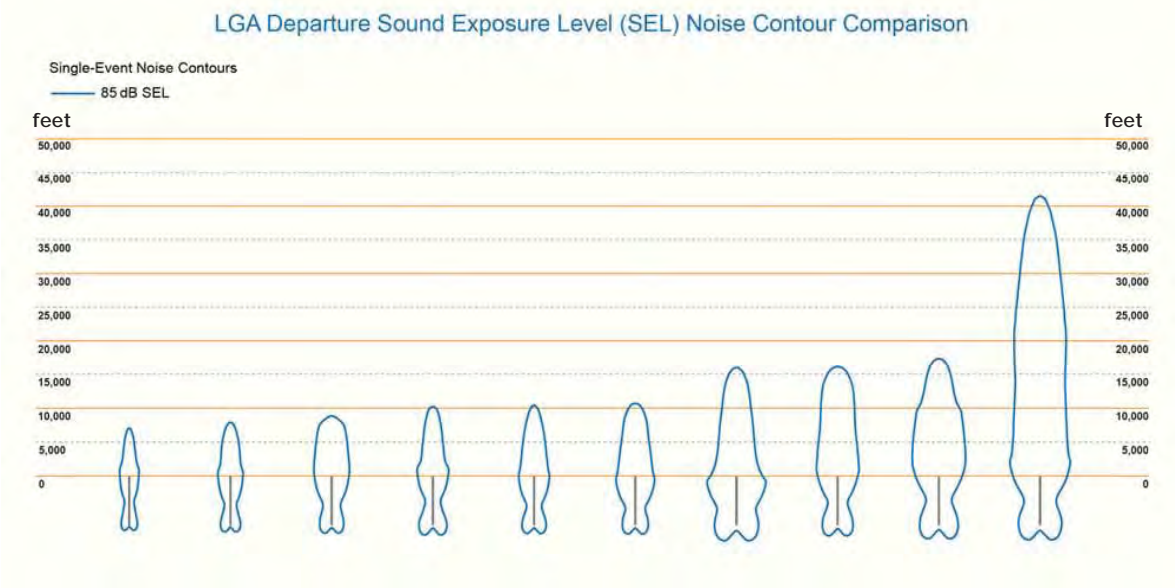


ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6



ESA Study Team

33

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Status of the Draft NEM Documentation Effort

ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Status of Draft LGA NEM Report Production

Draft LGA NEM Report Sections	Percent Complete
Chapter 1: Introduction	90%
Chapter 2: Aviation Activity Forecasts	100%
Chapter 3: Existing and Future Airport and Environs Conditions	70%
Chapter 4: Aircraft Noise Analysis	75%
Chapter 5: Noise Exposure Maps and Effects on Land Use	25%
Chapter 6: Consultation and Public Involvement	95%
Appendices	30%

ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Review the NEM Schedule

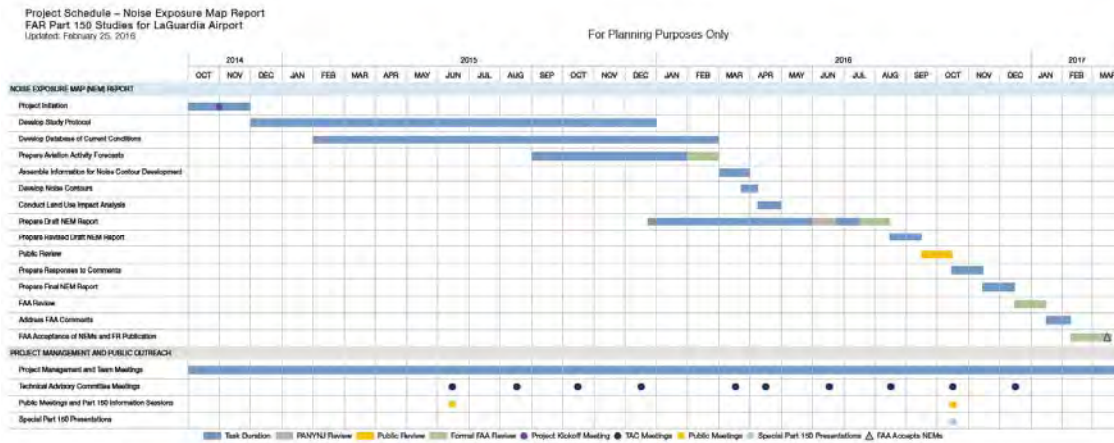
ESA Study Team

36

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Review the NEM Schedule



ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

TAC Homework Assignment No. 5

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

Future TAC Meeting Dates

ESA Study Team

39

THE PORT AUTHORITY
OF NY & NJ

Tentative Meeting Dates for TAC Meetings 7 and 8

- TAC Meeting 7 – Tuesday, June 14, 2016 (1 p.m. – 4 p.m.)
- TAC Meeting 8 – Tuesday, September 20, 2016 (1 p.m. – 4 p.m.)

ESA Study Team

40

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Preliminary Agenda for TAC Meeting No. 7

- **TAC Meeting No. 6 Highlights**
- **Port Authority Update on the CTB and Perimeter Rule**
- **Review Homework Assignment No. 5**
- **Review Draft 2016 and 2021 Noise Exposure Contours**
- **Review Draft 2016 and 2021 Noise Impacts**
- **Status of the NEM Documentation Effort**
- **Review NEM Schedule**

ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Preliminary Agenda for TAC Meeting No. 7

- **TAC Homework Assignment No. 6**
- **Future TAC Meeting Dates**
- **Public Comment**
- **Adjourn**

ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

Public Comment

ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

Adjourn

ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 6

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

Technical Advisory Committee
Meeting #6
Meeting Summary

Technical Advisory Committee No. 6
14 CFR Part 150 Study – LaGuardia Airport
April 12, 2016 – 1:00 PM to 4:00 PM
Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Andrew Brooks	FAA – Airport Division
Suki Gill	FAA – NY ADO
Steve McClain	FAA
Jim Peters	FAA
Lillian Tan	MarketPlace Development
Mark Buttice	Nassau County Planning
Marilyn Chapoteau	New York Community Aviation Roundtable
Dena Libner	NYC & Company
Scott Solomon	NYC DCP
David Hopkins	NYC Economic Development Corporation (EDC)
Charles Shamoon	NYC Department of Environmental Protection
Ed Knoesel	PANYNJ
Kelly Mitchell	PANYNJ
Doug Stearns	PANYNJ

Adeel Yousuf	PANYNJ
Jack Leibler	Queens Borough President
Angelina Martinez-Rubio	Queens Borough President
Michael Levine	Town of North Hempstead
Neal Stone	Town of North Hempstead
Len Schaier	Town of North Hempstead / Quietskies.net
Glenn Morse	United Airlines

Public	
Name	
Rudy Luo	
Bryan Serra	
Joyce Serra	

Study Team	
Name	Representing
Chris Sequeira	ESA Airports
Mike Arnold	ESA Airports
Steve Alverson	ESA Airports
Arnold Bloch	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Andra Horsch	Nicholas Lence
Josh Knoller	Nicholas Lence
Natalia Kozikowska	Nicholas Lence

Jennifer Hogan	VHB
Peter Byrne	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ), the Port Authority's 14 CFR Part 150 Noise Study Project Manager, welcomed the TAC members and other meeting attendees.

Meeting facilitator, Ryan Walsh (FHI), opened the TAC meeting and explained the purpose and role of the TAC as well as the role of the meeting facilitator. He provided ground rules by which the group would function. He then asked the meeting attendees to introduce themselves.

Steve Alverson (ESA Airports) reviewed the meeting agenda and mentioned that there will be no homework assignment given for the next TAC meeting.

Mike Arnold (ESA Airports) gave highlights from the last TAC meeting and asked if anyone had questions or comments about the last meeting.

Port Authority Update on the CTB and Perimeter Rule

Ed Knoesel (PANYNJ) noted that the PANYNJ Board approved LaGuardia Partners to construct, operate, and maintain the CTB. There are no new updates about the Perimeter Rule. The PANYNJ Board has committed to holding off on a decision on that until they get public comment.

He noted that Delta Airlines would like to replace Terminals C and D at LaGuardia with a new terminal that would combine the two terminals into one. The environmental assessment (EA) is being drafted and may be available for public comment in May.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked if a noise analysis would be done once the Perimeter Rule has been approved. Ed Knoesel (PANYNJ) said he is not sure. It has not yet been decided.

Charles Shamoon (NYC DEP) stated that the contractors carrying out the CTB construction are required to follow New York City's noise rules.

Marilyn Chapoteau (NYCAR) asked regarding the CTB, if Delta Airlines would have more gates that could accommodate larger planes, which would impact how many larger planes could come into the airport. Ed Knoesel (PANYNJ) said Delta is working to accommodate larger planes, and information would be available in the forthcoming environmental assessment.

Glenn Morse (United) followed up on Len's question. He asked if there was a change in the Perimeter Rule and what that means for the schedule. He also asked if a change to the Rule would impact the forecast for Newark Airport.

Andrew Brooks (FAA – Airport Division) said if there were a change to the Perimeter Rule, the FAA would have to re-examine the assumptions that were built into the LaGuardia study, but he said he is not sure if and/or when the Perimeter Rule would change. The FAA doesn't want to suspend the LGA Part 150 process considering that it may not change. Mike Arnold (ESA) said one of the challenges of a Part 150 project is that conditions are always in flux.

Len Schaier (Town of North Hempstead /QuietSkies.net) asked Ed Knoesel (PANYNJ) to clarify to which environmental assessment he was earlier referring. Ed Knoesel explained it was for the Delta Terminal replacement. Andrew Brooks (FAA – Airport Division) said the EA noise analysis would focus on construction. He said that the various project teams, including this 14 CFR Part 150 project team, are working collaboratively.

Ed Knoesel (PANYNJ) said he hopes one outcome of the Delta terminal project is that MD-80s go away.

Review of Homework Assignment #4

Mike Arnold (ESA Airports) reviewed the FAA-Approved 2016 and 2021 Aircraft Operations Forecast for LGA.

The general trend is that the increases in sizes of the aircraft and thinner seats allow more passengers on the aircraft, which accommodates moving more people with fewer aircraft operations. A general increase from 379,000 operations to 387,000 operations are projected to take place from 2016 to 2021. Mike Arnold also stated that there had been a rounding error in the handout given to the group at the previous meeting in the 2021 Narrowbody category.

Charles Shamoon (NYC DEP) asked if the aircraft engines were also considered in calculating the noise exposure. Mike Arnold (ESA Airports) replied in the affirmative. Charles Shamoon (NYC DEP) asked if Mike Arnold (ESA Airports) could prepare a slide in the future that also compares engine types.

Glenn Morse (United) asked if the breaking point for the Regional Jets versus the narrow bodies is based on seats or something else. Mike Arnold (ESA Airports) said he was not sure and could not remember.

Marilyn Chapoteau (NYCAR) asked if the project team had any forecast data for daytime departures versus nighttime departures. Mike Arnold (ESA Airports) said yes. The ESA Team looked at the Airport Noise and Operations Management System (ANOMS) data from 2014 and compared it to the forecast data, which is being used for modeling.

Marilyn Chapoteau (NYCAR) asked about the percentage in increase in nighttime departing flights. Mike Arnold (ESA Airports) said there was a slight increase. Mr. Arnold asked if someone from the study team could calculate the number of aircrafts for him. Steve Alverson (ESA Airports) calculated the number, and found that the number of nighttime operations in 2016 are about the same as 2021.

Update on Approvals of the Derivative Forecast and Various Noise Modeling-Related Requests

Mike Arnold (ESA Airports) said the Port Authority has submitted the following items for the LGA 14 CFR Part 150 to the FAA for review and approval:

- A derivative forecast memorandum for the years 2014 and 2021, which was approved by the FAA on March 28, 2016

- Two INM aircraft substitution request memorandums, which have both been approved
- Two memos requesting approval of ESA's approach to develop user-defined altitude profiles for the top-ten aircraft, one of which will be submitted today to the FAA. (NOTE: After the meeting, the Port Authority submitted only one memo to the FAA, while holding back on the second AAE user-defined profile memo in order to allow for another round of airline inquiries.)

User-Defined Flight Profile Development Effort

Mike Arnold (ESA Airports) presentation focused on departure data. The project team studied the thrust settings that were used for departures and looked at aircraft type data. The airlines were responsive in providing performance data regarding their aircraft operations. The ESA Team learned that aircrafts have been going out heavier and at reduced thrust settings than indicated in the Integrated Noise Model database.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked if the project team kept track of which airlines used which aircraft type. Mike Arnold (ESA Airports) said yes. Mr. Schaier stated that this would be valuable information for the NCP.

Charles Shamoon (NYC DEP) asked if the project team kept track of the winglets. Mike Arnold (ESA Airports) said no, there is no way of knowing if a particular aircraft has winglets installed except in cases of newer models where all the new aircraft may be delivered with them installed.

David Hopkins (NYC Economic Development Corp.) mentioned that it would be good to know the relationship between thrust, altitude and noise.

Mike Arnold (ESA Airports) said he is expecting a draft of the user-defined flight profiles report to go out to the FAA today, April 12, 2016.

Revised User-Defined Departure Profiles

The project team has updated the graphics to better show the relationship between the ANOMS data and the modeled profile data they are using. The most common aircraft used at LaGuardia Airport is the CRJ9-ER. As presented in the presentation slide, the black line on the graph represents the standard, and the yellow line represents the project team's modification.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked if paths could be set for the TNNIS SID. Mike Arnold (ESA Airports) said they could not determine which types of aircraft were following the TNNIS versus which ones were following the Flushing Climb.

Mike Arnold (ESA Airports) discussed recent correspondence regarding information on TNNIS utilization rates. Len Schaier (Town of North Hempstead /QuietSkies.net) said he believes that the FAA has some of this data available and has submitted a FOIA request to the FAA.

David Hopkins (NYC Economic Development Corporation) asked whether noise levels on updated graphics show decibel levels or Day-Night Sound Exposure Levels, to which Mike Arnold (ESA Airports) said only decibel levels are shown and not Day-Night Sound Exposure Levels. Mr. Hopkins also asked if he was standing under the profile, between 1-2 miles, the area of greatest difference between the standard and user defined profile, would he notice a difference between the model value and what is

being operated in real world. Mr. Arnold said yes, the difference is right at the level where perception of an increase would be possible given equal ambient noise. Steve Alverson (ESA Airports) added that SEL is the building block for DNL.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked about the changes in dB. Mike Arnold (ESA Airports) said it's based on perception. A 3dB change is the doubling of the sound energy.

Charles Shamoan (NYC DEP) said he and his colleagues use a metric called dBA, which is a sampling of weighted averages, and is the New York City noise code. He said dBA mimics human hearing.

Mike Arnold (ESA Airports) discussed 737-700 Runway 13 Departures. He noted that there was a big cutback in thrust, which denotes a decrease in noise closer to the airport. Mike Alberts (KB Environmental) clarified that the distance shown on takeoffs begins at the start of the takeoff roll, meaning that for one nautical mile the plane is still over the runway. Mr. Arnold added that even though there is a cutback in thrust, the aircraft is heavier.

Aircraft Noise Levels

Steve Alverson (ESA Airports) gave an overview of noise exposure and the concept of Sound Exposure Levels (SEL). A graph within the presentation, showed data regarding Instantaneous Level, Lmax, SEL and Background noise levels. The Noise Event energy was indicated in the triangle under the curve above the Background Threshold Noise Level.

Mr. Alverson also presented a comparison of the common types of aircraft at LaGuardia Airport, as well as their take-off and landing weights. He asked the group members to participate in an exercise that involved matching each aircraft with its modeled arrival and departure SEL contours. TAC members were generally surprised that the largest aircrafts were not necessarily responsible for the largest SEL contours, such as the MD-80, which is one of the loudest aircraft on departure with a large SEL contour is the quietest on arrival with the smallest SEL contour.

Mr. Alverson mentioned that the project team is finishing up its Draft Noise Exposure Map Report for the FAA to review and expects to submit it on July 15, 2016 for LaGuardia and August 23, 2016 for JFK Airport. He also described the document review schedule. The review period for the FAA is about 35 days.

TAC Homework Assignment No. 5

No homework was assigned.

Future TAC Meeting Dates

Steve Alverson (ESA Airports) said the tentative date for TAC Meeting No. 7 is Tuesday, June 14, 2016 from 1 to 4 p.m.; TAC Meeting No. 8 is Tuesday, September 20, 2016 from 1 to 4 p.m. He polled the group to see who might have conflicts with the date. The FAA noted they had a conflict for the week of June 13th and suggested the following week in June, the week of June 20th, for TAC Meeting No. 7.

Mr. Alverson also previewed the agenda for TAC Meeting No. 7, which included reviewing the draft DNL contours and suggested that members do not want to miss that meeting.

TAC Comments

Charles Shamoon (NYCDEP) asked will they actually get the draft of the noise contour report. Steve Alverson (ESA Airports) said the TAC would see the draft Noise Exposure Map report around the same time as the public.

Charles Shamoon (NYCDEP) said the airport in Amsterdam has landscaping. He asked if there is any plan to landscape LaGuardia Airport like it's done in Holland with reconstruction. Ed Knoesel (Port Authority) said the airport did not have sufficient land area near LaGuardia to install a landscaping buffer. Ed Knoesel added that there was a wall built in the 1980s. Mr. Shamoon said it would be worth looking into new types of noise barriers used at other airports.

Public Comments

Joyce Serra asked how the draft report would be released to the public. Steve Alverson (ESA Airports) said the report would be released via the Part 150 website. Members of the public that are on the project's email list will receive an email alert when it becomes available on the website. There will also be hard copies in key locations throughout the community, and there will be a notice in the newspaper about the report's availability.

Joyce Serra asked if the report would be sent to community boards. Steve Alverson (ESA Airports) said yes, but electronically.

Len Schaier (Town of Hempstead / QuietSkies.net) asked the FAA how long does it take to switch runways to accommodate changes in wind direction conditions. Steve McClain (FAA) said it depends on why the runway change is taking place, including departure demand. It usually takes about 20 minutes but drastic wind and weather will cause runway changes to take place immediately. LGA doesn't typically drive the TNNIS climb, traffic at JFK does.

Byron Serra asked if there have been any accommodations to govern restricted flight paths. He asked if it could be expanded. Steve Alverson (ESA Airports) said the second phase will study ways in which to reduce incompatibilities. If there are ways to change flight paths, they would look at ways to do so. New York City's airspace is very congested and highly limited, so they do not see a lot of promise in that.

Byron Serra asked what factors drive the TNNIS Climb specifically, as there had been none in the previous day. Steve McClain said that it may not have been used due to winds.

Adjourn

The meeting facilitator, Ryan Walsh (FHI), closed the TAC meeting by thanking its members and the other attendees.

The meeting was adjourned.

Appendix H-7
Technical Advisory Committee
Meeting #7
June 21, 2016

Technical Advisory Committee
Meeting #7

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF SEVENTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Tuesday, June 21, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, June 22, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA TAC Meeting #7 June 21, 2016

First	Last	Representing	Alternates	Primary	Alternate
Mike	Alberts	KB Environmental		✓	
Steve	Alverson	ESA Airports		✓	
Mike	Arnold	ESA Airports		✓	
Debbie	Bearden	NY Airport Liaison	Sal Debono		
Arnold	Bloch	FHI		✓	
Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
Peter	Byrne	VHB			
Chung	Chan	NYCDEP	Charles Shamoon		✓
Fred	Dixon	New York & Company			
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins		
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guiod	FAA - TRACON	Steve Kelley		
Jennifer	Hogan	VHB		✓	
David	Hopkins	NYC Economic Development Corp (EDC)		✓	
Andra	Horsch	Nicholas Lence		✓	
Bill	Huisman	Aviation Development Council		✓	
Adrian	Jones	ESA Airports			
Ed	Knoesel	Port Authority		✓	
Josh	Knoller	Nicholas Lence		✓	
Natalia	Kozikowska	Nicholas Lence			
Kevin	Denning	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		

Michael	Levine	Town of North Hempstead	Neal Stone		✓
Dena	Libner	NYC & Company	Fred Dixon		
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Kelly	Mitchell	Port Authority		✓	
David	Sanchez	FAA - NY ADO	Suki Gill		
Glenn	Morse	United Airlines		✓	
Christyne	Nicholas	Nicholas Lence			
Susan	O'Donnell	VHB		✓	
Chris	Rhoads	Port Authority		✓	
Teresa	Rizzuto	Port Authority			
Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz		
Dean	Saucier	National Business Aviation Association			
Len	Schaier	Town of North Hempstead/QuietSkies.net		✓	
Lysa	Scully	Port Authority			
Scott	Solomon	NYC DCP		✓	
Zendra	Spence	Shelt Air	Cesar Rizik		
Doug	Stearns	Port Authority	Chris Rhoads		
Laura	Stensland	JFK Tower	James Law	✓	
Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker		
Ian	Van Praagh	Port Authority		✓	
Angelina	Martinez-Rubio	Queens Borough President	Jack Leibler	✓	✓
Jasmine	Narang	Queens Borough President			
Ryan	Walsh	FHI		✓	

Marilyn	Chapoteau	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber	✓	
Adeel	Yousuf	Port Authority		✓	

David Sanchez FAA

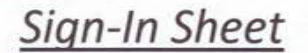
**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #7
June 21, 2016 (1:00pm – 4:00pm)
LaGuardia Airport

Sign-In Sheet

Name/Organization	Address	Phone or Email
Nick D'Amico / SZH / PA	4 WTC	NDAM@SZH.net PA Gov
Timothy Middleton / PANYNJ	4 WTC	TMIDDLETON@PANYNJ.GOV
Cheryl Alvarez / PANYNJ	4 WTC	CAALV@PANYNJ.GOV
Jessica Hershman / PANYNJ	4 WTC	JHERSHMAN@panynj.gov
Angie / CFC	-	Angie.0718@gmail.com
CLARENCE BENINATI	205-18 33RD AVE BAYSIDE NY	718-224-4979
BILL McLAUGHLIN	NEW YORK	516-659-8584
Eleonor Scorcia / FAA	1 Aviation Plaza Jamaica NY 11434	(718) 553-3351
Steve McClain	N90	516 683-2911
DAVID CUSHING	7 AVIATION PLAZA JAMAICA NY 11434	516 683-3335
Rudy Liu	45-32 158th Street Flushing NY 11358	917-930-6071
DAVID SANCHEZ FAA	1 AVIATION PLAZA, JAMAICA, NY 11434	718-995-5776
Joyce Serra	36-35 210th St. Bayside, NY	718-428-8029
Bryan Serra	34 " " " " " "	917-674-8022
CHRIS RHODES		
ERIC RABOIN	The Jones Payne Group	617 201 2107
Joey Gillbert	4 WTC	212-435-6935

[illegible]

Technical Advisory Committee
Meeting #7
Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 7
14 CFR Part 150 Study – LaGuardia Airport

Tuesday, June 21, 2016

1:00 PM to 4:00 PM EDT

1. Previous TAC Meeting Highlights
2. Port Authority Update on the CTB and Perimeter Rule
3. Review Homework Assignment - None
4. Update on FAA Approvals
5. Review the 2016 and 2021 Preliminary Draft DNL Contours
6. Review the Measured Versus Modeled DNL Value Comparison
7. Review the NEM Schedule
8. TAC Homework Assignment No. 6 – Review/Comment on DNL Contours and
Modeled vs. Measured Comparison
9. Future TAC Meeting Dates
10. Public Comment
11. Adjourn



LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Meeting Agenda

- Previous TAC Meeting Highlights
- Review Homework Assignment No. 5 - None
- Port Authority Update on the CTB and Perimeter Rule
- Update on FAA Approvals
- Review the 2016 and 2021 Preliminary Draft DNL Contours
- Review the Measured Versus Modeled DNL Value Comparison
- Review the Project Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Meeting Agenda (Continued)

- TAC Homework Assignment No. 6
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Previous TAC Meeting Highlights

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 5

**No Homework Assigned
at the Last TAC Meeting**

ESA Study Team

7

**THE PORT AUTHORITY
OF NY & NJ**

Port Authority Update on the CTB and Perimeter Rule

ESA Study Team

8

**THE PORT AUTHORITY
OF NY & NJ**

Update on FAA Approvals

ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

The Port Authority has submitted the following items for the LGA 14 CFR Part 150 to the FAA:

- a derivative forecast memorandum for the years 2016 and 2021;
- two INM aircraft substitution request memorandums;
- one memo requesting approval of the ESA Team's approach to develop user-defined profiles for the top ten aircraft; and
- one memo transmitting the signed airline concurrence memos for the user-defined profiles

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

The following describes the status of each of these items:

- The derivative forecast memorandum for the years 2016 and 2021 has been approved;
- The INM aircraft substitution request memorandums have been approved;
- The FAA has approved the ESA Team’s approach to developing user-defined profiles for the top ten aircraft; and
- The FAA has approved the user-defined profiles that the ESA Team has developed for use in modeling the 2016 and 2021 aircraft DNL contours

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Review the 2016 and 2021 Preliminary Draft DNL Contours

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2016 Preliminary Draft 65, 70, and 75 DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2021 Preliminary Draft 65, 70, and 75 DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

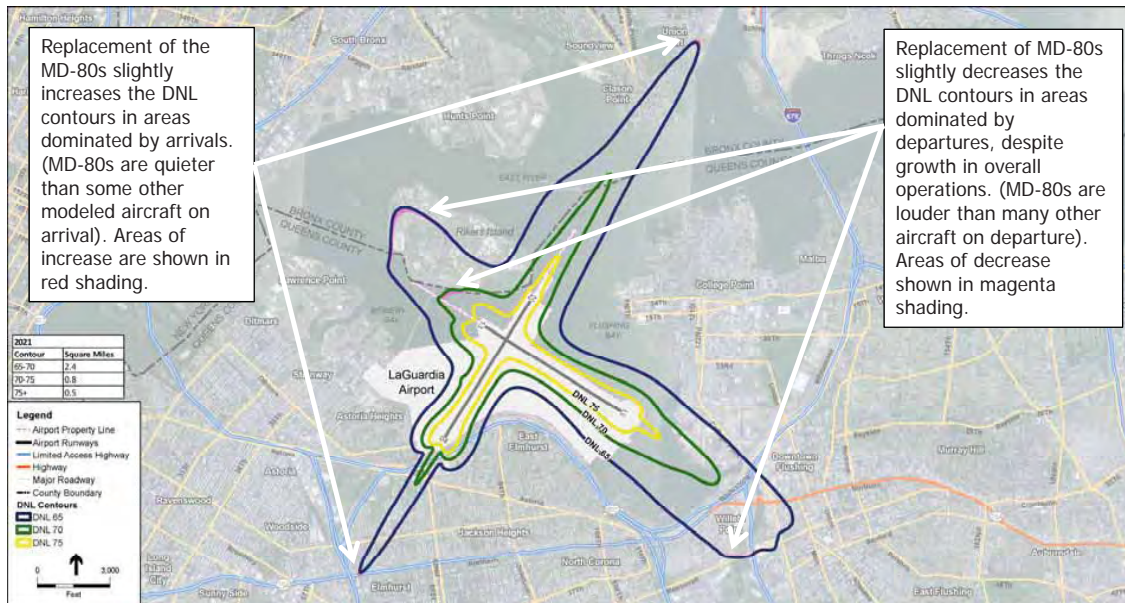
14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

Comparison of the 2016 and 2021 LGA DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2016 Preliminary Draft 55, 60, 65, 70, and 75 DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

16

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2021 Preliminary Draft 55, 60, 65, 70, and 75 DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Review the Measured Versus Modeled DNL Value Comparison

ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Noise Measurement Data

- **Community DNL – ambient (non-aircraft) noise sources measured by the noise monitors. For example:**
 - Road traffic
 - Railroad operations
 - Barking dogs
 - Insects (e.g., cicadas and crickets)
 - Wind in the trees
 - Air conditioning units
 - Residential maintenance (e.g., lawnmowers, leaf blowers, power tools, etc.)
 - Rain and thunder
 - Emergency vehicle sirens

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Noise Measurement Data (continued)

- **Aircraft DNL – noise levels associated with aircraft noise events, but may also include non-aircraft noise at the time of the event**
 - When aircraft are near a noise monitor, the airport noise and operations management system (ANOMS) tags the noise level as aircraft noise
 - Any non-aircraft noise (such as street/highway traffic noise) occurring at the same time may contaminate the aircraft noise level reading
 - Once contaminated, it is not possible to efficiently remove the non-aircraft noise from the aircraft noise event
- **Total DNL – The sum of Aircraft DNL and Community DNL data**

The 14 CFR Part 150 Study will document aircraft DNL values in the vicinity of LGA. Information regarding Community DNL values and Total DNL values on the following slides is provided for informational purposes only.

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Modeled Noise Data

- Represents noise levels associated with aircraft noise events only
- Produced directly by the Integrated Noise Model (INM)
- Driven by the number of aircraft operations, day/night split, fleet mix, runway use, and flight track use for the period modeled
- No influence from non-aircraft noise sources
 - This is in contrast to the “Aircraft DNL” measurements, which may include non-aircraft noise at the time of the measurement

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Why Would Modeled Noise Levels Differ From Measurements?

- The measurements contain less than a full year of data, which:
 - Results in a mismatch between operations, runway use, flight track use, fleet mix, etc.
- Measured aircraft DNL values may be contaminated by non-aircraft noise events which:
 - Artificially increases the aircraft DNL values
- In accordance with 14 CFR Part 150, the measured noise levels will not be used to calibrate the INM aircraft noise database

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

The Use of FAA-Approved User Defined Profiles

- The FAA-approved user-defined aircraft flight profiles more closely match the specific LGA flight patterns than INM standard profiles
- Therefore, INM-generated DNL values from LGA user-defined flight profiles are closer to the measured aircraft DNL than the DNL values generated by the standard INM flight profiles

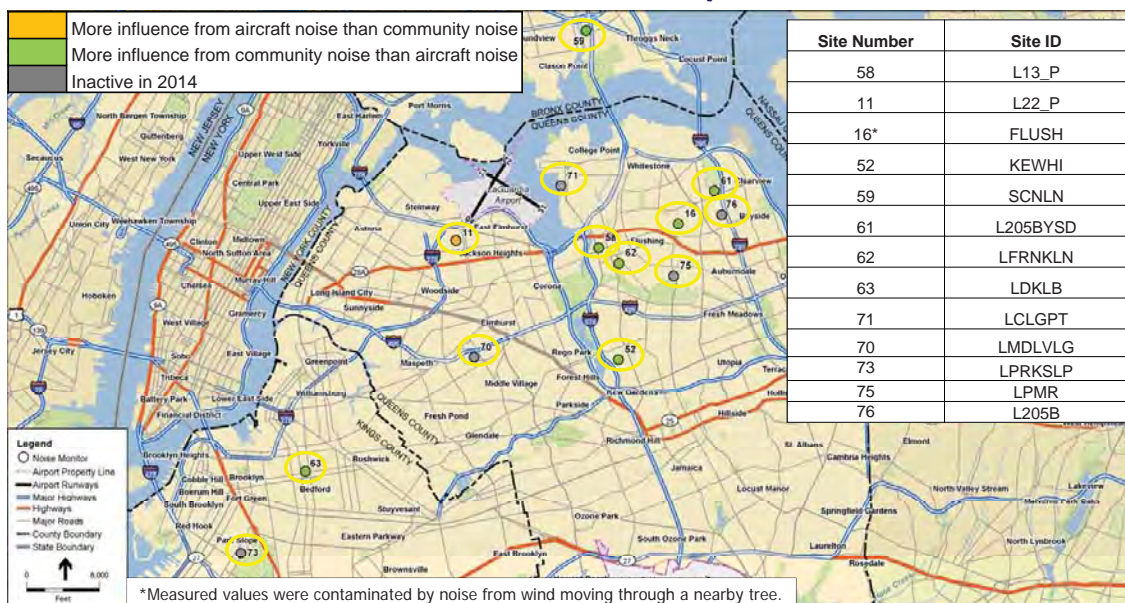
ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

2014 Noise Monitors near LaGuardia Airport



SOURCE: ESRI Mapping Services.

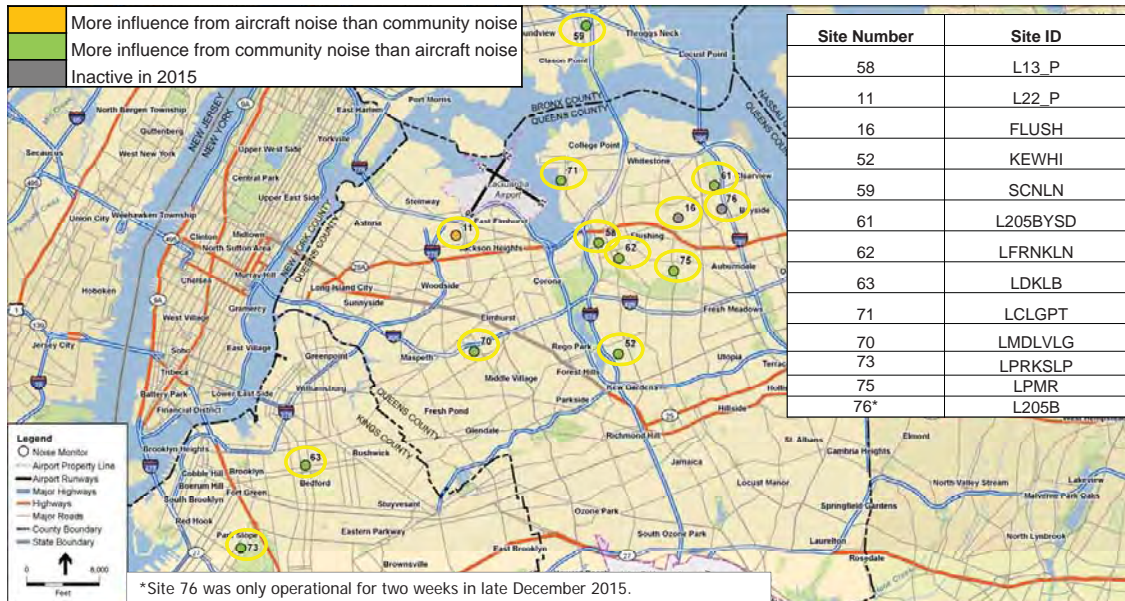
ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

2015 Noise Monitors near LaGuardia Airport



SOURCE: ESRI Mapping Services.

ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Monthly Noise Measurement Data Availability for 2014

Site Number	Site ID	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
58	L13_P												
11	L22_P												
16*	FLUSH												
52	KEWHI												
59	SCNLN												
61	L205BYSD												
62	LFRNKLN												
63	LDKLB												

* Measured values contaminated by noise from wind moving through a nearby tree.

	Data available
	Site removed as requested by the homeowner
	No data available

ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Monthly Noise Measurement Data Availability for 2015

Site Number	Site ID	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
58	L13_P												
11	L22_P												
52	KEWHI												
59	SCNLN												
61	L205BYSD												
62	LFRNKLN												
63	LDKLB												
71	LCLGPT												
70	LMDLVLG												
73	LPRKSLP												
75	LPMR												
76	L205B												

	Data available
	Indicates site out of service due to technical problems
	Site removed as requested by the homeowner
	Indicates only partial month data
	No data available

- Site 16 (FLUSH) removed in 2014
- Sites 71 (LCLGPT), 70 (LMDLVLG), 73 (LPRKSLP), 75 (LPMR), and 76 (L205B) added in 2015

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2014 Noise Measurement Data – LaGuardia Airport

Site Number	Site ID	Location	Aircraft DNL	Community DNL	Total DNL
58	L13_P	39th Ave., Flushing, NY 11354	67.2	70.4	71.8
11	L22_P	78th St., Jackson Heights, NY 11370	69.0	64.9	71.0
16*	FLUSH	163rd St., Queens, NY 11358	60.4	64.8	66.3
52	KEWHI	72nd Ave., Flushing, NY 11367	57.6	59.9	61.9
59	SCNLN	Hutchinson River Parkway, Bronx, NY 10465	64.0	67.8	70.3
61	L205BYSD	205th St., Bayside, NY 11360	54.8	56.8	59.0
62	LFRNKLN	Franklin Ave., Flushing, NY 11355	63.9	67.2	68.7
63	LDKLB	Dekalb Ave., Brooklyn, NY 11216	57.8	58.7	60.8

*Measured values contaminated by noise from wind moving through a nearby tree.

	More influence from aircraft noise than community noise
	More influence from community noise than aircraft noise

See Slide 26 for Data Availability

Per 14 CFR Part 150,
the measured noise
levels will not be used
to calibrate the INM
noise database.

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2015 Noise Measurement Data – LaGuardia Airport

Site Number	Site ID	Location	Aircraft DNL	Community DNL	Total DNL
58	L13_P	39th Ave., Flushing, NY 11354	68.4	71.3	73.1
11	L22_P	78th St., Jackson Heights, NY 11370	70.6	64.8	71.2
52	KEWHI	72nd Ave., Flushing, NY 11367	58.0	59.6	61.9
59	SCNLN	Hutchinson River Parkway, Bronx, NY 10465	64.5	66.7	68.6
61	L205BYSD	205th St., Bayside, NY 11360	54.1	55.3	57.8
62	LFRNKLN	Franklin Ave., Flushing, NY 11355	62.5	66.9	68.2
63	LDKLB	Dekalb Ave., Brooklyn, NY 11216	56.1	60.1	61.6
71	LCLGPT	23rd Ave., College Point, NY 11356	61.9	66.0	67.5
70	LMDLVLG	78th St., Middle Village, NY 11379	55.4	61.2	62.1
73	LPRKSLP	5th Street, Brooklyn, NY 11215	53.8	58.4	59.9
75	LPMR	Pidgeon Meadow Road, Flushing, NY 11358	58.0	61.3	63.0

More influence from aircraft noise than community noise
More influence from community noise than aircraft noise

See Slide 27 for Data Availability

Per 14 CFR Part 150,
the measured noise
levels will not be used
to calibrate the INM
noise database.

ESA Study Team

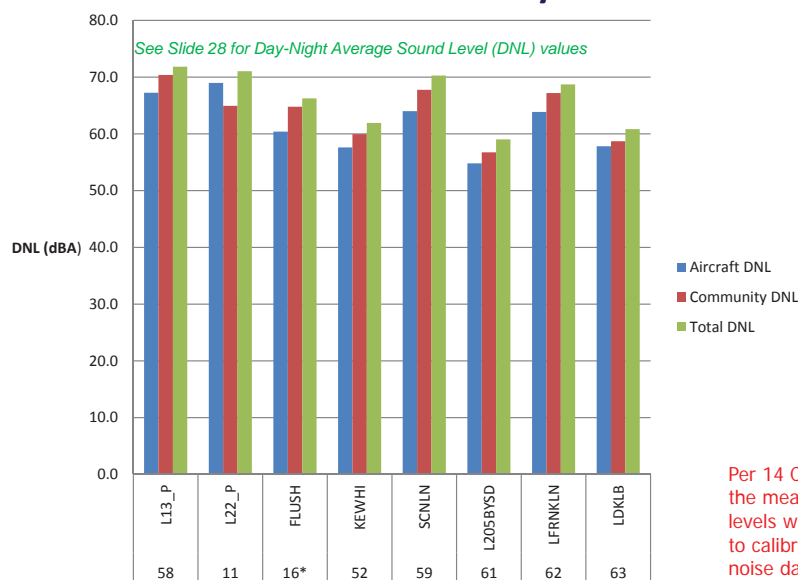
29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2014 Noise Measurement Data Summary – LaGuardia Airport



Per 14 CFR Part 150,
the measured noise
levels will not be used
to calibrate the INM
noise database.

*Measured values were contaminated by noise from wind moving through a nearby tree.

ESA Study Team

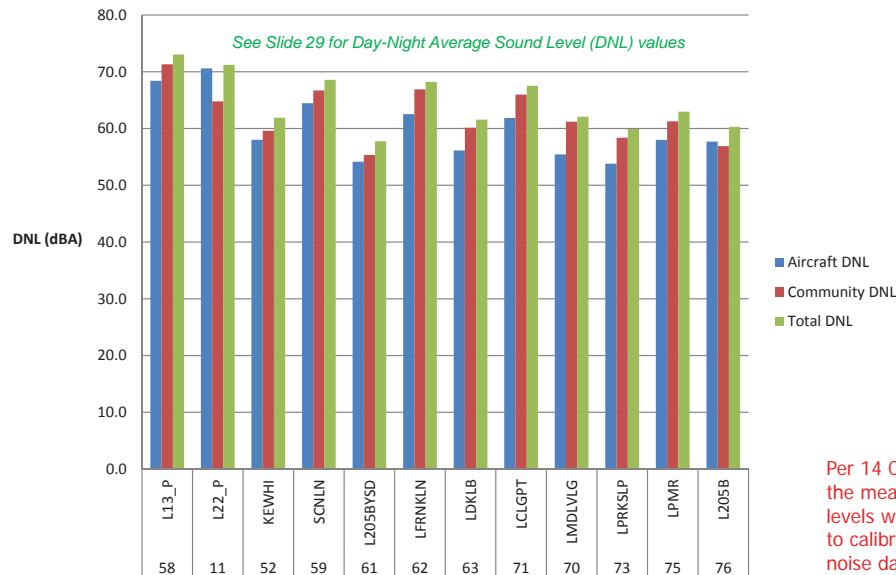
30

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

2015 Noise Measurement Data Summary – LaGuardia Airport



ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

Comparison of Measured Aircraft DNLs and Modeled Aircraft DNL Values - 2014

Site Number	Site ID	2014 Measured DNL (Average)	Modeled DNL (2016)	Difference
58	L13_P	67.2	65.5	-1.7
11	L22_P	69.0	69.1	0.1
16*	FLUSH	60.4	54.9	-5.5
52	KEWHI	57.6	56.9	-0.7
59	SCNLN	64.0	62.3	-1.7
61	L205BYSD	54.8	53.8	-1.0
62	LFRNKLN	63.9	63.3	-0.6
63	LDKLB	57.8	54.8	-3.0

*Measured values were contaminated by noise from wind moving through a nearby tree.

Excluding FLUSH (16), modeled values are within 0.1 to -3.0 dB of measured values.

In accordance with 14 CFR Part 150, the measured noise levels will not be used to calibrate the INM aircraft noise database.

ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

DRAFT - For Preliminary Discussion Purposes Only

Comparison of Measured Aircraft DNLs and Modeled Aircraft DNL Values - 2015

Site Number	Site ID	2015 Measured DNL (Average)	Modeled DNL (2016)	Difference
58	L13_P	68.4	65.5	-2.9
11	L22_P	70.6	69.1	-1.5
52	KEWHI	58.0	56.9	-1.1
59	SCNLN	64.5	62.3	-2.2
61	L205BYSD	54.1	53.8	-0.3
62	LFRNKLN	62.5	63.3	0.8
63	LDKLB	56.1	54.8	-1.3
71	LCLGPT	61.9	59.0	-2.9
70	LMDLVLG	55.4	54.2	-1.2
73	LPRKSLP	53.8	52.3	-1.5
75	LPMR	58.0	56.5	-1.5

Modeled values are within 0.8 to -2.9 dB of measured values.

In accordance with 14 CFR Part 150, the measured noise levels will not be used to calibrate the INM aircraft noise database.

ESA Study Team

33

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Review the Project Schedule

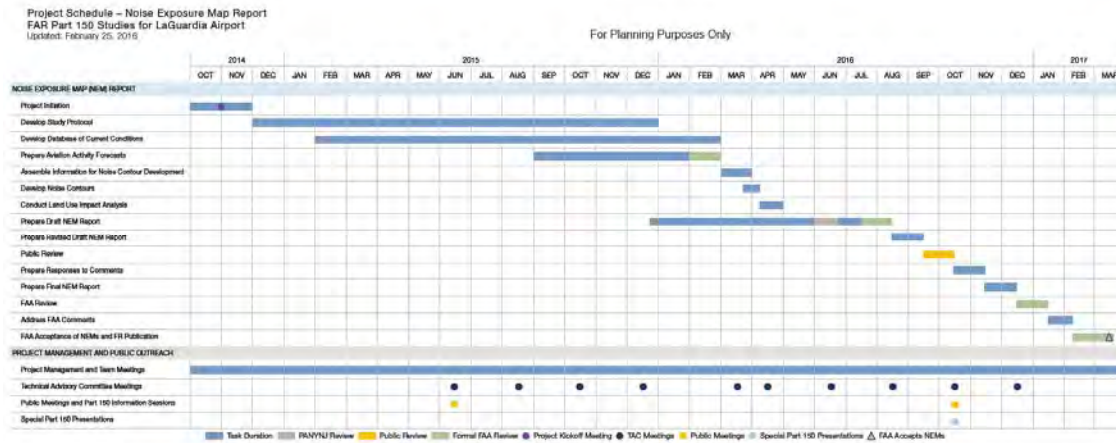
ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Review the NEM Schedule



ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

TAC Homework Assignment No. 6

ESA Study Team

36

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

TAC Homework Assignment No. 6

- Review draft NEM contours
- Review measured vs. modeled noise values
- Bring your questions to the next TAC meeting

ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Future TAC Meeting Dates

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Tentative Meeting Dates for TAC Meetings 8 and 9

- TAC Meeting 8 – Tuesday, August 16, 2016 (1 p.m. – 4 p.m.)
- TAC Meeting 9 – Tuesday, October 18, 2016 (1 p.m. – 4 p.m.)

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Preliminary Agenda for TAC Meeting No. 8

- Previous TAC Meeting Highlights
- Review Homework Assignment No. 6 – Noise Contours
- Port Authority Update on the CTB and Perimeter Rule
- Discuss the Draft LGA Noise Exposure Map Report
- Discuss the Public Workshop Schedule
- Review the Project Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Preliminary Agenda for TAC Meeting No. 8

- TAC Homework Assignment No. 7
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Public Comment

ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Adjourn

ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 7

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

Technical Advisory Committee
Meeting #7
Meeting Summary

Technical Advisory Committee No. 7
14 CFR Part 150 Study – LaGuardia Airport
June 21, 2016 – 1:00 PM to 4:00 PM
Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Andrew Brooks	FAA – Airport Division
David Cushing	FAA
Steve McClain	FAA
David Sanchez	FAA
Eleanor Scorgia	FAA
Laura Stensland	FAA – JFK Tower
Marilyn Chapoteau	New York Community Aviation Roundtable
Scott Solomon	NYC DCP
David Hopkins	NYC Economic Development Corp (EDC)
Charles Shamoon	NYCDEP
Cheryl Albiez	Port Authority of NY & NJ (PANYNJ)
Nick Dmytryszyn	PANYNJ
Stacey Gilbert	PANYNJ
Jessica Hershman	PANYNJ

Ed Knoesel	PANYNJ
Timothy Middleton	PANYNJ
Kelly Mitchell	PANYNJ
Ian Van Praagh	PANYNJ
Chris Rhoads	PANYNJ
Adeel Yousuf	PANYNJ
Jack Leibler	Queens Borough President
Angelina Martinez-Rubio	Queens Borough President
Neal Stone	Town of North Hempstead
Len Schaier	Town of North Hempstead / Quietskies.net
Glenn Morse	United Airlines

Public	
Name	Representing
Angie	
Clarence Beninati	
Joyce Serra	
Bryan Serra	
Rudy Luo	
Eric Raboin	

Media	
Name	Representing
Angel Wong	Flushing, NY

Bill Murphy	Newsday
Vicki Zunitch	Queens Chronicle
Jenny Rao	Flushing, NY

Study Team	
Name	Representing
Mike Arnold	ESA Airports
Steve Alverson	ESA Airports
Chris Sequeira	ESA Airports
Arnold Bloch	FHI
Stacy Graham-Hunt	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Andra Horsch	Nicholas Lence
Josh Knoller	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members and other meeting attendees. Ms. Mitchell noted that the project had reached an important milestone with the release of the preliminary draft 2016 and 2021 LGA DNL contours today.

Ryan Walsh (FHI) served as the meeting facilitator. Mr. Walsh explained the purpose and role of the TAC and the role of the facilitator. He provided ground rules under which the group operates. He asked meeting attendees to introduce themselves.

Steve Alverson (ESA Airports) reviewed the meeting agenda.

Mike Arnold (ESA Airports) gave highlights from the last TAC meeting. He asked if anyone had questions or comments about the last meeting. There were none.

Port Authority Update on the CTB and Perimeter Rule

Ed Knoesel (PANYNJ) said there were no new updates about the Perimeter Rule. The PA Board has committed to holding off on a decision until public meetings have taken place to get comments from the public.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked if there is anything for us to discuss here about possible flight route changes at Newark International Airport. Mike Arnold (ESA Airports) said no.

Update on FAA Approvals

Mike Arnold (ESA Airports) said the PANYNJ has submitted and received FAA approval on the following documents:

- A derivative forecast memorandum for the years 2016 and 2021
- Two INM aircraft substitution request memoranda
- A memorandum requesting approval of the ESA Team's approach to develop user-defined profiles for the top ten aircraft
- A memorandum transmitting the signed airline concurrence memos for the user-defined profiles

Review of the 2016 and 2021 Preliminary Draft DNL Contours

Mike Arnold (ESA Airports) presented and explained the following diagrams:

- 2016 Preliminary Draft 65, 70, and 75 LGA DNL Contours
- 2021 Preliminary Draft 65, 70, and 75 LGA DNL Contours
- Comparison of the 2016 and 2021 LGA DNL Contours
- 2016 Preliminary Draft 55, 60, 65, 70, and 75 LGA DNL Contours
- 2021 Preliminary Draft 55, 60, 65, 70, and 75 LGA DNL Contours

Mike Arnold (ESA Airports) reiterated that the 55 and 60 DNL contours were provided, at the request of the TAC, for information purposes only. He explained that the longer, narrower contours are generally shaped by arriving aircraft, while the wider contours are generally defined by departing aircraft. During the five-year forecast period (2016-2021) the contours increase slightly in the areas defined by arrivals and decrease slightly in areas defined by departures. Mr. Arnold explained that most of the change is attributable to the replacement of MD-80 aircraft, which are relatively quiet on arrival and relatively loud upon departure.

Review of the Measured Versus Modeled DNL Value Comparison: Noise Measurement Data

Steve Alverson (ESA Airports) discussed noise measurement data. He noted that aircraft DNL can get contaminated by outside background noise (non-aircraft) as measured by the noise monitors. These background noise sources, measured as the community DNL, can include:

- Road traffic,

- Railroad operations,
- Barking dogs,
- Certain insects (e.g., cicadas and crickets),
- Wind and storms,
- Air conditioning units,
- Residential maintenance (e.g., lawn mowers, leaf blowers, etc.),
- Sirens.

Once contaminated, it is not possible to efficiently remove the non-aircraft noise from the aircraft noise event. Total DNL is the sum of aircraft DNL and community DNL data.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked for clarification of whether the monitor can process the flyover time in order to identify aircraft noise. Steve Alverson (ESA Airports) said that aircraft noise events are identified by the aircraft operations data in the Port Authority's ANOMS, which does contain date and time for each flight.

2014 and 2015 Noise Monitors Near LaGuardia Airport

Steve Alverson (ESA Airports) presented a map which displayed the location of noise monitors in the study area during the years 2014 and 2015.

Mr. Alverson (ESA Airports) went on to discuss the noise measurement data for 2014 and 2015 and gave a summary of the results. He also explained that the modeled Aircraft DNL were generally within 0.1 to - 3.0 dB of the measured DNL, which is within an expected range. Mr. Alverson reiterated that the measured noise levels are for information purposes only and will not be used to calibrate the INM aircraft noise database.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked why the monitors cannot distinguish aircraft noise from community noise when the community noise level is basically constant. Steve Alverson (ESA Airports) said that the monitors pick up noise from all sources and that the ANOMS data allows the ability to check when aircraft noise is part of the overall noise recorded. Mr. Schaier asked if a noise baseline could be set on the monitors so that noise over a certain threshold would tag an event for further analysis. Mr. Alverson said the monitors do allow for setting baseline or threshold levels, which are then used to distinguish aircraft noise events from the community noise events as the aircraft noise events have a distinct pattern mimicking a traditional bell curve.

Review of the Project Schedule

Mike Arnold (ESA Airports) presented and discussed the current status and timeline of the project. He said the impact analysis is taking more time to complete than expected, though there are no major changes to the schedule. The NEM report will be delivered to the FAA in July. There will also be announcements about upcoming public meetings coming up in September.

Steve Alverson (ESA Airports) said the Study Team is working on the public meeting planning now and expects the first one to take place in Fall 2016, with a focus on Noise Compatibility basics.

David Hopkins (NYC EDC) asked how the Study Team expects TAC members to get involved with the workshops. Steve Alverson (ESA Airports) said the information presented at the workshops will be presented to the TAC and that the project team will get input from the community and general stakeholders at the workshops.

TAC Assignment No. 6

Mike Arnold (ESA Airports) assigned the following tasks for TAC members to complete for the next TAC meeting:

- Review draft NEM contours
- Review measured vs. modeled noise values
- Bring questions to the next TAC meeting

Future Meeting Dates

The tentative dates for TAC Meetings 8 and 9 are:

- TAC Meeting 8 – Tuesday, August 16, 2016, 1 – 4 p.m.
- TAC Meeting 9 – Tuesday, October, 18, 2016, 1 – 4 p.m.

Preliminary Agenda for TAC Meeting No. 8

Mike Arnold (ESA Airports) discussed the tentative agenda for TAC Meeting No. 8. The agenda includes the following items:

- TAC Homework Assignment No. 7
- Future TAC Meeting Dates
- Public Comment
- Adjourn

TAC Comments

Ryan Walsh (FHI) asked the TAC members if they had any questions or comments. There were none.

Public Comment

Ryan Walsh (FHI) asked if any members of the public had questions or comments.

Bryan Serra, a Central Bayside resident, asked about the type of monitors being used and whether the project team used omni-directional microphones when collecting noise data. He said that School District 26 has a lot of noise, but the contours shown earlier indicated the area as having lower noise than he expected. Steve Alverson (ESA Airports) said the Study Team is using modeling only to calculate aircraft noise contours. The Study Team is using Brüel & Kjær Type-1 noise monitors, which are state-of-the-art units designed for measuring aircraft noise. Adeel Yousuf (PANYNJ) pointed out that the Brüel & Kjær Type-1 noise monitors pick up sound from all directions.

Rudy Luo, a Flushing resident, said the data incorrectly shows community noise as being louder than aircraft noise. Mr. Alverson (ESA Airports) said the noise data is recorded 24 hours a day and the values shown are the annual average values; he also noted that the closer the monitor is to the airport, the more aircraft noise will dominate. Community noise consists of all the background noise events plus all the contaminated aircraft noise events.

Clarence Beninati, a Bayside resident, lives near I-295 and said he measured noise levels at 60-65 decibels in Bayside during peak periods. When aircraft flies over his house, the noise level is higher than the Study Team's results because the Team is not taking into account that noise bounces off I-295. The ambient noise level in his home is 20 decibels with the television turned off and the windows and doors closed. During his observations, when an airplane flew over his house, the noise level increased by 30-50 decibels. The airplane noise interferes with his phone conversations. He said these issues should be addressed in the future noise contours.

Glenn Morse (United Airlines) suggested that the difference between dB and DNL should be better explained. Mr. Alverson (ESA Airports) said that the DNL measurements are 24-hour metrics and that individual events are measured in dB. He further explained that in the fall, the project team will begin to look at minimization and mitigation strategies through the Noise Compatibility Program. Mr. Beninati (a Bayside resident) said he was happy to hear that.

Clarence Beninati (a Bayside resident) said the Study Team needs to address the paths that the airplanes take, moving flight paths to areas where they can cause minimal noise impacts. He created a map and said the Study Team should study this topic further. Mr. Beninati created a model using the activity trends currently taking place in north Queens. He identified open areas and wanted to know why planes weren't flying over them.

Bryan Serra (a Central Bayside resident) said JFK sits near the ocean and he wanted to know why more planes couldn't fly over the ocean. He also suggested expanding JFK airport, so more planes could depart from there rather than LaGuardia. Rudy Luo (a Flushing resident) also wondered why airplanes flew over residential areas.

Concluding Remarks

Kelly Mitchell (PANYNJ) thanked the TAC members and the public for their participation, support and passion for the project. She said TAC meeting dates are confirmed one month before they are scheduled to take place and advised the TAC members and all those that are interested in attending to check the project website for updates.

She also said presentations are posted within a week or two after the meeting has taken place. She also mentioned that the project is moving quickly. The Study Team is conducting four Part 150 studies

simultaneously, and this has never been done before. She encouraged the members of the public to continue attending meetings and upcoming workshop.

Adjourn

Ryan Walsh (FHI) adjourned the meeting.

Appendix H-8
Technical Advisory Committee
Meeting #8
August 16, 2016

Technical Advisory Committee
Meeting #8

Meeting Notice and
Attendance Roster

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF EIGHTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Tuesday, August 16, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, August 17, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA TAC Meeting #8 August 16, 2016

First	Last	Representing	Alternates	Primary	Alternate
✓ Mike	Alberts	KB Environmental		✓	
✓ Steve	Alverson	ESA Airports		✓	
✓ Mike	Arnold	ESA Airports		✓	
✓ Debbie	Bearden	NY Airport Liaison	Sal Debono	✓	
✓ Arnold	Bloch	FHI			
✓ Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
✓ Peter	Byrne	VHB		✓	
✓ Chung	Chan	NYCDEP	Charles Shamoon		✓
✓ Fred	Dixon	New York & Company			
✓ Sophia	Ganosis	Queens Chamber of Commerce			
✓ Robert	Goldman	Delta Airlines	Mark Hopkins		
✓ Thomas	Grech	Queens Chamber of Commerce			
✓ Mark	Guiod	FAA - TRACON	Steve Kelley		
✓ Jennifer	Hogan	VHB		✓	
✓ David	Hopkins	NYC Economic Development Corp (EDC)		✓	
✓ Andra	Horsch	Nicholas Lence		✓	
✓ Bill	Huisman	Aviation Development Council		✓	
✓ Adrian	Jones	ESA Airports			
✓ Ed	Knoesel	Port Authority		✓	
✓ Josh	Knoller	Nicholas Lence		✓	
✓ Natalia	Kozikowska	Nicholas Lence			
✓ Kevin	Denning	Town of Hempstead			
✓ James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		
✓ Michael	Levine	Town of North Hempstead	Neal Stone		✓
✓ Dena	Libner	NYC & Company	Fred Dixon		

*Adrian * 05 down to 115, move the*

✓ Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
✓ Ron	Marsico	Port Authority			
✓ Kelly	Mitchell	Port Authority			
✓ David	Sanchez	FAA - NY ADO	Suki Gill	✓	
✓ Glenn	Morse	United Airlines			
✓ Christyne	Nicholas	Nicholas Lence			
✓ Susan	O'Donnell	VHB		✓	
✓ Chris	Rhoads	Port Authority			
✓ Teresa	Rizzuto	Port Authority			
✓ Sean	Sallie	Nassau County Planning	Mark Buttice, ✓ Martin Katz	✓	✓
✓ Dean	Saucier	National Business Aviation Association			
✓ Len	Schaier	Town of North Hempstead/QuietSkies.net		✓	
✓ Lysa	Scully	Port Authority			
✓ Scott	Solomon	NYC DCP		✓	
✓ Zendra	Spence	Shelt Air	Cesar Rizik	✓	
✓ Doug	Stearns	Port Authority	Chris Rhoads		
✓ Laura	Stensland	JFK Tower	James Law	✓	
✓ Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker		
✓ Ian	Van Praagh	Port Authority		✓	
✓ Angelina	Martinez-Rubio	Queens Borough President	Jack Leibler		
✓ Jasmine	Narang	Queens Borough President			
✓ Ryan	Walsh	FHI		✓	
✓ Marilyn	Chapoteau	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber	✓	
✓ Adeel	Yousuf	Port Authority		✓	

Technical Advisory Committee Meeting #8
August 16, 2016 (1:00pm – 4:00pm)
LaGuardia Airport

MEDIA
Public

[illegible]

Sign-In Sheet
MEDIA

[illegible]

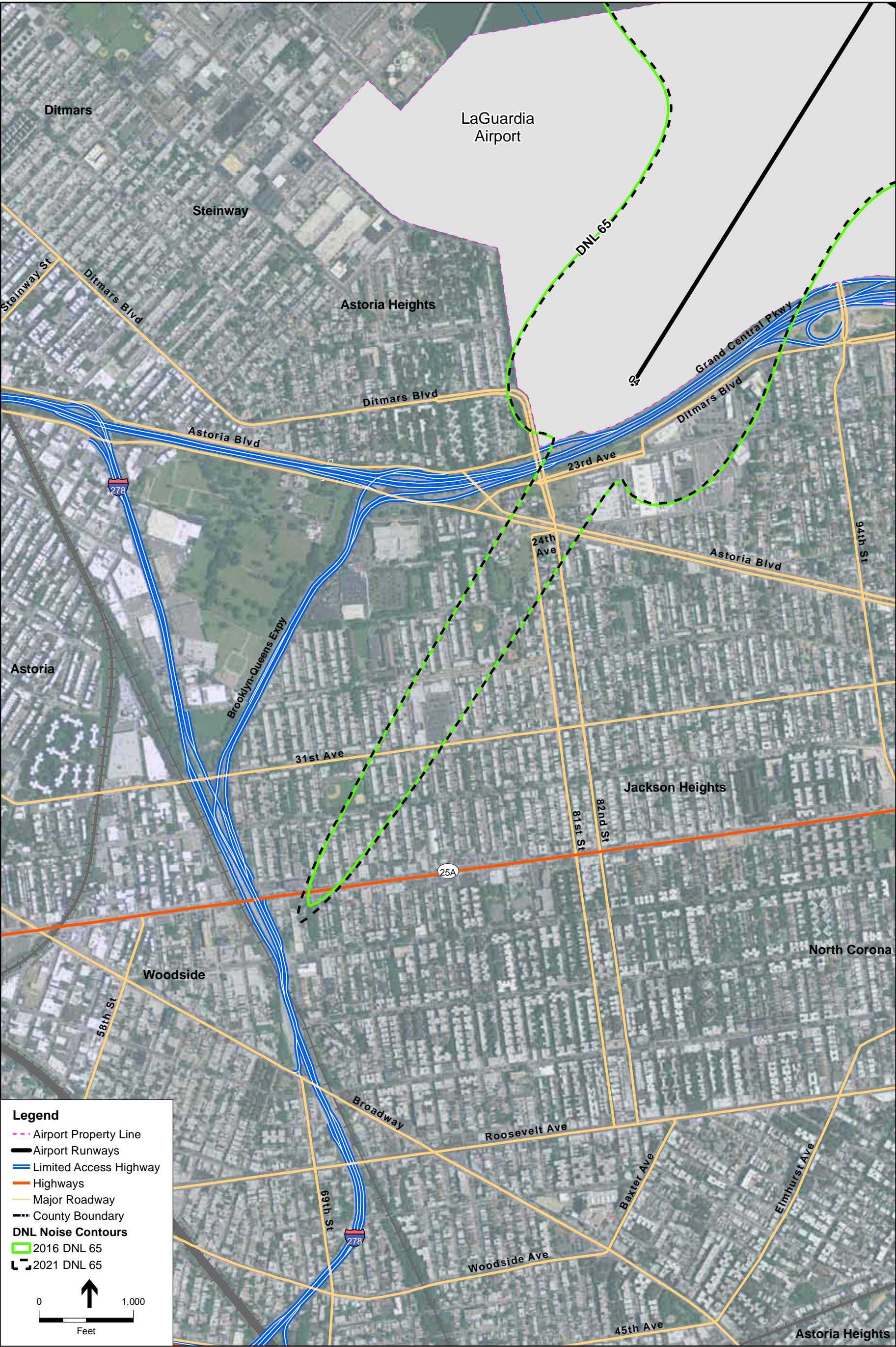
Technical Advisory Committee
Meeting #8
Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 8
14 CFR Part 150 Study – LaGuardia Airport

Tuesday, August 16, 2016

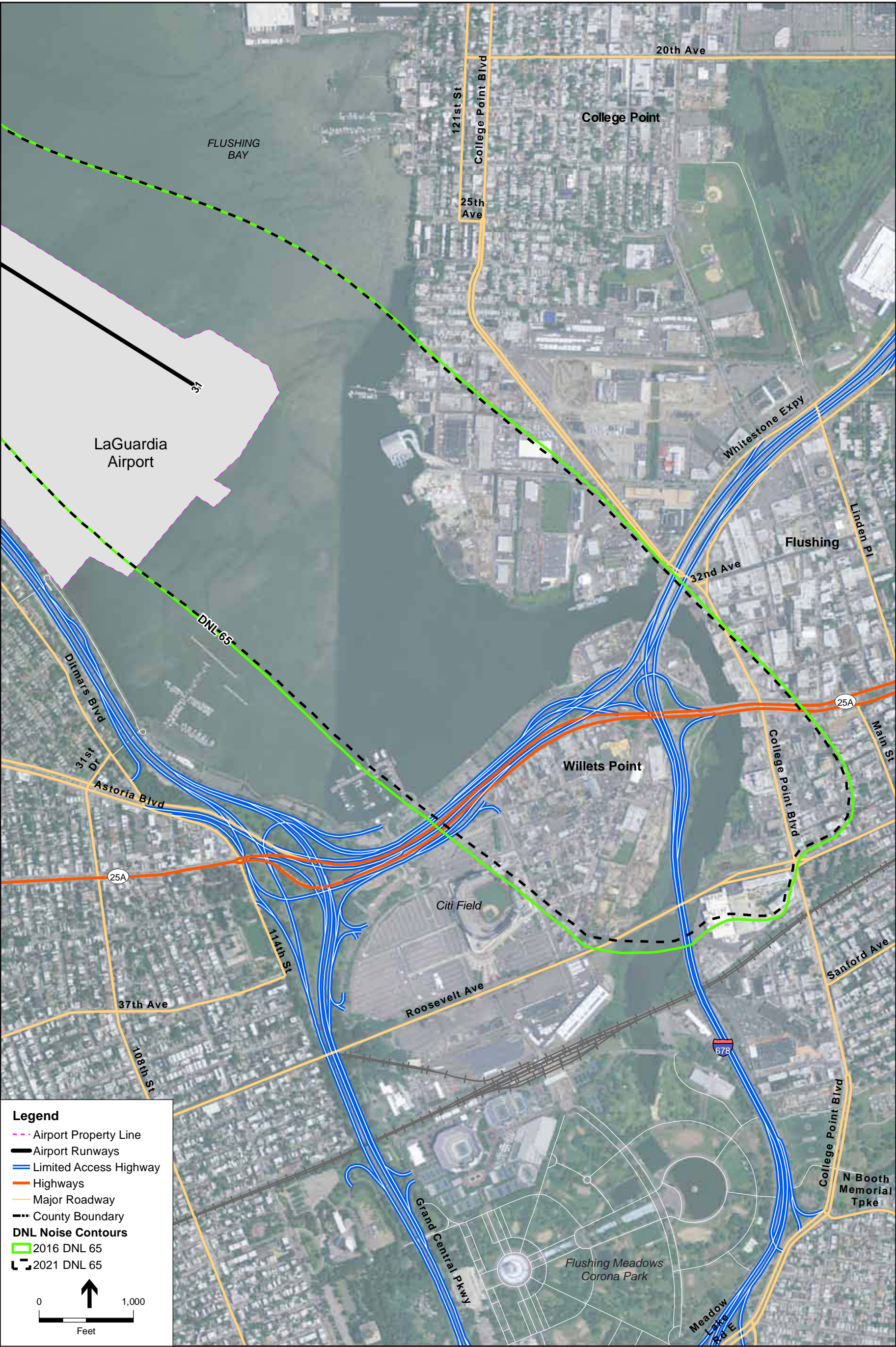
1:00 PM to 4:00 PM EDT

1. Port Authority Update on the CTB and Perimeter Rule
2. Previous TAC Meeting Highlights
3. Review Homework Assignment No. 6 – Noise Contours, Measured vs. Modeled Values
4. Present the Preliminary Draft LGA Noise Exposure Analysis
5. Discuss the Preliminary Draft LGA Noise Exposure Map (NEM) Report
6. Noise Compatibility Program Overview
7. Discuss the Public Workshop Schedule
8. Review the Project Schedule
9. TAC Homework Assignment No. 7 – Review/Comment on: Draft LGA NEM Report, Noise Exposure Analysis, and NCP Overview
10. Future TAC Meeting Dates
11. Public Comment
12. Adjourn











LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Meeting Agenda

- Port Authority Update on the CTB and Perimeter Rule
- Previous TAC Meeting Highlights
- Review Homework Assignment No. 6 – Noise Contours, Measured vs. Modeled Values
- Present the Preliminary Draft Noise Exposure Analysis
- Discuss the Preliminary Draft LGA Noise Exposure Map (NEM) Report
- Noise Compatibility Program Overview
- Discuss the Public Workshop Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Meeting Agenda (Continued)

- Review the Project Schedule
- TAC Homework Assignment No. 7
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Port Authority Update on the CTB and Perimeter Rule

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Previous TAC Meeting Highlights

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 6

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Review TAC Homework Assignment No. 6

- Review Draft NEM contours
- Review Measured vs. Modeled noise values

ESA Study Team

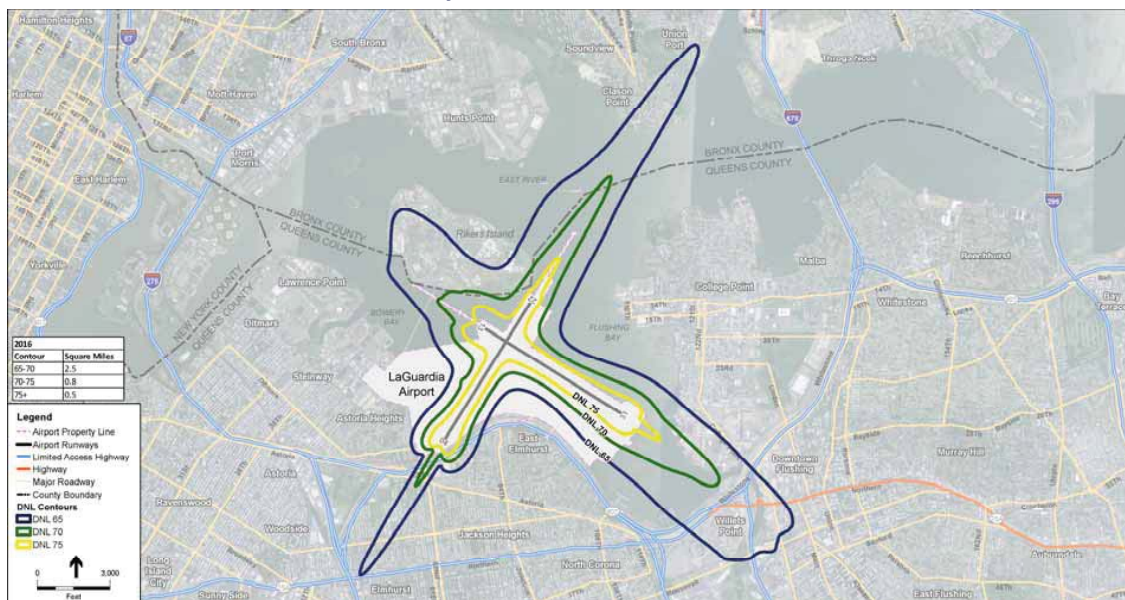
9

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2016 Preliminary Draft - DNL 65, 70, and 75 contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

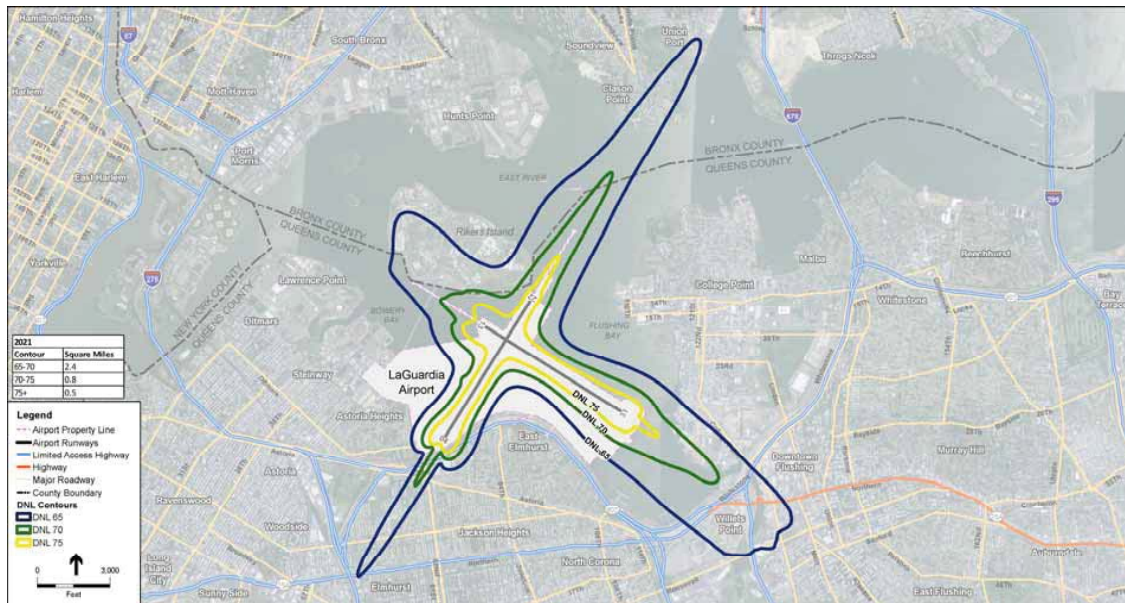
10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2021 Preliminary Draft - DNL 65, 70, and 75 contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

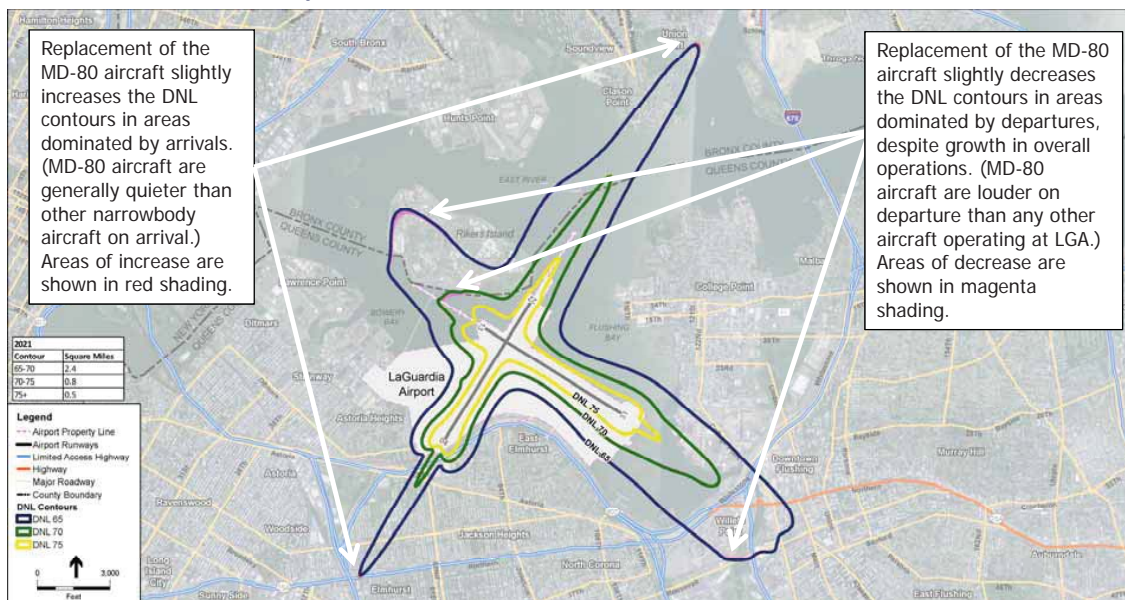
11

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Comparison of the 2016 and 2021 LGA DNL Contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

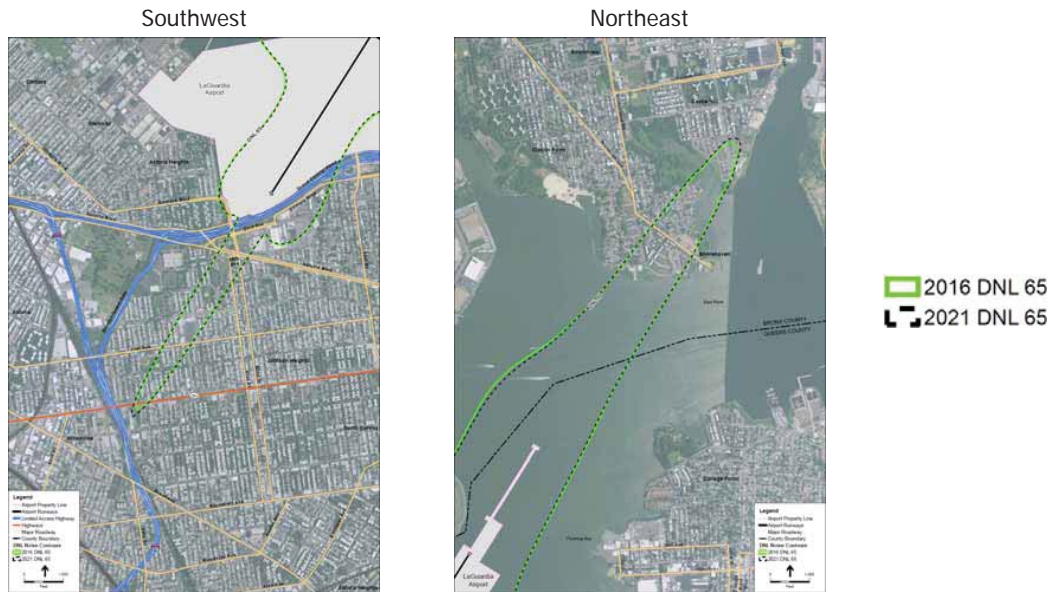
12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Comparison of the 2016 and 2021 LGA DNL Contours (Continued)



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

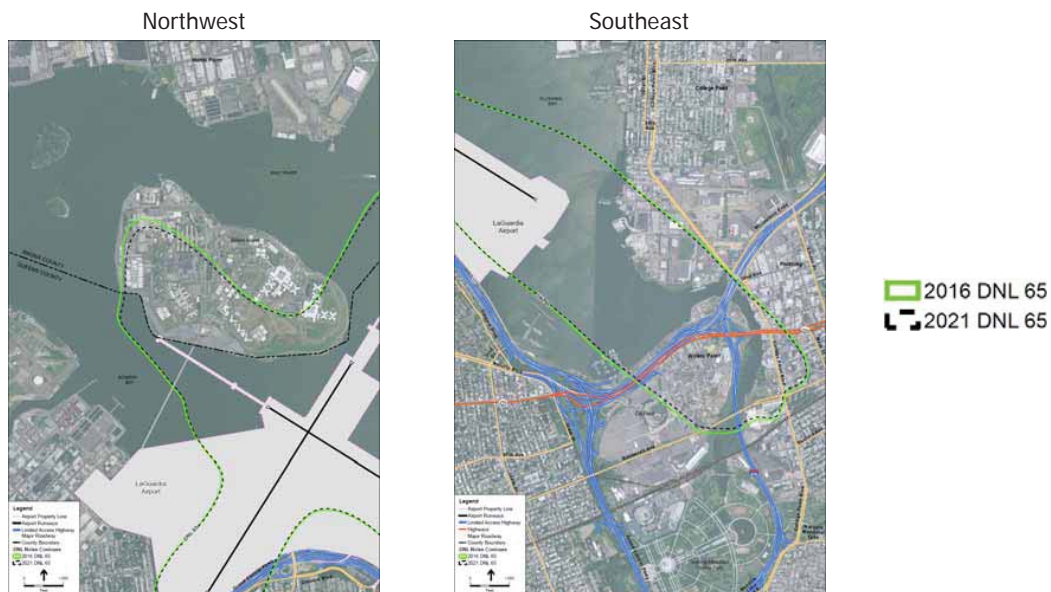
13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Comparison of the 2016 and 2021 LGA DNL Contours (Continued)



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2016 Preliminary Draft - DNL 55, 60, 65, 70, and 75 contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2021 Preliminary Draft - DNL 55, 60, 65, 70, and 75 contours



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

16

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Comparison of Measured Aircraft DNLs and Modeled Aircraft DNL Values - 2014

Site Number	Site ID	2014 Measured DNL (Average)	Modeled DNL (2016)	Difference
58	L13_P	67.2	65.5	-1.7
11	L22_P	69.0	69.1	0.1
16*	FLUSH	60.4	54.9	-5.5
52	KEWHI	57.6	56.9	-0.7
59	SCNLN	64.0	62.3	-1.7
61	L205BYSD	54.8	53.8	-1.0
62	LFRNKLN	63.9	63.3	-0.6
63	LDKLB	57.8	54.8	-3.0

*Measured values were contaminated by noise from wind moving through a nearby tree.

 12 Months of Data

Excluding FLUSH (16), modeled values are within 0.1 to -3.0 dB of measured values.

In accordance with 14 CFR Part 150, the measured noise levels will not be used to calibrate the INM aircraft noise database.

ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Comparison of Measured Aircraft DNLs and Modeled Aircraft DNL Values - 2015

Site Number	Site ID	2015 Measured DNL (Average)	Modeled DNL (2016)	Difference
58	L13_P	68.4	65.5	-2.9
11	L22_P	70.6	69.1	-1.5
52	KEWHI	58.0	56.9	-1.1
59	SCNLN	64.5	62.3	-2.2
61	L205BYSD	54.1	53.8	-0.3
62	LFRNKLN	62.5	63.3	0.8
63	LDKLB	56.1	54.8	-1.3
71	LCLGPT	61.9	59.0	-2.9
70	LMDLVLG	55.4	54.2	-1.2
73	LPRKSLP	53.8	52.3	-1.5
75	LPMR	58.0	56.5	-1.5

Modeled values are within 0.8 to -2.9 dB of measured values.

2015 comparison made at TAC member request. 2015 measured values will not match 2016 modeled values, which were based on 2014 runway use.

In accordance with 14 CFR Part 150, the measured noise levels will not be used to calibrate the INM aircraft noise database.

ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Present the Preliminary Draft Noise Exposure Analysis

ESA Study Team

19

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2016 Noise Sensitive Sites Within the DNL 65+ Contour (Counts)

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools ¹	Hospitals and Residential Healthcare	Historic Resources	Day Care
2016								
DNL 65-70	1,579.3	3,655	9,787	7	2	0	8	2
DNL 70-75	517.4	2	6	0	1	0	0	1
DNL 75+	339.1	0	0	0	0	0	0	0
Total	2,435.8	3,657	9,793	7	3	0	8	3
<p>NOTE: The household and population estimates provided above were developed using census block demographic data from the 2010 Decennial Census and New York City housing data.</p> <p>¹ All three schools were included in the Port Authority School Soundproofing Program, and are compatible with DNL 65+.</p> <p>SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.</p>								

ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2016 Land Uses Within the DNL 65+ Contour (Acres)

Land Use Category	Land Uses Exposed to DNL 65 dBA and Higher (acres)			
	DNL 65-70	DNL 70-75	DNL 75+	Total
Single and Two Family Residential	37.6	0.0	0.0	37.6
Multi-Family Residential	34.7	0.0	0.0	34.7
Mixed Residential and Commercial	13.1	0.0	0.0	13.1
Commercial and Office	39.9	3.4	0.0	43.3
Industrial and Manufacturing	60.4	13.3	0.0	73.7
Transportation, Right of Way, Parking and Utilities	227.4	13.6	5.2	246.4
Public Facilities and Institutions	223.3	10.5	0.2	234.0
Open Space, Cemeteries, and Outdoor Recreation	31.3	4.3	0.0	35.6
Vacant	30.0	6.6	0.0	36.6
Airport Property	172.6	152.5	278.2	603.3
Water (Off Airport Property)	709.0	313.2	55.6	1,077.8
Total	1,579.3	517.4	339.1	2,435.8

NOTE: Numbers may not add up, due to rounding.
SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

ESA Study Team

21

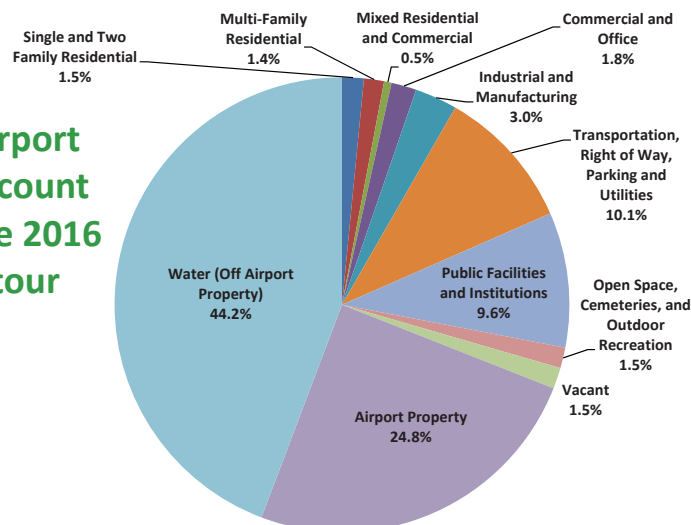
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2016 Land Uses Within the DNL 65+ Contour (Percent Total Acreage)

**Water and Airport
Land Uses Account
for 69% of the 2016
DNL 65+ Contour
Area**



ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2021 Noise Sensitive Sites Within the DNL 65+ Contour (Counts)

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools	Hospitals and Residential Healthcare	Historic Resources	Day Care
2021								
DNL 65-70	1,554.7	3,802	10,255	7	2	2	16	2
DNL 70-75	502.5	4	12	0	1	0	0	1
DNL 75+	332.2	0	0	0	0	0	0	0
Total	2,389.4	3,806	10,267	7	3	2	16	3
NOTES: 1. The household and population estimates provided above were developed using census block demographic data from the 2010 Decennial Census and New York City data. 2. Because the timing and extent of planned residential development within the DNL 65 contour is uncertain, the household and population estimates in this table do not include potential housing units associated with the Willets Point Development Plan and construction of additional housing units at the Sky View Parc condominium complex. 3. All three schools were included in the Port Authority School Soundproofing Program, and are compatible with DNL 65+. SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.								

ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2021 Land Uses Within the DNL 65+ Contour (Acres)

Land Use Category	Land Uses Exposed to DNL 65 dBA and Higher (acres)			
	DNL 65-70	DNL 70-75	DNL 75+	Total
Single and Two Family Residential	40.4	0.0	0.0	40.4
Multi-Family Residential	35.2	0.0	0.0	35.2
Mixed Residential and Commercial	10.7	0.0	0.0	10.7
Commercial and Office	40.2	3.0	0.0	43.2
Industrial and Manufacturing	59.4	12.4	0.0	71.8
Transportation, Right of Way, Parking and Utilities	222.7	13.8	5.0	241.5
Public Facilities and Institutions	212.8	8.4	0.1	221.3
Open Space, Cemeteries, and Outdoor Recreation	28.8	4.7	0.0	33.5
Vacant	29.6	6.0	0.0	35.6
Airport Property	172.2	152.3	274.9	599.4
Water (Off Airport Property)	702.7	301.9	52.2	1,056.8
Total	1,554.7	502.5	332.2	2,389.4
NOTE: Numbers may not add up, due to rounding. SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.				

ESA Study Team

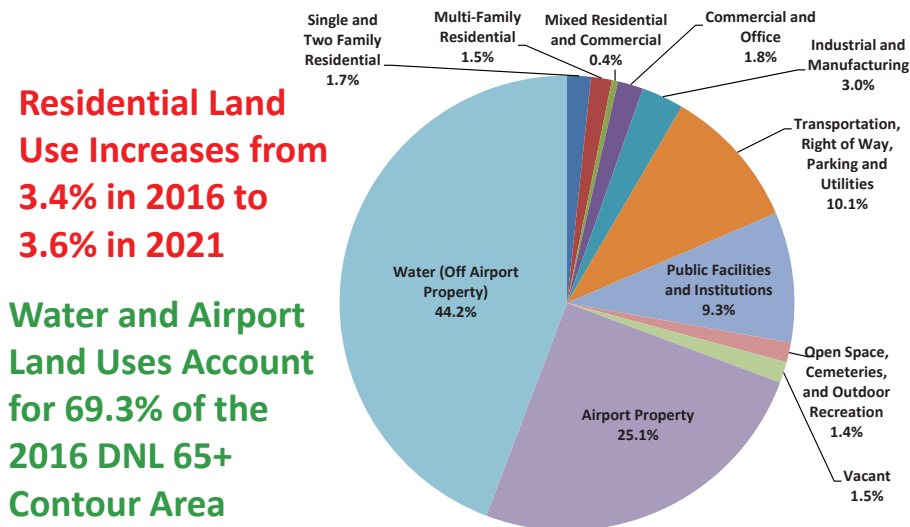
24

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

2021 Land Uses Within the DNL 65+ Contour (Percent Total Acreage)



ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Discuss the Preliminary Draft LGA Noise Exposure Map (NEM) Report

ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft LGA NEM Report Table of Contents

- Chapter 1: Introduction
 - Chapter 2: LaGuardia Airport Overview
 - Chapter 3: Land Use
 - Chapter 4: NEM Development and Land Use Compatibility
 - Chapter 5: 2016 and 2021 Noise Exposure Maps
 - Chapter 6: Consultation and Public Involvement
 - List of Tables
 - List of Figures
 - Appendices
- **14 CFR Part 150 Checklist**
 - **Sponsor's Certification**

The Preliminary Draft LGA NEM Report was submitted to the FAA on July 15, 2016.

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 1: Introduction

- Short introductory language
- Description of 14 CFR Part 150 study process
- Description of noise exposure map preparation
- Brief description of consultation / public involvement and stakeholders
- NEM Report organizational structure

ESA Study Team

28

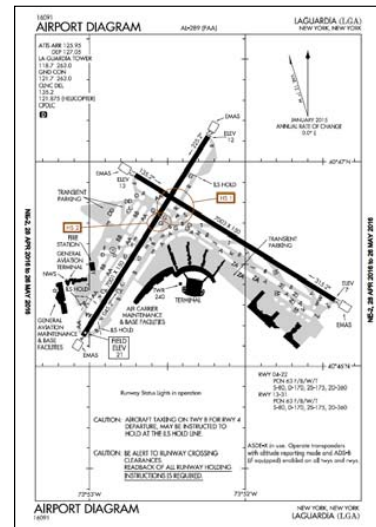
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 2: LaGuardia Airport Overview

- LGA airport location
- Overview of airport history, facilities, layout, and economic impact
- Navigational aids
- Instrument approach procedures
- Standard terminal arrivals and departure procedures
- Port Authority noise monitoring and community outreach programs



SOURCE: Federal Aviation Administration, 2016.

ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 3: Land Use



SOURCE: New York City Department of City Planning, MapPLUTO 15V1; Tax lot/land use geographic information database, March 2015-June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2015; ESRI Mapping Services

- Land use data collection area and study area
- Land uses and noise sensitive sites
- Land use control regulations

Land Use Categories

Single and Two Family Residential

Multi-Family Residential

Mixed Residential and Commercial

Commercial and Office

Industrial and Manufacturing

Transportation, Parking and Utilities

Public Facilities and Institutions

Open Space, Cemeteries, and Outdoor Recreation

ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 3: Land Use (Continued)



SOURCE: New York City Department of City Planning, MapPLUTO 15V1; Tax lot/land use geographic information database, March 2015-June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESA Airports 2015; ESRI Mapping Services

ESA Study Team

Noise Sensitive Sites
Places of Worship
Schools, Colleges and Universities
Libraries/Cultural Institutions
Hospitals and Residential Healthcare Facilities
Daycare and Assisted Living Facilities
Historic Properties

31

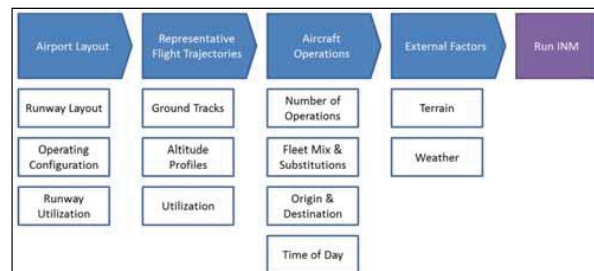
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 4: NEM Development and Land Use Compatibility

- Integrated Noise Model and noise metrics
- Aircraft type and operations count data used for developing NEMs
- Meteorological conditions
- Airport operational information, including user-defined flight profiles
- Airport noise monitoring data
- Aircraft noise and land use compatibility guidelines



SOURCE: ESA, 2015.

ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 5: 2016 and 2021 Noise Exposure Maps

- 2016 (existing) noise exposure and land use compatibility
- 2021 (future) noise exposure and land use compatibility
- Noise sensitive sites exposed to DNL 65 dBA and higher
- Comparison of 2016 and 2021 NEMs

2016 Noise Exposure Map



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

2021 Noise Exposure Map



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

33

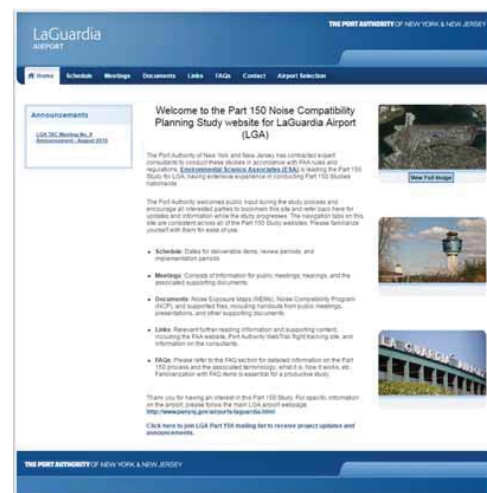
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Chapter 6: Consultation and Public Involvement

- Technical Advisory Committee membership and meetings
- Public information workshops
- Other public outreach and meetings, such as study-specific meetings, newsletters, and project website



SOURCE: Port Authority of New York and New Jersey, 2016.

ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Appendices

- **Appendix A** Glossary of Terms and Acronyms
- **Appendix B** Airport Facilities and Airspace
- **Appendix C** Aircraft Noise
- **Appendix D** Land Use, Zoning and Noise Sensitive Sites
- **Appendix E** Radar Flight Tracks and Flight Profiles
- **Appendix F** Forecast and Operational Data

ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

DRAFT - For Preliminary Discussion Purposes Only

Preliminary Draft NEM Report Appendices (Continued)

- **Appendix G** Correspondence and Consultation
- **Appendix H** Technical Advisory Committee
- **Appendix I** Study Protocol
- **Appendix J** Supplemental Noise Contours
- **Appendix K** Public Outreach and Participation
- **Appendix L** Public Comments and Responses
- **Appendix M** Official Noise Exposure Maps

ESA Study Team

36

THE PORT AUTHORITY
OF NY & NJ

Noise Compatibility Program Overview

ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

14 CFR Part 150 Study Process

- Undertaking a 14 CFR Part 150 Study is a voluntary process
- A 14 CFR Part 150 Study typically results in two volumes:
 - Noise Exposure Map (NEM) Report
 - Noise Compatibility Program (NCP) Report
- NEM Report documents existing and future (at least five years) aircraft noise exposure in terms of DNL contours
 - FAA “accepts” the NEMs
- NCP explores operational, land use, and administrative measures to minimize aircraft noise exposure
 - FAA “approves” individual measures in the NCP

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

14 CFR Part 150 Study Process

- **FAA review and acceptance of NEM**
 - Technical review only
- **FAA reviews NCP for completeness**
 - Technical, policy, effectiveness review
- **180-day review period for NCP**
 - FAA conducts separate review for each measure
 - FAA actions for each measure at end of review period
 - Approve
 - Reject/Disapprove
 - Further study

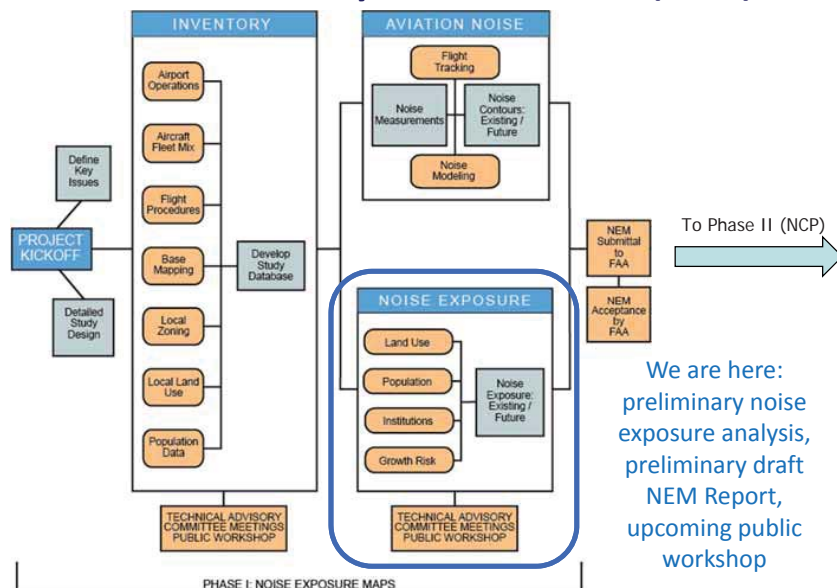
ESA Study Team

39

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Generalized 14 CFR Part 150 Study Process: Phase I (NEM)



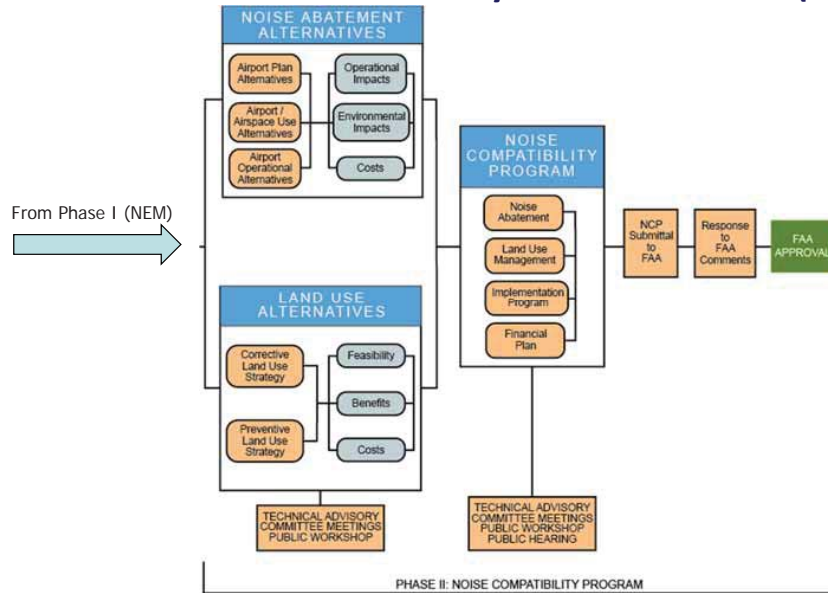
ESA Study Team

40

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Generalized 14 CFR Part 150 Study Process: Phase II (NCP)



ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Noise Compatibility Program Overview

- 14 CFR Part 150 requires consideration of at least the following measures:
 - Property acquisition and avigation easements
 - Noise barriers and acoustical shielding
 - Preferential runway system
 - Noise abatement flight procedures and flight tracks
 - Aircraft operating restrictions based on noise characteristics (subject to further notice, review, and approval requirements in 14 CFR Part 161)
 - Other actions to control or abate noise
 - Other actions recommended for airport-specific analysis by the FAA

ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Noise Compatibility Program Overview

- All measures must:
 - Reduce incompatible land use and prevent or reduce future incompatible land use
 - Ensure safety and efficiency
 - Be consistent with the powers and duties of the FAA
 - Not unjustly discriminate against certain aircraft types
 - Not impose an undue burden on interstate commerce (requires balancing of interests)
 - Meet both local needs and national air transportation system needs
- The NCP Report must include a provision for revising the NCP if made necessary by a revision of the Noise Exposure Map.

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Noise Compatibility Program Overview

Noise Abatement Options

- Noise abatement techniques can be applied to address:
 - Ground noise
 - Noise from aircraft in flight
- Techniques should be safe, cost effective, environmentally balanced, and capable of being implemented to be successful

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Noise Compatibility Program Overview

Noise Abatement Options

- Standard evaluation criteria for noise abatement measures
 - Level of noise reduction
 - Effects on airfield capacity and aircraft delay
 - Effects on airspace/air traffic control procedures
 - Consistency with FAA safety and other standards
 - Other environmental effects (e.g., air quality)
 - Operational effects and costs
 - Financial feasibility
 - Consistency with policies adopted by Airport Proprietor

ESA Study Team

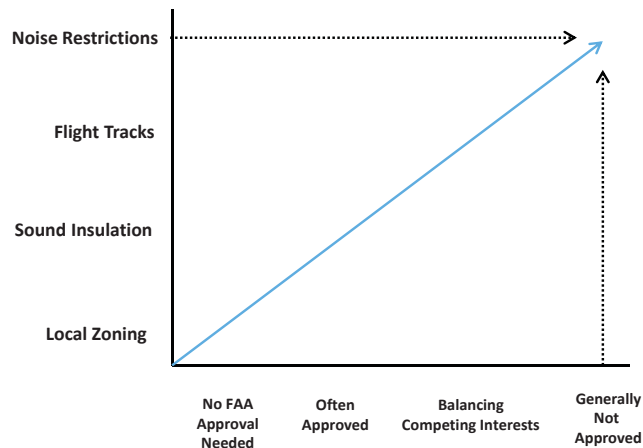
45

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Noise Compatibility Program Overview

Obtaining FAA Approval of NCP Measures



ESA Study Team

46

THE PORT AUTHORITY
OF NY & NJ

Discuss the Public Workshop Schedule

ESA Study Team

47

THE PORT AUTHORITY
OF NY & NJ

Discuss the Public Workshop Schedule

- September 29, 2016
- 6 P.M. to 9 P.M.
 - Open house format; enter and exit at any time between 6 P.M. and 9 P.M.
- New York LaGuardia Airport Marriott
 - Address: 102-05 Ditmars Boulevard, East Elmhurst, NY 11369
 - Phone: 718-565-8900

ESA Study Team

48

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Review the Project Schedule

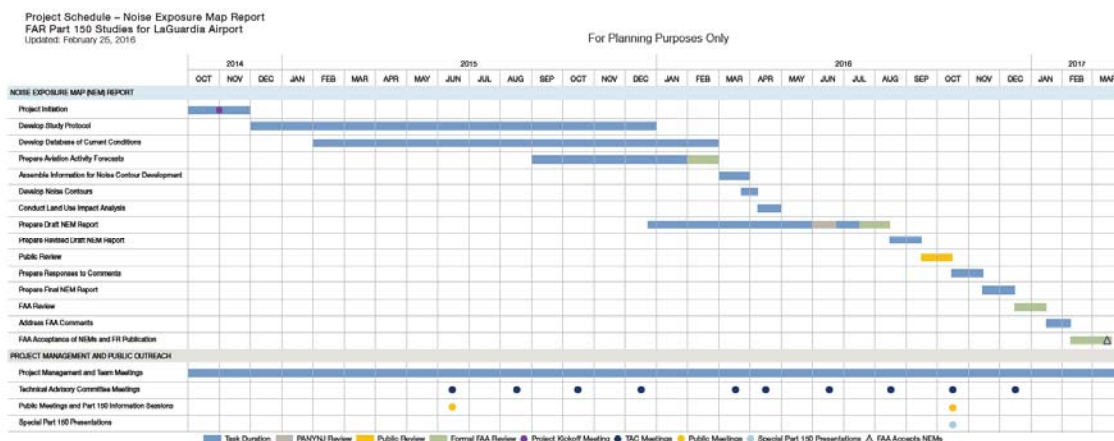
ESA Study Team

49

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Review the NEM Schedule



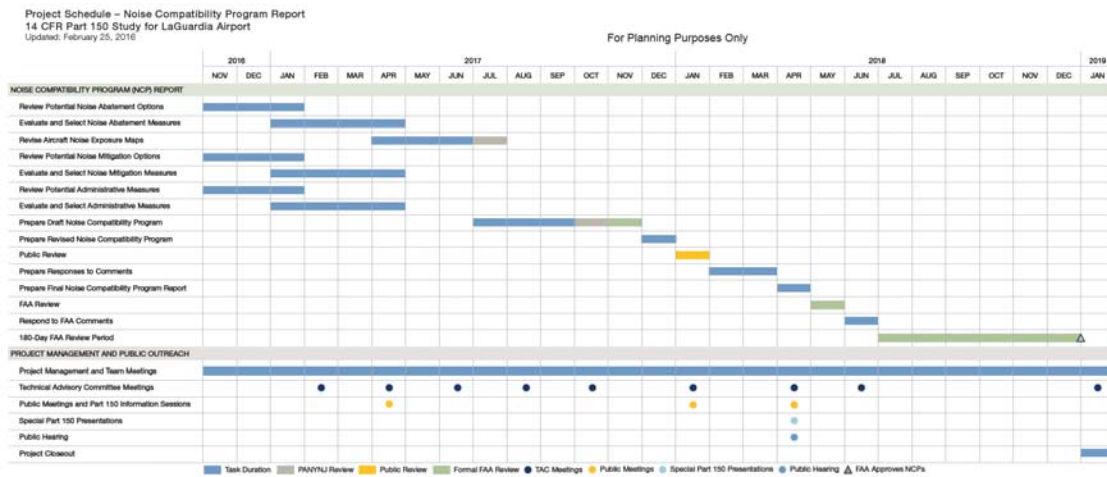
ESA Study Team

50

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Review the NCP Schedule



ESA Study Team

51

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

TAC Homework Assignment No. 7

ESA Study Team

52

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

TAC Homework Assignment No. 7

- Review preliminary draft noise exposure analysis
- Review noise compatibility program overview
- Bring your questions to the next TAC meeting

ESA Study Team

53

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Future TAC Meeting Dates

ESA Study Team

54

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Meeting Dates for TAC Meetings 9 and 10

- **CONFIRMED: TAC Meeting 9 – Thursday, October 20, 2016 (1 p.m. – 4 p.m.)**
 - Note that the meeting is on Thursday (instead of the usual Tuesday)
- **TENTATIVE: TAC Meeting 10 – Tuesday, December 13, 2016 (1 p.m. – 4 p.m.)**

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Preliminary Agenda for TAC Meeting No. 9

- Port Authority Update on the CTB and Perimeter Rule
- Previous TAC Meeting Highlights
- Review Homework Assignment No. 7 – Comments on the Draft LGA NEM Report, Noise Exposure Analysis, NCP Overview
- Initial Discussion of Potential NCP Measures
- Review the Project Schedule

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Preliminary Agenda for TAC Meeting No. 9 (Continued)

- TAC Homework Assignment No. 8
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

57

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Public Comment

ESA Study Team

58

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

Adjourn

ESA Study Team

59

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 8

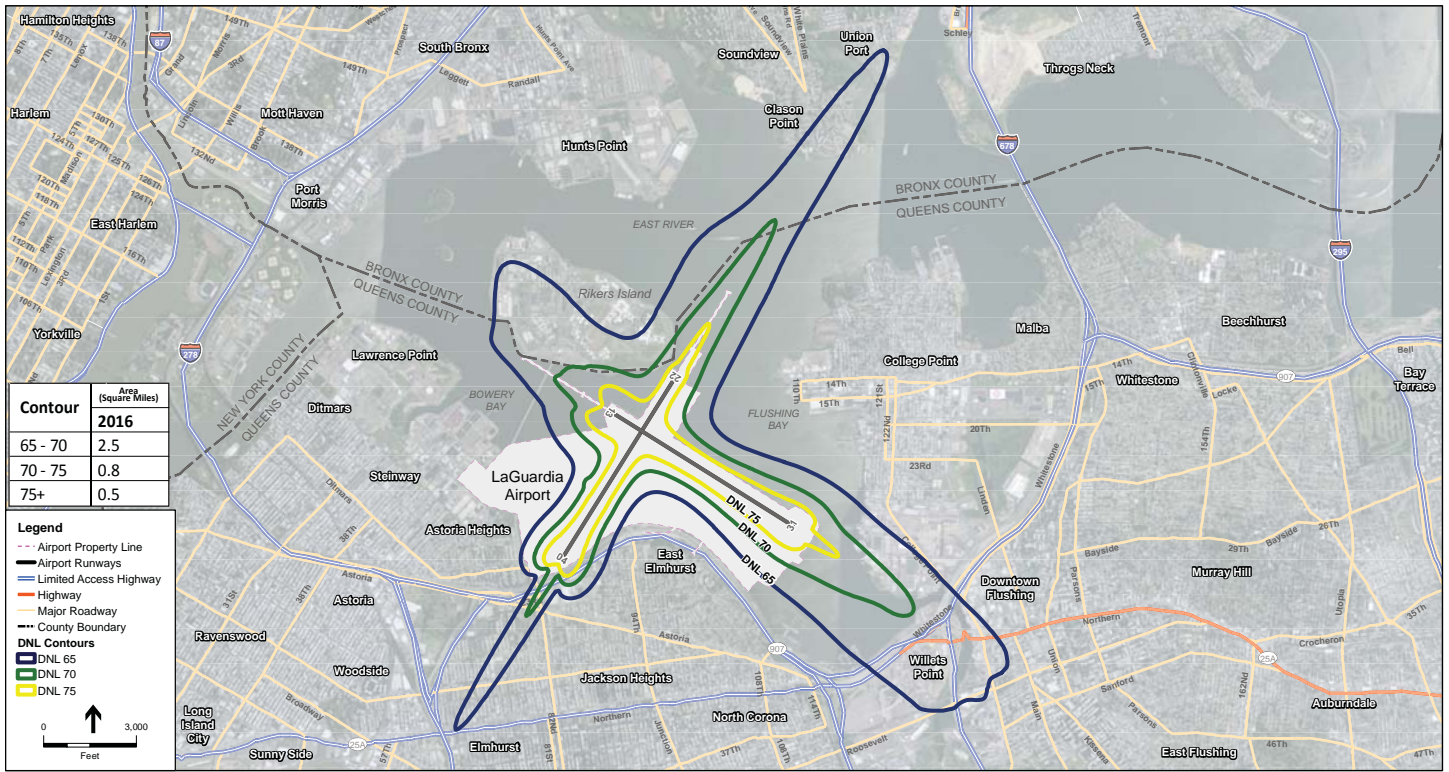
Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
 - <http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

60

THE PORT AUTHORITY
OF NY & NJ



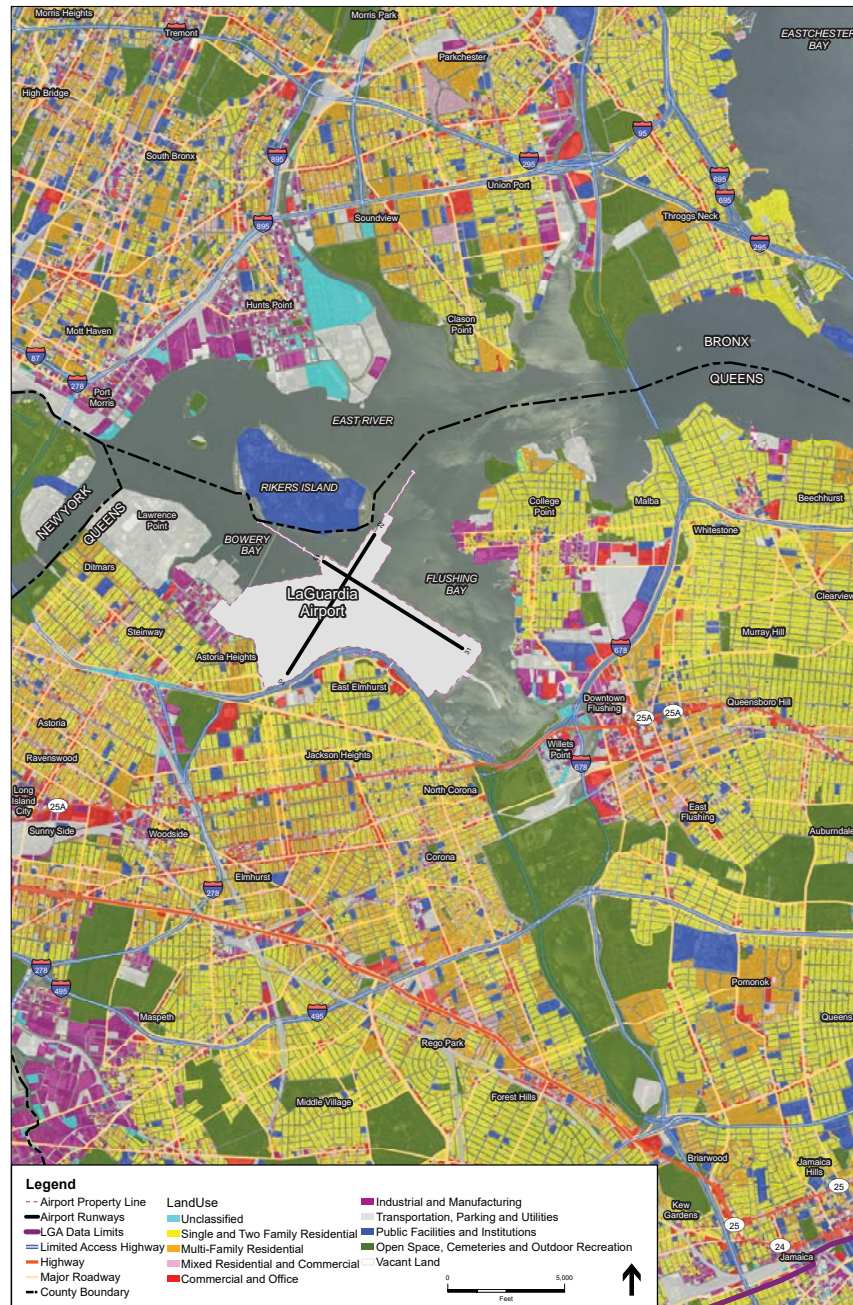
SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

2016 DNL Contours for LaGuardia Airport
 PRELIMINARY DRAFT FOR INTERNAL REVIEW - SUBJECT TO CHANGE



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

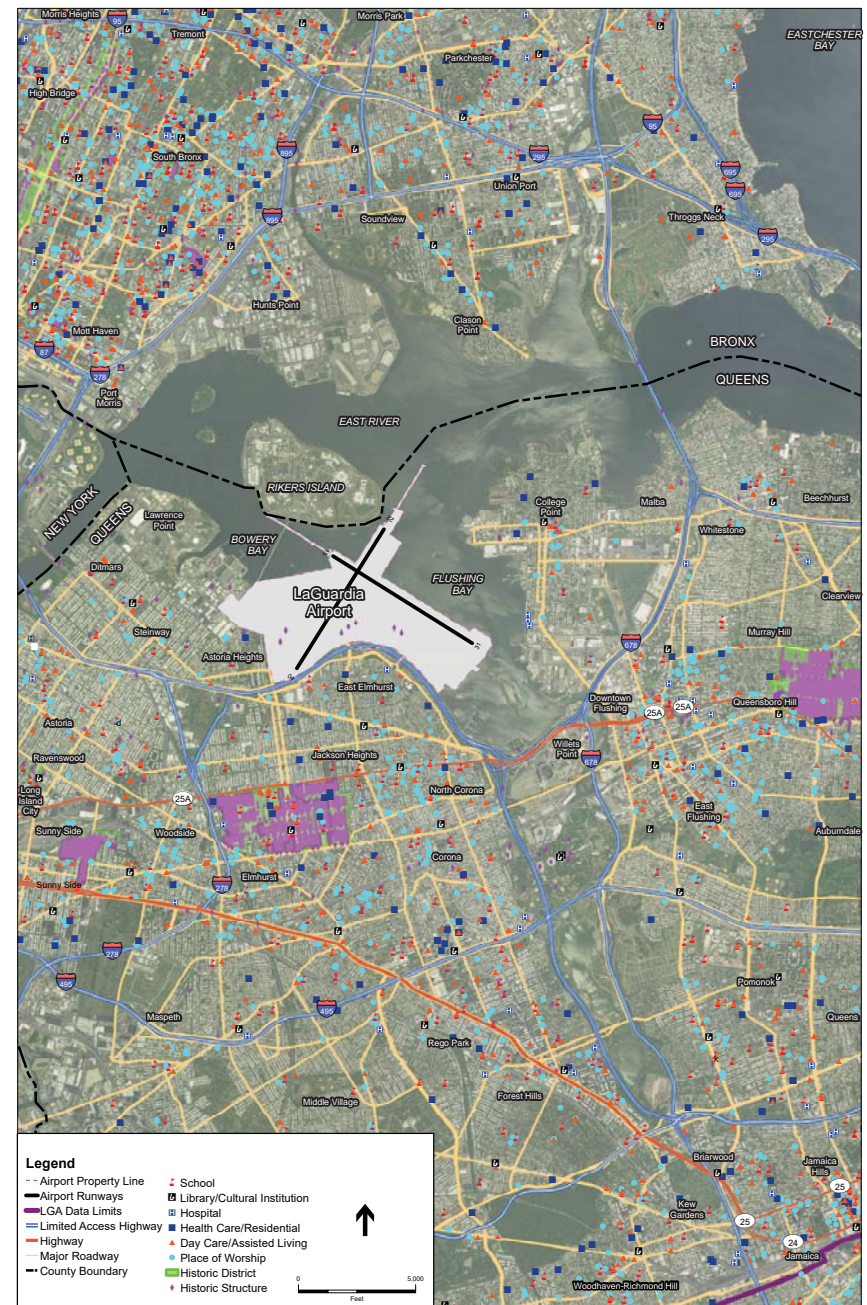
2021 DNL Contours for LaGuardia Airport
 PRELIMINARY DRAFT FOR INTERNAL REVIEW - SUBJECT TO CHANGE



SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2016; ESA Airports 2015; ESRI Mapping Services

LaGuardia Airport 14 CFR Part 150 Study - 140037
Figure 3-1
 Generalized Existing Land Uses
 LaGuardia Airport

PRELIMINARY DRAFT FOR INTERNAL REVIEW – SUBJECT TO CHANGE



SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2016; ESA Airports 2015; ESRI Mapping Services

LaGuardia Airport 14 CFR Part 150 Study - 140037
Figure 3-2
 Noise Sensitive Sites
 LaGuardia Airport

PRELIMINARY DRAFT FOR INTERNAL REVIEW – SUBJECT TO CHANGE

Technical Advisory Committee
Meeting #8
Meeting Summary

Technical Advisory Committee No. 8
14 CFR Part 150 Study – LaGuardia Airport
August 16, 2016 – 1:00 PM to 4:00 PM
Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Andrew Brooks	FAA – Airport Division
David Sanchez	FAA – NY ADO
Laura Stensland	FAA – LGA Tower
Debbie Bearden	NY Airport Liaison
Mark Buttice	Nassau County Planning
Marilyn Chapoteau	New York Community Aviation Roundtable
Scott Solomon	NYC DCP
David Hopkins	NYC Economic Development Corp (EDC)
Charles Shamoon	NYCDEP
Stacey Gilbert	PANYNJ
Ed Knoesel	Port Authority of NY & NJ (PANYNJ)
Kelly Mitchell	PANYNJ
Ian Van Praagh	PANYNJ
Adeel Yousuf	PANYNJ

Jasmine Narang	Queens Borough President
Zendra Spence	Sheltair
Neal Stone	Town of North Hempstead
Len Schaier	Town of North Hempstead / Quietskies.net

Public	
Name	Representing
Michael Kroposki	Ridgefield, CT
Eric Raboin	The Jones Payne Group
Diane Carter	The Jones Payne Group

Elected Officials/Staff and Media	
Name	Representing
Rebecca Sheehan	Senator Avella
Ryan Brady	Queens Chronicle

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Mike Arnold	ESA Airports
Chris Sequeira	ESA Airports
Maura Fitzpatrick	FHI
Stacy Graham-Hunt	FHI
Ryan Walsh	FHI
Mike Alberts	KB Environmental
Dave Rickerson	Kimley-Horn
Andra Horsch	Nicholas Lence

Josh Knoller	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members and noted that the last TAC meeting focused on the Noise Exposure Maps (NEMs) for 2016 and 2021, which the group will discuss further at today's meeting.

Ryan Walsh (FHI) served as the meeting's facilitator and also welcomed the TAC members. He noted that two display boards were at the front of the room. The first board showed land use in the study area and noise-sensitive sites, while the second board showed the DNL 65, 70, and 75 dBA contours for 2016 and 2021. These displays were intended for TAC members to review at the end of the meeting.

Mr. Walsh then asked attendees to introduce themselves. He then reviewed the purpose and objectives of the TAC as well as his role as facilitator.

Steve Alverson (ESA Airports) reviewed the meeting agenda.

Port Authority Update on the CTB and Perimeter Rule

Ed Knoesel (PANYNJ) provided an update on the Central Terminal Building (CTB) construction and the status of the Perimeter Rule. He said there are numerous parking lot and roadway closures near the CTB and that airport visitors are being encouraged not to drive to the airport until western parking garage construction work is complete. Demolition is ongoing, and the project is on schedule. Traffic, however, presents an ongoing challenge. Mr. Knoesel said that there is no new development regarding any decision to lift the Perimeter Rule. He said that the Port Authority Commission has said that no decision would be made on the elimination of the Perimeter Rule without public input.

Review of Homework Assignment No. 6

Mike Arnold (ESA) reviewed the homework assignment from the last TAC meeting, which was to review the draft NEM contours and the measured vs. modeled noise values. He briefly discussed the 2016 preliminary draft DNL 65, 70, and 75 contours. Mr. Arnold explained that the contours for aircraft arrivals are longer and skinnier, while the contours for aircraft departures are wider and shorter. He then reviewed the differences between the 2016 and 2021

contours, pointing out that the change between the two years is driven by changes in fleet composition between 2016 and 2021.

Charles Shamoon (NYCDEP) asked whether the contour for 2021 was based on the latest performing aircraft. Mr. Arnold responded that the latest aircraft types are not in the Integrated Noise Model and so current aircraft that are presumably louder must be substituted, producing conservative contours for the year 2021. He added that all substitutions were approved by the FAA.

Present the Preliminary Draft Noise Exposure Analysis

The TAC members then received detailed maps of 2016 and 2021 contours overlaid on high resolution aerial imagery. These maps were created at the request of TAC members. Mr. Arnold reviewed where and how the 2016 and 2021 contours compared on these detailed maps.

Mr. Arnold then showed the preliminary draft contours for DNL 55 and 60 for informational purposes only. He demonstrated the significantly larger area that these lower DNLs cover. Information for the DNL 55 and 60 contours are included in one of the appendices to the LGA NEM Report for 2016 and 2021.

David Hopkins (NYCEDC) and Neal Stone (Town of North Hempstead) requested that the DNL 55 and 60 contours be presented overlaid on high-resolution land use maps. Kelly Mitchell (PANYNJ) responded that the study team was currently working on preparing materials that are required for the Part 150 study, which do not include the DNL 55 and 60 contours. She said the project team may present this supplemental information at the upcoming public workshops.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked the FAA to explain whether the Integrated Noise Model's modeling accuracy affects how FAA uses the DNL 65 contour line for the purposes of Part 150. Andrew Brooks (FAA) explained that the agency uses the contour line itself, rather than the contour line plus or minus a margin.

Mike Arnold (ESA Airports) then reviewed the comparison of measured and modeled aircraft noise for 2014 and 2015. Steve Alverson (ESA Airports) reminded the attendees of the caveats presented at the last TAC meeting as to why there are discrepancies between the 2014 and 2015 numbers, including the fact that for some of the sites, 2015 was an incomplete year. These caveats are documented in the presentations files for TAC Meeting No. 7, available at the Port Authority's LGA Part 150 Study website.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked how the team responded to discrepancies between the measured and modeled data. He added that the differences between the modeled and measured numbers can be wide, particularly at JFK. He asked what the discrepancy threshold would be for reviewing the assumptions that went into the model. Mr. Arnold (ESA Airports) explained that the discrepancies were within an expected range and that the modeling assumptions were reviewed as part of the quality assurance process. Mr. Arnold also reiterated the caveats associated with noise measurements.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked about the tolerance of the PANYNJ noise monitors. Adeel Yousuf (PANYNJ) responded that the monitors are Type 1 sound level meters with a tolerance of 1.5 decibels, which is required by the ANSI standard.

Mike Arnold (ESA Airports) then presented tables and charts showing the noise sensitive sites within the DNL 65+ for both 2016 and 2021. He explained how the team applied specific ratios of population within a census block to convert household numbers to population. Mr. Arnold also indicated that all but one of the historic resources within DNL 65+ are airport hangers.

David Hopkins (NYCEDC) asked whether the population of those incarcerated at Rikers Island is included in the population exposed to DNL 65+. Andrew Brooks (FAA) responded that prisoners are not included as they are considered a transient population, which is consistent with previous studies. Peter Byrne (VHB) added that Rikers Island was classified as an institutional land use.

Bill Huisman (Aviation Development Council) asked whether the houses of worship exposed to DNL 65+ are traditional buildings or store fronts. Mike Arnold (ESA Airports) said that they are a mixture of both.

Mike Arnold (ESA Airports) noted that the 2021 projections do not include developments at Willets Point or Sky View Parc, which would add approximately 17,000 to the count of population exposed to DNL 65+. Andrew Brooks (FAA) stated that these development sites are already within the previously published DNL 65 contour for CTB Environmental Assessment, so the developers should be aware of their need to include noise insulation in their construction. There were numerous questions from TAC members about the process by which a property owner could determine if their property was included in a published DNL 65 contour. Mr. Brooks explained that the local land use jurisdiction responsible for permitting would be the resource for this information. Mr. Brooks also pointed out that residences constructed after October 1st, 1998 are not eligible for federally-funded sound insulation if there were published noise contours available before the residence was constructed. Kelly Mitchell (PANYNJ) added that the developers of Willets Point and Sky View Parc are large scale developers who would be accustomed to gathering this information as part of their due diligence. In the case of Willets Point both the FAA and PANYNJ notified the developer that their location fell within the previous DNL 65 contour.

Rebecca Sheehan (Senator Tony Avella's office) suggested that the Department of Buildings (DOB) should have information on their computer system which could flag those properties that are within a published DNL 65 contour. Andrew Brooks (FAA) stated that this information is not currently part of the DOB database but could be proposed for the future as part of the Noise Compatibility Program (NCP).

David Hopkins (NYCEDC) asked if people moving into properties within the previously published DNL 65+ contour would be eligible to receive noise mitigation as part of the NCP. Steve Alverson (ESA Airports) said these properties would be ineligible for any federally-funded noise modifications. Andrew Brooks (FAA) added that property developers should be aware of and responsible for implementing noise mitigation, not the FAA.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked how a home builder would learn about the noise levels. Andrew Brooks (FAA) responded that home builders would learn about noise levels through the permitting process.

Charles Shamoon (NYCDEP) explained that people in southern Queens are requesting separate representation from northern Queens communities because they don't feel like they have the same aircraft noise issues. NYCDEP colleagues learned this information through routine community board meeting attendance.

Rebecca Sheehan (Senator Tony Avella's office) asked if there were affected property/population charts for DNL 55 and 60 contours, and if they could be created if they don't currently exist. Mike Arnold (ESA Airports) said that the land use information such as those parcels identified as "unclassified" has not been verified outside the 65 DNL contour. Verifying these uses would be a significant undertaking that is also beyond the project scope. Marilyn Chapoteau (NYCAR) stated that at a previous TAC meeting the Study Team had agreed to provide population information for the DNL 55 and 60 contours. Mike Arnold (ESA Airports) confirmed that the team would provide the census population data but not further information on land use for those contours. Steve Alverson (ESA Airports) confirmed that those numbers have already been produced and that there are roughly 600,000 people within the 55 DNL contour in both the 2016 and 2021 years, with a slight decline during that period.

Preliminary Draft LGA Noise Exposure Map (NEM) Report

Mike Arnold (ESA Airports) reviewed the contents of the preliminary draft LGA NEM Report, which was submitted to FAA on July 15, 2016. FAA comments are due August 19th, 2016. Steve Alverson (ESA Airports) added that once FAA's comments have been addressed, the Draft report will be released for public review via the study website and physical locations within New York.

Noise Compatibility Program (NCP) Overview

Steve Alverson (ESA Airports) provided an overview of the Noise Compatibility Program, which is the next phase of the study. It is during this phase that improvements to address noise levels are proposed. He explained that some of the proposed improvements may require additional analysis including environmental review or a 14 CFR Part 161 study before being adopted. If so, the FAA would note that the approval of that particular proposed improvement would be pending further review.

David Hopkins (NYCEDC) asked if noise-based airport access fees for aircraft would be considered discriminatory by the FAA. Steve Alverson (ESA Airports) said that a 14 CFR Part 161 study could be required to determine whether such fees could be implemented.

Len Schaier (Town of North Hempstead / QuietSkies.net) recommended the use of NextGen or other GPS technology for aircraft flight track dispersion headings as an NCP measure. Steve Alverson (ESA Airports) said that throughout the U.S. some navigation procedures use GPS

technology to determine headings for aircraft movements. Andrew Brooks (FAA) stated that a noise abatement flight path route, if identified as an improvement, would be approved as voluntary pending an environmental review.

Charles Shamoon (NYCDEP) asked if Newark Airport was using the Honeywell NextGen system, and if it is going well, whether a trial of the equipment could be used at an NYC airport. Tom Bock (PANYNJ) inquired as to whether Mr. Shamoon (NYCDEP) was speaking about Ground Based Augmentation System (GBAS). Mr. Bock (PANYNJ) then indicated that Newark Airport is the first location for GBAS equipment and that JFK is under consideration. Mr. Shamoon (NYCDEP) suggested that it would be helpful to have a member of FAA's technical staff participate in the TAC meetings. Andrew Brooks (FAA) stated that this was being discussed within the FAA.

Len Schaier (Town of North Hempstead / QuietSkies.net) noted that the study protocol limited the number of NCP recommendations to 10 for each airport. He asked where the suggestions for recommendations would originate. Steve Alverson (ESA Airports) responded that the ESA Airports team's scope of work limited the number of suggested improvements that would be modeled to 10, but that others could undergo a qualitative assessment for consideration. Criteria will be applied to determine which will be modeled based on expected return on investment. He added that suggested improvement would be gathered from the ESA Airports team, the TAC, and the public.

Rebecca Sheehan (Senator Tony Avella's office) asked about noise abatement using flight tracks and how to create a baseline for LaGuardia for comparison if no environmental review had been conducted of the TNNIS departure procedure. Andrew Brooks (FAA) stated that a noise analysis had been done and the FAA was able to proceed with a Categorical Exclusion under the National Environmental Policy Act. FAA is initiating a more robust community engagement effort even for some air traffic projects that qualify for Categorical Exclusion designations. This community engagement effort will include notifying elected officials, New York Community Airport Roundtable (NYCAR) members, and others to make sure there is awareness of the projects.

Public Workshop Schedule

Steve Alverson (ESA Airports) reviewed the schedule for the upcoming public workshop on September 29 from 6 P.M. to 9 P.M. at the New York LaGuardia Airport Marriott. Kelly Mitchell (PANYNJ) stated that parking would be free with a validated parking ticket. She added that TAC members are welcome but not required to attend as they have already reviewed the information that will be presented.

Andrew Brooks (FAA) requested that TAC members make every effort to spread the word about this meeting to their organizations. Kelly Mitchell (PANYNJ) added that the meeting would be publicized via the website, email list, notifications to elected officials, and notifications to NYCAR members.

Charles Shamoon (NYCDEP) recommended that notifications be sent to Community Boards as well, and Ian Van Praagh (PANYNJ) stated that he would do so.

Project Schedule

Steve Alverson (ESA Airports) reviewed the project schedule for the NEM phase and the NCP phase. He stated that the schedule assumes a 30-day FAA review period for the Final LGA NEM Report and a 180-day FAA review period for the Final LGA NCP report.

TAC Homework Assignment No. 7

Steve Alverson (ESA Airports) reviewed the next homework assignment, which is to review the preliminary draft noise exposure analysis and the NCP overview, and then bring questions to the next TAC meeting.

Future TAC Meeting Dates

Steve Alverson (ESA Airports) stated that the next confirmed meeting date is Thursday, October 20 from 1-4 P.M. This differs from the usual Tuesday schedule. The meeting following that one is tentatively set for Tuesday, December 13 from 1-4 P.M.

Mr. Alverson added that the next meeting would focus on the NCP and the FAA's comments on the draft LGA NEM Report.

TAC Comments

Ryan Walsh (FHI) then asked if TAC members had any additional comments or questions.

Len Schaier (Town of North Hempstead / QuietSkies.net) asked about projecting changes in flight tracks from 2014 to 2021 and how changes between 2014 and now in the airspace would be addressed. Andrew Brooks (FAA) responded that the study team met with FAA Air Traffic Control (ATC) and no adjustments were made as there was not enough detail available. FAA is talking internally about what changes could take place between now and 2021 that would affect the New York Part 150 studies.

Charles Shamoon (NYCDEP) stated that Heathrow Airport has achieved a 6% improvement in noise by imposing a different pricing structure on aircraft based on their noise levels.

Len Schaier (Town of North Hempstead / QuietSkies.net) referred to Slide 17 and asked for clarification of the table column heading 2014 Measured DNL (Average). Steve Alverson (ESA Airports) explained that the table compares the 2015 12-month modeling results with 2014 monitored data that is missing some months. This is one reason for certain discrepancies.

Charles Shamoon (NYCDEP) asked whether any noise measurements would be conducted after the implementation of NCP measures. Steve Alverson (ESA Airports) replied that yes, the PANYNJ has its existing monitoring program and that changes in noise level would be recorded.

Public Comments

Mike Kroposki asked if there was a change in the tolerance setting in the INM to develop the contour images. Steve Alverson (ESA Airports) stated that they used the highest setting.

Mike Kroposki asked about the user-defined profiles from the radar tracks. Steve Alverson (ESA Airports) suggested that he review prior TAC meeting presentations on the website that have covered this information. The ESA Airports team started with radar information and then compared this information with default data in the INM. The ESA Airports team then developed user-defined altitude and speed profiles for certain aircraft, consistent with radar information, and then received FAA and airline acceptance of the user-defined profiles to use in the INM.

Mike Kroposki asked whether heavier aircraft with a slower climb rate were accounted for in the assignment of stage length to weight categories. Steve Alverson (ESA Airports) said the ESA Airports team learned that the majority of airlines are using reduced take-off thrust to reduce fuel use and that many of the aircraft are also heavier than the INM weights for certain stage lengths, causing a shallower climb profile. The ESA Airports Team accounted for this information during the noise modeling. Further details are provided in the appendices of the LGA NEM Report.

Adjournment

Ryan Walsh (FHI) adjourned the meeting and thanked all attendees for their participation.

Appendix H-9
Technical Advisory Committee
Meeting #9
October 20, 2016

Technical Advisory Committee
Meeting #9

Meeting Notice and
Attendance Roster

THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF NINTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

LGA Technical Advisory Committee Meeting

DATE: Thursday October 20, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

JFK Technical Advisory Committee Meeting

DATE: Wednesday, October 19, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

JFK TAC Meeting #9 October 19, 2016

First	Last	Representing	Alternates	Primary	Alternate
Steve	Alverson	ESA Airports		✓	
Mike	Arnold	ESA Airports		✓	
Debbie	Bearden	NY Airport Liaison	Sal Debono	✓	
Arnold	Bloch	FHI			
Andrew	Brooks	FAA - Airport Division	Lindsay Butler		
Barbara	Brown	New York Community Aviation Roundtable (NYCAR)	Patrick Evans	✓	
Rich	Burkhardt	Air Cargo		✓	
Peter	Byrne	VHB		✓	
Chung	Chan	NYC Department of Environmental Protection (NYCDEP)	Charles Shamoon	✓	
Stephen	Everett	NYC Department of City Planning	Scott Solomon		✓
Maura	Fitzpatrick	FHI		✓	
Sophia	Ganosis	Queens Chamber of Commerce			
April	Gasparri	Port Authority			
Robert	Goldman	Delta Airlines	Mark Hopkins	✓	
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guido	FAA - TRACON	Ed Kelley		
Jennifer	Hogan	VHB		✓	
David	Hopkins	NYC Economic Development Corp	Alvin		
Andra	Horsch	Nicholas Lence		✓	
Bill	Huisman	Aviation Development Council		✓	
Adrian	Jones	ESA Airports			

Steve	Kapsalis	FAA - NY ADO	Suki Gill	✓	✓
Ed	Knoesel	Port Authority		✓	
Natalia	Kozikowska	Nicholas Lence			
Kendall Kevin	Lampkin Seunig	Town of Hempstead			
Michael	Levine	Town of North Hempstead	Neal Stone		✓
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Robert	McAdams	Shelt Air	Eugene Pereira		
Kelly	Mitchell	Port Authority			
Rob	Mitchell	Jet Blue	Jeffrey Goodell		
Mike	Moran	Port Authority			
Glenn	Morse	United Airlines			
Christyne	Nicholas	Nicholas Lence			
Susan	O'Donnell	VHB			
Teresa	Rizzuto	Port Authority			
David	Sanchez	FAA - NY ADO			
Sean	Sallie	Nassau County Planning	Mark Buttice		✓
Len	Schaier	Town of North Hempstead	Marilyn Chapoteau		✓
John	Selden	Port Authority		✓	
David	Siewart	FAA - JFK Airport Traffic Control Tower)	Claude Viera	✓	✓
Clyde	Vanel	Eastern Queens Alliance		✓	
Ian	Van Praagh	Port Authority			
Elisa Sasmir	Velasquez Vara	Queens Borough President	Jack Liebler ✓		
Ryan	Walsh	FHI			
Adeel	Yousuf	Port Authority			

TRACON

Stacy Gilbert

Port Authority

Technical Advisory Committee Meeting #9
October 19, 2016 (1:00 p.m. – 4:00 p.m.)
JFK Airport

[illegible]

Technical Advisory Committee
Meeting #9

Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 9
14 CFR Part 150 Study – LaGuardia Airport

Thursday, October 20, 2016

1:00 PM to 4:00 PM EDT

1. Port Authority Update on the CTB and Perimeter Rule
2. Previous TAC Meeting Highlights
3. Review Homework Assignment No. 7 – Preliminary Draft Noise Exposure Analysis, Noise Compatibility Program (NCP) Overview
4. LGA NEM Report Status
5. Importance of TAC Involvement During the NCP Phase
6. Required Elements of an NCP
7. Existing LGA Noise Control Measures
8. Review the Project Schedule
9. TAC Homework Assignment No. 8
10. Future TAC Meeting Dates
11. Public Comment
12. Adjourn

Welcome!

LaGuardia Airport Title 14 Code of Federal Regulations Part 150 Study Technical Advisory Committee Meeting No. 9

October 20, 2016

LA GUARDIA AIRPORT

THE PORT AUTHORITY
OF NY & NJ

1

LaGuardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 9

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

Meeting Agenda

- Port Authority Update on the CTB and Perimeter Rule
- Previous TAC Meeting Highlights
- Review Homework Assignment No. 7 – Preliminary Draft Noise Exposure Analysis, Noise Compatibility Program (NCP) Overview
- LGA NEM Report Status
- Importance of TAC Involvement During the NCP Phase
- Required Elements of an NCP

Meeting Agenda (Continued)

- Existing LGA Noise Control Measures
- Review the Project Schedule
- TAC Homework Assignment No. 8
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

Port Authority Update on the CTB and Perimeter Rule

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Previous TAC Meeting Highlights

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 7

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

Review TAC Homework Assignment No. 7

- Review preliminary draft noise exposure analysis
- Review noise compatibility program overview
- Bring your questions to the next TAC meeting

ESA Study Team

9

THE PORT AUTHORITY
OF NY & NJ

LGA NEM Report Status

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LGA Noise Exposure Map (NEM) Report Update

- The Preliminary Draft LGA NEM Report was submitted to the FAA on July 15, 2016
- The Draft LGA NEM Report was released to the public on September 23, 2016
 - Available online at http://panynjpart150.com/LGA_DNEM.asp
 - Available in print at:

LaGuardia Airport, Hangar 7 Center, 3 rd Floor Flushing, NY 11371 Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)	Flushing Branch – Queens Library 41-17 Main Street Flushing, NY 11355
Jackson Heights Branch – Queens Library 35-51 81 Street Jackson Heights, NY 11372	
- The public comment period began on September 23 and concludes on October 24, 2016 at 5:00 P.M. Eastern Time

Draft LGA NEM Public Workshop

- The Draft LGA NEM Report public workshop took place on September 29, 2016, at the New York LaGuardia Airport Marriott
- Questions / comments from the TAC on the public workshop

Importance of TAC Involvement During the NCP Phase

ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

Importance of TAC Involvement During the NCP Phase

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory but TAC involvement in the NCP phase is key for a successful NCP
 - Recommend NCP measures
 - Provide subject matter expertise
 - Advise organization and/or constituents of NCP discussions
 - Solicit feedback from organization and/or constituents

ESA Study Team

14

THE PORT AUTHORITY
OF NY & NJ

Importance of TAC Involvement During the NCP Phase (Continued)

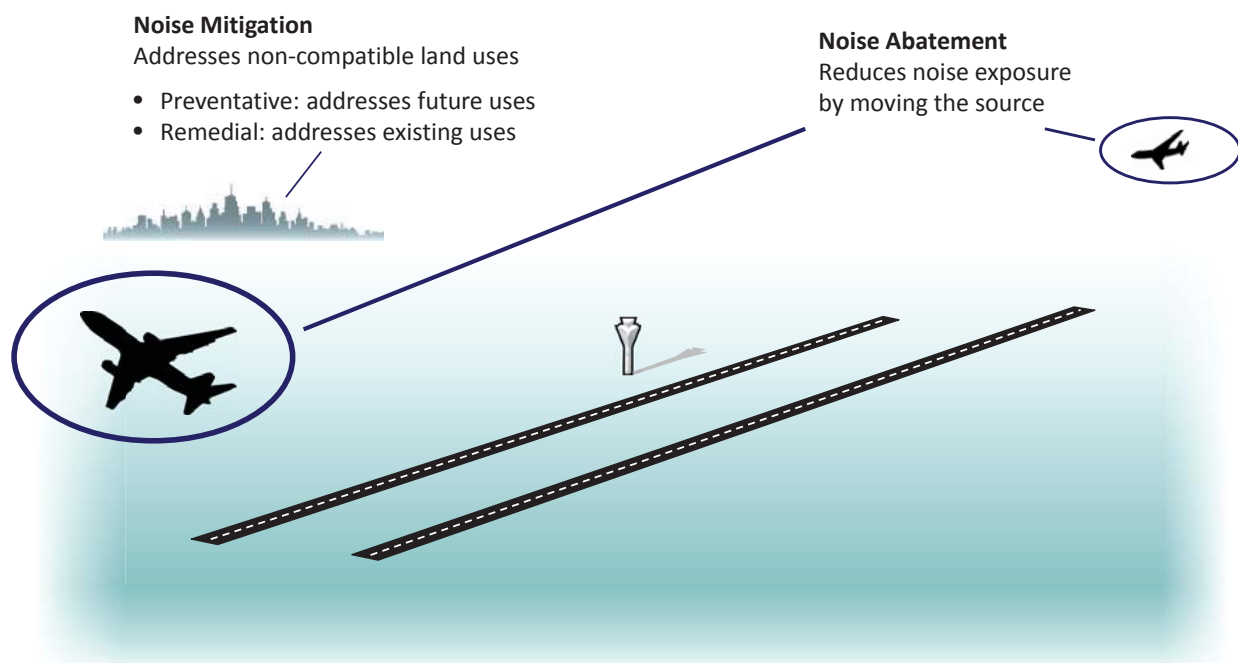
- **14 CFR Part 150, Section 150.23 requires consultation with the following stakeholders during NCP development:**
 - **FAA regional officials**
 - **Officials of the state and of any public agencies and planning agencies that have any area of jurisdiction within the DNL 65**
 - **Other Federal officials having local responsibility of land uses in an NEM**
 - **Aircraft operators using the airport**
- **Most of the stakeholders listed above are members of the LGA TAC**
- **Section 150.23 also requires that the general public be given an opportunity to submit “views, data, and comments” on the NCP**

Required Elements of an NCP

Required Elements of an NCP – Overview

- The NCP explores operational, land use, and administrative measures to minimize aircraft noise exposure
- The FAA reviews entire NCP for completeness
 - Technical, policy, effectiveness review
- The NCP Report must include a provision for revising the NCP if made necessary by a revision of the Noise Exposure Map
- FAA has 180 days to review the NCP
- During its review, the FAA will respond as follows for each measure:
 - Approved
 - Disapproved
 - Approved or disapproved in part
 - No action (only relevant for NCP measures involving flight procedures)

Distinction Between Noise Abatement and Noise Mitigation



NCP Measures That Are Required to Be Considered (14 CFR Part 150, Section B150.7)

Noise Abatement	Noise Mitigation
Preferential runway system	Property acquisition and avigation easements
Noise abatement flight procedures and flight tracks	Noise barriers and acoustical shielding
Aircraft operating restrictions based on noise characteristics*	
Other actions to control or abate noise recommended by stakeholders	
Other actions recommended for airport-specific analysis by the FAA	

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

ESA Study Team

19

THE PORT AUTHORITY
OF NY & NJ

All NCP Measures Must Consider:

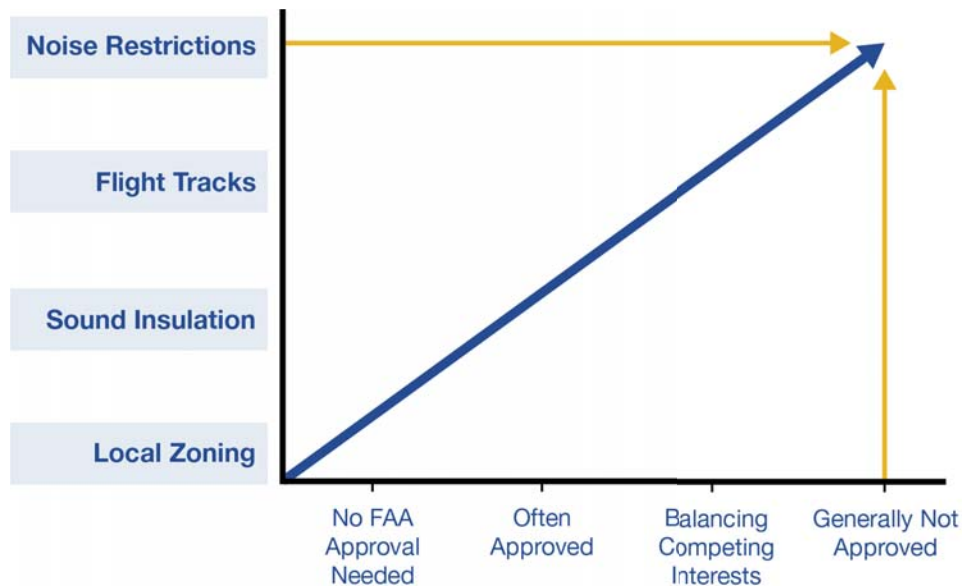
- Reduction of existing incompatible land use and prevention / reduction of future incompatible land use
- Safety and efficiency
- Consistency with the powers and duties of the FAA
- Avoidance of unjust discrimination against certain aircraft types
- Interstate commerce
 - Measures cannot impose an undue burden on interstate commerce (requires balancing of interests)
- The ability to meet both local needs and national air transportation system needs

ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

Obtaining FAA Approval of NCP Measures

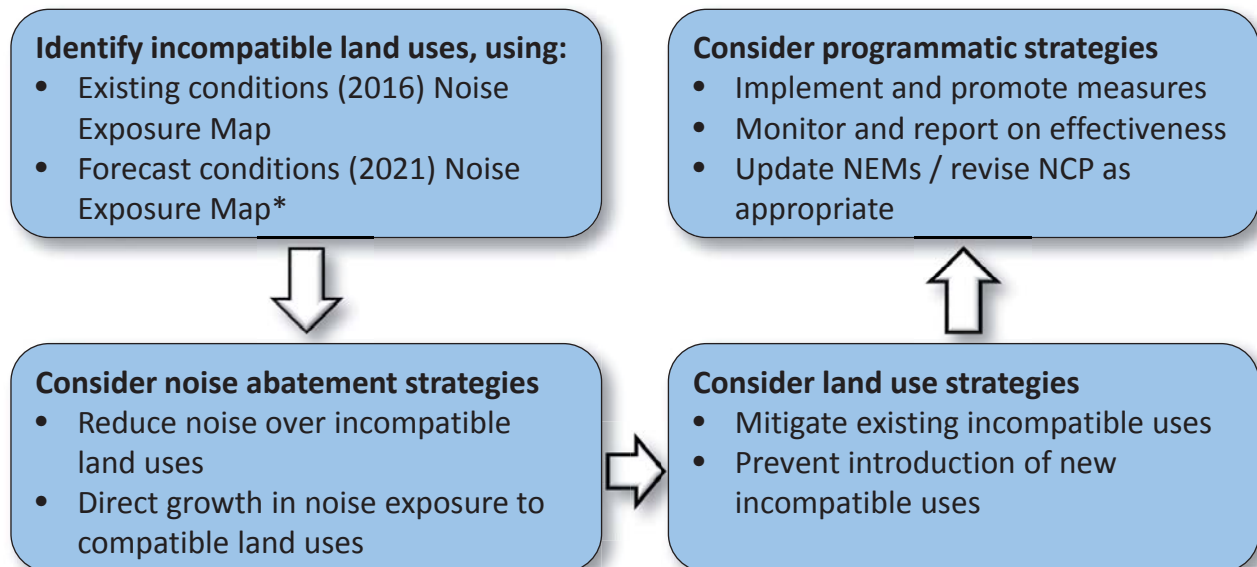


ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

NCP Development Process



* NCP measures are focused toward forecast conditions.

ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

Major NCP Strategy Options within Each Category

Noise Abatement

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Runup enclosures
- Use restrictions*
- Other actions proposed by stakeholders

Land Use

- Remedial Mitigation
 - Land acquisition
 - Sound insulation
 - Avigation easements
- Preventative Mitigation
 - Land use controls
 - Zoning
 - Building codes
 - Comprehensive plans
 - Real estate disclosures
- Other actions proposed by stakeholders

Programmatic

- Implementation tools
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM update
- NCP revision
- Other actions proposed by stakeholders

NCP Report must document reasons why “required” measures were not recommended

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

Analysis of Each Strategy

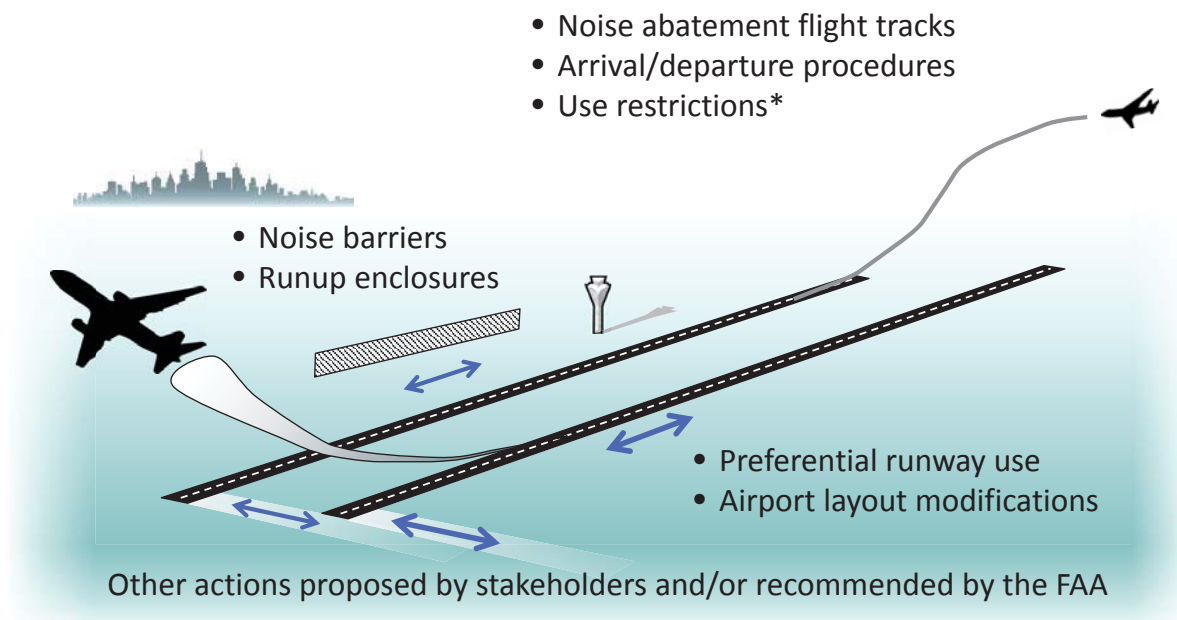
- Evaluate effectiveness of each measure in addressing objectives
 - The FAA will not approve NCP measures that do not reduce exposure to noise of DNL 65 and higher
- Evaluate feasibility (operational, safety, economic, etc.)
- Select preferred measures
- Identify implementation schedule, responsibilities, budget, funding sources, etc.
- If not recommended, document reasons

ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

Types of Noise Abatement Strategies



* Subject to further notice, review, and approval requirements in 14 CFR Part 161

ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

Standard Evaluation Criteria for Noise Abatement Measures

- Level of noise reduction
- Effects on airfield capacity and aircraft delay
- Effects on airspace/air traffic control procedures
- Consistency with FAA safety and other standards
- Other environmental effects
 - National Environmental Policy Act (NEPA) review may be required
- Operational effects and costs
- Financial feasibility
- Consistency with policies adopted by Airport Proprietor

ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

Noise Abatement Strategies – Challenges for LGA

- Opportunities to revise LGA airspace and flight procedures are constrained by operational requirements of multiple other airports in the New York / New Jersey area
 - Airspace and flight procedures are structured to minimize impacts of one airport upon another
- Opportunities to change LGA's runway configuration (i.e., directions of takeoffs and landings) and runway use are also constrained by operational requirements of other airports
 - Generally, LGA's runway configuration is dictated by JFK's runway configuration

Types of Land Use Strategies

Remedial Mitigation

- Land acquisition
- Sound insulation
- Avigation easements

Preventative Mitigation

- Land use controls
- Zoning
- Building codes
- Comprehensive plans
- Real estate disclosures



Other actions proposed by stakeholders and/or recommended by the FAA

Land Use Strategies – Challenges for LGA

- Much of the land area around LGA is already developed
 - Limited opportunities to protect open space
- Residential areas within the 2016 and 2021 DNL 65 and higher contours are mature and densely populated
- Areas outside DNL 65 are not eligible for federally-funded sound insulation

Types of Programmatic Strategies

- Reporting
- NEM update
- NCP revision
- Implementation tools
- Promotion, education, signage
- Monitoring

Other actions proposed by stakeholders and/or recommended by the FAA

Programmatic Strategies – General Challenges for Airports

- Funding is required to implement and continue programmatic strategies
- Programs must be effectively staffed
- These challenges are not unique to LGA

Existing LGA Noise Control Measures

Existing LGA Noise Abatement Strategies

- In 1959, the Port Authority established a departure noise limit of 112 Perceived Noise Decibels (PNdB)
 - PNdB expresses the perceived loudness of an individual aircraft noise event
- To enforce the noise limit, the Port Authority installed the world's first airport noise monitoring system
 - Consisted of 11 permanent noise monitors in total; distributed near LGA, JFK, and Newark Liberty International Airport (EWR)
 - The original installation did not correlate noise levels with individual aircraft operations; this had to be done manually until a 1992 upgrade added flight tracking
- There is no monetary penalty for LGA departures that exceed the noise limit

Existing LGA Noise Abatement Strategies (Continued)

- In 1985, the Port Authority prohibited the use of Stage 1 aircraft at JFK, LGA, and EWR
 - “Stage 1” aircraft are aircraft that do not meet the FAA noise standards in 14 CFR Part 36, Section B36.5(b)
- In 1989, the Port Authority prohibited the scheduling of additional nighttime flights of Stage 2 aircraft at JFK, LGA, and EWR
 - “Stage 2” aircraft are aircraft that met the FAA noise standards in 14 CFR Part 36, but were only slightly less noisy than Stage 1 aircraft
- Passage of the Airport Noise and Capacity Act of 1990 (ANCA) subsequently prohibited operation of Stage 1 and Stage 2 aircraft with a maximum weight above 75,000 pounds within the United States after December 31, 1999

Existing LGA Noise Abatement Strategies (Continued)

- The passage of the Airport Noise and Capacity Act of 1990 (ANCA) also prevented the Port Authority from establishing additional restrictions on Stage 2 (or Stage 3) aircraft in flight
- The FAA Modernization and Reform Act of 2012 (FMRA) prohibits operation of Stage 1 and Stage 2 aircraft with a maximum weight of 75,000 pounds or lower within the 48 contiguous United States after December 31, 2015
- The Port Authority promotes a voluntary midnight – 6 A.M. departure restriction at LGA
 - This voluntary restriction has been in use since it was established by the Port Authority in the 1980s
- Noise barrier along Marine Terminal Rd., Ditmars, and 81st St.

Existing LGA Noise Abatement Strategies (Continued)

- In 1984, the Port Authority instituted a “perimeter rule” in 1984 that prohibits nonstop flights from LGA to cities more than 1,500 statute miles away with the exception of Denver, Colorado
 - Utilize LGA as New York’s short-haul airport
 - Denver was the only city more than 1,500 miles away with nonstop LGA flights in 1984
- 14 CFR Part 93.123 limits the hourly number of allocated aircraft operations (slots) at LGA to 71 scheduled operations per hour and three unscheduled operations per hour
 - Original LGA slot limits were established by the FAA in January of 2001
 - This is a congestion mitigation measure
 - This limit applies Monday-Friday 6:00 A.M. to 9:59 P.M. and Sundays 12:00 P.M. to 9:59 P.M.

Existing LGA Noise Abatement Strategies (Continued)

- **New York Terminal Radar Approach Control (TRACON) Standard Operating Procedures document*** contains noise abatement procedures
 - These procedures are to be followed “when traffic, weather, and workload permit”
- **The LGA noise abatement procedures include, but are not limited to:**
 - Preferred departure and arrival procedures
 - Preferred runway configurations between 10 P.M. and 6:30 A.M.
 - Procedures for routing aircraft making uncharted visual approaches
 - Noise abatement dispersal headings for Runway 31 departures

* FAA Order N90 7110.1D, February 15, 2016.

ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

Existing LGA Land Use Strategies

- **The Port Authority has insulated 21 schools in the vicinity of LGA**
- **Expenditures have exceeded \$128 million, paid for in part with FAA grants**

	School	City	Completion Year
1	I.S. 52X	Bronx	2001
2	Our Lady of Fatima	Jackson Heights	1989
3	P.S. 120Q	Flushing	1989
4	P.S. 143Q	Corona	1990
5	P.S. 161X	Bronx	1992
6	P.S. 165Q	Flushing	1992
7	P.S. 219Q	Flushing	1991
8	P.S. 62X	Bronx	1995
9	St. Ann	Flushing	2001
10	St. Sebastian	Woodside	1998

SOURCE: Port Authority, 2015. New York City Department of Education, 2016. National Center for Education Statistics, 2016.

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

Existing LGA Land Use Strategies (Continued)

	School	City	Completion Year
11	College of Aeronautics (Vaughn)	Flushing	2012
12	John Bowne High School	Flushing	2010
13	Lexington School for Deaf	Jackson Heights	2007
14	Monsignor McClancy Memorial High School	East Elmhurst	2010
15	P.S. 146B	Bronx	2009
16	P.S. 5X	Bronx	2009
17	Samuel Gompers Vocational School	Bronx	2010
18	St. Anselm	Bronx	2010
19	St. Athanasius	Bronx	2010
20	St. Michael – Most Holy Redeemer	Flushing	2010
21	St. Pius V (Elementary)	Bronx	2007

SOURCE: Port Authority, 2015. New York City Department of Education, 2016. National Center for Education Statistics, 2016.

Existing Port Authority Programmatic Strategies

- Port Authority Noise Office with dedicated staff
- Noise abatement website, at <http://www.panynj.gov/airports/aircraft-noise-information.html>
- Airport Noise and Operations Management System (ANOMS)
- Noise complaint management and mapping system by PlaneNoise Inc.
 - Noise complaint reports are provided to the FAA on a monthly basis
- WebTrak flight tracker, at <http://www.panynj.gov/airports/webtrak.html>

Existing Port Authority Programmatic Strategies (Continued)

- Interaction with communities and elected officials
- Communication with:
 - Queens Aviation Advisory Council
 - Town Village Aircraft Safety and Noise Abatement Committee (TVASNAC) (Nassau County)
 - Newark Liberty International Airport Community Roundtable (NLIACR)
 - Teterboro Aircraft Noise Abatement Advisory Committee (TANAAC)

ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

Discuss TAC Members' Initial Ideas for NCP Measures

ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

Review the Project Schedule

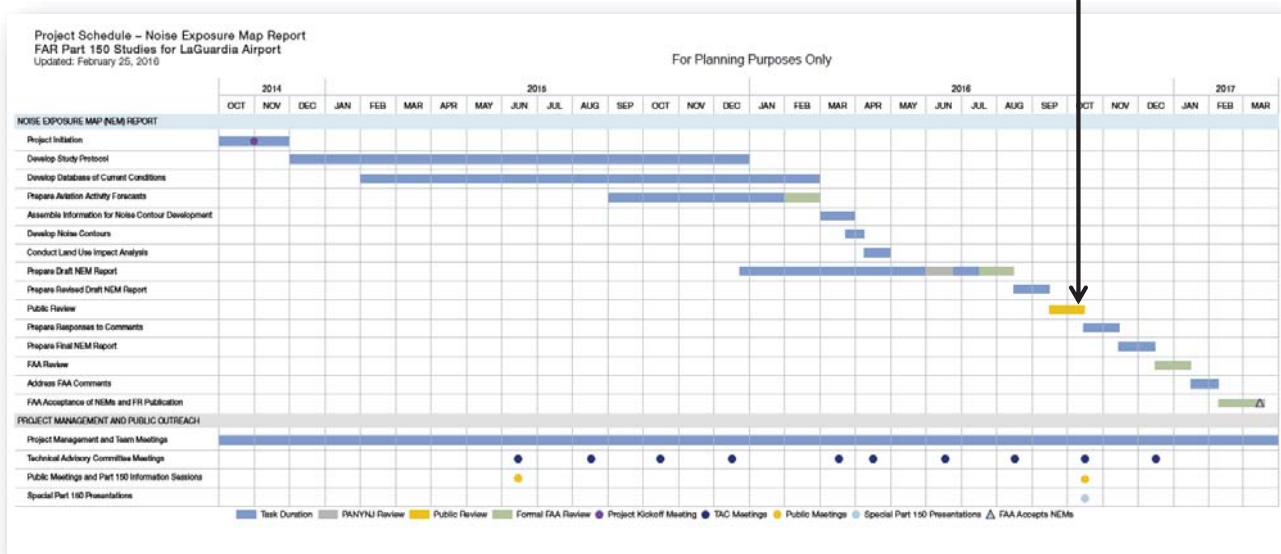
ESA Study Team

43

THE PORT AUTHORITY
OF NY & NJ

Review the NEM Schedule

We Are Here

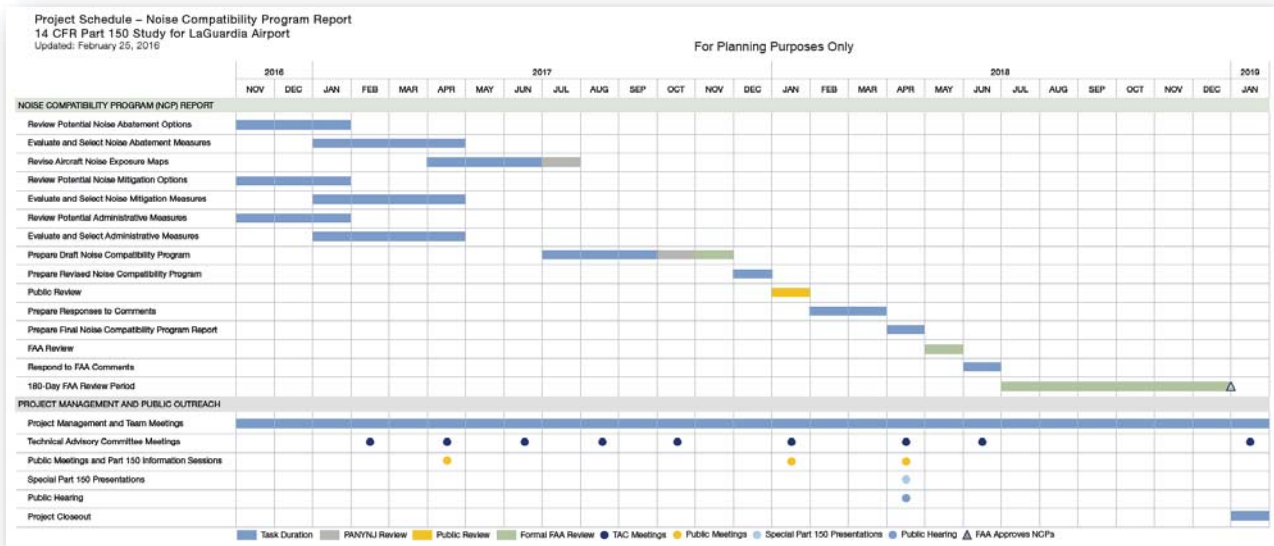


ESA Study Team

44

THE PORT AUTHORITY
OF NY & NJ

Review the NCP Schedule



The Final NCP is expected to be submitted to the FAA for review and approval in mid-2018.

ESA Study Team

45

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 8

ESA Study Team

46

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 8

- Review existing LGA noise control measures
- Bring questions and NCP recommendations to the next TAC meeting

Future TAC Meeting Dates

Meeting Dates for TAC Meetings 10 and 11

- **CONFIRMED: TAC Meeting 10 – Thursday, December 15, 2016**
 - Time: 1 P.M. – 4 P.M.
 - Note that the meeting is on Thursday (instead of the usual Tuesday)
- **TENTATIVE: TAC Meeting 11 – Tuesday, February 14, 2017**

Preliminary Agenda for TAC Meeting No. 10

- **Port Authority Update on the CTB and Perimeter Rule**
- **Previous TAC Meeting Highlights**
- **Review Homework Assignment No. 8 – Existing LGA Noise Control Measures**
- **Discuss Potential LGA Noise Abatement Options**
- **Review the Project Schedule**

Preliminary Agenda for TAC Meeting No. 10 (Continued)

- **TAC Homework Assignment No. 9**
- **Future TAC Meeting Dates**
- **Public Comment**
- **Adjourn**

Public Comment

Adjourn

ESA Study Team

53

THE PORT AUTHORITY
OF NY & NJ

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

54

THE PORT AUTHORITY
OF NY & NJ

Technical Advisory Committee
Meeting #9
Meeting Summary

Technical Advisory Committee No. 9
14 CFR Part 150 Study – LaGuardia Airport
October 20, 2016 – 1:00 PM to 3:30 PM
Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Robert Goldman	Delta Airlines
Michael Lamprecht	FAA
Andrew Brooks	FAA – Airport Division
Laura Stensland	FAA – JFK Tower
David Sanchez	FAA – NY ADO
Steve McClain	FAA – NY TRACON
Mark Buttice	Nassau County Planning
Marilyn Chapoteau	New York Community Aviation Roundtable (NYCAR)
Scott Solomon	NYCDCP
David Hopkins	NYC Economic Development Corp (EDC)
Charles Shamoon	NYCDEP
Adeel Yousuf	PANYNJ
Ian Van Praagh	PANYNJ

Kelly Mitchell	PANYNJ
Shanel Thomas	PANYNJ
Stacey Gilbert	PANYNJ
Jack Leibler	Queens Borough President
Angelina Martinez-Rubio	Queens Borough President
Neal Stone	Town of North Hempstead
Len Schaier	Town of North Hempstead / Quietskies.net

Public	
Name	
Bryan Serra	Bayside, NY
Joyce Serra	Bayside, NY
Kevin Lung	Flushing, NY
Mark Wang	Flushing, NY
Rudy Luo	Flushing, NY

Elected Officials/Staff and Media	
Name	
Rebecca Sheehan	Senator Avella

Study Team	
Name	Representing
Steve Alverson	ESA Airports

Mike Arnold	ESA Airports
Maura Fitzpatrick	FHI
Ryan Walsh	FHI
Zainab Kazmi	FHI
Dave Rickerson	Kimley-Horn
Andra Horsch	Nicholas Lence
Natalia Kozikowska	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members and noted that the study is at the half way mark with the Public Draft NEM Report available for public review and comment and the NCP phase beginning.

Ryan Walsh (FHI) served as the meeting's facilitator and welcomed TAC members as well. He asked attendees to introduce themselves. He then reviewed the purpose and objectives of the TAC as well as his role as facilitator.

Steve Alverson (ESA Airports) reviewed the meeting agenda, adding that this meeting would have an agenda segment to hear back from TAC members with their suggestions for measures to consider in the Noise Compatibility Program (NCP). He briefly reported on an Aviation Noise Conference in San Diego that some of the study team members and Port Authority staff had attended to learn about the latest industry developments.

Update on CTP and Perimeter Rule

Kelly Mitchell (PANYNJ) provided an update on the Central Terminal Building (CTB) construction and the status of the Perimeter Rule, stating that there was nothing new to report on either item since the last TAC meeting.

Review of Homework Assignment No. 7

Mike Arnold (ESA Airports) reviewed the homework assignment from the last TAC meeting which was to review the Preliminary Draft Noise Exposure Analysis and Noise Compatibility Program (NCP) Overview. There were no questions from TAC members.

LGA NEM Report Status

Mike Arnold (ESA Airports) reviewed the LGA NEM Report status, which was submitted to FAA on August 23, 2016. He mentioned that we just held the draft NEM public information workshop on September 29, 2016.

Importance of TAC Involvement During the DCP Phase

Mike Arnold (ESA Airports) reviewed the importance of TAC involvement during the NCP Phase. He indicated that consultation with key stakeholders is both a statutory requirement of the 14 CFR Part 150 regulations and important to receiving critical local expertise. The TAC is in place to serve an advisory role to the study team, and to communicate discussions with their community and constituents.

Required Elements of an NCP

Mike Arnold (ESA Airports) reviewed the required elements of an NCP and the process by which FAA responds to the NCP recommendations by way of the Study Team's presentation slides.¹ He explained the distinction between Noise Abatement and Noise Mitigation measures.² He reviewed NCP strategies that fall into three categories: Noise Abatement; Land Use; and Programmatic or Administrative measures. He reviewed the evaluation criteria used to assess proposed noise abatement measures, and the specific challenges of applying these strategies at LGA. He explained that 14 CFR Part 150 requires that certain measures be reviewed and if a required element is not included in the NCP recommendations, there needs to be an explanation of why the element is not included.

Jack Leibler (Queens Borough President's Office) asked what constitutes non-compatible land use. Mike Arnold (ESA Airports) explained that this refers to any noise sensitive uses that are within the 65 DNL contour, such as residential, schools, and places of worship. Table 1 of Part 150 Regulation defines what is compatible. He added that there are not many schools within the LGA 65 DNL contour. Mr. Leibler asked if construction of a new school would be prohibited within the 65 DNL contour. Mr. Arnold explained that this would be a local zoning issue and not within FAA's jurisdiction to make that decision. If the local jurisdiction determines there is a compelling need, they may build the school and require sound level reduction. Steve Alverson (ESA Airports) added that the NCP could include the recommendation of an overlay zone. Mr. Leibler asked whether new construction of a non-compatible use within the 65 DNL contour would be eligible for FAA

¹ Available:

<http://panynjpart150.com/AdminPages/GetProjectFile.asp?a=LGA&f=LGA%20TAC%20Meeting%20No.%209%20Presentation%20-%20October%2020,%202016.pdf>

² Noise Abatement strategies seek to reduce noise at the source and include measures such as airport layout modifications, arrival/departure procedures, or noise barriers. Noise Mitigation strategies seek to reduce noise at the receiver and include measure such as land acquisition, sound insulation, and zoning.

noise mitigation funds, and Andrew Brooks (FAA) responded that this construction would be ineligible for FAA funds.

Len Schaier (Town of North Hempstead/QuietSkies.net) referred to a discussion at TAC Meeting No. 8 about whether land developers are obligated to look at the latest noise contour map to determine if they are building a noise sensitive use and whether it would be eligible for noise mitigation funding. Peter Byrne (VHB) responded that developers could find this information via the city permitting process. Mike Arnold (ESA Airports) suggested that the TAC consider recommending improvements to this process.

Jack Leibler (Queens Borough President's Office) asked what constitutes unjust discrimination. Mike Arnold (ESA Airports) stated that an example is restricting one particular aircraft type, rather than a broad spectrum.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that Part 161 regulations only apply to Stage 2 and 3 aircraft, and asked if the PANYNJ could use this to restrict Stage 4 and 5 aircraft as well. Andrew Brooks (FAA) explained that Part 161 regulations come up in this context because access restrictions are one of the required items to be considered in the NCP. FAA's interpretation is that Part 161 would only consider a Stage 3 restriction (Stage 2 aircraft are no longer in the fleet mix). Mr. Schaier suggested that a new rule be developed by FAA which would apply to later model aircraft.

Charles Shamoon (NYCDEP) stated that Heathrow Airport has reduced the landing fees for the Stage 4 aircraft and that media articles have cited a 7-15% reduction in noise with that incentive. He suggested that rather than doing a Part 161 study, incentives could be considered to modify the fleet mix. Mike Arnold (ESA Airports) stated that this suggestion could be added to the list of NCP recommendations.

Mark Buttice (Nassau County Planning) asked about the volume of residents who fall within the 65 DNL contour who could be eligible for noise mitigation funding and the amount of funding available. Mike Arnold (ESA Airports) responded that approximately 10,000 people fall within 65 DNL contour for LGA. Andrew Brooks (FAA) explained the process by which federal funding is appropriated and distributed, which fluctuates from year to year. He stated that the amount available annually for noise and air quality mitigation is usually \$350 million nationwide and that it is a competitive environment for seeking those funds. Dave Sanchez (FAA) added that these noise mitigation programs are generally funded over a number of years with the project sponsor requesting the full amount of the program.

Charles Shamoon (NYCDEP) asked if the active noise mitigation projects taking place at airports nationwide are listed on a website. Andrew Brooks (FAA) responded that the FAA website provides a summary of past years' activities in the environmental program site for FAA, but the information is only listed after funding is received/awarded.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked when evaluating noise mitigation methods whether health impacts and/or impacts on home values were criteria

used in the analysis. Mike Arnold (ESA Airports) responded that these were not evaluation criteria.

David Hopkins (NYCEDC) asked how revisions to flight paths would be dealt with under the National Environmental Policy Act (NEPA). Mike Arnold (ESA Airports) stated that the NCP could examine changes to flight tracks that would influence runway use and could impact noise contours. This would require additional steps for approval such as NEPA. Andrew Brooks (FAA) added that FAA approval of a recommend NCP measure does not automatically mean a measure will be implemented. The PANYNJ would submit these individual measures and there could be additional steps, following the record of approval. FAA makes the determination as to whether a NEPA review (and the level of NEPA review) is applicable. Going through the NEPA process can add 2-3 years to an implementation schedule. However, if the noise reduction strategy is straightforward, then the measure would likely go through an Environmental Assessment or Categorical Exclusion, which is less time consuming. Mike Arnold (ESA Airports) added that these implementation steps will be identified in the NCP.

Jack Leibler (Queens Borough President's Office) asked how the aviation easements would be used as mitigation. Mike Arnold (ESA Airports) responded that the easement is for the right of overflight that is most commonly secured in exchange for sound insulation or in exchange for development rights.

Jack Leibler (Queens Borough President's Office) asked whether comprehensive land use plans are the responsibility of the local municipality and whether there is any fine by FAA for violating a comprehensive plan by building in an area where development should not occur. Andrew Brooks (FAA) responded that local municipalities have jurisdiction over land use planning and the FAA does not get involved in local comprehensive land use planning. He continued that this is why the 14 CFR Part 150 process includes local municipal planners on the TAC.

Len Schaier (Town of North Hempstead/QuietSkies.net) asked for clarification about interior noise measurements of 45 dB in 65 DNL areas. Mike Arnold (ESA Airports) responded that determining the location of a building (i.e. within 65 DNL Contour) is the first step and the testing of noise levels inside a building follows.

Mark Buttice (Nassau County Planning) asked about the timeline for assessment of properties within the 65 DNL for 45 dB interior measurements. Steve Alverson (ESA Airports) responded that if sound insulation is part of the FAA-approved recommendations, then testing of the homes for >45 dB could begin within 6-12 months after the testing protocol is standardized.

Charles Shamoon (NYCDEP) asked about the average cost for insulating a home. Andrew Brooks (FAA) responded that this varies greatly depending on the size of the home and whether it is a historic property. Near LaGuardia there are mostly multi-family and mixed use buildings, so that is different from the types of properties in other cities. In Buffalo, the average cost is \$30-\$50K for a single family house. The Port Authority School

Soundproofing Program had costs in the range of \$25-\$30M per school for the latter entries in the program. Marilyn Chapoteau (NYCAR) stated that some homes in Howard Beach were insulated by the PANYNJ during the Air Train installation, so that agency may have data on those costs.

Charles Shamoon (NYCDEP) stated that his agency has a website available for residents to assess transient noise. It includes guidance for how to make “quick fix” improvements to one’s home to lower noise levels, such as from motorcycles. Steve Alverson (ESA Airports) cautioned that this type of self-treatment could render these homes ineligible for federal funds by decreasing the interior levels below 45 DNL.

Existing LGA Noise Control Measures

Steve Alverson (ESA Airports) presented the existing LGA noise abatement strategies. He pointed out that unlike at JFK, there are no penalties at LGA for aircraft that exceed the noise departure limit of 112 PNdB. At LGA, the PANYNJ promotes a voluntary midnight to 6 AM operational restriction. All schools in the 65 DNL contour for LGA have previously been sound insulated.

David Hopkins (NYCEDC) asked if there were any restrictions on arrivals at LGA after midnight. Steve Alverson responded that the voluntary restriction is only on departures. Robert Goldman (Delta) added that Delta Air Lines diverts quite a few arrivals to JFK due to delays beyond midnight hour as LGA closes runways.

David Hopkins (NYCEDC) asked if the FAA was contemplating a change to the slot rule for LGA. Andrew Brooks (FAA) responded that his understanding is that the LGA slot rule would be renewed through 2018 and there is no contemplation of changing it at this point. David Hopkins asked if a formal rule will be issued, since this rule is temporary. Andrew Brooks responded that he will look into this.

Len Schaier (Town of North Hempstead/QuietSkies.net) stated that the Request for Change in the Federal Register does not change the number of flights per hour. The last request was to get permission to change the rule on how to sell or trade slots among airlines.

NCP Strategy Suggestions from TAC Members

Steve Alverson (ESA Airports) led a discussion asking TAC members to provide ideas for the NCP under the three strategy categories. As a first step, the group reviewed the recommendations made at the JFK Part 150 TAC meeting the day before. He explained that at this stage it is fine if some of these recommendations are in conflict with others. These recommendations will go through a sensitivity analysis to assess their impacts on the noise contour map. This discussion is summarized below.

1. Noise Abatement

- Adoption of the International Civil Aviation Organization's (ICAO) Noise Abatement Departure Procedure 1 (NADP1) measures
- Make airspace more efficient through procedures/de-conflict the airspace, such as operational changes due to particular situations/weather conditions
- Departure paths consistent to limit exposure/maintain concentration of flights over a specific area and to a higher altitude quicker
- Increase the dispersion of arrival tracks on Runways 4 and 22
- Increase the flight track dispersion over northern Queens
- Explore opportunity for Equivalent Lateral Spacing Operations (ELSO)
- Concentrate either arrival or departure tracks over compatible land uses
- Develop more departure and arrival procedures (to provide additional options to air traffic controllers)
- Expedite returning to the preferential runway use system after a change in flow
- Establish a mandatory nighttime curfew
- Refine the time of runway openings to minimize early morning departures
- Use alternative airports including increased cargo to Stewart Airport
- Establish a preferential runway use system that would provide a respite to residents from constant overflights
- Provide automated feedback on runway use to the FAA to assist with the adherence to the preferential runway use system
- Coordinate airports in region to provide respite for the greater area
- Add a runway at LGA for potential noise benefit of placing aircraft operations over the water
- Require/provide incentive for airlines to install vortex generators on the A320 family of aircraft
- Provide refresher training for pilots regarding sensitivity to noise issues within the region
- Examine the potential for implementing Optimized Profile Descents (OPDs)

2. Noise Mitigation

- Examine installation of additional noise barriers
- Adopt an overlay zone that promotes compatible land use
- Provide sound insulation to residential properties
- Acquire noise impacted properties
- Provide aircraft noise information to landowners, add a notice on deeds, provide noise notices to real estate agents/home buyers in high noise areas (Notice of Disclosure)
- Develop a map overlay layer with the 65 DNL contours in GIS
- Consider building code revisions for new construction; consideration of noise insulation requirements within the 65 DNL

- Install noise-reducing landscaping

3. Programmatic Measures

- Lower landing fee for quieter aircraft/incentives for use of quieter aircraft
- Add more noise monitors throughout the area - Queens/Nassau County
- Implement a Fly Quiet Program
- Implement an NAPD on a runway-by-runway basis

Project Schedule

Steve Alverson (ESA Airports) reviewed the project schedule for the NEM phase and the NCP phase.

TAC Homework Assignment No. 8

Steve Alverson (ESA Airports) reviewed the next homework assignment which is to review the existing LGA noise control measures, and bring questions and additional NCP recommendations to the next TAC meeting.

Future TAC Meeting Dates

Steve Alverson (ESA Airports) stated that the next confirmed TAC meeting date is Thursday, December 15 from 1-4 PM. The TAC meeting following that one is tentatively set for Tuesday, February 14, 2017.

Mr. Alverson added that the next TAC meeting would focus on the potential LGA noise abatement options.

TAC Comments

Ryan Walsh (FHI) then asked if TAC members had any additional comments or questions.

Mark Buttice (Nassau County Planning) stated that cemeteries should be considered when looking at compatible land uses.

Public Comments

Ryan Walsh (FHI) then opened the floor for questions and comments from members of the public in attendance.

Rudy Luo expressed concern about aircraft over Flushing at 1:30 AM and questioned why an aircraft would be on that flight path during the late night and early morning hours. He also pointed out that these departing aircraft appear to be at full throttle.

Bryan Serra complimented the TAC on its active discussion, which he noted involved most of the TAC members. He also stated that dispersal of flight tracks is a good idea to consider. He stated that LGA's close proximity to residential areas can drive people from the area.

Shanel Thomas (PANYNJ) stated that the September 29th public meeting was appreciated, but expressed that the presentation and boards were too technical. The study team needs to present the information more in lay terms as many attendees did not understand the information that was presented. With regard to dispersal, she asked that the study consider newly affected persons during evaluating measures, as the flights may now go over neighborhoods that did not have those impacts prior to dispersal.

Adjournment

Ryan Walsh (FHI) adjourned the meeting and thanked all attendees for their participation.

Appendix H-10
Technical Advisory Committee
Meeting #10
December 15, 2016

Technical Advisory Committee

Meeting #10

Meeting Notice and
Attendance Roster



THE PORT AUTHORITY OF NEW YORK & NEW JERSEY
NOTICE OF TENTH TECHNICAL ADVISORY COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDIES
FOR JOHN F. KENNEDY AND LAGUARDIA AIRPORTS

The Port Authority has formed a Technical Advisory Committee (TAC) to provide input into the 14 Code of Federal Regulations (CFR) Part 150 Study for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The 14 CFR Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. The Port Authority has invited a cross section of key stakeholders to serve on the TAC to represent the interests of their organization and to provide technical input to the Port Authority on the Study.

The purpose of the TAC is to provide technical input to the Port Authority on the JFK and LGA 14 CFR Part 150 Studies by having appointed and committed representation from all affected airport stakeholders (experts in land use airport and aircraft operations, air traffic control, community relations, etc.). The TACs will be a reasonable size of no more than two dozen members to enable efficient meetings and dialogue. The Port Authority respects the opinions, advice, and suggestions made by TAC members and considers the TAC's technical input, but that input is non-binding and are advisory in nature. The Port Authority has the sole discretion to approve or reject recommendations made from the committee and it shall retain its responsibility for decision making authority on the JFK and LGA 14 CFR Part 150 Studies.

The TAC meetings will be held at the time, date, and locations listed below. In order to use the technical expertise of the TAC in the most effective manner, TAC meetings will be facilitated by a professional meeting facilitator. TAC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TAC members. The Port Authority expects that the TAC will operate on a consensus basis. The facilitator will assist the TAC in reaching a consensus.

Space for the TAC meetings will be limited. However, it will be open to the public. A brief comment period will be held at the end of each TAC meeting regarding that meeting's proceedings. In order to promote balanced and constructive interaction among the TAC members, members of the public will be asked to refrain from commenting during TAC member discussions.

JFK Technical Advisory Committee Meeting

DATE: Wednesday, December 14, 2016
 TIME: 1:30PM - 4:30PM
 LOCATION: John F. Kennedy International Airport, South Service Road, Bldg. #14 - 2nd Floor
 Jamaica, NY 11430

LGA Technical Advisory Committee Meeting

DATE: Thursday, December 15, 2016
 TIME: 1:00PM - 4:00PM
 LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
 Flushing, NY 11371

LGA TAC Meeting #10 December 15, 2016

First	Last	Representing	Alternates	Primary	Alternate
Debbie	Bearden	NY Airport Liaison	Sal Debono		
Andrew	Brooks	FAA - Airport Division	Lindsay Butler	✓	
Chung	Chan	NYCDEP	Charles Shamoon		✓
Fred	Dixon	New York & Company			
Sophia	Ganosis	Queens Chamber of Commerce			
Robert	Goldman	Delta Airlines	Mark Hopkins		
Thomas	Grech	Queens Chamber of Commerce			
Mark	Guiod	FAA - TRACON	Steve Kelley		
David	Hopkins	NYC Economic Development Corp (EDC)		✓	
Bill	Huisman	Aviation Development Council		✓	
Ed	Knoesel	Port Authority		✓	
Josh	Knoller	Nicholas Lence			
Kevin	Denning	Town of Hempstead			
James	Law	FAA - LGA Airport Traffic Control Tower)	Laura Stensland		
Michael	Levine	Town of North Hempstead	Neal Stone		✓
Dena	Libner	NYC & Company	Fred Dixon		
Tom	Malone	FAA - Flight Standards Division	Dave Swanson		
Ron	Marsico	Port Authority			
Kelly	Mitchell	Port Authority		✓	
David	Sanchez	FAA - NY ADO	Suki Gill	✓	
Glenn	Morse	United Airlines			
Chris	Rhoads	Port Authority			

Janet ~~Mac~~ McEnaney
 Phil Konigsberg

Quen Quif Sly ✓
 " " " ✓

Teresa	Rizzuto	Port Authority			
Sean	Sallie	Nassau County Planning	Mark Buttice, Martin Katz		
Dean	Saucier	National Business Aviation Association			
Len	Schaier	Town of North Hempstead/QuietSkies.net			
Lysa	Scully	Port Authority			
Scott	Solomon	NYC DCP		✓	
Zendra	Spence	Shelt Air	Cesar Rizik		
Doug	Stearns	Port Authority	Chris Rhoads		
Laura	Stensland	JFK Tower	James Law	✓	
Lillian	Tan	MarketPlace Development	Margherite LaMorte or Jeff Drucker		
Ian	Van Praagh	Port Authority			
Angelina	Martinez- Rubio	Queens Borough President	Jack Leibler		
Jasmine	Narang	Queens Borough President		✓	
Marilyn	Chapoteau	New York Community Aviation Roundtable (NYCAR)	Warren Schreiber		
Adeel	Yousuf	Port Authority		✓	

Steve McClain TRACON ✓
 Marily Chapoteau Road trip.
 Colleen Mursen United Am
 Ralph Tamburro PANY NJ ✓
 Stacey Gilbert ✓
 Robert Goldman

14 CFR Part 150 Study
LaGuardia Airport

Technical Advisory Committee Meeting #10

December 15, 2016 (1:00pm – 4:00pm)
LaGuardia Airport

Sign-In Sheet

[illegible]

Sign-In Sheet

ELECTEDS

[illegible]

**Technical Advisory Committee
Meeting #10**

Materials Presented at Meeting

Agenda
Technical Advisory Committee Meeting No. 10
14 CFR Part 150 Study – LaGuardia Airport

Thursday, December 15, 2016

1:00 PM to 4:00 PM EST

1. Port Authority Update on the CTB and Perimeter Rule
2. Previous TAC Meeting Highlights
3. Review Homework Assignment No. 8 – Existing LGA noise control measures, Noise Compatibility Program (NCP) recommendations
4. Understanding Aircraft Noise Exposure with “What If” Scenarios
5. Review of the Major Departure and Arrival Procedures
6. Recap of Typical Noise Compatibility Program Strategies
7. Potential Noise Abatement Measures
8. Review the Project Schedule
9. TAC Homework Assignment No. 9
10. Future TAC Meeting Dates
11. Public Comment
12. Adjourn



Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Purpose and Objectives of the TAC

- TAC members represent the interests of their organization and/or constituents
- The TAC's role is advisory
 - Review study documents
 - Provide input to the Port Authority related to the noise exposure maps and noise compatibility program
- TAC members are also expected to advise their organization and/or constituents of the TAC's discussions

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Role of the TAC Meeting Facilitator

- To ensure that the TAC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TAC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item based on advice from the TAC or at his or her sole discretion
- The facilitator will assist the TAC in reaching a consensus on items brought before the TAC

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Meeting Agenda

- Port Authority Update on the Central Terminal Building (CTB) and LGA Perimeter Rule
- Previous TAC Meeting Highlights
- Review Homework Assignment No. 8 – Existing LGA noise control measures, Noise Compatibility Program (NCP) recommendations
- Understanding Aircraft Noise Exposure with “What If” Scenarios
- Review of the Major Departure and Arrival Procedures
- Recap of Typical Noise Compatibility Program Strategies

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Meeting Agenda (Continued)

- Potential Noise Abatement Measures
- Review the Project Schedule
- TAC Homework Assignment No. 9
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Port Authority Update on the CTB and LGA Perimeter Rule

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

Previous TAC Meeting Highlights

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

Highlights from the Previous Nine LGA TAC Meetings

- **TAC Meeting No. 1 (June 9, 2015) - Introduction to the Technical Advisory Committee**
 - Committee member introductions
 - Background, purpose, and objectives of the LGA 14 CFR Part 150 Study
 - Role of the TAC
 - TAC charter and participation agreement
- **TAC Meeting No. 2 (August 4, 2015) – Principles of Noise**
 - Acoustics principles, noise metrics, and aircraft noise assessment methods
 - LGA 14 CFR Part 150 Study data collection process
- **TAC Meeting No. 3 (October 7, 2015) - 14 CFR Part 150 Study Requirements**
 - 14 CFR Part 150 federal regulations
 - Noise modeling inputs and airport activity forecast
 - Update on Study Protocol development process

ESA Study Team

8

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Highlights from the Previous Nine LGA TAC Meetings (Continued)

- **TAC Meeting No. 4 (December 8, 2015) – Land Use and Noise Model Inputs**
 - Review the preliminary Existing Land Use map
 - Review the preliminary noise modeling inputs (flight tracks and departure/arrival altitude profiles)
- **TAC Meeting No. 5 (March 16, 2016) – Noise Model Inputs**
 - Review the aviation activity forecast
 - Samples of “custom” (user-defined) arrival and departure profiles
- **TAC Meeting No. 6 (April 12, 2016) – Aircraft Noise Levels**
 - Central Terminal Building and LGA Perimeter Rule status updates
 - Status of FAA approval for forecast and noise modeling inputs
 - Review of the user-defined profiles
 - Comparison of sound levels produced by common aircraft at LGA

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Highlights from the Previous Nine LGA TAC Meetings (Continued)

- **TAC Meeting No. 7 (June 21, 2016) – Aircraft Noise Contours**
 - Update on development of user-defined profiles
 - Review of the preliminary draft noise exposure contours
- **TAC Meeting No. 8 (August 16, 2016) – Noise Exposure Analysis**
 - Further details on preliminary draft noise exposure analysis
 - Description of preliminary draft LGA Noise Exposure Map (NEM) Report
 - Overview of NCP phase
- **TAC Meeting No. 9 (October 20, 2016) – LGA Noise Control Measures**
 - Status of Draft LGA NEM Report
 - Importance of TAC involvement during NCP phase
 - Summary of existing noise control measures associated with LGA
 - Initial TAC input on potential noise control measures to consider

Review Homework Assignment No. 8

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

Review Homework Assignment No. 8

- Review existing LGA noise control measures
- Bring questions and NCP recommendations to the next TAC meeting

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Understanding Aircraft Noise Exposure with “What If” Scenarios

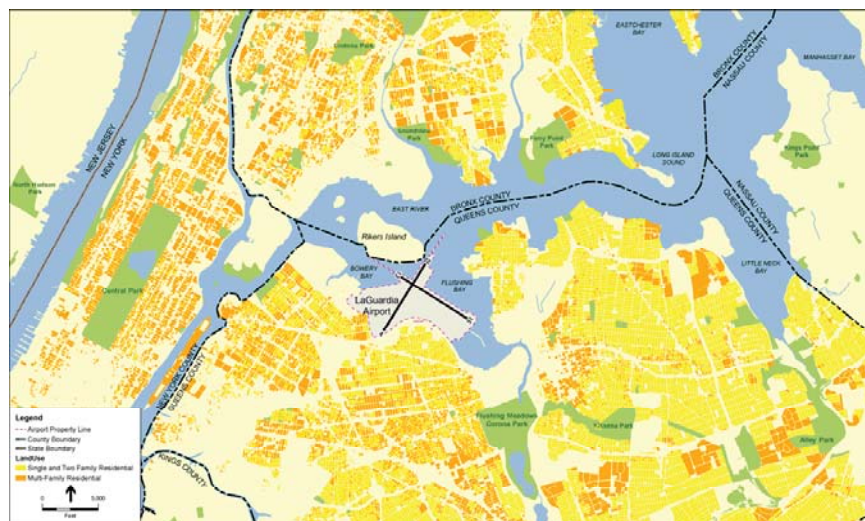
ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Residential Land Use in the Vicinity of LGA



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc., 2016.

ESA Study Team

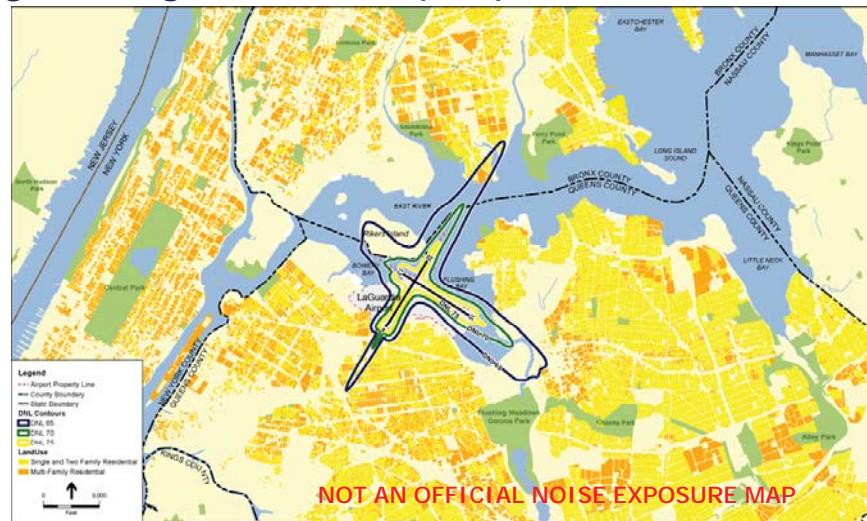
14

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

Residential Land Use in the Vicinity of LGA and the 2021 Day-Night Average Sound Level (DNL) 65 – 75 Contours



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016.

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Population Density in the Vicinity of LGA



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.

ESA Study Team

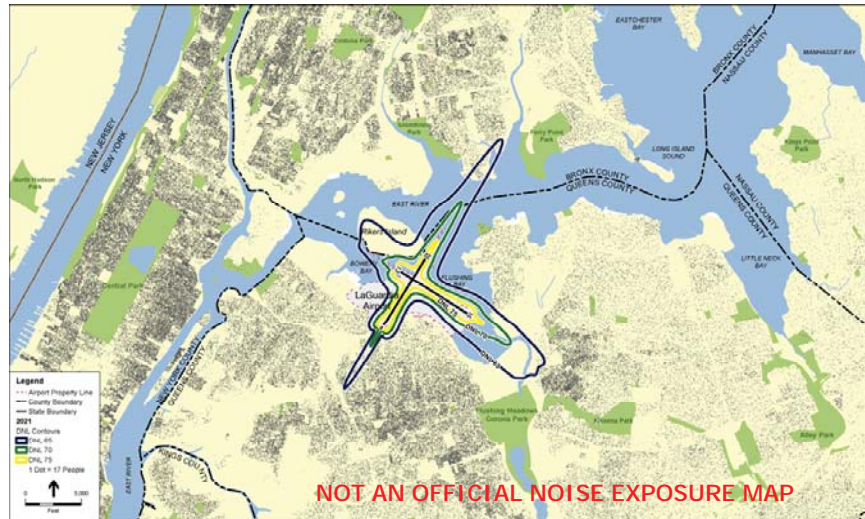
16

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

Population Density in the Vicinity of LGA and the 2021 DNL 65 – 75 Contours



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.

ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

LGA Environs



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016.

ESA Study Team

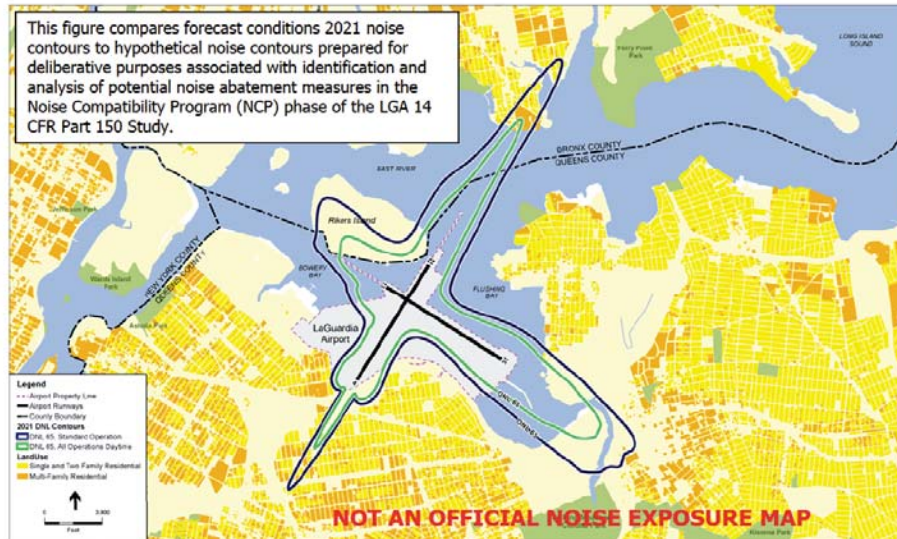
18

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

What if all LGA nighttime flights occurred in the daytime?



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016.

ESA Study Team

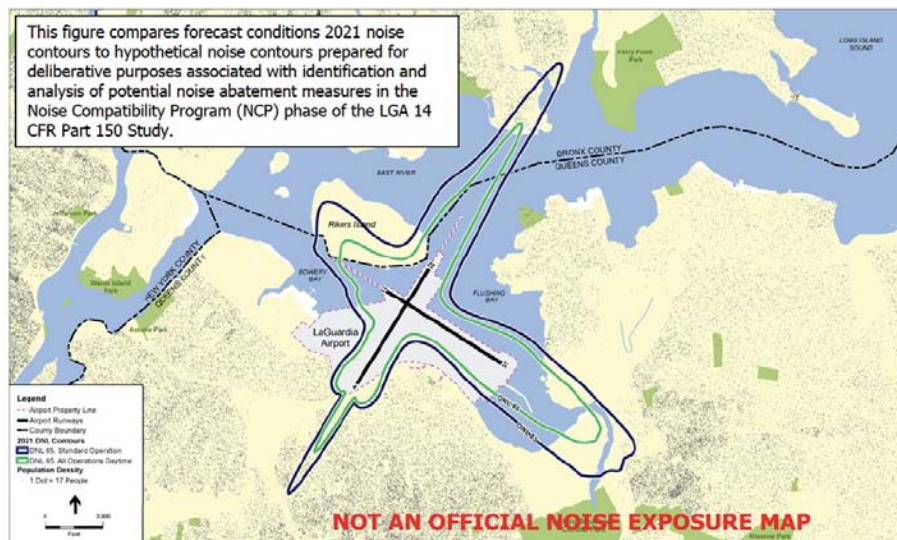
19

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

What if all LGA nighttime flights occurred in the daytime?



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.

ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

Legend

- Arrivals (Red Arrow)
- Departures (Blue Arrow)

Map Data:

Direction <th>Arrivals (%)</th> <th>Departures (%)</th>	Arrivals (%)	Departures (%)
North	7.88%	23.37%
North-Northeast	6.12%	25.31%
Northeast	4.35%	43.01%
Southeast	29.15%	23.48%
South	18.61%	1.61%
South-Southwest	29.96%	18.94%

THE PORT AUTHORITY
OF NY & NJ

This figure compares forecast conditions 2021 noise contours to hypothetical noise contours prepared for deliberative purposes associated with identification and analysis of potential noise abatement measures in the Noise Compatibility Program (NCP) phase of the LGA 14 CFR Part 150 Study.

Legend

- - - Largest Property Line
- - - Airport Boundary
- - - County Boundary
- 2021 DNL Contours**
- - - DNL 65, Standard Operation
- - - DNL 65, All Runway Use Equal
- Land Use**
- - - Single and Two Family Residential
- - - Multi-Family Residential

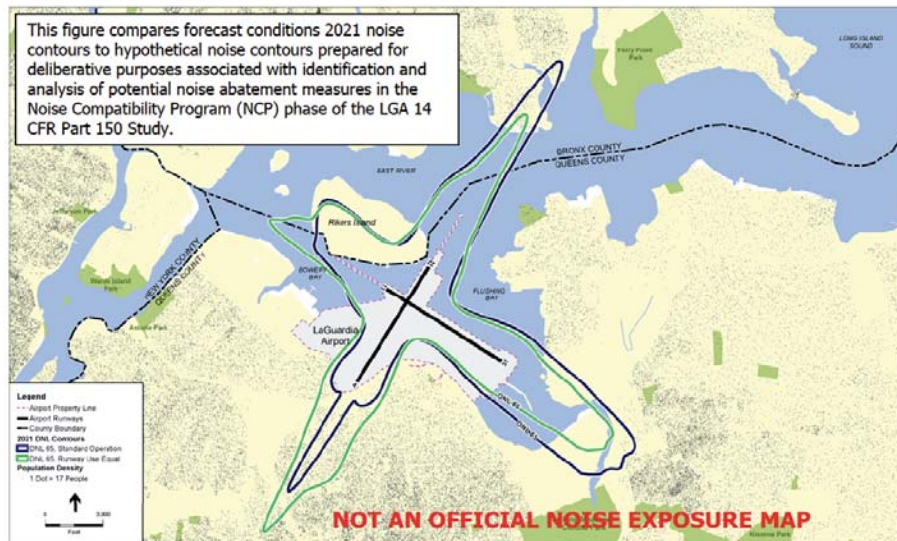
NOT AN OFFICIAL NOISE EXPOSURE MAP

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

DRAFT – SUBJECT TO CHANGE

What if each runway end is used equally?



SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015-June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.

ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Review the Major Departure and Arrival Procedures

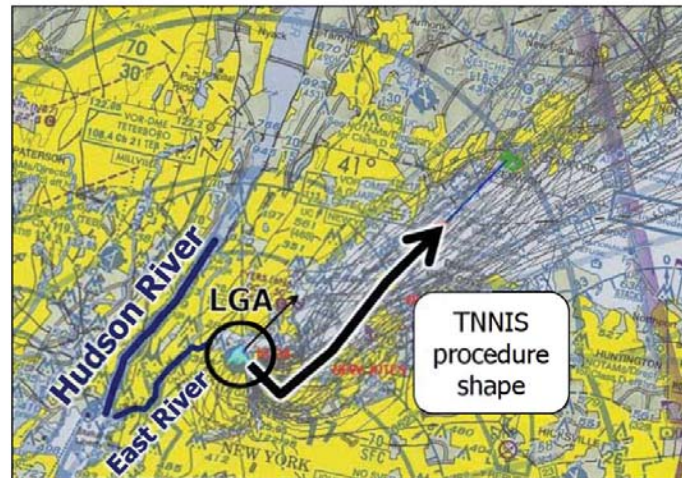
ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

The TNNIS RNAV Departure



- SOURCE: LGA TARGETS Noise Plug-in Report. Federal Aviation Administration. February 9, 2012.
- Zoom-in and annotations by ESA.

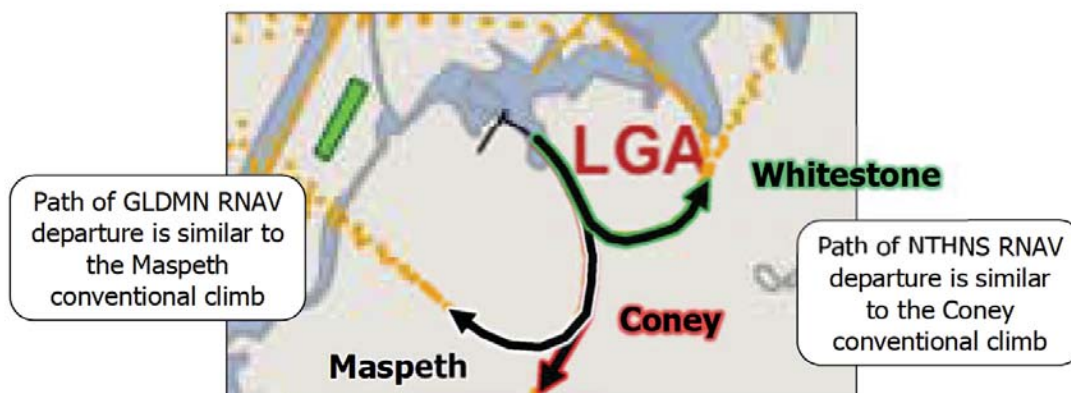
ESA Study Team

25

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

The Coney, Maspeth, and Whitestone Conventional Climbs, and the NTHNS and GLDMN RNAV Departures



SOURCES:

- Traffic Flow Management Learning Center: NY Airspace Configurations. Federal Aviation Administration. Last Accessed: November 30, 2016. http://tfmlearning.fly.faa.gov/NY_Airspace/NY_Airspace_Pkg/NY_Airspace.swf.
- IFP Information Gateway Search Results: LGA New York/LaGuardia. Federal Aviation Administration. Last Accessed: November 30, 2016. https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&nasrId=LGA
- Zoom-in and annotations by ESA.

ESA Study Team

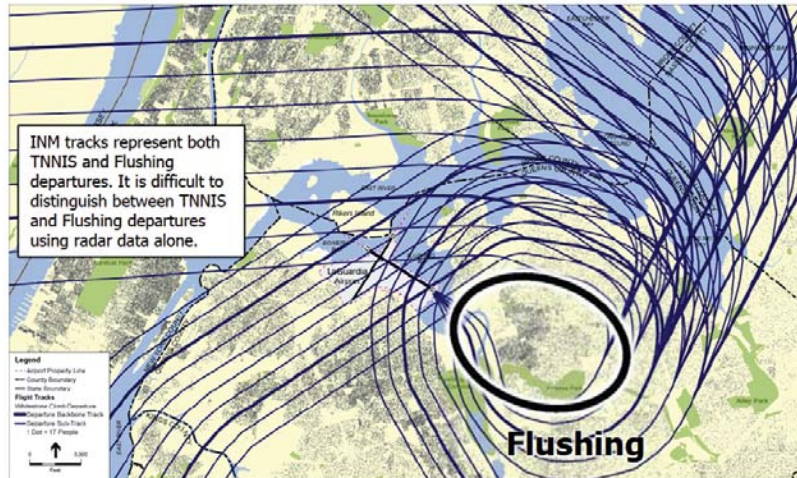
26

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Residential Population Density Under the Whitestone Climb

Flight tracks shown are Integrated Noise Model (INM)
modeled tracks based on radar data



SOURCE: NAIP, 2013; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.
INM flight tracks based on 2014 data as used for developing Noise Exposure Maps.

ESA Study Team

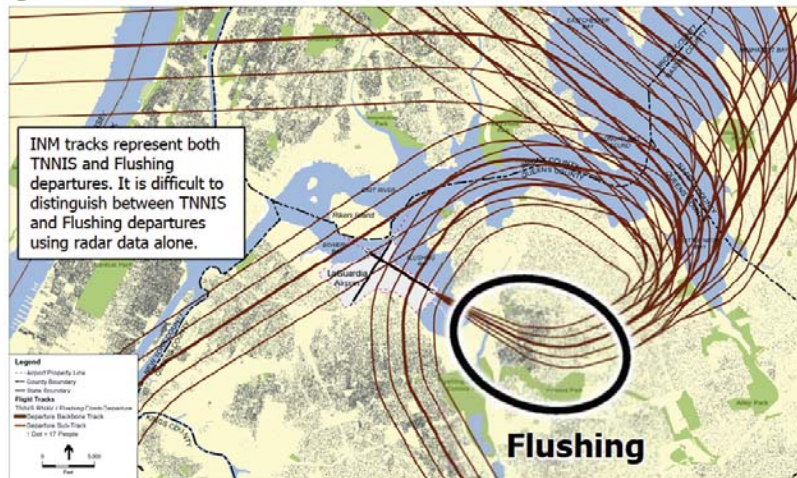
27

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Residential Population Density Under the Flushing Climb / TNNIS RNAV Departure

Flight tracks shown are INM modeled tracks based on radar data



SOURCE: NAIP, 2013; KB Environmental Sciences, Inc., 2016; U.S. Census Bureau, 2010.
INM flight tracks based on 2014 data as used for developing Noise Exposure Maps.

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

The Expressway Visual Rwy 31 Approach



SOURCES:

- Traffic Flow Management Learning Center: NY Airspace Configurations. Federal Aviation Administration. Last Accessed: November 30, 2016. http://tfmlearning.fly.faa.gov/NY_Airspace/NY_Airspace_Pkg/NY_Airspace.swf.
- IFP Information Gateway Search Results: LGA New York/LaGuardia. Federal Aviation Administration. Last Accessed: November 30, 2016. https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&nasrId=LGA
- Zoom-in and annotations by ESA.

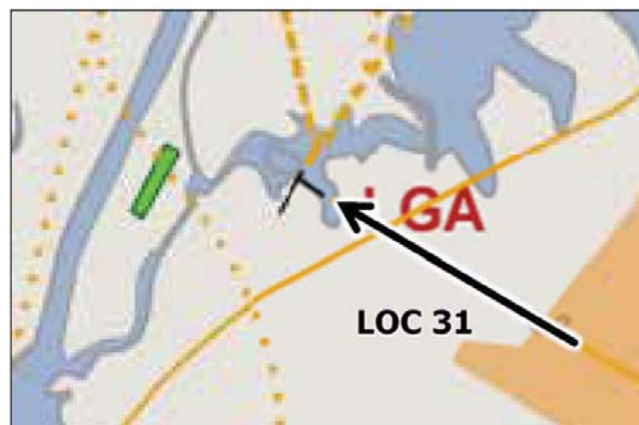
ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

The LOC 31 (Localizer Runway 31) Approach



SOURCES:

- Traffic Flow Management Learning Center: NY Airspace Configurations. Federal Aviation Administration. Last Accessed: November 30, 2016. http://tfmlearning.fly.faa.gov/NY_Airspace/NY_Airspace_Pkg/NY_Airspace.swf.
- IFP Information Gateway Search Results: LGA New York/LaGuardia. Federal Aviation Administration. Last Accessed: November 30, 2016. https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&nasrId=LGA
- Zoom-in and annotations by ESA.

ESA Study Team

30

THE PORT AUTHORITY
OF NY & NJ

Recap of Typical Noise Compatibility Program Strategies

ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

Major NCP Strategy Options

Noise Abatement

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Runup enclosures
- Use restrictions*
- Other actions proposed by stakeholders

Land Use

- Remedial Mitigation
 - Land acquisition
 - Sound insulation
 - Avigation easements
- Preventative Mitigation
 - Land use controls
 - Zoning
 - Building codes
 - Comprehensive plans
 - Real estate disclosures
- Other actions proposed by stakeholders

Programmatic

- Implementation tools
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM update
- NCP revision
- Other actions proposed by stakeholders

For NCP measures required to be considered: NCP Report must document reasons why measures were not recommended

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

ESA Study Team

32

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Analysis of Each Strategy

- Evaluate effectiveness of each measure in addressing the study objectives
 - The FAA will not approve NCP measures that do not reduce exposure to noise of DNL 65 and higher
- Evaluate feasibility (operational, safety, economic, etc.)
- Select preferred measures
- Identify implementation schedule, responsibilities, budget, funding sources, etc.
- If not recommended, document reasons why

ESA Study Team

33

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Today's focus is noise abatement. Future TAC meetings will cover other strategies.

Noise Abatement

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Runup enclosures
- Use restrictions*
- Other actions proposed by stakeholders

Land Use

- Remedial Mitigation
 - Land acquisition
 - Sound insulation
 - Avigation easements
- Preventative Mitigation
 - Land use controls
 - Zoning
 - Building codes
 - Comprehensive plans
 - Real estate disclosures
- Other actions proposed by stakeholders

Programmatic

- Implementation tools
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM update
- NCP revision
- Other actions proposed by stakeholders

For NCP measures required to be considered: NCP Report must document reasons why measures were not recommended

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

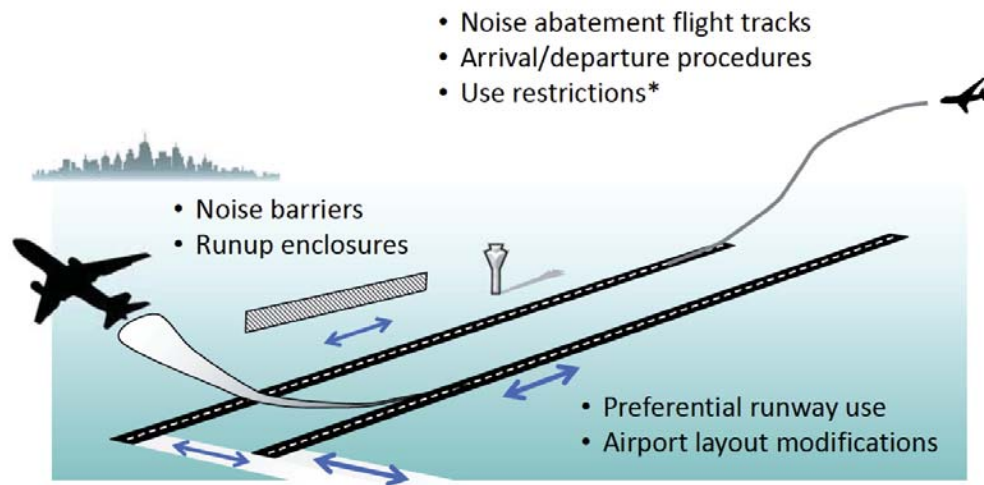
ESA Study Team

34

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Types of Noise Abatement Strategies



Other actions proposed by stakeholders and/or recommended by the FAA

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

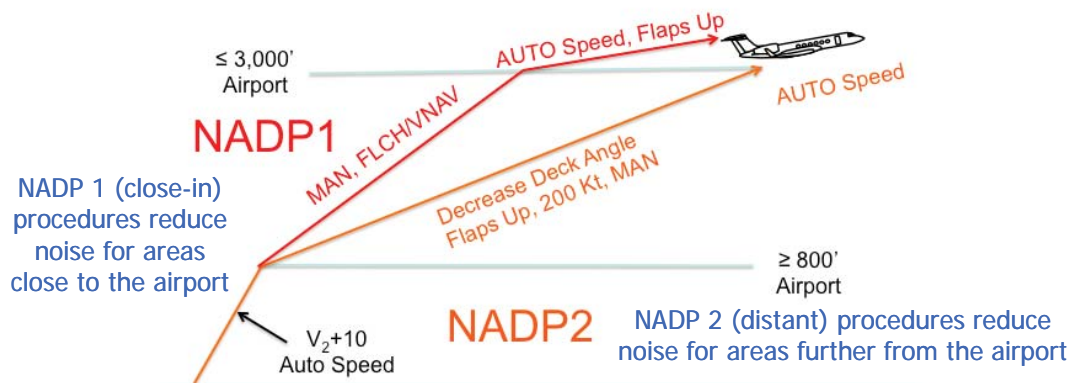
ESA Study Team

35

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

EXAMPLE: Noise Abatement Departure Procedures (NADPs)



Actual noise abatement departure procedures are aircraft- and operator-specific.

- SOURCE: Flight Operations, Supplement Number GAC-OMS-02: Noise Abatement Departure Procedures for JAA / EASA Operators. Gulfstream. June 25, 2008. Last Accessed: November 30, 2016. http://code7700.com/pdfs/gac_oms_2.pdf
- Image from http://code7700.com/noise_abatement.html. Last Accessed: November 30, 2016.
- Blue annotations by ESA.

ESA Study Team

36

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Standard Evaluation Criteria for Noise Abatement Measures

- Level of noise reduction: must reduce noise within DNL 65
- Effects on airfield capacity and aircraft delay
- Effects on airspace/air traffic control procedures
- Consistency with FAA safety and other standards
- Other environmental effects
 - National Environmental Policy Act (NEPA) review required
- Operational effects and costs
- Financial feasibility
- Consistency with policies adopted by Airport Proprietor

ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Noise Abatement Strategies – Challenges for LGA

- Opportunities to revise LGA airspace and flight procedures are constrained by operational requirements of multiple other airports in the New York / New Jersey area
 - Airspace and flight procedures are structured to minimize impacts of one airport upon another
- Opportunities to change LGA's runway configuration (i.e., directions of takeoffs and landings) and runway use are also constrained by operational requirements of other airports
 - Certain LGA approach and departure procedures have interdependent relationships with certain JFK approach and departure procedures

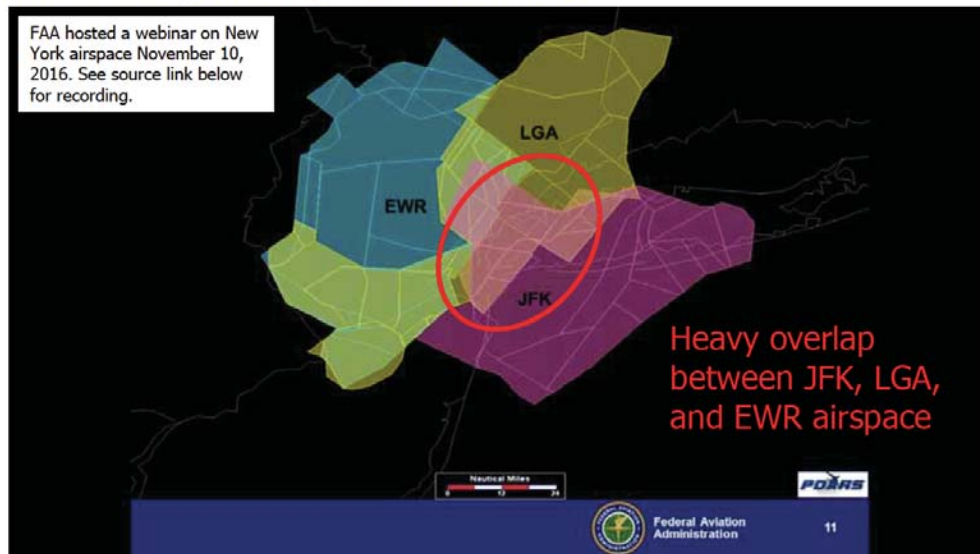
Noise abatement strategies for JFK and LGA are highly interconnected!

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

FAA hosted a webinar on New York airspace November 10, 2016. See source link below for recording.



- SOURCE: FAA New York Airspace Webinar, November 10, 2016.
<https://attendee.gotowebinar.com/register/1209238868691416580>. Last Accessed Nov 30, 2016.
- Zoom-in and annotations by ESA

Guardia Airport – 14 CFR Part 150 Study
Technical Advisory Committee Meeting No. 10

- SOURCE: FAA New York Airspace Webinar, November 10, 2016.
<https://attendee.gotowebinar.com/register/1209238868691416580>. Last Accessed Nov 30, 2016.
- Zoom-in and annotations by ESA

Potential Noise Abatement Measures

ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

Potential Noise Abatement Measures: Noise Abatement Flight Tracks

- **TAC Suggestions**
 - Use consistent departure paths to concentrate flights over specific areas and allow them to gain altitude more quickly
 - Increase dispersion of arrival tracks to Runways 4 and 22
 - Increase flight track dispersion over northern Queens
 - Explore the opportunity for Equivalent Lateral Spacing Operations (ELSO)
- **Public Suggestions Submitted During Draft LGA NEM Report Public Comment Period**
 - Require aircraft to fly full Expressway Visual between 10 P.M. and 7 A.M. when that route is in use
 - Revise Newark Liberty International Airport (EWR) Runway 29 approach if it conflicts with Expressway Visual
 - Revise LGA River Visual Runway 13 approach so that it can be used again

ESA Study Team

42

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Noise Abatement Flight Tracks (Continued)

- **Public Suggestions Submitted During Draft LGA NEM Report Public Comment Period (Continued)**
 - Modify GLDMN and NTHNS RNAV departures so that aircraft do not overfly Flushing, Queens
 - Utilize conventional (non-RNAV) Maspeth and Coney climbs more often, until GLDMN and NTHNS RNAV departures are revised
 - Do not use TNNIS RNAV departure between 10 P.M. and 7 A.M.
 - Avoid Flushing, Queens entirely during takeoffs and landings
 - Reduce usage of localizer approach to Runway 31
 - Provide respite by changing frequency of flight path usage
 - Move flight paths to distribute noise equitably

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Preferential Runway Use

- **TAC Suggestions**
 - Refine the time of runway openings to minimize early morning departures
 - Establish preferential runway use system that would provide periods of respite to residents
 - Expedite returning to preferential runway use system after a change in air traffic flow direction
 - Provide feedback on runway use to FAA to assist with adherence to preferential runway use system
- **Public Suggestions Submitted During Draft LGA NEM Report Public Comment Period**
 - Use Runway 31 departures more often, when winds permit
 - Use Runway 4 more often when Runway 13/31 is under construction

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Arrival and Departure Procedures

- **TAC Suggestions**
 - Adopt ICAO NADP 1 measures for each runway end*
 - Implement OPDs
- **Public Suggestions Submitted During Draft LGA NEM Report Public Comment Period**
 - Keep arriving and departing flights higher

* ICAO NADP 1 measures are for noise-sensitive areas close to the airport.

ESA Study Team

45

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Airport Layout Modifications

- **TAC Suggestions**
 - Add a runway at LGA to place more operations over water

ESA Study Team

46

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Use Restrictions

- **TAC Suggestions**
 - Require airlines to install vortex generators on A320-family aircraft
 - Establish a mandatory nighttime curfew
- **Public Suggestions Submitted During Draft LGA NEM Report Public Comment Period**
 - Establish a mandatory ban on operations between 11 P.M. and 6 A.M.
 - Reduce frequency of operations in general

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Potential Noise Abatement Measures: Other Actions Proposed by Stakeholders

- **TAC Suggestions**
 - Make airspace more efficient / de-conflict airspace
 - Use alternative airports, including increased cargo to Stewart Airport
 - Coordinate airport usage in New York region to provide respite for the region

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Solicit Additional Potential Noise Abatement Measures from the TAC

- Future TAC meetings will focus on land use and programmatic NCP measures

ESA Study Team

49

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Review the Project Schedule

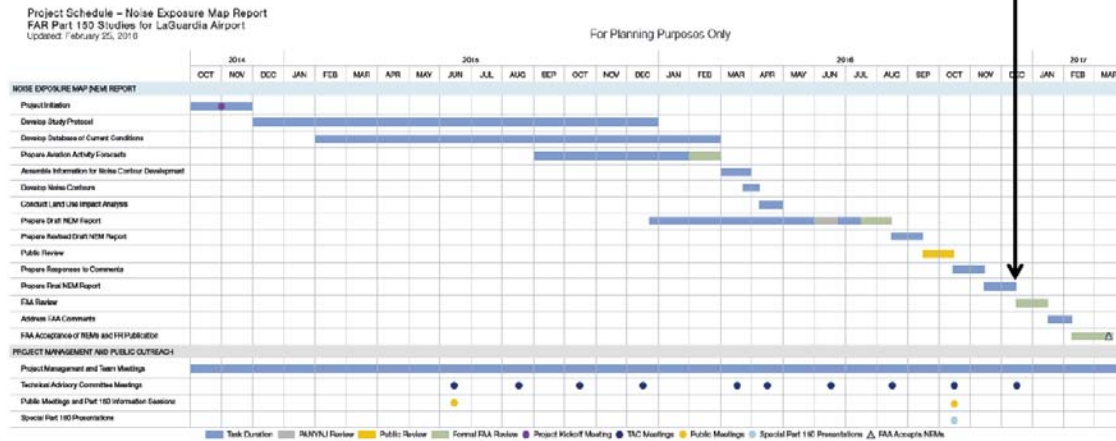
ESA Study Team

50

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Review the NEM Schedule



ESA Study Team

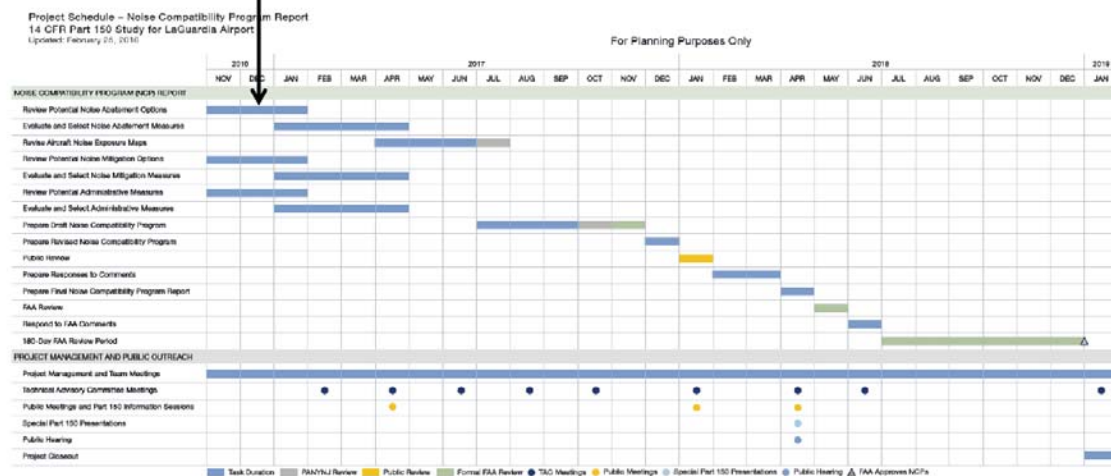
51

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Review the NCP Schedule

We Are Here



The Final NCP is expected to be submitted to the FAA for review and approval in mid-2018.

ESA Study Team

52

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 9

ESA Study Team

53

THE PORT AUTHORITY
OF NY & NJ

TAC Homework Assignment No. 9

- Review proposed noise abatement measures
- Bring questions and land use recommendations to the next TAC meeting

ESA Study Team

54

THE PORT AUTHORITY
OF NY & NJ

Future TAC Meeting Dates

Meeting Dates for TAC Meetings 11 and 12

- TENTATIVE: TAC Meeting 11 – Tuesday, February 14, 2017
- TENTATIVE: TAC Meeting 12 – Tuesday, April 18, 2017

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Preliminary Agenda for TAC Meeting No. 11

- Port Authority Update on the CTB and Perimeter Rule
- Previous TAC Meeting Highlights
- Review Homework Assignment No. 9 – Proposed noise abatement measures
- Discuss Potential LGA Land Use Options
- Review the Project Schedule

ESA Study Team

57

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Preliminary Agenda for TAC Meeting No. 11 (Continued)

- TAC Homework Assignment No. 10
- Future TAC Meeting Dates
- Public Comment
- Adjourn

ESA Study Team

58

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study
Technical Advisory Committee Meeting No. 10

Public Comment

ESA Study Team

59

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study
Technical Advisory Committee Meeting No. 10

Adjourn

ESA Study Team

60

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Project Team and Website

- Port Authority of New York and New Jersey
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- ESA Study Team
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- Website:
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- E-Mail: NYPart150@panynj.gov

ESA Study Team

61

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Supplementary Slides

ESA Study Team

62

THE PORT AUTHORITY
OF NY & NJ

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Terms and Concepts to Aid in Noise Abatement Discussion

- **Area Navigation (RNAV):** enables aircraft to fly specific paths within a network of navigation beacons, including space-based beacons
- **Day-Night Average Sound Level (DNL):** Expresses average noise levels over a 24-hour period, with an additional weight of 10 dB for noise occurring between 10 P.M. and 7 A.M.
- **Dispersal:** Variation in headings / flight paths to reduce concentration of noise onto a single area
- **Equivalent Lateral Spacing Operations (ELSO):** A procedure design concept that allows RNAV standard departure flight tracks to be closer together than conventional departure tracks while maintaining safe separation between aircraft

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Terms and Concepts to Aid in Noise Abatement Discussion (Continued)

- **International Civil Aviation Organization (ICAO):** A body of the United Nations that establishes international standards and guidelines for aviation
- **Noise Abatement Departure Procedure (NADP):** A departure procedure designed to reduce noise levels for noise-sensitive areas either close to or distant from the airport
 - ICAO NADPs are similar to FAA NADPs shown in FAA Advisory Circular 91-53A (July 22, 1993)
- **Optimized Profile Descent (OPD):** a descent from cruise altitude that minimizes aircraft level-offs

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Terms and Concepts to Aid in Noise Abatement Discussion (Continued)

- **Perceived Noise Decibels (PNdB):** Expresses perceived loudness of a single event
- **Standard Operating Procedure (SOP):** An FAA document describing procedures for air traffic control facility operation
- **Stage 1 aircraft:** aircraft that did not meet the FAA noise standards in 14 CFR Part 36, Section B36.5(b)
 - Example: Boeing 707-120

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Terms and Concepts to Aid in Noise Abatement Discussion (Continued)

- **Stage 2 aircraft:** aircraft that met the FAA noise standards in 14 CFR Part 36, but were only slightly less noisy than Stage 1 aircraft
 - Example: Boeing 727 without hushkit
- **TRACON:** Terminal Radar Approach Control. A facility where controllers use radar to guide aircraft approaching and departing airports, generally within 30 – 50 miles of those airports
- **Vectoring:** When a controller gives a specific compass heading to a pilot

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Summary of Existing LGA Noise Abatement Measures

- Departure noise limit of 112 PNdB; a letter is sent to the operator but there is no monetary penalty
- Voluntary midnight – 6 A.M. departure restriction at LGA
- Prohibition on Stage 1 and 2 aircraft operations within continental United States
- “Perimeter rule” that prohibits nonstop flights from LGA to cities more than 1,500 statute miles away with the exception of Denver, Colorado

Guardia Airport – 14 CFR Part 150 Study Technical Advisory Committee Meeting No. 10

Summary of Existing LGA Noise Abatement Measures (Continued)

- Noise abatement procedures in New York TRACON SOP*, to be followed “when traffic, weather, and workload permit.” These include, but are not limited to:
 - Preferred departure and arrival procedures
 - Preferred runway configurations between 10 P.M. and 6:30 A.M.
 - Procedures for routing aircraft making uncharted visual approaches
 - Noise abatement dispersal headings for Runway 31 departures

* FAA Order N90 7110.1D, February 15, 2016.

Technical Advisory Committee
Meeting #10
Meeting Summary

Attendees:

TAC Members	
Name	Representing
Bill Huisman	Aviation Development Council
Robert Goldman	Delta Airlines
Yahay Obeid	FAA
Andrew Brooks	FAA – Airport Division
Laura Stensland	FAA – JFK Tower
David Sanchez	FAA – NY ADO
Steve McClain	FAA – TRACON
Scott Solomon	NYCDCP
Charles Shamoon	NYCDEP
David Hopkins	NYC Economic Development Corp (EDC)
Adeel Yousuf	PANYNJ
Ed Knoesel	PANYNJ
Kelly Mitchell	PANYNJ
Ralph Tamburro	PANYNJ
Stacey Gilbert	PANYNJ

Jasmine Narang	Queens Borough President
Janet McEneaney	Queens Quiet Skies
Phil Konigsberg	Queens Quiet Skies
Brian Will	Queens Quiet Skies
Marilyn Chapoteau	Town of North Hempstead/Quietskies.net
Neal Stone	Town of North Hempstead
Glenn Morse	United Airlines

Public
Name
Austin Futch
Edu Hermelyn
Michael Hotaling
Rudy Luo
Eric Raboin
Bryan Serra
Joyce Serra

Study Team	
Name	Representing
Steve Alverson	ESA Airports
Mike Alberts	ESA Airports
Mike Arnold	ESA Airports
Chris Sequeira	ESA Airports
Maura Fitzpatrick	FHI
Dave Rickerson	Kimley-Horn

Andra Horsch	Nicholas Lence
Josh Knoller	Nicholas Lence
Peter Byrne	VHB
Jennifer Hogan	VHB
Susan O'Donnell	VHB

Welcome and Introductions

Kelly Mitchell (PANYNJ) welcomed the TAC members. She noted that if TAC members wish to have materials distributed at a TAC meeting, the materials should be submitted to Kelly seven days prior to the meeting.

Jennifer Hogan (VHB) served as the meeting's facilitator and welcomed TAC members as well. She asked attendees to introduce themselves. She then reviewed the purpose and objectives of the TAC as well as her role as facilitator.

Steve Alverson (ESA Airports) reviewed the meeting agenda. He noted that there were supplemental slides at the end of the presentation handout that include a glossary of terms and other background information for use by TAC members.

Port Authority Update on the CTB and Perimeter Rule

Ed Knoesel (PANYNJ) reported that Terminal B construction is underway and garage #2 has been demolished. Construction of the new garage is continuing. All of this is taking place without interruption to the airport's operations. Regarding the Perimeter Rule, the PANYNJ is considering modifying the Rule, but no decision has been made, and public input will be part of that decision-making process.

Previous TAC Meeting Highlights

Mike Arnold (ESA Airports) reviewed highlights from the past nine TAC meetings. – See TAC Meeting # 10 Presentation Slides for highlights.

Review of Homework Assignment #8

Mike Arnold (ESA Airports) reviewed the homework assignment from the last TAC meeting, which was to review the existing LGA noise control measures, and to bring questions and Noise Compatibility Program (NCP) recommendations to this meeting. He stated that this meeting would focus on NCP recommendations regarding noise abatement. The next two TAC meetings will focus on recommendations related to land use and programmatic measures.

Understanding Aircraft Noise Exposure with “What If” Scenarios

Mike Arnold (ESA Airports) presented the residential land use, and population density in the vicinity of LGA with the 2021 DNL 65-75 contours. He then presented two “what if” scenarios: shifting all LGA nighttime (between 10 P.M. and 7 A.M.) flights to daytime; and using each runway end equally (at 25 percent use each). He showed the modeling results of these scenarios on the contour map. He explained that these two “what if” scenarios are not feasible, but are being presented for illustrative purposes to demonstrate how noise abatement strategies can reduce the contours or shift the noise impacts to compatible land uses or lower population density areas. Steve Alverson (ESA Airports) added that mitigation measures to reduce nighttime noise would be the first focus and reminded the group that each aircraft noise event during those hours is weighted with an extra 10 decibels (dB) as it has a higher potential for annoyance.

Glenn Morse (United Airlines) asked whether the land use and density maps included any proposed developments. Mike Arnold (ESA Airports) responded that they do not. He added that the maps represent the existing land use and the population data specific to the 2010 census. Population that was not included in the 2010 census is not reflected in these current density maps.

Janet McEneaney (Queens Quiet Skies) asked whether nighttime activities at LGA that fell between 10-11 P.M. and 6-7 A.M. would be shifted to the daytime in this first hypothetical scenario. Mike Arnold (ESA Airports) stated that this is the case, however under certain circumstances (such as air traffic delays due to weather conditions), there would possibly be aircraft activity between 11 P.M. and 6 A.M.

Mike Arnold (ESA Airports) then presented a slide that was shown at the public workshops, which shows the Integrated Noise Model runway use using arrows to depict the volume of arrivals and departures at each runway end, quantified as percentages for daytime and nighttime activity. He also mentioned that this slide isn’t included in the meeting’s handout but will be in the final version of the TAC meeting presentation posted on the website. Mr. Arnold (ESA Airports) explained that safety, efficiency, and weather are key factors in determining the runway use, therefore balancing the arrivals and departures equally among the runways or the “sharing the noise” scenario is not feasible in real operating conditions. He also explained that this rebalance would have the effect of increasing aircraft noise exposure in some areas that are currently outside of the 65 DNL contour. However, there may be opportunities for more modest adjustments that would reduce noise impacts to the most sensitive and/or densely populated areas.

Charles Shamoon (NYCDEP) asked whether a contour map exists for the proposed changes to the Perimeter Rule. Mike Arnold (ESA Airports) stated that such a map does not exist.

Charles Shamoon (NYCDEP) asked if the contours were developed through proprietary software. Mike Arnold (ESA Airports) responded that they were created using the publicly available, FAA-developed noise model, the Integrated Noise Model.

Review of Major Departure and Arrival Procedures

Mike Arnold (ESA Airports) reviewed several procedures that are in place at LGA, including standard approaches and departures in and out of the airport. He also demonstrated the impact of certain procedures on Flushing and Flushing Meadow Park. In the NCP, modifications to some of these procedures may be considered.

David Hopkins (NYCEDC) asked whether information was available on the number of times these approaches and climbs were used. Mike Arnold (ESA Airports) responded that the ESA team reviewed where the aircrafts were flying, but not the type of procedures and their number. ESA will attempt to determine this later in the study.

Recap of Typical Noise Compatibility Program Strategies

Steve Alverson (ESA Airports) reviewed NCP strategies that fall into three categories: Noise Abatement; Land Use; and Programmatic or Administrative measures. He demonstrated what types of activities are considered noise abatement measures. He reviewed the evaluation criteria used to assess proposed noise abatement measures, as well as the specific challenges of applying these strategies at LGA. He explained that 14 CFR Part 150 requires that certain NCP measures be reviewed by sponsors of 14 CFR Part 150 studies, and if one or more of these measures are not included in the NCP recommendations, there needs to be an explanation of why the measure or measures are not included. He presented the LGA airspace boundaries, which were part of a webinar hosted by the FAA for the TAC and public on November 10, 2016.¹

He also showed a graphic from the webinar illustrating that the New York area airspace is the most highly congested in the U.S., with multiple airports and heavy air traffic.

As an example of a noise abatement strategy, Steve Alverson (ESA Airports) referenced a suggestion made by Delta Airlines at the last TAC meeting that the NCP include the adoption of International Civil Aviation Organization (ICAO) Noise Abatement Departure Procedure 1 (NADP1) measures. He showed a slide comparing NADP1, which reduces noise for areas close to the airport, to NADP2, which reduces noise for areas further away from the airport. He noted that LGA is challenged with residential properties both close to and further from the airport.

¹ To view the webinar, visit:

<https://attendee.gotowebinar.com/register/1209238868691416580>

Robert Goldman (Delta Airlines) clarified that he had made this suggestion for consideration at JFK rather than LGA.

Potential Noise Abatement Measures

Steve Alverson (ESA Airports) reviewed the NCP recommendations related to noise abatement that were made by TAC members at the last TAC meeting, as well as by members of the public during NEM comment period.² He then led a discussion asking TAC members to provide additional ideas for the NCP under the noise abatement category to augment the list. These recommendations will go through a sensitivity analysis to assess their impacts on the noise contour map.

In response to a suggestion from the public that the study consider revising the LGA River Visual Runway 13 approach, David Hopkins (NYCEDC) asked why this was currently not used. Steve McClain (FAA TRACON) stated that the approach conflicted with operations at Newark Liberty International Airport (EWR).

Steve Alverson (ESA Airports) then reviewed a list of 19 recommendations for consideration in the NCP that had been submitted by Queens Quiet Skies. A copy of these recommendations is attached to this summary. Janet McEneaney (Queens Quiet Skies) clarified that some of these recommendations are outside of the category of noise abatement measures, and some may not reduce the size of the DNL 65 contour.

Glenn Morse (United Airlines) suggested that there needed to be a more detailed discussion on these recommendations and that airport staff could provide technical background information to the TAC to assist in this discussion.

Other additions to the potential list of NCP measures that the TAC members discussed and proposed are as follows:

1. Noise barriers/reverberation traps
2. Concentrate flight paths over water and/or expressways, roads
3. Extend Runway 13-31 to increase takeoff points and increase opportunities for flight track dispersion

Janet McEneaney (Queens Quiet Skies) voiced a concern that it appears that some of the recommendations have already been dismissed without sufficient review and discussion. Steve Alverson (ESA Airports) responded that while some of the

² See the full list of recommendations in the TAC meeting No. 10 Presentation. Available:

<http://panynjpart150.com/AdminPages/GetProjectFile.asp?a=LGA&f=LGA%20TAC%20Meeting%20No.%2010%20Presentation%20-%20December%2015,%202016.pdf>

recommendations would clearly be difficult to implement, none of the recommendations have been dismissed, and that the next step is for the ESA team to do some level of analysis on the recommendations and bring the results back to the TAC for further review and discussion.

Project Schedule

Steve Alverson (ESA Airports) reviewed the project schedule for the NEM phase and the NCP phase.

TAC Homework Assignment No. 9

Steve Alverson (ESA Airports) reviewed the next homework assignment, which is to review the proposed noise abatement measures and bring questions and provide land use recommendations at the next TAC meeting.

Future TAC Meeting Dates

The next TAC meeting date is tentatively scheduled to take place on Thursday, February 16, 2017 from 1:00-4:00 PM. The TAC meeting following that one is tentatively set for Thursday, April 20, 2017.

Steve Alverson (ESA Airports) stated that the next TAC meeting would focus on the potential NCP measures related to the land use surrounding LGA.

TAC Comments

Jennifer Hogan (VHB) then asked if TAC members had any additional comments or questions.

Charles Shamoon (NYCDEP) mentioned, for potential noise abatement consideration, that MIT has developed noise barriers with cantilever tops to trap and reduce noise which are used by the MassPort.

Charles Shamoon (NYCDEP) asked if airlines have met to discuss and come to consensus on noise abatement departure procedures. Glenn Morse (United Airlines) responded that NADP1 had been used for decades at LGA, but is no longer used. He added that it is the airport's prerogative to ask airlines to establish procedures. There was more collaboration in the past between airlines than there is currently. He added that NADP1 may be worth considering at LGA to gain altitude more quickly. Steve Alverson (ESA Airports) explained how NADP1 and NADP2 are used at other airports with more runways and in less congested localities. He added that this can be considered but that it would take a detailed noise analysis to determine if this would be beneficial at LGA.

Marilyn Chapoteau (Town of North Hempstead/Quietskies.net) asked whether the team could apply both NADP1 and NADP2 to LGA to determine their impact on the contour map. Steve Alverson (ESA Airports) stated that the team may do so, however they would not be able to evaluate this for all aircraft types, but would instead apply these procedures to the top 10 aircraft types (by proportion of total operations at LGA) for modeling purposes.

Marilyn Chapoteau (Town of North Hempstead/Quietskies.net) asked if the ESA team was analyzing the noise contours over Flushing Meadow Park.

Charles Shamoon (NYCDEP) asked if the ESA team was doing analysis of winglets and their effects on aircraft noise. Steve Alverson (ESA Airports) stated that this is difficult because it is hard to determine which aircraft have winglets. He added that winglets on aircraft are becoming more common and that they can be retrofitted onto certain aircraft types.

Bill Huisman (Aviation Development Council) commented that at airport noise community meetings, the idea of equalizing use of runways is often suggested, but this does not seem to be a realistic recommendation.

Public Comments

Jennifer Hogan (VHB) then asked if there were any comments or questions from the public.

Brian Will (Queens Quiet Skies) stated that he has analyzed the standard operating procedures and the airspace around LaGuardia to determine what options are viable. He recommends reducing the TNNIS Climb after 10 P.M. and departing runway 31 when landing in ILS 4, which he believes should not conflict with operations at either LGA or JFK. He also recommended increasing the ILS 22 left turn at JFK, which forces runway 31 departures that go over the East River.

Bryan Serra stated that the answer is diversifying the flight patterns, which could mean more work for Air Traffic Control. He added that the Whitestone Climb over Bayside has improved recently, though it is still heavily trafficked and a constant noise area.

Phil Konigsberg (Queens Quiet Skies) asked if pilots were aware of the impact of their activities on noise levels. Robert Goldman (Delta Airlines) stated that Delta is educating its pilots on noise issues. Glenn Morse (United Airlines) stated that just recently United Airlines distributed a report to its pilots regarding reducing noise at San Diego's airport.

Rudy Luo commented that the loudest noise is during departures when planes are in full throttle.

Adjournment

Jennifer Hogan (VHB) adjourned the meeting and thanked all attendees for their participation.

QUEENS QUIET SKIES
P.O. BOX 604888
BAYSIDE, NEW YORK 11360

Phone: 718 428-8369

e-mail: QueensQuietSkies@aol.com

NOISE COMPATIBILITY PROGRAM SOLUTIONS

Before 2012, the FAA used a more equitable distribution of departure paths at LaGuardia. From runway 13, long considered LGA's most operationally favorable departure runway, the Flushing Climb was rarely used and routes like the Coney Climb were used far more often. However, the Coney Climb inhibited the use of JFK's runway 31L for departures. The introduction of TNNIS in 2012 all but ended utilization of LaGuardia's Coney and Maspeth Climbs (and their NextGen counterparts "NATHN and GLDMN").

LaGuardia still puts its arrivals into the wind, though JFK deviates from this safety guideline quite often. JFK favors a staggered approach into the parallel runways 22L and 22R while departing 22R and 31L. They use this configuration even with high crosswinds. With this now common configuration, LGA is forced to use TNNIS per the current Standard Operating Procedure (except during certain conditions when Whitestone Climb is permissible). LaGuardia continues to favor runway 13 for departures because planes clear the runway intersection quickly, allowing Air Traffic Control to space arriving planes more closely during peak hours.

The following are suggestions for inclusion in the Noise Compatibility Program. It is likely that Queens Quiet Skies will offer more solutions as the discussion among TAC members continues.

1. Institute restrictions on TNNIS and other runway 13 departures after 10 PM, or during low volume hours, especially when landing ILS 4.

With peak traffic decreasing later in the day and operational efficiency less important, it is no longer necessary to utilize runway 13 for departures when landing ILS 4. It is within the guidelines of the current LGA Standard Operating Procedure to depart runway 31 in place of runway 13 and utilize dispersal patterns over the East River and Wards Island to minimize noise exposure on the Bronx. This pattern affects far fewer people during times when many of the most "hard hit" noise sufferers are trying to sleep, and more highly disturbed by planes. This option was widely used in the past, and there is a historical precedent for using it. The option is there, but highly underutilized.

2. Increase use of Goldman's/Nathan's/Coney/Maspeth concurrent with JFK 31L departures.

ARC77 was published on March 29, 2010. In it, 77 airspace initiatives were listed by the FAA, the Port Authority, the aviation industry, and NYC government. Initiative number 39 listed an ongoing project to "develop procedures to Utilize JFK 31L Departures with LGA Coney Climb".

Surely this would lead to less reliance on TNNIS, increased throughput, and fuel savings for airlines. This potential “win-win” situation should be discussed extensively.

3. Separate the TNNIS route into 2 distinct and alternating paths.

TNNIS 6 currently uses one precise path on which aircraft fly at low altitudes over about 350,000 residents. TNNIS was modeled on the previous Flushing Climb, which was rarely used.. Documents recently obtained by Queens Quiet Skies pursuant to a FOIA request estimated TNNIS use at 15% of all LGA departures. We suggest considering whether it is possible to separate TNNIS into 2 distinct flight paths over northeast, to alternate use and, thus, the noise affecting the area.

4. Resume use of River Visual with east winds.

Currently, LGA has no east wind approach except for ILS13, which is used sparingly with very high east winds. The River Visual route, which has never been converted to PBN procedure, has also been taken out of service. Resumption of this route, in any form, would allow for decreased reliance on runway 13 for departures while also giving LGA the east wind approach that safety guidelines demand.

5. Return use of LOCALIZER 31 to historical usage rates, under high Northwest wind conditions only.

The current LGA SOP states that EXPWY Visual 31 is to be used with northwest winds under 15 knots. Recently, LOC31 has been used in near windless conditions, apparently for “operational efficiency,” to afford a “straight in” approach to LGA and possibly reduce delays. (Lthough we note that, so far, this use of LOC 31 that deviates from SOP has not seemed to reduce delays at LGA.) We would like to see substantive proof that extended use LOC31 increases operational efficiency as well as some statistics that show whether LOC 31 disrupts runway use at JFK..

6. Increase use of ILS 22 ‘left turn’ with west and southwest winds.

There are two versions of the ILS 22 approach to LGA’s runway 22. The more common one uses the Hudson River as a guide, then makes a right turn over the Bronx into runway 22. A second ILS 22 approach, used when winds are more westerly, is used far less often. It traverses northeast Queens at 4000 feet and makes a wide left turn over Long Island Sound. JFK now uses a wide left turn as part of its main configuration; there is no reason LGA cannot do the same regularly. The use of ILS 22 ‘left turn’ is, by far, one of the most noise-friendly approaches to LGA. As mentioned, it passes NE Queens at 4000 feet, then prepares for final approach (the left turn) over Long Island Sound). It also forces LGA to use runway 31 for departures, another more noise friendly option.

7. Increase use of LGA runway 31 departures during off peak hours.

This would be accomplished by landing runway 4, departing runway 31 during low volume hours instead of using runway 13 more frequently. Doing this would reduce noise for 350,000 residents of Queens and reallocate it to Riker's Island, the East River and a Con Edison plant.

8. Institute a permanent ban on runway 22 departures

Jackson Heights has led all neighborhoods in the United States in noise complaints due primarily to weekend usage of the JUTES NextGen route. Aircraft noise has reached 110 decibels on the runway 22 noise monitor.

9. Institute a mandatory, enforced permanent 6-hour curfew at LGA.

The current voluntary curfew does not work. Currently, there are scheduled flights outside the voluntary curfew, affecting millions of Queens, Brooklyn, the Bronx and Nassau County.

10. Institute a mandatory, enforced and permanent yearly cap of less than 60,000 departures on runway 13.

Current use of runway 13 in calendar year 2016 is on track to reach 100,000 departures for the first time ever. Capping runway 13 departures at 60,000 annually would assist Air Traffic Control in planning the use of noise abatement options rather than simply using runway 13 for departures because it is easier.

11. Extend the LGA perimeter rule until the end of 2023.

Extending the LGA perimeter rule to the end of 2023 would reduce the chances of northeast Queens and western Nassau being affected by more noise from larger aircraft, lower takeoff trajectories, closer departure thresholds, more engines per plane and wider turns. Extending the perimeter until 2024 will give the airlines time to begin bringing quieter engines into their fleets.

The current noise mitigation study for LGA is predicated upon use of the perimeter rule. If it were suddenly lifted just after the Part 150 study ends, Queens Quiet Skies and other community organizations would insist on a new study using different noise metrics.

12. Accept the geographic limits of LaGuardia Airport

There is no realistic way to increase traffic at LaGuardia Airport or expand the airport itself. It is limited by size and by its location within a densely inhabited urban community, adjacent to natural limits by water and other urban communities of millions of residents who are affected negatively by LGA operations. Instead, consider high-speed rail lines from New York City to the airports at Islip and Newburgh.

13. Fund a study of the unique noise conditions created by NextGen operations at LGA and JFK ("NextGen noise corridors" or the "rail effect")

The FAA is finding that DNL is inadequate as a measure of NextGen noise. Queens Quiet Skies calls for the FAA to fund an independent study by academic institutions – not by the FAA or the airport operating authority – to study those conditions and find solutions to the problems created by NextGen noise and pollution.

14. Adhere strictly to wind safety guidelines at JFK and LGA.

Runway selection should be made only by Air Traffic Control personnel, and only based on safety and Standard Operating Procedures. The practice of allowing airline industry personnel to choose runways should cease immediately.

15. Raise altitude restrictions on JFK runway 22L and 22R approaches

An egregious amount of noise has been caused by the recent near-constant usage of JFK runways 22L and 22R. They are being used under such a wide variety of wind conditions that an observer must wonder whether the Standard Operating Procedures for safety are being observed by ATC. When these procedures are in use, the altitude should be raised to 4000 feet entering over Massapequa.

16. Avoid the use of RECAT in the crowded NYC metro airspace.

Loss of separation and wake turbulence caused an air disaster in November, 2001, near Rockaway. The FAA's RECAT initiative has the potential of reducing separations on consecutive planes down to 2.5 miles, depending on aircraft size. The New York City metro airspace is unique in its amount of traffic in a very small shared space. RECAT of only 2.5 miles separation is not appropriate in our airspace. Recognizing this reality, and thus reducing the number of aircraft at LGA and JFK, will also reduce noise events.

17. Raise altitude and use steeper ascents for departures.

18. Shift runways at LGA and JFK to decrease noise, add throughput and reduce fuel costs by using more direct routes.

Runway shifting creates possibilities for noise mitigation by using routes over more noise-compatible areas. Runway shifting is a win-win for communities and the aviation industry. Shifts of even half a degree at LGA 13/31 and JFK 13R/31L could create huge areas of previously unusable airspace, decreasing noise and increasing throughput at the same time. It also may help reduce airline fuel costs with more direct routes.

19. Resume LDA approach to runway 22 over the Bronx.

APPENDIX I

14 CFR Part 150 Study Protocol

PORT AUTHORITY OF NEW YORK AND NEW JERSEY

Study Protocol for JFK and LGA 14 CFR Part 150 Studies

Prepared for
Port Authority of New York
and New Jersey

September 2015



PORT AUTHORITY OF NEW YORK AND NEW JERSEY

Study Protocol for JFK and LGA 14 CFR Part 150 Studies

Prepared for
Port Authority of New York
and New Jersey

September 2015



550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900
www.esassoc.com

Los Angeles

Oakland

Orlando

Palm Springs

Petaluma

Portland

Sacramento

San Diego

Santa Cruz

Seattle

Tampa

Woodland Hills

140037

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Study Protocol for JFK and LGA 14 CFR Part 150 Studies

1. Introduction	1-1
1.1 Purpose	1-1
1.2 Amendment of the Study Protocol	1-1
1.3 Consistency with Scope of Work and Project Budget	1-2
1.4 Public Document	1-2
1.5 Consistency with the Newark-Liberty International and Teterboro Airports Part 150 Studies	1-2
1.6 Project Closeout	1-2
2. Roles and Responsibilities of Stakeholders	2-1
2.1 Introduction	2-1
2.2 Port Authority of New York and New Jersey	2-1
2.3 Federal Aviation Administration	2-1
2.4 Conflict Resolution	2-1
2.5 Technical Advisory Committee	2-2
2.6 Interested Public	2-3
3. Communication Strategy Protocol	3-1
3.1 Introduction	3-1
3.2 Definition of Teams	3-1
3.3 Strategy	3-2
3.4 Meeting Creation and Execution	3-3
3.5 Public Outreach Materials	3-7
3.6 Media Coordination	3-7
3.7 Government and Community Outreach	3-8
3.8 Other Strategic Elements	3-8
3.9 Port Authority Approval Timeframes	3-10
4. Data Management Plan	4-1
4.1 Purpose	4-1
4.2 Data Collection/Validation	4-1
4.3 File Management	4-2
4.4 Project Documentation	4-2
4.5 Quality Control	4-3
4.6 Conflict Resolution	4-3
4.7 Security and Backup	4-3
4.8 Archiving, Retrieval and Removal	4-4
5. Aviation Activity Forecast Protocol	5-1
5.1 Introduction	5-1
5.2 Terminal Area Forecast Considerations	5-2

5.3	Constrained Forecast Development	5-3
5.4	Derivative Aviation Forecast Data for Noise Modeling	5-4
5.5	Forecast Technical Memorandum	5-5
6.	Aircraft Noise Modeling Protocol	6-1
6.1	Introduction	6-1
6.2	General Characteristics of Aircraft Noise	6-1
6.3	Noise Descriptors	6-2
6.4	Integrated Noise Model	6-4
6.5	INM Input Data	6-5
6.6	Noise Measurements Data	6-13
6.7	Noise Contours	6-13
6.8	Noise Exposure Maps	6-15
6.9	Noise Data Tables	6-15
6.10	Noise Evaluations for the Noise Compatibility Program	6-16
6.11	Supplemental Noise Metrics	6-19
7.	Land Use Protocol	7-1
7.1	Introduction	7-1
7.2	Study Areas	7-1
7.3	Land Use Designations	7-2
7.4	Electronic Document Filing Structure	7-5
7.5	Land Use Maps and Population Impact Analysis	7-6
7.6	Coordination with Local Land Use Planning Agencies	7-7
7.7	Coordination with the Port Authority	7-8
7.8	Identification of Land Use Mitigation Alternatives	7-9
8.	Project Measures	8-1
8.1	Introduction	8-1
8.2	Document Review Timeframes	8-1
8.3	Project Milestone Schedule	8-1
8.4	List of Project Deliverables	8-2

Appendix

- A. Example Data Request Form
- B. Example Data Tracking Spreadsheet
- C. Draft Project Schedule

List of Tables

1.	Common Sounds On The A-Weighted Decibel Scale	6-2
2.	14 CFR Part 150 Land Use Compatibility Guidelines in Aircraft Noise Exposure Areas	6-14

List of Figures

6-1	Sound Exposure Level and Maximum Sound Level	6-3
6-2	Day-Night Average Sound Level	6-4
6-3	INM Input Data	6-6
6-4	Stage Length Comparison for Boeing 777-300	6-10
6-5	INM Operational Alternatives Analysis	6-17
7-1	Study Area and Data Collection Area for the JFK 14 CFR Part 150 Study	7-3
7-2	Study Area and Data Collection Area for the LGA 14 CFR Part 150 Study	7-4

CHAPTER 1

Introduction

1.1 Purpose

The Port Authority of New York and New Jersey (Port Authority) has contracted with Environmental Sciences Associates and a team of subconsultants (‘the ESA Team’) for the preparation of two Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise and Land Use Compatibility Studies: one for John F. Kennedy International Airport (JFK) and a second for LaGuardia Airport (LGA). In order for these Studies and any recommended noise abatement and noise mitigation measures resulting from these Studies to be eligible for federal funding, the Studies must be prepared in accordance with 14 CFR Part 150 and associated guidance developed by the Federal Aviation Administration (FAA). For example, the analysis of program measures in the Noise Compatibility Program Report will adhere to the requirements of Section B150.7 of 14 CFR Part 150. The Noise Exposure Maps (NEMs) and Noise Compatibility Programs (NCPs) prepared under these Studies will be submitted to the FAA for acceptance and approval, respectively. The Port Authority, FAA, and ESA Team have agreed to employ a collaborative relationship with guidance from the FAA to successfully complete these Studies in accordance with 14 CFR Part 150. However, FAA’s role with respect to this Study Protocol is strictly advisory.

This Study Protocol has been developed to guide each Study; to clarify roles and responsibilities of those involved in the studies; and to delineate the details of the technical aspects of the Studies. The Study Protocol is intended for the internal use of the ESA Team, the Port Authority, and the FAA. When and as needed, all three parties will work collaboratively on making required changes that will culminate in written amendments to the study protocol.

1.2 Amendment of the Study Protocol

Once the technical work on the Studies begins, there may be circumstances that require an amendment of the Study Protocol. Such circumstances may include, but are not limited to, a change in the study years, the absence of the required data, or a change in airport operations. Upon identification of a circumstance requiring modification to the Study Protocol, the ESA Team and the Port Authority, working collaboratively with the FAA, would propose changes that would culminate in written amendments to the Study Protocol. The Study Protocol document title will include the revision number and the date of the approved amendment in the document as well as the filename for ease of knowing which Study Protocol is current.

1.3 Consistency with Scope of Work and Project Budget

While the Study Protocol provides the necessary details for conducting the Studies, it does not replace or add additional deliverables or tasks to the contracted Scope of Work. To the extent that there is disagreement between the Study Protocol and Scope of Work, the Scope of Work shall take precedence. The Study Protocol shall not modify the Scope of Work or Budget without written Port Authority approval and a corresponding contract amendment.

1.4 Public Document

Once finalized, the Study Protocol will be placed on the public website developed for the Studies and will be reviewed with the Technical Advisory Committees (TACs) established for the Studies. However, the Study Protocol will not be modified based on public comment as it is an internal ESA Team guidance document tied to the contracted Scope of Work.

1.5 Consistency with the Newark-Liberty International and Teterboro Airports Part 150 Studies

In addition to the 14 CFR Part 150 Studies being prepared for JFK and LGA, the Port Authority has issued a separate contract for the preparation of Part 150 Studies for Newark-Liberty International (EWR) and Teterboro Airports (TEB). While the New York and New Jersey Studies are being prepared by independent consultant teams, it is likely that both Study Teams will benefit from sharing experiences that may be applicable beyond a specific airport or community. Further, there may be instances where interdependencies are noted in a review of air traffic procedures. Therefore, both Study Teams will strive to share relevant experiences with the Port Authority and FAA. The Port Authority will serve as the conduit for conveying the information between the two Study Teams and will appropriately address interdependencies to the greatest extent possible.

1.6 Project Closeout

Upon completion of the Studies, the ESA Team shall confirm delivery of electronic files of the reports, working papers, Integrated Noise Model (INM) files, Geographic Information System (GIS) files and the administrative record for the Studies. The ESA Team, the Port Authority, and the FAA shall participate in a project closeout meeting to review and discuss possible actions to improve the next Part 150 Updates for both airports.

CHAPTER 2

Roles and Responsibilities of Stakeholders

2.1 Introduction

14 CFR Part 150 Studies often involve a diverse set of stakeholders with different roles, responsibilities, and interests in the outcomes of the Studies. This portion of the Study Protocol identifies the various key stakeholders and describes their roles and responsibilities.

2.2 Port Authority of New York and New Jersey

As the operator of John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA), the Port Authority is the sponsor of the Studies and has the overall responsibility for the conduct of the Studies. The Port Authority contracted the ESA Team, developed the Scope of Work, and approved the Study Protocol, and is funding the Studies.

By virtue of its role on the Studies, the Port Authority is the final decision maker regarding all aspects of the Studies including but not limited to the conduct of the Studies; the composition of the Technical Advisory Committee; the Study Area for each airport; the certification of the accuracy of the Noise Exposure Maps; and the noise abatement, noise mitigation, and administrative measures to be included in the Noise Compatibility Program submitted to the Federal Aviation Administration (FAA).

2.3 Federal Aviation Administration

The FAA has agreed to provide the Port Authority with ongoing assistance on these studies in a technical advisory role. The FAA will ensure that the studies are conducted in a manner consistent with 14 CFR Part 150 requirements and will review and approve the aviation activity forecasts. In addition, the FAA has the statutory obligation to review the Noise Exposure Maps and accept them if they meet the requirements of 14 CFR Part 150 as well as to approve or disapprove the measures recommended in the Noise Compatibility Program. The FAA is responsible for reviewing and publishing the Record of Approval for the NCP in the Federal Register and for responding to public comments provided in response to the Federal Register notice.

2.4 Conflict Resolution

Conflict resolution will occur in a timely manner and will be expedited when possible. To the extent that the Port Authority and FAA are unable to resolve an issue at the staff level, both parties have agreed to elevate the issue to the next level of management in their organizations until the conflict is resolved to the mutual satisfaction of both parties.

2.5 Technical Advisory Committee

Experience has shown that most 14 CFR Part 150 Studies benefit from the creation and participation of a Technical Advisory Committee (TAC). The TAC serves several important functions including: representing a broader range of stakeholder groups and interested constituents in the Studies, receiving information about the Studies and sharing it with their larger group and/or constituents; providing input to the Studies; and in some cases, providing technical advice to the Study Team.

In order for the TAC to be effective and to be representative of all of the key stakeholders involved in aircraft noise issues, it must be composed of a diverse group of key stakeholders including, but not limited to, community representatives, aircraft operators/airlines, affected jurisdictions, and land use planners. While representation needs to be broad, the TAC needs to remain a reasonable size so that deliberations are efficient and meetings proceed smartly.

The Port Authority will identify potential members to serve on two separate TACs: one for the JFK Study and the other for the LGA Study. It is important to note that the TAC is advisory only to the Studies. That is, the TAC may offer opinions, advice and guidance to the Studies, but the Port Authority has the sole discretion to accept or reject the TAC recommendations in accordance with 14 CFR Part 150. For each of these two Studies a TAC of approximately 20-25 representatives is recommended.

Separate from the 14 CFR Part 150 process, a New York Community Roundtable was formed to provide input to the Port Authority on issues related to aircraft noise from JFK and LGA. The Roundtable has broad representation from communities surrounding JFK and LGA. Because of this broad representation, the Port Authority has determined that the Roundtable will have one representative on each TAC: one for JFK and one for LGA. Each Roundtable representative will be tasked with updating the Roundtable on the progress of the Studies as well as representing the Roundtable on the TAC.

By virtue of its role as the sponsor of the Studies and as the operator of JFK and LGA, the Port Authority is a member of the TAC. By virtue of its role as technical advisor during the study(s) duration and as the approval authority, the FAA is a member of the TAC. The FAA's lead contact will identify which FAA lines of business (e.g., Airports, Air Traffic, Flight Standards), will be represented at each meeting.

TAC members will be required to sign a TAC participation agreement, which commits them in writing to attend all TAC meetings throughout the duration of the study period and to participate in a professional manner displaying courtesy and a willingness to listen to and consider all viewpoints. Each TAC member shall designate in writing a suitable alternate who will participate in TAC meetings when the primary representative is unable to attend. While the alternates are encouraged to attend all TAC meetings to remain abreast of the Study's progress, only the primary TAC member will be able to participate in discussions during the TAC meetings when both representatives are present. When the Primary TAC member is absent, the alternate will assume the role of the primary representative for that meeting and will participate fully in the

TAC discussions. The Primary representatives will be required to sign a TAC participation agreement.

In general, the TAC will operate on a consensus basis. The facilitator will obtain a sense of the TAC's position based on the flow of the conversation and the viewpoints being expressed. The facilitator may poll the TAC to confirm the consensus opinion. In cases where the TAC seems divided on an issue, the facilitator may conduct a vote to determine the majority opinion. It is important to note that votes will not result in a specific outcome, but represent an advisory position to the Port Authority.

The ESA Team will review the schedule for the Studies and will propose a tentative calendar for the TAC meetings for the duration of the Studies. However, the TAC meeting schedule will change as the technical work on the project progresses and there are results to share with the TAC. Therefore, at each TAC meeting a tentative meeting date for the next TAC meeting will be identified and a draft agenda will be distributed after each TAC meeting. The actual meeting date, based on Study progress, will be set by the Port Authority providing ample notice in advance of the next TAC meeting.

TAC meetings will be held on weekdays (except Friday) during normal business hours (i.e., between 8 am and 5 pm). To the greatest extent practical, the JFK and LGA TAC meetings will be held on separate days during the same work week. The TAC meetings will be open to the public. TAC meetings may include a brief public comment period at the end of each meeting – time permitting. The public comment period will be focused on the agenda items covered during the meeting. See the Communications Chapter of this Study Protocol for additional information regarding the options that will be available to the general public to participate in and provide input to the Studies.

2.6 Interested Public

Members of the public who have an interest in the Studies have a role to play and a responsibility to the Studies' outcome. Members of the general public are encouraged to stay abreast of the Studies' progress by visiting the Studies website, attending TAC meetings as observers only, participating in public workshops, submitting comments on the Studies, and attending the public hearing for the Noise Compatibility Program.

This page intentionally left blank

CHAPTER 3

Communication Strategy Protocol

3.1 Introduction

The 14 CFR Part 150 Studies being conducted for JFK and LGA will determine existing and future aircraft noise exposure levels in the vicinity of LGA and JFK using the DNL metric, explore measures to reduce noise and improve land use compatibility, and will include extensive public outreach and involvement programs with many communities, organizations, elected officials, and other stakeholders.

Through various mechanisms, including a Technical Advisory Committee (TAC), public forums, group meetings, a website, and various public documents, stakeholders and those interested in aircraft noise issues will be afforded an ongoing opportunity to learn about the studies and provide input into them.

The following describes the ESA Team's strategy for working with the various stakeholders, throughout the 14 CFR Part 150 Studies. This strategy can be refined to adapt to changing circumstances that may occur or as a result of feedback received during the study process. The ESA Team, including the ESA's Media Outreach Team, will defer to the Port Authority Media Relations Office on all matters related to the interaction, outreach and development of messaging with media outlets (print, radio, television, and social media). The Port Authority Media Relations Office will solely determine when, where, and how to utilize the services of the Media Outreach Team and with which outlets.

3.2 Definition of Teams

Within the larger ESA Team, smaller sub-teams are tasked with various facets of public outreach:

- **Community Outreach Team**— representatives from VHB and Fitzgerald & Halliday, Inc. (FHI), will focus on the creation and execution of the meetings of the general public and TAC, and maintain communications with those constituencies;
- **Media Outreach Team** – in collaboration with and only solely upon the express, written prior approval from Port Authority Media Relations Office, representatives from Nicholas & Lence Communications (NLC), who will focus on communications with media;
- **Government Outreach Team**— in collaboration with and approval from Port Authority Government and Community Relations – New York, representatives from NLC will engage with elected leaders and formal community-based groups with a vested interest in the outcome of the study;

- **Website Team** – in collaboration with and only solely upon the express, written prior approval from the Port Authority’s Media Relations Office, representatives from NLC, FHI and VHB, all of whom will coordinate with Planning Tech Inc. (PTI) to contribute to the formation of messaging and content that is posted on the 14 CFR Part 150 Studies website.

3.3 Strategy

The purpose of the public involvement and communication effort is to connect with the various stakeholders in the community, as well as with elected leaders and the media, to effectively involve and inform them during the duration of the study process.

As part of this strategy, the ESA Team, the Port Authority, and the FAA’s Office of Communications will engage in:

- **Message Development:** The ESA Team will assist the Port Authority in creating a comprehensive set of key messages to be used in all public forums to consistently, clearly and accurately convey the elements of the Studies. The Port Authority will be the primary Point of Contact for all media inquiries; and the ESA Team, specifically the Media Outreach Team, solely upon the express, written prior approval from the Port Authority’s Media Relations Office, will coordinate with the Port Authority on the content of those responses.
- **Drafting of Media Materials:** Solely upon the express, written prior approval from the Port Authority’s Media Relations Office, the Media Outreach Team will work with the Port Authority to create news advisories, news releases, and responses to media inquiries, as the TAC and public meeting schedule proceeds, including public notices before and after each meeting. The Port Authority will approve all content provided to these groups used in these meetings. The Media Outreach Team will confer with the larger ESA Team on the scheduling and dynamics of these meetings, to facilitate a smooth flow of program and information;
- **Media Preparation:** Solely upon the express, written prior approval from the Port Authority’s Media Relations Office, the Media Outreach Team will prepare Port Authority representatives for the public meetings, including the development of talking points and providing counsel, as requested, on how to convey effective and efficient messages;
- **Reactive Messaging Response:** Solely upon the express, written prior approval of the Port Authority Media Relations Office, the Media Outreach Team will coordinate with the Port Authority to respond to spontaneous or unscheduled media inquiries that fall outside the timeframe of the regularly scheduled meetings or dissemination of information. The ESA Team will coordinate with the Port Authority, which in turn will coordinate with FAA, as needed, for supporting technical and background information;
- **Government and Community Inquiries and Tracking:** The Government Outreach and Community Outreach Teams will track and respond to inquiries received from elected officials, community boards and stakeholder groups after coordinating with the larger ESA Team and the Port Authority about a response. The Government Outreach and Community Outreach Teams will develop and maintain a database listing of all elected officials, community boards and stakeholder groups including relevant contacts, email addresses, phone numbers; as well as provide updates of such communication with the ESA Team in a timely fashion;

- **Media Tracking:** The Media Outreach Team will track all news coverage and share with the ESA Team and Port Authority in a timely fashion, both sharing news articles in real time and preparing roundup reports as needed;
- **Website:** The ESA Team will work with PTI and solely upon the express, written prior approval of the Port Authority Media Relations Office, to coordinate the information released on the public website and assure consistency with the overall project messaging themes. The ESA Team will also confer with the Port Authority for concurrence regarding the New Jersey 14 CFR Part 150 Studies (Newark Liberty International and Teterboro Airports) to ensure parity in the type and integrity of information disseminated.
- **Meeting Outreach:** The Media Outreach Team will coordinate with the Government and Community Outreach Teams to communicate TAC and public forum meeting dates and venues via multiple vehicles, including media coverage solely upon the express, written prior approval of the Port Authority's Office of Media Relations, direct communication (email and flyers) and the website. Recipients will include elected officials, community boards, and stakeholder groups. It will also respond to any inquiries concerning these meetings.

3.4 Meeting Creation and Execution

The Community Outreach Team will be responsible for the planning and execution of the various public interactions, including the TAC meetings, Information Sessions, Special Part 150 Study presentations, public meetings, and public hearings.

Technical Advisory Committee Meetings

- **TAC Formation** - A Technical Advisory Committee will be established for each airport and will consist of representatives identified by the Port Authority and the ESA Team including the following stakeholders: the FAA, community representatives, airlines, airport tenants, appointees by elected officials and others. Meeting formats will vary based on goals and objectives for each meeting (see below) and will serve to provide a forum in which topic area experts can discuss and review draft work and provide informed feedback.
- **Meeting Scheduling** – The Community Outreach and Government Outreach teams will handle all aspects of meeting scheduling and logistics:
 - The ESA Team will recommend a tentative TAC meeting schedule and proposed discussion topics for each meeting for the first year of the project and update it as the study progresses. The schedule and agenda will be distributed to TAC members to ensure robust attendance and participation. The TAC will meet every other month on average and will be provided ample notice of changes in the meeting schedule;
 - TAC meetings for each airport will run approximately two hours each and will be held at pre-determined meeting locations within the study area of each respective airport, in a location identified by the ESA Team in consultation with and approval from the Port Authority. It is anticipated that there will be 18 meetings with the JFK TAC and 18 meetings with the LGA TAC (for a total of 36 meetings). Fewer TAC meetings may be held for one or both airports, if it is determined that 18 meetings are not needed. Additional TAC meetings may be held for one or both airports, if required;

- The Port Authority will distribute the invitations to participate in the TAC. The ESA Team will handle receiving and tracking RSVPs from TAC members or their designee (via project-specific Port Authority email address and phone voicemail) and maintain the contact list. Future TAC meeting reminders will be sent by the ESA Team.
- **Meeting Execution** - The ESA Team will identify specific meeting goals and objectives in advance of each meeting (two weeks prior to each meeting) and the Community Outreach Team will recommend a meeting format (e.g., presentation/Q&A/wrap-up, small break out groups, etc.) based on the goals and objectives. A draft agenda prepared by the Community Outreach Team, and reviewed by the ESA Team, will include the time needed for each agenda item. A final agenda will be included with the email meeting reminder.
 - The Community Outreach Team will be responsible for TAC meeting details, including nametags, tent cards, sign-in sheets, easels and other meeting equipment and supplies. All technical meeting materials including presentations (PowerPoint, maps, figures, boards, etc.) will be prepared by the ESA Team;
 - The Community Outreach Team will serve as the facilitators for the TAC meetings. The ESA Team assumes that many meetings will require just one facilitator, but some meetings may require an additional facilitator to cover breakout sessions. All technical presentations will be conducted by ESA Team members;
 - The TAC Meeting facilitators will be responsible for keeping the discussion on-topic and on time and will also draw out points of agreement and action items;
 - Meeting summaries will be prepared by the Community Outreach Team in conjunction with other consultant team members. The Community Outreach Team will compile all ESA Team notes and distribute internally for input/review by those ESA Team members who attended the meeting. The meeting summaries will consist of action items, points of agreement and other key elements of the meeting, and be prepared in a bulleted format with an action item list. Meeting summaries and other meeting materials shared by the ESA Team will be distributed electronically for review by TAC members in a timely manner.

Information Sessions

14 CFR Part 150 Study Informational Sessions will be scheduled on an as-needed basis (maximum of 6) throughout the course of the study and will be used to communicate with and educate elected officials, community groups, airport noise roundtables, or other organized interest groups about the study process and findings. The Port Authority shall coordinate with the FAA regarding the FAA's intention to participate in an advisory role at each of these meetings. The FAA will participate in all public meetings and information sessions conducted for the JFK and LGA 14 CFR Part 150 Studies.

- **Number of Meetings** – Up to three (3) information sessions are anticipated for the JFK 14 CFR Part 150 Study and up to three (3) information sessions are anticipated for the LGA 14 CFR Part 150 Study (i.e., six information sessions). The agenda/topics for the information sessions will be determined by the Port Authority and the ESA Team;
 - Information sessions with elected officials and the media will be facilitated by the Government and Community Outreach Team;

- Information sessions with community groups, roundtables and other interest groups will be facilitated by the Community Outreach Team;
- **Meeting Content and Agendas** – The Community Outreach Team will review the draft agenda and content and review technical materials for readability by airport neighbors and other key stakeholders;
 - The Government and Community Outreach Teams will review the content to make sure the message is consistent;
 - The Community Outreach Team will facilitate the question and answer session, utilizing a carefully structured meeting plan to ensure efficiency and maximum decorum. For example, index cards and pens can be distributed at the beginning of the meeting to participants that have questions or comments on the specific topic being addressed in that meeting. The participants can write questions or comments and the meeting facilitator will read the question or comment aloud at the microphone so the Technical Team can respond. If time runs out before all of the comments are addressed, then the remaining comments will be responded to in writing by the ESA Team and can be posted on the project website in a reasonable amount of time after the meeting. The facilitator will limit discussion of each comment to ensure that all commenters have an opportunity to have their question addressed.
 - Information sessions will include a technical presentation, followed by a question and answer session.

Special Part 150 Study Presentations

These meetings will follow the same procedures as the Information Sessions described above. Special Part 150 Study Presentations will be scheduled as needed as determined by the Port Authority with a maximum of four meetings – two meetings for each airport.

Public Meetings

Two Public Meetings will be held for each study for a total of four meetings. These meetings will be advertised and open to, and intended for, the general public.

- The public meetings can be conducted in a variety of ways. One recommended format is as a workshop with a series of stations with presentation boards, and members of the ESA Team on hand to answer questions;
- The Community Outreach Team will develop a flyer for each meeting, prepared in English, and will translate the flyer in up to four languages other than English;
- The Community Outreach Team will recommend media for posting advertisements in local newspapers (including foreign language newspapers) that serve the geographic area of the study. Port Authority Marketing will place the advertisements, in consultation with the Aviation Department and the other Public Affairs units, through its advertising agency. The Community Outreach Team will distribute and/or post flyers in public places (libraries, community centers, etc.) and distribute an electronic version of the flyer to community boards;
- PTI will post the flyer(s) on the project website;
- Solely upon the express, written prior approval of the Port Authority's Media Relations Office, the Media Outreach and Government Outreach Teams will work with Port

Authority to create and distribute press releases about the public meetings, and contact media and elected officials to inform them about the public meetings;

- Solely upon the express, written prior approval of the Port Authority's Media Relations Office, the Media Outreach Team will develop supporting media materials for each meeting in coordination with the Port Authority's Media Relations Office;
- The Port Authority will use its own discretion to utilize its respective social media sites (Twitter, Facebook, Instagram, etc.) to share the meeting details, time and location with the intent of notifying the public in a timely manner;
- The Community Outreach Team will work with the Port Authority to identify meeting locations, handle all fees for securing space and assure that they are Americans with Disabilities Act (ADA) accessible and (to the extent possible) public transit accessible.
- The Community Outreach Team will coordinate and secure any A/V equipment needed for the meeting including projectors, sound boards, as well as make a recommendation for translation services during the meetings;
- The ESA Team will prepare and bring presentation boards and PowerPoint presentations;
- The Community Outreach Team will serve as facilitators at stations or at breakout groups as well as for any question and answer sessions; and prepare a brief meeting summary for each public meeting.

Public Hearings

Public hearings will be formal events intended to collect written and oral comments concerning the draft Noise Compatibility Program (NCP) prior to its being submitted by the Port Authority to the FAA for review and approval of the recommended NCP measures. These meetings will be advertised and open to the general public. One (1) public hearing will be held for each airport for a total of two (2) public hearings.

- For the public hearings, the Community Outreach Team will develop specific public hearing protocol guidelines that will be distributed to all participants. For example, the guidelines would include an announcement such as "all comments are being recorded and will be responded to in writing in a document that will be posted on the project website;" or a note about addressing the amount of time that commenters can speak, etc.
- Prior to the start of the public hearing, in the same location as the public hearing, the ESA Team will hold an open house session with a gallery of project boards, staffed by the technical team, Port Authority and FAA staff for viewing and comment from the public. The open house may continue during a formal public hearing (in a second room) modeled after a National Environmental Policy Act (NEPA) Environmental Impact Study (EIS)-type public hearing;
- The Community Outreach Team will staff the "before and after" gallery area and serve as moderators for the public hearings;
- The Community Outreach Team will retain the services of a court reporter for each public hearing;
- Any presentations will be prepared and given by the ESA Team;
- The Community Outreach Team will provide a transcript of the meeting and the Technical Team will respond to the comments;

- The Community Outreach Team will accumulate and categorize the comments and distribute them to the ESA Team for responses;
- The Community Outreach Team will assist with setting up the forum for public comments submitted outside of the public hearing. The public comment period will last 30-days and will conform to guidelines in 14 CFR Part 150 regulations.

3.5 Public Outreach Materials

All public outreach materials must conform to Port Authority Brand Standards. Questions regarding the Port Authority Brand shall be directed to the Port Authority's Marketing Department.

Public outreach materials that will be developed in support of the JFK and LGA 14 CFR Part 150 Studies include newsletters and a fact sheet for each Study. The FAA will be consulted with during the preparation of the public outreach materials. Outreach materials shall be approved by the Port Authority prior to being distributed publicly.

Newsletters

The Community Outreach Team in conjunction with other members of the ESA Team, will prepare a quarterly newsletter (covering both 14 CFR Part 150 Studies) to be distributed in hard copy and electronic format, to a group that includes community representatives and elected officials. The ESA Team will review the newsletter for message consistency. The newsletter will also be posted on the project website. One or more infographics (charts, diagrams and other pictorial presentations that convey technical information and data) may be used either in place of or as a component of the newsletter, in order to communicate potentially complicated information in the most compelling and easily understandable fashion.

Fact Sheet

The Community Outreach Team, in conjunction with the ESA Team, will prepare one fact sheet for each airport summarizing the 14 CFR Part 150 Study process, the Noise Exposure Maps (NEM), and Noise Compatibility Program (NCP). The fact sheet will be printed in color and will be distributed at the Public Hearing.

All of the materials will be prepared in consultation with the FAA; however, the final responsibility for the content of the materials resides with the Port Authority.

Translated versions will be provided of all materials consistent with requirements of Title VI of the Civil Rights Act of 1964 – related to addressing persons with limited English proficiency.

3.6 Media Coordination

A key component of the strategic proposal includes interaction with media. To ensure media are well informed, and in turn inform their audiences, solely upon the express written approval from the Port Authority's Media Relations Office, the Media Outreach Team will engage with media outlets. The ESA Team shall provide the Port Authority's Media Relations Office with a list of media outlets they recommend should be informed for the regularly scheduled meetings or

dissemination of information and will provide background material and suggested responses or “talking points” as needed.

3.7 Government and Community Outreach

In a similar fashion to media outreach, the ESA Team, in collaboration with and approval from the Port Authority’s Government and Community Relations Department (GOCOR- NY), will engage with community representatives and elected officials to ensure their notification and participation in the 14 CFR Part 150 Studies. The Government and Community Outreach efforts will target the following:

- New York City, State and Federal Elected Officials who represent the districts bounded by the study area, including, but not limited to:
 - New York City Council Members and Borough Presidents representing Brooklyn, Queens, and the Bronx;
 - New York State Governor, Senate and Assembly Members representing Brooklyn, Queens, Bronx, and Nassau County;
 - New York State’s two U.S. Senators and Members of Congress representing Brooklyn, Queens, Bronx, and Nassau County;
 - Nassau County Executive and County Legislators; and
 - Town Supervisors and Village Mayors;
- Community Boards and Chambers of Commerce located in Nassau County, Brooklyn, Queens, and the Bronx;
- Business groups that serve the air travel industry;
- Community-based stakeholder groups formed around the issue, including:
 - Town-Village Aircraft Safety and Noise Abatement Committee (TVASNAC);
 - Quietskies.net;
 - Queens Quiet Skies;
 - Eastern Queens Alliance;
 - Prospect Park Quiet Skies;
 - Citizens for Quiet Skies Over North Hempstead;
 - Quiet Skies Over Garden City;
 - Nassau Quiet Skies; and
 - Quiet Skies Congressional Caucus

The ESA Team will coordinate with the Port Authority regarding the consideration of other groups that may not be in the immediate vicinity of the airports, based on the final study areas that are developed for the JFK and LGA 14 CFR Part 150 Studies. These may include groups and elected officials in The Bronx or Southern Westchester County.

3.8 Other Strategic Elements

In addition to our media (with any dealings with media outlets solely subject to the express, written prior approval of the Port Authority's Media Relations Office), government and community outreach, the ESA Media Outreach Team (in coordination with the larger ESA Team) can assist the Port Authority with other efforts to complement this strategy, and give the agency confidence in its public positioning as the study progresses.

Social Media

The ESA Team, particularly the Media Outreach Team, will make recommendations to the Port Authority regarding the use of its social media feeds to disseminate information about upcoming meetings and information sessions. The ESA Team, particularly the Media Outreach Team, will also monitor social media channels for news and commentary on the 14 CFR Part 150 Studies, and solely upon the express, written prior approval of the Port Authority's Media Relations Office make recommendations for responses or engagement, on a case-by-case basis. The Media Outreach Team, in consultation with the full ESA Team, will coordinate with the consultants designing and managing the Part 150 public website, to include essential information and resources throughout the process. Items to be included on the website can consist of: FAQ, Index of Terms, Public Meeting Schedule, and more. The website must conform to the Port Authority Web style guide. Wire frames and design concepts must be approved in advance by Public and Government Affairs (OMR, GOCOR, and Marketing). The consultant also must work with PANYNJ Technology Service Department (TSD) to coordinate links from the existing PANYNJ website to these pages.

Messaging

The messages conveyed in the public meeting sessions, as well as through the media and directly to government and community stakeholders, will be critically important. Therefore, the effective development and delivery of key messages, in order to clearly define what the 14 CFR Part 150 Study is designed to achieve, should be given great deliberation and care and be subject solely to the express, written prior approval of the Port Authority's Media Relations Office.

Among the messages that would be recommended, to be refined at the Port Authority's discretion, include:

- The 14 CFR Part 150 Studies are designed to identify aircraft noise levels in the vicinity of JFK and LGA;
- The 14 CFR Part 150 Studies will provide multiple opportunities for dialogue with communities – including private residents, businesses, and elected officials – to discuss all facets of the aircraft noise issue;
- The 14 CFR Part 150 Studies will, subject to FAA approval, result in noise exposure maps and a series of voluntary recommendations designed to mitigate aircraft noise exposure for affected communities.

These messages, subject to the review and approval of the Port Authority Media Relations Office, Marketing Department and Government and Community Relations Office, would be distributed widely and repeatedly at all public hearings and public meetings, and through correspondence

with community and elected officials with whom the ESA Team will interface throughout the process.

3.9 Port Authority Approval Timeframes

As time is of the essence on this project, the Port Authority has agreed to expedite its internal approvals of ESA Team-provided outreach materials. The Port Authority shall strive to provide the ESA Team with a single set of consolidated comments within five (5) business days of receipt of draft outreach materials. The Port Authority shall strive to approve final outreach materials within two (2) business days of receipt of the final outreach materials.

Media inquiries will require a more rapid response. The Port Authority shall strive to coordinate messaging with FAA Public Affairs and to respond directly to media inquiries within 24 hours of the initial inquiry. When requested, the ESA Team shall support the Port Authority in its response by providing content related to the response.

CHAPTER 4

Data Management Plan

4.1 Purpose

The purpose of this element of the Study Protocol is to define the process by which data will be obtained, validated and tracked throughout the course of the Studies. This includes data standards, filing and organization, roles and responsibilities, and quality control presented as intended actions to identify, gather, maintain, share, secure, and utilize data.

4.2 Data Collection/Validation

Data includes electronic files, audio files, transcripts, and other quantitative and qualitative materials. It includes developed data; converted or transformed existing data; shared or exchanged data; and purchased data. This project will involve the development and acquisition of large amounts of data. Therefore, data management is a critical component to overall project management and technical accuracy.

Significant third party data will be required for this project. To streamline requests and avoid duplication, all external data requests will be submitted through the ESA Team's PM unless otherwise directed. All data requests will be accompanied by a data request form. (An example of the form has been provided in the appendix). The information in this form will be input into a tracking spreadsheet that will reside in the Project Management folder. (An example of the tracking spreadsheet has been provided in the appendix). The ESA Team's PM will review the spreadsheet prior to submitting data requests to the Port Authority to assure that requests are not duplicated. All data and materials obtained from the Port Authority through data requests will be stored for future use.

For this project, all data files generated or collected will be accompanied by the following information:

1. Name(s) and affiliation(s) of data collector / developer and date of data production
2. Data source / citations to the original sources from which data were obtained
3. Location in the data file(s) and information on file formats, linkages, and similar
4. Copies of the original data collection forms and instruments
5. List of abbreviations and other conventions (should be standardized and described)
6. A description of data which may include: observational, raw or derived, models, simulations, curriculum materials, software, images

For data collected through internet or web-based sources, the information obtained will be captured via a screen capture and stored in a Word document (copied and pasted) or an Adobe PDF will be created (printed from website to PDF) and saved into the appropriate data file location. Because web page content and format vary significantly, the following information should be recorded to the greatest extent practical.

- Author / editor name
- Title of the article
- Web site name
- Edition or version number
- Web site owner or sponsor if available
- Date of publication (DD MM YYYY, use n.d. for "no date"). Pay careful attention to "autodating" websites that update each day and may obscure when the information was actually created / published
- The word Web to indicate that as source
- The date the site was accessed
- The URL (web address) of the document
- The Airport for which the data is being obtained (LGA, JFK or both)

4.3 File Management

Critical to this project is the ability to manage large amounts of data in a variety of data formats in a consistent and repeatable filing system. The electronic file management will ensure ESA Team members can:

- Locate and browse for files easily
- Distinguish different files and versions of files within a folder
- Prevent confusion with file sharing and multiple users / editors
- Prevent data loss by accidental overwriting or file deletion
- Facilitate archiving and long term storage of data as well as data retrieval

A data library will be developed and housed on the ESA Team's internal website and the ESA Team's PM will assure there is a consistent folder naming and structure. The file structure and format of that library will be developed and disseminated to all ESA Team members.

4.4 Project Documentation

In conjunction with the folder templates developed for the data library, the ESA Team's PM will develop and disseminate a document naming convention. Since individuals accessing files may be running different operating systems or different versions of a system, it is important that the convention will allow a file to be recognized in as many different environments as possible. The

file name will include all necessary descriptive information independent of where it is stored. This naming convention will include:

- Avoiding illegal characters (e.g. : > < " / \ | ? * : ^ \$)
- Avoiding spaces in file names
- Including date of creation or revision
- Consistent conventions for version control (i.e. FNL=final, DFT=draft, v02 = version)

Project documents will be shared within the ESA Team. Each team member will be given a unique username and password, allowing access to upload, download, and edit documents stored in folders on the project website.

4.5 Quality Control

Project data will be checked and certified by designated team member(s). This verification will be done by an individual other than the person collecting the data. Details of the data quality control will be documented in the project quality control plan. These include:

- When in the data lifecycle QA/QC is occurring
- Level of QA/QC required for specific data types
- Who is responsible for each level of QA/QC
- How the QA/QC steps will be documented
- How transcribed or copied data will be checked for errors against the original data set

The designated QA/QC officer for this project, Steve Alverson, will designate the team members (or project roles) for QA/QC for specific data collection and management efforts.

4.6 Conflict Resolution

In the event that conflicting data are received, the ESA Team will evaluate the data and make a recommendation/determination on how to proceed. Minor data issues with limited potential to impact the results of the project will be resolved within the ESA Team. More significant data issues will be coordinated through the Port Authority PM via weekly update calls, in email form or via memorandum (as may be appropriate). Delays in the resolution of data conflicts have the potential to significantly impact the project timeline. Conflict resolution will occur in a timely manner and will be expedited when possible. When necessary, there will be layers of elevation within the Port Authority and/or the FAA to facilitate resolution.

4.7 Security and Backup

The ESA Team will secure all working and final documents with reliable hardware, software, procedures, and protocols. This includes network firewalls to safeguard all electronic devices and files, system-wide virus protection, redundant backup and archiving procedures, and secure hard copy storage and retrieval. For the Studies data stored on the internal website will be backed up

weekly by Planning Technology, Inc. (PTI). The data will be stored and backed up on servers that are located in highly secure facilities. Specific data may be additionally backed up to DVD or similar “hard copy” to protect against a single-point failure. The ESA Team’s Information Technology specialist(s) will be engaged to ensure that backups are being done properly and at prescribed intervals. This also insures that multiple team members will know where all data are being stored and how to access the data. Backups will be kept for **seven (7)** years after final project completion in archive.

4.8 Archiving, Retrieval and Removal

Upon project completion and acceptance by the Port Authority, PTI will archive and provide the data collected for the project to the Port Authority for its retention. Project specific and unique identifiers for citation, migration, recovery and retrieval will be established. This will assure that if archived data are needed, they can be retrieved efficiently and completely.

CHAPTER 5

Aviation Activity Forecast Protocol

5.1 Introduction

An aviation activity forecast typically addresses a relatively consistent set of parameters. While aviation activity forecasts provide a significant component of the data required to support the development of aircraft noise exposure contours, they do not typically meet all of the requisite data requirements for a Part 150 study. Aircraft fleet mix and additional details must be derived from other sources to provide the data required for development of aircraft noise exposure contours. Derivative forecasts can provide the additional details required for the noise modeling effort. The development of noise exposure contours is based both on the compilation of base year of aircraft activity statistics, aircraft fleet mix, engine type, time of day, departure stage length and runway utilization data, as well as the development of a projection of these same factors for a five-year future condition.

As part of the current 14 CFR Part 150 studies for JFK and LGA, a forecast must either be developed or an existing forecast needs to be identified for use in the development of Noise Exposure Maps and the associated Noise Compatibility Programs in accordance with 14 CFR Part 150 guidelines. Two existing forecasts have been identified for potential use in the JFK and LGA 14 CFR Part 150 Studies: the FAA-approved 2012 Port Authority forecast for JFK and LGA, which has served as the basis for numerous Port Authority planning efforts to date, and the FAA's Terminal Area Forecast (TAF), which is updated annually for all airports in the National Plan of Integrated Airport Systems (NPIAS), and serves as the official forecast of the agency. For the purposes of the 14 CFR Part 150 studies, the FAA's 2014 TAF (issued January 2015, JFK revised February 19, 2015) will be used as the baseline operational forecast for the purpose of determining base year (2016) and five-year forecast (2021) activity levels for use in the 14 CFR Part 150 studies for both JFK and LGA. The TAF will be used for the following reasons:

1. The FAA has determined that the Port Authority's most recent (2012) FAA-approved forecast would require development of supplemental information to allow for its use in the 14 CFR Part 150 studies.
2. The TAF contains the most current information regarding historic and projected aircraft operations at each of the airports. As a result, the Port Authority believes that the utilization of the current TAF for JFK and LGA is logical, appropriate, and justifiable as a basis for meeting the needs associated with the 14 CFR Part 150 studies.
3. The current TAF is the FAA's official forecast, which "... is prepared to assist the FAA in meeting its planning, budgeting, and staffing requirements. In addition, state aviation authorities and other aviation planners use the TAF as a basis for planning airport improvements." Use of the TAF would reduce the potential for an extended

forecast development and review period and related delays in the development of the NEMs for each airport.

4. The FAA's TAF is commonly used as one of the many inputs for developing forecasts for use in an array of planning studies, 14 CFR Part 150 studies, and other environmental studies subject to FAA review and approval.

The year 2016 has been chosen as the base year for the noise analysis as it is anticipated that 2016 will be the year of submission of the JFK and LGA Noise Exposure Maps to the FAA. Because of construction work related to the Runway Safety Area projects at both airports in 2015, the runway utilization for 2015 is likely to be inconsistent with historical trends and future expected operations. Therefore, the aircraft operations, runway use, and fleet mix for calendar year 2014 will serve as the basis for developing the 2016 existing conditions INM inputs. The 2021 forecast INM inputs will use the 2016 baseline conditions aircraft operations, fleet mix, and runway use data as a starting point and incorporate adjustments to reflect the expected changes in operations and fleet mix over the five-year period.

5.2 Terminal Area Forecast Considerations

While the FAA indicated concurrence with the use of the TAF as a basis for the JFK and LGA 14 CFR Part 150 studies, the FAA noted that potential adjustments to the forecasts associated with the possible impact of constraints on the projected level of activity may be warranted. The LGA TAF incorporates a capping of operational activity at a level of approximately 388,000 annual operations by the year 2022 or one year beyond the five year planning horizon of the 14 CFR Part 150 study for that airport. A reduction in the rate of growth in passengers within the five-year 14 CFR Part 150 planning horizon (i.e., between 2016 and 2021) is also projected. This constraint will be fully considered from the perspective of potential impacts to aircraft fleet mix as a part of the development of the derivative forecast at LGA.

The FAA noted that the latest JFK TAF represents an unconstrained projection of passengers and aircraft operations activity and, as a result, the TAF does not take into account the potential influence and/or impact that existing constraints at JFK could have on the future JFK activity levels. Due to this concern, the FAA indicated that the Port Authority would need to assess and define the extent, if any, that constraints might potentially limit the growth of operational activity at JFK within the planning horizon of the 14 CFR Part 150 study and make adjustments to the operational levels in the TAF to reflect the impact of constraints on future projected activity. The analysis would determine if constraints result in a limitation on total operations between 2016 and 2021 or if the level of demand could be accommodated. Based on a review of current operational trends, it is likely that constraints will not come in to play until sometime after 2016. If total operations are constrained, the analysis would then assess how the airline industry might respond to the available capacity. For example, the airlines may use larger seating capacity aircraft or schedule flights outside of peak periods. The Port Authority will base this analysis on its extensive background of data and understanding of the New York market and the airline strategies for serving that market. Significant analytical work has been previously performed as a part of other Port Authority planning efforts and this material will be consulted for its value in defining constraining factors, determining when these constraints arise and establishing how these

factors would impact the number and complexion of operational activity at the Port Authority commercial airports.

A final consideration associated with the use of the FAA's TAF for the JFK and LGA 14 CFR Part 150 studies is that the projected operational levels are focused on a 5-year period and any adjustment to passenger growth and affiliated fleet mix projections ultimately derived are applicable only to the 14 CFR Part 150 analyses and are not intended for use as a basis for any other planning efforts. Facility planning efforts typically use an unconstrained forecast and consider a longer planning period (20 years).

5.3 Constrained Forecast Development

The Port Authority will assess the potential impacts of operational constraints to define the extent of impact, if any, that these constraints might have on the level and complexion of operational activity at JFK. Again, the current TAF has already incorporated the impact of constraints at LGA. If appropriate, an adjusted total operational level will be prepared to reflect the operational conditions at JFK using a multi-step process:

1. Review the underlying assumptions employed by the FAA's Forecast and Performance Analysis Division in the development of the JFK and LGA TAFs. The assumptions employed by the FAA in their constraining of the operational forecasts for LGA will be reviewed to determine applicability at JFK as it relates to:
 - a. The specific issue or factor identified as constraining operational growth;
 - b. Assumptions related to the impact that the operational constraint had in terms of airline decisions regarding the gauge of the aircraft fleet;
 - c. Assumptions related to how the constraint impacted the growth and level of passenger demand and if demand could not be met, what happened to the unmet demand;
 - d. Assumptions employed in the forecast process relative to aircraft load factors, particularly associated with the LGA constrained forecast;
 - e. Assumptions regarding the potential for peak spread at each airport and the changes to markets served as operational constraints increase. Again, LGA will be reviewed to see if such assumptions were made in developing the constrained forecast that is the basis for the TAF at that facility and how these assumptions may or may not inform the constraining of operations at JFK.
2. Review the analysis of constraints related to the JFK 2012 Port Authority forecast process and other relevant planning efforts process to determine their potential current applicability.
3. Review and update, if necessary, analysis of the current distribution of available slots between carriers at JFK and their actual utilization to determine what, if any, unused hourly and daily slot capacity exists by day and time. (It is assumed that slot controls at LGA were already considered in the development of the constrained LGA TAF).
4. Using the actual 2014 fleet aircraft operations and mix data processed by the ESA Team from the Port Authority's Airport Noise and Operations Management System (ANOMS) and published reports of airline fleet composition and airline aircraft orders

identify the potential fleet changes that would be reasonable to assume as occurring given the potential passenger and cargo market demand. Develop assumptions relative to how these fleet decisions may or may not change given the potential impact of the current limitations/constraints at the New York airports. Assumptions will be fully discussed and coordinated with the FAA.

5. Review airline route networks and existing aircraft allocation decisions with major airlines to determine the ability to serve the New York/New Jersey market with larger aircraft than other markets. Factors to be considered include how airlines utilize their aircraft and the decision factors that drive the allocation of aircraft assets to specific markets. This analysis will need to recognize that airlines have few domestic routes where aircraft can be specially ordered or configured for the market.
6. Identify the additional aircraft operations level based upon the current usage of JFK slots and, the availability of any unused slots on an hourly or daily basis.
7. Adjust the passengers per plane for each airline based upon their ability to up-gauge aircraft serving the New York/New Jersey market taking into consideration fleet availability, other markets served, experience with fleet up-gauging at other capacity constrained airports and airline business considerations.
8. Evaluate current airline load factors by carrier to determine the extent, if any, that growth in passenger demand may be partially accommodated by some upward expansion of load factors.
9. Compute annual aircraft operations and annual passenger volumes based on the constrained aircraft activity profiles.

The Port Authority will develop a formal forecast document for each airport with supporting narrative and tabular data that delineates the specific assumptions that guided the assessment of the potential impact of existing regulatory or other constraints upon the level of operational activity at JFK and LGA. It will also outline the basis/rationale of each of the assumptions developed, supporting documentation for the assumptions, data sources, methodologies and analytical outputs from the assessment of constraints on the TAF for each airport and the resultant projection of operational activity and resultant passenger level for the 2016-2021 14 CFR Part 150 planning period. The document will be consistent with FAA Guidance Document “Review and Approval of Aviation Forecast June 2008” and will include a comparison of the recommended forecasts to the Port Authority’s 2012 approved forecast. After receiving FAA approval, the derivative aviation forecast data will be developed and submitted to the FAA for approval.

5.4 Derivative Aviation Forecast Data for Noise Modeling

While the TAF will be used as the starting point for the development of the constrained operations forecast for JFK and as the basis for constrained operational activity levels at LGA, there remains a need to define a detailed forecast fleet mix for the 2016 and 2021 forecast operational level consistent with the TAF projections. This derivative forecast effort provides the additional level of detail (derivatives) required for the noise modeling. The Port Authority has a detailed database of 2014 operations by specific aircraft type for JFK and LGA derived from the ANOMS data that will be used as the starting point for defining operational fleet mix at each of

the airports. Airline fleet orders as published by manufacturers and the airlines will be used to derive that change in fleet mix that is expected to occur by 2016. Additional information used in the definition of the 2016 baseline derivative forecast will include data from outside sources (e.g., Official Airline Guide (OAG) data services) and the FAA. The following sections describe a general overview of the guiding protocols for the development of the base-year and five-year derivative forecasts that will be submitted to the FAA for approval for JFK and LGA.

1. Derivative data to be defined by the ESA Team partially from the existing Port Authority aviation forecasts and augmented by additional Port Authority data and/or other industry data sources includes such items as:
 - Aircraft Fleet Mix (Aircraft Make and Model) for the 2016 baseline condition for commercial, commuter, charter, air cargo, general aviation (including helicopter) and government/military on an annual basis will be identified by the Port Authority using actual 2014 flight data processed by the ESA Team from the Port Authority's ANOMS and will be augmented with other datasets, which could include information from the OAG. Fleet mix for years 2016 (base year) and 2021 (future year) would be estimated based on the following considerations: Major airlines' fleet profile, fleet orders, announced retirement and replacement, airline strategies, relevant industry publications, news and fleet trends. This process will also account for any modified gauging that is deemed likely based on the impact of constraining regulatory or capacity issues;
 - Aircraft Engine Type as derived from the actual 2014 ANOMS fleet mix data supplemented by the 2013/2014 JP Fleets directory, airline publications, manufacturers information on deliveries and other suitable sources as necessary; (a single aircraft model can be equipped with a variety of engine types and thrust ratings);
 - Time of day of operations by aircraft fleet mix (split between daytime defined as 7:00:00 a.m. to 9:59:59 p.m. and nighttime defined as 10:00:00 p.m. to 6:59:59 a.m.) will be derived from the actual 2014 operations from the ANOMS data and may be augmented for 2016 by the data from an OAG download. Assumptions regarding future flight activity for the 2021 horizon will be developed and using the projected additional operational activity will be distributed between the day and night periods; and
 - Aircraft departure stage length.
2. As the derivative data is developed, the ESA Team will coordinate with the Port Authority to review the information that has been developed, define potential issues, discuss approaches to mitigating possible data deficiencies and to assess the extent to which the derivative data meets the requirements of the aircraft noise modelers and 14 CFR Part 150.
3. Associated with the development of the derivative data that the Port Authority has developed through the 14 CFR Part 150 Forecast, the ESA Team will record data sources used in the effort, identify assumptions employed in the derivative forecast effort, and summarize the methodologies employed.
4. Periodic status updates will be provided via the Project Status conference calls with the Port Authority for the purpose of updating the Port Authority on the ESA Team's progress, discussing and agreeing on assumptions, describing data needs or other

- derivative forecast related issues over the course of the derivative forecast development effort.
5. The aircraft noise modelers will identify the format for the aviation forecast data and affiliated derivative forecast data for use in the aircraft noise exposure contour development process.
 6. The ESA Team at the direction and involvement of the Port Authority will brief the appropriate representatives of the FAA over the course of the derivative forecast development effort.

5.5 Forecast Technical Memorandum

Derivative forecast technical memorandums will be prepared for each airport by the ESA Team and submitted to the FAA for approval. The memos will include the derivative forecast methodology that was employed, data sources utilized, underlying assumptions, and the findings of the process. The narrative will summarize the findings for use in defining the five-year future aviation derivative data for both the base-year and the five-year projection of activity. The documents will clearly state that the derivative forecasts are to be used for the 14 CFR Part 150 only and no other purpose.

CHAPTER 6

Aircraft Noise Modeling Protocol

6.1 Introduction

This section of the Study Protocol describes the methodology for modeling aircraft noise exposure using the FAA’s Integrated Noise Model (INM) Version 7.0d. The FAA requires the use of the INM in 14 CFR Part 150 Studies; both to develop Noise Exposure Maps (NEMs) and to assess noise exposure levels associated with the implementation of noise abatement measures evaluated during the development of the Noise Compatibility Program (NCP). The INM is designed to model aircraft noise exposure associated with a single airport, therefore separate INM analyses will be conducted for the JFK and LGA 14 CFR Part 150 Studies.

In general, the INM will be used to:

- Generate “existing” conditions NEMs for JFK and LGA. The NEMs will be representative of conditions at JFK and LGA for calendar year 2016, which is the year when the NEMs will be submitted to the FAA for review and acceptance.
- Generate NEMs for the future 5-year forecast condition (2021).
- Document aircraft noise exposure levels for potential operational noise abatement alternatives developed during the NCP portion of the JFK and LGA Studies.

The following topics are discussed in the remaining sections of the Aircraft Noise Modeling protocol: general characteristics of aircraft noise; noise descriptors; the INM; INM inputs; aircraft noise measurements; aircraft noise contours; noise exposure maps; noise data tables; noise compatibility programs; and supplemental noise metrics.

6.2 General Characteristics of Aircraft Noise

Sound, when transmitted through the air and upon reaching our ears, may be perceived as desirable or unwanted. People normally refer to noise as unwanted sound. Because the response to sound is subjective, individuals have different perceptions, sensitivities, and reactions to noise. Loud sounds may bother some people, while others may be bothered by certain rhythms or frequencies of sound. Sounds that occur during sleeping hours are usually considered to be more objectionable than those that occur during waking hours and hours of activity (typically daytime).

Aircraft noise originates from both the engines and the airframe of an aircraft, but the engines are the more significant source of noise. Meteorological conditions affect the transmission of sound through the air. Wind speed and direction, and the temperature immediately above ground level, cause diffraction and displacement of sound waves. Humidity and temperature materially affect

the transmission of air-to-ground sound through absorption associated with the instability and viscosity of the air.

6.3 Noise Descriptors

The description, analysis, and reporting of aircraft noise levels is made difficult by the complexity of human response to sound and the myriad of sound-rating scales and metrics that have been developed for describing acoustic effects. Various rating scales have been devised to approximate the human response to the “loudness” or “noisiness” of a sound. Noise metrics have been developed to account for additional parameters, such as duration and cumulative effect of multiple events.

Noise metrics can be categorized as single-event metrics and cumulative metrics. Single-event metrics describe the noise from individual events, such as an aircraft flyover. Cumulative metrics describe the noise in terms of the total noise exposure over a period of time. The primary noise descriptors that will be used in the JFK and LGA 14 CFR Part 150 Studies are described below.

A-Weighted Sound Pressure Level (dBA): The decibel (dB) is a unit used to describe sound pressure level. When expressed in dBA, the sound has been filtered to reduce the effect of very low and very high frequency sounds, much as the human ear filters sound frequencies. Without this filtering, calculated and measured sound levels include events that the human ear cannot hear (e.g., dog whistles). With A-weighting, calculations and sound monitoring equipment approximate the sensitivity of the human ear to sounds of different frequencies. Some common sounds on the dBA scale are listed in **Table 1**. As shown, the relative perceived loudness of a sound doubles for each increase of 10 dBA, although a 10-dBA change in the sound level corresponds to a factor of 10 change in relative sound energy. Generally, single-event sound levels with differences of 2 dBA or less are not perceived to be noticeably different by most listeners.

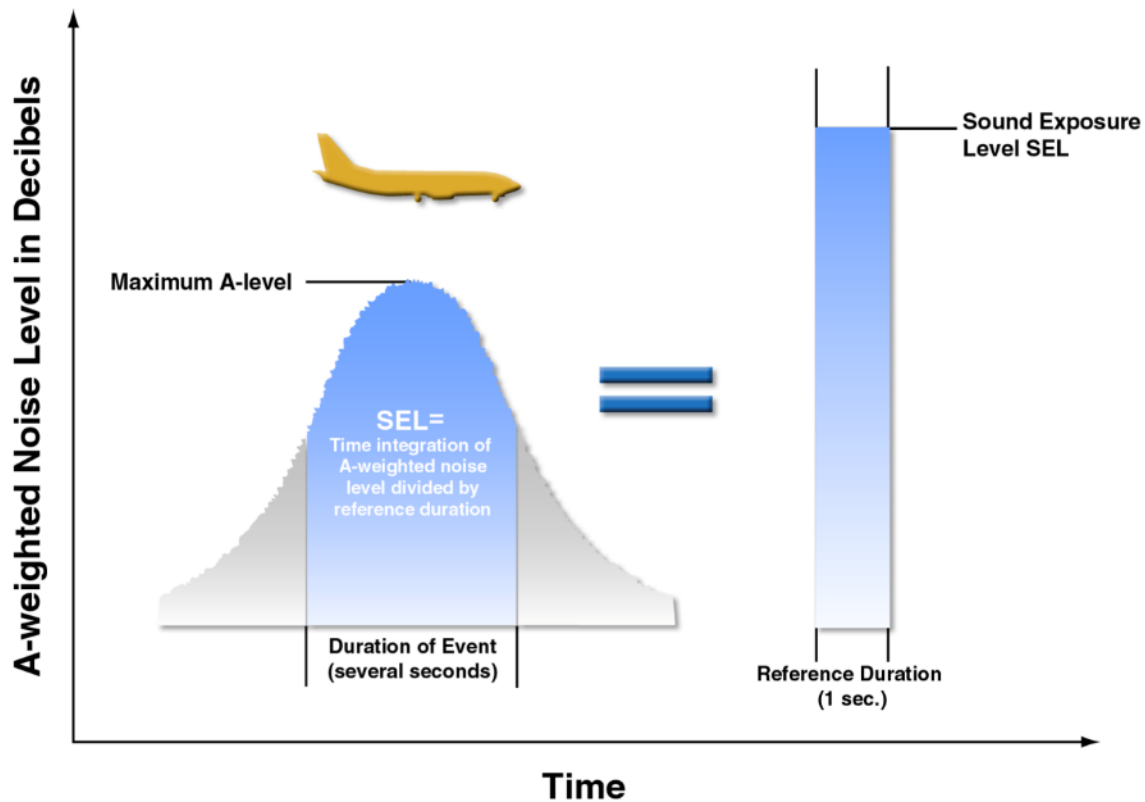
TABLE 1
COMMON SOUNDS ON THE A-WEIGHTED DECIBEL SCALE

Sound	Sound level (dBA)	Relative loudness (approximate)	Relative sound energy
Rock music, with amplifier	120	64	1,000,000
Thunder, snowmobile (operator)	110	32	100,000
Boiler shop, power mower	100	16	10,000
Orchestral crescendo at 25 feet, noisy kitchen	90	8	1,000
Busy street	80	4	100
Interior of department store	70	2	10
Ordinary conversation, 3 feet away	60	1	1
Quiet automobiles at low speed	50	1/2	.1
Average office	40	1/4	.01
City residence	30	1/8	.001
Quiet country residence	20	1/16	.0001
Rustle of leaves	10	1/32	.00001
Threshold of hearing	0	1/64	.000001

SOURCE: U.S. Department of Housing and Urban Development, Aircraft Noise Impact—Planning Guidelines for Local Agencies, 1972.

Maximum Sound Level (L_{\max}): The highest sound level reached during a noise event (expressed in decibels) is called the “Maximum Sound Level,” or L_{\max} . The metric only accounts for the highest A-weighted sound level measured during a noise event, not for the duration of the event. For example, as an aircraft approaches, the sound of the aircraft begins to rise above ambient levels. The closer the aircraft gets, the louder the sound until the aircraft is at its closest point. As the aircraft passes, the sound level decreases until the sound returns to ambient levels.

Sound Exposure Level (SEL): SEL, expressed in dBA, is a time integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The standardization of discrete noise events into a one-second duration allows calculation of the cumulative noise exposure of a series of noise events that occur over a period of time. The SEL of an aircraft noise event is typically 7 to 12 dBA greater than the L_{\max} of the event. **Figure 6-1** presents a graphical illustration of the SEL and L_{\max} for a single aircraft noise event.



SOURCE: Brown-Buntin Associates, Inc., November 2004.

Figure 6-1
Sound Exposure Level and Maximum Sound Level

Day-Night Average Sound Level (DNL): DNL, formerly referred to as L_{dn} , is the FAA-required metric used to describe existing and predicted noise exposure in communities in an airport environs. DNL is expressed in dBA and represents the average noise level over a 24-hour period. DNL includes the cumulative effects of a number of noise events rather than a single event. It also accounts for increased human sensitivity to noise during the night.

In the calculation of DNL, during the nighttime period (between 10:00 p.m. and 6:59 a.m.), the sound levels are increased by a 10 decibel-weighting penalty (equivalent to a 10-fold increase in aircraft operations) before the 24-hour value is computed. The weighting penalty accounts for the more intrusive nature of noise during the nighttime hours. To calculate the DNL at a specific location, the SELs at that location associated with each individual aircraft operation (landing or takeoff) are determined. Using the SEL for each noise event and applying the 10-decibel penalty for nighttime operations as appropriate, a partial DNL is then calculated for each aircraft operation. The partial DNLs for each aircraft operation are added logarithmically to determine the total DNL. The DNL metric is illustrated in **Figure 6-2**.

DNLs are used to estimate the effects of specific noise levels on land uses. The U.S. Environmental Protection Agency (EPA) introduced the metric in 1976 as a single number measurement of community noise exposure. The FAA adopted DNL as the noise metric for measuring cumulative aircraft noise when it adopted 14 CFR Part 150, *Airport Noise Compatibility Planning*. The Department of Housing and Urban Development, the Veterans Administration, the Department of Defense, the United States Coast Guard, and the Federal Transit Administration have also adopted DNL for measuring cumulative noise exposure. In 14 CFR Part 150 studies DNL is expressed as an average noise level on the basis of annual aircraft operations for a calendar year.

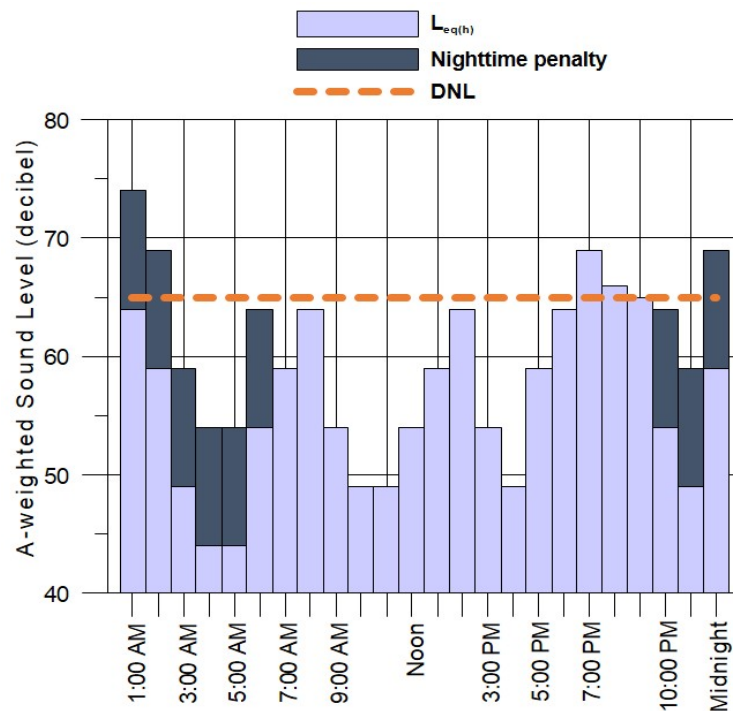


Figure 6-2
Day-Night Average Sound Level

6.4 Integrated Noise Model

The INM was developed by the FAA using methods and calculations from the Society of Automotive Engineers (SAE) International's Aerospace Information Report (AIR) 1845,

Procedure for the Calculation of Airplane Noise in the Vicinity of Airports. The INM is the FAA-approved, industry-accepted tool for determining the cumulative effect of aircraft noise exposure around airports. Statutory requirements for INM use are defined in 14 CFR FAR Part 150, *Airport Noise Compatibility Planning*, and FAA Order 1050.1F, *Policies and Procedures for Considering Environmental Impacts*.

The airport-specific information required by INM includes both physical and operational data. The physical data includes airfield geometry (i.e., runway locations and utilization) the altitude of the airfield, weather, and terrain data. Operational data includes the number and types of aircraft operating at the airport and the three-dimensional flight trajectories of aircraft arriving and departing from an airport.

The INM calculates noise exposure levels at a series of grid points, and produces noise exposure contours based on the grid point results. Within the INM program, there are three elements which process the input data:

- Flight Module – Definition of three-dimensional flight trajectories with associated aircraft performance characteristics based on manufacturer-supplied data.
- NPD Database – Noise-Power-Distance (NPD) curves based on FAR Part 36 measured certification flights. The curves indicate the single-event noise level based on the level of thrust used and how far the aircraft is along a given flight path from a receiver on the ground.
- Acoustic Module – Sound propagation algorithms to account for reduction in noise levels based on the distance traveled, atmospheric conditions, and source-to-receiver geometry.

6.5 INM Input Data

The INM uses airport-specific inputs to produce noise level outputs. **Figure 6-3** shows the data required as input to the INM. Each of the INM inputs is described in detail in the following sections.

6.5.1 Weather/Meteorological Data

The INM accounts for the influences of meteorological conditions on aircraft performance and atmospheric sound absorption. When specified by the User, the INM uses temperature and relative humidity to calculate atmospheric absorption coefficients¹, which in turn are used to adjust standard NPD curve levels². The average-annual meteorological conditions that can be defined in the INM are:

- Average annual temperature (degrees Fahrenheit)
- Average annual barometric pressure (inches of mercury)
- Average annual relative humidity (percent)
- Average annual headwind (knots)

¹ The atmospheric absorption coefficients are calculated using information developed by SAE International's Aviation Noise Committee and documented in SAE Aerospace Recommended Practice (ARP) 866A, *Standard Values of Atmospheric Absorption as a Function of Temperature and Humidity*.

² The standard NPD curves are calculated using atmospheric absorption coefficients defined in SAE-AIR-1845.

Calendar year 2014 meteorological data for weather stations near JFK and LGA will be obtained from the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center. All modeled cases for JFK will use identical meteorological data. All modeled cases for LGA will use identical meteorological data. The default average headwind in the INM is 8 knots. This value will be used for all modeled cases for both JFK and LGA unless more specific information is readily available.

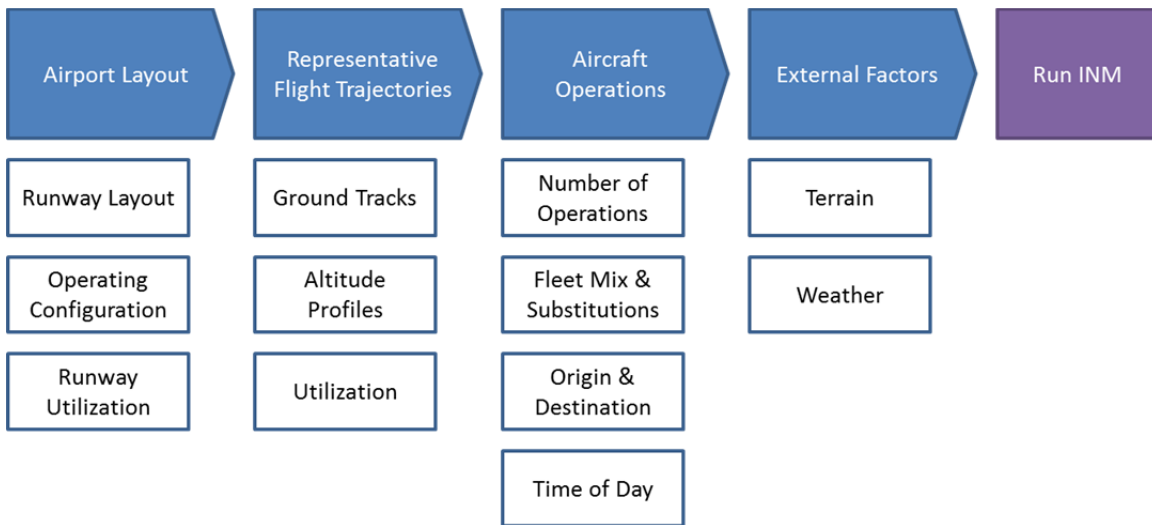


Figure 6-3
INM Input Data

6.5.2 Terrain Data

National Elevation Dataset (NED) terrain data in Gridfloat format will be acquired from the U.S. Geological Survey and input into the INM study files developed for JFK and LGA. The terrain in a region can affect how sound propagates across the ground. The INM uses terrain information to adjust source-to-receiver distances and to determine line-of-sight blockage when computing noise levels. Separate terrain data files will be acquired for JFK and LGA although it is anticipated that the geographic coverage of the terrain data files will overlap.

6.5.3 Runway Layout

Information regarding the existing (2016) airfield layout at JFK and LGA will be acquired from the Port Authority. The study team will also work with Port Authority staff to determine if there are planned airfield development projects at JFK or LGA within the next five years that could affect runway threshold locations or elevations. The study team will use information obtained from the Port Authority to develop tables summarizing existing airfield conditions and future airfield conditions at JFK and LGA. The following data will be used to define the existing conditions and future conditions runways in INM:

- Runway end coordinates (latitude/longitude)
- Runway end elevation (feet above mean sea level [MSL])
- Runway width (feet)
- Distance of any displaced arrival or takeoff thresholds (feet)
- Glide Slope (degrees)
- Threshold crossing height (feet)

6.5.4 Aircraft Operations

For aircraft noise exposure calculations using the DNL metric, aircraft operations associated with the annual average day (AAD) are used in the INM. The number of annual operations³ by each INM aircraft type is divided by 365 to arrive at the AAD by INM aircraft type. This representation of airport activity does not reflect any particular day, but gives an accurate picture of the character of operations throughout the year. Use of the AAD is required by the FAA in 14 CFR Part 150 Studies.

Information regarding total aircraft operations that occurred at JFK and LGA in 2014 will be collected and summarized in tables.

The aviation activity forecasts developed for JFK and LGA will be used to define AAD operations in 2016 and 2021 (i.e., the future 5-year condition).

6.5.5 Aircraft Fleet Mix

6.5.5.1 Existing Conditions Aircraft Fleet Mix

To develop the existing conditions aircraft fleet mix, data will be extracted from the Port Authority's Airport Noise and Operations Management System (ANOMS). The ANOMS is a computer system that stores FAA-generated information (e.g., flight tracks) and Port Authority-generated information (e.g., measured noise level) about each aircraft operation that occurs at JFK and LGA. Information collected by the Port Authority's ANOMS for aircraft operations originating or terminating at JFK or LGA includes: type of operation (i.e., an arrival or a departure); flight identification number (identifying the airline and the airline's flight number), date and time when the operation occurred; and a three-dimensional description of the aircraft's arrival or departure trajectory to, or from, a runway end. A complete set of calendar year 2014 operations data for JFK and LGA will be extracted from the Port Authority's ANOMS. These data will be classified using the following categories:

- Commercial Airline
- Cargo
- Commuter/Air Taxi

³ An aircraft operation is defined as either one arrival or one departure (an arrival of an aircraft and the departure of the same aircraft equals two operations).

- General Aviation
- Military
- Helicopter

Each operation will be assigned an INM aircraft type (or FAA-approved substitute) based on the aircraft type identified in the ANOMS data and the corresponding aircraft in the INM's system databases.

For commercial aircraft, the specific INM aircraft/engine combinations will be assigned using information contained in JP Airline Fleets 2013/2014 for each of the air carriers that operate at JFK or LGA. For all other aircraft categories, an INM aircraft type (or FAA-approved substitute) will be assigned using information from the following sources:

- JP Airline Fleets 2013/2014
- Aircraft Registration Number (N-Number)
- Interviews with JFK/LGA Airport management and/or Air Traffic Control (ATC) staff
- Interviews with Fixed Based Operators

The ESA Team will develop aircraft fleet mix tables for JFK and LGA showing the percentage of operations performed in 2014 by INM aircraft type. These fleet mix percentages will be applied to the AAD operations figures calculated for JFK and LGA. The resulting tables (i.e., one table for JFK and one table for LGA) will present annual average day operations by INM aircraft type under existing conditions.

6.5.5.2 Future Conditions Aircraft Fleet Mix

Future (2021) conditions aircraft fleet mix tables for JFK and LGA will be based primarily on the existing (2016) conditions aircraft fleet mix tables. The development of aviation activity forecasts for JFK and LGA will include a detailed review of the existing conditions aircraft fleet mix data and development of 2021 INM aircraft fleet mix tables. (See Chapter 5 – Aviation Activity Forecasts for greater detail on the forecasting methodology.)

6.5.6 INM Aircraft Substitutions

The INM 7.0d system database includes 164 unique aircraft/engine combinations for common aircraft. However, the database does not include all aircraft that are in operation today. For certain aircraft types, the FAA has identified pre-approved substitute aircraft for use in the INM. This pre-approved substitution list includes 270 aircraft types.

For aircraft that are not in the INM system or pre-approved substitution databases, an appropriate similar aircraft will be selected. It should be noted that the use of any non-standard INM input requires written approval from the FAA. For these aircraft an appropriate substitute aircraft will be identified and documented in a letter sent to the FAA's Project Manager for distribution to the appropriate FAA departments for review and approval. Separate INM aircraft substitution letters will be developed for the JFK 14 CFR Part 150 Study and the LGA 14 CFR Part 150 Study.

Supporting text identifying the reason for the selected substitute aircraft will be included in the letters. This text may include supporting aircraft noise certification data, where applicable.

6.5.7 Departure Stage Length

Departure stage length refers to the non-stop distance an aircraft travels after departing from an airport. The stage length determines the gross takeoff weight assigned to each aircraft type. The aircraft weight serves as the basis for determining the appropriate departure climb altitude and thrust profiles used for modeling purposes. The INM provides multiple stage lengths for larger aircraft included in the system database and substitutes database. Most small aircraft in the INM only have one departure stage length profile.

The approach that will be taken to assign departure stage lengths to aircraft operating at JFK and LGA under existing and future conditions is described below.

6.5.8 Arrival and Departure Profiles

Aircraft altitude profiles (i.e., the distance an aircraft is above ground) are defined separately from ground tracks in the INM. The INM includes default or “standard” arrival and departure profiles, which are defined by aircraft manufacturers. These profiles define the altitude, speed, and thrust levels of an aircraft. The standard departure profiles are defined from the airport’s mean sea level elevation or “field elevation” to 10,000 feet above field elevation (AFE). The standard arrival profiles are defined as starting from 6,000 feet AFE and continue to the airport field elevation.

Each aircraft in the INM database includes one or more standard departure profiles, but only one arrival profile. As described above, an aircraft’s “departure stage length” is defined as the distance the aircraft flies from the origin airport to the destination airport. This factor is considered because aircraft traveling greater distances are generally heavier due to the need to carry additional fuel and therefore, the aircraft climb at a slower rate. To account for this variance in aircraft weight the INM contains up to nine departure climb profiles (corresponding to different stage lengths from 500 nautical miles (NM) to greater than 6,500 NM). For arrivals, the INM standard profiles reflect a three degree angle of descent.

Figure 6-4 shows an example of two stage lengths for a Boeing 777-300 departure. As shown, at a distance of approximately 10 NM from the beginning of takeoff roll, the aircraft traveling 5,000 NM (i.e., stage length 7) is approximately 3,300 feet lower than the same aircraft traveling 500 NM (i.e., stage length 1).

The actual climb or descent profiles utilized at an airport may differ from the INM standard profiles. For example, an analysis of radar data may show that aircraft are climbing at a slower or faster rate, or that arriving aircraft are leveling-off during approach. Within the INM, the “procedure steps” defining the standard profile may be modified to better match aircraft altitudes and speeds shown in radar data. For departures, the user must define the altitude, climb rate, and speed along the profile. For arrivals, the user must define the altitude and speed along the profile.

Data will be collected from the Port Authority's ANOMS that identifies aircraft departure and arrival profiles for a selection of aircraft operating at JFK and LGA. These data will be reviewed and modifications to certain INM standard profiles for specific aircraft will be identified, as necessary. Separate evaluations will be conducted for JFK and LGA. As required, the ESA Team will use the results of these evaluations to develop user-defined profiles in the INM.

User-defined profiles must be approved by the FAA's Office of Environment and Energy (see the INM User's Guide, Appendix B – FAA Profile Review Checklist). Documentation of the profile input parameters, resulting noise exposure levels compared to the standard profile, and validation from the aircraft manufacturer or operator must be submitted to the FAA for review and approval. The review process also requires a demonstration of the benefit⁴ of modeling the user-defined profiles instead of the standard profiles. It should be noted that in some cases, a user-defined profile may better reflect radar data, but have a negligible effect on the size/extents of DNL contours.

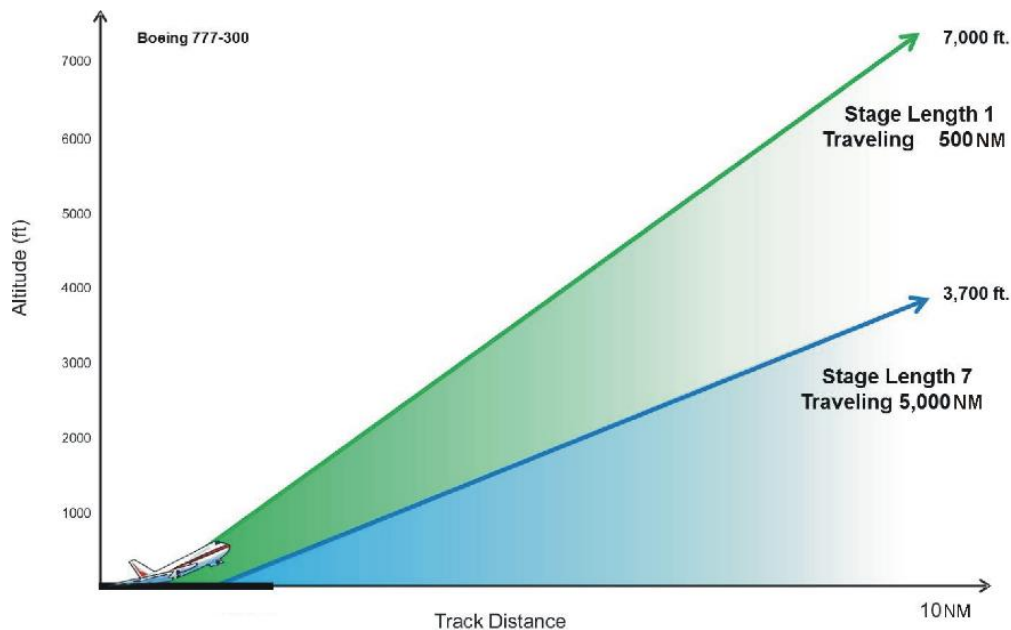


Figure 6-4
Stage Length Comparison for Boeing 777-300

6.5.9 Time of Day

As identified previously, the INM applies a “weighting” penalty to aircraft operations that occur during the nighttime period (10:00:00 pm to 6:59:59 am) - the sound levels are increased by a 10 decibel-weighting penalty (equivalent to a 10-fold increase in aircraft operations) before the 24-hour value is computed. ANOMS data for calendar year 2014 will be used to identify the percentage of operations at JFK and LGA that occurred during the daytime and nighttime hours.

⁴ In terms of how the new profiles more accurately model aircraft performance and the resulting noise exposure levels.

For arrival operations, the percentages of operations by specific INM aircraft type that occurred during the nighttime hours will be calculated. Separate calculations will be performed for JFK and LGA. These percentages will then be applied to the corresponding aircraft operations in the 2016 AAD fleet mix tables developed for JFK and LGA.

For departure operations, the percentages of operations by specific INM aircraft type and by departure stage length that occurred during the nighttime hours will be calculated. Separate calculations will be performed for JFK and LGA. These percentages will then be applied to the corresponding aircraft/stage length combination in the 2016 AAD fleet mix tables developed for JFK and LGA.

Time of day information used to model future (2021) conditions at JFK and LGA will be identical to time of day data used to model existing (2016) conditions. If, during the course of the JFK and LGA 14 CFR Part 150 Studies, information is provided that demonstrates that the flight schedules at JFK or LGA will change in the future, then the future conditions INM input will be modified accordingly. Aviation activity forecasts previously developed by the Port Authority will be reviewed carefully to determine if flight schedules at JFK or LGA are anticipated to change in the future.

6.5.10 Runway Utilization

Aircraft arriving to a runway have a different noise signature than aircraft departing from a runway. It is for this reason that runway use is an important factor in determining the noise exposure around an airport.

The ESA Team will develop runway use tables for the JFK and LGA existing (2016) conditions scenarios using an entire calendar year (2014) of data from the Port Authority's. The runway use tables developed for JFK and LGA will identify the specific INM aircraft type, operation type (arrival/departure), and the runway identifier. The runway use percentages data developed for JFK will be applied to the 2016 AAD fleet mix table for JFK. The runway use percentages data developed for LGA will be applied to the 2016 AAD fleet mix table for LGA.

Runway use data for the future (2021) conditions analyses for JFK and LGA will be developed as part of the aviation activity forecast task and confirmed through interviews with Port Authority and FAA ATC staff.

6.5.11 Flight Tracks

The INM uses airport-specific ground tracks and vertical flight profiles to compute three-dimensional flight trajectories. Radar flight track data from FAA radar systems and/or airport owned ANOMS are typically reviewed to assist with the development of flight tracks in the INM. The ESA Team will meet with the Port Authority to review calendar year 2014 flight track data stored in the Port Authority's ANOMS. The ESA Team will review the entire year of radar arrival and departure tracks for JFK and LGA and conduct a screening level analysis to determine monthly variations in arrival and departure patterns at JFK and LGA.

To create aircraft flight tracks in the INM, samples of radar arrival and departure tracks that occurred in 2014 will be collected from the Port Authority's ANOMS. Separate radar data samples will be collected for JFK and LGA. The sample data will be used to develop flight tracks in the INM that are representative of annual average day conditions. The collected samples will include flight tracks from all runways at JFK and LGA and will include flight tracks for operations occurring during daytime and nighttime hours. Radar flight track data samples for JFK and LGA will cover different times of calendar year 2014 to ensure that the effects of seasonal weather on operations at JFK and LGA are considered in the modeling. The sample ANOMS flight tracks will be sorted and reviewed based on the following parameters:

- Arrivals/Departures
- Aircraft Type
- Stage Length (for departures only)
- Daytime/Nighttime
- Runway

From this review, aircraft flight tracks will be developed in the INM. The INM aircraft flight tracks will be representative of annual average day conditions at JFK and LGA under existing (2016) conditions. It is anticipated that flight tracks used to model future (2021) conditions at JFK and LGA will be identical to the existing conditions flight tracks. If, during the course of the JFK and LGA 14 CFR Part 150 studies, information is provided that demonstrates that flight tracks/flight patterns at JFK or LGA will change in the future, then the future conditions INM input will be modified accordingly.

6.5.12 Aircraft Engine Run-ups

In addition to aircraft in flight, the INM also includes the capability to model aircraft engine run-ups. Run-ups typically occur on the airfield following the completion of maintenance on aircraft engines. If aircraft engine run-ups are considered to represent a substantial component of the overall aircraft noise impact at JFK and LGA and the necessary data are available, aircraft engine run-ups will be modeled in the INM. The following data are required to model aircraft engine run-ups in the INM:

- Aircraft type
- Location where the run-up occurred (latitude/longitude)
- Aircraft heading during run-up
- Time when the run-up occurred (start time and end time)
- Engine thrust setting (pounds or percent)
- Duration of the event
- Number of engines running

Separate aircraft engine run-up analyses will be performed for JFK and LGA if the Port Authority possesses the necessary data as described above.

6.6 Noise Measurements Data

The ANOMS operated by the Port Authority includes 6 permanent and 11 portable noise monitoring stations in the vicinity of JFK and 2 permanent and 7 portable noise monitoring stations in the vicinity of LGA. Using state-of-the-art technology, the PANYNJ can monitor noise levels and link aircraft noise events or complaints to specific flights and aircraft types. The Port Authority's WebTrak software allows the public to watch the movement of aircraft within the New York metropolitan area and to see aircraft noise levels associated with specific flights as they pass over or near one of the monitoring stations. WebTrak also provides information regarding airline carrier, aircraft type, altitude, and origin/destination airports.

The Port Authority will provide the ESA Team with one calendar year (2014) of aircraft and community noise levels data for monitoring stations near JFK and near LGA. The ESA Team will use the noise measurements data to develop summary tables describing aircraft noise levels, community/ambient noise levels, and total noise levels (i.e., the sum of aircraft and community noise levels) at the monitoring station locations.

In addition to developing the summary tables described above, the ESA Team will conduct a limited comparison of measured aircraft noise levels (i.e., DNL at the location of the noise monitoring stations) and predicted aircraft noise levels (DNL values calculated by the INM). The comparison of measured and predicted DNL values will be limited to those noise monitoring stations located within the existing (2016) conditions DNL 65 and greater contours. Differences between the measured and modeled DNL values will be identified. To the extent possible, the reason for differences greater than plus or minus 2 dB DNL will be described. The noise monitoring data will only be used for comparisons and not used to calibrate the noise model.

6.7 Noise Contours

Noise exposure values of DNL 65, 70, and 75 are the criterion levels for 14 CFR Part 150 noise analyses. For the JFK and LGA 14 CFR Part 150 studies continuous contours of DNL 55, DNL 60, DNL 65, DNL 70, and DNL 75 will be developed using the INM and NMPlot, a Microsoft Windows application for viewing and editing sets of geographically referenced data points. Three specific ranges of noise exposure will be depicted on the noise exposure maps developed for JFK and LGA: (1) DNL 75 dB and higher, (2) DNL 70 dB to 75 dB, and (3) DNL 65 dB to 70 dB. Population and land use analyses conducted for the JFK and LGA 14 CFR Part 150 Studies will be conducted for only those areas exposed to aircraft noise of DNL 65 dB and greater. Table 1 of 14 CFR Part 150 (reproduced in **Table 2** below) considers areas exposed to aircraft noise level below 65 dB DNL to be compatible with noise from aircraft operations. The DNL 55 and 60 contours are not required to satisfy the requirements of 14 CFR Part 150 and will be depicted on separate maps that will be located in a technical appendix. The DNL 55 and 60 contours will be provided for information purposes only on separate figures labeled as such.

TABLE 2
14 CFR PART 150 LAND USE COMPATIBILITY GUIDELINES IN AIRCRAFT NOISE EXPOSURE AREAS

Land Use	Yearly Day-Night Noise Level (DNL) in decibels					
	Below					Over
	65	65-70	70-75	75-80	80-85	85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail - building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade – general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, ridings tables and water recreation	Y	Y	25	30	N	N

TABLE 2 (Continued)
14 CFR PART 150 LAND USE COMPATIBILITY GUIDELINES IN AIRCRAFT NOISE EXPOSURE AREAS

Numbers in parenthesis refer to notes.

* The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table

SLUCM Standard Land Use Coding Manual

Y (Yes) Land use and related structures compatible without restrictions.

N (No) Land use and related structures are not compatible and should be prohibited.

NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

25, 30 or 35 Land Use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Notes:

- (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 dB to 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (5) Land use compatible provided that special sound reinforcement systems are installed.
- (6) Residential buildings require an NLR of 25 dB.
- (7) Residential buildings require an NLR of 30 dB.
- (8) Residential buildings not permitted.

SOURCE: U.S. Department of Transportation, Federal Aviation Administration, Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*, Code of Federal Regulations, Title 14, Chapter I, Subchapter I, Part 150, January 18, 1985, as amended.

6.8 Noise Exposure Maps

DNL contours, when depicted on a land use base map, form the NEM. An NEM is a scaled, geographic depiction of an airport, its noise contours, and existing land uses in surrounding areas. The ESA Team will develop existing (2016) conditions and future (2021) conditions NEMs for JFK and LGA (four NEMs total). The NEMs and supporting documentation (i.e., the NEM Report) will be submitted to the FAA for review and acceptance. The 2016 and 2021 NEMs developed for JFK and LGA will comply with map scale and data requirements as specified in paragraphs A150.101, A150.103, A150.105, and 150.21 of 14 CFR Part 150. All elements required by 14 CFR Part 150 will be depicted on the NEMs developed for JFK and LGA including the locations of noise sensitive public buildings (e.g., schools, hospitals, religious facilities, etc.) and properties on or eligible for inclusion in the National Register of Historic Places exposed to aircraft noise of DNL 65 dB and higher.

6.9 Noise Data Tables

A variety of data tables will be developed using the noise contours generated for the NEM Report. Similar data tables will be developed in support of the evaluation of operational noise abatement alternatives during the development of the JFK and LGA NCP Reports – See Section 6.10. These data tables are described below.

6.9.1 Contour Area and Population

Population and household estimates will be developed using aircraft noise contours developed using the INM, geographic information system (GIS) software, and U.S. Census Block Data for 2010. Separate population and household figures will be calculated for JFK and LGA for three ranges of noise exposure: (1) DNL 75 dB and higher, (2) DNL 70 dB to 75 dB, and (3) DNL 65 dB to 70 dB. Population and household figures will be reported by County.

For information purposes only, the population within the DNL 55 to 60 dB contour and the DNL 60 to 65 dB contour will be estimated using 2010 U.S. Census Block data.

6.9.2 Land Area

Noise compatible and incompatible land uses, per 14 CFR Part 150 Table 1, will be identified for land parcels within areas exposed to aircraft noise of DNL 65 and greater. Separate analyses will be conducted for JFK and LGA and for existing conditions and future conditions. Area, in square miles, categorized as either compatible or incompatible will be calculated and tabulated.

6.9.3 Noise Sensitive Sites

As part of the Land Use Protocol, the locations of noise sensitive public buildings and properties on or eligible for inclusion in the National Register of Historic Places within the limits of the DNL 65 contour will be identified and the latitude/ longitude coordinate (in decimal degrees) will be recorded. The number of noise sensitive public buildings and historic properties exposed to aircraft noise of DNL 65 dB and greater will be identified and tabulated. Separate analyses will be conducted for JFK and LGA and for existing conditions and future conditions.

6.9.4 Noise Grid Point Analysis

Using the geographic coordinate information described above, noise sensitive sites in the vicinity of JFK or LGA that are exposed to aircraft noise of DNL 65 dB and greater will be input into the INM as a location point and the DNL will be calculated (to the one-tenths decimal place) and documented for both existing (2016) conditions and future (2021) conditions. Each noise sensitive site modeled as a location point in the INM will be assigned a height of 5 feet above ground level. Noise exposure at each of the location points will be reported, to the one-tenths decimal place. Separate analyses will be conducted for JFK and LGA and for existing conditions and future conditions.

6.10 Noise Evaluations for the Noise Compatibility Program

Following the FAA's acceptance of the NEMs, a series of operational noise abatement alternatives (e.g., preferential runway use program, modifications to arrival and departure flight tracks, etc.) will be identified during the preparation of the NCP. An NCP includes the measures proposed by the airport owner that potentially reduce existing non-compatible land uses within the airport vicinity and to prevent the introduction of additional non-compatible land uses in the

future DNL 65 and greater contours. **Figure 6-5** identifies the noise modeling process that occurs during the development of the NCP.

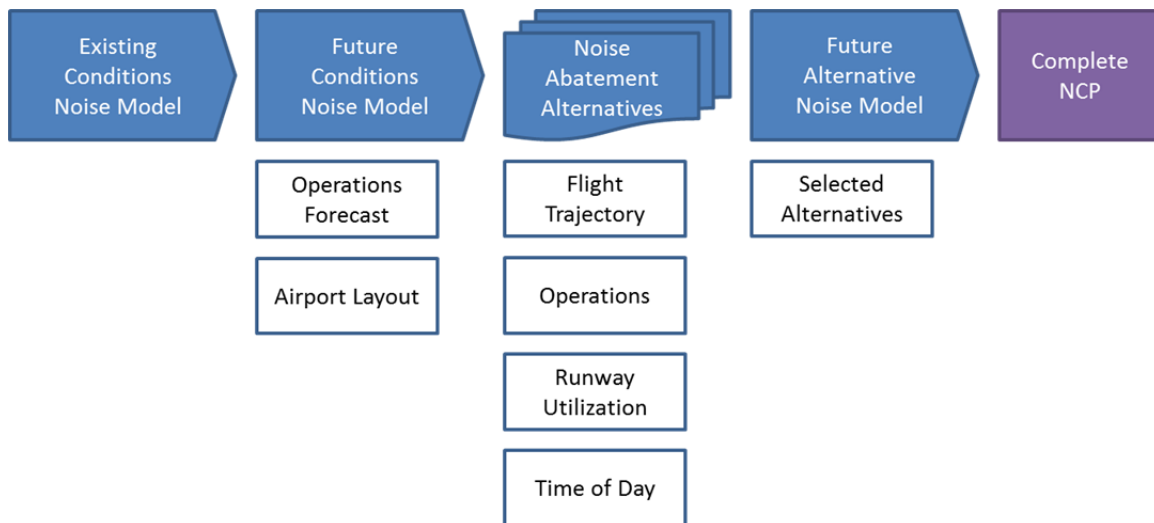


Figure 6-5
INM Operational Alternatives Analysis

The noise abatement operational alternatives developed during the JFK and LGA 14 CFR Part 150 Studies will be modeled individually in the INM to evaluate each alternative's effectiveness in reducing incompatible land uses within the limits of the DNL 65 and greater contours.

Analysis of noise compatibility program alternatives will be conducted in accordance with standards set forth in §150.23 and Part 150 Appendix B. Alternatives will be considered and presented in accordance with the categories prescribed in Sec. B150.7(a), i.e.:

- (1) Noise abatement alternatives for which the airport operator has adequate implementation authority.
- (2) Noise abatement alternatives for which the requisite implementation authority is vested in a local agency or political subdivision governing body, or a state agency or political subdivision governing body.
- (3) Noise abatement options for which requisite authority is vested in the FAA or other Federal agency.

Consistent with Sec. B150.7(b), at a minimum, the Port Authority "shall analyze and report on the following alternatives, subject to the constraints that the strategies are appropriate to the specific airport," including:

- (1) Acquisition of land and interests therein, including, but not limited to air rights, easements, and development rights, to ensure the use of property for purposes which are compatible with airport operations.
- (2) The construction of barriers and acoustical shielding, including the soundproofing of public buildings.

- (3) The implementation of a preferential runway system.
- (4) The use of flight procedures (including the modifications of flight tracks) to control the operation of aircraft to reduce exposure of individuals (or specific noise sensitive areas) to noise in the area around the airport.
- (5) The implementation of any restriction on the use of airport by any type or class of aircraft based on the noise characteristics of those aircraft. Such restrictions may include, but are not limited to—
 - (i) Denial of use of the airport to aircraft types or classes which do not meet Federal noise standards;
 - (ii) Capacity limitations based on the relative noisiness of different types of aircraft;
 - (iii) Requirement that aircraft using the airport must use noise abatement takeoff or approach procedures previously approved as safe by the FAA;
 - (iv) Landing fees based on FAA certificated or estimated noise emission levels or on time of arrival; and
 - (v) Partial or complete curfews.
- (6) Other actions or combinations of actions which would have a beneficial noise control or abatement impact on the public.
- (7) Other actions recommended for analysis by the FAA for the specific airport.

The noise abatement operational alternatives developed during the JFK and LGA 14 CFR Part 150 Studies will be modeled individually in the INM to evaluate each alternative's effectiveness in reducing incompatible land uses within the limits of the DNL 65 and greater noise contours. Up to 10 operational noise abatement alternatives are anticipated to be modeled for JFK and LGA (i.e., 20 operational abatement measures anticipated to be evaluated). However, more measures may be explored if deemed necessary. The operational abatement measures will be modeled in the INM using future (2021) conditions operations, runway utilization, time of day, and flight trajectory data.

Noise data tables will be developed for all operational abatement measures evaluated during the development of the NCP Reports for JFK and LGA. The DNL 65, 70, and 75 contours will be computed for each alternative. The DNL 65 and greater contours will be used to determine the number of persons, households, and noise sensitive sites within incompatible noise levels for each alternative. DNL values at noise sensitive sites within the DNL 65 and greater contours will be calculated and tabulated. The noise data tables developed for the operational abatement measures will be compared to the data tables developed for the future (2021) conditions NEM described in Sections 6.8 and 6.9.

Following a review of each alternative's effectiveness in reducing incompatible land uses within the DNL 65 and greater contours, final recommended programs will be identified for JFK and LGA. The operational noise abatement options that comprise the recommended program for JFK will be modeled cumulatively in the INM. The operational noise abatement options that comprise the recommended program for LGA will be modeled cumulatively in the INM.

The DNL 65 and greater contours will be used to determine the number of persons, households, and noise sensitive sites within incompatible noise levels. The DNL values at each of the noise sensitive sites within the DNL 65 and greater contours for the recommended program will also be calculated and tabulated.

6.11 Supplemental Noise Metrics

Past research by the Federal Interagency Committee on Noise (FICON) suggests that the use of supplemental noise metrics (i.e., metrics other than DNL) in transportation noise studies can be useful to address various public concerns and to help the public better understand noise impacts.⁵ The FAA chiefly uses supplemental noise metrics in Environmental Impact Statements (EISs) to further describe aircraft noise impacts for specific noise-sensitive locations (e.g., parks, wildlife refuges, and historic properties) or situations where there could be a significant noise effect. Supplemental noise metrics are sometimes used in 14 CFR Part 150 studies to provide additional information to members of the public regarding changes in noise exposure that would result from specific noise abatement alternatives and scenarios. FAA guidance suggests that supplemental noise analyses be tailored to address specific community concerns (e.g., sleep disturbance, speech interference, etc.) and the types of community activities that are potentially affected by aircraft noise. The Port Authority and the ESA Team will identify which metrics will be used based on discussion with the TAC and needs of the study.

⁵ FICON. *Federal Interagency Review of Selected Airport Noise Analysis Issues*. 1992.

This page intentionally left blank

CHAPTER 7

Land Use Protocol

7.1 Introduction

In order to collect and facilitate the large amounts of land use data required for the Studies, an internal technical land use group comprised of representatives from ESA, Kimley-Horn Associates, VHB, and PTI was formed. The technical land use group will focus on issues concerning the quantification of impacts to land uses and populations as specified in 14 CFR Part 150 stemming from aircraft related noise. The technical group will coordinate their efforts closely with the Port Authority management team throughout the Part 150 process. The following are protocols that will guide the activities of the team over the course of the Studies.

7.2 Study Areas

Figures 7-1 and 7-2 depict the Data Collection Area and Study Area for the JFK and LGA 14 CFR Part 150 Studies, respectively. The Data Collection Area and Study Areas were defined to guide the efforts of the technical land use group that is responsible for collecting the land use data sets and will not be depicted on the NEMs developed for JFK or LGA nor will they be used in any way in the Integrated Noise Model evaluations.

The Data Collection Area represents the outer limits for the land use data collection efforts. The Data Collection Areas took into consideration a number of factors for defining the geographic extents of the area and to delineate the general boundaries including the following:

- The most current set of historic noise contours for JFK out to the DNL 50 dB contour to ensure that the existing conditions and future conditions DNL 65 dB contours developed for the 14 CFR Part 150 Study would be encompassed;
- The most current set of historic noise contours for LGA out to the DNL 50 dB contour to ensure that the existing and future conditions DNL 65 dB contours developed for the 14 CFR Part 150 Study would be encompassed;
- A radial distance of 30,000 feet (5.682 miles) off each runway end at JFK for capture of flight tracks per 14 CFR Part 150 requirements;
- A radial distance of 30,000 feet (5.682 miles) off each runway end at LGA for capture of flight tracks per 14 CFR Part 150 requirements; and
- 2014 flight track data associated with arrivals and departure operations at JFK and LGA that took into account recent airspace changes, (tracks were not limited to the 30,000 foot distance).

After review by the Port Authority, the Data Collection Areas were further refined through the use of political/jurisdictional boundaries and man-made and/or natural features including:

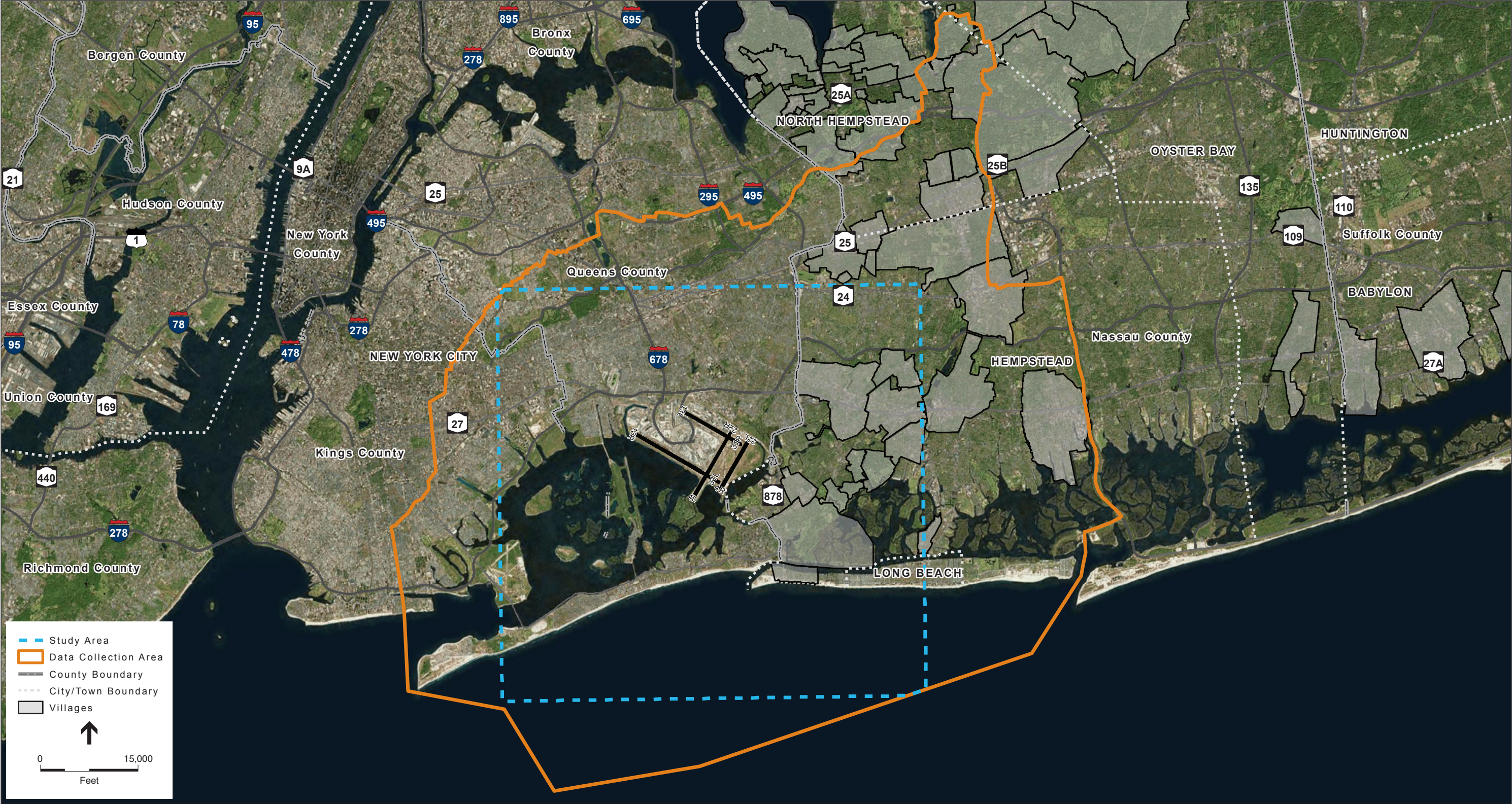
- Major arterial streets and roadways as well as rail corridors providing readily identifiable boundaries beyond the limits of potential noise contours and outside of the 30,000 foot radial distances for JFK and LGA; and
- Readily identifiable geographic features including waterways, shorelines, streams/rivers and large expanses of open space.

The Study Areas were defined using DNL 60 contours for JFK and LGA and represent the area for which detailed land use datasets will be required to support population, household, and land use evaluations conducted for the DNL 65-75 noise contours as discussed in more detail below.

7.3 Land Use Designations

A consistent set of land use designations will be developed to reconcile a diverse array of various land use classifications schemes that exist between the multiple jurisdictions anticipated to be within the general study area boundaries, such as the State of New York, New York City, and Nassau County. The ESA Team will coordinate and share these classifications with the Port Authority, so that they may be shared with the consultant team preparing 14 CFR Part 150 Studies for TEB and EWR. This classification system will take into account features including type of use, intensity or density of use, dwelling type, and standard land use classification systems routinely employed in land use planning. The ESA Team will develop a single land use mapping classification scheme for use throughout the study areas, which could also be applied to other airports within the Port Authority system in support of 14 CFR Part 150 studies. Noise sensitive institutional land uses will be classified by the specific use involved (examples include, but are not limited to: religious facilities, schools, hospitals, institutional group homes, libraries, nursing homes, museums, etc.). Examples of data sources will include but may not be limited to the following:

- New York City PLUTO (Primary Land Use Tax Lot Output) - data (continually updated by New York City)
- ESRI - Residences, number and types of noise sensitive facilities, such as houses of worship, schools, hospitals, (frequently updated); ESRI proprietary data (frequently updated);
- Nassau County Land Records database (assuming this is economically available)
- New York City Department of City Planning; New York State GIS Clearinghouse; U.S. Geological Survey data – facilities, residences, and New York City tax and land use data;
- U.S. Census Bureau - Businesses, Minority and Low-Income Populations; census tract and potentially block specific;
- Land use mapping by study area on an individual jurisdictional basis.



SOURCE: EarthStar Geographics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA Airports, 2015

PANYNJ FAR Part 150 Studies . 140037

Figure 7-1

Study Area and Data Collection Area for the JFK 14 CFR Part 150 Study



SOURCE: Earth Star Geographics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA Airports, 2015

Figure 7-2
Study Area and Data Collection Area
for the LGA 14 CFR Part 150 Study

7.4 Electronic Document Filing Structure

An electronic document/data filing structure will be established in cooperation with the Port Authority to store scanned versions of land use plans, zoning codes, and related documents and computer files obtained from the City of New York and other jurisdictions located within the defined study areas for the JFK and LGA 14 CFR Part 150 Studies. This structure will be used to logically classify information collected over the course of the JFK and LGA Studies and to facilitate the ease of retrieving project-related planning maps, documents, data, methodologies, analyses, memoranda and correspondence collected and/or developed as a part of the land use planning elements of the noise compatibility planning effort. The land use database will be accessible to ESA Team members and Port Authority representatives via a password protected web-based site maintained by Planning Technology, Inc. (PTI). This structure will be coordinated with the electronic document/data filing structures established for other major components of the 14 CFR Part 150 Studies, including, but not limited to, noise analyses, derivative forecasts development, public outreach and stakeholder involvement. Separate land use directories will be developed for JFK and LGA. Where materials have been collected in hard copy version, these materials will be electronically scanned at a resolution that provides full legibility of text and graphical elements to create an electronic version that will be added to the data repository.

The land use directory would be structured along the following general categories of data required as a part of land use element of the 14 CFR Part 150 Studies:

- Airport Study Area (JFK and LGA)
- Land Use Plan Data by Individual Political Jurisdictions by Study Area including but not limited to:
 - Jurisdictional boundaries mapping within the Study Areas
 - Most current approved Comprehensive Community Plans/General Plans by political jurisdiction¹
 - Existing and future land use data files (as available) and existing and future land use mapping Special District or Sector Plans within the Study Area by jurisdiction
 - Policy Plans establishing community vision, goals, objectives and implementation steps that relate to land use compatibility by jurisdiction
 - Land use classification systems by jurisdiction
 - Open space and environmental features plans by jurisdiction
 - Historic properties mapping and lists by jurisdiction
 - Existing soundproofed facility mapping or list of uses mitigated
 - Historic building permit mapping/records (aggregated number issued by jurisdiction, location and type) to the extent available by jurisdiction.
- Land Use Controls by Individual Political Jurisdiction by Study Area including, but not limited to:

¹ Most communities will have some form of Comprehensive City or Village plan, or this information may be covered under the Comprehensive Plan for a larger jurisdiction such as a Township or County.

- Zoning Ordinances by Jurisdiction
- Zoning maps/overlay district mapping by jurisdiction
- Subdivision regulations by jurisdiction
- Environmental protection ordinances
- Existing noise ordinances by jurisdiction
- Discretionary project review procedures and criteria by jurisdiction
- Building codes by jurisdiction
- Population and housing count data including, but not limited to:
 - Population by census tract and census block by jurisdiction as available;
 - Census tract/block mapping by Study Area and/or Jurisdiction;
 - Dwellings units by census tract/block;
 - Census data updates since 2010 by study area/jurisdiction;
 - Population/trend studies by study area/jurisdiction
- Population projections by jurisdiction and supporting basis including, but not limited to:
 - Future Growth Risk (based on five-year future noise contour horizon)
 - Land redevelopment efforts by Study Area/Jurisdiction underway or approved by study area/jurisdiction;
 - Major reuse trends in the Study Areas involving conversion from compatible to non-compatible uses (such as significant loft conversions);
 - Major development projects by Study Area/Jurisdiction approved or in the pipeline involving non-compatible uses.

The land use technical group of the ESA Team will make use of the most recent and/or complete versions of land use planning data available at the time of the commencement of the noise exposure/compatibility planning efforts for JFK and LGA. It is recognized that due to the multiplicity of jurisdictions that may be incorporated into the study areas, the availability of a single source of land use data with an appropriate level of detail is unlikely. Where sources vary, these situations will be noted and the rationale for the use of a specific source over another will be provided to the Port Authority for their consideration and acceptance prior to the use of a data source in the Studies. The rationale/assumptions will be incorporated into the documentation for each Study.

7.5 Land Use Maps and Population Impact Analysis

Land use information will be incorporated into a GIS mapping base that will serve as the basis for study area(s) mapping and for the population impact analysis. This GIS database will be hosted by the ESA Team, accessible only to approved users. It is anticipated that existing zoning designations and their affiliated characteristics (permitted uses, densities, and conditional uses) will vary considerably from jurisdiction to jurisdiction within the Study Areas. Each jurisdiction's

specific zoning categories will be both mapped and discussed in relation to land use compatibility criteria set forth in 14 CFR Part 150.²

Future land use will be derived based on the most current future land use planning documentation available for each jurisdiction within the study areas. Where future land use plans are in progress (being revised, developed, etc.) at the time of data collection, the ESA Team will, to the extent possible, identify potential options to address the uncertainty created by the pending nature of available data and discuss these with the Port Authority PM to define a recommendation for addressing the necessary information. In cooperation with the Port Authority PM and other relevant technical experts of Port Authority, the ESA Team will coordinate with the specific jurisdiction(s), where a definitive source of future land use issue has arisen, to develop a future land use concept for the five-year future condition consistent with the jurisdiction's expectations.

Population and dwelling unit count data will be derived from the 2010 Decennial Census developed by the U.S. Census Bureau, and will be based on census block level information. Census block data will be mapped and incorporated into the GIS database for use in subsequent population and non-compatible land use impact quantification. More recent census block data sets will be reviewed if they are available.

Census block boundaries will be overlaid atop a recent aerial photograph that encompasses each Study Area and clearly displays the existing pattern of residential and non-residential development.

Data collection associated for land use will be compiled as a single effort and will not be continually updated and refreshed during the course of the Studies. This will enable the ESA Team to proceed with other project analyses using a consistent data set throughout the Studies. The data collection period will be determined through collaboration between the consultant team and the Port Authority after all of the jurisdictions to be included within the two Study Areas are identified. A schedule will then be determined for contacting these jurisdictions to obtain the most recent data available.

7.6 Coordination with Local Land Use Planning Agencies

Initial contact will need to be made with multiple political jurisdictions within the Study Areas for the JFK and LGA 14 CFR Part 150 Studies to both identify and collect relevant land use related data, studies and mapping. Further, over the course of the 14 CFR Part 150 Studies effort, follow up contacts with some or all of the jurisdictions will be necessary to clarify questions that may arise, request follow up information or to discuss land use related 14 CFR Part 150 project items. The land use technical group anticipates that all initial contact with Study Area jurisdictions whether this contact is with an elected official or with staff level employees will be initiated through the Port Authority PM, or his/her designee within the Port Authority, unless otherwise directed by the Port Authority. This initial contact is intended to inform representatives

² Consolidation of zoning is problematic as the nature of the permitted and conditional uses may vary considerably and also the manner in which the ordinance addresses permitted uses can be markedly different (pyramid format, performance based, traditional).

of the jurisdictions in the Study Area that the project team would like to connect with the appropriate representative to identify, discuss and collect land use related studies, data, development trends and other information necessary for the land use component of the 14 CFR Part 150 planning effort.

The land use technical group will undertake an initial internet search by jurisdiction within the study areas to define an initial set of land use planning data/documents available in the public domain, and will collect and evaluate the available information that may have applicability to the Studies.

Prior to the Port Authority making initial contact with jurisdictions, the land use technical group will compile a list of studies and information by general type that are typically necessary as a part of a land use analysis component of a 14 CFR Part 150 Study. The list may include but is not necessarily limited to:

- comprehensive plans;
- small area sector plans;
- zoning and subdivision ordinances;
- historic site listings;
- development review criteria and approval processes by jurisdiction;
- building codes;
- existing land use databases/mapping;
- redevelopment districts and plans;
- future land use mapping; and
- development trends reports or data.

This list will be coordinated with and reviewed by the Port Authority PM to obtain approval of the materials being requested. The list will take into consideration studies and data materials previously collected or compiled by the Port Authority, and will utilize these sources to the extent that the data remains accurate and relevant to the JFK and LGA 14 CFR Part 150 Studies. One such example may involve listings of historic sites within the study areas for both airports.

7.7 Coordination with the Port Authority

The land use technical group will work with the Port Authority to develop a listing of contacts by study area jurisdiction for use in collecting relevant and needed data. Using this list, and with the concurrence of the Port Authority, the land use technical group will undertake the scheduling of inventory meetings with the identified land use representatives of each jurisdiction to discuss data needs. The meetings between the land use technical group members and representatives from the jurisdictions in the study area will be coordinated with the Port Authority PM. The involvement of Port Authority staff in the meetings will be at the discretion of the Port Authority PM, and this involvement will be determined prior to initiation of the meeting effort. The Port Authority PM

will coordinate data collection efforts between the New York and New Jersey teams for areas where the study areas overlap.

As the 14 CFR Part 150 Studies progress, additional discussions between land use technical group members and representatives of study area jurisdictions will be of value to the planning effort. These subsequent communications are often associated with questions concerning local plans, ordinances or other documentation and to clarify these points or to discuss other land use related project issues relevant to the individual jurisdiction. For each discussion, a concise agenda will be generated to provide a guide for the discussion. As these needs arise, the land use technical group will coordinate with the Port Authority PM prior to contacting the jurisdiction. This coordination will be to discuss the technical item or issue, and to confirm that:

- The item or issue does not require the direct participation of Port Authority representatives;
- Further discussion of the specific item is required;
- Direct involvement of the Port Authority PM or his/her designee in the discussion with the specific jurisdiction is required, at which point a decision can be made as to whether this coordination should take place in person or via conference call;
- The issue is of a sensitive nature and needs to be vetted within the Port Authority management structure before discussion with the jurisdiction. This discussion will be conducted by the Port Authority PM or other senior members of staff; or
- Some combination of one or more of the above.

Internal team communications and coordination of effort is critical. Collection of land use related materials will be closely coordinated with other data acquisition actions of other team members to avoid multiple requests for information to the same agencies. The land use technical group proposes to coordinate its data collection efforts through the JFK Project Director (ESA) and the LGA Project Director (ESA) as well as with the Port Authority PM. ESA's Project Directors will be aware of study-related data needs associated with other analytical components of the 14 CFR Part 150 Study process as well as the dates and requirements associated with project coordination meetings occurring as a part of both study efforts. As a result, ESA's Project Directors will be able to facilitate the consolidation and coordination of ESA Team efforts. For example, collection of GIS data should be closely coordinated with the collection of land use materials to avoid duplication of requests. The internal web portal, being established for the project, will help coordinate and mitigate the potential for duplicate and/or unnecessary data collection once the initial inventory process has been completed.

7.8 Identification of Land Use Mitigation Alternatives

An element of the identification and evaluation of potential land use mitigation alternatives will include the convening of a land use technical conference involving jurisdictions located in the 14 CFR Part 150 Study Areas for JFK and LGA. Separate technical conferences will be held for JFK and LGA's 14 CFR Part 150 Studies. The land use technical meeting will be facilitated by senior members of the project team with involvement and participation by the Port Authority PM and technical staff and will be formatted as a technical workshop. Extensive preparation of discussion materials will occur prior to the meeting and will include items such as:

- Sample noise overlay zoning provisions;
- Examples of compatibility issues within existing zoning districts in the Study Areas and possible steps to resolve these;
- Delineation of federal requirements relative to land use mitigation (notably the new soundproofing program guidance letter);
- Summaries of land use compatibility mitigation strategies employed by communities in other parts of the United States and how these have been implemented and received in the community.
- Description of the specific compatibility option, its role, implementation responsibilities, how it may support other actions, potential positive factors as well as limitations and/or negative features.
- Suggestions concerning zoning ordinance permitted or conditional uses allowed by community.
- Discussion of discretionary project review procedures routinely used by planning and zoning authorities in the Study Areas during the evaluation of development proposals, and the ability of communities to apply development conditions on proposed land development in areas exposed to aircraft noise associated with operations at JFK and/or LGA.

The goal of the land use technical meetings is to openly discuss land use compatibility principles and apply these to specific issues existing in individual jurisdiction or multiple jurisdictions in each Study Area. Additionally, this meeting provides a forum for discussing potential options to resolve land use compatibility considerations and to obtain input relative to the feasibility or viability of applying the mitigation techniques on a jurisdiction by jurisdiction basis within the Detailed Study Areas.

Consideration of land use mitigation measures will include potential actions that will be guided by 14 CFR Part 150 requirements and will involve three general categories of activity:

- Policy related actions such as comprehensive plan amendments, incorporation of noise compatibility principles into development approval and review procedures, incorporation of noise compatibility planning principles into local community goals, objectives and future plans or the development of policies supporting fair disclosure of the noise environment as a part of real estate transactions.
- The second category of land use related mitigation actions that are to be considered under both 14 CFR Part 150 Studies involve potential regulatory activities such as the amendment of zoning ordinances to preclude noise sensitive uses from certain zoning districts, use of an overlay zoning approach to address actions to facilitate compatibility through construction requirements and interior sound level reduction or the dedication of an aviation easements for noise as a rezoning or other approval condition.
- The final category of land use mitigation to be considered involves expenditure related techniques and may involve the soundproofing of eligible noise impacted structures such as residential uses not meeting interior to exterior noise level reduction requirements or noise sensitive institutional land uses. Other major expenditure techniques can include purchase of property or funding of expanded noise monitoring systems to better track activity and affiliated sound levels.

Potential land use mitigation techniques will be developed in collaboration with the Port Authority prior to their presentation to stakeholders or the public. Coordination with public and governmental affairs specialists on the ESA Team and internal to the Port Authority will occur during the development of evaluation criteria for the noise mitigation measures, and during the actual evaluation of potential noise mitigation measures.

Each mitigation technique identified will be evaluated against a set of criteria based on standard criteria typically employed in 14 CFR Part 150 analyses for assessment of land use mitigation. The evaluation will consider both the value of an action in mitigating current impacts and the value of an action in precluding future land use impacts around both airports. A generalized set of criteria are provided below to present an idea of the type of factors to be considered. Potential factors include but are not limited to:

- Reduction in impacted population and noise sensitive units by contour interval
- Extent of reduced impacts in areas of higher noise exposure
- Extent to which a given measure mitigates the future noise impacts
- Administrative responsibility for the measure and level of complexity to implement
- Implementation costs (both to communities and to the Port Authority)
- Overall effectiveness of each measure
- Stakeholder and Community Input
- Consistency with local and state statute

This page intentionally left blank

CHAPTER 8

Project Measures

8.1 Introduction

This section of the Study Protocol describes the document review timeframes, the project schedule and project deliverables.

8.2 Document Review Timeframes

Commitment to timely document review by the Port Authority and the FAA will be critical to maintaining the project schedule. Two sets of documents, one for each airport, will be delivered at the same time to allow a consistent level of review and cohesive comment development. The following review time periods are agreed to by each party for each major project deliverable:

- **Port Authority** – Port Authority will complete reviews in 35 calendar days (30 days plus 5 for comment resolution and compilation) or 25 business days. A single set of consolidated comments and edits will be provided by the Port Authority in MS Word's Track Changes format.
- **Federal Aviation Administration** – The FAA will perform concurrent line of business reviews and return comments within 35 days (25 business days) of receipt of draft documents. A single set of consolidated comments will be provided by the FAA in a matrix format.
- **Timeframe for Revisions** – The ESA Team anticipates most revisions will be completed within 21 days (15 business days) of receipt of a consolidated set of comments. However, this is subject to the number of comments and the additional analysis required in order to be responsive to the comments.

8.3 Project Milestone Schedule

A detailed project schedule will be maintained and updated monthly throughout the project to track project milestones and allow monitoring and control of project progress. The schedule will detail major tasks, deliverables, review periods, and public and agency meetings. Estimated start dates, time periods and completion dates will be identified. Additional milestone or critical path elements may be added to the schedule during the course of the study to facilitate project tracking. The project schedule will be produced in Microsoft Project 2007 or 2010 format and will be provided in 11 inch by 17 inch PDF format. A draft project schedule is provided in the appendix.

8.4 List of Project Deliverables

There will be a series of technical memos and small-scale work products developed during the project to facilitate decision making. However, the primary work products will consist of the following:

1. Study protocol, including Project Schedules for the Studies.
2. Recommendation memo on stakeholder participation program outlining formation of Technical Advisory Committees for the Studies, and strategy on public participation. These items are incorporated into the Study Protocol.
3. Memorandum regarding the evaluation of historical noise monitoring data.
4. Draft and Final NEM reports consisting of noise contour maps for submission to the FAA for acceptance providing all the INM inputs and GIS information for both current and future years.
5. Technical Memo listing the final recommended noise abatement and mitigation measures and/or combination of both (i.e., screening criteria and the reason(s) why the recommended measures were selected or dropped from further consideration).
6. Preliminary draft Part 150 Study report for Port Authority and FAA review (consisting of both NEM and NCP components of the Study).
7. Final draft Part 150 Study report (consisting of both NEM and NCP components of the Study) for formal FAA and public review submittal.
8. Preliminary final Part 150 Study report (consisting of both NEM and NCP components of the Study), with revisions made to the report based on comments received during public review period, for Port Authority and FAA review (responses to comments shall be incorporated in the appendix to the final report).
9. Final Part 150 Study Report for public release.
10. Executive summary of the Final Part 150 Study report outlining the entire Part 150 Study process, findings, recommendations, and implementation schedule for recommended program measures.

Each of these primary work products will be submitted in Adobe Acrobat (.pdf), Microsoft Word- and Excel-compatible files on a CD (or other compatible media), or electronic access to the files will be provided via download. With the exception of item 1, all the reports listed above shall be prepared separately for JFK and LGA airports.

The following details the number of printed copies of reports that will be produced by the ESA Team:

1. Up to 25 printed copies of preliminary draft Part 150 Study report (including both NEM and NCP components of the Study, listed under item 6 above) for each airport;
2. Up to 100 printed copies of the final draft Part 150 Study report (including both NEM and NCP components of the Study, listed under item 7 above) for each airport;
3. Up to 25 printed copies of the preliminary final Part 150 Study report (including both NEM and NCP components of the Study, listed under item 8 above) for each airport;

4. Up to 100 printed copies of the final Part 150 Study report (including both NEM and NCP components of the Study, listed under item 9 above) for each airport; and
5. Up to 50 copies of the executive summary of the final Part 150 Study report (listed under item 10 above) for each airport.

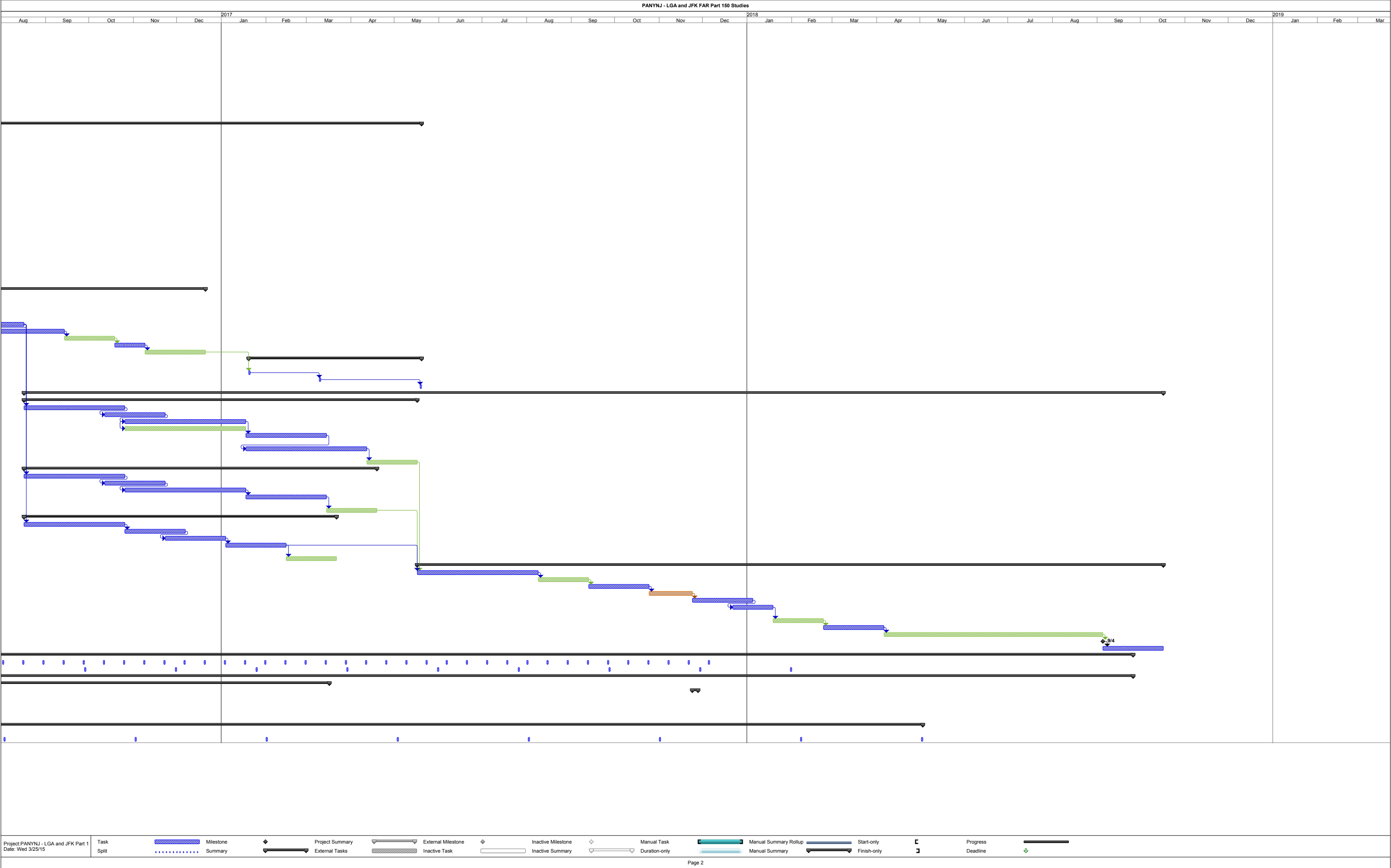
This page intentionally left blank

Appendix A

PANYNJ Part I50 Study: Data Request Form

TO BE COMPLETED BY REQUESTOR			
Name		Contact Number	
Affiliation		Email Address	
Description of Data Required			
Purpose/Context <i>(what the data is required for)</i>			
Frequency <i>(circle as appropriate)</i>	<i>One-Time Request</i>	<i>Annually</i>	<i>Other:</i>
Request Date		Required Date	
Format Required <i>(Table, Map, Spreadsheet, Word etc) – please specify</i>		Intended Audience <i>(if applicable)</i>	
TO BE COMPLETED BY DATA RECIPIENT			
Received By:	Date:	File Location:	

[illegible]



APPENDIX J

Supplemental Noise Contours

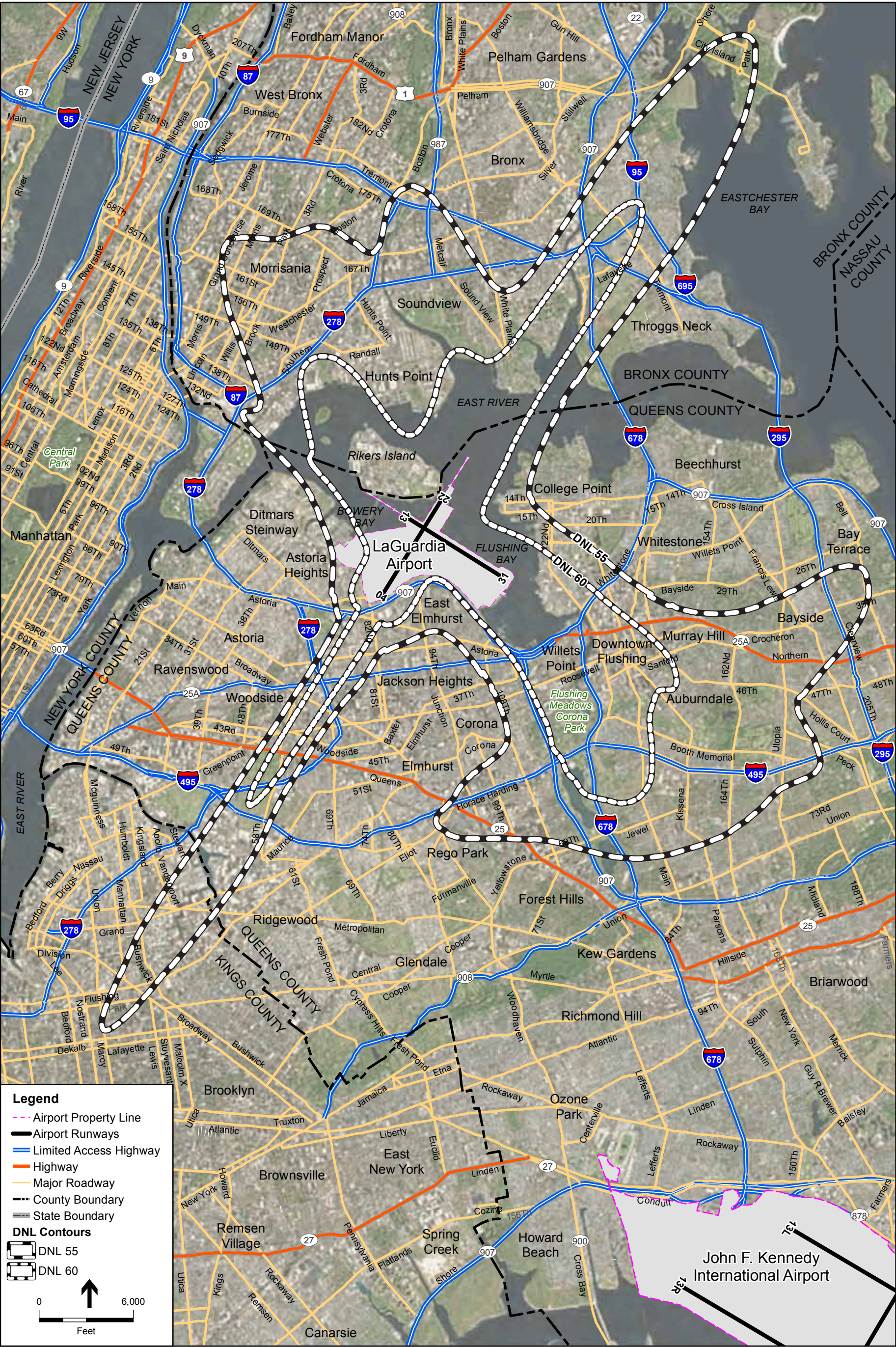
This appendix includes the DNL 55 and 60 noise contours and population within those contours, requested by the public, provided for informational purposes only.

TABLE J-1
POPULATION WITHIN THE DNL 55-65 CONTOURS – 2016

Noise Level	Population
DNL 55-60	635,650
DNL 60-65	112,950
Total	748,600
NOTE: The household and population estimates provided above were developed using census data from the 2010 Decennial Census and New York City housing data. SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.	

TABLE J-2
POPULATION WITHIN THE DNL 55-65 CONTOURS – 2021

Noise Level	Population
DNL 55-60	588,500
DNL 60-65	111,100
Total	699,600
NOTE: The household and population estimates provided above were developed using census data from the 2010 Decennial Census and New York City housing data. SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.	

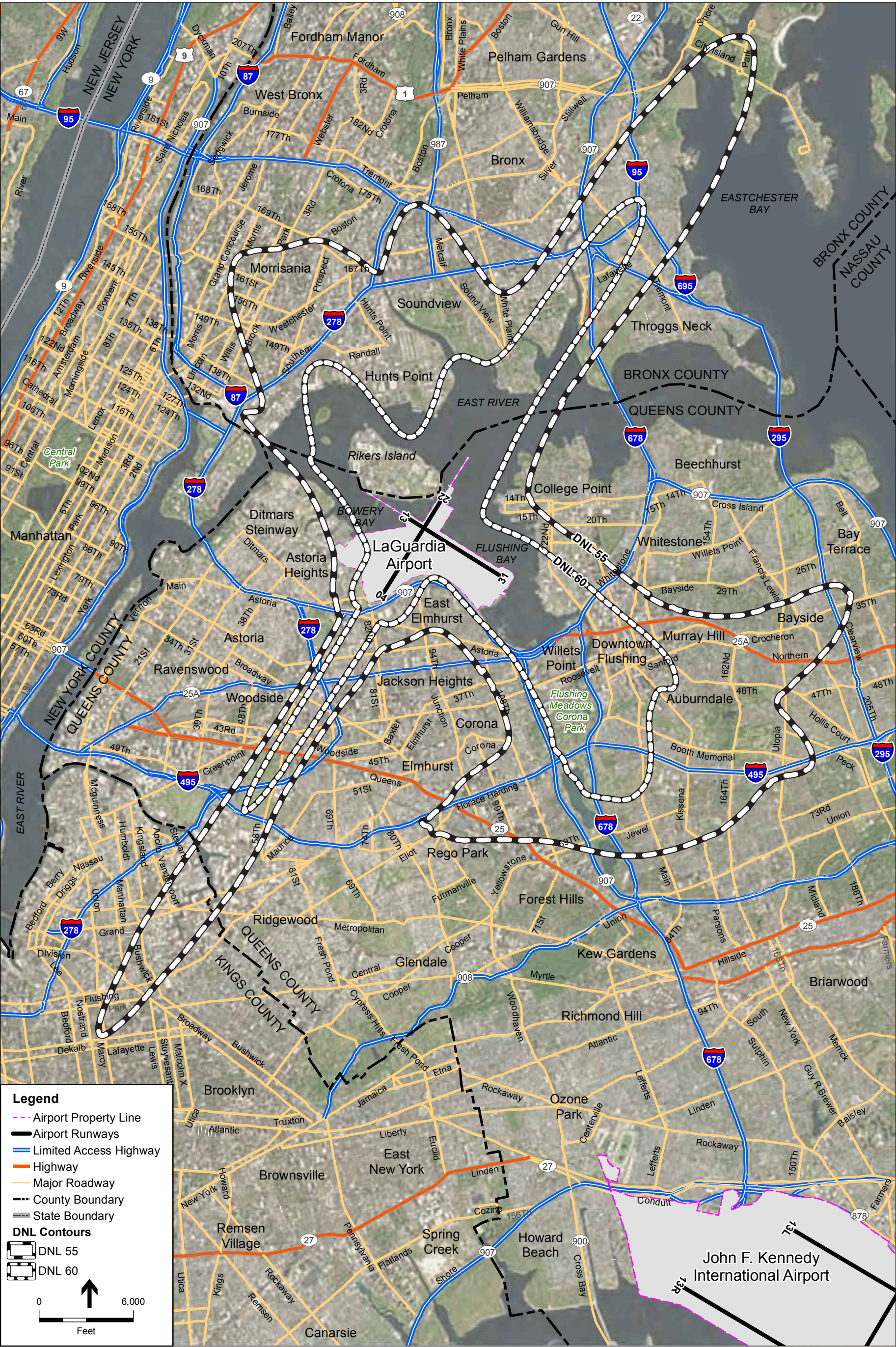


LaGuardia Airport 14 CFR Part 150 Study . 140037

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; INM 7.0d; ESA and KBE, 2016; ESRI Mapping Services.

Figure J-1
2016 55 and 60 DNL Contours
LaGuardia Airport

The 2016 DNL 55 and 60 contours are provided for informational purposes only and will not be included on the 14 CFR Noise Exposure Maps submitted to the FAA.



LaGuardia Airport 14 CFR Part 150 Study . 140037

SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015- June 2015; Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; INM 7.0d; ESA and KBE, 2016; ESRI Mapping Services.

Figure J-2
2021 55 and 60 DNL Contours
LaGuardia Airport

The 2021 DNL 55 and 60 contours are provided for informational purposes only and will not be included on the 14 CFR Noise Exposure Maps submitted to the FAA.

APPENDIX K

Public Outreach

This appendix includes documentation of the Public Outreach Program conducted during the development of the noise exposure maps and report.

Public Information Workshops

This appendix includes documentation of the Public Information Workshops conducted for the LGA 14 CFR Part 150 Study. Documentation for each meeting includes copies of meeting notices, agendas, attendance sheets, materials presented, and meeting minutes.

- Appendix K-1 Public Information Workshop – June 16, 2015
- Appendix K-2 Public Information Workshop – October 29, 2015
- Appendix K-3 Public Information Workshop – September 29, 2016

Newsletters

- Appendix K-4 LGA 14 CFR Part 150 Study Newsletters

Project-Related Articles

- Appendix K-5 Project-Related Articles and Publications

Appendix K-1

Public Information Workshop

June 16, 2015

This appendix includes documentation of the LaGuardia Airport 14 CFR Part 150 Study's Public Information Workshops. Documentation for each meeting includes copies of meeting notices, sign-in sheets, and materials presented.

Public Information Workshop
Meeting Notice and
Sign-In Sheets
(June 16, 2015)

MORRIS COUNTY CHAMBER OF COMMERCE

EXPAND YOUR BOUNDARIES

OUR CHAMBER WELCOMES MEMBERS THROUGHOUT NEW JERSEY, NOT JUST MORRIS COUNTY

WHY BUSINESSES THROUGHOUT THE STATE ARE JOINING THE MORCC

- We help businesses grow and meet their needs through various services and programs
- 400 member companies to network with
- Chamber has a network with some of the largest public companies in the state of NJ
- Over 135 member year, major and small associations and business groups in every field
- Thousands of opportunities for business exposure

CONTACT ANGELA KUBISKY TODAY AT 973.210.6079

FOR MORE INFORMATION

Visit us at www.morrischamber.org

ORDINANCE NO. 4588

CITY OF ELIZABETH, NEW JERSEY

NOTICE OF PUBLIC HEARING

Notice is hereby given that the following proposed ordinance was introduced and passed on its first reading at a meeting of City Council of the City of Elizabeth, in the County of Union, held on the 12th day of May, 2015, and that said ordinance will be taken up for further consideration for final passage at a meeting of the City Council (YOUTH IN CITY GOVERNMENT DAY) to be held in the City Council Chambers, City Hall, Winfield Scott Plaza, Elizabeth, New Jersey on the 26th day of May, 2015, at 2:00 PM, or as soon thereafter as the matter can be reached, at which time and place all persons who may be interested therein will be given an opportunity to be heard concerning the ordinance.

A copy of this ordinance has been posted on the bulletin board upon which public notices are customarily posted in the City Hall, and a copy is available up to and including the third of said meeting to the members of the general public of the City who shall request same, at the City Clerk's Office, City Hall, Elizabeth, New Jersey.

YOLANDA M. ROBERTS, BMC
City Clerk

ORDINANCE NO. 4588

AN ORDINANCE OF THE CITY OF ELIZABETH AUTHORIZING THE VACATION AND SALE OF A PORTION OF FORMER RELOCATED BAY WAY

WHEREAS, the Port Authority of New York and New Jersey, a body corporate and public created by compact between the States of New York and New Jersey with the consent of the Congress of the United States of America and having its principal executive office at 4 World Trade Center, 150 Greenwich Street, New York, NY 10007 (hereinafter referred to as the "Port Authority") owns property in connection with the Goethals Bridge Replacement Project which will be partially located in the City of Elizabeth and has requested the City Council of the City of Elizabeth (hereinafter "City") to vacate and sell a portion of former Relocated Bay Way from Bay Way to the curvilinear line of Relocated Bay Way, as more fully set forth on the Vacant/Acquisition Map prepared by Glen J. Lloyd, P.L.S., Master Consulting P.A., dated February 17, 2014, and revised April 20, 2015, attached to this ordinance as Exhibit A, and the metes and bounds description prepared by Glen J. Lloyd, P.L.S., Master Consulting P.A., dated February 17, 2014, and revised April 20, 2015, attached to this ordinance as Exhibit B; and

WHEREAS, the Port Authority has advised the City that this abandoned road interferes with its use of the land for the Goethals Bridge Replacement Project; and

WHEREAS, the City has determined that vacating and selling former Relocated Bay Way as described herein is in the best interest of the general public of the City and that this street is not needed for a public use; and

WHEREAS, the City Council may approve an ordinance to vacate any public street or portion thereof pursuant to N.J.S.A. 40:67-1(b) and N.J.S.A. 40:67-2; and

WHEREAS, the City Council of the City of Elizabeth may approve an ordinance to sell real property at private sale thereof pursuant to N.J.S.A. 40A:12-3; and

WHEREAS, the City Council of the City of Elizabeth has agreed to convey the property constituting former Relocated Bay Way to the Port Authority pursuant to the terms of the Memorandum of Agreement between the Port Authority and the City of Elizabeth dated December 11, 2013 and that the City of Elizabeth waives its right to have the property independently appraised and valued; the Port Authority and the City agreeing that the value of the property is inconsequential in light of the mutual promises and covenants agreed, to by and between the parties; and

WHEREAS, the Port Authority has requested, and the City is desirous of agreeing to execute, a bargain and sale deed in the Port Authority's favor for any and all property interest the City may have in former Relocated Bay Way, as described herein; and

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ELIZABETH

SECTION 1 - Former Relocated Bay Way from Bay Way to the curvilinear line of Relocated Bay Way, as depicted on the Acquisition Map prepared by Glen J. Lloyd, P.L.S., dated February 17, 2014, and revised April 20, 2015, attached to this ordinance as Exhibit A and as more fully described in the metes and bounds description prepared by Glen J. Lloyd, P.L.S., dated April 20, 2015, attached to this ordinance as Exhibit B, is hereby authorized to be vacated and sold and determined to not be needed for a public use.

SECTION 2 - The vacation and sale of former Relocated Bay Way noted herein includes the release of all public rights resulting from any dedication of lands accepted or not accepted by the municipality and expressly reserves and excepts from the sale all rights and privileges currently possessed by public utilities, as defined in R.S. 48:2-13, and by any cable television company, as defined in the "Cable Television Act," P.L. 1972, c. 166 (C.48:34 et seq.), to maintain, repair and replace their existing facilities in, adjacent to, over or under the streets, highways, lanes, alleys, squares, places or parks, or any part thereof, to be sold; and

SECTION 3 - A bargain and sale deed releasing and transferring to the Port Authority, any property interest the City of Elizabeth has in former Relocated Bay Way, as same is hereby determined to be not needed for a public use, in a form acceptable to the City Attorney is hereby authorized to be executed and filed with the Union County Clerk's office and in such other governmental offices as may be necessary; and

SECTION 4 - All applicable City officials are hereby authorized and directed to take such ministerial actions as are necessary to effectuate this Ordinance and the execution of a bargain and sale deed as authorized in Section 3 above; and

SECTION 5 - A copy of this Ordinance shall, after passage, be filed with the Union County Clerk, in accordance with N.J.S.A. 40:67-2.

SECTION 6 - All ordinances or parts of ordinances inconsistent with the provisions of this Ordinance be and the same are hereby repealed.

SECTION 7 - If any portion of this Ordinance is declared invalid for any reason whatsoever, same shall not affect the validity or constitutionality of any other part of portion of this Ordinance.

SECTION 8 - This Ordinance shall take effect after final passage, publication and is provided in N.J.S.A. 40:67-1 et seq. as provided by law.

May 18, 2015 \$199.28

NEW JERSEY

Investigation

CONTINUED FROM PAGE 1

Michael Cumfitt and his top deputy, Brig. Gen. James Grant, of creating a "toxic command climate" fueled by racial discrimination and retaliatory actions.

The complaints, made by four senior officers in the Guard, including its two top minority officers, alleged the two generals have stunted the careers of critics and rewarded loyalists and friends with educational opportunities and promotions.

An unrelated lawsuit

— filed April 2 in state court by a former employee of the state Department of Military and Veterans Affairs, which includes the Guard — also accused Grant of racial discrimination in his role overseeing the state agency. And in 2001, while Grant was working as a State Police trooper, an administrative law judge ruled in favor of a female sergeant who accused him of gender discrimination, stripping her of duties, subjecting her to an internal investigation and blocking promotion.

The judge noted "the flagrant hostility of Grant" and ruled his testimony,

including his denials in the matter, were "not credible," according to the decision.

Cumfitt has said little about the claims but disclosed at an April budget hearing in Trenton they were under investigation by the state inspector general and various other agencies, which he did not identify.

He said he was confident the claims were baseless. Cumfitt is scheduled to appear Monday in Trenton at an Assembly budget hearing.

Gov. Chris Christie, the commander-in-chief of the Guard, has not addressed the allegations. But a spokesman, Kevin Roberts, said the governor's office was "aware of the review and supportive of both it and the involvement of Matt Boxer, who is well known for his independence and professionalism."

Boxer worked as a federal prosecutor for the U.S. Attorney's Office in New Jersey, mostly under Christie's leadership, from 2001 to 2006, when he was hired by then-Gov. Jon Corzine to work in his counsel's office

overseeing the state's independent authorities.

In 2008, Corzine nominated him to a six-year term as state comptroller.

During that time, Boxer conducting dozens of investigations that made bombshell discoveries about public spending at agencies across the state and uncovered millions of dollars in waste.

Among other things, his reports found the state had paid \$24 million in unemployment, Medicaid and other benefits to inmates in county and local jails; widespread fraud within the school lunch program; and \$43 million in waste by the New Jersey Turnpike Authority.

Boxer targeted Democratic powerbroker and Christie ally George Norcross in a report on the Delaware River Port Authority, and Bill Palatucci, a confidant of the governor, in a report on the firm where he worked.

Christopher Boxer, NJ Advances Media, cboxer@njadvancesmedia.com

HOUSING AUTHORITY OF THE CITY OF PATERSON REQUEST FOR PROPOSALS

RFP-2015-CFP-1430-21-10-C-515

for

Replace Elevator Pumps

NJ21-10, Gordon Canfield Plaza

The Housing Authority of the City of Paterson is making a Request for Proposals (RFP) from qualified Professional firms with a certificate of authorization in compliance with Federal, State, County and Municipal Laws regulations and ordinance, N.J.A.C. 13:27-5.1 (b) to provide design for Replace Elevator Pumps at NJ21-10, Gordon Canfield Plaza.

Scope of Services and other documents may be obtained in the Modernization and Development Department during office hours between 9:00 A.M. until 4:00 P.M., Monday through Friday, at the Housing Authority of the City of Paterson, 60 Van Houten Street, Second Floor, Paterson, New Jersey 07655, or via email at jmoale@paterstown.org. Any additional information can be obtained by calling the Modernization Department at (973) 345-5045.

Proposals shall be in accordance with the Scope of Services and will be submitted by interested firms no later than 12:00 Noon, Thursday, June 04, 2015 in a sealed envelope clearly marked "Proposals for Professional Services" for Replace Elevator Pumps at NJ21-10, Gordon Canfield Plaza on both an inner envelope and on an outer envelope for the Housing Authority of the City of Paterson.

Minority Business Enterprises (MBE) will be offered full opportunity to bid and will not be subjected to discrimination on the basis of race, color, sex or national origin in consideration of an award.

HOUSING AUTHORITY OF THE CITY OF PATERSON
Ilima Gorham
Executive Director

May 18, 2015 \$132.02

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided tours that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study — the 2016 and 2021 Noise Exposure Maps.

The workshops will be held in an "open house" format from 8 p.m. to 9 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP
DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP
DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at <http://www.panynj.gov/airportnoise>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3380 at least 72 hours prior to the meeting.

HOUSING AUTHORITY OF THE CITY OF PATERSON REQUEST FOR PROPOSALS

RFP-2015-CFP-1430-21-10-B-515

for

Upgrade Elevator Motors and Electronics

NJ21-10, Gordon Canfield Plaza

The Housing Authority of the City of Paterson is making a Request for Proposals (RFP) from qualified Professional firms with a certificate of authorization in compliance with Federal, State, County and Municipal Laws regulations and ordinance, N.J.A.C. 13:27-5.1 (b) to provide design for Upgrade Elevator Motors and Electronics at NJ21-10, Gordon Canfield Plaza.

Scope of Services and other documents may be obtained in the Modernization and Development Department during office hours between 9:00 A.M. until 4:00 P.M., Monday through Friday, at the Housing Authority of the City of Paterson, 60 Van Houten Street, Second Floor, Paterson, New Jersey 07655, or via email at jmoale@paterstown.org. Any additional information can be obtained by calling the Modernization Department at (973) 345-5045.

Proposals shall be in accordance with the Scope of Services and will be submitted by interested firms no later than 12:00 Noon, Thursday, June 04, 2015 in a sealed envelope clearly marked "Proposals for Professional Services" for Upgrade Elevator Motors and Electronics at NJ21-10, Gordon Canfield Plaza on both an inner envelope and on an outer envelope for the Housing Authority of the City of Paterson.

Minority Business Enterprises (MBE) will be offered full opportunity to bid and will not be subjected to discrimination on the basis of race, color, sex or national origin in consideration of an award.

HOUSING AUTHORITY OF THE CITY OF PATERSON
Ilima Gorham
Executive Director

May 18, 2015 \$132.02

PMUA

PLAINFIELD MUNICIPAL UTILITIES AUTHORITY

CITY OF PLAINFIELD

COUNTY OF UNION

NOTICE OF CONTRACT AWARD

DATED: THURSDAY, MAY 14, 2015

Please take notice that the Plainfield Municipal Utilities Authority authorized the award of the following contracts at its **Tuesday, May 12, 2015, Rescheduled Regular Board Meeting** to:

Non-Fair and Open Contracts:

Gino's Tire Service Plainfield, NJ	Roadside Service and Tire Repair Cost: NTE \$36,000 Term: 12 Months
Jesco, Inc. South Plainfield, NJ	Loader Remedial Repair and PM Services Cost: NTE \$36,000 Term: 12 Months
Eagle Equipment Company d/b/a Pierce Equipment Company Branchburg, NJ	Vehicle Maintenance Repair Services and Supplies Cost: NTE \$36,000 Term: 12 Months

A copy of the resolution authorizing the award of the contract, a copy of the Budget and a copy of the contract involved are available at the offices of the Plainfield Municipal Utilities Authority.

/s/
DOLLIE S. HAMLIN
QUALIFIED PURCHASING AGENT
May 18, 2015 \$125.58

Borough of Roselle Park, Union County

Public Auction Notice

PLEASE TAKE NOTICE that the Borough Clerk of the Borough of Roselle Park shall expose for sale, in accordance with R.S. 39:10A-1 at public auction on May 28, 2015; at 10:00 AM, in the Borough Hall, Borough Clerk's Office, located in the Roselle Park Municipal Building, 110 East Westfield Avenue, Roselle Park, New Jersey 07204, at the direction of the Mayor and Borough Council the following motor vehicles, which came into possession of the Borough of Roselle Park through abandonment or failure of owners to claim same. Motor vehicles will be offered for sale at auction, pursuant to The Abandoned and Unclaimed Motor Vehicle Laws, R.S. 39:10A-1.

Year	Make	Identification Number	Minimum Bid	Location of Auto
1985	Chevy	1G1YY07B3F5121357	\$200.00	AA Auto Body
2005	Mazda	1YVFP40C45M20667	\$200.00	AA Auto Body
1999	Dodge	1B4HSZ8Y1X607144	\$200.00	AA Auto Body

1. Said sale shall be conducted by the Borough Clerk or by any person so designated by her.

2. Said property is being sold "as is".

3. All prospective purchasers are put on notice to personally inspect the property at 9:00 am on May 28, 2015 at AA Auto Body, 400 Trinity Place, Elizabeth, New Jersey 07201.

4. At the Time of said sale, the purchaser shall deposit the entire purchase price with the Borough Clerk. If the purchaser fails to take title and possession within ten (10) days of the date of purchase, the governing body of the Borough of Roselle Park may declare the contract of sale to be terminated and may retain all monies paid there under as liquidated damages, and the Borough may resell said property or pursue such other and further legal and equitable remedies as it may have. If the purchaser fails to take title or possession within said ten (10) days, purchaser will be liable for reasonable storage fees.

5. If the title to this property shall prove to be unmarketable, the liability of the Borough shall be limited to the repayment of the amount of any sums paid by said purchaser to the Borough without any further costs, expense, damage, claim against or liability upon the Borough.

6. The Borough of Roselle Park reserves the right to reject all bids and shall not be obligated to accept any bids.

7. All prospective purchasers are put on notice that no employee, agent, officer, body or subordinate body has any authority to waive, modify or amend any of the within conditions of sale.

Doreen Cali, Borough Clerk

May 18, 2015 \$173.88

The Star-Ledger

7-Day delivery

Just 65¢ a day

\$19.99/mo. for the first 3 mos.

and this \$25 Gift Card is yours

- Convenient delivery to your home
- Convenient automatic payment
- Monthly delivery of Inside Jersey
- 24/7 digital access

Subscribe today at
www.starledger.com/29042
or call: 1-888-782-7533

Available only to households that have not ordered this in the past 30 days. Following 3-month introductory period, delivery and digital access will continue at the rate per week unless you cancel. You may cancel any time by calling 1-888-782-7533 or the balance will be auto-renewed. Subscription includes The Star-Ledger and Inside Jersey. Delivery and digital access will be provided for 12 weeks. Your account will be charged the amount of your order. No cash or refunds for temporary suspension of print delivery while subscription is in effect. Please allow 4-6 weeks for gift card delivery.

29042 OF RFP-1430-21-10-B-515

THE PORT AUTHORITY OF NY & NJ
NOTICE OF PUBLIC INFORMATION WORKSHOPS
14 Code Of Federal Regulation (CFR) Part 150
Airport Noise Compatibility Studies For
John F Kennedy International And L. Guardia Airports

NOTICES

Legal Notices

248-20 Rushmore Realty LLC Arts of Org filed with NY Sec of State (SSNY) on 4/24/15. Office: Queens County. SSNY designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 248-20 Rushmore Ave, Little Neck, NY 11362. General Purpose.

59-12 GD PLAZA, L.L.C., Arts. of Org. filed with the SSNY on 09/22/2014. Office loc: Queens County. SSNY has been designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Gary Schoer, Esq., North Shore Atrium 6800 Jericho Tpke. Ste 108 West, Syosset, NY 11791. Purpose: Any lawful Purpose.

69-08 ELIOT AVE LLC, a domestic LLC, filed with the SSNY on 3/4/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to the LLC, 134-01 20th Ave., College Point, NY 11356. General purpose.

Akiva Shapiro Law, PLLC Arts of Org filed with Secy. of State of NY (SSNY) on 2/5/15. Office in Queens Co. SSNY design. agent of LLC upon whom process against the LLC may be served. SSNY shall mail process to: 75-23 Main St #670351, Flushing, NY 11367. Purpose: Profession of Law.

BKS HOLDING, LLC. Art. of Org. filed with the SSNY on 10/30/14. Latest date to dissolve: 12/31/2113. Office: Queens County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 85-36 240th Street, Floral Park, NY 11001. Purpose: Any lawful purpose.

CAPASSO PROPERTIES LLC. Art. of Org. filed with the SSNY on 04/22/15. Office: Queens County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 23-50 Waters Edge Drive, 2B, Bayside, NY 11360. Purpose: Any lawful purpose.

CITIQUARTZ, LLC. Arts. of Org. filed with the SSNY on 05/07/2015. Office loc: Queens County. SSNY has been designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: 20-10A 125th St, College Point, NY 11356. Purpose: Any Lawful Purpose.

CONAN ENTERPRISE LLC Articles of Org. filed NY Sec. of State (SSNY) 4/17/15. Office in Queens Co. SSNY design. Agent of LLC upon whom process may be served. SSNY shall mail copy of process to the LLC, 174-90 Gladwin Ave Flushing, NY 11365. Purpose: Any lawful activity.

FULL CIRCLE SHIPPING, LLC, a foreign LLC, filed with the SSNY on 3/24/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to the LLC, 230-59 116th Avenue, Bayside, Ste. 280, Jamaica, NY 11413. General Purposes.

Kawitech LLC Arts of Org filed with NY Sec of State (SSNY) on 3/18/15. Office: Queens County. SSNY designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 31-23 Crescent St, #4B, Astoria, NY 11106. General Purposes.

PUBLIC AUCTION
NOTICE OF SALE OF COOPERATIVE APARTMENT SECURITY BY VIRTUE OF DEFAULT in a security agreement executed on 07/01/2005, by KAMIE STERN-OBSTFELD and SAMUEL STERN-OBSTFELD, Debtor, and in accordance with its rights as holder of the Security, NATIONSTAR MORTGAGE LLC successor in interest to GFI Mortgage Bankers, Inc., by Victor Marino, Auctioneer, DCA # 1005640 and/or Donald Leung, Auctioneer, DCA # 1392572 and/or Melonie Penn, Auctioneer, DCA # 1471969 will conduct a public sale of the security consisting of 486 shares of 83RD STREET TENANTS, INC., and all rights title and interest in and to a Proprietary Lease between said corporation and debtor for Apartment Unit 11C in a building known as and by the street address 8 EAST 83RD STREET, NEW YORK, NY 10028, together with fixtures and articles of personal property now or hereafter affixed to or used in connection with said apartment on June 10, 2015 at 1:00 p.m. at the New York County Supreme Court Building, 60 Centre Street, New York, N.Y., in satisfaction of an indebtedness in the principal amount of \$435,871.77 plus interest from 08/01/2008 and costs, subject to open maintenance charges. The secured

NOTICES

Legal Notices

Legal Notices

Legal Notices

Legal Notices

Legal Notices

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

KEW GARDEN TOWER LLC Arts of Org. filed NY Sec. of State (SSNY) 4/2/15. Office in Queens Co. SSNY design. Agent of LLC upon whom process may be served. SSNY shall mail copy of process to C/O Maohua Dong 25 Oldstate Dr Manhasset, NY 11030. Purpose: Any lawful activity.

KUANGMU LLC Articles of Org. filed NY Sec. of State (SSNY) 3/26/15. Office in Queens Co. SSNY design. Agent of LLC upon whom process may be served. SSNY shall mail copy of process to C/O Jia-Qing Wei 7261 Yellowstone Blvd Forest Hills, NY 11375. Purpose: Any lawful activity.

LDG ASSOCIATES, LLC Articles of Org. filed NY Sec. of State (SSNY) 2/17/15. Office in Queens Co. SSNY design. Agent of LLC upon whom process may be served. SSNY shall mail copy of process to Charles Xiaogang Guo 8615 Broadway Apt 2A Elmhurst, NY 11373. Purpose: Any lawful activity.

LEGAL NOTICE OF APPLICATION

Notification is hereby given that CITIBANK, N.A., 701 East 60th Street North, Minneapolis County, Sioux Falls, South Dakota 57104 will file an application with the Comptroller of the Currency on or about May 18, 2015 as specified in 12 CFR 5 for permission to relocate a branch from 600 Old Country Road, Nassau County, Garden City, New York 11530 to or in the vicinity of 502 Old Country Road, Nassau County, New York, 11530.

Any person wishing to comment on this application may file comments in writing with the Office of the Comptroller of the Currency, Licensing Division, 400 7th Street, Mail Stop: 10E-2, Washington, D.C. 20219 or by email to largebanks@occ.treas.gov within fifteen (15) days of the date of this publication. The file is available for public inspection during regular business hours.

Notice is hereby given that a license, number 1283911 for on-premises beer, liquor and/or wine has been applied for by the undersigned to sell beer, liquor and/or wine at retail in a Restaurant under the Alcoholic Beverage Control Law of Chimi Mundo

Notice of Formation of Spailk LLC. Arts of Org filed with Secy of State of NY (SSNY) on 4/9/15. Office location: Queens County. SSNY designated as agent upon whom process against it may be served and shall mail process to: C/O 30TH AVE, L.L.C. NY 11103. Purpose: any lawful activity

Notice of Formation: 25-88 ASTORIA LLC. Articles of Organization filed with Secretary of State of New York (SSNY) on 03/24/2015. Office loc: Queens County. SSNY designated for service of process. SSNY shall mail copies of any process served against the LLC to: c/o: THE LLC, 25-88 49TH STREET, ASTORIA, NY 11103. Purpose: Any lawful purpose or activity.

Notice of Formation of Adam Ahlam LLC. Arts of Org filed with Secy of State of NY (SSNY) on 4/14/15. Office location: Queens County. SSNY designated as agent upon whom process against it may be served and shall mail process to: 30-06 29TH St, Apt 3P, Astoria, NY 11102. Purpose: any lawful activity.

NOTICE OF FORMATION OF COINTEL PRODUCTIONS LLC. Art. of Org. filed w/Secy. of State of NY (SSNY) on 3/5/15. Office location: Queens County. SSNY designated as agent for service of process. SSNY shall mail process to: 1826 Madison St. #1L, Ridgewood, NY 11385. Purpose: Any lawful activity.

NOTICE OF SALE

SUPREME COURT COUNTY OF QUEENS, WELLS FARGO BANK, N.A., AS CERTIFICATE TRUSTEE (NOT IN ITS INDIVIDUAL CAPACITY BUT SOLELY AS CERTIFICATE TRUSTEE), IN TRUST FOR REGISTERED HOLDERS OF VNT TRUST SERIES 2010-2, Plaintiff, vs. FRANCIS D. ARCHIE, AMOS ARCHIE A/K/A AMOS ARCHIE, JR., ET AL., Defendant(s). Pursuant to a Judgment of Foreclosure and Sale duly filed on January 02, 2015, I, the undersigned Referee will sell at public auction at the Queens County Courthouse, Courtroom 25, 88-11 Sutphin Boulevard, Jamaica, NY on June 12, 2015 at 10:00 a.m., premises known as 146-21 Shore Avenue, Jamaica, NY. All that certain plot, piece or parcel of

Notice of formation of 104-09 Corona Ave LLC. Articles of Org. filed with the Secretary of State of the State of New York (SSNY) on 12/11/2014. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC to: THE LLC, 130-09 58th Avenue, Flushing, NY 11355. Purpose: Any lawful activity or purpose.

Notice of Formation of Alphametic LLC. Arts of Org filed with Secy of State of NY (SSNY) on 3/20/15. Office location: Queens County. SSNY designated as agent upon whom process against it may be served and shall mail process to: 12311 Rockaway Beach Blvd, #1B, Rockaway Park, NY 11694. Purpose: any lawful activity.

Notice of Formation of HUDSON YARDS GROUP LLC Arts of Org. filed with Secy. of State of NY (SSNY) on 02/20/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to Lei William Fong, 133-39 41st Rd., 1R, Flushing NY, 11355. Purpose: Any lawful activity.

Notice of formation of IDARED LLC Arts of Org. filed with the Sec'y of State of NY (SSNY) on 2/10/2015. Office location: County of Queens. SSNY has been designated as agent of the LLC upon whom process against it may be served. SSNY shall mail process to: 85-19 67 Rd., Rego Park, NY 11374. Purpose: any lawful act.

NOTICE OF SALE

SUPREME COURT COUNTY OF QUEENS, WELLS FARGO BANK, N.A., Plaintiff, vs. MOHAN LAMA, DESHAWN BURTON, ET AL., Defendant(s).

Pursuant to a Judgment of Foreclosure and Sale duly filed on April 30, 2010, and the Order Appointing Substitute Referee filed January 08, 2015, I, the undersigned Referee will sell at public auction at the Queens County Courthouse, Courtroom 25, 88-11 Sutphin Boulevard, Jamaica, NY on June 05, 2015 at 10:00 a.m., premises known as 107-43 156th Street, Jamaica, NY. All that certain plot,

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NOTICE OF COMPLETE APPLICATION

Date: 05/12/2015
Applicant: NYC DEPT OF PARKS & RECREATION
830 5TH AVE., NEW YORK, NY 10021-7001
Facility: NYCDPR – BRIGHAM PARK
BRIGHAM ST
BROOKLYN, NY 11235
Application ID: 2-6107-00779/00001
Permit(s) Applied for: 1 - Article 34 Coastal Erosion Management
1 - Article 25 Tidal Wetlands
Project Is Located: in KINGS COUNTY

Project Description: The applicant proposes to redevelop section limited amount of work will take place within the tidal wetlands coastal erosion hazard area, including: removal of 0.26 acres of area, 183 cubic yards of filling, installation of new concrete pedestal asphalt vehicular access road, removal and replacement of existing and removal of guardrail.

Availability of Application Documents: Filed application Department draft permits where applicable, are available for normal business hours at the address of the contact person. service at the time of inspection, it is recommended that an app with the contact person.

State Environmental Quality Review (SEQR) Determination: Unlisted Action and will not have a significant impact on the environment Declaration is on file. A coordinated review was performed.

SEQR Lead Agency: NYC Dept of Parks & Recreation

State Historic Preservation Act (SHPA) Determination: Cultural and map have been checked. No registered, eligible or inventor sites or historic structures were identified at the project location. in accordance with SHPA is required.

Coastal Management: This project is located in a Coastal management subject to the Waterfront Revitalization and Coastal Resources

Availability For Public Comment: Comments on this project may be written to the Contact Person no later than 06/04/2015 or publication date of this notice, whichever is later. **Contact Person:** NYSDCE, 47-40 21st St., Long Island City, NY 11101-5407, Tel:

Notice of Formation of EURICA DEVELOPMENT LLC. Arts. of Org. filed with the Secy. of State of N.Y. (SSNY) on 4/20/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 33-15 Leavitt Street, 1FL, Flushing, NY. Upon whom process may be served. Purpose: any lawful activity.

Notice of Formation of GRANGER HOLDINGS LLC. Arts. of Org. filed with the Secy. of State of N.Y. (SSNY) on 4/8/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 18-15 25th Street, APT. 7S, Bayside, NY 11360. Upon whom process may be served. Purpose: any lawful activity.

Notice of Formation of JIN LUAN LLC. Arts. of Org. filed with the Secy. of State of N.Y. (SSNY) on 2/26/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 137-24 Kalmia Avenue, Flushing, New York, 11355. Upon whom process may be served. Purpose: any lawful activity.

Notice of formation of It Just Got Real LLC. Articles of Org. filed with the Secretary of State of New York (SSNY) on 02/04/2011. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC to: THE LLC, United States Corporation Agents, Inc., 7014 13th Ave., Suite 202, Brooklyn, NY 11228. Purpose: Any lawful activity or purpose.

SUPREME COURT - COUNTY OF QUEENS

ONEWEST BANK, FSB, v. GUIOMAR BENAVIDES, et al.

NOTICE OF SALE

NOTICE IS HEREBY GIVEN pursuant to a Final Judgment of Foreclosure dated 5/13/14, and entered in the Office of the Clerk of the County of QUEENS, wherein ONEWEST BANK, FSB is the Plaintiff and GUIOMAR BENAVIDES, ET AL. are the Defendant(s). I, the undersigned Referee will sell at public auction at the Queens County Courthouse, Courtroom 25, 88-11 Sutphin Blvd, Jamaica, NY 11435 on 6/12/15 at 10:00 AM premises known as 107-43 156th Street, Jamaica, NY. All that certain plot,

NOTICE OF OF Integrity United LLC, a limited (LLC), Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 39-01 M Flushing, NY 11367. Purpose: any lawful activity.

Notice of Formation of L.L.C., a limited (LLC), Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: PO BOX 52023 11352. Purpose: any lawful activity.

Notice of Formation of L.L.C., Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 11352. Purpose: any lawful activity.

Notice of formation of L.L.C., Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 11352. Purpose: any lawful activity.

Notice of formation of L.L.C., Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 11352. Purpose: any lawful activity.

Notice of formation of L.L.C., Arts of Org. of State of N.Y. (SSNY) designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 11352. Purpose: any lawful activity.

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For
John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015

TIME: 6:00PM - 8:00PM

LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard; East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

MILA-006999

**"As we celebrate Memorial Day, we remember
the brave men and women who sacrificed their
lives for the freedom we hold so dearly today."**



**Assemblyman
Mike Miller**

83-91 Woodhaven Boulevard
Woodhaven, NY 11421

6994



Councilman Jumaane Williams, at podium, discussed his catch basin bill before it was passed by the City Council last week.

PHOTO BY WILLIAM GERLICH / NYC COUNCIL

Catch basin bill called 'good start'

*Would force DEP to inspect them
once a year and report to city*

by Liz Rhoades

Managing Editor

A bill passed unanimously by the City Council last week that would increase inspections and repairs to clogged catch basins is one step in fighting the problem of flooding in Queens, according to two borough councilmen.

The bill, introduced by Councilman Jumaane Williams (D-Brooklyn), would force the Department of Environmental Protection to inspect catch basins on a yearly basis rather than every three years. It would also require the DEP to report twice a year to the mayor and Council speaker about inspections, maintenance and repairs.

Councilman Rory Lancman (D-Fresh Meadows) said he fully supports the measure as another tool in preventing flooding. His district includes a part of Utopia Parkway that has a long history of severe floods due to

He noted that the DEP is already working in the area to close up holes on manhole covers so water can't get out during storms. His civic is also sponsoring a June 24 town hall meeting with the DEP on flooding issues at 7 p.m. at the Utopia Jewish Center at 64-41 Utopia Parkway.

He believes also that the sewers can't sustain additional pressure, especially with three hotels under construction in the area.

Councilman Eric Ulrich (R-Ozone Park), who had introduced a bill in January calling for an annual report on the city's drainage infrastructure, said he also agrees with Williams' legislation. "I'm fully supportive," Ulrich said. "But it doesn't go far enough."

He believes the DEP needs to be held more accountable and said that what happened in Lindenwood last year was an example of "a perfect storm" with the agency and its affect on the community

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150 Airport Noise Compatibility Studies For John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

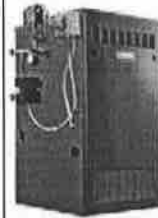
For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

INCREDIBLE SPRING SAVINGS

**Guaranteed Oil
Price for 1 Year!**

**SPECIAL
FOR NEW
CUSTOMERS:
50 GALLONS
FREE OIL!**



Burnham
AMERICA'S BOILER COMPANY

**NEW BOILERS
STARTING AT
\$2495**



PLUS THESE GREAT BONUSES!!

Bonus #1 0% Financing

Bonus #2 50 gallons FREE OIL!

Bonus #3 FREE Service Contract

**NEW BOILERS
\$500 OFF**

this offer cannot be combined
or applied to previous purchase

REMOVAL & INSTALLATION • FACTORY LIMITED LIFETIME WARRANTY
Complete System Includes: ✓ Burnham Boiler ✓ High Efficiency Beckett Burner
✓ Domestic Hot Water Coil ✓ All New Honeywell Controls

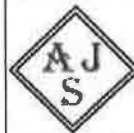
*CALL FOR DETAILS

718-762-FUEL • 516-763-FUEL • 914-777-0217

75 Rocklyn Avenue, Lynbrook, NY 11563



24 HOUR EMERGENCY SERVICE



Standard Heat
FUEL OIL • HEATING • COOLING
Serving New York, Queens, Nassau,
Bronx & Westchester Counties

**A full
service
company
you've trusted
since
1948**

DISCOVER HIGH-QUALITY, AFFORDABLE EDUCATION! IT'S NOT TOO LATE TO APPLY FOR FALL 2015!

QUEENSBOROUGH COMMUNITY COLLEGE **CUNY**

\$5,190*

Tuition & fees per year

* New York State residents

Private, nonprofit four-year
colleges and universities

\$31,231*

Average U.S. tuition & fees per year

* Source: The College Board



www.qcc.cuny.edu/admissions

QUEENSBOROUGH COMMUNITY COLLEGE **CUNY**

222-05 56th Avenue, Bayside, NY 11364

FOR BREAKING NEWS VISIT www.queenscourier.com

MAY 21, 2015 • THE QUEENS COURIER 39

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
 TIME: 6:00PM - 8:00PM
 LOCATION: New York LaGuardia Airport Marriott
 102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
 TIME: 6:00PM - 8:00PM
 LOCATION: Radisson Hotel JFK Airport
 135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

To Comfort Always...



Hospice of New York

Providing comprehensive end-of-life care in the home, nursing home, and in-patient setting throughout the Bronx, Brooklyn, Manhattan, Queens and Nassau County.

For referrals or information call or click:

718.472.1999 | www.hospicenyc.com

EMPLOYMENT OPPORTUNITIES

COMMUNITY HOSPICE NURSES (RN)
MEDICAL SOCIAL WORKERS (LMSW/LCSW)

Bilingual English/Spanish; English/Mandarin; English/Cantonese.
 Reliable automobile & valid driver's license are preferred.
 Competitive compensation and benefits package.
 Hospice of New York is an Equal Opportunity Employer.

FORWARD RESUME TO: JUDITH GAYLE



Richards Hosts City Agencies in Laurelton

BY TESS McRAE; EDITOR

For years, flooding, ponding and poor road conditions, have riddled Southeast Queens. Public hearings, rallies and meetings have been held, but little to no improvement was seen by residents.

So when Councilman Donovan Richards (D-Laurelton) called a town hall on Tuesday for residents to speak with and hear from the Department of Transportation and the Department of Environmental Protection, one could imagine the collective eye-roll that must have taken place.

But for the first time in a long time, Richards' constituents were given hope when the elected announced both agencies were turning their focus on the 31st Council District.

"We are in a great position to finally see improvements in the 31st District," Richards said. "We have a lot going on, a lot of exciting things happening. The mayor has committed \$1.2 billion to Southeast Queens

for sewer build out. To put it into perspective, that's \$1.2 billion out of the \$1.8 billion total for the city."

The funding was included in de Blasio's proposed budget for the 2016 fiscal year, which is expected to be approved by the City Council in July. That commitment is the first substantially funded project to be included in the budget in decades.

The sewer build out project aims to correct the chronic ponding that occurs in the 31st District. According to the DEP, the problem goes back to World War II when construction of Southeast Queens was accelerated, leading to

improper sewage.

In addition to sewage repairs, the DOT is working to improve road conditions and incorporate more safety measures on busy intersections in the area.

"I can't do this job without you,"

"I can't do this job without you. So please, work with me and let me know what this community needs."

— Nicole Garcia



Photo by Tess McRae

Councilman Donovan Richards (left) and Queens DOT Commissioner Nicole Garcia discussed the \$1.2 billion that has been allocated to address sewer problems that have plagued Southeast Queens.

nue and Merrick Boulevard.

The announcement was met with applause and cheers from residents who said remediation of busy streets in Laurelton and Springfield Gardens were long overdue.

"Councilman Richards, I just want to say how great this town hall was and thank you for giving us the opportunity to hear from DOT and DEP and the NYPD," one attendee said at the end of the event. "It was really great to hear what they had to say and what will be coming to our area soon."

Richards, Garcia, DEP Community Affairs Director Ibrahim Abdul-Matin, and the 103rd and 105th precincts, answered questions after presenting the sewer build-out plan and assured residents any answers that could not be provided right away would be looked into as soon as possible.

"This is a way for you to see how government and the agencies work," Abdul-Matin said. "It's great to be given the opportunity from you to hear what's going on, but it's also important for you all to reach out to us before town hall meetings as well."

Nicole Garcia, the new Queens commissioner for the DOT said. "So please, work with me and let me know what this community needs. You know the area better than me, so I am going to need your help."

Garcia, who toured the 31st Council District with Richards on Monday, mentioned several thoroughfares she and her staff will be focusing on, including the intersection of Springfield Boulevard and South Conduit Avenue, Merrick and Hook Creek boulevards as well as an already active project on North Conduit Ave-

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS 14 Code Of Federal Regulation (CFR) Part 150 Airport Noise Compatibility Studies For John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

Reliability, Integrity & Compassion
for over 35 years

LYNN AGENCY, INC.

A Commitment to Excellence in Home Care
Providing

HOME HEALTH AIDES,
PERSONAL CARE SERVICES & NURSING SERVICES

HOME CARE SERVICES INCLUDE:

Bathing, Dressing, Grooming
Meal Preparation & Feeding
Aide Attending Doctors Appointments

NURSING SERVICES INCLUDE:

Aide Supervision
Patient Physical Assessment
Medication Set Up & Monitoring
Health Education & Home Safety



24 HOURS PER DAY / 7 DAYS PER WEEK
Hourly or Live-in Options Available!

Call **718-261-6400** for details

www.LynnHomeCare.com
info@lynnstaff.com

Can video games teach?

Editor's Note: "Expert Advice" is a semi-regular column that invites a guest writer to discuss their area of expertise.

Expert Advice

In the history of child development, the widespread participation in the use of video games is not only a relatively new phenomenon, but a widespread one, too.

Ninety-seven percent of children and adolescents in the United States play at least one hour per day, according to the American Psychological Association.

Naturally, many parents and educators worry that this game time is subtracting from healthy skills children should be developing, such as reading.

As children grow into teenagers and then young adults, finding your favorite novel as a young person, for

example, can have immeasurable benefits by answering questions like: Who am I? What do I value? How do I move forward in life?

Of course, books – whether print or digital versions – are the best sources for in-depth knowledge about anything, from gardening to history to science and more. Establishing reading as a habit is necessary for the well-being of the world.

Here's some tips for parents who want to encourage healthy habits to their children, including reading and more.

- Find books that reflect video game themes. *Invasion of the Overworld: Book One* in the *Gameknight999 Series: An Unofficial Minecraft's Adventure* is an effective example. What better way to get a kid to read a book than to offer one that's about the video games they are obsessed with? In this case, it's about the popular game *Minecraft*.

- Parent participation can create additional teachable moments for issues like bullying. I've come to love playing *Minecraft* with my son, who spent months building things on his server: castles, bridges, underwater cities, factories, everything and anything his imagination could conceive.

Video games can have its benefits, too, creating opportunities to communicate with your child on those teachable moments we may dread, like when my son was bullied, but other habits ought to balance a child's life as well.

- Computer gaming can have positive benefits with family relationships. It turns out that there has been plenty of research out there on the benefits of parents playing computer games with their kids – not by computer game makers, but by respected universities.

Researchers from Arizona

State University suggest that "parents miss a huge opportunity when they walk away from playing video games with their kids." From Brigham Young University, researchers studied 287 families and looked at how they play video games together. The BYU team found that girls from ages 11 to 16, who played video games with a parent, reported better behavior, more feelings of family closeness and less aggression than girls who played alone or with friends.

In addition, there is a great TED talk that discusses game playing and the positive effects – both for family closeness and health.

- Games like *Minecraft* may offer an interest in engineering, city planning, etc. Many children who take to games that entail building cities may naturally take an interest later in life in the details of building things in the real world. Of course, children who love video games may want to know how the games themselves work or are of a high quality, which can lead to further interest in technology.

Whether it's a future career in video games, computer programming, engineering or a very long list of high-paying jobs, gaming can lead to good things.



Mark Cheverton taught public school for 15 years. He began writing his *Minecraft* series to help explain difficult lessons to his son, now 11.

CARPET TILE & BEYOND

One Stop For ALL Your Floor Covering Needs
(718) 896-1200

WE SELL & INSTALL

- Carpet • Area Rugs • Tiles
- Laminate • Linoleum
- Wood Floors & more

Special Pricing for Contractors,
Management Companies,
Realtors, Religious Centers
and Neighbors

COME CHECK US OUT

Our Goal is to Meet
& Exceed Your Expectations

FREE SHOP
AT HOME

WE CARRY LEADING BRANDS OF CARPET, TILE,
LAMINATE AND HARDWOOD FLOORS.



RESIDENTIAL CARPET \$1.89 SQ.FT WITH
INSTALLATION AND PADDING.



WE CARRY A WIDE SELECTION OF
HANDMADE PERSIAN RUGS

CARPET TILE & BEYOND

98-69 Queens Blvd.,
Rego Park, NY 11374

(718) 896-1200 | (718) 896-5904

Email: carpet_tileandbeyond@yahoo.com

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150
Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
 TIME: 6:00PM - 8:00PM
 LOCATION: New York LaGuardia Airport Marriott
 102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
 TIME: 6:00PM - 8:00PM
 LOCATION: Radisson Hotel JFK Airport
 135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

THE FRIENDS OF MAPLE GROVE CEMETERY

Presents

MEMORIAL DAY SERVICE

&

MUSICAL CELEBRATION

SATURDAY, MAY 23 at 3PM
FREE OUTDOOR EVENT
RAIN or SHINE

COLOR GUARD, REFLECTIONS and MUSIC

THE CENTER AT MAPLE GROVE CEMETERY
 127-15 Kew Gardens Road
 Kew Gardens, NY 11415

FREE PARKING and HANDICAP ACCESSIBLE

For Further Information
 Call (347) 878 6614

Visit Website: www.friendsofmaplegrove.org
 Email: info@friendsofmaplegrove.org



MEMORIAL DAY BUS TRIP ON MAY 27, 2015

TO CALVERTON NATIONAL CEMETERY

Over the years it has come to our attention

1.631.727.5410 and they will send you a map

QUALITY FOOT CARE FOR THE ENTIRE FAMILY: PODIATRIC MEDICINE AND SURGERY



MARC J. FEDERBUSCH, DPM

Board Certified in Podiatric Orthopedics
65-34 MYRTLE AVENUE, GLENDALE

SATURDAY HOURS

HOURS BY APPOINTMENT

718-366-FEET / 718-366-3338

MOST INSURANCE PLANS ACCEPTED

POLICE Blotter

Jackson Heights man charged in shooting

ELMHURST—A reputed member of the Sureño 13 street gang has been charged with murder, gang assault and weapons possession in the fatal shooting of a 38-year-old Elmhurst man following a verbal argument earlier this month. Queens District Attorney Richard Brown identified the defendant as Raul Zamora, 33, of Jackson Heights in the broad daylight shooting death of Corona resident Jorge Manzanarez, 33, on May 5.

Zamora approached Manzanarez at the corner of Roosevelt and Whitney avenues with two other men, who are still at large, and shot the victim once in the chest, according to the criminal complaint. Manzanarez was taken to Elmhurst Hospital Center where he died later that day.

"The defendant is accused of settling a verbal dispute with deadly gunfire," D.A. Brown said. "By his al-

leged senseless actions, the defendant has shown a total disregard for human life and now faces the possibility of spending the rest of his life behind bars."

Zamora was arraigned Sunday before Queens Criminal Court Judge Dorothy Chin-Brandt on a criminal complaint charging him with second-degree murder, first-degree gang assault and second-degree criminal possession of a weapon. Zamora, who faces up to 25 years to life in prison if convicted, was ordered held without bail and to return to court on June 1.

The investigation was conducted by detectives assigned to the NYPD's 110th Precinct Detective Squad. The search for the two other men continues.

Anyone with information is asked to call the NYPD's Crime Stoppers Hotline at 1-800-577-TIPS

Glendale teenager reported missing

GLENDALE — Teenager Kimberly Chicaiza was reported to authorities as a missing person Saturday, and police where seeking public assistance to find her. The young Hispanic woman was last seen at about 4:30 p.m. last Friday, police said.

Chicaiza is 14-years old, 4-feet-8-inches tall, weighs about 120 pounds, and has long brown hair and brown eyes. She was last seen wearing black sneakers, a white T-shirt and blue jeans, police said. The missing girl is a resident of 64th Street near 80th Avenue, within the confines of the 104th Precinct of the NYPD.

Any information regarding Chicaiza's whereabouts should be reported



Kimberly Chicaiza, 14, is reported missing. NYPD

to authorities by calling 800-577-8477. Tips can also be submitted anonymously at www.nypdcrimestoppers.com.

Drive-by slapper plagues Long Island City

LONG ISLAND CITY—There is a man on the loose who has an affinity for slapping butts.

Last month a man slapped a 31-year-old woman on her behind and police have now released a sketch to help their ongoing efforts to find the man who they describe as a 35-year-old Hispanic who is suspected of sexual abuse. In the sketch the man has a wry smile—slightly upturned left lip—and wears the red baseball cap he wore when he rode his bike past the woman and slapped her derriere.

The drive-by slap happened on April 22 in the light of day at 4 p.m. on Jackson Avenue and 23rd Street, according to police.



The young man in this sketch is wanted in connection with slapping a woman on the backside then riding off on a bike. NYPD

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS

**14 Code Of Federal Regulation (CFR) Part 150
Airport Noise Compatibility Studies For
John F. Kennedy International And LaGuardia Airports**

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study—the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

Publication Date: 05/18/2015



Memorial Day 2015

Revere soldiers before, during and after Memorial Day

By PHYLLIS WEINBERGER

It's rare to see a soldier close up. I saw a young man dressed in his military uniform going up the escalator in Kohl's in Valley Stream earlier this month.

I could not take my eyes off of him. What bravery, I thought ... what courage. I wanted to ask him about his service but decided to just let him be. I missed an opportunity to learn more about how today's soldiers feel about their service to the military.

Soldiers are not around us. We don't see them in uniform too often. They are out of mind.

We should be giving them our utmost thanks. Whether they agree or not with our foreign policy they are out there getting the job done as best they can while risking their lives tour after tour to keep us safe.

Memorial Day should mean more than just a special shopping day.

We see ceremonies on the television. Hon-

orees and gravestones. People paying respects with pained expressions and tearful eyes. They have lost their loved ones and their hopes for the future are as buried as the flagged coffins the soldiers lie in.

Our soldiers are volunteers. They were not drafted. That makes them even more courageous.

Keep the military in mind this Memorial Day.

Remember the veterans who fought in World War II.

Remember those who were drafted to serve in Vietnam, some who went against their will to fight a war that proved to be unjust.

Give thanks to those who enlisted in both wars in the Middle East, whether you thought they were necessary or not.

Remember each day the young men and women who are dropping bombs on ISIS in an effort keep us safe.

Memorial Day is a holiday that must have the reverence it deserves.

Weinberger is a North Woodmere resident.



PHYLLIS WEINBERG

Keep it memorable ...

Continued from page 2

basis. When testing for leaks, never use matches or an open flame. Use soapy water or a leak detector.

· Store your cylinder away from heat and insert a safety plug on the valve.

After barbecuing:

· Always follow the manufacturer's cleaning and storing instructions that accompany the grill.

· Keep your grill clean and free of grease buildup that may lead to a fire.

· Never store liquid or pressurized fuels inside your home and/or near any possible sources of flame.

In case of a barbecue fire

· For PROPANE grills - turn off the burners. For CHARCOAL grills - close the grill lid. Disconnect the power to ELECTRIC grills.

· For PROPANE grills - if you can safely

reach the tank valve, shut it off.

· If the fire involves the tank, leave it alone, evacuate the area and call the fire department.

· If there is any type of fire that either threatens your personal safety or endangers property, ALWAYS call the Fire Department.

· NEVER attempt to extinguish a grease fire with water. It will only cause the flames to flare up. Use an approved portable fire extinguisher.

The Elmont Volunteer Fire Department has 220 volunteer members serving the community as firefighters and emergency response personnel. In 2013, the Department responded to 1,561 calls for assistance, of which 400 were ambulance calls. In 2013, Elmont Fire Department fought 22 working fires, with no fatalities. One of the most diverse departments on Long Island, the Department's tradition is "Neighbors Helping Neighbors". To learn about joining the Elmont Fire Department, please call (516) 354-4560.



Viewfinder

By Susan Grleco

THE QUESTION: "On Memorial Day, what is the best way to honor our fallen heroes?"



I fly the American Flag!

JESSIE LANGBON
Retired



I, myself am a vet, and I thank those that are still alive and pray for them and the ones who have died.

FRANK HOGAN
Library Worker



I make sure I get to the Memorial Day parade every year to keep the memory alive.

JOAN EXLER
Retired



My husband is a vet, and thankfully, still alive. I donate money to the VFW and Wounded Warriors and keep them in my prayers.

DOROTHY CALABRESE
Retired



My husband is a deceased Army veteran, and I make sure to visit him at the cemetery.

EMILY FERREIRA
Retired



I contact all the living veterans I know, either by phone, email or Facebook, and I make sure my flag is hung outside.

GREG BRENNAN
Guidance Counselor

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS 14 Code Of Federal Regulation (CFR) Part 150 Airport Noise Compatibility Studies For John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study - the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015

TIME: 6:00PM - 8:00PM

LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

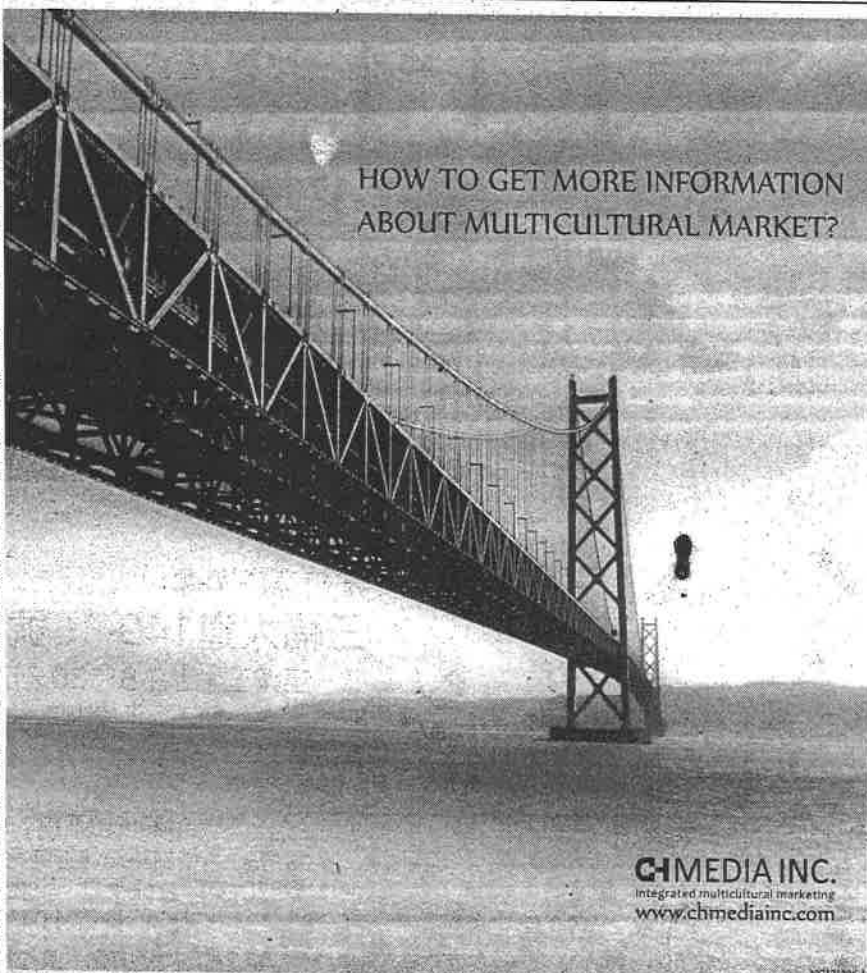
and Lyon)收藏。里昂當時是
員和隨從，也是美聯社戰地

律，依照此文件中指定的內容處置以上財
產。遺囑稱將按照比例分配財產，並指定紐

件、張學良家藏照片、機密文件以及淞滬會
戰照片、民國時期風景照片等等。

著墨，除將與哥倫比亞總統桑托斯共同出席中
拉人文交流研討會，訪問秘魯期間，他也將出
席有關文明互鑒的活動。

K-16



HOW TO GET MORE INFORMATION
ABOUT MULTICULTURAL MARKET?

CH MEDIA INC.
Integrated multicultural marketing
www.chmediainc.com

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150 Airport Noise Compatibility Studies For John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study - the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

45005

5/18

世界日報

worldjournal.com

2015年5月18日 星期一 MONDAY, MAY 18, 2015

美國新聞

A6

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150

Airport Noise Compatibility Studies For

John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/alrports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

SOPA DE LETRAS

K-17

La fuerza de los hechos/ Por Ma. Esther Rodriguez
© Calli Casa Editorial

S	B	X	E	H	Z	C	R	R	R	F	H	I	D	V
E	S	E	A	P	X	D	A	G	Q	C	L	Y	R	U
R	G	C	D	I	S	C	R	E	T	O	S	A	Q	S
B	E	E	O	A	I	E	F	K	Ñ	C	D	P	A	M
M	C	F	N	N	L	A	C	A	U	N	I	A	H	I
O	H	E	U	T	M	E	P	R	A	E	V	P	C	G
H	N	M	R	O	E	S	D	B	V	E	E	P	N	U
P	O	H	S	V	E	S	S	O	D	L	R	O	A	E
C	I	A	U	A	P	A	R	Q	G	S	R	M	L	
I	X	Q	K	O	R	N	A	U	J	Y	A	Y	N	F
N	O	C	N	O	D	R	T	M	T	W	S	N	S	S
C	E	W	A	F	B	X	E	E	G	O	Q	T	N	T
R	O	T	I	R	C	S	E	I	S	K	R	S	V	K
Q	U	I	J	O	T	E	A	O	T	S	O	L	A	Q
B	Y	M	Z	C	Y	B	O	T	R	A	S	O	N	I

BUSCAR DESDE "ANDAR" HASTA "MANCHA": ASUNTOS PENDIENTES

"ANDAR POR OTRAS TIERRAS Y COMUNICAR CON DIVERSAS GENTES HACE A LOS HOMBRES DISCRETOS". MIGUEL DE CERVANTES SAAVEDRA, ESCRITOR ESPAÑOL, AUTOR DE LA FAMOSA OBRA "DON QUIJOTE DE LA MANCHA".
(1547-1616)

Sugerencias, comentarios: buzon@callieditorial.com

¿HA PERDIDO USTED,
O ALGUIEN QUE USTED CONOZCA,

DINERO
CON HERBALIFE?

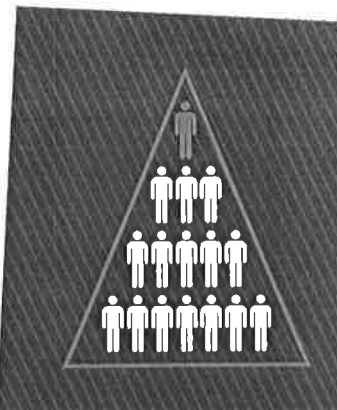
Desgraciadamente Usted No Esta Solo!

▲ **9 de cada 10 distribuidores de Herbalife no tienen ganancias**
o **PIERDEN DINERO.**

▲ **¡No permita que los engaños y las falsas promesas continúen!**

HAY AYUDA DISPONIBLE.
¡LLAME HOY!

855-525-3782



ΕΘΝΙΚΟΣ ΚΗΡΥΞ ΔΕΥΤΕΡΑ 18 ΜΑΪΟΥ 2015

Legal Notice

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOPS

14 Code Of Federal Regulation (CFR) Part 150 Airport Noise Compatibility Studies For John F. Kennedy International And LaGuardia Airports

The Port Authority of New York & New Jersey will be hosting two public information workshops in June 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study - the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

LGA PUBLIC INFORMATION WORKSHOP

DATE: Tuesday, June 16, 2015
TIME: 6:00PM - 8:00PM
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369

JFK PUBLIC INFORMATION WORKSHOP

DATE: Wednesday, June 17, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Radisson Hotel JFK Airport
135-30 140th Street, Jamaica, NY 11436

For more information, please visit the project website at: <http://www.panynj.gov/airports/jfk-lga-part150>

Anyone needing special accommodations under the Americans with Disabilities Act of 1990 or questions about the project should contact the Noise Office at (212) 435-3880 at least 72 hours prior to the meeting.

Legal Notice/Auction Notice

Lakepoint Service Inc will sell on May 27, 2015 at 3:00PM a 2004 Ford #1FMDU75W14ZA35851 re: Darice Mancuso. Sale of vehicle to be held at 166 Middle Country Rd Middle Island, NY 11953 to satisfy garage-man's lien. Garageman reserves the right to bid.

274404/18514

Legal Notice

SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF NEW YORK Index No. 312413-2014 HELEN LIU, Plaintiff designates New York County as the place of trial. The basis of venue is Plaintiff's residence. Plaintiff, SUMMONS WITH NOTICE against Plaintiff resides at 104 W 27th Street, New York, NY 10001. JIAN CHU ZHENG, Defendant. ACTION FOR DIVORCE To the above named Defendant: YOU ARE HEREBY SUMMONED to serve a notice of appearance on the Plaintiff's Attorneys within twenty (20) days after the service of this summons; exclusive of the day of service (or within thirty (30) days after the service is complete if this summons is not personally delivered to you within the State of New York); and in case of your failure to appear, judgment will be taken against you by default for the relief demanded in the notice set forth below. Dated 10/2, 2014. Xuejie Wong, Esq. Law Offices of Xuejie Wong PLLC Attorneys for Plaintiff 139 Centre Street, Suite 208, New York, NY 10013 212-941-5483
NOTICE: The nature of this action is to dissolve

1-718-784-5255 Μικρές αγγελίες και διαφημίσεις

Γραφεία Τελετών

Η οικογένεια που συμπαραστάθηκε και θα εξακολουθήσει να συμπαραστέκεται για πολλά ακόμα χρόνια στην Ομογένεια



GUS ANTONOPOULOS
ΔΙΕΥΘΥΝΤΗΣ ΤΕΛΕΤΩΝ

Ξαν καλοί γείτονες έχουμε βρεθεί στο πλευρό οικογενειών σε δύσκολες στιγμές και ευελπιστούμε ότι θα εξακολουθήσουμε να προσφέρουμε τις υπηρεσίες μας στην κοινότητα για πολλά ακόμα χρόνια.



To πιο δημοφιλές Γραφείο Τελετών της περιοχής
ANTONOPOULOS
FUNERAL HOME INC.
38-08 Ditmars Blvd. • Astoria
(718) 726-6060



TOMMY ANTONOPOULOS
ΔΙΕΥΘΥΝΤΗΣ ΤΕΛΕΤΩΝ

Ο Βαρουφάκης

ΑΘΗΝΑ. (Γραφείο Εθνικού ρυκα). Ο υπουργός Οικονομικών, Γιάννης Βαρουφάκης, εκτενή δήλωσή του, διέψε δύο δημοσιεύματα του «Πρώτου Θέματος».

Το ένα, αναφερόταν στο «άκουσε» ο κ. Βαρουφάκης τον Γερμανό ομόλογό, Βόλφγκανγκ Σόιμπλε, κατά συνάντησή τους την προηγμένη Δευτέρα πριν από το ροχτούρ και το δεύτερο ότι ο ληνός ΥΠΟΙΚ εμφανίζεται σύμβουλος μιας σγκαπουριζ εταιρείας που λανσάρει τα δικτυακά νομίσματα «Bitcoin» αλλά και ότι είχε προτείνει εργοδότες του για συμβούλιο στην κυβέρνηση Τσίπρα.

Ο κ. Σόιμπλε, όπως ανέφερε το «Πρώτο Θέμα», φέρεται είπε στον κ. Βαρουφάκη: «Δε δρόμο από το ευρώ... φύ από τις Βρυξέλλες και σαι νουμε κλειδωμένη ισοτιμία ρώ-δραχμής, κλειδωμένο χ και 'οδοπορικά'».

Ο κ. Βαρουφάκης, σε δήλωσή του, επεσήμανε: Η εφημερίδα «Πρώτο Θέμα», στο κυριακά φύλλο της, μου περιποιεί τιμή να επικεντρωθεί στο πρόβλημα μου τις και μάλιστα πρώτη σελίδα!

Η τιμή θα ήταν μεγάλη σχετικά άρθρα δεν περιείχαν ανακρίβειες, που είναι σίγουρο ότι θα διορθωθούν από την ταχιστα τις εφημερίδες.

Ποτέ ο Δρ Σόιμπλε δεν είπε κάτι τέτοιο στην μεταξί συνομιλία, την 11η Μαΐου, οποιαδήποτε προηγούμενη γάντηση. Με τον Γερμανό ολόγο μου διατηρούμε καλές ναδελφικές σχέσεις και έχουμε συμφωνήσει πως ό,τι λέγετα ταξί μας, μένει μεταξύ μας οφείλουν να κάνουν οι υπενοί Υπουργοί Οικονομικών ρών-μελών της ευρωζώνης.

Αυτή τη μεταξύ μας συγία την τηρούμε κατά γράηι αυτόν το λόγο, όπως φηται, κάποιοι ευφάνταστοι σκευάζουν μεταξύ μας διγους που, όπως είναι λογικό έχουν καμία σχέση με την ματικότητα.

Για την εταιρεία «Bitcoin» πρόσθετε ο Έλληνας ΥΠΟΙΚ. Λίγη σοβαρότητα δεν πει. Ποτέ δεν πρότεινα «έδω» μου, πόσο μάλλον τι κατ' ανάγκη εταιρεία «



LITRAS
FUNERAL HOME



Public Information Workshop #1
June 16, 2015 (6:00 p.m. – 8:00 p.m.)
Marriott LaGuardia Airport

Sign-In Sheet

[illegible]

Public Information Workshop #1
June 16, 2015 (6:00 p.m. – 8:00 p.m.)
Marriott LaGuardia Airport

Sign-In Sheet

[illegible]

THE PORT AUTHORITY
 OF NEW YORK & NEW JERSEY

 14 CFR Part 150 Study
 LaGuardia Airport

 Public Information Workshop #1
 June 16, 2015 (6:00 p.m. – 8:00 p.m.)
 Marriott LaGuardia Airport

Sign-In Sheet

Name/Organization	Address	Phone or Email
TULLOCK ELNA	SELF 37-37 104	718 507 8155
ST CORONA DEENS	113 65	718 507 8155
SUDAN CARROL	138-13 Franklin Ave #41C Flushing NY 11355	718 507 8155
Rep. Michael Spadaro	138-13 Franklin Ave #41C Flushing NY 11355	718 507 8155
Janet McEneaney	queens quiet skies com	
Stan Goldstein	Self, Goldstein USA@gmail.com	718 646-236-2134
Roberta "	"	"
E Sturge Llerena	33-45 74th St. Jackson Heights NY	718 672 2097
Maria Phillips	106-14 Ditmars Blvd E. Elmhurst	elizabethsturgeklerena@gmail.com
ANN BROWN	27-18 Humphreys St E E	asbrown96@aol.com
Venette Jarvis	26-36 95 St. E. Elmhurst 11369	Buttonspedagoge@gmail.com

Public Information Workshop #1
June 16, 2015 (6:00 p.m. – 8:00 p.m.)
Marriott LaGuardia Airport

Sign-In Sheet

[illegible]

Sign-In Sheet

[illegible]

14 CFR Part 150 Study
LaGuardia Airport

Public Information Workshop #1
June 16, 2015 (6:00 p.m. – 8:00 p.m.)
Marriott LaGuardia Airport

Sign-In Sheet

[illegible]

Sign-In Sheet

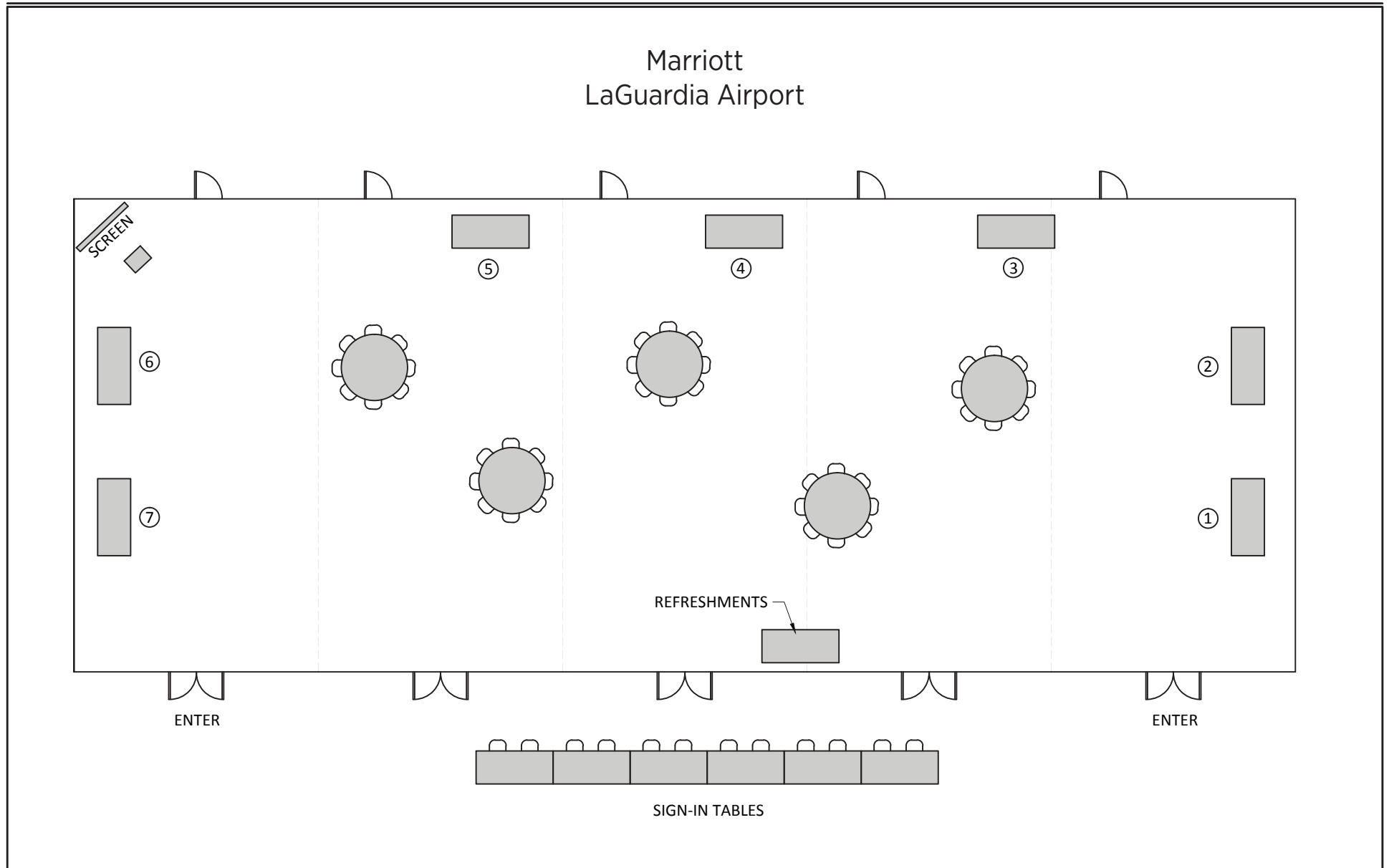
[illegible]

Sign-In Sheet

[illegible]

Public Information Workshop
Handouts
(June 16, 2015)

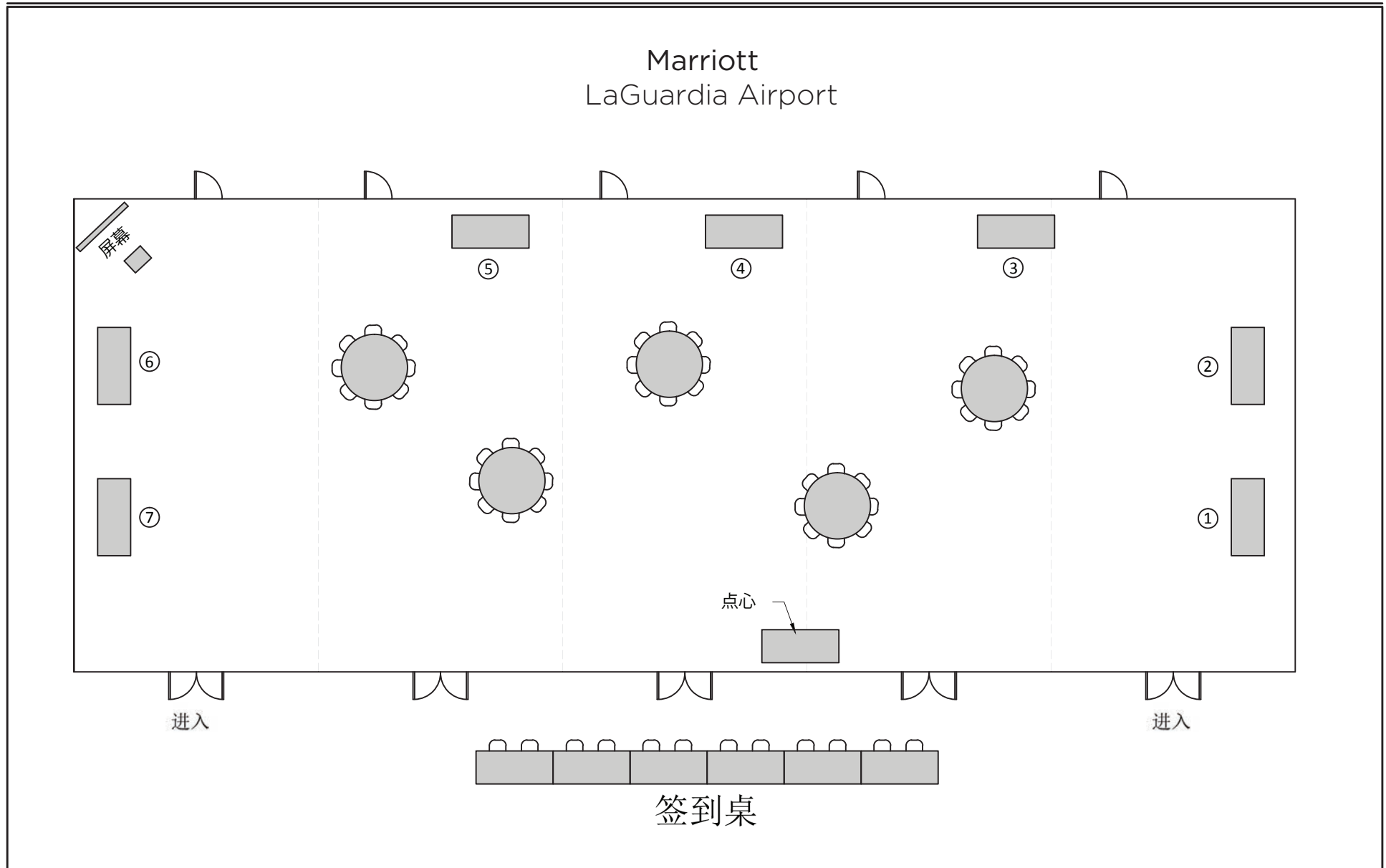
Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PIP) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.



Welcome to the Public Information Workshop for the LaGuardia Airport 14 CFR Part 150 Study

The meeting is designed as an "open house" with various stations with study information available for review. Members of the ESA Study Team and Port Authority Representatives are available for one-on-one discussion and to answer questions regarding the materials located at each station.

-
- | | |
|-----------|---|
| Station 1 | CFR Part 150 Overview (Boards 1-5) |
| Station 2 | CFR Part 150 Terminology, Roles and Responsibilities (Boards 6-11) |
| Station 3 | Project Overview (Boards 12-15) |
| Station 4 | Airport and Study Area Diagrams (Boards 16-18) |
| Station 5 | Study Process and Project Schedule (Boards 19-21) |
| Station 6 | Noise Metrics and Acoustical Terms (Boards 22-26) |
| Station 7 | Port Authority Information, Airport Information and Statistics (Boards 27-32) |



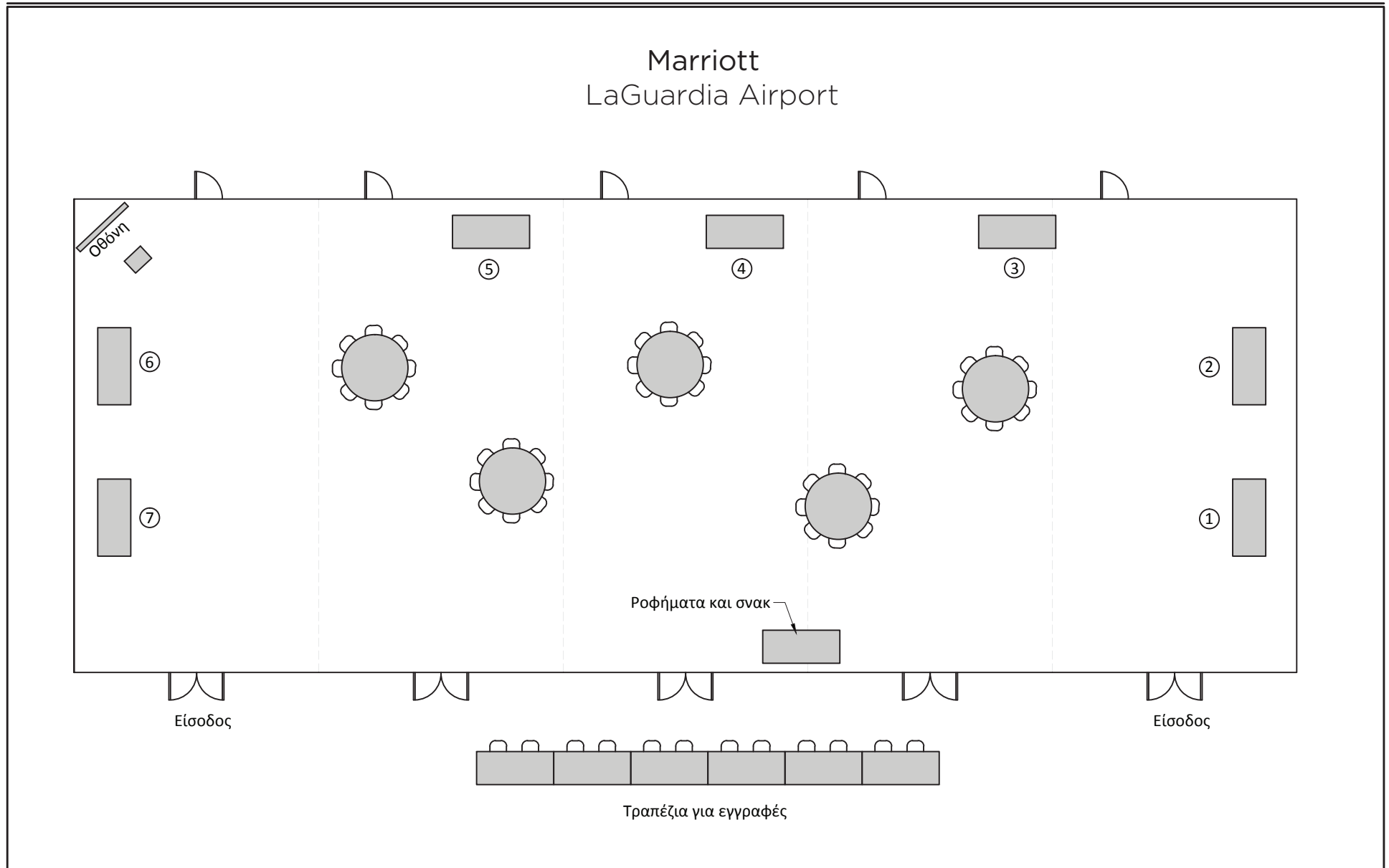
拉瓜迪亚机场
标题 14 CFR 第 150 部分研究
公共信息研讨会 1
2015 年 6 月 16 日

请参阅背面站名清单▷

欢迎参加拉瓜迪亚机场14 CFR第150部分研究公共信息研讨会

这次会议属于随意参加的性质，安排了多个站点，提供信息供大家审阅。
ESA 研究团队和港务局 (**Port Authority**) 的代表将在场与大家进行单独讨论，并回答有关每个站点所供材料的问题。

站点 1	CFR 第 150 部分概述 (1-5 信息板)
站点 2	CFR 第 150 部分术语、角色和职责 (6-11 信息板)
站点 3	项目概况 (12-15 信息板)
站点 4	机场和研究区域图 (16-18 信息板)
站点 5	研究过程和项目进度 (19-21 信息板)
站点 6	噪声指标和声学术语 (22-26 信息板)
站点 7	港务局信息、机场信息与统计 (27-32 信息板)



Αεροδρόμιο LaGuardia
Μελέτη Μέρος 150 Τίτλος 14 CFR
Σεμινάριο για Δημόσιες Πληροφορίες #1
16 Ιουνίου 2015

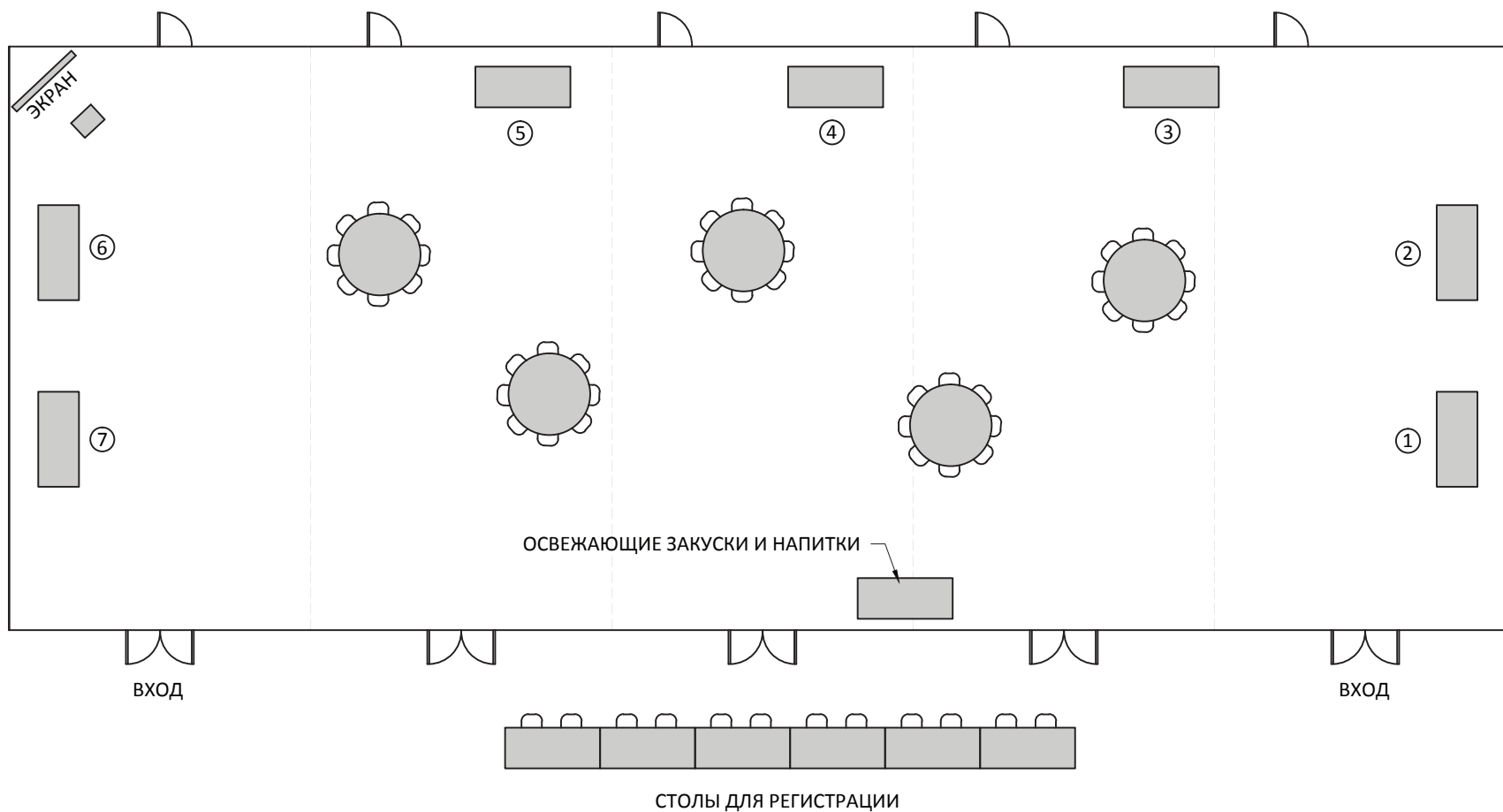
Δείτε το πίσω μέρος για τη λίστα σταθμών ►

**Καλωσορίσατε στο Σεμινάριο για Δημόσιες Πληροφορίες σχετικά με τη Μελέτη Μέρος
150 Τίτλος 14 CFR για το Αεροδρόμιο LaGuardia**

Η συνάντηση έχει σχεδιαστεί ως «ανοιχτό σπίτι» με διάφορους σταθμούς που διαθέτουν πληροφορίες σχετικά με τη μελέτη για ανασκόπηση. Τα μέλη της Ομάδας Μελέτης ESA και οι Αντιπρόσωποι της Λιμενικής Αρχής είναι διαθέσιμοι για ατομικές συζητήσεις και για να απαντήσουν σε ερωτήσεις σχετικά με τα υλικά που βρίσκονται διαθέσιμα σε κάθε σταθμό.

-
- Σταθμός 1 Ανασκόπηση του CFR Μέρος 150 (Επιτροπές 1-5)
 - Σταθμός 2 Ορολογία, Ρόλοι και Ευθύνες του CFR Μέρος 150 (Επιτροπές 6-11)
 - Σταθμός 3 Γενική Ανασκόπηση του Πρότζεκτ (Επιτροπές 12-15)
 - Σταθμός 4 Διαγράμματα των Περιοχών Αεροδρομίου και Μελέτης (Επιτροπές 16-18)
 - Σταθμός 5 Διαδικασία Μελέτης και Πρόγραμμα του Πρότζεκτ (Επιτροπές 19-21)
 - Σταθμός 6 Μετρήσεις Θορύβου και Ακουστικοί Όροι (Επιτροπές 22-26)
 - Σταθμός 7 Πληροφορίες της Λιμενικής Αρχής, Πληροφορίες και Στατιστικές Αεροδρομίου (Επιτροπές 27-32)

Marriott
LaGuardia Airport



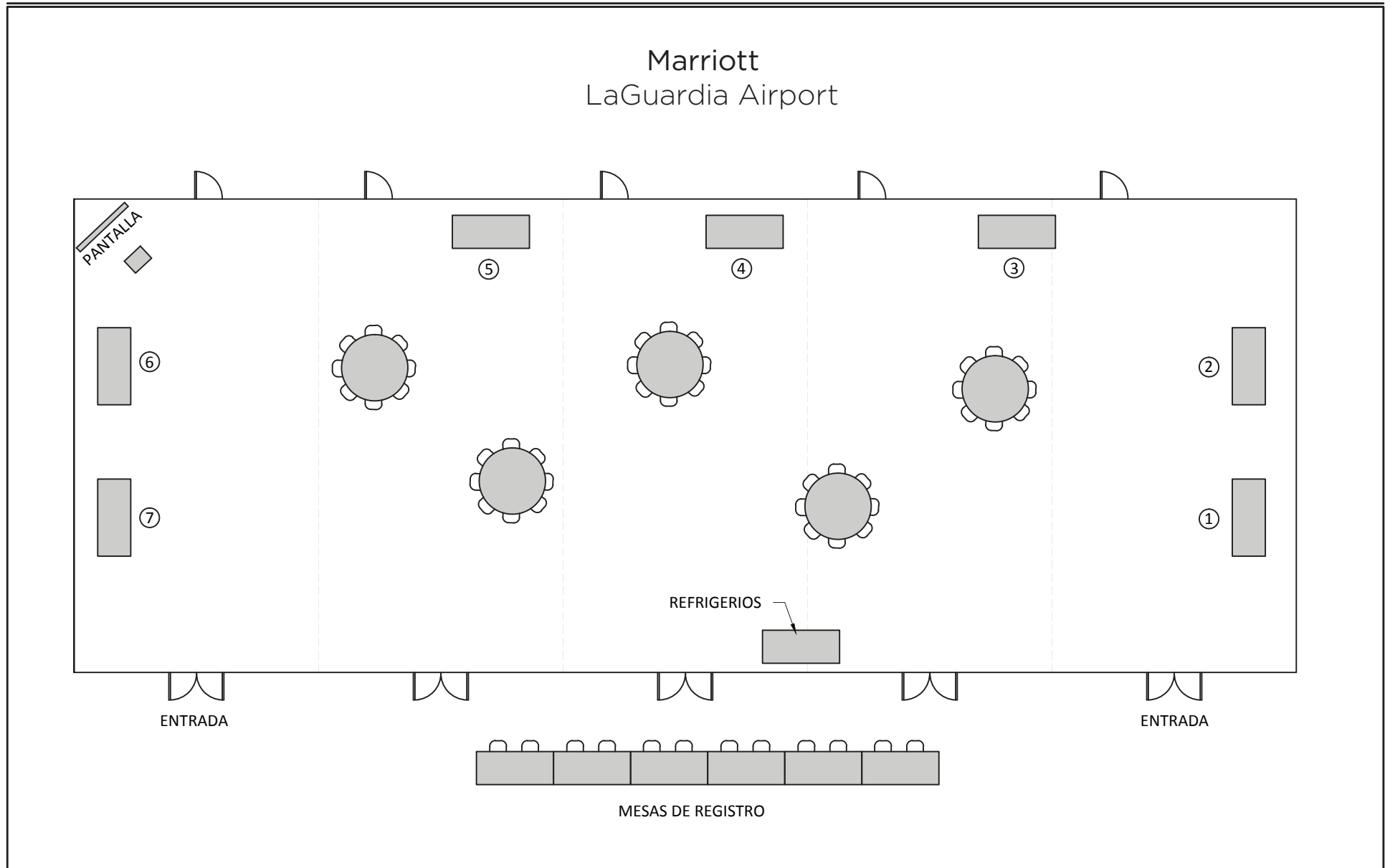
Аэропорт Ла Гуардия
Исследование согласно Разделу 14, Части 150 Свода Федеральных Законов (CFR)
Собрание № 1 по информированию общественности
16 июня 2015 года

Перечень секций приведен на обороте ►

**Добро пожаловать на Собрание по информированию общественности об исследовании
согласно Разделу 14, Части 150 Свода Федеральных Законов (CFR) для аэропорта Ла Гуардия!**

Данное собрание организовано по принципу «день открытых дверей» и информация об исследовании приведена в нескольких секциях. Вы можете задать вопросы и обсудить материалы, приведенные в любой из секций, в индивидуальном порядке с Членами Коллектива ESA исследования и представителями Портового Управления.

- | | |
|----------|--|
| Секция 1 | Обзор Части 150 CFR (панели 1-5) |
| Секция 2 | Терминология, роли и виды ответственности по Части 150 CFR (панели 6-11) |
| Секция 3 | Общие сведения о проекте (панели 12-15) |
| Секция 4 | Диаграммы аэропорта и участка проведения исследования (панели 16-18) |
| Секция 5 | Процесс исследования и график проекта (панели 19-21) |
| Секция 6 | Количественные показатели шума и акустические термины (панели 22-26) |
| Секция 7 | Информация о Портовом Управлении / аэропорте и статистика (панели 27-32) |



Bienvenido al Taller informativo público para el Estudio 14 CFR Parte 150 del Aeropuerto LaGuardia

La reunión es al estilo “open house” con diversas estaciones con información del estudio disponible para revisión. Los miembros del Estudio ESA y los representantes de la Autoridad Portuaria están disponibles para hablar personalmente con el público y responder preguntas sobre los materiales ubicados en cada estación.

Estación 1	Descripción general de CFR Parte 150 (Tableros 1 a 5)
Estación 2	Terminología, funciones y responsabilidades de CFR Parte 150 (Tableros 6 a 11)
Estación 3	Descripción general del proyecto (Tableros 12 a 15)
Estación 4	Diagramas del aeropuerto y área del estudio (Tableros 16 a 18)
Estación 5	Proceso del estudio y horario del proyecto (Tableros 19 a 21)
Estación 6	Términos de acústica y métrica de ruido (Tableros 22 a 26)
Estación 7	Información de la Autoridad Portuaria, información del aeropuerto y estadísticas (Tableros 27 a 32)

LaGuardia Airport Title 14 Code of Federal Regulations

Part 150 Study

What is a 14 CFR Part 150 Study?

Title 14 Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning, was issued by the Federal Aviation Administration (FAA) as a final rule in January 1985. 14 CFR Part 150 sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs.

14 CFR Part 150 studies typically consist of two primary components: (1) the Noise Exposure Map (NEM) report, which contains detailed information regarding existing and 5-year future airport/aircraft noise exposure patterns, and (2) the Noise Compatibility Program (NCP), which includes descriptions and an evaluation of noise abatement and noise mitigation options/programs applicable to an airport.

Has a 14 CFR Part 150 Study been prepared for LaGuardia Airport (LGA)?

Although the Port Authority of New York and New Jersey has a long history of addressing noise exposure from aircraft operations at LGA, this is the first 14 CFR Part 150 Study for LGA. The Port Authority is preparing 14 CFR Part 150 studies for John F. Kennedy International Airport (JFK), Newark Liberty International Airport, and Teterboro Airport concurrent with the LGA 14 CFR Part 150 study.

Why is the Port Authority undertaking a 14 CFR Part 150 Study for LGA?

In response to growing community concerns about aircraft noise, Governor Cuomo directed the Port Authority to undertake 14 CFR Part 150 Studies for JFK and LGA. Governor Cuomo directed the Port Authority to open a full and thorough dialogue with the impacted communities while also pursuing a noise study to better address the issue. Port Authority Aviation Director Thomas Bosco said, “The Port Authority understands it must strive to be a good neighbor in the communities where its airports are located.” He added, “We will seek noise mitigation with the FAA where feasible.”

The 14 CFR Part 150 Study for LGA will identify areas that are not compatible with significant levels of aircraft noise exposure and will recommend measures for mitigating aircraft noise impacts to the greatest extent feasible.

What will the Port Authority produce during the LGA 14 CFR Part 150 Study?

The 14 CFR Part 150 Study must be prepared in accordance with guidance provided in the 14 CFR Part 150 regulations. The FAA has prepared checklists for the NEM and NCP which must be followed to ensure compliance with 14 CFR Part 150. As part of the LGA 14 CFR Part 150 Study, the Port Authority and its consultant will quantify existing (2016) and future (2021) aircraft noise exposure levels in the vicinity of LGA. The Port Authority will also develop supporting documentation explaining the process used to calculate existing and future aircraft noise exposure levels. The LGA NEM Report will provide the Port Authority with a set of NEMs that identify areas exposed to aircraft noise of day-night average

sound level (DNL) 65 decibels (dB) and higher. The NEMs will be submitted to the FAA for review and acceptance. Additional maps will be created for informational purposes only to show the existing and future DNL 55 dB contours. These maps will not be included in the formal submittal of the NEM to the FAA.

After the LGA NEMs are complete, the Port Authority and its consultants will examine potential measures for minimizing LGA's noise impact. The Port Authority will consider a range of feasible mitigation measures including operational, remedial, preventative, and administrative measures. The measures providing the greatest potential to minimize the noise impacts from aircraft operations at LGA will be forwarded to the FAA for review and approval. Certain measures may require FAA funding to be implemented (e.g., sound insulation). Only those measures approved by the FAA will be eligible for federal funding.

How long will the LGA 14 CFR Part 150 Study take to complete?

14 CFR Part 150 Studies vary in duration depending on a number of factors including, but not limited to, the complexity of the airport operations and local airspace, availability of data, the public outreach process, and agency review periods. The estimated duration of the LGA 14 CFR Part 150 Study is approximately three to four years. The Port Authority is committed to taking the time required to provide the FAA with NEMs and an NCP for LGA that meet requirements of 14 CFR Part 150.

Where can I get more information?

General information, project reports and public workshop materials, including presentation boards, will be uploaded to the project website at <http://www.panynj.gov/airports/aircraft-noise-information.html>, as they become available.

How can I get involved?

14 CFR Part 150 encourages the participation of citizens and public agencies. The Port Authority will convene several public information workshops during the 14 CFR Part 150 Study process. This public information workshop is being held to introduce the LGA 14 CFR Part 150 Study. We anticipate that the second public information workshop will be convened next spring to present key study findings.

The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint, the airport noise complaint hotline is 1-800-225-1071. Comments regarding the LGA 14 CFR Part 150 Study can be submitted at the public workshop or by (1) email to NYPART150@panynj.gov or (2) mailing them to the Port Authority at the following address:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

拉瓜迪亚机场接受“14 CFR Part 150 调研”的说明

何谓“14 CFR Part 150 调研”？

“14 CFR Part 150”为“Title 14 Code of Federal Regulations Part 150”的缩写，即美国政府“联邦法规汇编第 14 编第 150 部”，题为“机场噪音兼容性规划”，由联邦航空管理局 (FAA) 于 1985 年 1 月正式颁布执行。在 14 CFR Part 150 中，规定了编制飞机噪音暴露地图的方法和规程，以及机场和机场周边土地使用兼容性项目的编制方法和规程。

“14 CFR Part 150 调研”一般由两个主要部分组成：(1) 噪音暴露地图 (Noise Exposure Map, NEM) 报告，内中详细陈述目前及未来 5 年内机场/机场噪音暴露的模式；(2) 噪音兼容性项目 (Noise Compatibility Program, NCP)，内中应说明可以适用于机场的噪音治理备选方案/计划，并加以评估。

拉瓜迪亚机场 (LGA) 过去有无进行“14 CFR Part 150 调研”？

虽然纽约与新泽西港口事务管理局 (Port Authority of New York and New Jersey) 一直保持了对 LGA 的飞机噪音暴露治理工作，但真正进行“14 CFR Part 150 调研”，尚属首次。此次除开对 LGA 进行 14 CFR Part 150 调研之外，港务局还对肯尼迪国际机场 (JFK)、纽瓦克国际机场和蒂特波罗机场同时开展调研。

港务局对 LGA 进行“14 CFR Part 150 调研”的意义何在？

此次港务局对 JFK 开展“14 CFR Part 150 调研”，是在州长 Cuomo 的要求下，应周边社区对飞机噪音问题进行治理的呼声而进行的。州长 Cuomo 要求港务局与相关社区进行全面而深入的对话与了解，同时开展噪音调研，科学细致地研究这一问题。港务局航空主任 Thomas Bosco 表示：“我们港务局深深地懂得：机场开在哪里，就要争做哪里的‘好邻居’。”他还补充道：“我们将尽量与 FAA 一道，探索合理的噪音治理办法。”

本次对 LGA 进行“14 CFR Part 150 调研”，将找出飞机噪音暴露水平问题较为突出的区域，并就如何在合理范围内尽可能降低飞机噪音所造的不利影响而提出方法措施上的建议。

港务局对 LGA 进行“14 CFR Part 150 调研”后将得出哪些成果？

“14 CFR Part 150 调研”的编订必须遵照 14 CFR Part 150 有关法规的指示进行。FAA 为 NEM 和 NCP 的编订明确规定了任务内容，必须全面遵守，否则即为违反 14 CFR Part 150 的规定。在对 LGA 进行“14 CFR Part 150 调研”期间，港务局及其顾问将对 LGA 周边的飞机噪音在当前 (2016) 及未来 (2021) 的暴露水平进行定量测定。同时，港务局方面还将给出解释性文件，说明其在计算当前 (2016) 及未来 (2021) 的飞机噪音暴露水平时所采用的方法步骤。调研文件中还将包括“LGA NEM 报告”，其中包含一整套 NEM 地图，用于为港务局标明暴露在飞机噪音下且昼夜平均声级 (DNL) 达到或超过 65 分贝 (dB) 的区域。这套 NEM 最终将提交 FAA 进行审批。除开这套地图

外，还会另行绘制一套附加地图，标明在当前及未来 DNL 达到 55 分贝 (dB) 的区域，但仅供参考，不会包含在提交 FAA 审批的地图中。

LGA NEM 地图完成后，港务局及其顾问将考察应采取何种措施来最大限度降低 LGA 的噪音影响，考查范围包括一系列可行方案，如营运手段、补偿赔偿、预防治理和行政措施等。从中得出最能够降低 LGA 飞机运营噪音影响的方案，然后提交 FAA 审批。某些方案可能需要 FAA 拨款方可实施（如隔音措施），而惟有经过 FAA 批准的措施，才有资格申请联邦拨款。

此次“LGA 14 CFR Part 150 调研”需要多久完成？

“14 CFR Part 150 调研”的具体耗时并不一定，取决于很多因素，包括（但不限于）：机场运营情况及周边空域情况的复杂度、有无现成数据、公众宣传工作的开展和机构审查的时间等。至于此次“LGA 14 CFR Part 150 调研”，估计需要约三到四年完成。港务局绝不会草率行事，必将严格依照 14 CFR Part 150 的要求，深入细致地编订 LGA 的 NEM 和 NCP 报告，并提交 FAA 审批。

在哪里可以获得更多详情？

本次调研的一般性信息、项目报告和公众研讨会材料（包括演示板）等，都将随着项目进行而不断推出，并上传到本次项目的网站：<http://www.panynj.gov/airports/aircraft-noise-information.html>。

我能参与进来吗？

依照 14 CFR Part 150 的规定，鼓励一切公民及公众机构参与我们的工作。因此，在本次“14 CFR Part 150 调研”工作中，港务局将召集若干次信息公开会。本次信息公开会的目的，在于介绍“LGA 14 CFR Part 150 调研”的内容。预计下一次信息公开会将在来年春季召开，届时将介绍调研的主要进展。

如果飞机噪音对您带来困扰，港务局将非常愿意聆听您的声音。可通过机场噪音举报热线对机场噪音进行举报，电话号码：1-800-225-1071。若对此次“LGA 14 CFR Part 150 调研”有任何意见或建议，敬请在信息公开会上提出，也可直接联系港务局，联系方式：(1) 电子邮件：NYPART150@panynj.gov；(2) 邮政地址：

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Αεροδρόμιο LaGuardia Τίτλος 14 του Κώδικα Ομοσπονδιακών Κανονισμών Μελέτη Μέρος 150

Τι είναι η Μελέτη 150 του Κώδικα 14 των Ομοσπονδιακών Κανονισμών (CFR);

Ο Τίτλος 14 του Κώδικα Ομοσπονδιακών Κανονισμών (CFR) Μέρος 150, Σχέδιο Συμβατότητας Θορύβου Αεροδρομίου, εκδόθηκε από την Ομοσπονδιακή Διοίκηση Αεροπορίας (FAA) ως τελικός κανόνας τον Ιανουάριο του 1985. Ο Κώδικας 14 CFR Μέρος 150 εκθέτει τη μεθοδολογία και τις διαδικασίες όταν προετοιμάζονται οι χάρτες έκθεσης για το θόρυβο αεροσκαφών και αναπτύσσονται προγράμματα συμβατότητας για τη χρήση αεροδρομίων/περιχώρων αεροδρομίων.

Οι μελέτες του Κώδικα 14 CFR Μέρος 150 αποτελούνται συνήθως από δύο πρωταρχικά στοιχεία: (1) την αναφορά Χάρτη Έκθεσης Θορύβου (NEM), που περιλαμβάνει λεπτομερείς πληροφορίες σχετικά με τα ήδη υπάρχοντα πρότυπα καθώς και με τα πρότυπα για 5 έτη στο μέλλον όσον αφορά την έκθεση σε θόρυβο αεροδρομίου/αεροσκαφών, και (2) το Πρόγραμμα Συμβατότητας Ήχου (NCP), που περιλαμβάνει περιγραφές και αξιολόγηση επιλογών/προγραμμάτων μείωσης θορύβου και μετρίασης θορύβου που ισχύουν για ένα αεροδρόμιο.

Έχει προετοιμαστεί μια Μελέτη του Κώδικα 14 CFR Μέρος 150 για το Αεροδρόμιο LaGuardia (LGA);

Αν και η Λιμενική Αρχή της Νέας Υόρκης και του Νιού Τζέρσεϋ έχουν ιστορικό αντιμετώπισης της έκθεσης θορύβου από λειτουργίες αεροσκαφών στο LGA, αυτή είναι η πρώτη Μελέτη Κώδικα 14 CFR Μέρος 150 για το LGA. Η Λιμενική Αρχή προετοιμάζει μελέτες του κώδικα 14 CFR Μέρος 150 για το Διεθνές Αεροδρόμιο John F. Kennedy (JFK), το Διεθνές Αεροδρόμιο Newark Liberty, και το Αεροδρόμιο Teterboro συγχρόνως με τη μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA.

Γιατί διεξάγει η Λιμενική Αρχή μια Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA;

Ως ανταπόκριση σε προβληματισμούς του κοινού σχετικά με το θόρυβο από αεροσκάφη, ο Κυβερνήτης Κουόμο έδωσε εντολή στη Λιμενική Αρχή να διεξάγει Μελέτες του κώδικα 14 CFR Μέρος 150 για το JFK και το LGA. Ο Κυβερνήτης Κουόμο κατεύθυνε τη Λιμενική Αρχή να ανοίξει έναν πλήρη και λεπτομερή διάλογο με τις κοινότητες που επηρεάζονται ενώ ακολουθεί μια μελέτη θορύβου για να αντιμετωπίσει καλύτερα το θέμα. Ο Διευθυντής της Λιμενικής Αρχής Τόμας Μπόσκο είπε, «Η Λιμενική Αρχή κατανοεί ότι πρέπει να καταβάλει προσπάθειες για να είναι καλός γείτονας στις κοινότητες όπου βρίσκονται τα αεροδρόμια». Πρόσθεσε, «Θα αναζητήσουμε τη μείωση θορύβου με την FAA όπου είναι δυνατόν».

Η Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA θα προσδιορίσει περιοχές που δεν είναι συμβατές με σημαντικά επίπεδα έκθεσης θορύβου αεροδρομίου και θα συστήσει μέτρα για την επίδραση μείωσης θορύβου αεροσκαφών στο μεγαλύτερο δυνατόν βαθμό.

Τι θα προσκομίσει η Λιμενική Αρχή κατά τη διάρκεια της Μελέτης του Κώδικα 14 CFR Μέρους 150;

Η Μελέτη του Κώδικα 14 CFR Μέρους 150 θα πρέπει να προετοιμαστεί σύμφωνα με την οδηγία που παρέχεται στους κανόνες του Κώδικα 14 CFR Μέρους 150. Η FAA έχει προετοιμάσει καταλόγους για τη ΝΕΜ και ΝCΡ που πρέπει να τηρηθούν προς επιβεβαίωση συμβατότητας με τον Κώδικα 14 CFR Μέρους 150. Ως τμήμα της Μελέτης του Κώδικα LGA 14 CFR Μέρους 150, η Λιμενική Αρχή και οι σύμβουλοί της θα ποσοτικοποιήσουν τα ήδη υπάρχοντα (2016) και τα μελλοντικά (2021) επίπεδα έκθεσης θορύβου σε αεροσκάφη στην περιοχή του LGA. Η Λιμενική Αρχή θα παρέχει επίσης υποστηρικτική τεκμηρίωση που εξηγεί τη διαδικασία που χρησιμοποιείται για τον υπολογισμό τωρινών και μελλοντικών επιπέδων έκθεσης θορύβου σε αεροσκάφη. Η αναφορά LGA ΝΕΜ θα παρέχει στη Λιμενική Αρχή ένα σετ από ΝΕΜ που προσδιορίζουν τις περιοχές που εκθέτονται σε θόρυβο αεροσκαφών που βρίσκεται σε ημερήσιο-νυχτερινό μέσο όρο επιπέδου ήχου (DNL) 65 ντεσιμπέλ (dB) και μεγαλύτερο. Τα ΝΕΜ θα υποβληθούν στην FAA για αναθεώρηση και αποδοχή. Οι συμπληρωματικοί χάρτες θα δημιουργηθούν για πληροφοριακούς σκοπούς μόνο για να δείξουν τα υπάρχοντα και μελλοντικά περιγράμματα DNL 55. Αυτοί οι χάρτες θα περιλαμβάνονται στην επίσημη υποβολή του ΝΕΜ στην FAA.

Αφότου ολοκληρωθούν οι αναφορές ΝΕΜ για το LGA, η Λιμενική Αρχή και οι σύμβουλοί της θα εξετάσουν τα ενδεχόμενα μέτρα για τη μείωση θορύβου στο LGA. Η Λιμενική Αρχή θα λάβει υπόψη πιθανά μέτρα μείωσης που συμπεριλαμβάνουν επιχειρησιακά, αποκαταστατικά, αποτρεπτικά και διαχειριστικά μέτρα. Τα μέτρα που παρέχουν την μεγαλύτερη δυνατότητα για ελαχιστοποίηση του θορύβου από τις λειτουργίες αεροσκαφών στο LGA θα υποβληθούν στην FAA για αναθεώρηση και έγκριση. Ορισμένα μέτρα ενδέχεται να χρειαστούν χρηματοδότηση από την FAA για την ολοκλήρωσή τους (π.χ., ηχομόνωση). Μόνο τα μέτρα που θα εγκριθούν από την FAA θα είναι κατάλληλα για ομοσπονδιακή χρηματοδότηση.

Πόσο καιρό θα πάρει για να ολοκληρωθεί η Μελέτη Μέρους 150 του Κώδικα 14 CFR για το LGA;

Οι Μελέτες του Κώδικα 14 CFR Μέρους 150 διαφέρουν ανάλογα με τον αριθμό παραγόντων που συμπεριλαμβάνουν, μεταξύ άλλων, την περίπλοκη επιχείρηση αεροδρομίων και του τοπικού εναέριου χώρου, τη διαθεσιμότητα των δεδομένων, τη διαδικασία ευαισθητοποίησης του κοινού και τις περιόδους αναθεώρησης της υπηρεσίας. Η υπολογιζόμενη διάρκεια της Μελέτης του Κώδικα 14 CFR, Μέρους 150 για το LGA είναι περίπου τρία με τέσσερα έτη. Η Λιμενική Αρχή έχει δεσμευτεί για να διαθέσει το χρόνο που απαιτείται ώστε να παρέχει στην FAA τις αναφορές ΝΕΜs και το ΝCΡ για το LGA που ανταποκρίνονται στις απαιτήσεις του Κώδικα 14 CFR Μέρους 150.

Που μπορώ να λάβω περισσότερες πληροφορίες;

Θα φορτωθούν γενικές πληροφορίες, αναφορές σχεδίων και υλικά εργαστηρίου για το κοινό στην ιστοσελίδα του προγράμματος στη διεύθυνση <http://www.panynj.gov/airports/aircraft-noise-information.html>, καθώς θα γίνονται διαθέσιμα.

Πως μπορώ να συμμετάσχω;

Ο Κώδικας 14 CFR Μέρους 150 ενθαρρύνει τη συμμετοχή πολιτών και δημοσίων υπηρεσιών. Η Λιμενική Αρχή θα συγκαλέσει συνέδρια δημοσίων πληροφοριών κατά τη διάρκεια της διαδικασίας Μελέτης του 14 CFR Μέρους 150. Αυτό το συνέδριο δημόσιων πληροφοριών θα διεξαχθεί για να παρουσιάσει τη Μελέτη του Κώδικα 14 CFR Μέρους 150 για το LGA. Αναμένουμε να διεξαχθεί και δεύτερο συνέδριο δημόσιων πληροφοριών την επόμενη άνοιξη για την παρουσίαση σημαντικών πορισμάτων.

Η Λιμενική Αρχή ενδιαφέρεται να ακούσει τη γνώμη σας σχετικά με το θόρυβο αεροσκαφών και εάν δημιουργεί πρόβλημα. Για να υποβάλλετε ένα παράπονο σχετικά με το θόρυβο αεροσκαφών, η γραμμή βοήθειας για τα παράπονα σχετικά με το θόρυβο αεροσκαφών είναι 1-800-225-1071. Τα σχόλια σχετικά με τη Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA θα υποβληθούν στο δημόσιο συνέδριο ή μέσω (1) email στη διεύθυνση NYPART150@panynj.gov ή (2) στέλνοντάς τα στη Λιμενική Αρχή στην εξής διεύθυνση:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Аэропорт Ла Гуардия: исследование согласно Разделу 14, Части 150 Свода Федеральных Законов (CFR)

Что представляет собой исследование согласно Разделу 14, Части 150 CFR?

Раздел 14, Часть 150 Свода Федеральных законов (CFR) под названием «Планирование обеспечения совместимости с шумом от аэропорта» был оглашен в январе 1985 года Федеральным Авиационным Управлением (FAA) как окончательный норматив. Раздел 14, Часть 150 CFR описывает методологии и процедуры, соблюдение которых необходимо при подготовке карт местности, подверженной шуму от самолетов, а также при разработке программ по совместимости пользования территорией аэропортов и их окрестностей.

Исследования по Разделу 14, Части 150 CFR как правило включают в себя два основных компонента: (1) сводку / Шумовую Карту Местности (NEM), содержащую подробную информацию об уже существующих и ожидаемых в течение 5 лет схем распределения шума от аэропортов/самолетов, а также (2) Программу Шумовой Совместимости (NCP), включающую описания и оценку снижения уровня шума и варианты/программы по снижению уровня шума для конкретного аэропорта.

Проводилось ли ранее исследование согласно Разделу 14, Части 150 CFR для Аэропорта Ла Гуардия (LGA)?

Несмотря на то, что Портовое Управление Нью-Йорка и Нью-Джерси уже давно прилагает усилия по борьбе с проблемой шума от самолетов, вылетающих из / прибывающих в LGA, это – самое первое исследование согласно Разделу 14, Части 150 CFR для данного аэропорта. Параллельно с подготовкой исследования для LGA, Портовое Управление также подготавливает исследования согласно Разделу 14, Части 150 CFR для Международного аэропорта имени Джона Ф. Кеннеди (JFK), международного аэропорта Ньюарк Либерти и аэропорта Тетерборо.

Почему Портовое Управление проводит исследование согласно Разделу 14, Части 150 CFR для LGA?

В ответ на растущую среди населения озабоченность проблемой шума от самолетов Губернатор Куомо поручил Портовому Управлению подготовить исследования согласно Разделу 14, Части 150 CFR для JFK и LGA. Губернатор Куомо поручил Портовому Управлению начать в полном объеме глубокий диалог с подверженными шуму районами и, в то же время, провести исследование шума для обеспечения оптимального ответа на эту проблему. Томас Боско, Директор по Авиации Портового Управления, сказал: “Портовое Управление понимает, что оно обязано стараться быть хорошим соседом в тех районах, где расположены наши аэропорты”. При этом он добавил: “Мы будем работать с FAA для снижения шума там, где это возможно”.

Исследование согласно Разделу 14, Части 150 CFR для LGA выявит районы, несовместимые со

значительным уровнем подверженности шуму от самолетов, и даст рекомендации по мерам нивелирования воздействия шума от самолетов в максимально возможном объеме.

Какую информацию предоставит Портовое Управление при проведении исследования согласно Разделу 14, Части 150 CFR для LGA?

Исследование согласно Разделу 14, Части 150 CFR должно быть подготовлено в соответствии с инструкциями в нормативах Раздела 14, Части 150 CFR. FAA подготовило проверочный список для NEM и NCP, соблюдение которого требуется для обеспечения соответствия требованиям Раздела 14, Части 150 CFR. Как часть исследования согласно Разделу 14, Части 150 CFR для LGA, Портовое Управление и его консультанты рассчитают уже существующие (2016) и будущие (2021) уровни подверженности шуму от самолетов вблизи LGA. Портовое Управление также разработает сопроводительную документацию, разъясняющую сам процесс расчета существующих и будущих уровней подверженности шуму от самолетов. Сводка NEM для LGA предоставит Портовому Управлению набор карт NEM, на которых будут указаны районы, подверженные шуму от самолетов на среднем дневном-ночном звуковом уровне (DNL), составляющем 65 децибел (дБ) и выше. Карты NEM будут переданы на рассмотрение и одобрение в FAA. Помимо этого, исключительно в информационных целях будут созданы дополнительные карты, указывающие существующие и будущие контуры DNL на уровне 55 дБ. Эти карты не будут включены в официальный пакет карт NEM для передачи в FAA.

По завершению разработки карт NEM для LGA Портовое Управление и его консультанты рассмотрят потенциальные меры, которые можно принять для минимизации влияния возникающего в LGA шума. Портовое Управление рассмотрит ряд возможных мер по минимизации, включая эксплуатационные, исправительные, предупредительные и административные меры. Меры с наивысшим потенциалом минимизации влияния шума от самолетов в LGA будут переданы на рассмотрение и одобрение в FAA. Возможно, что на внедрение некоторых мер потребуется фондирование от FAA (напр. звукоизоляция). Федеральное фондирование может быть предоставлено только на меры, получившие одобрение от FAA.

Сколько времени уйдет на завершение исследования согласно Разделу 14, Части 150 CFR для LGA?

Длительность исследований согласно Разделу 14, Части 150 CFR варьирует в зависимости от ряда факторов, включая, без ограничения, степень сложности операций аэропорта и окружающее его авиационное пространство, наличие данных, мероприятия по информированию общественности, а также временные рамки рассмотрения в агентствах. Ожидается, что исследование согласно Разделу 14, Части 150 CFR для LGA займет приблизительно три-четыре года. Портовое Управление привержено тому, чтобы потратить необходимое время для предоставления в FAA сводок/карт NEM и программ NCP для LGA, отвечающих требованиям Раздела 14, Части 150 CFR.

Где я могу получить дополнительную информацию?

Информация общего характера, сводки по проектам, а также материалы открытых семинаров, включая комитеты по презентациям, будут загружены в сайт проекта по адресу <http://www.panynj.gov/airports/aircraft-noise-information.html> по мере поступления.

Каким образом я смогу принять участие?

Раздел 14, Часть 150 CFR поощряет участие граждан и общественных организаций. В ходе исследования согласно Разделу 14, Части 150 CFR Портовое Управление проведет несколько собраний для информирования общественности. Данное собрание по информированию общественности проводится для разъяснения того, что представляет собой исследование согласно Разделу 14, Части 150 CFR для LGA. Мы ожидаем, что второе собрание по информированию общественности пройдет следующей весной и на нем будут оглашены ключевые результаты исследования.

Портовое Управление желает услышать от вас в том случае, если вас беспокоит шум от самолетов. Жалобу на шум от самолетов можно подать по специально отведенному для этого номеру: 1-800-225-1071. Комментарии на предмет исследования согласно Разделу 14, Части 150 CFR для LGA можно сделать на собрании по информированию общественности или же (1) по электронной почте по адресу NYPART150@panynj.gov, а также (2) выслав их в Портовое Управление по почте; почтовый адрес для этого приведен ниже:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Исследование согласно Разделу 14, Части 150 CFR
Менеджер Проекта «Нью-Йорк, Часть 150»
Авиационный Отдел
Портовое Управление Нью-Йорка и Нью-Джерси
Центр Международной Торговли, д. 4
150 Гринвич Стрит, 18-й этаж
Нью-Йорк, шт. Нью-Йорк, 10006

Estudio del Título 14 del Código de Regulaciones Federales Parte 150 del Aeropuerto LaGuardia

¿Qué es un Estudio CFR 14 Parte 150?

La Administración Federal de Aviación (FAA, por sus siglas en inglés) emitió el Título 14 del Código de Regulaciones Federales (CFR, por sus siglas en inglés) Parte 150 como regla final en enero de 1985. 14 CFR Parte 150 establece los métodos y procedimientos que se deben seguir al preparar mapas de exposición al ruido de aviones y desarrollar programas de compatibilidad para el uso de suelo de aeropuertos/cercano a los aeropuertos.

Por lo general, los estudios de 14 CFR Parte 150 consisten de dos componentes principales: (1) el informe del Mapa de Exposición al Ruido (NEM, por sus siglas en inglés), que contiene información detallada referente a los patrones de exposición al ruido de aeropuertos/aviones existentes y de 5 años futuros, y (2) el Programa de Compatibilidad de Ruido (NCP, por sus siglas en inglés), que incluye descripciones y una evaluación de opciones/programas de abatimiento y mitigación del ruido correspondientes a un aeropuerto.

¿Se ha preparado un Estudio 14 CFR Parte 150 para el Aeropuerto LaGuardia (LGA, por sus siglas en inglés)?

Aunque la Autoridad Portuaria de Nueva York y Nueva Jersey tiene una larga historia de lidiar con la exposición al ruido de operaciones de aviación en LGA, éste es el primer Estudio 14 CFR Parte 150 para LGA. La Autoridad Portuaria está preparando estudios 14 CFR Parte 150 para el Aeropuerto Internacional John F. Kennedy (JFK), el Aeropuerto Internacional Liberty de Newark y el Aeropuerto Teterboro concurrentes con el estudio 14 CFR Parte 150 de LGA.

¿Por qué lleva a cabo la Autoridad Portuaria un Estudio 14 CFR Parte 150 para LGA?

En respuesta a crecientes inquietudes de la comunidad sobre el ruido de aviones, el Gobernador Cuomo ordenó a la Autoridad Portuaria llevar a cabo Estudios 14 CFR Parte 150 para JFK y LGA. El Gobernador Cuomo indicó a la Autoridad Portuaria abrir un diálogo completo con las comunidades afectadas mientras se realiza un estudio del ruido para lidiar mejor con el asunto. Thomas Bosco, Director de Aviación de la Autoridad Portuaria dijo: “La Autoridad Portuaria lo entiende y debe esforzarse por ser un buen vecino de las comunidades donde están ubicados los aeropuertos”. Añadió, “Buscaremos la mitigación del ruido con la FAA donde sea factible”.

El Estudio 14 CFR Parte 150 para LGA identificará las áreas que no son compatibles con niveles significativos de exposición al ruido de aviones y recomendará medidas para mitigar los efectos del ruido de aviones hasta el mayor punto factible.

¿Qué producirá la Autoridad Portuaria durante el Estudio 14 CFR Parte 150 de LGA?

El Estudio 14 CFR Parte 150 se debe preparar en conformidad con los lineamientos provistos en las regulaciones 14 CFR Parte 150. La FAA ha preparado listas de verificación para el NEM y NCP, las cuales se deben seguir para asegurar el cumplimiento con 14 CFR Parte 150. Como parte del Estudio 14 CFR Parte 150 de LGA, la Autoridad Portuaria y su consultor cuantificarán los niveles de exposición al ruido de aviones existentes (2016) y futuros (2021) en la cercanía de LGA. Asimismo, la Autoridad Portuaria desarrollará documentación de apoyo explicando el proceso seguido para calcular los niveles de exposición al ruido de aviones existentes y futuros. El Informe del NEM de LGA proveerá a la Autoridad Portuaria un conjunto de NEM que identifiquen áreas expuestas al ruido de aviones con un nivel de sonido promedio de día y noche (DNL, por sus siglas en inglés) de 65 decibeles (dB) y más. Los NEM se presentarán a la FAA para su revisión y aceptación. Se crearán mapas adicionales únicamente para propósitos informativos a fin de indicar los contornos existentes y futuros de DNL de 55 dB. Estos mapas no se incluirán en la presentación formal del NEM a la FAA.

Después de que se completen los NEM de LGA, la Autoridad Portuaria y sus consultores examinarán las posibles medidas para reducir al mínimo el efecto del ruido de LGA. La Autoridad Portuaria considerará una variedad de medidas factibles de mitigación, incluyendo medidas operativas, remediadoras, preventivas y administrativas. Las medidas que provean el mayor potencial para minimizar los efectos del ruido de operaciones de aviación en LGA se enviarán a la FAA para su revisión y aprobación. Ciertas medidas podrán requerir la implementación de fondos de la FAA (por ejemplo, aislamiento de sonido). Sólo las medidas aprobadas por la FAA serán elegibles para fondos federales.

¿Cuánto tardará en completarse el Estudio 14 CFR Parte 150 de LGA?

La duración de los Estudios 14 CFR Parte 150 varía dependiendo de un número de factores, entre ellos: la complejidad de las operaciones del aeropuerto y del espacio aéreo local, la disponibilidad de datos, el proceso de alcance del público y los períodos de revisión de la agencia. La duración estimada del Estudio 14 CFR Parte 150 de LGA es aproximadamente de tres a cuatro años. La Autoridad Portuaria está comprometida en dedicar el tiempo necesario para proveer a la FAA con NEM y un NCP para LGA que cumplan con los requisitos de 14 CFR Parte 150.

¿Dónde puedo obtener más información?

Información general, informes del proyecto y materiales de talleres públicos, incluyendo presentaciones, se subirán a la página Web: <http://www.panynj.gov/airports/aircraft-noise-information.html>, conforme estén disponibles.

¿Cómo puedo participar?

14 CFR Parte 150 anima la participación de los ciudadanos y agencias públicas. La Autoridad Portuaria organizará varios talleres informativos públicos durante el proceso del Estudio 14 CFR Parte 150. Este taller informativo público se lleva a cabo para introducir el Estudio 14 CFR Parte 150 de LGA. Anticipamos que el segundo taller informativo público se llevará a cabo la próxima primavera para presentar los hallazgos del estudio.

A la Autoridad Portuaria le interesa escuchar su opinión si le preocupa el ruido de las aeronaves. Para presentar una queja de ruido de aviones, comuníquese a la línea telefónica para quejas de ruido de aeropuertos al 1-800-225-1071. Puede presentar sus comentarios referentes al Estudio 14 CFR Parte 150 de LGA en el taller público o (1) por vía electrónica a NYPART150@panynj.gov o (2) por correo dirigiéndose a siguiente dirección de la Autoridad Portuaria:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Public Information Workshop
Presentation Boards
(June 16, 2015)



LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- **Why conduct a 14 CFR Part 150 noise study?**
 - Determine existing and future noise conditions in the vicinity of an airport
 - Evaluate the feasibility of possible flight procedure/land use changes
 - Educate communities on the Federal process and what **can and cannot** be done to address aircraft noise concerns
 - Submit locally-endorsed recommendations to the FAA regarding noise reduction measures
- **14 CFR Part 150 studies are voluntary**
- **14 CFR Part 150 studies must adhere to 14 CFR Part 150 guidelines to be considered and accepted by the FAA**

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- Table 1 in Appendix A of 14 CFR Part 150 provides noise and land use compatibility guidelines
- Deems levels below 65 dB DNL to be compatible with all land uses
- Allows for the adoption of appropriate local land use standards for land use compatibility planning purposes

ESA Study Team

2

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

**Table 1 – 14 CFR Part 150
Land Use Compatibility
Guidelines**

Land Use	Yearly Day-Night Noise Level (DNL) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and	Y	N(1)	N(1)	N	N	N
transient lodgings	Y	N	N	N	N	N
Mobile home parks	Y	N(1)	N(1)	N	N	N
Transient lodgings	Y	N(1)	N(1)	N	N	N
Public Use						
Schools	Y	N(2)	N(2)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Quadrilateral services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail building materials,	Y	Y	Y(2)	Y(3)	Y(4)	N
hardware and farm equipment	Y	Y	25	30	N	N
Retail trade-generat	Y	Y	Y(2)	Y(3)	Y(4)	N
Offices	Y	Y	25	30	N	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock and forestry)	Y	Y(5)	Y(5)	Y(5)	Y(5)	Y(5)
Livestock farming and breeding	Y	Y(5)	Y(5)	N	N	N
Mining and mining resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music, shell, and fireworks	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusement parks, resorts and camps	Y	Y	N	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

* The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal Law or State law. The responsibility for determining the acceptability of particular uses and for establishing minimum specific property and specific noise contours rests with the local authorities. FAA Subpart 150 are not intended to supersede Federal property ownership laws or those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table 1

Y/LUCM Standard Land Use Coding Manual.
Y/Yes
N/No
N/A Not Applicable
25, 30 or 35 Land use and related structures generally compatible measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Notes

(1) Where the community determines that residential or school uses must be allowed measures to achieve NLR of 65 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or where the noise sensitive areas for where the normal noise level is low.

(2) Measures to achieve NLR of 70 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or where the noise sensitive areas for where the normal noise level is low.

(3) Measures to achieve NLR of 75 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or where the noise sensitive areas for where the normal noise level is low.

(4) Land use compatible measures that provide sound-reducing systems are required.

(5) Residential buildings require an NLR of 25.

(6) Residential buildings require an NLR of 30.

(7) Residential buildings not permitted.

ESA Study Team

3

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- A noise set-aside of the Airport Improvement Program (AIP) funding has been established to fund local noise mitigation programs and planning
- Airport sponsors (e.g., the Port Authority) are also permitted to fund noise mitigation programs with the proceeds from Passenger Facility Charges (PFCs)
- Unlike AIP grants, airport proprietors may use PFC funds for noise mitigation without an FAA-approved Part 150 NCP, as long as the airport's noise exposure maps have been prepared under the procedures specified in 14 CFR Part 150

ESA Study Team

4

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- **Total airports participating in the program: 275***
- **Total Airport Improvement Program Funds (FY 2013)**
 - For preparing FAR Part 150 Studies: \$107,481,763
 - For FAR Part 150 implementation: \$5,913,081,104
- **Total Passenger Facility Charge Funds (FY 2013)**
 - For preparing FAR Part 150 Studies: \$12,499,788
 - For FAR Part 150 implementation: \$3,417,815,896

* Figure does not include airports operated by the Port Authority

Source: http://www.faa.gov/airports/environmental/airport_noise/part_150/funding/

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

14 CFR Part 150 Terminology

- **Noise Exposure Contours**
 - A noise exposure contour identifies areas of equal noise exposure around an airport. Noise exposure contours are similar to contours on topographic maps which show areas of equal elevation
- **Noise Exposure Maps**
 - A noise exposure map is a map showing noise exposure contour lines (or footprints) which identify areas of specific noise levels around an airport. NEMs also include a graphic depiction of geographical features and land uses that surround an airport
- **Noise Compatibility Programs**
 - A noise compatibility program report includes descriptions and a detailed evaluation of noise abatement and noise mitigation options applicable to an airport

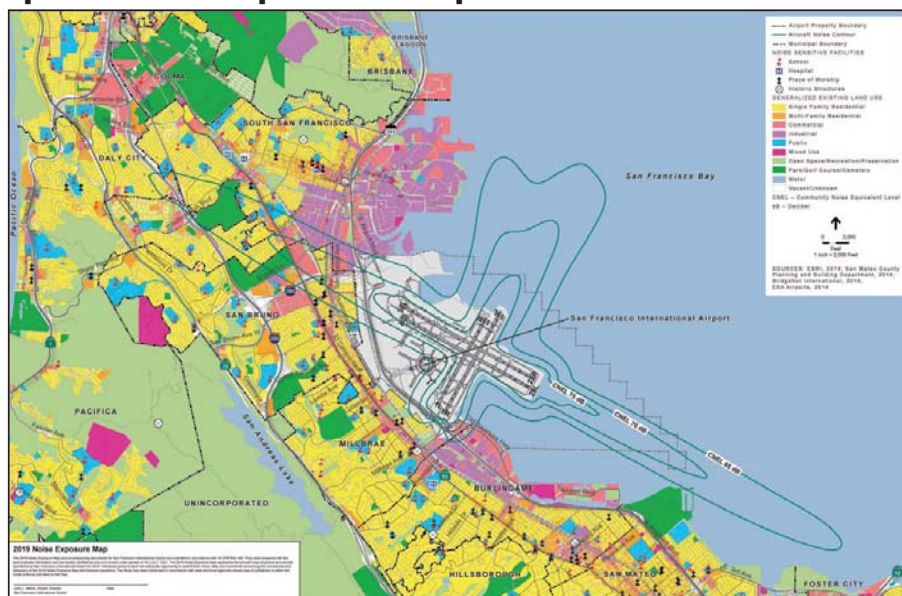
ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Sample Noise Exposure Map



ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

14 CFR Part 150 Terminology

- **Noise Abatement Options** are intended to reduce actual aircraft noise levels in noise-sensitive areas by either reducing aircraft noise at the source by using quieter aircraft, shielding noise sensitive areas, or by instituting operational measures, such as changes in aircraft flight tracks or in approach or departure flight profiles
- **Noise Mitigation Options** are intended to reduce the effects of aircraft noise on the receiver. Noise mitigation strategies may include outright property acquisition, acoustical treatment/soundproofing programs, purchase of avigation easements, and land use control measures

LaGuardia Airport 14 CFR Part 150 Study

Regulatory Framework

- **Federal law** sets aircraft noise standards, prescribes operating rules, establishes the compatibility planning process, and limits the airport proprietor's ability to restrict aircraft operations
- **State law** sets forth compatibility planning guidelines and noise standards but aircraft are exempt
- **Local noise ordinances** set noise standards and provide for compatible land use planning but aircraft are exempt

FEDERAL LAW PREEMPTS STATE AND LOCAL REGULATIONS

LaGuardia Airport 14 CFR Part 150 Study

Who Can Regulate Airport Noise?

- **Federal Aviation Administration**
 - Controls aircraft while in flight
 - Responsible for controlling noise at its source (i.e., aircraft engines)
 - Certifies aircraft and pilots
- **Airport Proprietors/The Port Authority**
 - Very limited authority to adopt local restrictions
 - Responsible for capital improvement projects and infrastructure
- **Local Governments and States**
 - Promote compatible land use through zoning
 - Require real estate disclosure
 - Mandate sound-insulating building materials

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Roles and Responsibilities

- **Three core organizations involved in aircraft operations at LGA**
 - Federal Aviation Administration (FAA)
 - Directs the safe movement of aircraft in the air and on the ground
 - The Port Authority
 - Manages the airport, improves and maintains airport facilities
 - Has no control over where aircraft fly
 - Pilots
 - Pilot in command has ultimate responsibility for the safe operation of his/her aircraft

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The Port Authority of New York & New Jersey (Port Authority) has initiated a Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Study for LaGuardia Airport (LGA)
- Environmental Science Associates (ESA) has been selected by the Port Authority to prepare the LGA 14 CFR Part 150 Study report
- The Port Authority anticipates submitting noise exposure maps (NEMs) for LGA to the Federal Aviation Administration (FAA) in the Fall of 2016
- The Port Authority anticipates submitting a noise compatibility program (NCP) for LGA to the FAA in the Spring of 2018

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The Port Authority has embarked on its first ever 14 CFR Part 150 Studies for its airports in New York and New Jersey
- An airport's future year noise exposure map is typically used to determine eligibility for federal funding of noise mitigation programs
- In partnership with the FAA, the Port Authority is currently implementing aircraft noise abatement programs and numerous noise mitigation programs, including school soundproofing, relying on information from the Aircraft Noise and Operations Management System (ANOMS)

ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The NEM and NCP reports must be prepared in accordance with the guidance provided in 14 CFR Part 150
- 14 CFR Part 150 includes detailed guidance and a checklist of the items that must be included in the 14 CFR Part 150 NEM and NCP reports
- The NEM report must include aircraft noise exposure contours for the year of submission and a future year (typically five years in the future)
 - The ESA Study Team will produce NEMs for 2016 and 2021

ESA Study Team

14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The ESA Study Team will develop an aircraft operations and fleet mix forecast for FAA's review and approval
- The ESA Study Team will consider completed and ongoing planning and environmental studies to ensure noise modeling assumptions are reflective of existing conditions and anticipated conditions in 2021
 - Runway safety area improvements and central terminal building
- The 2021 NEM must be based on "reasonably foreseeable" assumptions regarding future operations at LGA

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Study Area



SOURCE: Earth Star Geographics, 1999; Port Authority of New York and New Jersey (PANYNJ), 2014; ESA Airports, 2015

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Airport Layout Plan



ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Existing Airport Facilities



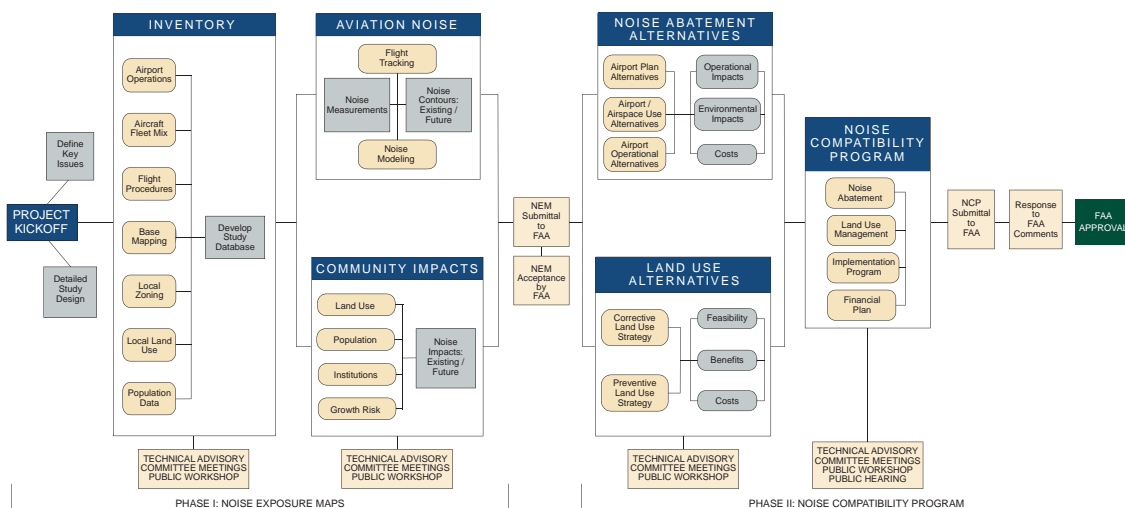
ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Generalized 14 CFR Part 150 Study Process



ESA Study Team

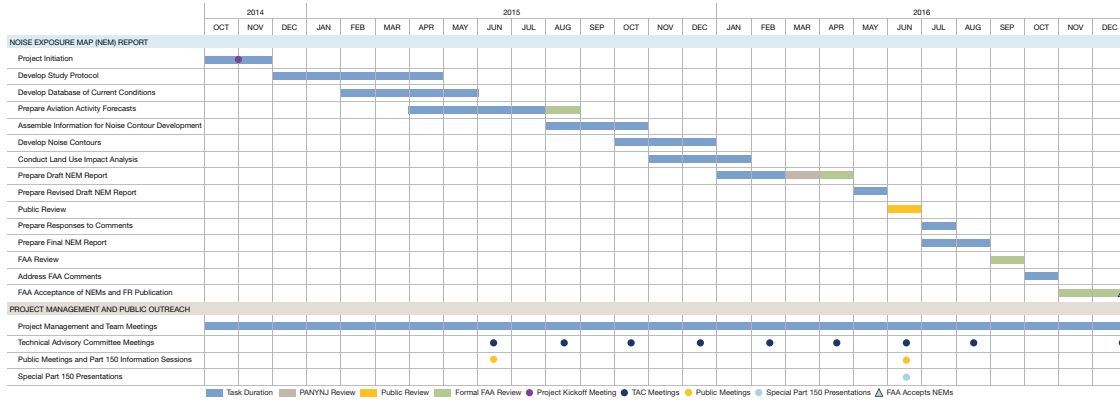
10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Exposure Map Report
14 CFR FAR Part 150 Study for LaGuardia Airport
Updated: June 3, 2015



ESA Study Team

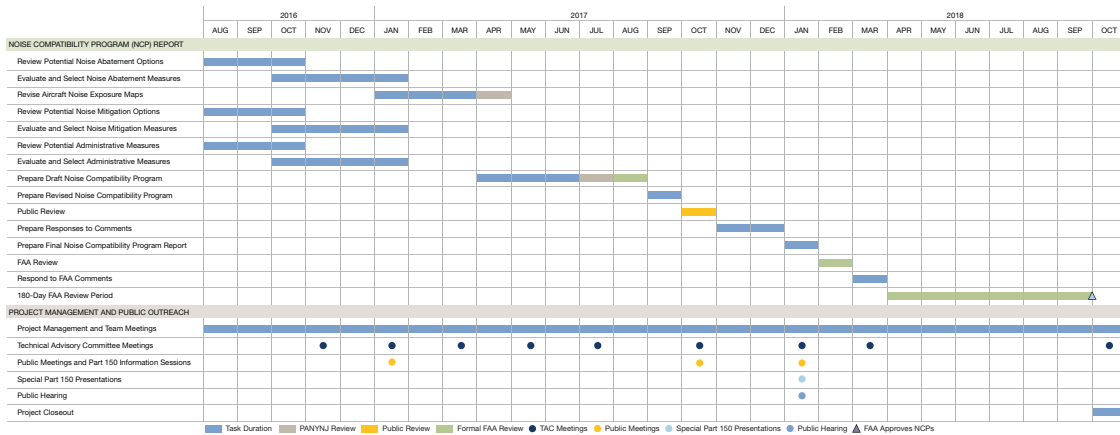
20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Compatibility Program Report
14 CFR Part 150 Study for LaGuardia Airport
Updated: June 3, 2015



ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

- 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)
- Noise occurring between 10 p.m. and 7 a.m. is penalized by 10 dB
- Penalty was selected to account for the higher sensitivity to noise during nighttime hours
- Penalty also accounts for the expected further decrease in background levels that typically occur in the nighttime
- FAA specifies use of DNL for airport noise assessment

ESA Study Team

22

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

- **Annual Cumulative Aircraft Event Noise**
- **The Amount of Noise Exposure is determined by:**
Aircraft types
 - Number of average annual day operations
 - Nighttime weighting (1 nighttime operation = 10 daytime operations)
- **The Noise Exposure Distribution is determined by:**
 - Runway configuration and use
 - Flight track locations
 - Flight track use
- **Average annual day aircraft noise exposure is calculated over a broad area and then depicted using contour lines of equal noise levels**

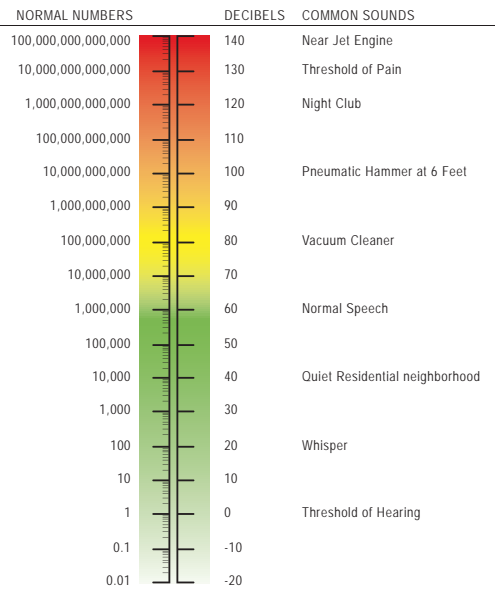
ESA Study Team

23

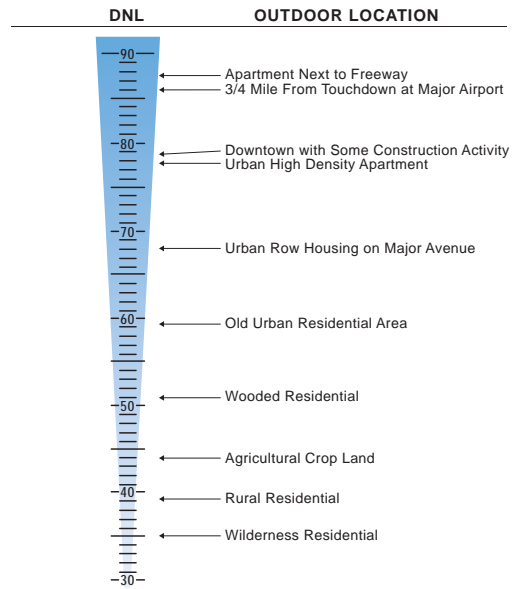
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

The Decibel Scale



Sample DNL Values



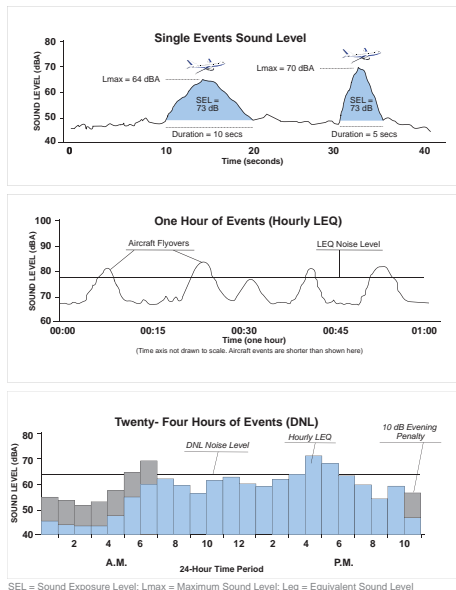
ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

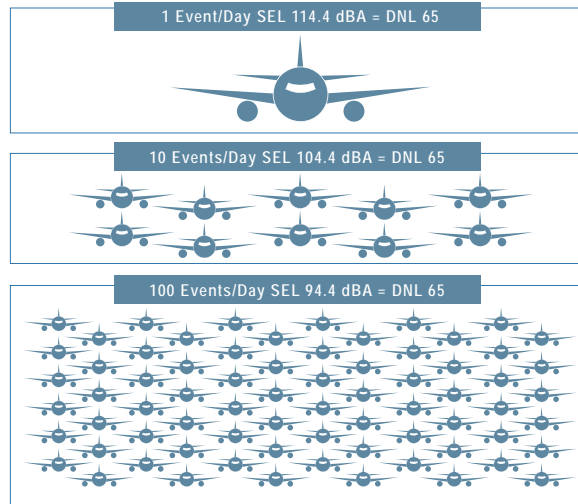
LaGuardia Airport 14 CFR Part 150 Study

Aircraft Noise Levels



SEL = Sound Exposure Level; Lmax = Maximum Sound Level; Leq = Equivalent Sound Level

IDENTICAL DNL LEVELS



ESA Study Team

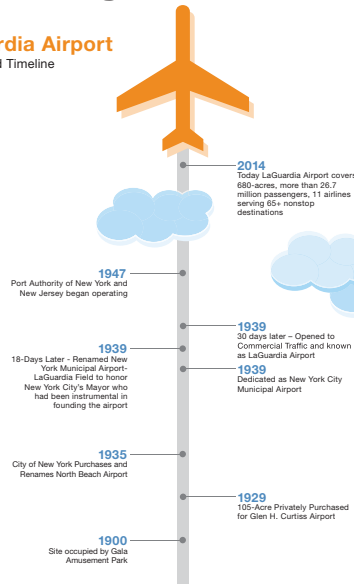
25

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Facts and Figures

LaGuardia Airport Summarized Timeline

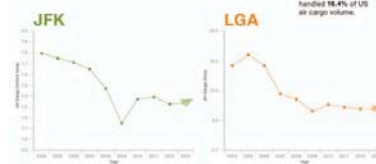


Source: Port Authority of New York and New Jersey, 2015

Commercial and Non-Commercial Aircraft Movements

JFK 2014: 431,236
LGA 2014: 370,012

Air cargo levels over recent years



ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Community

The Port Authority has long taken an active role in the communities it serves. In 1983, the Port Authority first made a commitment to ensure that students in schools close to its airports always have a quiet learning environment. That commitment continues today with the soundproofing work the Port Authority has done in 77 schools around its airports. This includes 45 schools that are impacted by JFK and LaGuardia and 32 impacted by Newark Liberty and Teterboro.

Source: www.panynj.gov

Additional Community Efforts

Soundproofing schools surrounding LaGuardia, Newark Liberty, JFK and Teterboro

Making roadway improvements at Newark Liberty International

Rehabilitating the Van Wyck Expressway leading to JFK

Repairing air terminal highways at LaGuardia

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

School Sound Proofing Program – LGA

Key#	School	City
1	IS 52X	Bronx
2	Our Lady of Fatima	Jackson Heights
3	PS 120Q	Flushing
4	PS 143Q	Corona
5	PS 161X	Bronx
6	PS 165Q	Flushing
7	PS 219Q	Flushing
8	PS 62X	Bronx
9	St. Ann	Flushing
10	St. Sebastian	Woodside
11	College of Aeronautics (Vaughn)	Flushing
12	John Bowne HS	Flushing
13	Lexington School for Deaf	Jackson Heights
14	Msgr. McClancy Memorial HS	East Elmhurst
15	PS 146B	Bronx
16	PS 5X	Bronx
17	Samuel Gompers Vocat. School	Bronx
18	St. Anselm	Bronx
19	St. Athanasius	Bronx
20	St. Michael	Flushing
21	St. Pius V (Elementary)	Bronx

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Port Authority of New York and New Jersey

Port of New York/New Jersey

1921

Founded in 1921, the Port Authority of New York and New Jersey builds, operates, and maintains many of the most important transportation and trade infrastructure assets in the country.

+\$23 billion
in annual wages

\$80 billion in regional economic activity



By 2030, the number of passengers using our airports annually will soar to 150 million. To prepare, the Port Authority's 2012 capital investment in its airports exceeded \$300 million with \$900 million of capital projects in the pipeline.

The Port Authority of NY & NJ
2012 Annual Report

The Port Authority is a linchpin in the regional economy, annually moving millions of people, and millions of tons of cargo on its network of aviation, rail, surface transportation, and seaport facilities. Port Authority airports handled 10% of the US aviation passenger traffic and 16.4% of US air cargo volume.

The Port Authority of NY & NJ
2014 Budget



Supports more than

550,000
regional jobs



ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Contacts and Website

- **Port Authority of New York and New Jersey**
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- **ESA Study Team**
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- **Website:**
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- **E-Mail:** NYPart150@panynj.gov

ESA Study Team

30

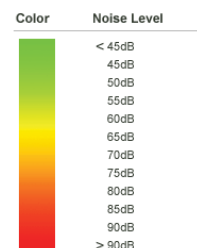
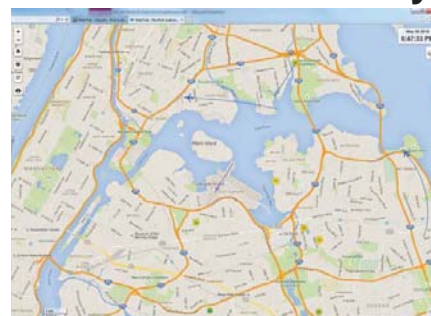
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

WebTrak – Flight Tracking and Noise Information System

- WebTrak displays air traffic patterns within the New York Metropolitan area
- Specific information regarding flights at LaGuardia Airport (LGA) including aircraft type, altitude, and operation type (arrival or departure)
- Noise levels at noise monitors located near LGA are shown in WebTrak and represent the actual sound level at those locations at a specific time

<https://www.panynj.gov/airports/webtrak.html>



ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

Appendix K-2
Public Information Workshop
October 29, 2015

Public Information Workshop
Meeting Notice and
Sign-In Sheets
(October 29, 2015)

NYC LARGEST GENTLEMEN'S CLUB

Gallagher's 2000 **FREE VALET PARKING**

V.I.P. Lounge
2 Floors,
3 Stages

Bring in Any Pro Sport current day stub & get a Burger or



SAINTS & SINNERS
HALLOWEEN PARTY



Sunday, Monday & Thursday Night Football

Cafe Royale
Where You're Treated Like Royalty

Complimentary Buffet on Sundays and Mondays w/\$4 Domestic Beers & \$5 Imports (during the game)

\$4 Cannon Blast Shots (during halftime)

Thursday - Special Football Menu (during the game) & \$4 Fireball Shots (during halftime)

Happy Hour: Mon - Sat 4pm-7pm

Bottle Service Available in our VIP Lounge

Mon, Tues. & Wed 9pm-12am 1/2 price bottles

101 ROUTE 109 FARMINGDALE, N.Y. (631) 694-1540

ATM On Premises www.caferoyalenewyork.com

Free Admission With This Ad!



NOTICES

Legal Notices

Legal Notices

Legal Notices

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

Ralph 10 LLC, Arts. of Org. filed with SSNY on 08/19/15. Off. Loc.: Queens Co. SSNY design. as agt. upon whom process may be served. SSNY shall mail process to: The LLC, 172-13 Hillside Ave., Ste 201, Jamaica, NY 11432. General Purposes.

Rainbow Nina Real Estate, LLC. Filed with SSNY on 3/30/15. Office location: Queens County. SSNY designated as agent for process & shall mail to: 133-38 Sanford Ave #8A, Flushing NY 11355. Purpose: any lawful.

Universal Love Social Day Care, LLC. Filed with SSNY on 6/18/15. Office location: Queens County. SSNY designated as agent for process & shall mail to: 90-02 Queens Blvd Fl 2 Elmhurst NY 11373. Purpose: any lawful.

ANTIQUES & STERLING WANTED TOP DOLLAR PAID

ALL JEWELRY WANTED



*We Purchase
Entire Estates*

**Top \$\$\$
Paid**

We Purchase all Gold, Antiques, Pre-1950 Furniture, Paintings, Rugs,
Sterling Silver, Bronzes, Jewelry, Bric-a-Brac, Marble Figures and
Marble Top Furniture, Fine Porcelain, Entire Contents of Estates,
Rugs and Painting Wanted

**Prompt & Courteous Service
We Come to You**

**All Tiffany
Items Wanted**

*Sherbee
Antiques*

**718.762.7448
917-748-7622**

Andrew Korman, Proprietor

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

the
NEW

FOUR ONES

Car Service

Your COMPLETE
Transportation Service

**Tired of the Rest?
NOW YOU CAN
AFFORD THE BEST!**

**\$2 OFF
Local Trips
—or—
\$3 OFF
Airport Trips**

Good on any ride any time when you use
Four Ones Car Service. EXPIRES 11/17/15

AIRPORTS • PIERS • WEDDINGS

**SWIPE
and GO!**

Our cars are now
equipped with credit card
machines for your convenience, so
keep your credit/debit card handy!

DRIVERS WANTED

All Shifts Available
Call 718.544.1111

Must have Class E License & TLC
permit. Over 24 years of age.

718.441.1111

BASE LIC #B00008



**The
\$6 LOCAL
is Back!**

Expert care for your eyes

Steven Divack, M.D., F.A.C.S.

EYE PHYSICIAN AND SURGEON

COMPREHENSIVE EYE CARE

- Routine Eye Examinations
- Cataract and Implant Surgery
- Cosmetic and Plastic Surgery
- Laser and Micro Surgery
- Ambulatory Surgery
- Glaucoma



THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

MILA-006046

Queens g hackatho

Day-long event p
create socially o

by Hannah Douglas

Associate Editor

Before July, Elizaveta Atalig, 15, of Forest Hills, might not have described herself as tech-savvy. Now, the technology sector is her pursuit, and she wouldn't have it any other way.

"I want to go to college and major in computer science for sure," Atalig said. "I really didn't know what it was. Before I had gallons of water they used to sit on the time spent under the fountain."

The website also includes information on water scarcity. The team integrated a tool called Harman API into their work at the event, which essentially provided a code library of data that had already been made to create a new product. For their project, Harman API served as a speaker that reported the amount of water that went down the drain.

"We wanted to help the most amount of people ... everyone uses water, everyone needs water, and it's a problem that everyone faces," Atalig said.

Atalig also participated in Girls Who Code's program over the summer, which is a seven-week event that creates a learning experience in computer science.

"I didn't think that I would get in because the amount of people who apply is really high and not that many people get accepted, and so I was really glad when I got accepted," she said.

Ekta Rana, 17, of Glen Oaks, also got

Trinket treasure

The Howard Beach Assembly of God Church will be holding a Trinket Treasure Sale/ Flea Market on Saturday, Oct. 17 starting at 9 a.m.

St. Barnabas rummag

Saint Barnabas Church, located at 159-19 98 St. in Howard Beach, will hold its annual "Fall Rummage Sale" on Oct. 19 and 20, from 10 a.m. to 4 p.m. on both days. On the first day, the doors will also be open from 7 to 9 p.m.



VALLO TRANSPORTATION, Ltd.

MINI COACHES & SCHOOL BUSES FOR CHARTER

Prompt • Personalized • Professional

Contact Vallo to arrange safe, reliable and affordable transportation for your next school trip, sporting event, family gathering, night on the town, company meeting or whenever group transportation is needed.

Vallo can provide sleek 29-35 passenger mini coaches and extra large school buses that accommodate up to 50 adults or 75 children.

We specialize in private school bus service for students attending Bronx High School of Science and High School of American Studies at Lehman College. Parents, book early for special discounts.

Vallo is a family owned and managed local business with over 60 years of experience in the transportation industry. Safety is our number one priority. Our success is built on our attention to detail and commitment to customer satisfaction.

www.ValloTransportation.com Info@ValloTransportation.com

1-800-VALLO99 or 718-961-7600



151-17 SIXTH ROAD, WHITESTONE, NY 11357

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.



CHEAPER PEEPERS

New York's Premier
Discount Eyeglass Store

1 Hour Service in most cases since
we have our own lab on premises

Flex Spending - Use It or Lose It!

\$199⁹⁵

Includes Contact Lens
Exam, 6 mos. Supply
(Definition brand)
Contact Lenses, 1 Pair of
SV Lenses & Frame
(\$79⁹⁵ Wall Frames)

Progressive
Transitions Lenses
Including Wall Frames from \$99.95

\$249⁹⁵

With coupon only. Not to be combined.

2 Pair For **\$99⁹⁵**

Distance or Reading,
Includes 2 Frames and
Single Vision Lenses

With coupon only. Not to be combined.

**WE
ACCEPT**

Davis Vision • Eyemed • Vision World
UFT • Nurses 1199 • Local-3 • CSA
295-851 • NYSNA • Block Vision • Spectera
Most union plans accepted!

Some restrictions apply. Must present coupon or ad at time of purchase. Coupon is not valid on prior purchases and cannot be combined with any other offer. See store for details.



VALLEY STREAM - 12 Sidney Place, (12 Green Acres Road).....516-792-0707
NEW HYDE PARK - 1441 Jericho Turnpike.....516-502-4552
EAST MEADOW - 2334 Hempstead Turnpike.....516-513-1428
GREAT NECK - 509 Great Neck Road.....516-321-9031

www.CHEAPERPEEPERS.biz

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOP

FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

Thank you GuildNet.



Dad kept his doctor, and his independence.

Having a chronic illness can mean many changes – especially if your loved one is visually impaired. But one thing that doesn't have to change is your doctor. With **GuildNet's long term care plans**, your loved ones can keep their own doctors.

Call GuildNet – we speak your language.

Call 888-722-4040

TTY 800-662-1220

or visit www.GuildNetNY.org



iVolunteer iMake a Difference iAm a Hero

*Do you have a Willing
Heart and Helpful Hands?*



Do you want to give back to our SENIORS and our VETERAN AND MILITARY FAMILIES?

Now here is an opportunity for you to be part of the AmeriCorps caregiving respite program called **Willing Hearts, Helpful Hands!**

To qualify, you will need to:

- offer respite and support services to Southeast Queens aging population with a commitment to serving Veteran and Military families.
- volunteer 10-12 hours per week in your community.

You will receive in return a:

- monthly transportation allowance of \$125.00 per month.
- qualify for an educational award of \$1527.

Spaces are limited in this program. To find out how you can be a hero, contact us today.



(718) 289-2103
Willingheartshelpfulhands.org



A PROGRAM OF
Parker Jewish Institute
2400 Broadway, New York, NY 10024

Financial Inde

After the 2008 economic crisis many people assumed they would never be able to reach true financial independence – the ability to live comfortably off one's savings and investments with no debt whatsoever.

However, individuals willing to use their time horizon to plan and adjust their spending, savings and investment behaviors might just find financial independence is possible. Here are 10 ideas to get started.

1. Visualize first, then plan. Start by considering what your vision

2. Budget. Budgeting is the essential first task of personal finance. If you haven't learned to budget, you need to do so.

3. Spend less than you earn. It might be obvious, but it's one of the most difficult financial behaviors to execute. Adhering to a lower standard of living and expenses will help you put more money into savings and investments sooner.

4. Build smarter safety nets Emergency funds and insurance are rarely discussed in combination. The traditional definition of an emergency fund is a separate account for cash that can be used instead of credit to repair a broken appliance or other expense that may run a few hundred dollars. However, many people keep insurance deductibles high to keep premiums low. Would you have enough cash on hand to cover an insurance deductible if you had a sudden claim? If not, build your deductible amounts into your emergency fund.

5. Eliminate debt. The Federal Reserve Bank of New York reported in February that home student loan, auto and credit card debt began creeping up again in 2014. Getting rid of revolving, non-housing debt is one of the most effective ways to free up money for savings and investment.

6. Consider your career Financial independence doesn't

CARPET TILE & BEYOND

One Stop For All Your Floor Covering Needs
(718) 896-1200

WE SELL & INSTALL

- Carpet • Area Rugs • Tiles
- Laminate • Linoleum
- Wood Floors & more

Special Pricing for Contractors,
Management Companies,
Realtors, Religious Centers
and Neighbors

WE CARRY LEADING BRANDS OF CARPET, TILE,
LAMINATE AND HARDWOOD FLOORS.



RESIDENTIAL CARPET \$1.89 SQ.FT WITH
INSTALLATION AND PADDING.

THE PORT AUTHORITY OF NY & NJ

NOTICE OF PUBLIC INFORMATION WORKSHOP

FOR THE 14 CODE OF FEDERAL REGULATION (CFR)

PART 150 AIRPORT NOISE COMPATIBILITY PLANNING

STUDIES FOR JOHN F. KENNEDY INTERNATIONAL

AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

**LIVING AT
FLUSHING HOUSE**
IS ALL ABOUT
CONVENIENCE, FREEDOM,
VALUE, SAFETY & OPTIONS

www.flushinghouse.com

Flushing House is the New York area's finest independent living community, offering the best value to seniors. With 40 years of experience, our unique community and exceptional staff are here to support our diverse population.

**Studio \$2,550*
Per Month
All-Inclusive**

MONTHLY RENT INCLUDES:

- Spacious Studio or 1 Bedroom rentals, private baths, kitchenettes, WiFi, cable and our own TV channel
- Three meals a day prepared daily by our Executive Chef
- Utilities (excluding telephone)
- Weekly housekeeping / linen service
- Rooftop atrium with breathtaking views of NYC
- 24-hour security, recreational activities, bus trips, interfaith chapel, sports lounge, movie room, game room, computers and instruction, on-site home health care agencies and clinic, fitness center, beauty salon / barber and concierge service

Call us to schedule a visit today!
(718) 762-3198
www.flushinghouse.com

FLUSHING HOUSE
38-20 Bowne Street
Flushing, NY 11354
Parking Available

Celebrate Living Every Day
Serving Seniors for 42 Years!

Cuomo's Common Core Task Force To Meet In City

BY RICHARD GENTILVISIO

Queens Assemblywoman and Chair of the Assembly Education Committee Catherine Nolan is one of 15 members on the new Common Core Task Force charged by Governor Andrew Cuomo with reviewing and making recommendations to overhaul the current way students are tested in New York State.

The Task Force, officially named, "The Task Force to Perform Comprehensive Review of Learning Standards, Instructional Guidance and Curricula, and Tests to Improve Implementation and Reduce Testing Anxiety," meets for the first time this week at the Governor's office in the city in an executive session not open to the public. Public sessions throughout the state are to follow and a participatory website for information, comments and recommendations is available at ny.gov/CommonCoreTaskForce.

"The implementation of Common Core just did not work," said Governor Cuomo in a September 28 video.

The Task Force is largely in reaction to the almost 20 percent (one in five) rate of students who opted out of taking the state's ELA (English Language Arts) and math tests last spring.

"Last year, to lessen the anxiety of students, we passed a five year moratorium on test scores because we didn't want artificially low scores recorded on our students' academic records. We passed a law to improve trans-

parency by directing SED (State Education Department) to release the tests to the public and end the secrecy around the system and to make sure that teachers' evaluations accounted for the different demographics of our schools," said Governor Cuomo in the September 28 release.

"Now, I believe these were all good changes, but they weren't enough and we must do more to reform the system because there is still too much anxiety, disruption and confusion."

On September 29, Nolan testified at the city Department of Education (DOE) public hearing at PS 111 in Long Island City in support of the school, one of 62 labeled "Struggling" and "Persistently Struggling Schools," by the state in the five boroughs. Nolan also noted PS 111 is a Community School as well, under an initiative by Mayor Bill de Blasio to support schools in high need communities.

Nolan was appointed Chair of the Education Committee in 2006 and was also selected by Governor Cuomo in 2014 as a member of the Common Core Implementation Panel, and in 2012 for the New NY Education Reform Commission.

She has represented her constituents in Sunnyside, Ridgewood, Long Island City, Queensbridge, Ravenswood, Astoria, Woodside, Maspeth, Dutch Kills, and Blissville since her election in 1984.

HOUSING ADVISOR
Central Astoria LDC
204-1056

Preferential Rent aka Bait and Switch

NYC Rent Stabilized tenants pay attention! Do you know if you are paying a Preferential Rent or the Legal Rent? What's the difference you ask? If you are paying a preferential rent, it is lower than the (legal) rent registered with the city.

Answer

The Landlord does not have to offer you another Preferential Rent. The Landlord has to offer you a renewal lease, but not at the lower amount. If the Preferential Rent from the previous lease was \$1,200 and the Legal Rent was \$1,500 - you are now offered a Renewal Lease that has the base rent as \$1,500, plus an allowable percentage increase. The current 2% increase on \$1,500 is \$30.00. A two year renewal on your rent is now a total of \$1,531.00

Your rent just increased 331 dollars from one month to another, and there is nothing you can do about it! Can you really afford a \$331.00 increase?

If you have questions or want answers about the rent you are paying, call the Central Astoria Local Development Coalition at (718)204-1056 - the service is free.

The Housing Advisor of Central Astoria LDC located at 25-69 38th Street, Astoria 11103 is pleased to announce that office hours have been extended until 7 pm on Thursday nights. All services are free. Contact 718-204-1056 for more information.

For more information call Central Astoria LDC at 718-204-1056.

ADVERTORIAL

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study - the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

Vision Zero begins in 104th precinct

BY GABRIEL ROM

The road traffic safety project Vision Zero is coming to the 104th Precinct. Over the next two weeks, the city Department of Transportation, along with the officers of the 104th Precinct, will be conducting an educational and enforcement initiative.

During the first week, the program will be directed toward getting the word out to the public about Vision Zero and its core mission and objectives. Officers from the 104th, along with DOT personnel, will be stationed at the busiest intersections throughout Woodhaven and Ridgewood. Informational material will be provided.

In the second week of the initiative, the precinct will focus on enforcement, targeting hazardous violations such as speeding, improper turns and texting while driving.

The Vision Zero Initiative will begin Monday, Oct. 16, and run daily through Sunday, Oct. 25.



Vision Zero is a multinational road traffic safety project which aims to achieve a high-way system with no fatalities or serious injuries in road traffic. Photo by Michael Shain

Reach reporter Gabriel Rom by e-mail at grom@cnglocal.com or by phone at (718) 260-4564.

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

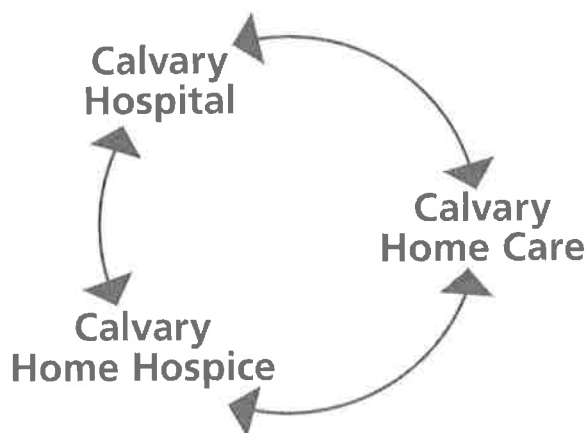
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at:

<http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

Calvary's Continuity of Care is seamless.



Calvary Hospital's end-of-life palliative care is the world's most unique and comprehensive. For more than a century, it has been treating not only the physical pain, but has also been providing enormous emotional relief, to both the patient and the family. Calvary eliminates the stress and anxiety at a time when people are most vulnerable, when attempting to move between home and hospital, or vice versa. Different from most other programs and services, Calvary never leaves their side. Once patients are within "the Calvary Family of Care," they are cared for and guided to wherever and whenever they need to be – in their own home, in a select nursing facility, or in our hospital. We hold their hands at each step along the journey. This is the special care that every Calvary patient – and their family – receives. It is part of Calvary's Continuity of Care, and is just one more reason why Calvary is the place *Where Life Continues*.

For more information call 718-518-2300 or visit www.calvaryhospital.org.

**CALVARY
HOSPITAL**

Where Life Continues

1740 Eastchester Road, Bronx NY 10461 • (718) 518-2300 • www.calvaryhospital.org
Brooklyn Satellite at Lutheran Medical Center • Calvary@Home (Home Care/Hospice)
The Dawn Greene Hospice at Mary Manning Walsh Home in Manhattan
Center for Curative and Palliative Wound Care
(Calvary@Home programs are Medicare-certified and contract with most major insurances)

Announcements

• Lost/Found
• Personals
• Ticket brokers
• Professional Services
• Rocket Services

PERSONALS

Haunted House & Haunted Trail
Halloween Thrills! West Hills UMC, 301 West Hills Rd (Next to Walt Whitman High School) Trail open Oct. 9-10, 7:00pm; House & Trail Oct. 31, Fri/Sat 6-10pm; Sun 5-9pm; Combo Ticket \$12; Live Music Oct. 17, 24 & 31

LOOKING FOR Mr. CM. TINDER
in reference to a family matter. Please Call 860-235-7867.

LIQUOR LICENSES

Legal Notice # 21123966
I hereby give notice that a license, number 1288131 for beer and wine has been applied for by the undersigned to sell beer and wine at retail in a restaurant under the Alcoholic Beverage Control Law at 46-44 Vernon Blvd. Long Island City, NY 11101, for on premises consumption. Wang, Doo Ping - Murasaki Sushi Inc.

Legal Notice # 21123309
Notice of Formation of 170 28 Grand Central Parkway LLC, Arts, of Org. filed with Secy. of State of NY (SSNY) on 8/19/2015. Office location: Queens County. SSNY designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Roy Moussaffar, 184-25 Aberdeens Road, Jamaica, NY 11432. Purpose: any lawful activity.

Legal Notice # 21123923
NOTICE OF FORMATION OF Future Design Concepts LLC, Articles of Organization filed with the Secretary of State of NY (SSNY) on 08/19/2015. Office location: QUEENS COUNTY. SSNY designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Roy Moussaffar, 184-25 Aberdeens Road, Jamaica, NY 11432. Purpose: any lawful activity.

Legal Notice # 21123923
NOTICE OF FORMATION OF Future Design Concepts LLC, Articles of Organization filed with the Secretary of State of NY (SSNY) on 08/19/2015. Office location: QUEENS COUNTY. SSNY designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Roy Moussaffar, 184-25 Aberdeens Road, Jamaica, NY 11432. Purpose: any lawful activity.

Legal Notice # 21123923
NOTICE OF FORMATION OF Future Design Concepts LLC, Articles of Organization filed with the Secretary of State of NY (SSNY) on 08/19/2015. Office location: QUEENS COUNTY. SSNY designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Roy Moussaffar, 184-25 Aberdeens Road, Jamaica, NY 11432. Purpose: any lawful activity.

Legal Notice # 21125239
The New York Racing Association, Inc. (NYRA) seeks to engage the services of a top-tier national insurance brokerage firm to provide risk analysis, insurance placement, claims management, oversight, and safety and loss control services as it relates to NYRA's commercial insurance programs. NYRA/DRE participation is encouraged. Interested parties may fax their request for a bid to: NYRAProcurement@nyra.com or call the Purchasing Dept. (718) 296-5109. No Later than 3:00 PM EST on October 20, 2015.

SERVICES

LICENSED MESSAGE

516-728-2181 516-450-0693
HICKSVILLE WANTAGH
ID# 28MA1272106

7510 REALTY LLC, Art. of Org. filed with the SSNY on 07/27/15. Office location: Queens County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail process to the LLC, 18-29 27th Avenue, Astoria, NY 11102. Purpose: Any lawful purpose.

Legal Notice # 21125193
NOTICE OF CHANGE OF USE OF ACQUISITION PROPERTIES BY NEW YORK RISING The Governor's Office of Storm Recovery acquires interests in real property through the NY Rising Buyout and Acquisition Program ("the Program"). All properties purchased by the Program are in the floodplain, and incurred substantial damage from Super Storm Sandy. The Buyout Program purchases property for preservation purposes, while the Acquisition Program sells properties for redevelopment. While the majority of these Acquisition properties are to be sold at auction with deed restrictions stipulating the resilient redevelopment of these sites, some properties have been selected for open space preservation and wetlands mitigation purposes.

New York State will be converting seven properties, purchased through the Acquisition Program, to be used for preservation purposes, instead of redevelopment. These seven properties will remain as open space in perpetuity, making the community safer and more resilient to future storms.

22 Wavercrest Drive, Mastic Beach NY 11951
31 Park Drive, Mastic Beach NY 11951
47 Riviera Drive, Mastic Beach NY 11951
11 Spar Drive, Mastic Beach NY 11951
43 Magnolia Drive, Mastic Beach NY 11951
215 Elm Rd W, Mastic Beach NY 11951
17 Shore Drive, Mastic Beach NY 11951
182 Shore Road, Mount Sinai NY 11766

New York Rising is requesting comments and feedback from the public to the Notice of Change of Use, from Acquisition to Buyout for these seven properties. All comments and feedback can be left at <http://stormrecovery.ny.gov/haouing>

Legal Notice # 21125958
LEGAL ADVERTISEMENT BIDS WILL BE RECEIVED PUBLICLY OPENED AND READ ALOUD AT THE SACHEM CENTRAL SCHOOL DISTRICT ADMINISTRATIVE OFFICES PURCHASING DEPARTMENT 51 SCHOOL STREET LAKE RONKONKOMA, NEW YORK AT 1:00 P.M. PREVAILING TIME ON NOVEMBER 3, 2015 FOR THE FOLLOWING:
B 15-30 Inflows for Sachem Staff
B 15-31SA Snow Sander Parts Specifications and bid forms are available for download at www.empirestatebidsystem.com.
Inquiries regarding specifications can be addressed by the Purchasing Office between the hours of 9:00 A.M. and 2:00 P.M. at (631) 471-1330.
The Board of Education reserves the right to grant awards within forty five (45) days from the date of the bid opening during which period bids shall not be withdrawn. This period may be adjusted if so stated on the Bid Proposal Form.
The Sachem Central School District, Board of Education reserves the right to reject any or all bids that it considers not to be in the best interest of the school district.
BOARD OF EDUCATION SACHEM CENTRAL SCHOOL DISTRICT LAKE RONKONKOMA, NEW YORK 11779
Catherine Nocco, Purchasing Agent
10/13/2015

Legal Notice # 21125629
NOTICE IS HEREBY GIVEN that pursuant to defaults under a Security Agreement dated September 16, 2013 between Kabbour Doufak, as debtor, and MARN Associates LLC (for itself and co-Secured Party, Signature Financial LLC, as secured party, and under a Security Agreement dated February 25, 2014 between Kabbour Doufak, as debtors and MARN Associates LLC, the holders of the Security Agreements, and the indebtedness secured thereby, will sell the collateral, New York City Taxicab Medallion No. 1A40, at a public sale to be held on November 3, 2015 at 2:00 pm at the law offices of Michael Freeman, Esq., 30 E. 33rd St., 4th Floor, New York, NY 10006, telephone number (212) 889-3900. The present indebtedness due to MARN Associates LLC, for itself and co-Secured Party, Signature Financial LLC, is approximately \$775,171.10, plus costs and expenses of this sale and applicable attorney fees.

DID YOU KNOW THAT YOU CAN SEE NEWSDAY'S BUY & SELL ADS ON THE INTERNET?
www.newsday.com/classifieds

Legal Notice # 21125993
NOTICE OF NAMES OF PERSONS APPEARING AS OWNERS OF CERTAIN UNCLAIMED PROPERTY HELD BY NCP FEDERAL CREDIT UNION
The following persons appear from our records to be entitled to unclaimed property consisting of cash amounts of fifty dollars or more:

BLOMQUIST, ALAN
3260 THIRD ST, OCEANSIDE, NY 11572
COLLURA, JAMES M.
98 CUSTER AVE, WILLISTON PARK, NY 11596
HOFFMAN, BRIAN
138 WIDGEON CT, GREAT NECK, NY 11739
KEANE, MICHAEL F.
876 W SILVER MEADOW LOOP, HERNANDO, FL 34442-6139
MACKINNON, GAYLE
725 GRAY STREET, PORT JEFF, FL 33707
MANIERI, AMBER E.
1726 BELLMORE AVE, NORTH BELLMORE, NY 11710
PELUSO, LORRAINE L.
2 KOKANE, LITTLETON, CO 80127
PUTKO, INCLIN, NY 11788
7 DON LN, HAUPPAUGE, NY 11788
TRUOLove, CAROLE
180 6th ST, HICKSVILLE, NY 11801
WATERS, LORRAINE L.
39 BROWN BLVD, WHEATLEY HEIGHTS, NY 11798
WAYOCK, JENNIFER A.
405 1ST STREET APT 45, MINNEOLA, NY 11501
WEBB, ROBIN C.
35 REID AVE, ROCKVILLE, NY 11750
WICKERS, ARTHUR R.
C/O KENNETH M KERN
225 BROADHOLLOW RD, SUITE 200, MELVILLE, NY 11747
109-67 142ND STREET, JAMAICA, NY 11435
WOZNIAK, JOHN

662 PHILADELPHIA AVE, MASSAPEQUA, NY 11762
A real estate property will be made to the Comptroller of the State of New York, pursuant to Article III of the Abandoned Property Law. A list of names contained in such notice is on file and open to public inspection at the principal office of the bank, located at 777 Old County Road, Plainville, NY 11803, where such abandoned property is payable. Such abandoned property will be paid on or before October 31 to persons establishing to its satisfaction their right to receive the same. In the succeeding November, and on or before the tenth day thereof, such unclaimed property will be paid to the Comptroller of the State of New York, and shall thereupon cease to be liable therefor.

Legal Notice # 2110795
SUPREME COURT OF THE STATE OF NEW YORK - COUNTY OF QUEENS
INDEX# 701386/15
SUPPLEMENTAL SUMMONS AND NOTICE
Plaintiff designates QUEENS COUNTY as the place of trial. Venue is based upon the County in which the mortgage premise is situated. U.S. BANK NATIONAL ASSOCIATION, AS TRUSTEE, FOR GSA HOME EQUITY TRUST 2006-14, ASSET-BACKED CERTIFICATE SERIES 2006-14, Plaintiff, against LINDA SILVESTRI A/K/A LINDA M. TELESY SILVESTRI; if living, and if she be dead, and all persons unknown to plaintiff, claiming, or who may claim to have an interest in, or generally or specifically upon the real property described in this action; and all unknown persons being generally described and intended to be included in the following designation, namely: the wife, widow, husband, widower, heirs at law, next of kin, descendants, executors, administrators, devisees, legatees, creditors, trustees, claimants, lienors, and assignors of such deceased, and all persons deriving interest in or lien upon, or title to said real property by, through or under them, or either of them, and their respective wives, widows, husbands, widowers, heirs at law, next of kin, descendants, executors, administrators, devisees, legatees, creditors, trustees, claimants, lienors and assigns, all of whom and whose names, except as stated, are unknown to plaintiff; UNITED STATES OF AMERICA; THE PEOPLE OF THE STATE OF NEW YORK; and JOHN DOE AND JANE DOE #1 through #7, the last seven (7) names being fictitious and unknown to the Plaintiff, the persons or parties intended being the tenants, occupants, persons or parties, if any, having or claiming an interest in or lien upon the mortgaged premises described in the Complaint. Defendant(s), YOU ARE HEREBY SUMMONED to answer the Complaint in this action and to serve a copy of your answer, or, if the Complaint is not served with this Summons, to serve a notice of appearance on the Plaintiff's Attorney(s) within 20 days after the service of this Summons, exclusive of the day of service or within 30 days after the service is complete if this Summons is not personally delivered to you within the State of New York; the United States of America, if designated as a Defendant in this action, may appear or answer within 60 days of service thereof and in case of your failure to appear or answer, judgment will be taken against you by default for the relief demanded in the Complaint. To the above named Defendants: The foregoing Summons is served upon you by publication pursuant to an order of the Supreme Court of the State of New York and filed along with the supporting papers in the Office of the Clerk of the County of Queens on 8/13/2015. This is an action to foreclose on a mortgage, ALL that certain plot, piece or parcel of land, thereon erected, situated and being in the Borough and County of Queens, City and State of New York (Block 6157 and Lot 31). Said premises known as 208-01 36TH Avenue, Bayside, NY 11361, YOU MUST RESPOND BY SERVING A COPY OF THE ANSWER ON THE ATTORNEY FOR THE PLAINTIFF (MORTGAGE COMPANY) AND FILING AN ANSWER WITH THE COURT, Clarendon, Okla, Salomone, & Pincus, P.L. 425 RFR Plaza, 4th Floor, UNIONDALE, NY 11556

Legal Notice # 21115932
GIGA INTERNATIONAL LLC, Articles of Org. filed NY Sec. of State (SSNY) 7/6/2015 as GIGA INTERNATIONAL LLC. Office in Queens Co. SSNY design agent of whom process against the LLC may be served. SSNY shall mail process to 18-58 Steinway St., Astoria, NY 11105, which is also the principal business location. Purpose: Any lawful purpose.

Legal Notice # 21116042
MKCC LLC, a domestic LLC, filed with the SSNY on 8/20/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to The LLC, 41-25 36th St., Long Island City, NY 11101. General purpose.

Legal Notice # 21119860
Notice of Formation of Mount Hope Preservation Managed LLC, Arts, of Org. filed with Secy. of State of NY (SSNY) on 8/28/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: The LLC, 29-10 120th Street, Flushing, NY 11354. Purpose: any lawful activity.

Legal Notice # 21121952
K H Realty LLC, a domestic LLC, filed with the SSNY on 9/23/13. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to The LLC, 8772 116 St., Richmond Hill, NY 11418. General Purpose.

Legal Notice # 21125781
Notice of Formation of SRR FAMILY LLC Arts, of Org. filed with Secy. of State of NY (SSNY) on 10/09/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to c/o Tarter Krinsky & Drogin LLP, Attn: Steve Forsetz, 1350 - Broadway, NY, NY 10018. Purpose: Any lawful activity.

Legal 2112605701

Legal Notice # 21116069
Three Points Kingsland LLC, a domestic LLC, filed with the SSNY on 8/4/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to The LLC, 1015 160th St., Whitestone, NY 11357. General purpose.

Legal Notice # 21121915
Business Solutions Now LLC, a domestic LLC, filed with the SSNY on 7/23/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to The LLC, 247-09 41st Ave., Little Neck, NY 11363. General Purpose.

Legal Notice # 21121999
NOTICE OF SALE SUPREME COURT QUEENS COUNTY
JP/Morgan Chase Bank, N.A., Successor by Merger to Chase Home Finance LLC, Plaintiff against
MD S. Rana, et al Defendant-
Attorney for Plaintiff(s):
Fein, Such & Crane, LLP 28 East Main Street, Suite 1800, Rochester, NY 14614
Attorney (s) for Plaintiff (s):
Pursuant to a Judgment of Foreclosure and Sale Entered December 19th, 2014
I will sell at Public Auction to the highest bidder at the Queens County Supreme Court, Courtroom #25, 88-11 Sutphin Boulevard, Queens, NY 11435 on October 30th, 2015 at 10:00 a.m. Premises known as 90-10 181st Street, Hollis, NY 11423. Sec 8/A Block 9897 Lot 55. All that certain Plot, Piece or Parcel of Land, with the Buildings and Improvements thereon erected, situated, lying and being in the Borough and County of Queens, City and State of New York Approximate amount of Judgment is \$500,738.05 plus interest and costs. Premises will be sold subject to provisions of filed Judgment Index No 20249/2012.
Ned H. Kassman, Esq., Referee

Legal Notice # 21116152
214-53 JAMAICA AVE LLC, Arts, of Org. filed with the SSNY on 08/10/2015. Office loc: Queens County. SSNY has been designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Luis F. Taborda, 164-06 86th Road, Jamaica, NY 11432. Purpose: Any Lawful Purpose.

Legal Notice # 21119845
Notice of Formation of MH1 SOLUTIONS LLC, Arts, of Org. filed with Secy. of State of NY (SSNY) on 8/28/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: The LLC, 29-10 120th Street, Flushing, NY 11354. Purpose: any lawful activity.

Legal Notice # 21121823
Anderson Law Group, PLLC, a domestic PLLC, Arts, of Org. filed with the SSNY on 9/11/15. Office location: Queens County. SSNY is designated as agent upon whom process against the PLLC may be served. SSNY shall mail process to Greta Galner Anderson, 114-14 Merrick Blvd., St. Albans, NY 11434. Purpose: Law.

Legal Notice # 21116044
104 Kingsland LLC, a domestic LLC, filed with the SSNY on 7/31/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to The LLC, c/o Frank Smith, 27-28 Thompson Ave., 4414, Long Island City, NY 11101. General purpose.

Legal Notice # 21116065
Vos & Eisenfeld LLP, a domestic LLP, filed with the SSNY on 7/22/15. Office location: Queens County. SSNY is designated as agent upon whom process against the LLP may be served. SSNY shall mail process to: Jason Eisenfeld, 100-15 Queens Blvd., Ste. 203, Forest Hills, NY 11375. Purpose: Law.

Legal Notice # 21121652
214-53 JAMAICA AVE LLC, Arts, of Org. filed with the SSNY on 08/10/2015. Office loc: Queens County. SSNY has been designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: Luis F. Taborda, 164-06 86th Road, Jamaica, NY 11432. Purpose: Any Lawful Purpose.

Legal Notice # 21119845
Notice of Formation of MH1 SOLUTIONS LLC, Arts, of Org. filed with Secy. of State of NY (SSNY) on 8/28/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: The LLC, 29-10 120th Street, Flushing, NY 11354. Purpose: any lawful activity.

Legal Notice # 21121823
Anderson Law Group, PLLC, a domestic PLLC, Arts, of Org. filed with the SSNY on 9/11/15. Office location: Queens County. SSNY is designated as agent upon whom process against the PLLC may be served. SSNY shall mail process to Greta Galner Anderson, 114-14 Merrick Blvd., St. Albans, NY 11434. Purpose: Law.

Legal Notice # 21121866
Notice of Formation of 339-341 33rd Street Acquisition LLC, Arts, of Org. filed with Secy. of State of NY (SSNY) on 9/8/15. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 116-55 Queens Blvd., Ste. 207, Forest Hills, NY 11375. Purpose: any lawful activity.

Legal Notice # 21125349
NOTICE OF SALE SUPREME COURT: QUEENS COUNTY
WELLS FARGO BANK, NA; Plaintiff(s)
vs. MARIA FERNANDEZ; et al Defendant(s)
Attorney(s) for Plaintiff (s): ROSICKI, ROSICKI & ASSOCIATES, P.C., 2 Summit Court, Suite 301, Fishkill, New York 12524, 845-897-1600
Pursuant to judgment of foreclosure and sale granted herein on or about August 11, 2015, I will sell at Public Auction to the highest bidder at QUEENS COUNTY SUPREME COURT, located at 88-11 SUTPHIN BOULEVARD, JAMAICA, NEW YORK IN COURTROOM #25, On November 13, 2015 at 10:00 am.
Premises known as 8064 89TH AVENUE, WOOD HAVEN, NY 11421-2421
Block 8965 Lot 21
ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situated, lying and being in the Borough and County of Queens, City and State of New York. As more particularly described in the judgment of foreclosure and sale, sold subject to all of the terms and conditions contained in said judgment and terms of sale.
Approximate amount of judgment \$521,052.38 plus interest and costs.
INDEX NO. 8734/09
Nicole Katsorhis, Esq., REFEREE

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study - the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

211260701



Photos by Tony Bellissimo/Herald

THE HEWLETT HIGH SCHOOL HOME COMING COURT from left were Emmie Cohn, Nicole Matza, King Zeke Maloney, Queen Monay Cowan, Brandon Weiss and Nicole Aller.

Hewlett displays its strong school spirit

Marchers in the Hewlett High School homecoming parade exhibited their school spirit from Hewlett Elementary School on Broadway to East Rockaway Avenue on a beautiful fall day last Saturday.

The parade proceeded onto the Hewlett

High campus, where the Bulldogs took on Conference III rival Lawrence in their annual football game. Despite the full-throated home team fans, the Golden Tornadoes prevailed 35-14.



FRESHMEN showed off their homecoming banner during halftime of the football game.

"Education is the Key to Success" - Register Now!

Resnick

Reading Center Est. 1968

Individualized Instruction For ACTs, PSATs, SATs, SAT IIs & Regents

Tutoring In All Subject Areas • Prep For State Assessment Tests

Regents Review In All Subjects

- Diagnostic Testing • Remedial Reading & Math • Speed Reading • Comprehension & Study Skills
- Gifted Program • Writing Skills • Learning Disabilities Program • Phonics
- College Counseling & Preparation Of College Applications • Programs for Children on Autism Spectrum

GEDs • GREs • NTEs • MCATs • LSATs • RCTs • GMATs

516-374-5998

All Certified Instructors
Day • Evening • Summer • Sessions

Director - Diana Resnick Nahoum, BA, MS
LIC. Psychologist on Staff

We Treat
Each Student
As An Individual

*Now Celebrating Our
16th Year*



Woodmere Music Studios



**All State • All County L.I. String Festival
• Lincoln Center Acceptances to Top Universities
3 Recitals a Year**

Most Prestigious Faculty on Long Island

Music Lessons NYSSMA Preparation

Piano • Violin • Viola • Cello
Sax • Guitar • Voice
Flute • Clarinet • Trumpet
Trombone • Tuba • Drums



At Home Lessons Available For All Levels

**Patricia Lee, MM, Director
NYSSMA Adjudicator**

516-569-2195 • 516-343-4108 CELL
woodmeremusic@aol.com

790945

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015

TIME: 6:00PM - 8:00PM

LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

798980

Calendar

NEW JERSEY

Clifton – The Garden State Opera will present a performance of Puccini's "Il Tabarro" semi-staged and with piano accompaniment on October 16 at 8:00pm at Allwood Community Church, at Chelsea and Merrill Roads. The suggested donation is \$10. For more information call 973-685-9972.

Belleville – The annual Belleville Veterans Day Parade will be held on November 8 at 1:00pm. All military units, local first responders, police, civic organizations, classic cars clubs, motorcycle clubs and bands are invited to participate. For more information contact Bill Steimel at 973-759-4692.

Englewood – The Bergen Performing

Arts Center, 30 North Van Brunt Street, will present Lisa Lampanelli see "Comedy's Lovable Queen of Mean" on November 7 at 8:00pm. Tickets are \$49 and \$69 and can be purchased at www.ticketmaster.com or by calling 201-227-1030.

Caldwell – The Garden State Opera of New Jersey will present Puccini's "Il Tabarro" and Mozart's "Bastien und Bastienne" on October 25 at 4:00pm at the Caldwell University Student Center Auditorium, 120 Bloomfield Avenue. Tickets are \$20 and \$10 for students and seniors. For information call 973-685-9972 or visit www.gardenstateopera.org.

Nutley – Long-time Nutley resident

and Belleville native, Joseph Cervasio, will deliver a series of inspirational messages based on his book "Now or Never: The 11 Secrets of Animathea" as part of a three-week program on October 14, 21 and 28 at 7:00-8:15pm at the Brookdale Christian Church, 1380 Broad Street. They will be followed refreshments and a time to meet the speaker for Q&As. A study guide will be available at no cost.

NEW YORK

Stony Brook – The Center for Italian Studies at Stony Brook University will present an award ceremony to recognize the 2015 GRADIVA, International Journal of Italian Poetry Prize recipient Massimo Scignoli for his book, *Regesto 1979-2009*, on October 22 at 4:00pm in the Frank Melville Memorial Library, Room E4340. The event is free and open to the public. For more information call 631-632-7444.

New York – The Two Bridges Neighborhood Council's 7th Annual Marco Polo Festival will take place on October 17 from 11:00am-3:00pm on Grand Street between Mott and Mulberry Streets. The festival celebrates the special relationship between the Chinese and Italian American communities of two of Manhattan's most iconic neighborhoods. For more information, visit www.twobridges.org.

Brooklyn – St. Finbar Church, 138



Bay 20th Street, will celebrate a Mass on October 20 at 7:00pm in honor of St. Pio. Present at the Mass will be Padre Pio's glove used to cover the stigmata on his hand. This relic will be available for all to touch after Mass. For more information call 718-236-3312.

Brooklyn – Catholic Adults of Brooklyn will present a horror movie Halloween dance on October 31 from 8:30pm to 12:30am at Our Lady of Grace Cafeteria, 385 Avenue W. The cost is \$20 in advance and \$25 at the door and includes a hot buffet, beer, wine, soda, coffee, raffles, dancing and best costume prizes. For tickets or more information call Mary Ann at 718-376-

8294 or Lou at 718-376-2441.

FLORIDA

Venice – The Italian American Club of Venice, 1375 Ringling Drive, will host the Sarasota Opera Studio Singers on November 11 at 7:00pm. Enjoy music by Italy's greatest composers and complimentary refreshments. The cost is \$15 for members and \$20 for guests. The Club will also host a children's Halloween bash on October 25 from 1:00-3:00pm. Children can enjoy food, prizes, treats and pony rides. Children 10 and under only, costumes required. For information, call Kathy at 941-928-0902.

Customer Service Reps

WE ARE 'CAN-DO' SOLVERS

Bilingual in Italian/English

We need self-motivated starters at our state-of-the-art Customer Service Center in **Queens, NY**. If you have a "Can-Do" attitude, we'd love to hear from you. We offer significant bonus potential, continued training, comprehensive insurance, 401(k) with matched funds, tuition reimbursement, complimentary DISH programming, and much more!

Apply Now!
dish.com/queens

dish

We are an Equal Opportunity Employer and are Committed to a Drug and Tobacco-Free Workplace

THE PORT AUTHORITY OF NY & NJ NOTICE OF PUBLIC INFORMATION WORKSHOP FOR THE 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE COMPATIBILITY PLANNING STUDIES FOR JOHN F. KENNEDY INTERNATIONAL AND LAGUARDIA AIRPORTS

The Port Authority of New York & New Jersey will be hosting a public information workshop in October 2015 to provide information regarding the Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Planning Studies for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports. The workshop will include guided displays that will present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure. A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an "open house" format from 6 p.m. to 8 p.m. on the date listed below. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop at any time during the two-hour open house.

JFK & LGA PUBLIC INFORMATION WORKSHOP

DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College
College Center Building, Multipurpose Room
One Education Drive, Garden City, NY 11530

For more information, please visit the project website at: <http://www.panynjpart150.com/>

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the Noise Office at (212)435-3880 or via email at NYPART150@panynj.gov no later than (7) days before the workshop for which the services are being requested.

¡Abogada Latina que Trabaja para Nuestra Comunidad!

RUIZ LAW GROUP PC

INTEGRIDAD • TENACIDAD • RESULTADOS • PROFESIONALISMO



Frances Y. Ruiz, Esq.

- Accidentes
- Modificación
- Bancarrota
- Defensa de Foreclosure
- Short Sale
- Demandas en Corte
- Real States / Bienes Raíces
- Arreglo de Deudas
- Fraude / Robo de Identidad
- Arrendatario / Inquilino
- Negocios

- Inmigración
- Acción Diferida
- Deportación

www.abogadarx.com

718-505-3400
646-879-5701 (24 HORAS)

83-13 Northern Boulevard, Jackson Heights, NY 11372

THE PORT AUTHORITY OF NY & NJ

AVISO DE TALLER INFORMATIVO PÚBLICO ESTUDIOS DE PLANIFICACIÓN DE COMPATIBILIDAD DE RUIDO DE AEROPUERTOS DEL CÓDIGO DE REGLAMENTOS FEDERALES (CFR) 14 PARTE 150 PARA EL AEROPUERTO INTERNACIONAL JOHN F. KENNEDY Y EL AEROPUERTO LAGUARDIA

La Autoridad Portuaria de Nueva York y Nueva Jersey (The Port Authority of New York & New Jersey) presentará un taller informativo público en octubre de 2015 para proporcionar información referente a los Estudios de planificación de compatibilidad de ruido de aeropuertos del Título 14 del Código de Reglamentos Federales Parte 150 (14 CFR Parte 150) para el Aeropuerto Internacional John F. Kennedy (JFK) y el Aeropuerto LaGuardia (LGA). El taller incluirá exhibiciones guiadas que presentarán información referente al proceso del Estudio 14 CFR Parte 150, el programa del proyecto, métricas de ruido y métodos utilizados para cuantificar la exposición al ruido de aviones. Una segunda ronda de talleres informativos públicos se llevará a cabo la primavera de 2016 para proporcionar información referente a los productos principales del Estudio 14 CFR Parte 150: los Mapas de exposición al ruido de 2016 y 2021.

El taller se llevará a cabo en un "open house" de 6 p.m. a 8 p.m. la fecha indicada más adelante. No se dará ninguna presentación formal con el fin de dar al público la máxima oportunidad para tener interacciones personales y compartir información e inquietudes. Puede asistir al taller en cualquier momento durante el open house de dos horas.

TALLER INFORMATIVO PÚBLICO DE JFK Y LGA

FECHA: 29 de octubre de 2015

HORA: 6:00 a 8:00 p.m.

UBICACIÓN: Nassau Community College

College Center Building, Multipurpose Room (Salón de propósitos múltiples)
One Education Drive, Garden City, NY 11530

Para mayor información, por favor visitar la página web del proyecto: <http://www.panynjpart150.com/>

El taller informativo público de la Parte 150 tiene accesibilidad para personas con problemas de movilidad. Hay disponibles servicios de interpretación de idiomas con previa solicitud. Para hacer arreglos para dichos servicios, sírvase comunicarse a la Oficina de Ruido al (212) 435-3880 o por correo electrónico a NJPART150@panynj.gov a más tardar (7) días antes del taller.



Sigue los especiales de **tomtours.com**
Tu Agencia de Viajes

\$502
Colombia

\$456
Ecuador

\$427
El Salvador

\$299
México

\$437
Perú

\$343
Guatemala

Reserve
para Diciembre
desde ahora!

*OTRAS TARIFAS APLICAN

Guatemala \$343
El Salvador \$427
Nicaragua \$354
Honduras \$395
Costa Rica \$351
Panamá \$416

Quito \$456
Guayaquil \$456
Mendoza \$722
Chile \$716
Montevideo \$580
Asunción \$789

Cartagena \$338
Bogotá \$502
Medellín \$454
Cali \$454
Pereira \$454
Barranquilla \$502

Sto. Domingo \$158
Santiago, RD. \$158
San Juan, PR \$218
Mexico City \$299
Cancún \$262
Puebla \$312

TARIFAS SUJETAS A ESPACIOS. LOS PRECIOS PUEDEN VARIAR. NO INCLUYEN IMPUESTOS.

Avianca

AA
American Airlines

LAN TAM

UNITED

DELTA

AEROMEXICO

Pregunta por nuestros PAQUETES VACACIONALES • Cancún • Punta Cana • Miami • Orlando • España • Italia
PRECIOS ESPECIALES para Senior Citizens, Menores, Clubs, Iglesias, Grupos Familiares, Escuelas, Asociaciones.

Llámenos hoy mismo o visítanos en nuestras oficinas

(718)429-1940 71-32 Roosevelt Ave. Jackson Heights, NY

HORARIOS Lunes a Viernes 9:30 am a 7:00 pm Sab y Dom 10:00 am a 4:00 pm

tomtours.com

JFK & LGA Public Information Workshop
October 29, 2015 (6:00 p.m. – 8:00 p.m.)
Nassau Community College

Sign-In Sheet
Elected Officials

14 CFR Part 150 Study
John F. Kennedy International Airport
La Guardia Airport

[illegible]

**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**
JFK & LGA Public Information Workshop
 October 29, 2015 (6:00 p.m. – 8:00 p.m.)
 Nassau Community College

 14 CFR Part 150 Study
 John F. Kennedy International Airport
 La Guardia Airport

Name/Organization	Address	Phone or Email
Rich Dehn	45 Station Ln Commack NY	PREVINO@GOLCON
Joe Brown	Albiston NY 11507	—
William Hernandez	4 WTC - 18th, NY	212-435-8000
Bren Tung	57 Hewlett Lane Flower Hill, NY 11050	arentung@aol.com
Elaine Miller	85 Nassau Ave. Malverne, N.Y.	emillerches@yahoo.com
Andrew Weiss	33 Violet Ave Floral Park, NY 11001	A2WEISS@AOL.COM
Assemblyman Curran	237 Sherman St. Leaphuk, NY	BCURRAN@NASSAUNY.COM
LINDA DERSCHT	312, Carnation Ave Fl. PK N.Y.	
Molly Mills	284 Central Ave, LAWRENCE, NY 11559	m/mills7@optonline.net
Dashawn Stokes	128-40 237th Street Rosedale, NY 11422	DashawnStokes@yahoo.com
Roy MESEROLE	216 ELIZABETH ST. INWOOD 11096	516 343-3529
LARRY Hoppenheaven	205 Hempstead Ave. Malverne 11565	Lhappy5@optonline.net
Kevin Muir	99 Stafford S, Bostyn Heights, NY 11577	kevin.muir@gmail.com
Nick Marabon	15 Oliver Ave	NickMarabon@gmail.com
McKinley Joseph	234 South King Street	mckinley133@gmail.com
Tina Kurek	33 Park E New Hyde Park, NY 11040	
Michael Antic	36 Sonerset Ave Garden City NY 11530	
Vincent Jackson	406 Bayview Ave, Amityville, NY 11701	Iamvincentjackson@gmail.com

**THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY**

JFK & LGA Public Information Workshop
October 29, 2015 (6:00 p.m. – 8:00 p.m.)
Nassau Community College

14 CFR Part 150 Study
John F. Kennedy International Airport
La Guardia Airport

Name/Organization	Address	Phone or Email
Margo Bayroff	151 Shrubholker Road Roslyn NY	me agentmnm@aol.com
KURT G. LANGJAHR TVASNAC	120 N. 5th ST. NEW HYDE PARK NY	KURTGL40@OPTONLINE.NET
Jane Carty	140-14 Wadsworth St Laurelton NY 11413	jtcarty88@gmail.com
Richard Becker	60 DOUGHTY BL INWOOD NY 10962-2030	
Tawo Ewa		Tawo.ewa@yahoo.com
Lucinda Priess	83 Holland Ave Floral Park NY 11001	
Sidney Krinsky	357 Walton St West Hempstead NY 11552	bzkrinsky@verizon.net
Barry Siegel	29 Vreuk Dr. Roslyn	bhsiegel.com
Jahren Budram	2706 Deerfield Rd Far Rockaway NY 11691	
Andre Whittick	137 Jean Court Elmont NY 11003	andrewhittick2@gmail.com
Rain Altidor	117-15 238th Elmont NY	Raltidor@yahoo.com
Kahsim Teague	1011 Bay 30th street Far Rockaway 11691 NY	KahsimTeague@gmail.com
Jana Goldenberg	90 Oak Dr East Hills, NY 11576	JMG327@gmail.com
Dan Devine	4 Peter Rd Hicksville NY 11801	dan @dcan2015@gmail.com
Miguel Savar	227 Broad St. WP 11596	



Nassau Community College

La Guardia Airport

[illegible]

Public Information Workshop
Handouts
(October 29, 2015)

LaGuardia Airport Title 14 Code of Federal Regulations Part 150 Study

What is a 14 CFR Part 150 Study?

Title 14 Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning, was issued by the Federal Aviation Administration (FAA) as a final rule in January 1985. 14 CFR Part 150 sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs.

14 CFR Part 150 studies typically consist of two primary components: (1) the Noise Exposure Map (NEM) report, which contains detailed information regarding existing and 5-year future airport/aircraft noise exposure patterns, and (2) the Noise Compatibility Program (NCP), which includes descriptions and an evaluation of noise abatement and noise mitigation options/programs applicable to an airport.

Has a 14 CFR Part 150 Study been prepared for LaGuardia Airport (LGA)?

Although the Port Authority of New York and New Jersey has a long history of addressing noise exposure from aircraft operations at LGA, this is the first 14 CFR Part 150 Study for LGA. The Port Authority is preparing 14 CFR Part 150 studies for John F. Kennedy International Airport (JFK), Newark Liberty International Airport, and Teterboro Airport concurrent with the LGA 14 CFR Part 150 study.

Why is the Port Authority undertaking a 14 CFR Part 150 Study for LGA?

In response to growing community concerns about aircraft noise, Governor Cuomo directed the Port Authority to undertake 14 CFR Part 150 Studies for JFK and LGA. Governor Cuomo directed the Port Authority to open a full and thorough dialogue with the impacted communities while also pursuing a noise study to better address the issue. Port Authority Aviation Director Thomas Bosco said, “The Port Authority understands it must strive to be a good neighbor in the communities where its airports are located.” He added, “We will seek noise mitigation with the FAA where feasible.”

The 14 CFR Part 150 Study for LGA will identify areas that are not compatible with significant levels of aircraft noise exposure and will recommend measures for mitigating aircraft noise impacts to the greatest extent feasible.

What will the Port Authority produce during the LGA 14 CFR Part 150 Study?

The 14 CFR Part 150 Study must be prepared in accordance with guidance provided in the 14 CFR Part 150 regulations. The FAA has prepared checklists for the NEM and NCP which must be followed to ensure compliance with 14 CFR Part 150. As part of the LGA 14 CFR Part 150 Study, the Port Authority and its consultant will quantify existing (2016) and future (2021) aircraft noise exposure levels in the vicinity of LGA. The Port Authority will also develop supporting documentation explaining the process used to calculate existing and future aircraft noise exposure levels. The LGA NEM Report will provide the Port Authority with a set of NEMs that identify areas exposed to aircraft noise of day-night average

sound level (DNL) 65 decibels (dB) and higher. The NEMs will be submitted to the FAA for review and acceptance. Additional maps will be created for informational purposes only to show the existing and future DNL 55 dB contours. These maps will not be included in the formal submittal of the NEM to the FAA.

After the LGA NEMs are complete, the Port Authority and its consultants will examine potential measures for minimizing LGA's noise impact. The Port Authority will consider a range of feasible mitigation measures including operational, remedial, preventative, and administrative measures. The measures providing the greatest potential to minimize the noise impacts from aircraft operations at LGA will be forwarded to the FAA for review and approval. Certain measures may require FAA funding to be implemented (e.g., sound insulation). Only those measures approved by the FAA will be eligible for federal funding.

How long will the LGA 14 CFR Part 150 Study take to complete?

14 CFR Part 150 Studies vary in duration depending on a number of factors including, but not limited to, the complexity of the airport operations and local airspace, availability of data, the public outreach process, and agency review periods. The estimated duration of the LGA 14 CFR Part 150 Study is approximately three to four years. The Port Authority is committed to taking the time required to provide the FAA with NEMs and an NCP for LGA that meet requirements of 14 CFR Part 150.

Where can I get more information?

General information, project reports and public workshop materials, including presentation boards, will be uploaded to the project website at <http://www.panynj.gov/airports/aircraft-noise-information.html>, as they become available.

How can I get involved?

14 CFR Part 150 encourages the participation of citizens and public agencies. The Port Authority will convene several public information workshops during the 14 CFR Part 150 Study process. This public information workshop is being held to introduce the LGA 14 CFR Part 150 Study. We anticipate that the second public information workshop will be convened next spring to present key study findings.

The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint, the airport noise complaint hotline is 1-800-225-1071. Comments regarding the LGA 14 CFR Part 150 Study can be submitted at the public workshop or by (1) email to NYPART150@panynj.gov or (2) mailing them to the Port Authority at the following address:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

拉瓜迪亚机场接受“14 CFR Part 150 调研”的说明

何谓“14 CFR Part 150 调研”？

“14 CFR Part 150”为“Title 14 Code of Federal Regulations Part 150”的缩写，即美国政府“联邦法规汇编第 14 编第 150 部”，题为“机场噪音兼容性规划”，由联邦航空管理局 (FAA) 于 1985 年 1 月正式颁布执行。在 14 CFR Part 150 中，规定了编制飞机噪音暴露地图的方法和规程，以及机场和机场周边土地使用兼容性项目的编制方法和规程。

“14 CFR Part 150 调研”一般由两个主要部分组成：(1) 噪音暴露地图 (Noise Exposure Map, NEM) 报告，内中详细陈述目前及未来 5 年内机场/机场噪音暴露的模式；(2) 噪音兼容性项目 (Noise Compatibility Program, NCP)，内中应说明可以适用于机场的噪音治理备选方案/计划，并加以评估。

拉瓜迪亚机场 (LGA) 过去有无进行“14 CFR Part 150 调研”？

虽然纽约与新泽西港口事务管理局 (Port Authority of New York and New Jersey) 一直保持了对 LGA 的飞机噪音暴露治理工作，但真正进行“14 CFR Part 150 调研”，尚属首次。此次除开对 LGA 进行 14 CFR Part 150 调研之外，港务局还对肯尼迪国际机场 (JFK)、纽瓦克国际机场和蒂特波罗机场同时开展调研。

港务局对 LGA 进行“14 CFR Part 150 调研”的意义何在？

此次港务局对 JFK 开展“14 CFR Part 150 调研”，是在州长 Cuomo 的要求下，应周边社区对飞机噪音问题进行治理的呼声而进行的。州长 Cuomo 要求港务局与相关社区进行全面而深入的对话与了解，同时开展噪音调研，科学细致地研究这一问题。港务局航空主任 Thomas Bosco 表示：“我们港务局深深地懂得：机场开在哪里，就要争做哪里的‘好邻居’。”他还补充道：“我们将尽量与 FAA 一道，探索合理的噪音治理办法。”

本次对 LGA 进行“14 CFR Part 150 调研”，将找出飞机噪音暴露水平问题较为突出的区域，并就如何在合理范围内尽可能降低飞机噪音所造的不利影响而提出方法措施上的建议。

港务局对 LGA 进行“14 CFR Part 150 调研”后将得出哪些成果？

“14 CFR Part 150 调研”的编订必须遵照 14 CFR Part 150 有关法规的指示进行。FAA 为 NEM 和 NCP 的编订明确规定了任务内容，必须全面遵守，否则即为违反 14 CFR Part 150 的规定。在对 LGA 进行“14 CFR Part 150 调研”期间，港务局及其顾问将对 LGA 周边的飞机噪音在当前 (2016) 及未来 (2021) 的暴露水平进行定量测定。同时，港务局方面还将给出解释性文件，说明其在计算当前 (2016) 及未来 (2021) 的飞机噪音暴露水平时所采用的方法步骤。调研文件中还将包括“LGA NEM 报告”，其中包含一整套 NEM 地图，用于为港务局标明暴露在飞机噪音下且昼夜平均声级 (DNL) 达到或超过 65 分贝 (dB) 的区域。这套 NEM 最终将提交 FAA 进行审批。除开这套地图

外，还会另行绘制一套附加地图，标明在当前及未来 DNL 达到 55 分贝 (dB) 的区域，但仅供参考，不会包含在提交 FAA 审批的地图中。

LGA NEM 地图完成后，港务局及其顾问将考察应采取何种措施来最大限度降低 LGA 的噪音影响，考查范围包括一系列可行方案，如营运手段、补偿赔偿、预防治理和行政措施等。从中得出最能够降低 LGA 飞机运营噪音影响的方案，然后提交 FAA 审批。某些方案可能需要 FAA 拨款方可实施（如隔音措施），而惟有经过 FAA 批准的措施，才有资格申请联邦拨款。

此次“LGA 14 CFR Part 150 调研”需要多久完成？

“14 CFR Part 150 调研”的具体耗时并不一定，取决于很多因素，包括（但不限于）：机场运营情况及周边空域情况的复杂度、有无现成数据、公众宣传工作的开展和机构审查的时间等。至于此次“LGA 14 CFR Part 150 调研”，估计需要约三到四年完成。港务局绝不会草率行事，必将严格依照 14 CFR Part 150 的要求，深入细致地编订 LGA 的 NEM 和 NCP 报告，并提交 FAA 审批。

在哪里可以获得更多详情？

本次调研的一般性信息、项目报告和公众研讨会材料（包括演示板）等，都将随着项目进行而不断推出，并上传到本次项目的网站：<http://www.panynj.gov/airports/aircraft-noise-information.html>。

我能参与进来吗？

依照 14 CFR Part 150 的规定，鼓励一切公民及公众机构参与我们的工作。因此，在本次“14 CFR Part 150 调研”工作中，港务局将召集若干次信息公开会。本次信息公开会的目的，在于介绍“LGA 14 CFR Part 150 调研”的内容。预计下一次信息公开会将在来年春季召开，届时将介绍调研的主要进展。

如果飞机噪音对您带来困扰，港务局将非常愿意聆听您的声音。可通过机场噪音举报热线对机场噪音进行举报，电话号码：1-800-225-1071。若对此次“LGA 14 CFR Part 150 调研”有任何意见或建议，敬请在信息公开会上提出，也可直接联系港务局，联系方式：(1) 电子邮件：NYPART150@panynj.gov；(2) 邮政地址：

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Studi ai sensi del Titolo 14, Parte 150 del Codice dei regolamenti federali per gli aeroporti John F. Kennedy International e LaGuardia

Che cos'è uno studio ai sensi del Titolo 14, Parte 150 del CFR?

Il Titolo 14, Parte 150 del Codice dei regolamenti federali (Code of Federal Regulations, CFR) è stato emesso dalla Federal Aviation Administration (FAA) come disposizione finale nel gennaio 1985. Il Titolo 14, Parte 150 del CFR espone la metodologia e le procedure da seguire quando si preparano le mappe di esposizione ai rumori degli aeromobili e si sviluppano i programmi di conformità per l'uso del suolo degli aeroporti e del suolo che circonda gli aeroporti.

Gli studi ai sensi del Titolo 14, Parte 150 del CFR hanno solitamente due componenti principali: (1) il rapporto della mappa di esposizione ai rumori (Noise Exposure Map, NEM), che contiene informazioni dettagliate sui modelli di esposizione ai rumori degli aeroporti/aeromobili esistenti e dei 5 anni futuri, e (2) il programma di conformità delle emissioni acustiche (Noise Compatibility Program, NCP), che include descrizioni e una valutazione delle opzioni/programmi di abbattimento e mitigazione dei rumori degli aeroporti.

È stato preparato uno studio ai sensi del Titolo 14, Parte 150 per gli aeroporti John F. Kennedy International (JFK) e LaGuardia (LGA)?

Nonostante la Port Authority of New York and New Jersey affronti il problema dei rumori emessi dagli aeromobili da molti anni, questo è il primo studio ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA. La Port Authority sta conducendo degli studi ai sensi del Titolo 14, Parte 150 del CFR per gli aeroporti Newark Liberty International e Teterboro contemporaneamente a quelli per JFK e LGA.

Perché la Port Authority sta conducendo studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA?

Il governatore Cuomo ha incaricato la Port Authority di avviare degli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA in risposta alle crescenti preoccupazioni della comunità per i rumori emessi dagli aeromobili. Inoltre ha chiesto alla Port Authority di avviare un dialogo completo ed esaustivo con le comunità interessate, oltre a condurre uno studio sui rumori per affrontare meglio il problema. Il direttore della Port Authority Aviation Thomas Bosco ha commentato: "La Port Authority sa di doversi impegnare per essere un buon vicino di casa per le comunità in cui sono situati gli aeroporti". Inoltre ha aggiunto: "Cercheremo di mitigare i rumori con la FAA laddove possibile".

Gli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA identificheranno le aree non conformi a livelli significativi di esposizione ai rumori degli aeromobili e suggeriranno misure correttive volte a mitigare l'impatto di tali emissioni nella misura del possibile.

Che cosa produrrà la Port Authority contestualmente agli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA?

Gli studi ai sensi del Titolo 14, Parte 150 del CFR devono essere preparati in base alle guide fornite dalle disposizioni del Titolo 14, Parte 150 del CFR. La FAA ha preparato una checklist per la NEM e il NCP che deve essere seguita per assicurare la conformità al Titolo 14, Parte 150 del CFR. Come parte degli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA, la Port Authority e i suoi consulenti quantificheranno i livelli di esposizione ai rumori emessi dagli aeromobili esistenti (2016) e futuri (2021) in prossimità di JFK e LGA. Inoltre la Port Authority svilupperà della documentazione di supporto in cui sarà illustrato il processo utilizzato per calcolare i livelli di esposizione ai rumori emessi dagli aeromobili esistenti e futuri. I rapporti della NEM forniranno alla Port Authority una serie di NEM che identificheranno le aree esposte a rumori emessi dagli aeromobili corrispondenti a una media tra giorno e notte (Day/Night Sound Level, DNL) di 65 decibel (dB) o superiore. Le NEM saranno inviate alla FAA per presa visione e l'accettazione. Ulteriori mappe create per scopi esclusivamente informativi mostreranno le curve di livello esistenti e future relative a un DNL di 55 dB. Queste ultime non saranno presentate formalmente alla FAA insieme alla NEM.

Una volta completate le NEM per JFK e LGA, la Port Authority e i suoi consulenti esamineranno le misure potenziali per minimizzare l'impatto dei rumori di JFK e LGA. La Port Authority prenderà in considerazione una serie di misure di mitigazione attuabili tra cui misure operazionali, correttive, preventive e amministrative. Le misure che con più probabilità possono minimizzare gli impatti dei rumori derivanti dall'attività degli aeromobili saranno inoltrate alla FAA per presa visione e approvazione. Determinate misure potrebbero richiedere un finanziamento della FAA per poter essere implementate (e.g. isolamento acustico). Solo le misure approvate dalla FAA avranno diritto a finanziamenti federali.

Quanto dureranno gli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA?

Gli studi ai sensi del Titolo 14, Parte 150 del CFR hanno durate diverse a seconda del numero di fattori, tra cui, ma non limitatamente, operazioni e spazio aereo dell'aeroporto, disponibilità di dati, processo di coinvolgimento del pubblico e periodi di revisione da parte delle agenzie. Si stima che gli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA possano durare da tre a quattro anni. La Port Authority intende dedicare il tempo necessario per fornire alla FAA le NEM e un NCP per JFK e LGA che soddisfino i requisiti del Titolo 14, Parte 150 del CFR.

Dove è possibile ottenere maggiori informazioni?

Le informazioni generali, i rapporti del progetto e i materiali del workshop pubblico, comprese le presentazioni, saranno caricati sul sito web del progetto all'indirizzo <http://www.panynj.gov/airports/aircraft-noise-information.html> a mano a mano che diventano disponibili.

Come si può partecipare?

Il Titolo 14, Parte 150 del CFR invita i cittadini e le agenzie pubbliche a partecipare. La Port Authority organizzerà diversi workshop di pubblica informazione durante il processo di studio ai sensi del Titolo 14, Parte 150 del CFR. Questo workshop di pubblica informazione è stato organizzato per presentare gli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e LGA. Un secondo workshop di informazione pubblica è previsto per la prossima primavera e avrà lo scopo di presentare i risultati principali degli studi.

La Port Authority è interessata a sapere se i rumori emessi dagli aeromobili sono motivo di preoccupazione per i cittadini. Per inviare una lamentela riguardo ai rumori emessi dagli aeromobili è possibile chiamare il numero 1-800-225-1071. I commenti sugli studi ai sensi del Titolo 14, Parte 150 del CFR per JFK e/o LGA possono essere forniti durante il workshop pubblico o (1) via email a NYPART150@panynj.gov o (2) per posta alla Port Authority al seguente indirizzo:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Estudio del Título 14 del Código de Regulaciones Federales Parte 150 del Aeropuerto LaGuardia

¿Qué es un Estudio CFR 14 Parte 150?

La Administración Federal de Aviación (FAA, por sus siglas en inglés) emitió el Título 14 del Código de Regulaciones Federales (CFR, por sus siglas en inglés) Parte 150 como regla final en enero de 1985. 14 CFR Parte 150 establece los métodos y procedimientos que se deben seguir al preparar mapas de exposición al ruido de aviones y desarrollar programas de compatibilidad para el uso de suelo de aeropuertos/cercano a los aeropuertos.

Por lo general, los estudios de 14 CFR Parte 150 consisten de dos componentes principales: (1) el informe del Mapa de Exposición al Ruido (NEM, por sus siglas en inglés), que contiene información detallada referente a los patrones de exposición al ruido de aeropuertos/aviones existentes y de 5 años futuros, y (2) el Programa de Compatibilidad de Ruido (NCP, por sus siglas en inglés), que incluye descripciones y una evaluación de opciones/programas de abatimiento y mitigación del ruido correspondientes a un aeropuerto.

¿Se ha preparado un Estudio 14 CFR Parte 150 para el Aeropuerto LaGuardia (LGA, por sus siglas en inglés)?

Aunque la Autoridad Portuaria de Nueva York y Nueva Jersey tiene una larga historia de lidiar con la exposición al ruido de operaciones de aviación en LGA, éste es el primer Estudio 14 CFR Parte 150 para LGA. La Autoridad Portuaria está preparando estudios 14 CFR Parte 150 para el Aeropuerto Internacional John F. Kennedy (JFK), el Aeropuerto Internacional Liberty de Newark y el Aeropuerto Teterboro concurrentes con el estudio 14 CFR Parte 150 de LGA.

¿Por qué lleva a cabo la Autoridad Portuaria un Estudio 14 CFR Parte 150 para LGA?

En respuesta a crecientes inquietudes de la comunidad sobre el ruido de aviones, el Gobernador Cuomo ordenó a la Autoridad Portuaria llevar a cabo Estudios 14 CFR Parte 150 para JFK y LGA. El Gobernador Cuomo indicó a la Autoridad Portuaria abrir un diálogo completo con las comunidades afectadas mientras se realiza un estudio del ruido para lidiar mejor con el asunto. Thomas Bosco, Director de Aviación de la Autoridad Portuaria dijo: “La Autoridad Portuaria lo entiende y debe esforzarse por ser un buen vecino de las comunidades donde están ubicados los aeropuertos”. Añadió, “Buscaremos la mitigación del ruido con la FAA donde sea factible”.

El Estudio 14 CFR Parte 150 para LGA identificará las áreas que no son compatibles con niveles significativos de exposición al ruido de aviones y recomendará medidas para mitigar los efectos del ruido de aviones hasta el mayor punto factible.

¿Qué producirá la Autoridad Portuaria durante el Estudio 14 CFR Parte 150 de LGA?

El Estudio 14 CFR Parte 150 se debe preparar en conformidad con los lineamientos provistos en las regulaciones 14 CFR Parte 150. La FAA ha preparado listas de verificación para el NEM y NCP, las cuales se deben seguir para asegurar el cumplimiento con 14 CFR Parte 150. Como parte del Estudio 14 CFR Parte 150 de LGA, la Autoridad Portuaria y su consultor cuantificarán los niveles de exposición al ruido de aviones existentes (2016) y futuros (2021) en la cercanía de LGA. Asimismo, la Autoridad Portuaria desarrollará documentación de apoyo explicando el proceso seguido para calcular los niveles de exposición al ruido de aviones existentes y futuros. El Informe del NEM de LGA proveerá a la Autoridad Portuaria un conjunto de NEM que identifiquen áreas expuestas al ruido de aviones con un nivel de sonido promedio de día y noche (DNL, por sus siglas en inglés) de 65 decibeles (dB) y más. Los NEM se presentarán a la FAA para su revisión y aceptación. Se crearán mapas adicionales únicamente para propósitos informativos a fin de indicar los contornos existentes y futuros de DNL de 55 dB. Estos mapas no se incluirán en la presentación formal del NEM a la FAA.

Después de que se completen los NEM de LGA, la Autoridad Portuaria y sus consultores examinarán las posibles medidas para reducir al mínimo el efecto del ruido de LGA. La Autoridad Portuaria considerará una variedad de medidas factibles de mitigación, incluyendo medidas operativas, remediadoras, preventivas y administrativas. Las medidas que provean el mayor potencial para minimizar los efectos del ruido de operaciones de aviación en LGA se enviarán a la FAA para su revisión y aprobación. Ciertas medidas podrán requerir la implementación de fondos de la FAA (por ejemplo, aislamiento de sonido). Sólo las medidas aprobadas por la FAA serán elegibles para fondos federales.

¿Cuánto tardará en completarse el Estudio 14 CFR Parte 150 de LGA?

La duración de los Estudios 14 CFR Parte 150 varía dependiendo de un número de factores, entre ellos: la complejidad de las operaciones del aeropuerto y del espacio aéreo local, la disponibilidad de datos, el proceso de alcance del público y los períodos de revisión de la agencia. La duración estimada del Estudio 14 CFR Parte 150 de LGA es aproximadamente de tres a cuatro años. La Autoridad Portuaria está comprometida en dedicar el tiempo necesario para proveer a la FAA con NEM y un NCP para LGA que cumplan con los requisitos de 14 CFR Parte 150.

¿Dónde puedo obtener más información?

Información general, informes del proyecto y materiales de talleres públicos, incluyendo presentaciones, se subirán a la página Web: <http://www.panynj.gov/airports/aircraft-noise-information.html>, conforme estén disponibles.

¿Cómo puedo participar?

14 CFR Parte 150 anima la participación de los ciudadanos y agencias públicas. La Autoridad Portuaria organizará varios talleres informativos públicos durante el proceso del Estudio 14 CFR Parte 150. Este taller informativo público se lleva a cabo para introducir el Estudio 14 CFR Parte 150 de LGA. Anticipamos que el segundo taller informativo público se llevará a cabo la próxima primavera para presentar los hallazgos del estudio.

A la Autoridad Portuaria le interesa escuchar su opinión si le preocupa el ruido de las aeronaves. Para presentar una queja de ruido de aviones, comuníquese a la línea telefónica para quejas de ruido de aeropuertos al 1-800-225-1071. Puede presentar sus comentarios referentes al Estudio 14 CFR Parte 150 de LGA en el taller público o (1) por vía electrónica a NYPART150@panynj.gov o (2) por correo dirigiéndose a siguiente dirección de la Autoridad Portuaria:

14 CFR Part 150 Study
Attn: New York Part 150 Project Manager
Aviation Department
The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10006

Public Information Workshop
Presentation Boards
(October 29, 2015)

Welcome!

LaGuardia Airport
Title 14 Code of Federal Regulations Part 150 Study
Public Information Workshop

Nassau County Community College

October 29, 2015

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- **Why conduct a 14 CFR Part 150 noise study?**
 - Determine existing and future noise conditions in the vicinity of an airport
 - Evaluate the feasibility of possible flight procedure/land use changes
 - Educate communities on the Federal process and what **can and cannot** be done to address aircraft noise concerns
 - Submit locally-endorsed recommendations to the FAA regarding noise reduction measures
- **14 CFR Part 150 studies are voluntary**
- **14 CFR Part 150 studies must adhere to 14 CFR Part 150 guidelines to be considered and accepted by the FAA**

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- Table 1 in Appendix A of 14 CFR Part 150 provides noise and land use compatibility guidelines
- Deems levels below 65 dB DNL to be compatible with all land uses
- Allows for the adoption of appropriate local land use standards for land use compatibility planning purposes

ESA Study Team

2

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

**Table 1 – 14 CFR Part 150
Land Use Compatibility
Guidelines**

Land Use	Yearly Day-Night Noise Level (DNL) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and	Y	N(1)	N(1)	N	N	N
transient lodgings	Y	N	N	N	N	N
Mobile home parks	Y	N(1)	N(1)	N	N	N
Transient lodgings	Y	N(1)	N(1)	N	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Quadrant services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail building materials,	Y	Y	Y(2)	Y(3)	Y(4)	N
hardware and farm equipment	Y	Y	25	30	N	N
Retail trade-generat	Y	Y	Y(2)	Y(3)	Y(4)	N
Offices	Y	Y	25	30	N	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock and forestry)	Y	Y(5)	Y(5)	Y(5)	Y(5)	N
Livestock farming and breeding	Y	Y(5)	Y(5)	N	N	N
Mining and mining resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music, shell, and fireworks	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusement parks, resorts and camps	Y	Y	N	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

* The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under the Federal Aviation Act of 1958. The responsibility for determining the acceptability of particular uses and for establishing minimum specific property and specific noise contours rests with the local authorities. FAA Subpart 150.100 is not intended to supersede Federal property determination and is not intended to be applied to local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table 1

Y/LUCM Standard Land Use Coding Manual.
Y/Yes
N/No
N/A Not Applicable
25, 30 or 35 Land use and related structures generally compatible measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Notes

(1) Where the community determines that residential or school uses must be allowed measures to achieve NLR of 65 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or live. Noise sensitive areas for which the normal noise level is less than 65 dB.

(2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or live. Noise sensitive areas for which the normal noise level is less than 25 dB.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is required to work or live. Noise sensitive areas for which the normal noise level is less than 30 dB.

(4) Land use compatible measures that provide sound-reducing systems are required.

(5) Residential buildings require an NLR of 25.

(6) Residential buildings require an NLR of 30.

(7) Residential buildings not permitted.

ESA Study Team

3

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- A noise set-aside of the Airport Improvement Program (AIP) funding has been established to fund local noise mitigation programs and planning
- Airport sponsors (e.g., the Port Authority) are also permitted to fund noise mitigation programs with the proceeds from Passenger Facility Charges (PFCs)
- Unlike AIP grants, airport proprietors may use PFC funds for noise mitigation without an FAA-approved Part 150 NCP, as long as the airport's noise exposure maps have been prepared under the procedures specified in 14 CFR Part 150

ESA Study Team

4

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- Total airports participating in the program: 275*
- Total Airport Improvement Program Funds (FY 2013)
 - For preparing FAR Part 150 Studies: \$107,481,763
 - For FAR Part 150 implementation: \$5,913,081,104
- Total Passenger Facility Charge Funds (FY 2013)
 - For preparing FAR Part 150 Studies: \$12,499,788
 - For FAR Part 150 implementation: \$3,417,815,896

* Figure does not include airports operated by the Port Authority

Source: http://www.faa.gov/airports/environmental/airport_noise/part_150/funding/

ESA Study Team

5

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

14 CFR Part 150 Terminology

- **Noise Exposure Contours**
 - A noise exposure contour identifies areas of equal noise exposure around an airport. Noise exposure contours are similar to contours on topographic maps which show areas of equal elevation
- **Noise Exposure Maps**
 - A noise exposure map is a map showing noise exposure contour lines (or footprints) which identify areas of specific noise levels around an airport. NEMs also include a graphic depiction of geographical features and land uses that surround an airport
- **Noise Compatibility Programs**
 - A noise compatibility program report includes descriptions and a detailed evaluation of noise abatement and noise mitigation options applicable to an airport

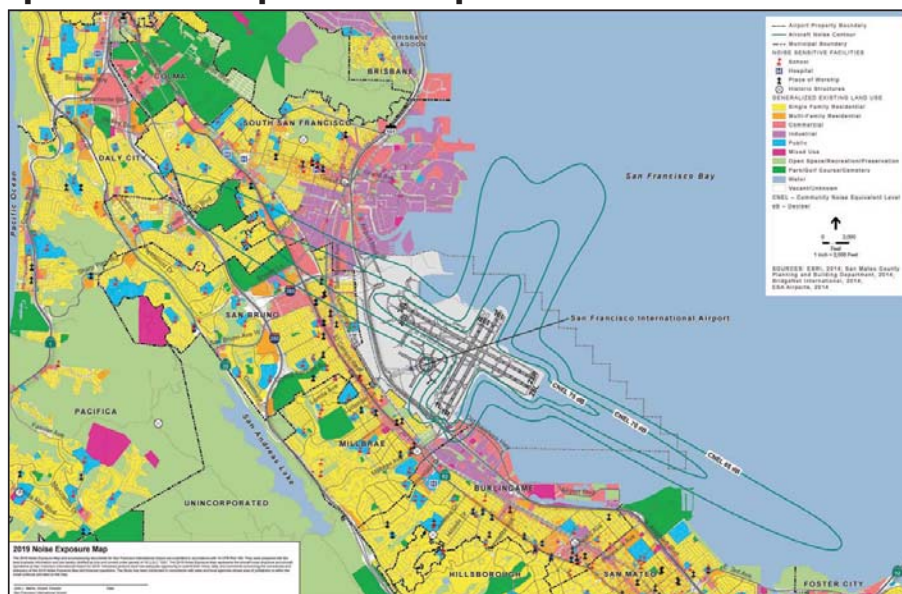
ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Sample Noise Exposure Map



ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

14 CFR Part 150 Terminology

- **Noise Abatement Options** are intended to reduce actual aircraft noise levels in noise-sensitive areas by either reducing aircraft noise at the source by using quieter aircraft, shielding noise sensitive areas, or by instituting operational measures, such as changes in aircraft flight tracks or in approach or departure flight profiles
- **Noise Mitigation Options** are intended to reduce the effects of aircraft noise on the receiver. Noise mitigation strategies may include outright property acquisition, acoustical treatment/soundproofing programs, purchase of avigation easements, and land use control measures

LaGuardia Airport 14 CFR Part 150 Study

Regulatory Framework

- **Federal law** sets aircraft noise standards, prescribes operating rules, establishes the compatibility planning process, and limits the airport proprietor's ability to restrict aircraft operations
- **State law** sets forth compatibility planning guidelines and noise standards but aircraft are exempt
- **Local noise ordinances** set noise standards and provide for compatible land use planning but aircraft are exempt

FEDERAL LAW PREEMPTS STATE AND LOCAL REGULATIONS

LaGuardia Airport 14 CFR Part 150 Study

Who Can Regulate Airport Noise?

- **Federal Aviation Administration**
 - Controls aircraft while in flight
 - Responsible for controlling noise at its source (i.e., aircraft engines)
 - Certifies aircraft and pilots
- **Airport Proprietors/The Port Authority**
 - Very limited authority to adopt local restrictions
 - Responsible for capital improvement projects and infrastructure
- **Local Governments and States**
 - Promote compatible land use through zoning
 - Require real estate disclosure
 - Mandate sound-insulating building materials

LaGuardia Airport 14 CFR Part 150 Study

Roles and Responsibilities

- **Three core organizations involved in aircraft operations at LGA**
 - Federal Aviation Administration (FAA)
 - Directs the safe movement of aircraft in the air and on the ground
 - The Port Authority
 - Manages the airport, improves and maintains airport facilities
 - Has no control over where aircraft fly
 - Pilots
 - Pilot in command has ultimate responsibility for the safe operation of his/her aircraft

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The Port Authority of New York & New Jersey (Port Authority) has initiated a Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Study for LaGuardia Airport (LGA)
- Environmental Science Associates (ESA) has been selected by the Port Authority to prepare the LGA 14 CFR Part 150 Study report
- The Port Authority anticipates submitting noise exposure maps (NEMs) for LGA to the Federal Aviation Administration (FAA) in the Fall of 2016
- The Port Authority anticipates submitting a noise compatibility program (NCP) for LGA to the FAA in the Spring of 2018

ESA Study Team

12

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The Port Authority has embarked on its first ever 14 CFR Part 150 Studies for its airports in New York and New Jersey
- An airport's future year noise exposure map is typically used to determine eligibility for federal funding of noise mitigation programs
- In partnership with the FAA, the Port Authority is currently implementing aircraft noise abatement programs and numerous noise mitigation programs, including school soundproofing, relying on information from the Aircraft Noise and Operations Management System (ANOMS)

ESA Study Team

13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The NEM and NCP reports must be prepared in accordance with the guidance provided in 14 CFR Part 150
- 14 CFR Part 150 includes detailed guidance and a checklist of the items that must be included in the 14 CFR Part 150 NEM and NCP reports
- The NEM report must include aircraft noise exposure contours for the year of submission and a future year (typically five years in the future)
 - The ESA Study Team will produce NEMs for 2016 and 2021

ESA Study Team

14

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The ESA Study Team will develop an aircraft operations and fleet mix forecast for FAA's review and approval
- The ESA Study Team will consider completed and ongoing planning and environmental studies to ensure noise modeling assumptions are reflective of existing conditions and anticipated conditions in 2021
 - Runway safety area improvements and central terminal building
- The 2021 NEM must be based on "reasonably foreseeable" assumptions regarding future operations at LGA

ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Study Area



ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Airport Layout Plan



ESA Study Team

17

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Existing Airport Facilities



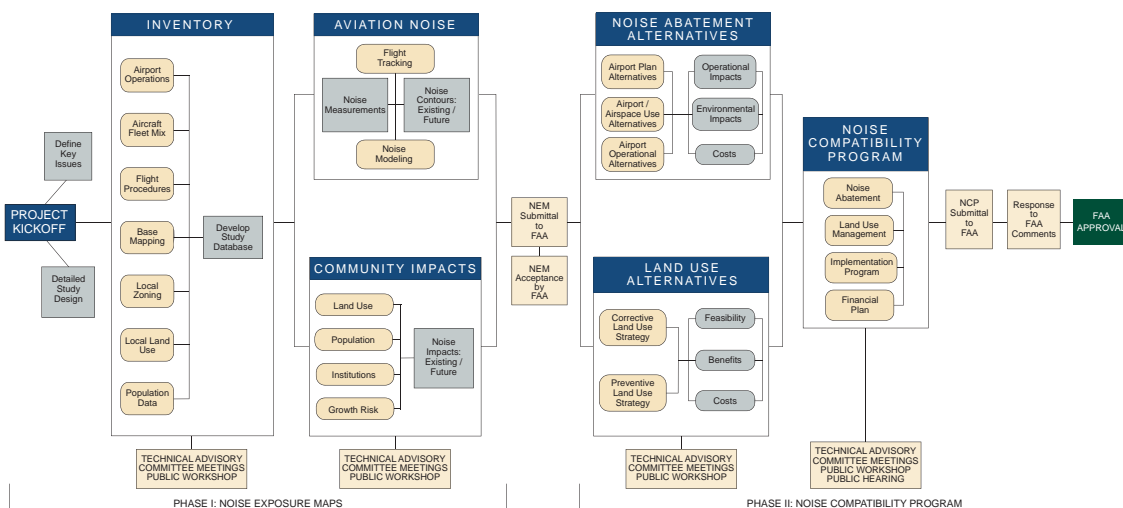
ESA Study Team

18

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Generalized 14 CFR Part 150 Study Process



ESA Study Team

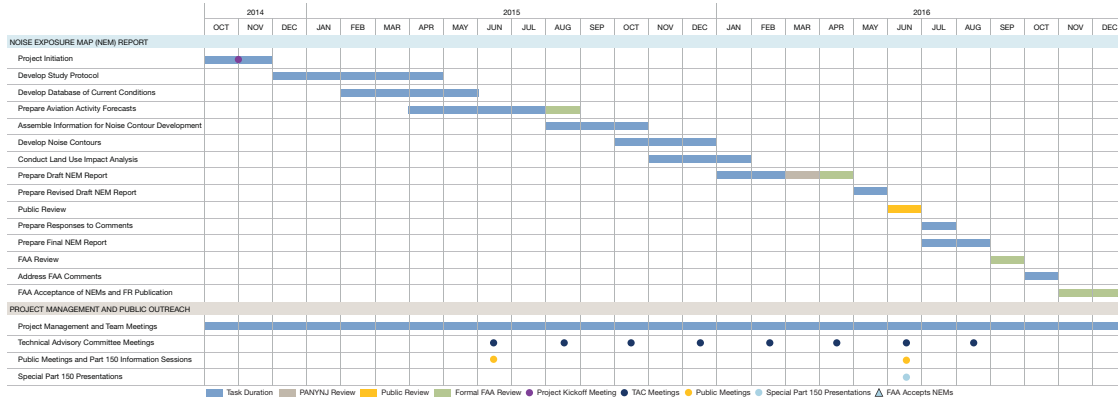
19

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Exposure Map Report
14 CFR FAR Part 150 Study for LaGuardia Airport
Updated: June 3, 2015



ESA Study Team

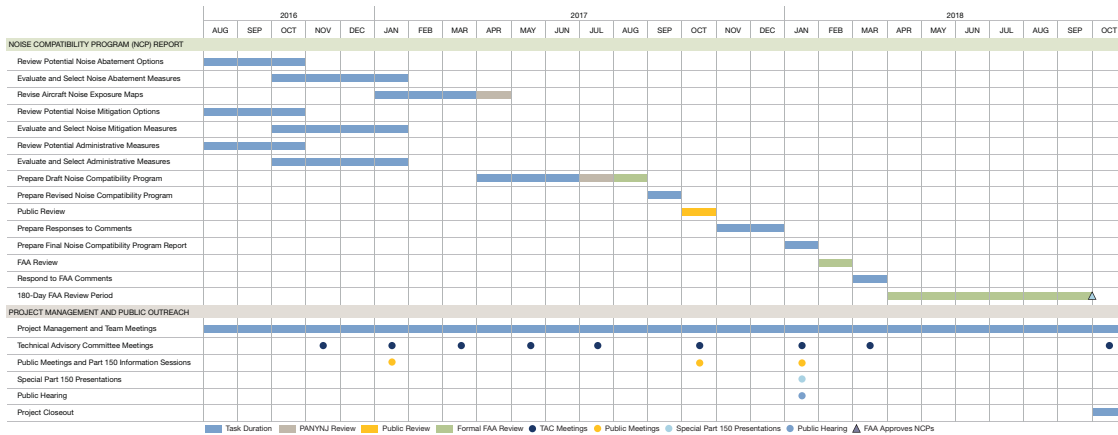
20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Compatibility Program Report
14 CFR Part 150 Study for LaGuardia Airport
Updated: June 3, 2015



ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

- 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)
- Noise occurring between 10 p.m. and 7 a.m. is penalized by 10 dB
- Penalty was selected to account for the higher sensitivity to noise during nighttime hours
- Penalty also accounts for the expected further decrease in background levels that typically occur in the nighttime
- FAA specifies use of DNL for airport noise assessment

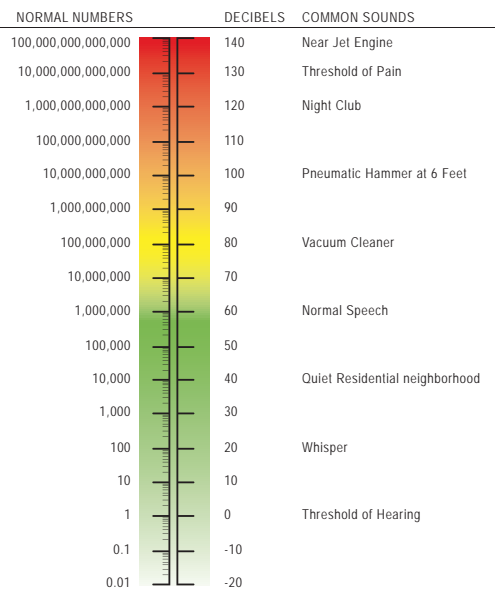
LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

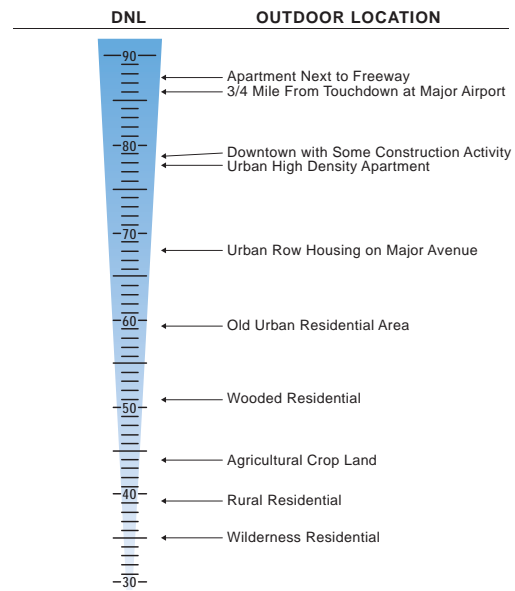
- **Annual Cumulative Aircraft Event Noise**
- **The Amount of Noise Exposure is determined by:**
Aircraft types
 - Number of average annual day operations
 - Nighttime weighting (1 nighttime operation = 10 daytime operations)
- **The Noise Exposure Distribution is determined by:**
 - Runway configuration and use
 - Flight track locations
 - Flight track use
- **Average annual day aircraft noise exposure is calculated over a broad area and then depicted using contour lines of equal noise levels**

LaGuardia Airport 14 CFR Part 150 Study

The Decibel Scale



Sample DNL Values



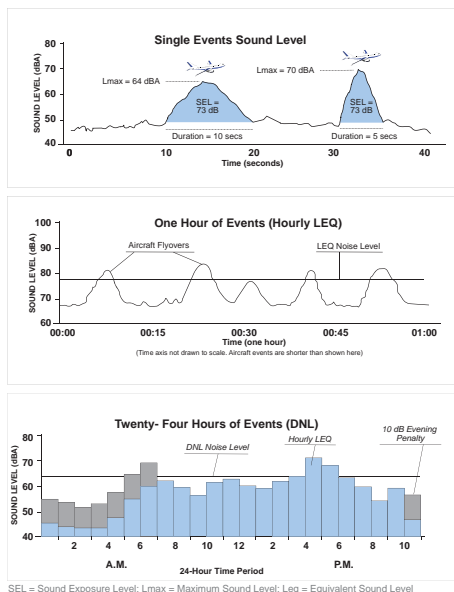
ESA Study Team

24

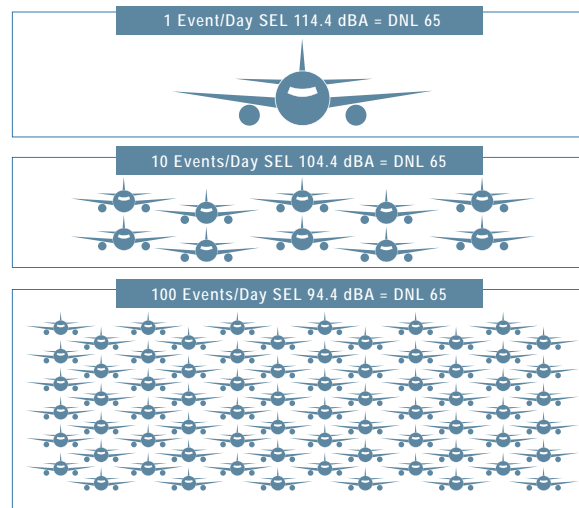
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Aircraft Noise Levels



IDENTICAL DNL LEVELS



ESA Study Team

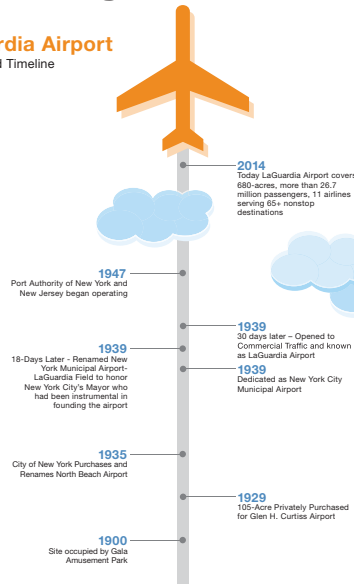
25

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Facts and Figures

LaGuardia Airport Summarized Timeline

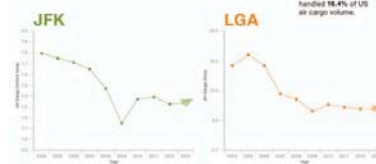


Source: Port Authority of New York and New Jersey, 2015

Commercial and Non-Commercial Aircraft Movements

JFK 2014: 431,236
LGA 2014: 370,012

Air cargo levels over recent years



ESA Study Team

26

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Community

The Port Authority has long taken an active role in the communities it serves. In 1983, the Port Authority first made a commitment to ensure that students in schools close to its airports always have a quiet learning environment. That commitment continues today with the soundproofing work the Port Authority has done in 77 schools around its airports. This includes 45 schools that are impacted by JFK and LaGuardia and 32 impacted by Newark Liberty and Teterboro.

Source: www.panynj.gov

Additional Community Efforts

Soundproofing schools surrounding LaGuardia, Newark Liberty, JFK and Teterboro

Making roadway improvements at Newark Liberty International

Rehabilitating the Van Wyck Expressway leading to JFK

Repairing air terminal highways at LaGuardia

ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

School Sound Proofing Program – LGA

Key#	School	City
1	IS 52X	Bronx
2	Our Lady of Fatima	Jackson Heights
3	PS 120Q	Flushing
4	PS 143Q	Corona
5	PS 161X	Bronx
6	PS 165Q	Flushing
7	PS 219Q	Flushing
8	PS 62X	Bronx
9	St. Ann	Flushing
10	St. Sebastian	Woodside
11	College of Aeronautics (Vaughn)	Flushing
12	John Bowne HS	Flushing
13	Lexington School for Deaf	Jackson Heights
14	Msgr. McClancy Memorial HS	East Elmhurst
15	PS 146B	Bronx
16	PS 5X	Bronx
17	Samuel Gompers Vocat. School	Bronx
18	St. Anselm	Bronx
19	St. Athanasius	Bronx
20	St. Michael	Flushing
21	St. Pius V (Elementary)	Bronx

ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Port Authority of New York and New Jersey

Port of New York/New Jersey

1921

Founded in 1921, the Port Authority of New York and New Jersey builds, operates, and maintains many of the most important transportation and trade infrastructure assets in the country.

+\$23 billion
in annual wages

\$80 billion in regional economic activity



By 2030, the number of passengers using our airports annually will soar to 150 million. To prepare, the Port Authority's 2012 capital investment in its airports exceeded \$300 million with \$900 million of capital projects in the pipeline.

The Port Authority of NY & NJ
2012 Annual Report

The Port Authority is a linchpin in the regional economy, annually moving millions of people, and millions of tons of cargo on its network of aviation, rail, surface transportation, and seaport facilities. Port Authority airports handled 10% of the US aviation passenger traffic and 16.4% of US air cargo volume.

The Port Authority of NY & NJ
2014 Budget



Supports more than

550,000



regional jobs

ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Contacts and Website

- **Port Authority of New York and New Jersey**
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- **ESA Study Team**
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- **Website:**
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- **E-Mail:** NYPart150@panynj.gov

ESA Study Team

30

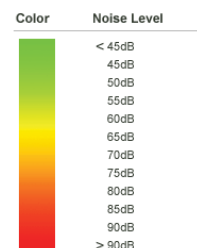
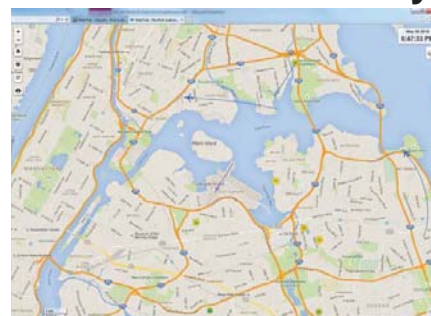
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

WebTrak – Flight Tracking and Noise Information System

- WebTrak displays air traffic patterns within the New York Metropolitan area
- Specific information regarding flights at LaGuardia Airport (LGA) including aircraft type, altitude, and operation type (arrival or departure)
- Noise levels at noise monitors located near LGA are shown in WebTrak and represent the actual sound level at those locations at a specific time

<https://www.panynj.gov/airports/webtrak.html>



ESA Study Team

31

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

K-116

LGA Technical Advisory Committee Membership

Port Authority of New York & New Jersey	Federal Aviation Administration
NY Airport Community Roundtable (NYACR)	NY Airport Liaison
Delta Airlines	United Airlines
Shelt Air	Market Place Development
Aviation Development Council	NYC Economic Development Corp
Queens Chamber of Commerce	Queens Borough President
Town of Hempstead	Town of North Hempstead
NYC Department of City Planning	Nassau County Planning
QuietSkies.net	NYC Department of Environmental Protection
NYC and Company	Town of North Hempstead (Planning)

Appendix K-3
Public Information Workshop
September 29, 2016

Public Information Workshop
Meeting Notice and
Sign-In Sheets
(September 29, 2016)

NOTICES

Legal Notices

Legal Notices

Legal Notices

THE PORT AUTHORITY OF NY & NJ

NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT

NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)

Airport Noise Compatibility Study for LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:

The Port Authority of NY & NJ
LaGuardia Airport
Hangar 7 Center, 3rd Floor
Flushing, NY 11371
Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)

LOCATION 2:

Flushing Branch –
Queens Library
41-17 Main Street
Flushing, NY 11355

LOCATION 3:

Jackson Heights Branch –
Queens Library
35-51 81 Street
Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016

TIME: 6:00 P.M. to 9:00 P.M.

LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369
Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

A Wild Pursuit LLC Arts of Org. filed with Sec. of State of NY (SSNY) on 8/16/16. Office: Queens County. SSNY design agent of LLC upon whom process may be served & mail to 30-38 30th St #3L Astoria, NY 11102. General Purpose.

Blissfully tech LLC Authority filed SSNY 5/12/16. Office: Queens Co. LLC formed MA 12/16 exists Rubin & Rudman LLP 30 rows wharf Boston MA 02110. SSNY design agent upon whom process against the LLC may be served & mail to 4615 Center Blvd. #1005 NY NY 11109. Cert of Realis Filed MA Sec. of Commerce. State House #116 Boston MA 02133. General Purpose.

Byrne Group, LLC Arts of Org. filed SSNY 7/31/16. Office: Queens Co. SSNY design agent of LLC upon whom process may be served & mail to Angela Byrne 454 Center Blvd #701 Long Island City, NY 11109. General Purpose.

CONO HOLDINGS LLC Art. of Org. filed with the SSNY on 09/01/16. Office: Queens County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, c/o Paul Savino, 161 W 29th Avenue, Suite 1, Flushing, NY 11358-1049. Purpose: Any lawful purpose.

Decico Real Estate LLC Arts of Org. filed SSNY 11/17/15. Office: Richmond Co. SSNY design agent of LLC upon whom process may be served & mail to 259 Liberty Ave Staten Island, NY 10305. General Purpose.

FARMACY NYC, LLC Art. of Org. filed with the SSNY on 08/02/16. Office: Queens County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, c/o Van Leer & Greenberg, Esqs., 132 Nassau Street, Suite 219, New York, NY 10038. Purpose: Any lawful purpose.

FuYu Holdings LLC Art. of Org.

KEPA Enterprise LLC Arts of Org. filed with NY Sec of State (SSNY) on 5/13/16. Office: Queens County. SSNY designated as agent of LLC upon whom process may be served. SSNY shall mail process to: 163-07 Depot Rd, #101, Flushing, NY 11358. General Purposes.

Listingmole LLC Arts of Org. filed SSNY 7/7/16. Office: Richmond Co. SSNY design agent of LLC upon whom process may be served & mail to 80 Wentworth Ave Staten Island, NY 10305. General Purpose.

Mister Zero, LLC, a domestic LLC, filed with the SSNY on 7/27/16. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to the LLC, 62-14 Chevy Chase St., Jamaica, NY 11432. General purpose.

Moonwalker II LLC, a domestic LLC, filed with the SSNY on 8/25/16. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to the LLC, 78-67 75th St., Apt. 1R, Glendale, NY 11385. General purpose.

MVP WORKFORCE, LLC Articles of Org. filed NY Sec. of State (SSNY) 8/16. Office in Queens Co. SSNY design agent of LLC upon whom process may be served. SSNY shall mail copy of process to Registered Agent: C/O Corporate Creations Network Inc. 15 N Mill Street Nyack, NY 10960. Purpose: Any lawful activity.

Name of LLC: North Cudjoe Bay LLC Arts of Org. filed with NY Dept. of State on 7/29/16. Office location: Queens County. Sec. of State designated as agent of LLC upon whom process against it may be served and shall mail process to: c/o JRC Management LLC, 93-54 Queens Blvd., Rego Park, NY 11374. Purpose: any lawful act.

Notice of formation of DGOFOOD LLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 05/11/2016. Office located in Queens County. SSNY has been

Notice is hereby given that license number 1293782 for Liquor has been applied for by the undersigned to sell Liquor at retail in a restaurant under the Alcoholic Beverage Control law at 2102 Ulica Ave., Brooklyn, NY 11234, for On-Premises Consumption. 2102 Ulica Ave., Brooklyn, NY 11234. Behtylul, Inc.

Notice of formation of LUNG HING HOLDINGS LLC Arts of Org. filed with Sec. of State of NY (SSNY) on 9/1/16. Office location: Queens County. SSNY designated as agent upon whom process may be served and shall mail copy of process against LLC to: 43-58 167th St., Flushing, NY 11358. Purpose: any lawful act.

Notice of Formation of 86-57 Midland Parkway LLC Arts of Org. filed with Sec. of State of NY (SSNY) on 1/4/16. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: Roy Moussalet, 184-25 Aberdeen Road, Jamaica, NY 11432. Purpose: any lawful activity.

Notice of Formation of Blue Gold Equities LLC Arts of Org. filed with New York Secy of State (SSNY) on 7/26/16. Office location: Queens County. SSNY is designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 509 Cedarhill Rd, Far Rockaway, NY 11691. Purpose: any lawful activity.

Notice of formation of SIG VENTURES LLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 08/01/2016. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC at: 133 Beach 120th Street, Suite B-2, Rockaway Park, NY 11694. Purpose: Any lawful activity or purpose.

Notice of formation of E CAPITAL FUNDING LLC Art. Of Org. filed with the Sec'y of State of NY (SSNY) on 05/31/16. Office in Queens County. SSNY has been designated

Legal Notices

Legal Notices

Legal Notices

REQUEST FOR PROPOSALS

FOR THE DEVELOPMENT, OPERATION, AND MAINTENANCE OF A CAFE AT CADMAN PLAZA PARK, LOCATED AT TILLARY STREET AND CADMAN PLAZA WEST, BROOKLYN

The New York City Department of Parks and Recreation ("Parks") is issuing, as of the date of this notice, a significant Request for Proposals ("RFP") for the development, operation, and maintenance of a cafe at Cadman Plaza Park, located at Tillary Street and Cadman Plaza West, Brooklyn.

All proposals submitted in response to this RFP must be submitted no later than Thursday, November 3, 2016 at 3:00 p.m. There will be a recommended site visit on Thursday, October 6, 2016 at 1:00 p.m. We will be meeting at the proposed concession site, which is located at Tillary Street and Cadman Plaza West, Brooklyn. We will be meeting in front of the entrance to the park building at Cadman Plaza West. If you are considering responding to this RFP, please make every effort to attend this recommended site visit.

Hard copies of the RFP can be obtained, at no cost, commencing on September 19, 2016 through November 3, 2016, between the hours of 9:00 a.m. and 5:00 p.m., excluding weekends and holidays, at the Revenue Division of the New York City Department of Parks and Recreation, which is located at 830 Fifth Avenue, Room 407, New York, NY 10065.

The RFP is also available for download, commencing on September 19, 2016 through November 3, 2016, on Parks' website. To download the RFP, visit www.nyc.gov/parks/businessopportunities, click on the link for "Concessions Opportunities at Parks" and, after logging in, click on the "download" link that appears adjacent to the RFP's description.

For more information or to request to receive a copy of the RFP by mail, prospective proposers may contact Phil Abramson, Director of Revenue Communications, at (212) 360-3426 or at phil.abramson@parks.nyc.gov.

TELECOMMUNICATION DEVICE FOR THE DEAF (TDD)
212-504-4115

Notice of formation of TREE BRANCH LLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 08/08/2016. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC to the LLC, 9030 185th Street, Fl. 2, Hollis, NY 11423. Purpose: Any lawful activity or purpose.

Tradeweb Luxury, LLC, a domestic LLC, filed with the SSNY on 8/16/16. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to Ronny Yakov, Attn: David Alouch, 1623 Third Ave., Apt. 31G, NY, NY 10128-3623. General purpose.

Classified Ad

Fall Sale

PETS NOW \$118

Your 4-line ad runs in the paper 10 days or 3 days (within a 7 day period) with a 1.5" photo - PLUS an additional 30 days online at NYDailyNews.com.

Additional lines are only \$1.50 per line per day. Offer good through December 20.

Reach
3.7 million readers
in print and online!

Call (212) 210-2111

*PRIVATE PARTIES ONLY.

All private party rates are subject to Daily News rules and regulations. Call your Daily News classified sales representative for details. No refunds for early cancellation.

Source: Nielsen/Scarborough Research, New York Market, 12 months ending 2016 r1

*5 Daily/1 Sunday + 30 days online



Notice of formation of BLUE SEA REALTY LLC Arts of Org. filed with Sec. of State of NY (SSNY) on 8/8/16. Office location: Queens County. SSNY designated as agent upon whom process may be served and shall mail copy of process against LLC to: 56-18 Cloverdale Blvd., 3rd Fl., Bayside, NY 11364. Purpose: any lawful act.

Notice of Formation of TellRoad Management LLC Arts of Org. filed with New York Secy of State (SSNY) on 7/11/16. Office location: Queens County. SSNY is designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 1018 Northern Blvd, Ste 400, Great Neck, NY 11021. Purpose: any lawful activity.

Notice of Formation of 2405 Assoc LLC Arts of Org. filed with Secy. of State of NY (SSNY) on 7/27/16. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: c/o East Hills Property Group, Ltd., 71-25 Austin Street, Forest Hills, NY 11375. Purpose: any lawful activity.

Notice of Formation of 736 Pennsylvania Avenue LLC Arts of Org. filed with Sec. of State of NY (SSNY) on 8/8/16. Office location: Queens County. SSNY designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: The LLC, 184-25 Aberdeen Road, Jamaica, NY 11432. Purpose: any lawful activity.

Notice of Formation of Amsterdam Ave. Market, LLC Arts of Org. filed with New York Secy of State (SSNY) on 1/27/11. Office location: Queens County. SSNY is designated as agent of LLC upon whom process against it may be served. SSNY shall mail process to: 369 Cedarhill Rd, Far Rockaway, NY 11691. Purpose: any lawful activity.

Notice of formation of PRODUCE HOUSING LLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 07/25/2016. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC to: 116-22 Park Lane South, Queens NY 11418. Purpose: Any lawful activity or purpose.

Notice of formation of PARKER LAW, PLLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 07/25/2016. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC at: the LLC, 37-31 71 Street, Apt. 9J, Jackson Heights, NY 11372. Purpose: Any lawful activity or purpose.

Notice of formation of FLOWMANIFEST LLC Articles of Org. filed with the Secretary of State of New York (SSNY) on 06/16/2016. Exist Date: 06/17/2016. Office located in Queens County. SSNY has been designated for service of process. SSNY shall mail copy of any process served against the LLC c/o: Nicolette Monte, 42 Duncan Road, Staten Island, NY 10301. Purpose: Any lawful activity or purpose.

Parc Vendome SMN LLC Filed with SSNY on 8/19/16. Office: Queens County. SSNY designated as agent for process and shall mail to: 43-22 49th St D3 Sunnyside NY 11104. Purpose: any lawful

RKP Media LLC, a domestic LLC, filed with the SSNY on 8/4/16. Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail process to: The LLC, 95-22 63rd Rd., c/o 434 Rego Park, NY 11374. General purpose.

STJ G3 PHIN, LLC Articles of Org. filed NY Sec. of State (SSNY) 8/27/16. Office in Queens Co. SSNY design agent of LLC upon whom process may be served. SSNY shall mail copy of process to The LLC 164-01 Jamaica Ave Jamaica, NY 11432. Purpose: Any lawful activity.

STONE FLOWER GROUP LLC, a domestic Limited Liability Company (LLC), filed with the Sec of State of NY on 08/04/2016. NY Office location: Queens County. SSNY is designated as agent upon whom process against the LLC may be served. SSNY shall mail a copy of any process against the LLC served upon him/her to: THE LLC 196-30 67TH AVE STE 2, FRESH MEADOWS, NY 11365. General Purposes

The Wall Street Grunge, L.L.C. Arts of Org. filed SSNY 8/7/16. Office: Queens Co. SSNY design agent of LLC upon whom process may be served & mail to 6729 Kissena Blvd Apt 4 C Flushing, NY 11367. General Purpose.

Win Chip Solutions LLC, a domestic LLC, filed with the SSNY on 8/16.

Μικρές Αγγελίες

ΕΘΝΙΚΟΣ ΚΗΡΥΞ ΠΕΜΠΤΗ 28 ΣΕΠΤΕΜΒΡΙΟΥ 2016

ΥΠΟΛΛΗΛΟΙ

εμπειρία για γρα-
copy filling και data
input/output σε λογ-
ισμικό ASTORIA. Θα
ζητ. την Κούλα ή
φωτό στο email
ico.com

118549/7464/9-28

Company located
JUEENS is seeking
a general office
all organized, kno-
wledges a plus. Flexi-
ble working mod. Call:
I ask for Taki or
and resume to:
cabinetry.com
118548/1698/9-28

CEPER, όριση, πε-
λά ελάνκη, ένα κα-
τά το παιδί και α-
εργασίες σε ελα-
στικές οικογένειες
ID. Στο καθήκον
γερμανικά και η φρον-
τιστική οικογένεια
(879-4411.
118546/17913/9-28

ΙΟΥ/ΟΙΚΟΝΟΜΟΣ
κατασκευάζει
οικογένεια στο
καθίσκοντα της
είδα και η περι-
10 ετών. Αμεση
(646) 634-2783.
118544/20122/10-4

ON/PHONE πεπει-
στη αποδοκίμασε
σε ότι του FLUSHING.
3888 και ζητήσει

118545/17530/9-27

πειρία, MANAGER /
or COUNTERMAN
α πώληση αποδο-
κίμασε γνώσεις con-
nection certificate
τη στο RICHMOND
πε δευτέρα με Πας-
(849-6673 και ζή-
1 τον John.
118543/116/9-27

Company located in
experienced
Service Division/
Must have knowl-
edge, Word, Excel, Out-
look, Spreadsheets
and fax resume
17.
118542/7588/9-27

NE COOKS και
πεπειραμένοι για
NG, NEW JERSEY.
ίς για τους κατά-
λογους. Οι σερ-
βίς τηλεφωνήστε:
118540/10258/9-26

For banquette fa-
tion, NEW YORK.
or (845) 206-7193
or Γιάβνη.
118537/2015/9-30

Ιρανή για πωλη-
τή ΕΡΕΒΕΤΟΠΟΛΕΥ,
ΠΑΤΑΖ, για πώληση
Diner, Τηλ.: (845)
(564-9040 και ζή-
118539/20119/9-24

NER, με νέους ιδιο-
ΗΠΑ/ΤΑΝ. Ζητά για
την GRILLMAN,
ON και ΕΡΕΒΕΤΟ-
πείραση για 3
βόρεια. Οι ενδια-
φεύοντες προσκα-
λέτ. New York, NY
(2nd Ave.) Ζητή-
1 τον Σπύρο.
118538/10564/9-30

Ιρανή για πώληση
πολυτελούς 1, Τηλ.: (516) 476-
(767-6715) βρο-
118528/13503/9-24

ΠΙΖΕΡΙΑ με εμπειρία
κατασκευάζει
ΙΑ YORKE. Να πε-
ριποιηθείτε με
(356) 359-0667 με-
118536/9884/9-22

DIATE HIRE
seeking a highly
I/DATE for an Un-
writing assistant po-
sity Insurance Bro-
We have a trendy
it based out of LIC,
eking licensed In-
S and we offer sa-
lary. Please contact
07-3607 or email
rokerage.com
modell.com

Ζητούνται Υπάλληλοι

ΒΟΗΘΟΣ ΖΑΧΑΡΟΠΛΑΣΤΗΣ για
πλήρη απασχόληση για το Elite Bak-
ery στο BAYSIDE. Για περισσότερες
πληροφορίες τηλεφωνήστε (718)
486-6916.

118527/20106/9-22

MEDICAL ASSISTANT. GYN Practice
in Lake Success. Full-time. Greek
Speaking & Computer Skills Re-
quired. Send Resumes to MedAssis-
tantResumes@gmail.com

118500/17170/10-7

RECEPTIONIST. GYN Practice in
Lake Success. Full-time. Greek
Speaking & Computer Skills Re-
quired. Send Resumes to MedRecep-
tionistResumes@gmail.com

118501/17170/10-7

Κατασκευαστική Εταιρεία με έδρα
στην ASTORIA ζητά για άμεση προ-
σέλση και για πλήρη απασχόληση
PROJECT MANAGER με γνώση και
εμπειρία 5 χρόνων ή και περισσό-
τερο και γνώση της ελληνικής και
αγγλικής γλώσσας. Τηλεφωνήστε
στο (718) 619-8296 ή αποστείλετε
προσωπικά: 501-25 Aves., Wood-
side, NY 11377 Suite #107.

118530/7514/9-23

Ζητούν Εργασία

ΚΥΡΙΑ που μιλά ελληνικά και λίγα
αγγλικά και με μεγάλη εμπειρία
στην Ελλάδα, ζητά να εργαστεί ως
ΣΕΠΤΕΜΒΡΙΟΥ και φροντίσει αλ-
λές εργασίες ή παιδί. Αναζητείται
επίσης μαγειρικά και καθαριστικά
του σπιτιού. Τηλ.: (646) 975-1503.
148042/20109/9-23

Ζητούν να αγοράσουν

ΠΟΥΛΗΤΕ ΤΟ ΑΚΙΝΗΤΟ ΣΑΣ
ΑΜΕΣΑ ΚΑΙ ΧΩΡΙΣ ΜΕΣΙΤΙΚΗ ΠΡΟ-
ΜΗΘΕΙΑ. Ιδιαίτερα ενδιαφέρεται
άμεσα για αγορά ΚΤΙΡΙΟΥ 6 ΟΙΚΟ-
ΓΕΝΕΙΩΝ και ένα στην ASTORIA ή
στη γύρω περιοχή. Τηλεφωνήστε
στο Κωνσταντίνου στον αριθμό:
(718) 687-2428. Οι μεσιτές.
168004/15256/10-26

Πωλήσεις Επιχειρήσεων

COFFEE SHOP/DINER καθιερωμένη
επιχείρηση, σε πολύ καλή περιοχή
του BROWN, περίπου 100 καθί-
σματα, καλή λίτσα, πολύ καλό πε-
ρίγραμμα. Για περισσότερες πλη-
ροφορίες πωλ. (347) 453-6754.

204173/15509/9-26

ΚΑΤΑΠΑΛΗΚΤΙΚΗ ΕΥΚΑΙΡΙΑ!!
UPSTATE NEW YORK Greek-Italian
RESTAURANT (carry out mostly
and dining). Ο ιδιοκτήτης μετακο-
μίζει. Ιδανικό για οικογένεια. Έτησια
κέρδη \$250,000. Τιμή \$350,000.
Μόνο σοβαρά ενδιαφερόμενοι τηλε-
φωνήστε στο (607) 342-0867 και
ζητήστε την Κρίστα.

204171/8857/9-28

COFFEE SHOP σε πολυσύχναστη πε-
ριοχή του FOREST HILLS πωλείται
λόγω συνταξιοδότησης του ιδιο-
κτήτη. Καθιερωμένη επιχείρηση
πάνω από 80 χρόνια, μινιού ενοί-
μα \$3,500.00 Πολύ καλή ευκαιρία
για οικογένεια και για επέκταση
της επιχείρησης. Για περισσότερες πλη-
ροφορίες πωλ.: (347) 579-7266 και
ζητήστε την Λάβνη.

204172/20117/9-24

BROOKLYN COFFEE SHOP, καθιε-
ρωμένη επιχείρηση για πώληση
και σε πολύ καλή περιοχή. Εβδο-
μαδιαίες εισπράξεις \$18,000 ανοικτό
από τις 7 π.μ.-4 μ.μ. Ενοίκιο \$6,000
για 10 χρόνια λίτσα. Τιμή
\$225,000.00 Για περισσότερες πλη-
ροφορίες πωλ.: (917) 595-9622.

204170/20108/12-2

WARSAW N.C. PIZZA/RESTAURANT
ανοικτό 6 ημέρες, χωρίς delivery,
ώρες λειτουργίας 10 π.μ.-9 μ.μ. Δια-
θέτει 78 καθίσματα και έχει δικό του
πάρκινγκ. Εβδομαδιαίες εισπράξεις
\$11,000. 10-15 χρόνια λίτσα. Τιμή
\$250,000 με \$100,000 προκατα-
βολή. Για περισσότερες πληροφορίες
τηλεφωνήστε στο (617) 820-3747
και ζητήστε τον Jimmy.

204164/20059/10-08

ΕΥΚΑΙΡΙΑ!!

FAMILY RESTAURANT στο central
NEW JERSEY. Ο ίδιος ιδιοκτήτης για
25 χρόνια. Καθιερωμένη και πλήρως
ανακαινισμένη επιχείρηση με 70 κα-
θίσματα. Η πώληση περιλαμβάνει
την επιχείρηση και την εξοπλισμό.
Μεγάλη λίτσα. Ενοίκιο \$3,000 τον
μήνα. Ευκαιρία για 2 συνετούς ή
οικογένεια. Τιμή \$320,000 με
\$120,000 προκαταβολή. Option to
buy property. Τηλεφωνήστε στο
(908) 636-1696 και ζητήστε τον
Steve.

204153/19525/9-29

Πωλήσεις Επιχειρήσεων

ACT NOW REALTY
• BROOKLYN/GREENPOINT 7 μ-
νων γωνιακό ΜΑΓΑΖΙ σε αναπτύ-
σσιμη περιοχή με όδους ποταμού και
όδους για εξωτερικά καθίσματα.
\$1,250 sq. ft. με full basement.
\$325,000.00 με 40% προκαταβολή
Ο ιδιοκτήτης χρηματοδοτεί με 4%
• QUEENS WOODHAVEN area δι-
γάλο Μαγαζί DINER, 10 χρόνια λί-
τσα. First refusal to buy the Building
σε τιμή ευκαιρίας, κατάλληλο για 2
συνετούς. Η τιμή μειώθηκε για
γρήγορη πώληση.
• MANHATTAN East Village area,
RESTAURANT/BAR 8 χρόνια λίτσα,
καμιά ενοίκια, ανοικτό 4 μ.μ. μέχρι
12 το μεσημέριο. Ευκαιρία για επέ-
κταση (extension) 550 sq. ft. rear
garage. \$167,500.00 K.

• HEMPSTEAD/LOG ISLAND
• KENNESAW, WA full base-
ment, 140 καθίσματα, καθιερωμένη
επιχείρηση πάνω από 30 χρόνια. Ο
ιδιοκτήτης συνταξιοδοτείται. Build-
ing and Business asking \$1,250,000
Εξαιρετική ευκαιρία για SBA loan.
• STATEN ISLAND/DINER in the up-
per 40s, καλή λίτσα και καλοί όροι.
Ζητούν \$1,250,000 με 1/3 προκα-
ταβολή. Ο ιδιοκτήτης χρηματοδοτεί.
• STATEN ISLAND/DINER in the up-
per 30s. Λογικό ενοίκιο, μεγάλη λί-
τσα. Ζητούν \$1,100,000.00 με 1/3
προκ. Ο ιδιοκτήτης χρηματοδοτεί.

• CATSKILL, Italian Restaurant/Bar
140 καθίσματα, ανοικτό μόνο για
dinner, waterfront property με εγ-
κεκρημένα οφέλη για 21+ units.
Firm \$590,000.00 K με 1/3 προκ.
• PA, DINER 350 καθίσματα, σε 2.5
acres με όδους ποταμού, εστια-
\$65-\$70's. Πωλούνται οι Business,
Liquor License and το property Τη-
λεφωνήστε για πληροφορίες.
ΔΙΑΘΕΤΟΥΜΕ ΚΑΙ ΑΛΛΑ DINERS
ΚΑΙ RESTAURANTS ΣΤΗ ΠΕΡΙΟΧΗ

Πέστε μας τι επιθυμείτε και τι
διαθέτετε και εμείς θα σας το βρούμε.

Ζητήστε τον κ. HORN
ACT NOW REALTY
(718) 981-5800

ή στο κινητό (718) 619-7985
204142/16167/12-31

NEW ENGLAND LOCATIONS

1) PIZZERIA/FAST FOOD, DELIVERY.
Βρίσκεται στην Plaza. 20 μίλια βόρεια
της BOETHEM, MA. Πάνω από
\$2,000,000.00 πωλήσεις ετησίως. Πω-
λούνται οι business για \$900,000 με
1/2 προκ. Ενοίκιο \$5,000.00, NNN.

2) PIZZERIA NO DELIVERY. MAS-
SACHUSETTS στο Main Street. Full
Liquor License. 125 καθίσματα + pa-
tie. Μεγάλη λίτσα. Πάνω από
\$33,000 εβδω. Ενοίκιο \$6,000 τον
μήνα. NNN Πωλείται η επιχείρηση
\$775,000 με τα 1/2 κάτω.

3) NORWOOD MASS./PIZZERIA/
FAST FOOD, \$30,000 την εβδο-
μάδα εισπράξεις, πολύ κεντρικός
δρόμος (AUTOMILE). Ενοίκιο
\$4,100 NNN τον μήνα. Μεγ. λίτσα.
Πωλούνται οι business για \$750,000
με \$300,000 προκαταβολή.

4) PIZZERIA/SPORTS BAR: Στο σύ-
νορο Rhode Island/Connecticut. Πα-
ραθαλάσσια πόλη, κεντρικός δρόμος
με μεγάλη ραβδόση. Εισπράξεις πάνω
από \$30,000.00 την εβδομάδα.
5000 \$5. Μεγάλη καζίνο, όμορφο
μαγαζί. Πωλούνται οι business για
\$650,000.00. Με τα μισά προκατα-
βολή και long lease. Ενοίκιο
\$5,500.00 τον μήνα. NNN.

5) MAINE: On the Coast PIZZERIA
no DELIVERY Πάνω από \$900,000
ετήσιες πωλήσεις. Full Liquor Li-
cense. Μεγάλη λίτσα. \$4,000/μήνα.
NNN Πωλείται η επιχείρηση
\$275,000 με \$150,000 κάτω.

6) SEAFOOD/PIZZERIA/FAST FOOD.
Στο CAPE COD MASSACHUSETTS.
Τοποθεσία πάνω στην εβδόμη
Beer/wine license. Μεγάλο deck out-
side. Μπορεί να καθίσουν μέσα και
έξω περισσότερα από 100 άτομα.
Ενοίκιο \$4,500.00 τον μήνα. NNN.
Μεγάλη λίτσα. Πωλούνται οι business
για \$499,000.00 και με τα μισά προκ.

OLYMPIC GROUP REALTY
(508) 274-1916

Nassos G. Prapas Owner/Broker
207496/623/12-31

COMMERCIAL
REALTY GROUP INC.

CENTRAL PENNSYLVANIA
FAMILY STYLE RESTAURANT -
Ποσώνισται και πολύ κερδοφόρα
επιχείρηση πάνω από 1 εκατομμύ-
ρια πωλήσεις ετησίως. Εξαιρετική
τοποθεσία, 100 καθίσματα. 0.75
acre. Η πώληση συμπεριλαμβάνει
επιχείρηση, εξοπλισμό και το Real
Estate. PRICE: \$975,000.00

RESTAURANT WITH BAKERY:
Πολύ επικερδής 30+ χρόνια καθιε-
ρωμένη επιχείρηση με περισσότερα
από 2 εκατομμύρια πωλήσεις ετη-
σίως. Χωρική έκταση 285 καθίσμα-
τα. Η πώληση περιλαμβάνει το
Real Estate. \$8.800,000.00

Πωλήσεις Οικιών

REALTY EXECUTIVES TODAY
ROULA ANGELIDIS, GRI, CRS



SENIOR VICE PRESIDENT
ASSOCIATE BROKER
RESIDENTIAL & COMMERCIAL
ΑΠΟΚΛΕΙΣΤΙΚΑ

ASTORIA UPPER DITMARS
MINT MINT CONDITION!!

ΟΙΚΙΑ 3 οικόπεδων, πολύ ευρύ-
χωρη, 17 ετών με 1 διαμέρισμα
duplex, 3 υπνοδωμάτια και γρα-
φείο, 2 κουζίνες, 2 μπάνια και
πρόσβαση στην αμλία. Ο 2ος όρο-
φος σαλοτραπεζαρία, κουζίνα,
μπάνιο και μπαλκόνι και ο 3ος
όροφος σαλοτραπεζαρία, κου-
ζίνα, μπάνιο, μπαλκόνι, 3 ανεξ.
boilers και 3 θερμωτήρες, laun-
dry και garage και 2 driveways.

• ASTORIA ΔΙΠΛΟΚΑΤΟΙΚΙΑ ημι-
νεκρής, κοντά στο τρένο με 2
διαμερίσματα των 2 υπνοδωματίων
και τελεωμένο υπόγειο.

• EAST ELMHURST, με όρα την θά-
λασσα, ΔΙΠΛΟΚΑΤΟΙΚΙΑ ανεξάρ-
τητη νεκρή με 2 διαμερίσματα
duplex των 2 υπνοδωματίων. Με-
γάλο και ευρύχωρο με 1 triplex δι-
μέρισμα και ένα duplex των 2 υπ-
νοδωματίων έκαστο.

ASTORIA UPPER DITMARS CON-
DOMINIUM στο Garden Bay Manor.
2 ευρύχωρα υπνοδωμάτια με πολλές
ντουλάφες. Η κουζίνα είναι ενωμένη
με το σαλόνι, μεγ. μπάνιο, storage
στο υπόγειο. Washer και dryer.

ΠΟΥΛΑΤΕ 'Η ΕΝΟΙΚΙΑΖΕΤΕ;
ΚΑΛΕΣΤΕ ΜΕ
ΡΟΥΛΑ ΑΓΓΕΛΙΔΗ
Tel: (718) 956-3333
Cell: (347) 249-8072
Angelidis.roula@gmail.com

221793/2430/12-31

Αρχιτέκτονες

ΑΡΧΙΤΕΚΤΟΝΙΚΟ & ΟΙΚΟΔΟΜΙΚΟ
ΓΡΑΦΕΙΟ ΣΤΗΝ ΑΣΤΟΡΙΑ
35 χρόνια πείρα
με το BUILDING DEPT

- Επιδόσεις αδειών, permits & C of O
- Approval and Permits 3 - 5 days
- EOB Court Representation
- Remove violations
- Νομιμοποίηση υπογείων
- Όλες των ειδών οι οικοδομικές εργο-
μαίες ή μεγάλες.
- Remove Stop Work Order
- Βοήθεια στην εξοφώληση δανείου για
ανέγερση οικιών, ανακατασκευή ή επι-
κευρώσεις.
- Αναλαμβάνουμε τις ίδιες εργασίες και
εκτός N. Yorks.
- Αναλαμβάνουμε οικονομικές-νομι-
κές συμβουλές για αξιοποίηση ακινήτων
(οικογενειακή-επιχειρηματική) και στην Ελλάδα.
- Έκδοση οικοδομικών αδειών και κατα-
σκευή κτιρίων. Interior Renovations.

ΤΙΜΕΣ ΑΣΥΝΑΝΤΙΜΕΤΕΣ/FREE CONSULTATION

ΝΙΚΟΣ ΜΑΡΟΥΛΑΣ
37-08 28 Ave. (3rd floor), Astoria, NY 11103
Tel: (718) 728-8181 FAX: (718) 728-8198
CELL: (917) 696-6524

Email: nikolas43@aol.com
Website: www.aasipinternationalinc.com

788013/8597/12-31

Εργολάβοι Οικοδομών
Construction Corp.
& Roofing

- Brick Work Stucco
- Thorolastic & Thorocast
- Parapet
- Brick Steam Cleaning
- Brick Pointing
- Μπράντς • Πλακάκια
- Κουζίνες • Μπάνια
- Specialist Local Law II

ΔΩΡΑΝ ΕΚΤΙΜΗΣΕΙΣ
FULLY INSURED
Τηλ. στον Mohammad
(718) 956-8483

Fax: (718) 956-6300
RIGGER LICENSE #5906
L.I.C.H.I.C. #0978005
L.I.C.H.I.S. #0958926

777848/374/12-31

Legal Notice/Public Notice

Garageman's Lien Sale 5 LIC
#2022551 Sell 10/11/16 9am 8501 S Ave
BK 85 Me/Be WDRBACOP0040563 Re:Nar-
cum, Kelly 10:30am 2287 Midland Ave BK
11 Re: KXAGAA73B5689992 Re:Wright,
Annie & Melvin 11am 175-14 147 Ave Qus 02
Acara JH4DC3J082C040800 Re:Buenosav-
gana, Juan; 60 Dodge 2E3K443G3H435441
Re:Williams, J 12pm 5050 Cortez Ave Re 99
Volkow WWW663R5X616393 Re: Jack-
son, Z. Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G0712561 RE: P/Holding Corp.
10:00am 1919 Coney Island Ave Bklyn 2010
Nissan 1 N4AL2AP0A466573 RE: Gurt,
Yosy; Publ. 9/22 & 9/29/16.

Garageman's Lien Sale P. Novella DCA
Lic# 1339795 Sell 10/11/2016 9:00am
81 Steuben St Bklyn 2013 Subura JF2486
CJ01424910 RE: Kanade, Hira, Kristine;
09:00am 1410 61st St Bklyn 2016 Jeep
1CANJRF80G07125

新科美網男單冠軍瓦林卡的大滿貫之路充滿荊棘，他職業生涯僅三次闖入男單決賽，有意思的是，笑到最後的都是他。從26歲那年在澳網上收穫第一座大滿貫冠軍起，他的傳奇活脫脫一個大器晚成的勵志故事。

「勵志哥」

因為2014年的澳網和2015年的法網，瓦林卡成了10年來四巨頭之外唯一獲得一座以上大滿貫獎盃的球員。FOX體育把瓦林卡稱作「決賽型選手」，直到今年美網決賽前，他近兩年豪取10次進決賽，全奪冠，其中包括兩次大滿貫決賽。這讓像他這樣的水運管線球員往往也會帶來巨大的壓力，即使他在過去兩次大滿貫奪冠之旅中，兩次戰勝過他。2014年澳網16強賽，2015年法網決賽，但兩人的第7次交手，還是讓瑞士人聚攏到賽前，「決賽前我前所未有地緊張，甚至在更衣室開始發抖，距離開賽還有5分鐘，我和教練交談時便哭了起來，渾身發抖。」

世界排名第一的地拉高城的林路上，遭遇三名選手退賽，總共只打了13盤比賽，「輸者皆贏」的世界第一也無法把狀態調整到最佳，戰勝和打平這兩件事對他來說，決賽中腳下的泥濘更是雪上加霜。發球、移動都受到了影響，在關鍵分的比賽中，在球場上鎮定下來的瓦林卡都佔據了優勢。他的進攻和防守也讓他相風無可奈何。最終，瓦林卡迎來了一場屬於自己的決賽，「這是我美網比賽中表現最好的、最難打的一場比賽。」

他已將自己逼到極致

瓦林卡本屆美網的晉級之路可謂一波三折。第三輪時，他差點被淘汰，在挽救賽點後才驚險晉級。之後，他遭遇了德爾格達維。

男子網壇這幾年在大滿貫中就傳著兩個定律：一是「波羅定律」，和德爾格達維分到同一區的選手最終都無法晉級；二是「瓦林卡定律」：只要瓦林卡闖入決賽，最終都會拿到冠軍。當「波羅定律」遇上「瓦林卡定律」，誰能延續紀錄？最終瓦林卡不但獲勝了「波羅定律」，同時延續了大滿貫決賽100%勝率的紀錄(32%)。

如今完成連續11場決賽全勝，包括3次大滿貫決賽100%勝率的紀錄，連世界第一也把瓦林卡視作四巨頭之外最強大的「非傳統大滿貫」行列。這一點毋庸置疑，瓦林卡現在拿了三個大滿貫，而且是不同的賽事，他還有奧運金牌。瓦林卡曾經只是一位二流選手，前有費達拿這樣的網壇傳奇，後有納達爾、迪祖高域和穆

雷迪維的新巨頭，但他並沒有停下自己追尋的步伐。我一步一步地進行，將自己逼到極致。這在我職業生涯結束時才不會感到遺憾。」奪冠後，瓦林卡說自己的秘密其實很簡單。

瓦林卡左臂上有兩行醒目的文身，上面寫著法國作家塞繆爾·貝克特的名言，「曾努力，曾落敗，莫介意；再努力，再落敗，亦欣然」(Ever tried, Ever failed, No matter, Try Again, Fail again, Fail better)。這句話一直激勵著瓦林卡，在四巨頭(迪祖高域、穆雷、納達爾、費達拿)的陰影下，「勵志哥」沒放棄，「我一直以來都是一個勤奮訓練的人，這是唯一能讓自己進步的方式。」奪得3個大滿貫，他依然謙遜且冷靜，「他們(四巨頭)的穩定延續10年了，除了奪冠，他們還經常打進半決賽，決賽，目前我無法判斷他們的高度。」

銳變離不開教練之功

過去依賴壓力，瓦林卡失誤過多，擊球不講求章法，腳下的移動是他的致命缺陷。如今大滿貫冠軍戰迫近，成為四巨頭外最具實力的球員。其中的契機與教練瑞典名將諾文斯密不可分。2013年，諾文斯開始擔任瓦林卡的教練，這位網球名宿曾獲世界第二，連續12個單打冠軍，2000年的法網亞軍是他職業生涯的最大遺憾。諾文斯的第一項工作就是讓瓦林卡控制擊球

軌，即便2015年年初前，與妻子離婚，深陷禁閉，瓦林卡還是很好地控制情緒，路過人法網決賽，擊敗德爾格達維。

「我幫他贏回來，那個決賽的清晨，瓦林卡這樣告訴諾文斯，最終，他兌現了承諾，也讓自己的「願望」在球場內外火了一把。專注是諾文斯給瓦林卡最大的改變，「專注是一切的本能。」諾文斯是這樣告訴徒弟，而以往過分沉湎比賽中的瓦林卡逐漸在比賽中找到了冷靜的魔門。在美網決賽中，每當瓦林卡贏下關鍵分，他總會看向坐在看台的諾文斯，並用兩指指著自己的雙眼，嘴裏說著：「專注(focus)！」

瓦林卡是所有獲得法網和美網冠軍中年齡最大的選手，隨著第三座大滿貫的到來，他也超越同胞好友費達拿躍升世界第三，這也是他職業生涯最好成績，「我不會達世界第一成為自己的目標，我最好的排名就是第三，而成為世界第一可不容易。」瓦林卡並不在意排名，但如果每奪一個冠軍就能實現全滿貫。

「現在考慮退休還太早，到為止我還沒有突破過八歲。」瓦林卡希望這班就班，至少他現在在全滿貫的征途上領先邁出一個身位，蘇格蘭人如今繼續新獲了美網、溫網兩項大滿貫。

瓦林卡定律 好神奇

從2014賽季開始，瓦林卡11次打入決賽，11次在決賽中勝出。

年份	賽事	比分	對手
2014年	清奈公開賽	7:5/6:2	瓦林卡
	澳網	6:3/6:2/3:6/6:3	納達爾
2015年	華沙卡羅大師賽	4:6/7:6/6:2	費達拿
	清奈公開賽	6:3/6:4	貝德內
	鹿特丹公開賽	4:6/6:3/6:4	伯蒂奇
	法網	4:6/6:4/6:3/6:4	迪祖高域
2016年	東京公開賽	6:2/6:4	柏雷爾
	清奈公開賽	6:3/7:5	丘里奇
	杜拜公開賽	6:4/7:6	巴格達蒂斯
	日內瓦公開賽	6:4/7:6	西里奇
	美網	6:7/6:4/7:6/6:3	迪祖高域

纽约州和新泽西州空港事务局

噪音暴露地圖 (Noise Exposure Map, NEM) 报告通知 公共信息介绍会通知

《联邦法规 (CFR)》第 14 卷第 150 部分 (14 CFR Part 150) 拉瓜迪亚机场 (LGA) 机场噪音合规研究

作为 14 CFR 第 150 部分机场噪声兼容性规划研究的持续一部分，纽约州和新泽西州空港事务局 (PANYNJ) 已经完成了 14 CFR 第 150 部分规定的噪音暴露地图草案。特此发出通知，噪音暴露地图草案报告放在下列地点供公众审阅和评议：

- | | | |
|---|--|---|
| 地点 1:
纽约州和新泽西州空港事务局
LaGuardia Airport
Hangar 7 Center, 3rd Floor
Flushing, NY 11371
时间：上午 9 点到下午 4 点
(周一至周五) | 地点 2:
法拉盛分馆 -
皇后区图书馆
41-17 Main Street
Flushing, NY 11355 | 地点 3:
杰克逊高地分馆 -
皇后区图书馆
35-51 81 Street
Jackson Heights, NY 11372 |
|---|--|---|

NEM 报告草案将一直放在这些地点，直至评议期结束，也就是 2016 年 10 月 24 日下午 5 点。此外，也可在线查看该文件的副本：
http://panynjpart150.com/LGA_DNEM.asp

若对噪音暴露地图 (NEM) 草案报告有任何意见，应寄到：The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007。此外，也可将意见电邮到：NYPART150@panynj.gov

拉瓜迪亚机场 (LGA) 公共信息介绍会

将会举行一次信息介绍会，为公众提供有关第 150 部分研究的额外信息和询问问题和发表意见的机会。有关该信息介绍会日期、时间和地点的详情在下面列出。

日期：2016 年 9 月 29 日 (周四)
时间：下午 6 点到晚上 9 点
地点：New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369
公共交通：MTA Q23, Q33, Q48 Q72 和 M60-SBS 公交车

介绍会将在上述日期于晚上 6 点至 9 点以“公开”形式举行。为了让公众有最大的机会进行一对一互动并分享信息和关注，可在此次为时三个小时的“公开”信息介绍会期间随时参加。

第 150 部分公共信息介绍会有残障人士通道。预先申请可提供口译服务。为作好此类服务安排，请于介绍会前至少提前 72 小时拨打 (212) 435-3880 或发电子邮件至 NYPART150@panynj.gov 联系 PANYNJ 噪音办公室。

若需更多信息，请拨打 PANYNJ 噪音办公室电话 212-435-3880，或访问项目网站：
http://panynjpart150.com/LGA_homepage.asp

Bmcc
BOROUGH OF MANHATTAN COMMUNITY COLLEGE
Start Here. Go Anywhere.



www.bmcc.cuny.edu/apply

CUNY
The City University of New York

Your Homeownership Partner



The State of New York Mortgage Agency offers:

- Competitive, fixed-rate mortgages for first-time homebuyers
- Downpayment assistance available up to \$15,000
- Special program for veterans, active-duty military, National Guard and reservists
- Funds available for renovation

1-800-382-HOME(4663)
www.sonyma.org



THE PORT AUTHORITY OF NY & NJ NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)
Airport Noise Compatibility Study for
LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:

The Port Authority of NY & NJ
LaGuardia Airport
Hangar 7 Center, 3rd Floor
Flushing, NY 11371

Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)

LOCATION 2:

Flushing Branch –
Queens Library
41-17 Main Street
Flushing, NY 11355

LOCATION 3:

Jackson Heights Branch –
Queens Library
35-51 81 Street
Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016

TIME: 6:00 P.M. to 9:00 P.M.

LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369
Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

Great rates like ours are always in season.



18-Month CD
1.25% APY¹
\$5,000 minimum deposit

To qualify you must open a **Flushing Bank Complete Checking Plus** account. Get the complete access and control you desire with a competitive interest rate and banking on-the-go with our **Flushing Bank Mobile²** app.

For more information and to find out about our other great offers, visit your local Flushing Bank branch, call **800.581.2889** or visit **www.FlushingBank.com**.

FLUSHING
Commercial • Business • Consumer **Bank**

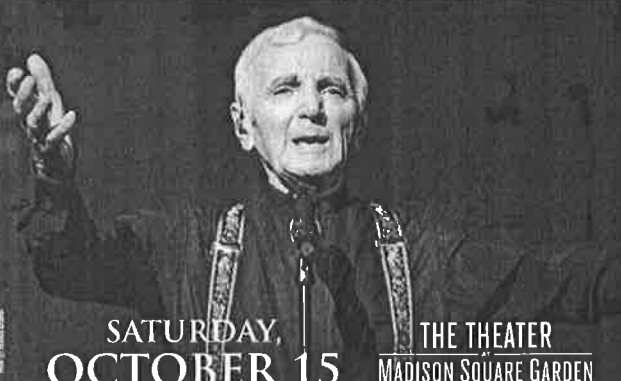
1 New money only. APY effective July 5, 2016. Annual percentage yield assumes principal and interest remain on deposit for a full year at current rate. Minimum deposit balance of \$5,000 is required. Funds cannot be transferred from an existing Flushing Bank account. Premature withdrawals may be subject to bank and IRS penalties. Rates and offer are subject to change without notice. A new Complete Checking Plus account with a \$5,000 minimum initial deposit is required to receive the CD with the advertised rate. Certain fees and restrictions may apply. For new IRA and rollover accounts, the minimum deposit balance is \$5,000. A new checking account is not required for IRA accounts. Speak with a Flushing Bank representative for more details. 2 Flushing Bank Mobile Banking is available to all Flushing Bank online banking users. Flushing Bank is a registered trademark



LARRY MAGID ENTERTAINMENT GROUP BY ANNOUNCER (WITH PATRICK SWART & ALAIN BOYAGI PRESENTS)
"ENTERTAINER OF THE CENTURY" CNN

CHARLES AZNAVOUR

ONE NIGHT ONLY!



SATURDAY, OCTOBER 15 THE THEATER
MADISON SQUARE GARDEN

TICKETS AVAILABLE AT THE BOX OFFICE, **ticketmaster** OR CALL 866-858-0008

CHARLES AZNAVOUR.COM AZNAVOUR.OFFICIEL MaAznavour francesco Smalto THEATERMUSIC.COM

WHEELCHAIR COMPANION AND DESIGNATED AISLE SEATS, AND ASSISTIVE LISTENING DEVICES AVAILABLE BY CALLING MSG'S DISABLED SERVICES DEPT. AT (212) 455-6034

qbora



Ratas en Zelo, an accordion-based punk band, will be performing at the iOye Corona! festival on Saturday.
PHOTO COURTESY QUEENS MUSEUM

iOye Corona! finale coming to the plaza

by Ryan Brady
qbora contributor

Looking for some fun this weekend? You're in luck. Corona Plaza will host another iOye Corona! Festival on Sept. 24, a free event with an art workshop, dance class, live band and more.

"It's usually a pretty well-attended event," Grace Munns, a Queens Museum spokeswoman, which sponsors the festival, told the Chronicle, adding that around 50 to 150 people normally show up. The Sept. 24 event is the last of this year, though there will be more next year. During the summer, iOye Corona! happens every month.

"There will be an art-making workshop from 1 to 6 p.m.," Munns added. "The workshop's gonna focus on creating your own map. ... It's kinda how they see their community."

"When I got approached by the museum to do a workshop, I was thinking that part of doing this art workshop was obviously for young folks to have fun and obviously make art but the other part was to get folks to think about their communities, especially the way that folks are getting displaced from parts of Queens, specifically Jackson Heights and Corona," Ray Ferreira, the artist leading the workshop, said. "People will be able to just come in and come out. Hopefully, people come in and it becomes an intergenerational sort of crowd."

The event will also feature a dance class in Spanish at 4:30, led by Veronica Ramirez of Immigrant Movement International in Corona.

"English speakers are more than welcome to participate," Munns added. "It's about raising awareness of the importance of fitness and health in the community."

Ramirez's dances are choreographed to '80s Spanish rock ballads, Mexican Banda and other Latin American rhythms.

A live performance will be put on at 5:30 p.m. by the accordion-based punk group Ratas en Zelo. "We're four females, we're like from the Latino punk scene in New York," Maria Poro, the band's drummer said, adding that the band has been influenced by both "punk from South America and American punk."

The group, which plans on recording an album this year, has members from Peru, El Salvador and New York.

"At 6:30 p.m., there's gonna be a folklore group that uses the art of dance to teach the importance of culture and keep native languages alive," Munns said. The folklore group, Nukanchik Llahta Wawakuna, will be particularly focused on "first-generation immigrant families dancing workshops that elevate native culture that may otherwise go under the radar," she added.

'iOye Corona!'

When: Sat., Sept. 24, 1 to 7 p.m.
Where: Corona Plaza, 103rd Street and Roosevelt Avenue
Entry: Free. (718) 592-9700, queensmuseum.org

THE PORT AUTHORITY OF NY & NJ NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)
Airport Noise Compatibility Study for
LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:
The Port Authority of NY & NJ
LaGuardia Airport
Hangar 7 Center, 3rd Floor
Flushing, NY 11371
Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)

LOCATION 2:
Flushing Branch -
Queens Library
41-17 Main Street
Flushing, NY 11355

LOCATION 3:
Jackson Heights Branch -
Queens Library
35-51 81 Street
Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016
TIME: 6:00 P.M. to 9:00 P.M.

LOCATION: New York LaGuardia Airport Marriott
102-05 Dilmars Boulevard, East Elmhurst, NY 11369
Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

Remains Identified As Those Of Missing Astoria Woman

BY LIZ GOFF

Condolences are pouring in to the grief stricken parents of a missing 30-year-old Astoria woman whose remains were recovered last week on the Rikers Island shoreline.

Rikers Island security guards on routine patrol at about 3:10 p.m. on September 14 spotted a human skull and bones that had recently washed up on the western shoreline of the island.

Detectives at the 114th Precinct responded to the scene, where the city Medical Examiner recovered the remains, police said. The medical examiner identified the remains on September 16 as those of Sierra Shields, who vanished in January after quitting her job at LaGuardia Airport. The medical examiner was unable to determine the cause of death, but detectives are investigating it as a possible suicide.

Shields was last seen on January 14, after she suddenly quit her job as a Delta Airlines flight attendant, police said. The Astoria resident was spotted leaving the airport and was never seen alive again.

Family, friends and neighbors never gave up in their search for Shields. Her heartbroken parents joined volunteers on numerous occasions, replacing worn or faded "Missing" posters and handing out flyers with Sierra's photo to passersby. Shields' distraught parents held out hope for more than eight

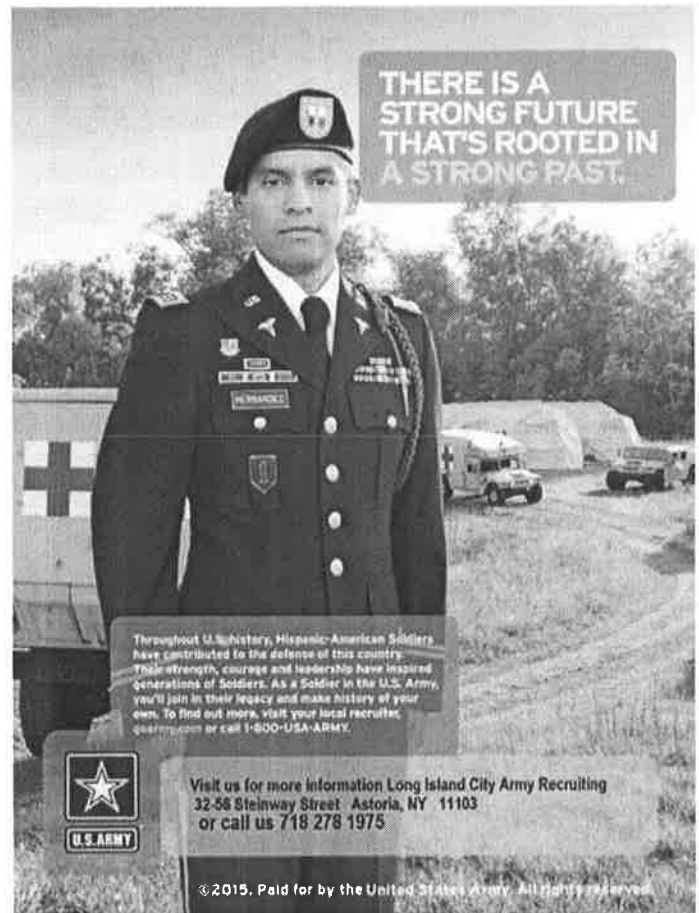


Story of Sierra Shields as it appeared in *The Gazette's* February 24th edition.

months that someone would recognize Sierra from news reports or the posters, and alert them of her whereabouts.

"We have so many questions and no answers," Sierra's mother said.

Members of the International Brotherhood of Teamsters Airline Division had offered a \$10,000 reward for information leading to Sierra's whereabouts. Union officials said they were deeply concerned about Sierra and had been hoping the reward would help bring her home.



© 2015. Paid for by the United States Army. All Rights Reserved.

THE PORT AUTHORITY OF NY & NJ NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Study for LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:	LOCATION 2:	LOCATION 3:
The Port Authority of NY & NJ LaGuardia Airport Hangar 7 Center, 3rd Floor Flushing, NY 11371 Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)	Flushing Branch – Queens Library 41-17 Main Street Flushing, NY 11355	Jackson Heights Branch – Queens Library 35-51 81 Street Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016
TIME: 6:00 P.M. to 9:00 P.M.
LOCATION: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369
Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

Why Are You Still Drinking Tap/Bottle Water Your Water Could Be Contaminated Get The Facts Pets Love Alkaline Water

Powerful Alkaline Ionized Water
70% Of Your Body Needs It Now
Crisp Pure Healthy Water For Your Family
Rsvp To An Exclusive Presentation
This Wednesday In Astoria
Ansel & Bibi-
Independent Marketing Representatives
Affordable, Reliable,
Since 1974, Enagic, Inc. Japan



Email: Bibi5402ansel@Optonline.Net
917-754-2731

WESTERN QUEENS FOCUS

Colgate University in Hamilton, NY is proud to announce Cristo Rey New York High School graduate **Angie Diaz**, of Corona, as part of the Class of 2020. Of the 8,394 applications to Colgate last year, just 28.7 percent were accepted.

The average high school GPA for accepted students was 3.8 out of 4.0. Colgate received applications from 50 states, Washington D.C., and 138 countries.

International students make up 10 percent of the class. Colgate meets 100 percent of students' demonstrated financial need, and 41.6 percent of the Class of 2020 is receiving institutional grant funding. Colgate is ranked 12th among all liberal arts schools, and named a best value, by *U.S. News and World Report*.

Congratulations to the Summer Science Research Program participants of the University at Albany's University in the High School Program: **Caitlyn Ortutay** of Elmhurst, **Christopher Flores** of East Elmhurst and **Antonio Argudo** of Astoria.

Summer Science Research Program participants have the opportunity to conduct genuine hands-on scientific research in labs or in the field. They perform this research with their scientist mentors drawn from a wide array of global professional research insti-

tutions. In addition, many of the students take the science research courses for UAlbany college credit in their junior and senior years of high school.

The Summer Science Research Program is an integral part of the University in the High School Program, which was established in 1983 and offers more than 100 courses in over 30 subject areas.

Daniel Corridan of Woodside is a member of the Rensselaer Polytechnic Institute (RPI) soccer team in Troy, NY.

The Civil Engineering major has helped the Engineers to a strong start through the first two weeks of the season with the Engineers posting a 2-1-1 record. RPI, which is coached by Adam Clinton, is coming off a 2015 season in which it earned a berth into the NCAA Tournament, advancing to the Second Round before being eliminated in double overtime.

Queens Tribune "Focus" is accepting obituaries, birth, wedding, graduation and other milestone announcements to publish in our weekly section.

Send all information to:
editor@queenstribune.com,
 subject "Focus," or mail to:
 Queens Tribune, Focus,
 150-15 14th Rd.,
 Whitestone, NY 11357

Throwback Thursdays - John Petit Hotel, Jamaica



PHOTO COURTESY RICHMOND HILL HISTORICAL SOCIETY

This is the John Petit Hotel corner of Parsons Boulevard and Jamaica Avenue. On this site in 1781, the Queens' Head Inn was established by Thomas Rochford. Over the years it had various owners and proprietors. On Dec. 8, 1783, an epic celebration marked the birth of the new 13-state nation with a liberty pole erected at the front of the inn. In 1790, during President George Washington's tour of Long Island, he dined and spent the night at the inn. The inn held meetings and rallies to mark the start of the civil war, the creation of Nassau County and the creation of the greater New York City in 1898. It was often the starting point for sporting events, including the hare and hounds races, bicycle races and the 100 mile automobile endurance race of 1901. The inn was razed in 1906.

If you have historical photos or postcards you would like to share with the *Queens Tribune*, send them to us by mail at *Queens Tribune* c/o Throwback Thursday, 150-50 14th Rd., Whitestone, NY 11357. Or you can email them to editor@queenstribune.com or Tweet us @QueensTrib with the hashtag #TBT

THE PORT AUTHORITY OF NY & NJ NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)
 Airport Noise Compatibility Study for
 LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1: The Port Authority of NY & NJ LaGuardia Airport Hangar 7 Center, 3rd Floor Flushing, NY 11371 Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)	LOCATION 2: Flushing Branch — Queens Library 41-17 Main Street Flushing, NY 11355	LOCATION 3: Jackson Heights Branch — Queens Library 35-51 81 Street Jackson Heights, NY 11372
--	--	--

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016
TIME: 6:00 P.M. to 9:00 P.M.
LOCATION: New York LaGuardia Airport Marriott
 102-05 Dilmars Boulevard, East Elmhurst, NY 11369
 Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

Try a little
TENDERNESS
 — and save 75% on world famous Omaha Steaks —

Get our world-famous, exquisitely tender Omaha Steaks® Filet Mignons, Top Sirloins and more. 100% guaranteed and delivered right to your door, save 75% when you order the Family Gourmet Buffet.

The Family Gourmet Buffet

- 2 (5 oz.) Filet Mignons
- 2 (5 oz.) Top Sirloins
- 2 (4 oz.) Boneless Pork Chops
- 2 Boneless Chicken Breasts (5 lb. pkg.)
- 4 (3 oz.) Kielbasa Sausages
- 2 (4.5 oz.) Stuffed Sole with Scallops & Crabmeat
- 12 oz. pkg. All-Beef Meatballs
- 4 (3 oz.) Potatoes au Gratin
- 4 (4 oz.) Caramel Apple Tartlets
- Omaha Steaks Seasoning Packet
- 4619IEWY

Reg. \$200.90 | Now Only \$49.99

Don't miss it! This price. Your 4 free burgers will be sent to you with shipping address that includes the Annual Gourmet Buffet 4619. Limit of 3 free one of 4 3 oz. Omaha Steaks Burgers per household. Standard S&H will be added to all orders. A valid credit card is required. Expires 9/30/16.

PLUS, 4 Omaha Steaks Burgers FREE!

©2016 OCS 16058120 | Omaha Steaks, Inc.

1-800-514-7958 ask for 4619IEWY | www.OmahaSteaks.com/bbq24

ACCIDENTS HAPPEN!

EYEGLASS PACKAGES STARTING AT \$59.95
Frame with Lenses!

I ALSO GOT A SPARE

WOW!

100's OF STYLISH, DESIGNER FRAMES ON DISPLAY!

FACTORY EYEGLASS OUTLET
Flushing: 168-15 Union Turnpike • (718) 969-8801
Two blocks west of St. John's University.
Eye Exams available with our Independent Doctor of Optometry
Call for an appointment.

\$20 OFF ON EVERY \$100 YOU SPEND
Spend \$200 - get \$40 off, Spend \$300 - get \$60 off.
Offer Ends: 10/31/16. COUPON MUST BE PRESENTED AT THE TIME OF PURCHASE. ALL PURCHASES MUST BE MADE FOR THE SAME PERSON, AND RX, DIKLAN AMOUNTS WILL NOT BE ROUNDED. DISCOUNT IS CALCULATED BY TOTALING ALL PURCHASES, BEFORE APPLICABLE TAXES, MAY NOT BE COMBINED WITH OTHER COUPONS/PROMOTIONS, OR INSURANCE AND THIRD PARTY PLANS. NOT VALID FOR EYE EXAMS, AND CONTACT LENSES.

We Accept **NVA**   

Visit [Facebook.com/FactoryEyeglass.page](https://www.facebook.com/FactoryEyeglass.page) or www.FactoryEyeglass.com
for additional locations, pricing, directions and Rx limitations.

THE PORT AUTHORITY OF NY & NJ NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150) Airport Noise Compatibility Study for LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:	LOCATION 2:	LOCATION 3:
The Port Authority of NY & NJ LaGuardia Airport Hangar 7 Center, 3rd Floor Flushing, NY 11371 Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)	Flushing Branch – Queens Library 41-17 Main Street Flushing, NY 11355	Jackson Heights Branch – Queens Library 35-51 81 Street Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE:	Thursday, September 29, 2016
TIME:	6:00 P.M. to 9:00 P.M.
LOCATION:	New York LaGuardia Airport Marriott 102-05 Dilmars Boulevard, East Elmhurst, NY 11369 Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

POLICE Blotter

108 Precinct cops nab assault suspect

WOODSIDE - A woman was walking home from the 65th Street station around 2 a.m. Tuesday morning when she was grabbed from behind by a man who covered her mouth and ordered her not to scream, according to the NYPD. The victim began to struggle and scream and the suspect bit her on the cheek before throwing her to the ground where he sexually assaulted her with his hand and bit her on her thigh, police say.

The victim's screams roused nearby residents who yelled at the suspect, causing him to flee the scene. Sgt. Christopher Miro and Det. Everett Newman, who are both assigned to the Special Victims Division's Night Watch, responded to the 108th Precinct to interview the 30-year-old Asian victim, who was then taken to Mount Sinai Hospital where a sexual evidence collection kit was prepared.

The investigators returned to 69th Street where they observed another Asian woman being closely followed by a man who threw her to the ground where he sexually assaulted the 27-year-old victim with his hand, police said. Miro and Newman jumped



Sgt. Christopher Miro and Det. Everett Newman apprehended a suspect in the 108th Precinct.
Courtesy NYPD

from their unmarked car and grabbed the suspect who resisted by pulling away and punching at the officers, according to the NYPD. The officers were able to apprehend 23-year-old H. Flores-Guerra Luis, of 72nd Street in Elmhurst. He was arrested and charged with attempted rape and two counts of Assault on a police officer, according to the NYPD.

Driver in Jax Hgts hit-and-run sought: NYPD

JACKSON HEIGHTS—Police from the 115th Precinct were searching for the driver of a vehicle in a hit-and-run that put a motorcycle rider in the hospital last month. A 21-year-old man was riding east on 37th Avenue Aug. 19 when an SUV in front of him attempted to make a U-turn, police say.

The motorcycle collided with the vehicle as it began to make its turn. The rider was thrown from his motorcycle in front of 85-21 37th Ave. and the driver fled west, according to the NYPD.

The victim suffered a fractured right hand and was taken to Elmhurst Hospital Center in stable condition.

Investigators said the suspect's vehicle is described as a red Cadillac SRS SUV, and the driver was a white or His-



Information about the driver of this vehicle is wanted in connection with a hit-and-run in the 115th Precinct.
Courtesy NYPD

panic man between 20 to 30 years old with black hair.

Anyone with information is asked to call the NYPD's Crime Stoppers Hotline at 1-800-577-TIPS.

Police looking for suspects in robbery

SOUTH OZONE PARK—Police were searching for three individuals suspected of robbery in South Ozone Park.

On Friday, Aug. 5, at 2:25 a.m. on 111th Avenue and 123rd Street, three suspects approached a 61-year-old woman from behind and attempted to snatch her purse, police said. The victim refused and the suspects threw

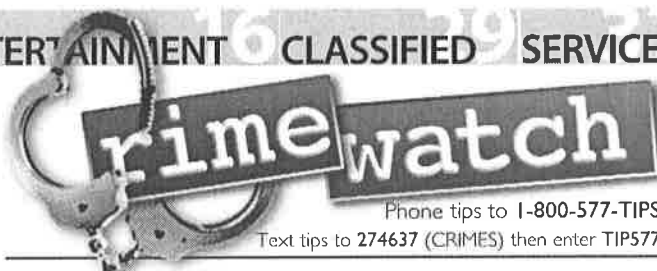
her to the ground, punched her in the face, grabbed her bag and fled in a silver Chrysler Sebring in an unknown direction, according to police. The 61-year-old suffered minor bruising and lacerations, police said.

Police are describing the suspects as three black males, between 5 foot-6 and 6 feet tall.

NEWS OPINION ENTERTAINMENT CLASSIFIED SERVICE OBITUARIES SPORTS

Bellerose break-in

A man broke into a home in Bellerose Manor earlier this month, but left without stealing anything. On September 8 at 12:15 p.m., the suspect cut the screen on an open rear window to gain access to a home near Commonwealth Boulevard and 89th Avenue. When a 43-year-old woman returned home, she noticed the forced entry but didn't notice anything missing. The man, described as in his 20s, 5'7" and 160 pounds, fled the scene in a blue 2103 Ford Edge SUV.



ver gun and demanded money. He walked out with \$4,000. He tried his luck again on September 9 and 16 at two stations on Merrick Boulevard, but in each case the employees refused to hand over any cash and he left empty-handed.

S. Ozone Park rob



Three thugs punched and robbed an elderly woman in broad daylight in South Ozone Park last month. On August 5 at 2:30 p.m., the trio approached a 61-year-old woman from behind near 111th

Avenue and 123rd Street and tried to grab her bag, but she resisted. The three suspects then threw her to the ground, punched her in the face, and then fled with her bag in a silver Chrysler Sebring. The victim was treated at the scene by EMS for minor lacerations to her face. Two of the suspects were caught on a nearby surveillance camera.

Sunnyside suspect

Police have identified one of the suspect behind two home robberies in Sunnyside over the summer as 29-year-old Alex Castro. Police say Castro and his partner broke into a home near 43rd Avenue and 44th Street on the afternoon of July 15 and



stole \$1,400 in cash, \$8,000 worth of jewelry, and electronics. Police believe the pair also robbed another home on 44th Street on the night of July 29, where they took six small diamonds.

Pocket picked

A man had his pocket picked in a Woodside subway station earlier this month. On September 13 at 11 a.m., a 61-year-old man was inside the station at 52nd Street and Roosevelt Avenue when the suspect followed him and took cash from his pants pocket. The suspect is 25 years old, 5'3" and 160 pounds.



One for three

An armed man has tried to rob three gas stations in south Queens, but was only successful once. On September 4 at 1:30 a.m., the suspect walked into a BP location at 117-01 Springfield Boulevard, pulled out a sil-



We've Moved!



"Manufacturing Blinds over 80 years"

- 1" Mini Alum Blinds
- 2" Custom Made Alum Blinds
- 2" & 3" Verticals Blinds
- Custom Shades
- Blind Cleaning
- Re-Taping & Recording
- 2" Faux Wood
- Replacement Slats for Vertical and Blinds
- Installation Available
- Service within 24 Hours
- New Shop At Home Service

Come visit our New Location

66-83 70th Street

Middle Village, NY 11379

Phone: 718-894-9228

Website: www.laurelblinds.com

Email: Laurelblinds@aol.com

OR Visit [Facebook.com/LaurelManufacturingCo](https://www.facebook.com/LaurelManufacturingCo)

THE PORT AUTHORITY OF NY & NJ

NOTICE OF DRAFT NOISE EXPOSURE MAP (NEM) REPORT NOTICE OF PUBLIC INFORMATION WORKSHOP

Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)
Airport Noise Compatibility Study for
LaGuardia Airport

As part of an on-going 14 CFR Part 150 Airport Noise Compatibility Planning Study, the Port Authority of New York and New Jersey (PANYNJ) has completed the Draft Noise Exposure Maps per the requirements of 14 CFR Part 150. A notice hereby is given that the copies of the Draft Noise Exposure Map Report are available for public review and comment at the following locations:

LOCATION 1:

The Port Authority of NY & NJ
LaGuardia Airport
Hangar 7 Center, 3rd Floor
Flushing, NY 11371
Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)

LOCATION 2:

Flushing Branch -
Queens Library
41-17 Main Street
Flushing, NY 11355

LOCATION 3:

Jackson Heights Branch -
Queens Library
35-51 81 Street
Jackson Heights, NY 11372

The Draft NEM Report will be available at these locations until the close of the comment period, which is 5:00 P.M. on October 24, 2016. In addition, a copy of this document may be viewed online at: http://panynjpart150.com/LGA_DNEM.asp

All comments on the Draft Noise Exposure Map (NEM) Report should be sent to: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. In addition, comments may be emailed to NYPART150@panynj.gov

LAGUARDIA AIRPORT (LGA) PUBLIC INFORMATION WORKSHOP

Additional information regarding the Part 150 Study and an opportunity to ask questions and comment on the Draft NEM Report will be available to the public through an Information Session. The details of the date, times, and location of the workshop are listed below.

DATE: Thursday, September 29, 2016

TIME: 6:00 P.M. to 9:00 P.M.

LOCATION: New York LaGuardia Airport Marriott

102-05 Ditmars Boulevard, East Elmhurst, NY 11369

Public Transportation: MTA Q23, Q33, Q48 Q72, and M60-SBS Buses

The workshop will be held in an "open house" format from 6 P.M. to 9 P.M. on the date listed above. In order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns, you may attend at any time during the three-hour open house.

The Part 150 public information workshop is accessible to people who are mobility impaired. Language interpretation services are available upon advance request. To make arrangements for such services please contact the PANYNJ Noise Office at 212-435-3880 or via email at NYPART150@panynj.gov no less than 72 hours before the workshop.

For more information, please call the PANYNJ Noise Office at 212-435-3880 or visit the project website at: http://panynjpart150.com/LGA_homepage.asp

LA AUTORIDAD PORTUARIA DE NY Y NJ

AVISO DE INFORME DE LOS MAPAS PRELIMINARES DE EXPOSICIÓN DE RUIDO (NEM, POR SUS SIGLAS EN INGLÉS) AVISO DE TALLER DE INFORMACIÓN PÚBLICA

Estudio del Título 14 del Código de Regulaciones Federales Parte 150 (14 CFR, por sus siglas en inglés, Parte 150) Estudio de compatibilidad de ruido de aeropuerto para LaGuardia Airport

Como parte de los estudios de 14 CFR Parte 150 Estudio de Planificación de Compatibilidad de Ruido de Aeropuerto, la Autoridad Portuaria de Nueva York y Nueva Jersey (PANYNJ) ha completado los mapas preliminares de exposición de ruido conforme a los requisitos de 14 CFR parte 150. Un aviso se presenta dado que las copias de los mapas preliminares de exposición al ruido están disponibles para revisión y comentarios públicos en los siguientes lugares:

UBICACIÓN 1:

La Autoridad Portuaria de NY y NJ
LaGuardia Airport
Centro Hangar 7, Piso 3
Flushing, NY 11371
Durante: 8:00 A.M. to 4:00 P.M.
(Lunes a Viernes)

UBICACIÓN 2:

Flushing Branch –
Queens Library
41-17 Main Street
Flushing, NY 11355

UBICACIÓN 3:

Jackson Heights Branch –
Queens Library
35-51 81 Street
Jackson Heights, NY 11372

El informe preliminar NEM estará disponible en estos sitios hasta el cierre del período de comentario, el 24 de octubre de 2016 a las 5:00 P.M. Adicionalmente, una copia de este documento puede ser visitado por el web: http://panynjpart150.com/LGA_DNEM.asp

Todos los comentarios sobre el informe de los mapas preliminares de exposición de ruido (NEM) deben enviarse a: The Port Authority of NY & NJ, Aviation Department, ATTN: Noise Office - NY Part 150 Studies, 4 World Trade Center, 150 Greenwich Street, 18th floor, New York, NY 10007. Adicionalmente, comentarios pueden ser enviado por correo electrónico a NYPART150@panynj.gov

TALLER DE INFORMACIÓN PÚBLICA DEL AEROPUERTO DE LAGUARDIA (LGA, POR SUS SIGLAS EN INGLÉS)

Información adicional sobre el estudio Parte 150 y una oportunidad para hacer preguntas y comentar sobre el Informe Preliminar NEM estará disponibles al público a través de una sesión de información. Los detalles de la fecha, horarios y ubicación del taller están descritos abajo.

FECHA: jueves, septiembre 29, 2016

HORA: 6:00 P.M. to 9:00 P.M.

UBICACIÓN: New York LaGuardia Airport Marriott
102-05 Ditmars Boulevard, East Elmhurst, NY 11369
Transporte público: MTA Q23, Q33, Q48 Q72,
and M60-SBS Buses

El taller será organizado en un formato "open house" de 6 P.M. a 9 P.M. en la fecha indicada anteriormente. A fin de proporcionar al público con la máxima oportunidad de interacción uno-a-uno y compartir información y preocupaciones pueden asistir en cualquier momento durante el "open house" de tres horas.

El taller de información pública Parte 150 es accesible a personas con movilidad reducida. Servicios de interpretación de lengua están disponibles bajo petición avanzada. Para hacer arreglos para estos servicios, póngase en contacto con la PANYNJ oficina de Ruido al 212-435-3880 o por correo electrónico a NYPART150@panynj.gov a más tardar el 22 de septiembre.

Para más información, por favor llame a la Oficina de Ruido PANYNJ al 212-435-3880 o visite el sitio web del proyecto:
http://panynjpart150.com/LGA_homepage.asp

Queridos amigos y amigas:

Saludos cariñosos a todos como siempre. Mi próximo seminario es el 9 de octubre. Para apuntarse llamen al (212)247-3733 ó (212)489-9457. Para una entrevista privada conmigo, llamar a los mismos números. Pueden hacer también sus entrevistas por teléfono. Para obtener los ingredientes de estas magias o el legítimo perfume Estrus, ir a Nirvana of NY, en el 828 de la novena avenida, 4to piso entre calles 54 y 55 en Manhattan. Me pueden encontrar en www.facebook.com/migene.wippler y pueden ver mi programa La Hora de los Ángeles en el canal 3, miércoles, 11:30am, Time Warner Cable o en Youtube, canal Nirvana, Inc. Para escribir a esta columna, dirijan sus cartas a Nirvana of NY, 828 9th Avenue, 4th Floor, New York, NY 10019. A continuación las cartas de la semana.

Querida Sra. Migene:

Que Dios la bendiga por todo el bien que hace a la humanidad. Yo la he visitado tres veces. La última vez fui con mi esposo quien gracias a Dios y a usted mejoró su suerte y consiguió un buen empleo. Le escribo para que me ayude a rentar un apartamento porque compramos una casa en New Jersey y no hemos tenido suerte con los inquilinos. Muchas gracias y bendiciones,

Gloria C. de Elizabeth, N.J.

Querida Gloria:

Para rentar el apartamento rocéalo por 3 días con agua fría, mezclada con amoníaco, sal de damiana, asafétida y agua de los ángeles. Luego la roceas por 3 días más con agua de arroz, leche, miel y harina de maíz. Llena un tiesto con terreno del frente a la casa y le añades tierra sagrada, polvo de prosperidad y polvo de los ángeles. Mete la llave del apartamento adentro de la tierra y encima le pones polvo imán dorado y 10 hematitas con un obelisco de cuarzo blanco en el medio. Al frente enciende la vela de la abundancia al Arcángel Casiel, que rige las casas, 10 minutos diarios. Pídele que te ayude a rentar el apartamento.

Querida Sra. Migene:

Gracias por su hermosa columna que tanto nos ayuda y enseña. Mi gran esperanza es ir a ver pronto para que me ayude a resolver varios problemas serios que estoy enfrentando. Mientras tanto le escribo para que me diga

K-128

La columna de los consejos,
el amor, la suerte y el dinero

De mí Para ti



Por Migene González-Wippler

cómo protegerme de fuerzas oscuras. Por las noches veo la cara de una mujer blanca frente a mí y me tocan los pies y las piernas y no puedo dormir. A veces amanezco con moretones por todas partes del cuerpo. Por favor dígame qué puedo hacer para que esto se pare. Muy agradecida por su ayuda.

Melisa H. de Manhattan.

Querida Melisa:

Para protegerte y rechazar fuerzas y energías negativas coloca una fuente de agua con hielo, sal de mar, alumbre y alcanfor debajo de la cama. Añade más agua y hielo a diario. Rodea tu cuarto con agua bendita, agua de los ángeles y amoníaco todas las noches. Carga al cuello la medalla de la Shemamfora con los 72 nombres de Dios y amárate una cinta roja a la cintura con 7 nudos cada noche antes de dormir. Rodea una copa de agua con 7 piedras de los ángeles, enciende la vela de los ángeles 7 minutos diarios y reza el salmo 23. Haz esto en tu cuarto y cambia el agua a diario. Verás como se paran estas visiones y experiencias sobrenaturales.

*Con el cariño de siempre,
Migene González-Wippler*

*Los números de la semana según
los signos donde está la luna son
8479 más 1 porque la luna está
creciente.*

LaGuardia Airport

Please Print

Public Information Workshop #2

New York LaGuardia Airport Marriott

Thursday, September 29, 2016

ELECTED OFFICIALS

[illegible]

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

MEDIA

[illegible]

14 CFR Part 150 Study

LaGuardia Airport

Please Print

Public Information Workshop #2

New York LaGuardia Airport Marriott

Thursday, September 29, 2016

K-131

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

FIRST NAME	LAST NAME	AFFILIATION	EMAIL ADDRESS or PHONE
PAUL	CANNIZZARO	ENSIGN ENGINEERING	CTC@ENSIGNENGINEERING.COM 718-863-5590
FRANCO	MAZZARANO	ENSIGN ENGINEERING	FM@ENSIGNENGINEERING.COM 718-863-5590
FRANCES	MCDONALD	CBIG, UCCA	Politicaljunkie2011@hotmail.com 718-721-8392
William H. Haddad	William H. Haddad	COLUMBIA JOURNALISM SCHOOL	SV2492@columbia.edu 269-598-5236
Mong Sing	Lee	Flushing resident	mongsing1@hotmail.com
Carina Yang	Yang	Fresh Meadows Resident	enjoylucky@yahoo.com
TONY	VERO	PA - LGA	avero@Panynj.gov
Phil	Konigsberg	Queens Queensbridge Bay Terrace Court	Long-Leroception@aol.com
Norm	Sturja	Astoria Resident	normsturja@gmail.com

14 CFR Part 150 Study

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

K-132

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

FIRST NAME	LAST NAME	AFFILIATION	EMAIL ADDRESS or PHONE
CLARENCE	BENINATI	HOME OWNER	718-224-4979
DANIEL	RASPENTE	HOME OWNER	718. 836-4650
JOE	SOLIMINE	Messn Scanlon	914 804 0521
Joan	Ryder	Home owner	(917) 255 3965
Susan	Carroll	Flushing resident / community meeting roundtable	646-242-4255
Marilyn	Carroll	Flushing resident	exfsec@aol.com
Jenny Rao	Rao	oakland garden.	646-203-7492
Martin	Keller	Vaughn College	martin.keller@vaughn.edu
Toi	Washington-Simon	DTHAS Blvd Homeowner	Kowashingtonsimon@gmail.com

14 CFR Part 150 Study

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

K-133

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

FIRST NAME	LAST NAME	AFFILIATION	EMAIL ADDRESS or PHONE
PETER	DORAN	MSG SCANLAN HS.	p.doran@SCANLAN.HS.EDU 718 483-3910
Karen	Chong	Home owner	cvongk@k@yahoo.com.
SHOOK	Wong		(718)352-0442
LEN	Schmer	Quieskies, Net	
Fang	Teng	Home Owner	917-698-2887
SUZ	CHAN	Suk Cen	718-767-2485
HCA	ERIKA BRASSEI		
Michael	Ho		mtwho@yahoo.com
Stan	Goldstein		goldsteinUSA@Gmail.com

14 CFR Part 150 Study

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

K-134

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

FIRST NAME	LAST NAME	AFFILIATION	EMAIL ADDRESS or PHONE
Chris	Villari	Skanska Walsh JOINT VENTURE	CHRISTOPHER.Villari@SkanskaWalsh.com
Kathleen	O'Brien	home owner	kmob318@gmail.com
ANDRES	MICHELENA	HOME OWNER	AMichelena@gmail.com
ARNOLD	GILBERT	Kew Gardens Home CIVIC ASS	agilbert136@aol.com
Jay	Stonehill		Stone11355@gmail.com
Ying	Chen		917-553-7775
David	Hopkins	EDC	
Ann	Brown	Civic Assn, CB#3 Resident, E. Elmhurst	asbrown96@aol.com
Tse Jon	Chen	World Journal	peterchen@worldjournal.com

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

K-135

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

[illegible]

LaGuardia Airport

Please Print

K-136

New York LaGuardia Airport Marriott

Thursday, September 29, 2016

ELECTED OFFICIALS

[illegible]

LaGuardia Airport

Please Print

Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016

K-137

MEDIA

[illegible]

14 CFR Part 150 Study LaGuardia Airport

Please Print

**Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016**

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

[illegible]

14 CFR Part 150 Study
LaGuardia Airport
Please Print

Please Print

**Public Information Workshop #2
New York LaGuardia Airport Marriott
Thursday, September 29, 2016**

K-139

Please be advised that your personal identifying information may be made publicly available at any time. If you provide an email address, your email address will be added to the LaGuardia Airport 14 CFR Part 150 Study mailing list.

[illegible]

Public Information Workshop
Handouts
(September 29, 2016)

LGA Part 150 Study Next Steps: Noise Compatibility Program (NCP) Strategy Development

After the approval of the noise exposure maps (NEMs) by the Federal Aviation Administration (FAA) later this year, the PANYNJ, in coordination with the Technical Advisory Committee (TAC), will begin to develop the NCP. The goal of the NCP is to reduce incompatibilities with surrounding land uses. Over the next year the following process will be applied to determine feasible approaches for reducing and mitigating airport noise at LGA:

Noise Compatibility Program Development Process

Step 1: Identify Incompatible Land Uses

Existing conditions Noise Exposure Map
Forecast conditions Noise Exposure Map

Step 2: Consider Noise Abatement Strategies

Reduce noise exposure in areas developed with incompatible land uses
Direct growth in noise exposure to areas developed with noise compatible land uses.

Step 3: Consider Land Use Strategies

Mitigate existing incompatible uses
Prevent introduction of new incompatible uses

Step 4: Consider Programmatic Strategies

Implement and **promote** measures
Monitor and **report** on effectiveness
Update NEMs and **revise** NCP as appropriate

Analysis and Selection Process Applied in Steps 2 -4

- Evaluate effectiveness of each measure in addressing objectives
- Evaluate feasibility (operational, safety, economic, etc.)
- Select preferred measures
- Identify implementation schedule, responsibilities, budget, funding sources, etc.
- If not recommended, document reasons

The NCP strategies will fall into three categories: noise abatement strategies, land use strategies, and programmatic strategies. Potential strategy options that could be recommended in the NCP include:

Major NCP Strategy Options within Each Category

Noise Abatement Strategies

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Noise barriers
- Runup enclosures
- Use restrictions (subject to 14 CFR Part 161)
- Other actions proposed by stakeholders

Land Use Strategies

- Remedial Mitigation
 - Land acquisition
 - Sound insulation
 - Avigation easements
- Preventative Mitigation
 - Land use controls
 - Zoning
 - Building codes
 - Comprehensive plans
 - Real estate disclosures
- Other actions proposed by stakeholders

Programmatic Strategies

- Implementation tools (rules, regulations, ordinances, etc.)
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM update
- NCP revision
- Other actions proposed by stakeholders
- If not recommended, document reasons

The Final NCP is expected to be submitted to the FAA for review and approval in mid-2018. Meetings with the TAC and opportunities for public involvement will continue to be an important part of this study; therefore the PANYNJ is encouraging the continued participation of elected officials, local, regional, and State planning agencies, and members of the public from within the affected jurisdictions.

THE PORT AUTHORITY OF NY & NJ

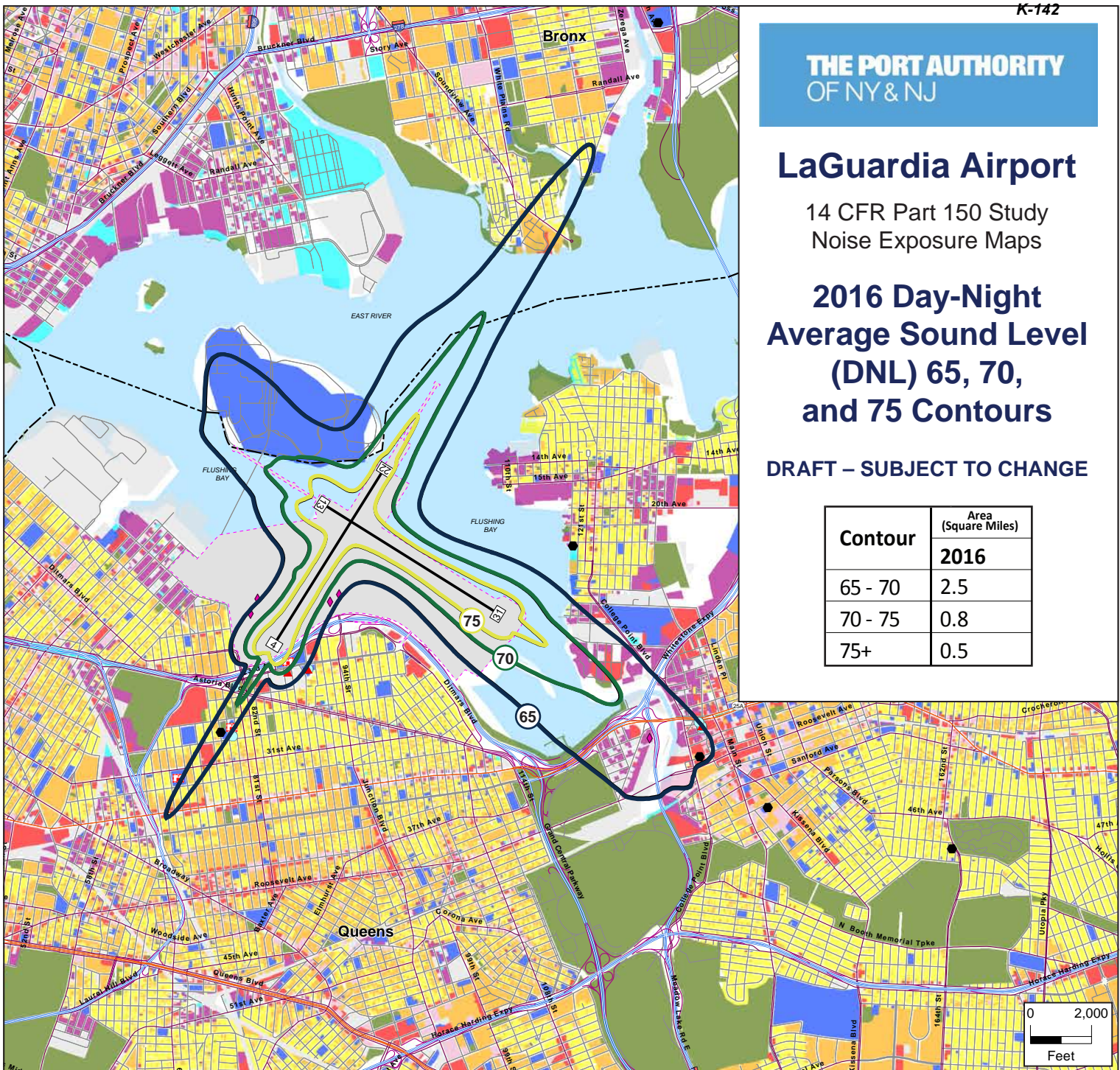
LaGuardia Airport

14 CFR Part 150 Study
Noise Exposure Maps

2016 Day-Night Average Sound Level (DNL) 65, 70, and 75 Contours

DRAFT – SUBJECT TO CHANGE

Contour	Area (Square Miles)
	2016
65 - 70	2.5
70 - 75	0.8
75+	0.5

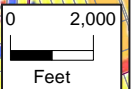


Legend

- Airport Property Line
- Local Street
- Runway
- Limited Access Highway
- Highway
- Major Roadway
- County Boundary
- City Boundary
- Noise Monitor
- Place of Worship
- School
- ◆ Historic Structure
- ▲ Day Care/Assisted Living
- DNL Contour

Existing Land Uses

- Single and Two Family Residential
- Multi-Family Residential
- Mixed Residential and Commercial
- Commercial and Office
- Industrial and Manufacturing
- Transportation, Parking and Utilities
- Public Facilities and Institutions
- Unclassified
- Vacant Land
- Open Space, Cemeteries and Outdoor Recreation



SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015 - June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc., 2016. Note: NYC Department of Planning is sole land use agency for all areas within the DNL 65 dBA Contour. All schools within the DNL 65 dBA have been previously sound insulated.

14 CFR Part 150 requires the depiction of the DNL 65, 70, and 75 contours and the identification of incompatible land uses. All land uses are considered to be compatible with noise levels less than DNL 65. The draft DNL contours provided on this map are for informational purposes only and do not represent a commitment by the Port Authority to provide noise mitigation. 14 CFR Part 150 requires further analysis prior to determining the eligibility of individual parcels for noise mitigation treatment.

THE PORT AUTHORITY OF NY & NJ

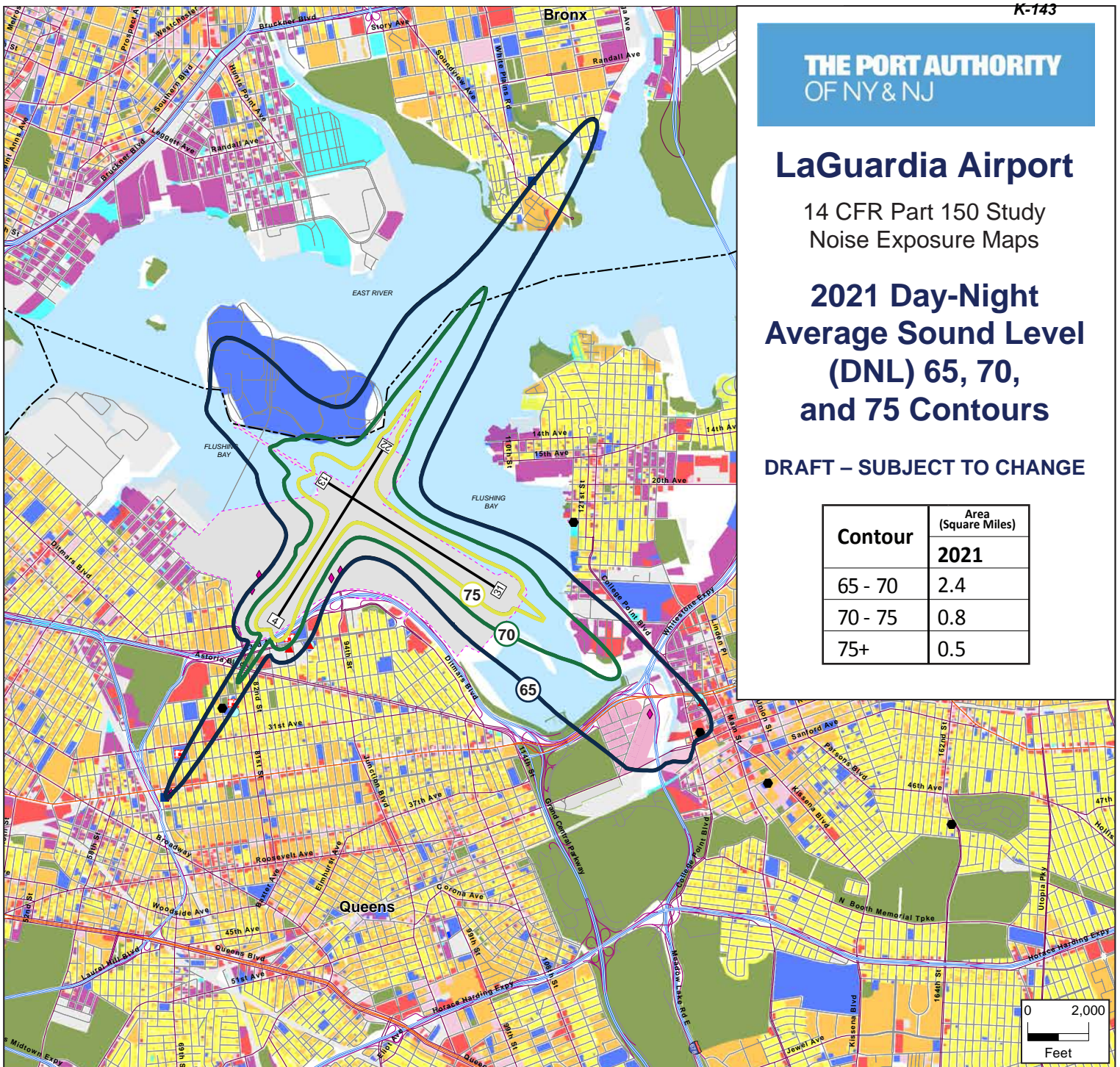
LaGuardia Airport

14 CFR Part 150 Study
Noise Exposure Maps

2021 Day-Night Average Sound Level (DNL) 65, 70, and 75 Contours

DRAFT – SUBJECT TO CHANGE

Contour	Area (Square Miles)
	2021
65 - 70	2.4
70 - 75	0.8
75+	0.5



Legend

- Airport Property Line
- Runway
- Limited Access Highway
- Highway
- Major Roadway
- Local Street
- County Boundary
- City Boundary
- Noise Monitor
- Place of Worship
- School
- ◆ Historic Structure
- ▲ Day Care/Assisted Living
- Hospitals/Health Care
- Residential
- DNL Contour

Future Land Uses

- Single and Two Family Residential
- Multi-Family Residential
- Mixed Residential and Commercial
- Commercial and Office
- Industrial and Manufacturing
- Transportation, Parking and Utilities
- Public Facilities and Institutions
- Unclassified
- Vacant Land
- Open Space, Cemeteries and Outdoor Recreation

0 2,000
Feet



SOURCE: New York City Department of City Planning, MapPLUTO 15V1- Tax lot/land use geographic information database, March 2015 - June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services; Environmental Science Associates, 2016; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc., 2016. Note: NYC Department of Planning is sole land use agency for all areas within the DNL 65 dBA Contour. All schools within the DNL 65 dBA have been previously sound insulated.

14 CFR Part 150 requires the depiction of the DNL 65, 70, and 75 contours and the identification of incompatible land uses. All land uses are considered to be compatible with noise levels less than DNL 65. The draft DNL contours provided on this map are for informational purposes only and do not represent a commitment by the Port Authority to provide noise mitigation. 14 CFR Part 150 requires further analysis prior to determining the eligibility of individual parcels for noise mitigation treatment.

Draft Noise Exposure Map Report Comment Form

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Email:

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

LaGuardia Airport

Title 14 Code of Federal Regulations Part 150 Study

What is a 14 CFR Part 150 Study?

Title 14 Code of Federal Regulations (CFR) Part 150, *Airport Noise Compatibility Planning*, was issued by the Federal Aviation Administration (FAA) as a final rule in January 1985. 14 CFR Part 150 sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs.

14 CFR Part 150 studies typically consist of two primary components: (1) the Noise Exposure Map (NEM) report, which contains detailed information regarding existing and 5-year future airport/aircraft noise exposure patterns, and (2) the Noise Compatibility Program (NCP), which includes descriptions and an evaluation of noise abatement and noise mitigation options/programs applicable to an airport.

Has a 14 CFR Part 150 Study been prepared for LaGuardia Airport (LGA)?

Although the Port Authority of New York and New Jersey has a long history of addressing noise exposure from aircraft operations at LGA, this is the first 14 CFR Part 150 Study for LGA. The Port Authority is preparing 14 CFR Part 150 studies for John F. Kennedy International Airport (JFK), Newark Liberty International Airport, and Teterboro Airport concurrent with the LGA 14 CFR Part 150 study.

Why is the Port Authority undertaking a 14 CFR Part 150 Study for LGA?

In response to growing community concerns about aircraft noise, Governor Andrew Cuomo directed the Port Authority to undertake 14 CFR Part 150 Studies for JFK and LGA in order to “open a full and thorough dialogue with the impacted communities while also pursuing a noise study to better address the issue.” Port Authority Aviation Director Thomas Bosco said, “The Port Authority understands it must strive to be a good neighbor in the communities where its airports are located.” He added, “We will seek noise mitigation with the FAA where feasible.”

The 14 CFR Part 150 Study for LGA will identify areas that are not compatible with certain levels of aircraft noise exposure and will recommend measures for mitigating aircraft noise impacts to the greatest extent feasible.

What will the Port Authority produce during the LGA 14 CFR Part 150 Study?

The 14 CFR Part 150 Study must be prepared in accordance with guidance provided in the 14 CFR Part 150 regulations. The FAA has prepared checklists for the NEM and NCP which must be followed to ensure compliance with 14 CFR Part 150. As part of the LGA 14 CFR Part 150 Study, the Port Authority and its consultant will quantify existing (2016) and future (2021) aircraft noise exposure levels in the vicinity of LGA. The Port Authority will also develop supporting documentation explaining the process used to calculate existing and future aircraft noise exposure levels. The LGA NEM Report will provide the Port Authority with a set of NEMs that identify areas exposed to aircraft noise of day-night average sound level (DNL) 65 decibels (dB) and higher. The NEMs will be submitted to the FAA for review and

acceptance. Areas outside DNL 65 are considered compatible land use. Additional maps will be created, for informational purposes only, to show the existing and future DNL 55 and 60 contours. These maps will not be included in the formal submittal of the NEM to the FAA.

After the LGA NEMs are complete, the Port Authority and its consultant will examine potential measures for minimizing LGA's noise impact. The Port Authority will consider a range of feasible mitigation measures including operational, remedial, preventative, and administrative measures. The measures providing the greatest potential to minimize the noise impacts from aircraft operations at LGA will be forwarded to the FAA for review and approval. Only those measures approved by the FAA will be eligible for consideration for federal funding.

Are there draft NEM documents that we can review and comment on?

The Port Authority released the Draft LGA NEM Report to the public on September 22, 2016. This Report is available at the Port Authority's website at: http://panynjpart150.com/LGA_DNEM.asp, LGA administrative office, and these public locations:

LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371
Hours: 8:00 A.M. to 4:00 P.M. (Mon to Fri)

Flushing Branch – Queens Library
41-17 Main Street
Flushing, NY 11355

Jackson Heights Branch – Queens Library
35-51 81 Street
Jackson Heights, NY 11372

The Report includes the methodology and results of the noise exposure analysis shown at this workshop. Comments can be made (1) by email to NYPART150@panynj.gov, (2) by mail to the Port Authority address located at the bottom of this handout, or (3) directly at this workshop. Comments made by email or mail must be received by 5:00 P.M. on October 24, 2016.

How long will the LGA 14 CFR Part 150 Study take to complete?

14 CFR Part 150 Studies vary in duration depending on a number of factors including, but not limited to, the complexity of the airport operations and local airspace, availability of data, the public outreach process, and agency review periods. The estimated duration of the LGA 14 CFR Part 150 Study is approximately three to four years. The Port Authority is committed to taking the time required to provide the FAA with NEMs and an NCP for LGA that meet the requirements of 14 CFR Part 150.

Where can I get more information?

General information, project reports and public workshop materials, including presentation boards, will be uploaded to the project website at <http://www.panynj.gov/airports/aircraft-noise-information.html> as they become available.

How can I get involved?

14 CFR Part 150 encourages the participation of citizens and public agencies. The 14 CFR Part 150 Study schedule includes several public information workshops. This is the second public information workshop, where the draft 2016 and 2021 Noise Exposure Maps and noise exposure analysis are presented.

The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint, the airport noise complaint hotline is 1-800-225-1071. Comments regarding the LGA 14 CFR Part 150 Study can be submitted at the public workshop or by (1) email to NYPART150@panynj.gov or (2) mailing to the Port Authority at the following address:

Port Authority of NY & NJ
Aviation Department
ATTN: Noise Office - NY Part 150 Study
4 World Trade Center
150 Greenwich Street, 18th floor
New York, NY 10007

Αεροδρόμιο LaGuardia

Τίτλος 14 του Κώδικα Ομοσπονδιακών Κανονισμών Μελέτη Μέρος 150

Τι είναι η Μελέτη 150 του Κώδικα 14 των Ομοσπονδιακών Κανονισμών (CFR);

Ο Τίτλος 14 του Κώδικα Ομοσπονδιακών Κανονισμών (CFR) Μέρος 150, *Σχέδιο Συμβατότητας Θορύβου Αεροδρομίου*, εκδόθηκε από την Ομοσπονδιακή Διοίκηση Αεροπορίας (FAA) ως τελικός κανόνας τον Ιανουάριο του 1985. Ο Κώδικας 14 CFR Μέρος 150 εκθέτει τη μεθοδολογία και τις διαδικασίες που πρέπει να τηρούνται όταν προετοιμάζονται οι χάρτες έκθεσης για το θόρυβο αεροσκαφών και αναπτύσσονται προγράμματα συμβατότητας για τη χρήση αεροδρομίων/περιχώρων αεροδρομίων.

Οι μελέτες του Κώδικα 14 CFR Μέρος 150 αποτελούνται συνήθως από δύο πρωταρχικά στοιχεία: (1) την αναφορά Χάρτη Έκθεσης Θορύβου (NEM), που περιλαμβάνει λεπτομερείς πληροφορίες σχετικά με τα ήδη υπάρχοντα πρότυπα καθώς και με τα πρότυπα για 5 έτη στο μέλλον όσον αφορά στην έκθεση σε θόρυβο αεροδρομίου/αεροσκαφών, και (2) το Πρόγραμμα Συμβατότητας Ήχου (NCP), που περιλαμβάνει περιγραφές και αξιολόγηση επιλογών/προγραμμάτων μείωσης θορύβου και μετρίασης θορύβου που ισχύουν για ένα αεροδρόμιο.

Έχει προετοιμαστεί μια Μελέτη του Κώδικα 14 CFR Μέρος 150 για το Αεροδρόμιο LaGuardia (LGA);

Αν και η Λιμενική Αρχή της Νέας Υόρκης και του Νιού Τζέρσεϊ έχουν ιστορικό αντιμετώπισης της έκθεσης θορύβου από λειτουργίες αεροσκαφών στο LGA, αυτή είναι η πρώτη Μελέτη Κώδικα 14 CFR Μέρος 150 για το LGA. Η Λιμενική Αρχή προετοιμάζει μελέτες του κώδικα 14 CFR Μέρος 150 για το Διεθνές Αεροδρόμιο John F. Kennedy (JFK), το Διεθνές Αεροδρόμιο Newark Liberty, και το Αεροδρόμιο Teterboro συγχρόνως με τη μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA.

Γιατί διεξάγει η Λιμενική Αρχή μια Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA;

Ως ανταπόκριση σε προβληματισμούς του κοινού σχετικά με το θόρυβο από αεροσκάφη, ο Κυβερνήτης Άντριου Κουόμο έδωσε εντολή στη Λιμενική Αρχή να διεξάγει Μελέτες του κώδικα 14 CFR Μέρος 150 για το JFK και το LGA. Ο Κυβερνήτης Κουόμο κατεύθυνε τη Λιμενική Αρχή να ανοίξει έναν πλήρη και λεπτομερή διάλογο με τις κοινότητες που επηρεάζονται ενώ ακολουθεί μια μελέτη θορύβου για να αντιμετωπίσει καλύτερα το θέμα. Ο Διευθυντής της Λιμενικής Αρχής Τόμας Μπόσκο είπε, «Η Λιμενική Αρχή κατανοεί ότι πρέπει να καταβάλει προσπάθειες για να είναι καλός γείτονας στις κοινότητες όπου βρίσκονται τα αεροδρόμια». Πρόσθεσε, «Θα αναζητήσουμε τη μείωση θορύβου με την FAA όπου είναι δυνατόν».

Η Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA θα προσδιορίσει περιοχές που δεν είναι συμβατές με σημαντικά επίπεδα έκθεσης θορύβου αεροδρομίου και θα συστήσει μέτρα για την επίδραση μείωσης θορύβου αεροσκαφών στο μεγαλύτερο δυνατόν βαθμό.

Τι θα προσκομίσει η Λιμενική Αρχή κατά τη διάρκεια της Μελέτης του Κώδικα 14 CFR Μέρους 150 για το LGA;

Η Μελέτη του Κώδικα 14 CFR Μέρους 150 θα πρέπει να προετοιμαστεί σύμφωνα με την οδηγία που παρέχεται στους κανόνες του Κώδικα 14 CFR Μέρους 150. Η FAA έχει προετοιμάσει καταλόγους για τη ΝΕΜ και ΝCΡ που πρέπει να τηρηθούν προς επιβεβαίωση συμβατότητας με τον Κώδικα 14 CFR Μέρους 150. Ως τμήμα της Μελέτης του Κώδικα LGA 14 CFR Μέρους 150, η Λιμενική Αρχή και οι σύμβουλοί της θα ποσοτικοποιήσουν τα ήδη υπάρχοντα (2016) και τα μελλοντικά (2021) επίπεδα έκθεσης θορύβου σε αεροσκάφη στην περιοχή του LGA. Η Λιμενική Αρχή θα παρέχει επίσης υποστηρικτική τεκμηρίωση που εξηγεί τη διαδικασία που χρησιμοποιείται για τον υπολογισμό τωρινών και μελλοντικών επιπέδων έκθεσης θορύβου σε αεροσκάφη. Η αναφορά LGA ΝΕΜ θα παρέχει στη Λιμενική Αρχή ένα σετ από ΝΕΜ που προσδιορίζουν τις περιοχές που εκθέτονται σε θόρυβο αεροσκαφών που βρίσκεται σε ημερήσιο-νυχτερινό μέσο όρο επιπέδου ήχου (DNL) 65 ντεσιμπέλ (dB) και μεγαλύτερο. Τα ΝΕΜ θα υποβληθούν στην FAA για αναθεώρηση και αποδοχή. Οι περιοχές εκτός των DNL 65 ντεσιμπέλ (dB) θεωρούνται συμβατές για χρήση. Οι συμπληρωματικοί χάρτες θα δημιουργηθούν για πληροφοριακούς σκοπούς μόνο για να δείξουν τα υπάρχοντα και μελλοντικά περιγράμματα DNL 55 και 60 dB. Αυτοί οι χάρτες θα περιλαμβάνονται στην επίσημη υποβολή του ΝΕΜ στην FAA.

Αφότου ολοκληρωθούν οι αναφορές ΝΕΜ για το LGA, η Λιμενική Αρχή και οι σύμβουλοί της θα εξετάσουν τα ενδεχόμενα μέτρα για τη μείωση θορύβου στο LGA. Η Λιμενική Αρχή θα λάβει υπόψη πιθανά μέτρα μείωσης που συμπεριλαμβάνουν επιχειρησιακά, αποκαταστατικά, αποτρεπτικά και διαχειριστικά μέτρα. Τα μέτρα που παρέχουν την μεγαλύτερη δυνατότητα για ελαχιστοποίηση του θορύβου από τις λειτουργίες αεροσκαφών στο LGA θα υποβληθούν στην FAA για αναθεώρηση και έγκριση. Μόνο τα μέτρα που θα εγκριθούν από την FAA θα είναι κατάλληλα να ληφθούν υπόψη για ομοσπονδιακή χρηματοδότηση.

Υπάρχουν έγγραφα ΝΕΜ που μπορούμε να δούμε και να σχολιάσουμε;

Η Λιμενική Αρχή έδωσε την Αναφορά LGA ΝΕΜ στο κοινό στις 22 Σεπτεμβρίου 2016. Η αναφορά αυτή είναι διαθέσιμη στην ιστοσελίδα της Λιμενικής Αρχής στη

διεύθυνση: http://panynjpart150.com/LGA_DNEM.asp, γραφείο διαχείρισης LGA, και στις παρακάτω δημόσιες βιβλιοθήκες:

LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371
Ωρες: 8:00 π.μ. έως 4:00 μ.μ. (Δευτ. με Παρ.)

Flushing Branch – Queens Library,
41-17 Main Street
Flushing, NY 11355

Jackson Heights Branch – Queens Library
35-51 81 Street
Jackson Heights, NY 11372

Η Αναφορά περιλαμβάνει τη μεθοδολογία και τα αποτελέσματα της ανάλυσης έκθεσης σε θόρυβο που παρουσιάστηκαν σε αυτό το σεμινάριο. Μπορείτε να παρέχετε σχόλια (1) μέσω email στη διεύθυνση NYPART150@panynj.gov ή (2) ταχυδρομικά στη διεύθυνση της Λιμενικής Αρχής που βρίσκεται στο κάτω μέρος του παρόντος εντύπου ή (3) απευθείας σε αυτό το σεμινάριο. Τα σχόλια πρέπει να ληφθούν έως τις 5:00 μ.μ. στις 24 Οκτωβρίου 2016.

Πόσο καιρό θα πάρει για να ολοκληρωθεί η Μελέτη Μέρους 150 του Κώδικα 14 CFR για το LGA;

Οι Μελέτες του Κώδικα 14 CFR Μέρους 150 διαφέρουν ανάλογα με τον αριθμό παραγόντων που συμπεριλαμβάνουν, μεταξύ άλλων, την περίπλοκη επιχείρηση αεροδρομίων και του τοπικού εναέριου

χώρου, τη διαθεσιμότητα των δεδομένων, τη διαδικασία ευαισθητοποίησης του κοινού και τις περιόδους αναθεώρησης της υπηρεσίας. Η υπολογιζόμενη διάρκεια της Μελέτης του Κώδικα 14 CFR, Μέρος 150 για το LGA είναι περίπου τρία με τέσσερα έτη. Η Λιμενική Αρχή έχει δεσμευτεί για να διαθέσει το χρόνο που απαιτείται ώστε να παρέχει στην FAA τις αναφορές NEMs και το NCP για το LGA που ανταποκρίνονται στις απαιτήσεις του Κώδικα 14 CFR Μέρος 150.

Που μπορώ να λάβω περισσότερες πληροφορίες;

Θα φορτωθούν γενικές πληροφορίες, αναφορές σχεδίων και υλικά εργαστηρίου για το κοινό στην ιστοσελίδα του προγράμματος στη διεύθυνση <http://www.panynj.gov/airports/aircraft-noise-information.html>, καθώς θα γίνονται διαθέσιμα.

Πως μπορώ να συμμετάσχω;

Ο Κώδικας 14 CFR Μέρος 150 ενθαρρύνει τη συμμετοχή πολιτών και δημοσίων υπηρεσιών. Η Λιμενική Αρχή θα συγκαλέσει συνέδρια δημοσίων πληροφοριών κατά τη διάρκεια της διαδικασίας Μελέτης του 14 CFR Μέρος 150. Αυτό είναι το δεύτερο δημόσιο σεμινάριο πληροφοριών, όπου θα παρουσιαστούν οι Χάρτες Έκθεσης Θορύβου 2016 και 2021 καθώς και η ανάλυση στην έκθεση θορύβου.

Η Λιμενική Αρχή ενδιαφέρεται να ακούσει τη γνώμη σας σχετικά με το θόρυβο αεροσκαφών και εάν δημιουργεί πρόβλημα. Για να υποβάλλετε ένα παράπονο σχετικά με το θόρυβο αεροσκαφών, η γραμμή βοήθειας για τα παράπονα σχετικά με το θόρυβο αεροσκαφών είναι 1-800-225-1071. Τα σχόλια σχετικά με τη Μελέτη του Κώδικα 14 CFR Μέρος 150 για το LGA θα υποβληθούν στο δημόσιο συνέδριο ή μέσω (1) email στη διεύθυνση NYPART150@panynj.gov ή (2) στέλνοντάς τα στη Λιμενική Αρχή στην εξής διεύθυνση:

Port Authority of NY & NJ
Aviation Department
ATTN: Noise Office - NY Part 150 Study
4 World Trade Center
150 Greenwich Street, 18th floor
New York, NY 10007

拉瓜迪亚机场

《联邦法规 (CFR)》第 14 卷第 150 部分 (14 CFR Study 150)

何谓“14 CFR 第 150 部分调研”？

“14 CFR Part 150”□“Title 14 Code of Federal Regulations Part 150”的缩写，即美国政府“《联邦法规》汇编第 14 编第 150 部分”，□□“机□噪音兼容性□划”，由联邦航空管理局 (FAA) 于 1985 年 1 月正式颁布执行。14 CFR 第 150 部分中规定了编制飞机噪音暴露地图的方法和规程，以及机场和机场周边土地使用兼容性项目的编制方法和规程。

“14 CFR 第 150 部分调研”一般由两个主要部分组成：(1) 噪音暴露地图 (Noise Exposure Map, NEM) 报告，内中详述目前及未来 150 年内机场/机场噪音暴露模式；(2) 噪音兼容性方案 (Noise Compatibility Program, NCP)，应说明可以适用于机场的噪音治理备选方案/计划，并加以评估。

拉瓜迪亚机场 (LGA) 过去有无进行“14 CFR 第 150 部分调研”？

虽然纽约与新泽西港口事务管理局 (Port Authority of New York and New Jersey) 一直保持了对 LGA 的飞机噪音暴露治理工作，但真正进行“14 CFR 第 150 部分调研”尚属首次。此次除对 LGA 进行 14 CFR 第 150 部分调研之外，港务局还对肯尼迪国际机场 (JFK)、纽瓦克国际机场和蒂特波罗机场同时进行调研。

港务局对 LGA 进行“14 CFR 第 150 部分调研”的意义何在？

社区对飞机噪音问题已表示了越来越强烈的担忧，安德鲁·科莫州长对此事的反应就是要求港务局对 JFK 和 LGA 进行“14 CFR 第 150 部分调研”，以便“在□行噪音□研的同□与受影响社区□行全面深入的□□，力求找到解决□一□□的更好方法。”港务局航空主任 Thomas Bosco 表示：“本港□局深知：机□开在哪里，就要争做那里的‘好□居’。”他还补充道：“我们将尽量与 FAA 一道，探索合理的噪音治理办法。”

本次对 LGA 进行“14 CFR 第 150 部分调研”，将找出飞机噪音暴露水平问题的某些方面，并就如何在合理范围内尽可能降低飞机噪音所造成的不利影响而提出方法措施上的建议。

港务局对 LGA 进行“14 CFR 第 150 部分调研”后将得出哪些成果？

“14 CFR 第 150 部分调研”的编订必须遵照 14 CFR 第 150 部分有关法规的指示进行。FAA 为 NEM 和 NCP 的编订明确规定了任务内容，必须全面遵守，否则即为违反 14 CFR 第 150 部分的规定。在对 LGA 进行“14 CFR 第 150 部分调研”期间，港务局及其顾问将对 LGA 周边的飞机噪音在当前 (2016) 及未来 (2021) 的暴露水平进行定量测定。同时，港务局方面还将给出解释性文件，说明在计算当前 (2016) 及未来 (2021) 的飞机噪音暴露水平时所采用的方法步骤。调研文件中还将包括“LGA NEM 报告”，其中包含一整套 NEM 地图，用于为港务局标明暴露在飞机噪音下且昼夜平均声级 (DNL) 达到或超过 65 分贝 (dB) 的区域。NEM 将递交 FAA 进行审批。DNL 65 分贝以

外的地区被认为属于兼容的土地使用。除这套地图外，将另行绘制一套附加地图，标明在当前及未来 DNL 达到 55 分贝和 60 分贝的区域，但仅供参考，不会包含在提交 FAA 审批的地图中。

LGA NEM 地图完成后，港务局及其顾问将考察应采取何种措施来最大限度降低 LGA 的噪音影响。考察范围包括一系列可行方案，如运营手段、补偿赔偿、预防治理和行政措施等。从中得出最能够降低 LGA 飞机运营噪音影响的方案，然后提交 FAA 审批。**惟有经过 FAA 批准的措施，才有资格被考虑申请联邦拨款。**

有可供我们审阅和评议的 NEM 文件草案吗？

港务局于 2016 年 9 月 22 日向社会公开发布了 LGA NEM 报告的草案。港务局网站 (http://panynjpart150.com/LGA_DNEM.asp)、LGA 行政办公室和这些公共图书馆都提供该报告：

LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371
时间：上午 8 点到下午 4 点（周一至周五）

法拉盛分馆 – 皇后区图书馆
41-17 Main Street
Flushing, NY 11355

杰克逊高地分馆 – 皇后区图书馆
35-51 81 Street
Jackson Heights, NY 11372

该报告包含了此次介绍会上展示的噪声暴露分析方法和结果。可将评议 (1) 电邮至 NYPART150@panynj.gov 或 (2) 邮寄到位于本宣传材料底部的港务局地址，**(3) 直接在此介绍会上提出。**评议必须在 2016 年 10 月 24 日下午 5 点以前收到。

此次“LGA 14 CFR 第 150 部分调研”需要多久完成？

“14 CFR 第 150 部分调研”的具体耗时并不一定，取决于很多因素，包括（但不限于）：机场运营情况及周边空域情况的复杂度、有无现成数据、公众宣传工作的开展和机构审查的时间等。至于此次“14 CFR 第 150 部分调研”，估计需要约三到四年完成。港务局绝不会草率行事，必将严格按照 14 CFR 第 150 部分的要求，深入细致地编订 LGA 的 NEM 和 NCP 报告，并提交 FAA 审批。

在哪里可以获得更多详情？

本次调研的一般性信息、项目报告和公众介绍会材料（包括演示板）等，都将随着项目进行而不断推出，并上传到这个项目的网站：<http://www.panynj.gov/airports/aircraft-noise-information.html>。

我能参与进来吗？

按照 14 CFR 第 150 部分的规定，鼓励所有公民和公众机构参与我们的工作。此次“14 CFR 第 150 部分调研”包括数个公共信息介绍会。这是第二次公开信息介绍会，会上将介绍 2016 年草案和 2021 噪声暴露地图和噪声暴露分析。

如果飞机噪音对您带来困扰，港务局将非常愿意聆听您的声音。可通过机场噪音举报热线对机场噪音进行举报，电话号码：1-800-225-1071。若对此次“LGA 14 CFR 第 150 部分调研”有任何意见或建议，敬请在信息公开会上提出，也可直接联系港务局，联系方式：(1) 电子邮件：NYPART150@panynj.gov；(2) 邮政地址：

Port Authority of NY & NJ
Aviation Department
ATTN: Noise Office - NY Part 150 Study
4 World Trade Center
150 Greenwich Street, 18th floor
New York, NY 10007

Aeropuerto LaGuardia

Título 14 del Código de Regulaciones Federales Parte 150

¿Qué es un Estudio CFR 14 Parte 150?

La Administración Federal de Aviación (FAA, por sus siglas en inglés) emitió el Título 14 del Código de Regulaciones Federales (CFR, por sus siglas en inglés) Parte 150 como regla final en enero de 1985. 14 CFR Parte 150 establece los métodos y procedimientos que se deben seguir al preparar mapas de exposición al ruido de aviones y desarrollar programas de compatibilidad para el uso de suelo de aeropuertos/cercano a los aeropuertos.

Por lo general, los estudios de 14 CFR Parte 150 consisten de dos componentes principales: (1) el informe del Mapa de Exposición al Ruido (NEM, por sus siglas en inglés), que contiene información detallada referente a los patrones de exposición al ruido de aeropuertos/aviones existentes y de 5 años futuros, y (2) el Programa de Compatibilidad de Ruido (NCP, por sus siglas en inglés), que incluye descripciones y una evaluación de opciones/programas de abatimiento y mitigación del ruido correspondientes a un aeropuerto.

¿Se ha preparado un Estudio 14 CFR Parte 150 para el Aeropuerto LaGuardia (LGA, por sus siglas en inglés)?

Aunque la Autoridad Portuaria de Nueva York y Nueva Jersey tiene una larga historia de lidiar con la exposición al ruido de operaciones de aviación en LGA, éste es el primer Estudio 14 CFR Parte 150 para LGA. La Autoridad Portuaria está preparando estudios 14 CFR Parte 150 para el Aeropuerto Internacional John F. Kennedy (JFK), el Aeropuerto Internacional Liberty de Newark y el Aeropuerto Teterboro concurrentes con el estudio 14 CFR Parte 150 de LGA.

¿Por qué lleva a cabo la Autoridad Portuaria un Estudio 14 CFR Parte 150 para LGA?

En respuesta a crecientes inquietudes de la comunidad sobre el ruido de aviones, el Gobernador Andrew Cuomo ordenó a la Autoridad Portuaria llevar a cabo Estudios 14 CFR Parte 150 para JFK y LGA para “abrir un diálogo completo con las comunidades afectadas mientras se realiza un estudio del ruido para lidiar mejor con el asunto.” Director de Aviación de la Autoridad Portuaria Thomas Bosco dijo: “La Autoridad Portuaria entiende y debe esforzarse por ser un buen vecino de las comunidades donde están ubicados los aeropuertos”. Añadió, “Buscaremos la mitigación del ruido con la FAA donde sea factible”.

El Estudio 14 CFR Parte 150 para LGA identificará las áreas que no son compatibles con niveles significativos de exposición al ruido y recomendará medidas para mitigar los efectos del ruido de aviones hasta el mayor punto factible.

¿Qué producirá la Autoridad Portuaria durante el Estudio 14 CFR Parte 150 de LGA?

El Estudio 14 CFR Parte 150 se debe preparar en conformidad con los lineamientos provistos en las regulaciones 14 CFR Parte 150. La FAA ha preparado listas de verificación para el NEM y NCP, las

cuales se deben seguir para asegurar el cumplimiento con 14 CFR Parte 150. Como parte del Estudio 14 CFR Parte 150 de LGA, la Autoridad Portuaria y su consultor cuantificarán los niveles de exposición al ruido de aviones existentes (2016) y futuros (2021) en la cercanía de LGA. La Autoridad Portuaria desarrollará documentación de apoyo explicando el proceso seguido para calcular los niveles de exposición al ruido de aviones existentes y futuros. El Informe del NEM de LGA proveerá a la Autoridad Portuaria un conjunto de NEM que identifiquen áreas expuestas al ruido de aviones con un nivel de sonido promedio de día y noche (DNL, por sus siglas en inglés) de 65 decibeles (dB) y más. Los NEMs se presentarán a la FAA para su revisión y aceptación. Áreas fuera de DNL 65 dB se consideran uso del suelo compatible. Se crearán mapas adicionales únicamente para propósitos informativos a fin de indicar los contornos existentes y futuros de DNL de 55 y 60 dB. Estos mapas no se incluirán en la presentación formal del NEM a la FAA.

Después de que se completen los NEM de LGA, la Autoridad Portuaria y sus consultores examinarán las posibles medidas para reducir al mínimo el efecto del ruido de LGA. La Autoridad Portuaria considerará una variedad de medidas factibles de mitigación, incluyendo medidas operativas, remediadoras, preventivas y administrativas. Las medidas que provean el mayor potencial para minimizar los efectos del ruido de operaciones de aviación en LGA se enviarán a la FAA para su revisión y aprobación. Sólo las medidas aprobadas por la FAA serán consideradas elegibles para fondos federales.

¿Hay documentos preliminares NEM que pueden que podemos revisar y comentar?

La Autoridad Portuaria lanzó el Informe Preliminar LGA NEM al público el 22 de septiembre de 2016. Este informe está disponible en el sitio web de la autoridad portuaria en: <http://panynjpart150.com/LGA/DNEM.asp>, oficina administrativa de la LGA y estas bibliotecas públicas:

LaGuardia Airport	Flushing Branch – Queens Library
Centro Hangar 7, Piso 3, Flushing, NY 11371	41-17 Main Street
Durante: 8:00 A.M. a 4:00 P.M. (Lunes a Viernes)	Flushing, NY 11355

Jackson Heights Branch – Queens Library
35-51 81 Street
Jackson Heights, NY 11372

El informe incluye la metodología y los resultados de los análisis de exposición de ruido en este taller. Comentarios pueden hacerse por (1) correo electrónico a NYPART150@panynj.gov o (2) por correo a la dirección de Autoridad Portuaria ubicada en la parte inferior de esta hoja informativa o (3) en este taller. Comentarios deben recibirse antes de 5:00 P.M. el 24 de octubre de 2016.

¿Cuánto tardará en completarse el Estudio 14 CFR Parte 150 de LGA?

La duración de los Estudios 14 CFR Parte 150 varía dependiendo de un número de factores, entre ellos: la complejidad de las operaciones del aeropuerto y del espacio aéreo local, la disponibilidad de datos, el proceso de alcance del público y los periodos de revisión de la agencia. La duración estimada del Estudio 14 CFR Parte 150 de LGA es aproximadamente de tres a cuatro años. La Autoridad Portuaria está comprometida en dedicar el tiempo necesario para proveer a la FAA con NEM y un NCP para LGA que cumplan con los requisitos de 14 CFR Parte 150.

¿Dónde puedo obtener más información?

Información general, informes del proyecto y materiales de talleres públicos, incluyendo presentaciones, se subirán a la página Web: <http://www.panynj.gov/airports/aircraft-noise-information.html>, conforme estén disponibles.

¿Cómo puedo participar?

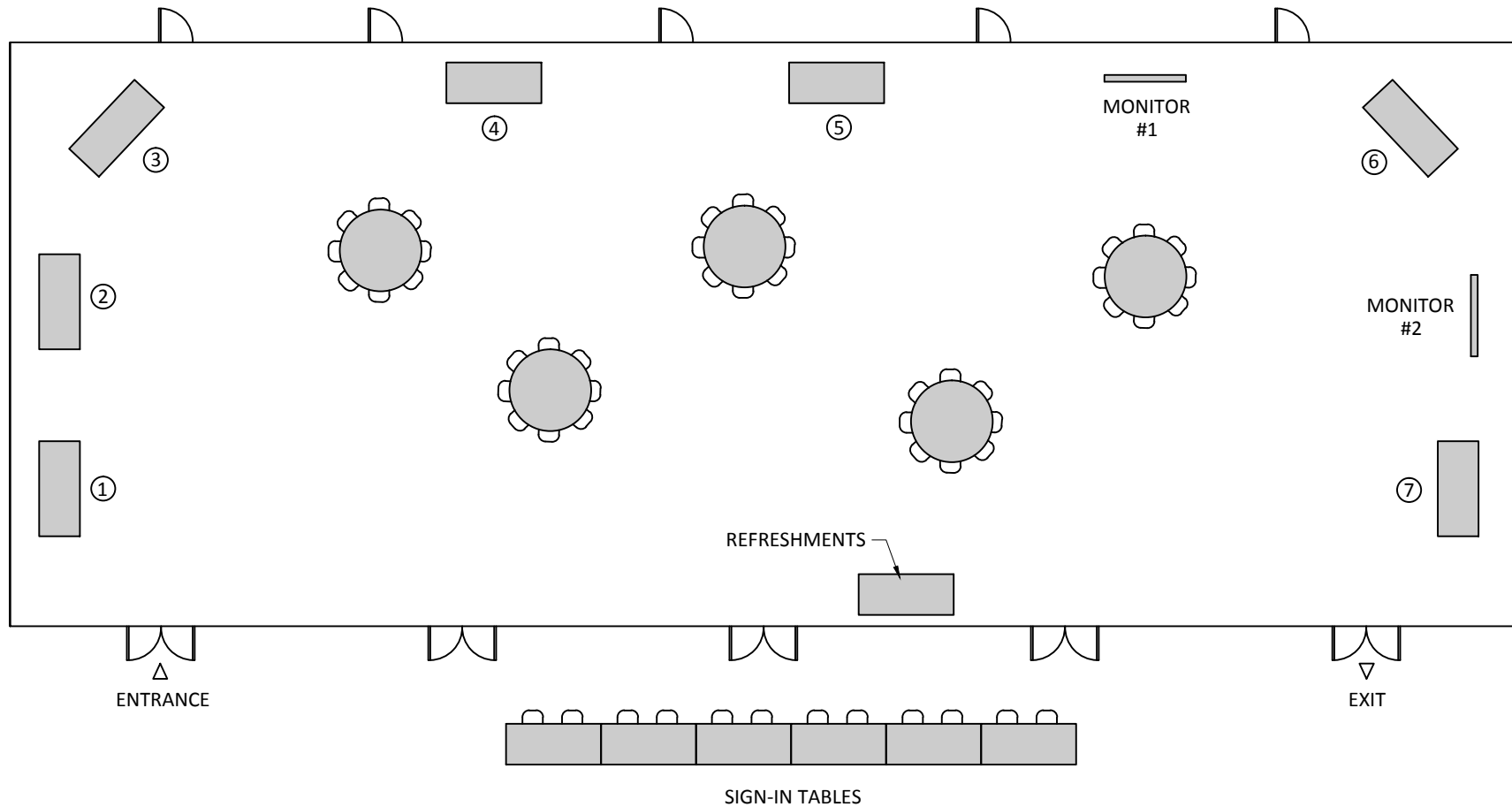
14 CFR Parte 150 anima la participación de los ciudadanos y agencias públicas. El Programa del Estudio 14 CFR Parte 150 incluye varios talleres de información pública. Este es el segundo taller de información pública, donde se presentan los mapas preliminares de exposición de ruido y análisis de la exposición de ruido para el 2016 y 2021.

A la Autoridad Portuaria le interesa escuchar su opinión si le preocupa el ruido de las aeronaves. Para presentar una queja de ruido de aviones, comuníquese a la línea telefónica 1-800-225-1071. Puede presentar sus comentarios referentes al Estudio 14 CFR Parte 150 de LGA en el taller público o (1) por correo electrónico a NYPART150@panynj.gov o (2) por correo dirigiéndose a siguiente dirección de la Autoridad Portuaria:

Port Authority of NY & NJ
Aviation Department
ATTN: Noise Office - NY Part 150 Study
4 World Trade Center
150 Greenwich Street, 18th floor
New York, NY 10006

New York LaGuardia Airport Marriott

LGA 14 CFR Part 150 Study



LaGuardia Airport
 Title 14 CFR Part 150 Study
 Public Information Workshop
 September 29, 2016

See reverse for station list ►

Welcome to the Public Information Workshop for the LaGuardia Airport 14 CFR Part 150 Study

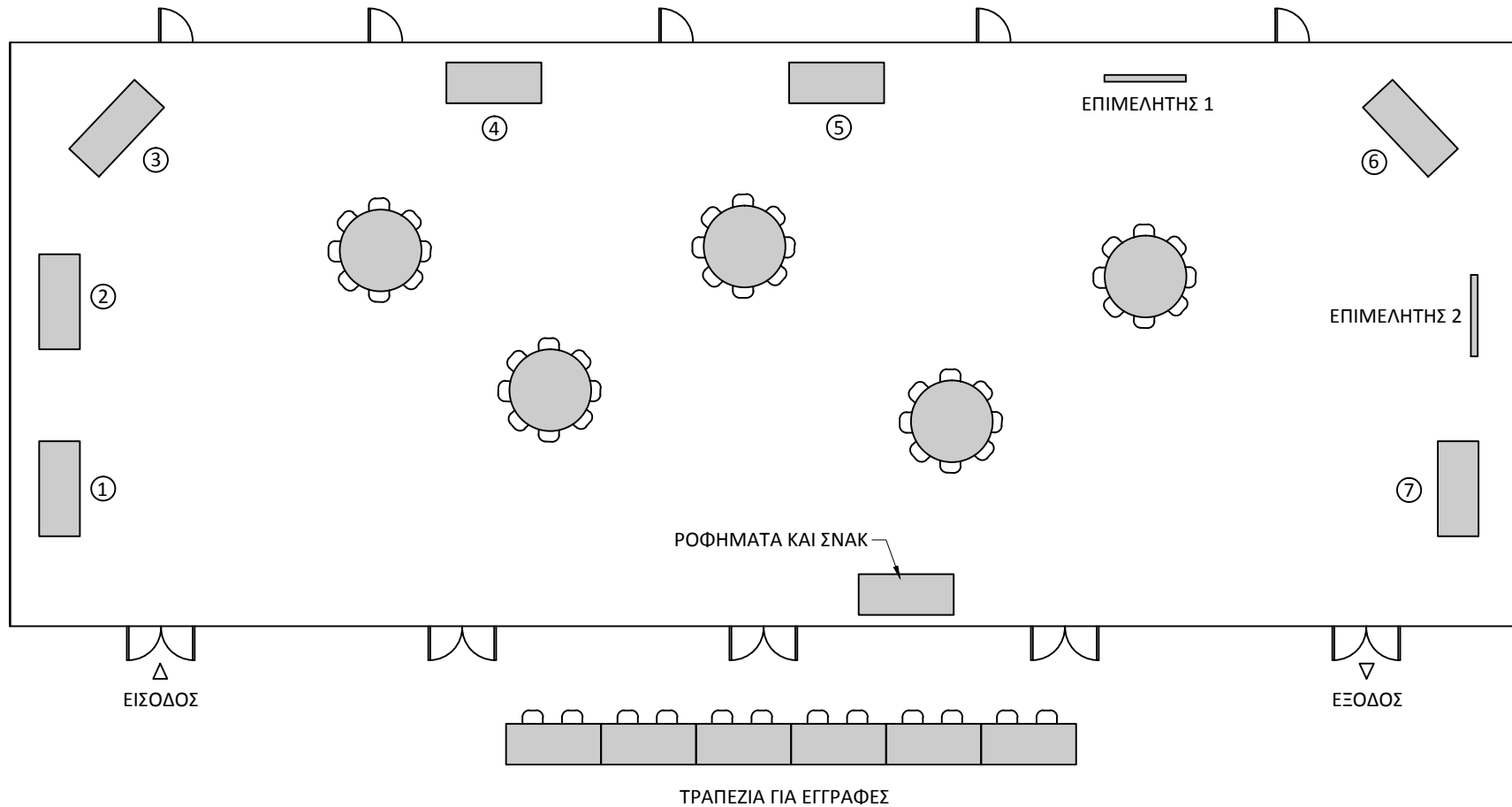
The meeting is designed as an "open house" with various stations with study information available for review. Members of the ESA Study Team and Port Authority Representatives are available for one-on-one discussion and to answer questions regarding the materials located at each station.

- Station 1 Overview of 14 CFR Part 150 and Part 150 Technical Advisory Committee (TAC)
- Station 2 Regulatory Framework and Project Overview
- Station 3 Project Schedule
- Station 4 Noise Metrics Overview
- Station 5 Contour Development Data
- Station 6 2016 and 2021 Noise Exposure Contours
- Station 7 Port Authority and Airport Activities

- Monitor #1 Interactive Contour Map
- Monitor #2 Webtrak

New York LaGuardia Airport Marrio

Μλέτη Μέρος 150 Τίτλος LGA 14 CFR



Αεροδρόμιο LaGuardia
 Μελέτη Μέρος 150 Τίτλος 14 CFR
 Σεμινάριο για Δημόσιες Πληροφορίες
 29 Σεπτεμβρίου 2016

Δείτε το πίσω μέρος για τη λίστα σταθμών ▷

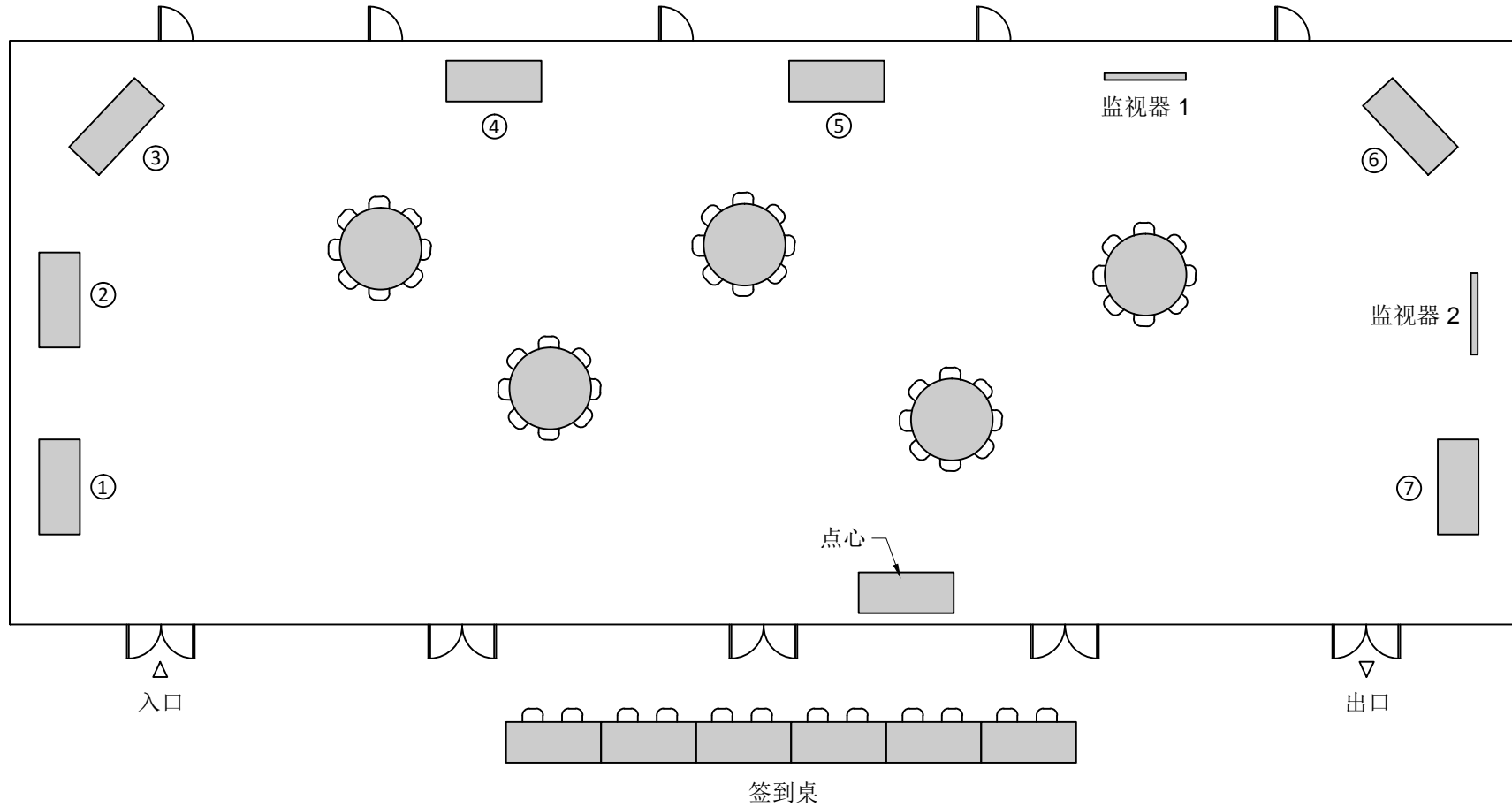
**Καλωσορίσατε στο Σεμινάριο για Δημόσιες Πληροφορίες σχετικά με τη
Μελέτη Μέρος 150 Τίτλος 14 CFR για το Αεροδρόμιο LaGuardia**

Η συνάντηση έχει σχεδιαστεί ως «ανοιχτό σπίτι» με διάφορους σταθμούς που διαθέτουν πληροφορίες σχετικά με τη μελέτη για ανασκόπηση. Τα μέλη της Ομάδας Μελέτης ESA και οι Αντιπρόσωποι της Λιμενικής Αρχής είναι διαθέσιμοι για ατομικές συζητήσεις και για να απαντήσουν σε ερωτήσεις σχετικά με τα υλικά που βρίσκονται διαθέσιμα σε κάθε σταθμό.

-
- | | |
|-----------|---|
| Σταθμός 1 | Ανασκόπηση του Τίτλου 14 CFR Μέρος 150 και Επιτροπή Τεχνικών Συμβουλών Μέρους 150 (TAC) |
| Σταθμός 2 | Ρυθμιστικό Πλαίσιο και Γενική Ανασκόπηση του Πρότζεκτ |
| Σταθμός 3 | Πρόγραμμα του Πρότζεκτ |
| Σταθμός 4 | Γενική Ανασκόπηση Μετρήσεων Θορύβου |
| Σταθμός 5 | Περιγραφή Δεδομένων Ανάπτυξης |
| Σταθμός 6 | Περιγραφή Έκθεσης Θορύβου για το 2016 και το 2021 |
| Σταθμός 7 | Δραστηριότητες της Λιμενικής Αρχής και του Αεροδρομίου |

- Επιμελητής 1 Διαδραστικός Χάρτης Περιγραφής
Επιμελητής 2 Παρακολούθηση μέσω του ιστού

New York LaGuardia Airport Marrio LGA 14 CFR Part 150 Study



拉瓜迪亚机场
标题 14 CFR 第 150 部分研究
公共信息介绍会
2016 年 9 月 29 日

请参阅背面站名清单 ▷

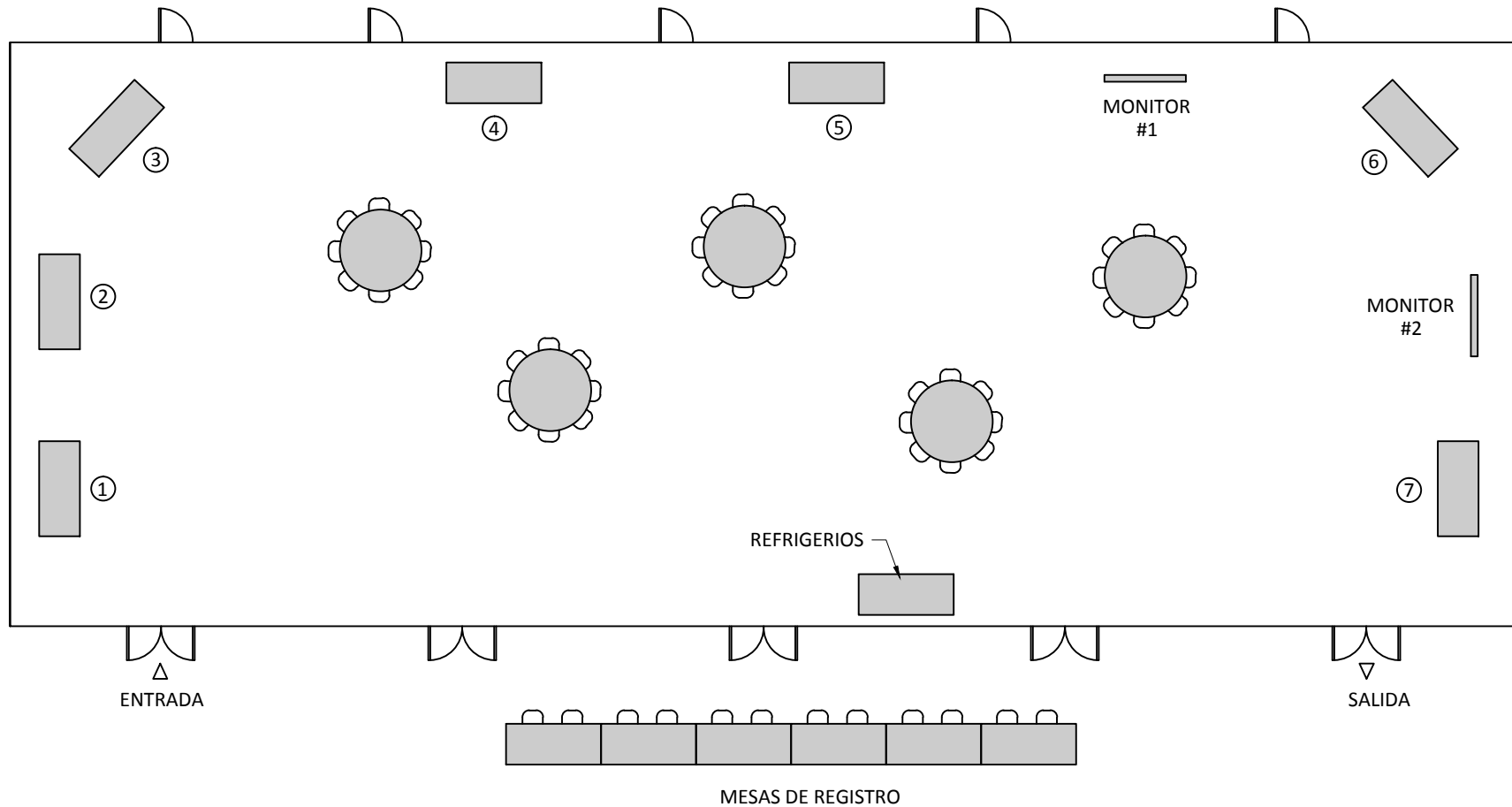
欢迎参加拉瓜迪亚机场 14 CFR 第 150 部分研究公共信息介绍会

这次会议属于随意参加的性质，安排了多个站点，提供信息供大家审阅。ESA 研究团队和港务局 (Port Authority) 的代表将在场与大家进行单独讨论，并回答有关每个站点所供材料的问题。

站点1	CFR第150部分和第150部分技术咨询委员会概述 (TAC)
站点2	监管框架和项目概况
站点3	项目进度
站点4	噪声指标概述
站点5	轮廓开发数据
站点6	2016 年和 2021 年噪声轮廓
站点7	港务局和机场活动
监视器 1	交互式轮廓地图
监视器 2	网上跟踪 (Webtrak)

New York LaGuardia Airport Marriott

Estudio LGA 14 CFR Parte 150



Bienvenido al Taller Informativo Público para el Estudio 14 CFR Parte 150 del Aeropuerto LaGuardia

La reunión es al estilo “open house” con diversas estaciones con información del estudio disponible para revisión. Los miembros del Estudio ESA y los representantes de la Autoridad Portuaria están disponibles para hablar personalmente con el público y responder preguntas sobre los materiales ubicados en cada estación.

Estación 1	Resumen de 14 CFR Parte 150 y Comité Asesor Técnico (TAC) de Parte 150
Estación 2	Marco Regulatorio y Resumen del Proyecto
Estación 3	Programación del Proyecto
Estación 4	Resumen de Métrica de Ruido
Estación 5	Datos de Contorno Desarrollo
Estación 6	Contornos de Exposición de Ruido 2016 y 2021
Estación 7	Autoridad Portuaria y las Actividades del Aeropuerto
Monitor #1	Mapa Interactivo de Contorno
Monitor #2	Webtrak

Public Information Workshop
Presentation Boards
(September 29, 2016)

Welcome!

LaGuardia Airport
Title 14 Code of Federal Regulations Part 150 Study
Public Information Workshop #2

September 29, 2016



STATION 1

Overview of 14 CFR Part 150

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- Title 14 Code of Federal Regulations Part 150 - Airport Noise Compatibility Planning (14 CFR Part 150) provides a collaborative process for addressing aircraft noise concerns
- Why conduct a 14 CFR Part 150 noise study?
 - Determine existing and future noise conditions in the vicinity of an airport
 - Evaluate the feasibility of possible operational/land use measures to reduce noise exposure
 - Educate communities on the Federal process and what **can and cannot** be done to address aircraft noise concerns
 - Submit locally-endorsed recommendations to the Federal Aviation Administration (FAA) regarding noise reduction measures
- 14 CFR Part 150 studies are voluntary
- 14 CFR Part 150 studies must adhere to 14 CFR Part 150 guidelines to be considered and accepted by the FAA

ESA Study Team

1

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

- Table 1 in Appendix A of 14 CFR Part 150 provides noise and land use compatibility guidelines
- Deems levels below Day-Night Average Sound Level (DNL) 65 dBA to be compatible with all land uses
- Table 1 guidelines can aid the adoption of appropriate local land use standards for land use compatibility planning purposes

ESA Study Team

2

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Overview of 14 CFR Part 150

Land Use Compatibility Guidelines (14 CFR Part 150, Appenix A, Table 1)

Land Use	Yearly Day-Night Noise Level (DNL) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	N
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail - building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade - general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N

Numbers in parenthesis refer to notes.

* The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table
SL/CM Standard Land Use Coding Manual
Y(Yes) Land use and related structures compatible without restrictions.
N (No) Land use and related structures are not compatible and should be prohibited.
NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30 or 35 Land Use and related structures generally compatible: measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Land Use	Yearly Day-Night Noise Level (DNL) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Notes:

- (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 dB to 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
- (5) Land use compatible provided that special sound reinforcement systems are installed.
- (6) Residential buildings require an NLR of 25 dB.
- (7) Residential buildings require an NLR of 30 dB.
- (8) Residential buildings not permitted.

SOURCE: Title 14 Code of Federal Regulations Part 150, "Airport Noise Compatibility Planning."

ESA Study Team

3

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

14 CFR Part 150 Terminology

- **Noise Exposure Contours**
 - A noise exposure contour identifies areas of equal noise exposure around an airport. Noise exposure contours are similar to contours on topographic maps which show areas of equal elevation
- **Noise Exposure Maps (NEMs)**
 - A noise exposure map is a map showing noise exposure contour lines which identify areas of specific noise levels around an airport. NEMs also include a graphic depiction of geographical features and land uses that surround an airport
- **Noise Compatibility Program (NCP)**
 - A noise compatibility program report includes descriptions and a detailed evaluation of noise abatement and noise mitigation options applicable to an airport

ESA Study Team

4

THE PORT AUTHORITY
OF NY & NJ

STATION 2

Regulatory Framework, Project Overview, and Part 150 Technical Advisory Committee (TAC)

LaGuardia Airport 14 CFR Part 150 Study

Regulatory Framework

- **Federal law** sets aircraft noise standards, prescribes operating rules, establishes the compatibility planning process, and limits the airport proprietor's ability to restrict aircraft operations
- **State law** sets forth compatibility planning guidelines and noise standards, but aircraft are exempt
- **Local noise ordinances** set noise standards and provide for compatible land use planning, but aircraft are exempt

**FEDERAL LAW PREEMPTS STATE AND LOCAL REGULATIONS
ON AIRCRAFT NOISE**

LaGuardia Airport 14 CFR Part 150 Study

Who Can Regulate Aircraft Noise?

- **Federal Aviation Administration**
 - Controls aircraft while in flight
 - Responsible for controlling noise at its source (i.e., aircraft engine noise standards)
 - Certifies aircraft and pilots
- **Airport Proprietors/The Port Authority**
 - Very limited authority to adopt local regulations
 - Responsible for capital improvement projects and infrastructure
- **Local Governments and States**
 - Promote compatible land use through zoning
 - Require real estate disclosure
 - Mandate sound-insulating building materials

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Roles and Responsibilities

- **Three key stakeholders involved in aircraft operations at LaGuardia Airport (LGA)**
 - Federal Aviation Administration
 - Directs the safe movement of aircraft in the air and on the ground
 - The Port Authority
 - Manages the airport, improves and maintains airport facilities
 - Has no control over where aircraft fly
 - Pilots
 - Pilot in command has ultimate responsibility for the safe operation of his/her aircraft

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

LGA Technical Advisory Committee Membership

Port Authority of New York & New Jersey	NY Airport Liaison
NY Community Airport Roundtable (NYCAR)	United Airlines
Delta Airlines	Market Place Development
Sheltair	NYC Economic Development Corp
Aviation Development Council	Queens Borough President
Queens Chamber of Commerce	Town of North Hempstead/Quietskies.net
NYC Department of City Planning	Nassau County Planning
Federal Aviation Administration	NYC Department of Environmental Protection
Town of North Hempstead (Planning)	

ESA Study Team

6

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- The Port Authority has embarked on its first ever 14 CFR Part 150 Studies for John F. Kennedy International, LaGuardia, Newark Liberty International, and Teterboro airports
- Environmental Science Associates (ESA) has been selected by the Port Authority to prepare the LGA 14 CFR Part 150 Study report
- The Port Authority submitted preliminary draft LGA noise exposure maps to the FAA in July 2016 and released draft LGA noise exposure maps to the public in September 2016
- The Port Authority will submit final LGA noise exposure maps to the FAA at the end of 2016, for FAA's review and acceptance in spring 2017

ESA Study Team

7

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- **The Port Authority's Airport Noise and Operations Management System (ANOMS) provided detailed information on aircraft operations for the Part 150 Studies**
- **An airport's future year noise exposure map is used as a basis for determining potential benefits of noise compatibility program measures**
 - The presence of a property within the future year DNL 65 contour is just one of several factors that are evaluated to determine eligibility for noise mitigation
- **The Port Authority anticipates submitting a noise compatibility program for LGA to the FAA in mid-2018**
- **Eligibility for noise mitigation is evaluated during the development and implementation of the noise compatibility program**

ESA Study Team

10

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- **14 CFR Part 150 includes detailed guidance and a checklist of the items that must be included in the 14 CFR Part 150 Study NEM and NCP reports**
- **The NEM and NCP reports must be prepared in accordance with the guidance provided in 14 CFR Part 150**
- **The NEM report must include aircraft noise exposure contours for the year of submission and a future year (typically five years in the future)**
 - The ESA Study Team has produced draft NEMs for 2016 and 2021

ESA Study Team

11

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Overview

- An aircraft operations forecast, fleet mix forecast, and user-defined flight profiles were developed for the 14 CFR Part 150 Study; all were approved by the FAA
- Completed planning and environmental studies were reviewed to ensure the noise modeling assumptions are reflective of existing conditions and anticipated conditions in 2021
 - Environmental studies were completed for the Port Authority's runway safety area improvements and Central Terminal Building projects; these studies were reviewed during the LGA Part 150 Study
- The 2021 NEM is based on “reasonably foreseeable” assumptions regarding future operations at LGA

ESA Study Team

12

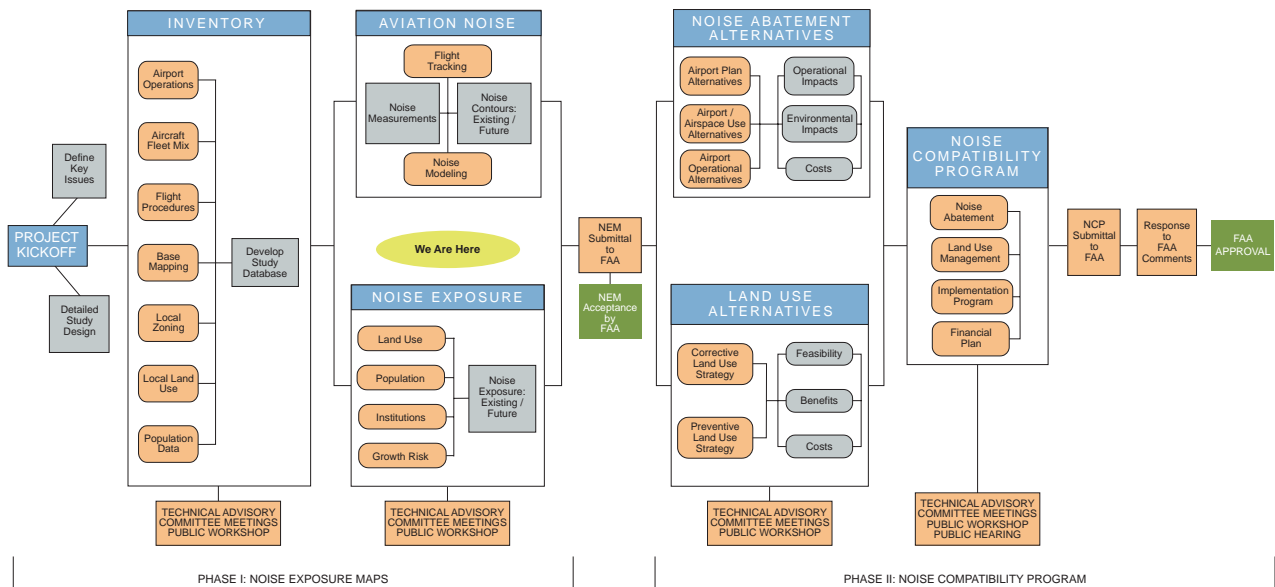
THE PORT AUTHORITY
OF NY & NJ

STATION 3

Project Schedule

LaGuardia Airport 14 CFR Part 150 Study

Generalized 14 CFR Part 150 Study Process



ESA Study Team

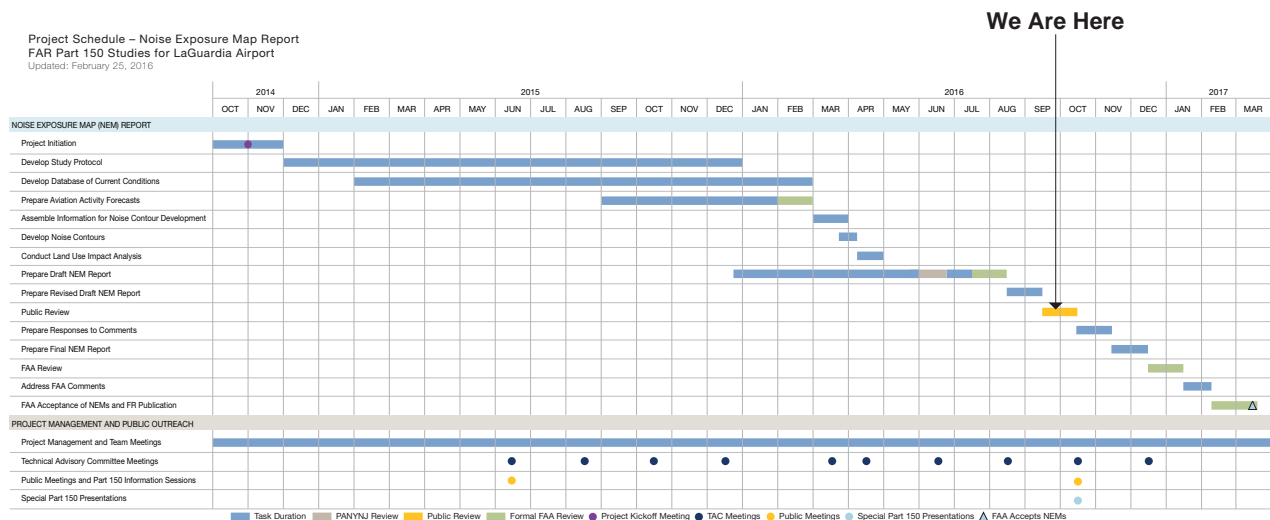
13

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Exposure Map Report
FAR Part 150 Studies for LaGuardia Airport
Updated: February 25, 2016



ESA Study Team

14

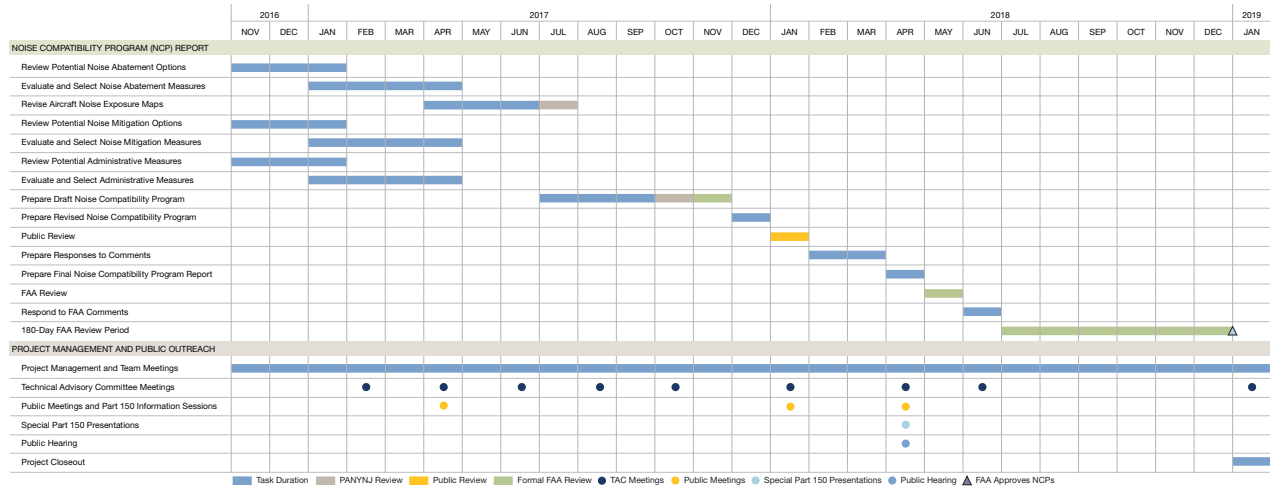
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Schedule

Project Schedule – Noise Compatibility Program Report
14 CFR Part 150 Study for LaGuardia Airport
Updated: February 25, 2016

For Planning Purposes Only



ESA Study Team

15

THE PORT AUTHORITY
OF NY & NJ

STATION 4

Noise Metrics Overview

LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

- **24-hour time-weighted energy average noise level based on A-weighted decibels (dBA)**
- **Noise occurring between 10 P.M. and 7 A.M. is penalized by 10 dB**
 - Penalty accounts for the higher sensitivity to noise during nighttime hours
 - Penalty also accounts for the expected further decrease in background levels that typically occurs in the nighttime
- **FAA specifies use of DNL for airport noise assessment**

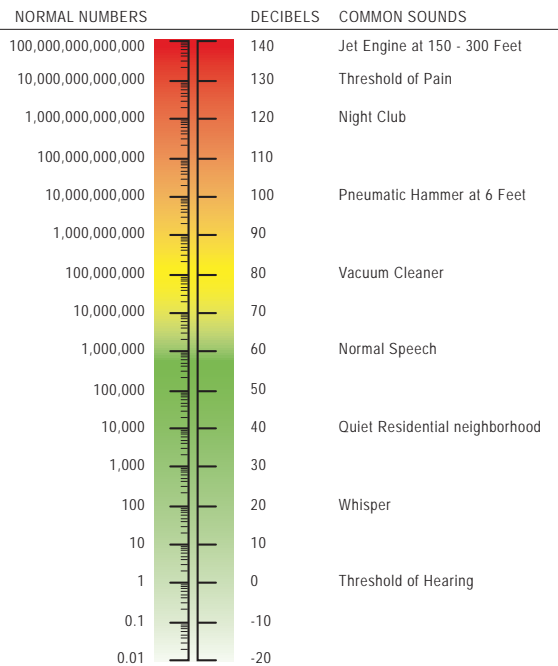
LaGuardia Airport 14 CFR Part 150 Study

Day-Night Average Sound Level (DNL)

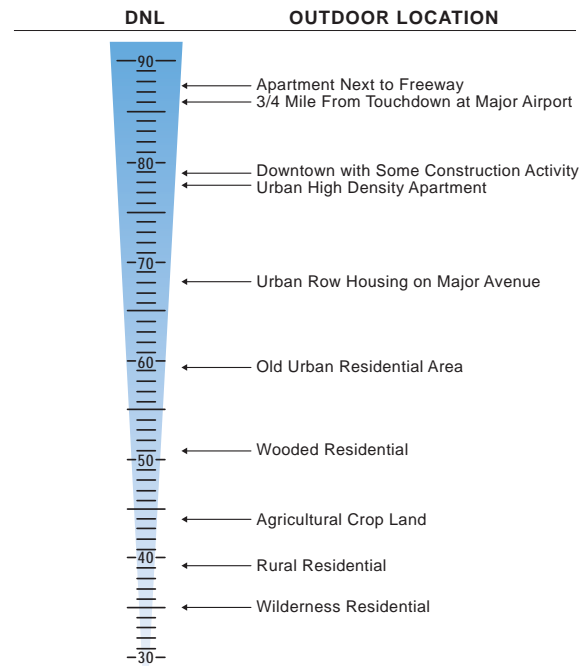
- **Annual cumulative aircraft event noise**
- **The amount of noise exposure is determined by:**
 - Aircraft types
 - Number of Average Annual Day operations
 - Nighttime penalty of 10 dB
- **The noise exposure distribution is determined by:**
 - Runway configuration and use
 - Flight track locations
 - Flight track use
- **Average Annual Day aircraft noise exposure is calculated over a broad area and then depicted using contour lines of equal noise levels**

LaGuardia Airport 14 CFR Part 150 Study

The Decibel Scale



Sample DNL Values



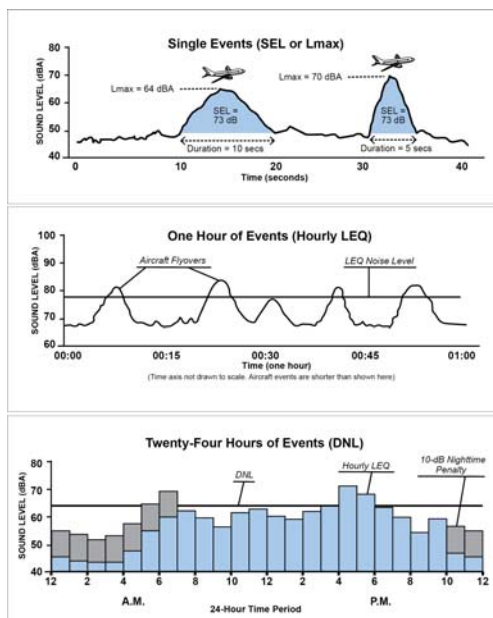
ESA Study Team

18

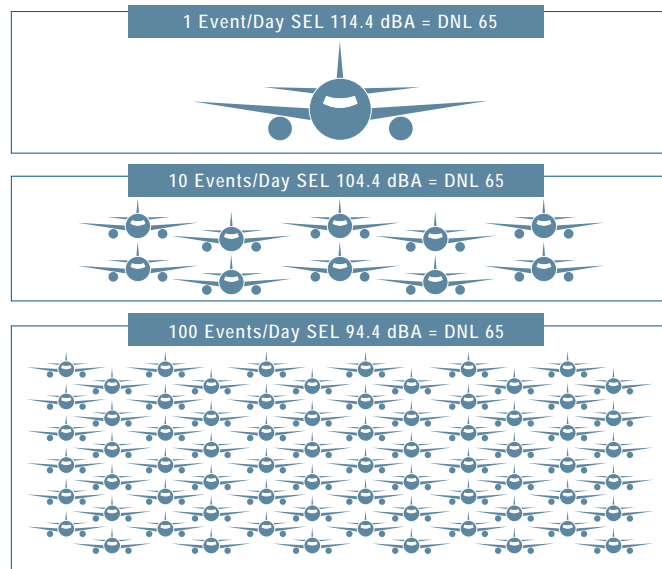
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Aircraft Noise Levels



IDENTICAL DNL LEVELS



ESA Study Team

19

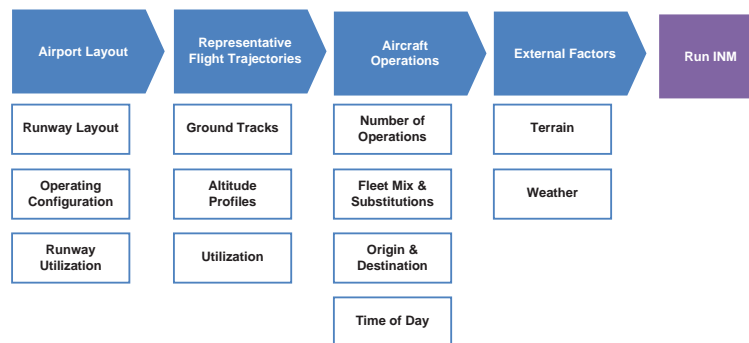
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

The Integrated Noise Model (INM)

- The INM was designed to depict the cumulative 24-hour noise exposure for the average annual day at an airport
- Primary area of focus for modeling is the DNL 65 contour
- 14 CFR Part 150 requires the use of modeling to create noise contours

INM Inputs and Process



ESA Study Team

20

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Why Would Modeled Noise Levels Differ from Measurements?

- The measurements contain less than a full year of data, which:
 - Results in a mismatch between operations, runway use, flight track use, fleet mix, etc. contained in the noise model inputs, which are based on an entire year of data
- Measured aircraft DNL values may be contaminated by non-aircraft noise events (e.g., roadway/street noise, lawn mowers, etc.) occurring at the time of measurement, which:
 - Artificially increases the measured aircraft DNL values
- In accordance with 14 CFR Part 150, the measured noise levels are not used to calibrate the INM aircraft noise database

ESA Study Team

21

THE PORT AUTHORITY
OF NY & NJ

STATION 5

Contour Development Data

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 Aircraft Operations Levels

Widebody, Narrowbody, and Regional Jet

Aircraft Category	Aircraft Type	INM Aircraft Type	2016 Annual Operations	2021 Annual Operations
Widebody	Boeing 767-300	767400	30	30
		Widebody Total	30	30
Narrowbody	Boeing 757-200	757PW	553	576
		757RR	23	24
	Boeing 737-800 / 900	737800	35,756	37,923
	Boeing 737-600 / 700	737700	28,177	28,828
	Boeing 717-200	717200	17,094	20,530
	Airbus A321 / A321neo	A321-232	6,476	8,554
	Airbus A320 / A320neo	A320-211	21,259	24,279
		A320-232	25,690	27,338
	Airbus A319	A319-131	2,909	3,622
	MD-88	MD83	16,972	7,132
		MD9025	982	1,134
	MD-90	MD9028	4,714	5,445
	Embraer 190	EMB190	25,196	24,713
		Narrowbody Total	185,801	190,098
Regional Jet	Canadair RJ 700 / 900	CRJ9-ER	92,492	103,812
	Canadair RJ 200	CL601	12,899	-
	Embraer 175	EMB175	31,604	48,192
	Embraer 170	EMB170	23,918	38,000
	Embraer RJ145	EMB14L	18,100	-
	Embraer RJ140	EMB145	6,818	-
		Regional Jet Total	185,831	190,004

NOTE: An aircraft operation is equivalent to one arrival/landing or one departure/takeoff.

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey, March 23, 2016. Adapted by Environmental Science Associates, 2016.

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 Aircraft Operations Levels

General Aviation				
Aircraft Category	Aircraft Type	INN Aircraft Type	2016 Annual Operations	2021 Annual Operations
General Aviation	Business Jet	CL600	872	875
		CNA525C	93	93
		CNA55B	100	100
		CNA560E	272	274
		CNA560XL	772	775
		CNA680	412	413
		CNA750	759	762
		F10062	162	162
		GIV	736	738
		GV	1,052	1,056
		LEAR35	614	616
		MU3001	554	556
	Turboprop	CNA208	196	185
		CNA441	52	49
	Helicopter	B407	106	106
		S76	106	106
		SA355F	184	186
	Piston	GASEPV	60	50
		General Aviation Total	7,102	7,102

NOTE: An aircraft operation is equivalent to one arrival/landing or one departure/takeoff.
SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey, March 23, 2016. Adapted by Environmental Science Associates, 2016.

Operations Percentages by Day and Night

Study Year	Arrivals		Departures	
	Day	Night	Day	Night
2016	90.93%	9.07%	91.82%	8.18%
2021	91.49%	8.51%	91.76%	8.24%

SOURCE: LaGuardia Airport Aircraft Fleet Mix and Annual Aircraft Operations Forecast 2014-2033. Port Authority of New York and New Jersey, March 23, 2016. Adapted by KB Environmental Sciences, Inc. and ESA, 2016.

Total Annual Operations

2016 Annual Operations	2021 Annual Operations
378,764	387,234

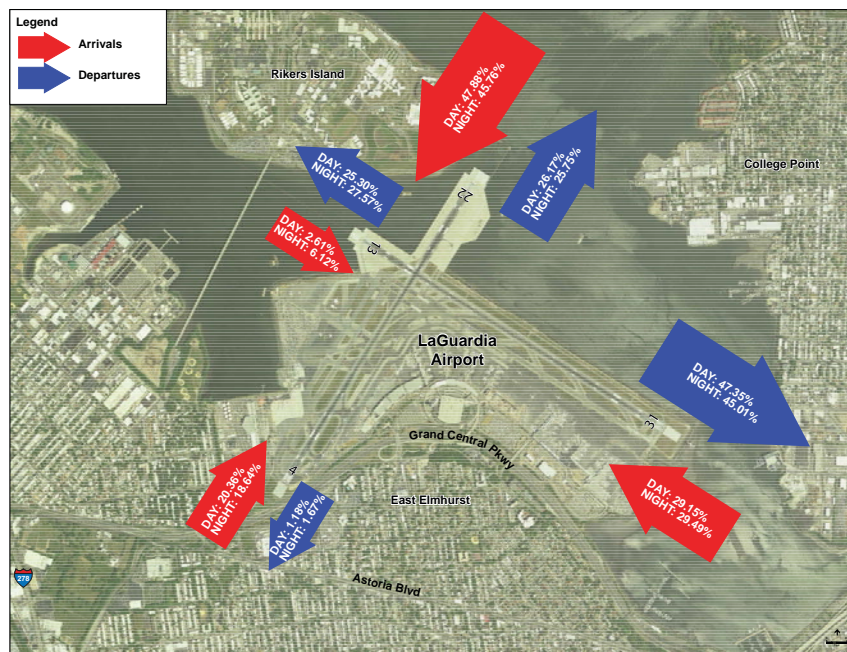
ESA Study Team

23

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 Runway Use



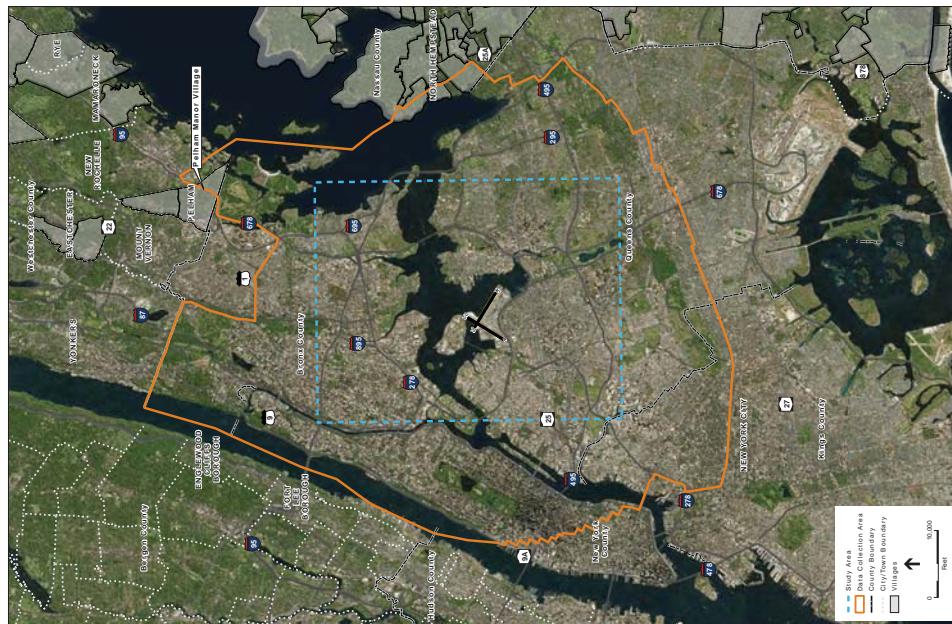
ESA Study Team

24

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Study Area



SOURCE: Earth Star Geographics, 1989; Port Authority of New York and New Jersey (PANYNJ), 2014; Environmental Science Associates, 2015

ESA Study Team

THE PORT AUTHORITY
OF NY & NJ

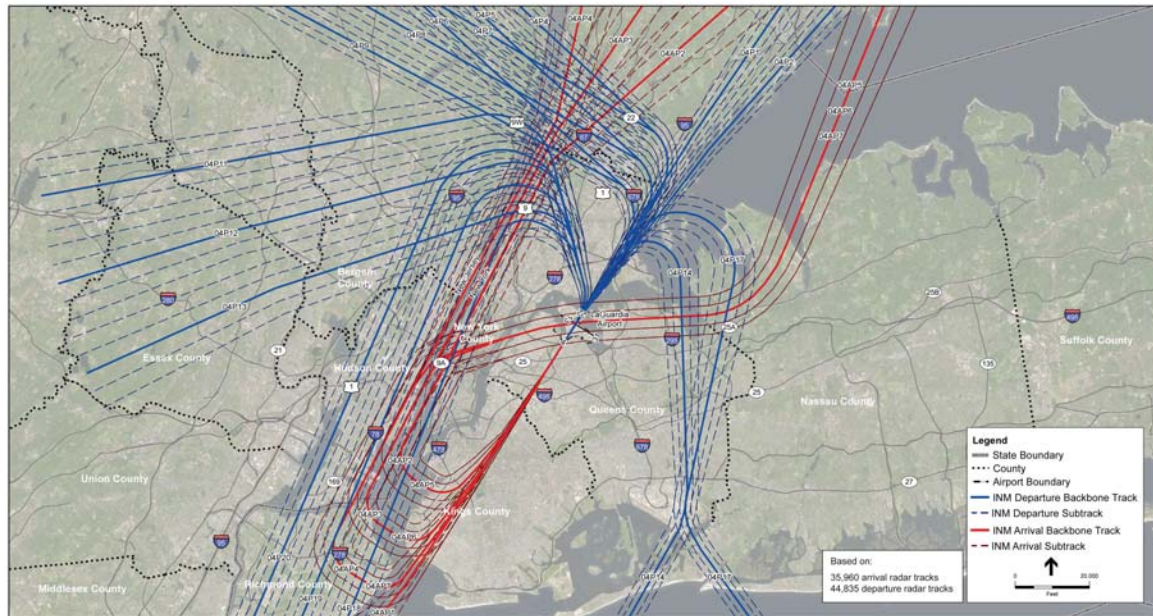
LaGuardia Airport 14 CFR Part 150 Study

Development of INM Flight Tracks

- Calendar year 2014 radar flight track and flight identification data were obtained from the Port Authority's ANOMS system
 - Arrival tracks – 176,137
 - Departure tracks – 175,974
- The radar data was analyzed to determine flight corridors of air traffic to and from LGA; the centers of these corridors were represented as “backbone” INM flight tracks
- Radar data was also analyzed to determine geographic variations of flights within these corridors; the variations were represented as INM “subtracks”
- Altitude profiles of common aircraft types operating at LGA were analyzed to create user-defined flight profiles, which were reviewed by several airlines and approved by the FAA
 - These user-defined profiles more closely represent aircraft operations to and from LGA in comparison with INM standard data

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 INM Flight Tracks: Runway 4



SOURCE: NAIP 2013; KB Environmental Sciences, Inc., 2016.
NOTE: INM - Integrated Noise Model.

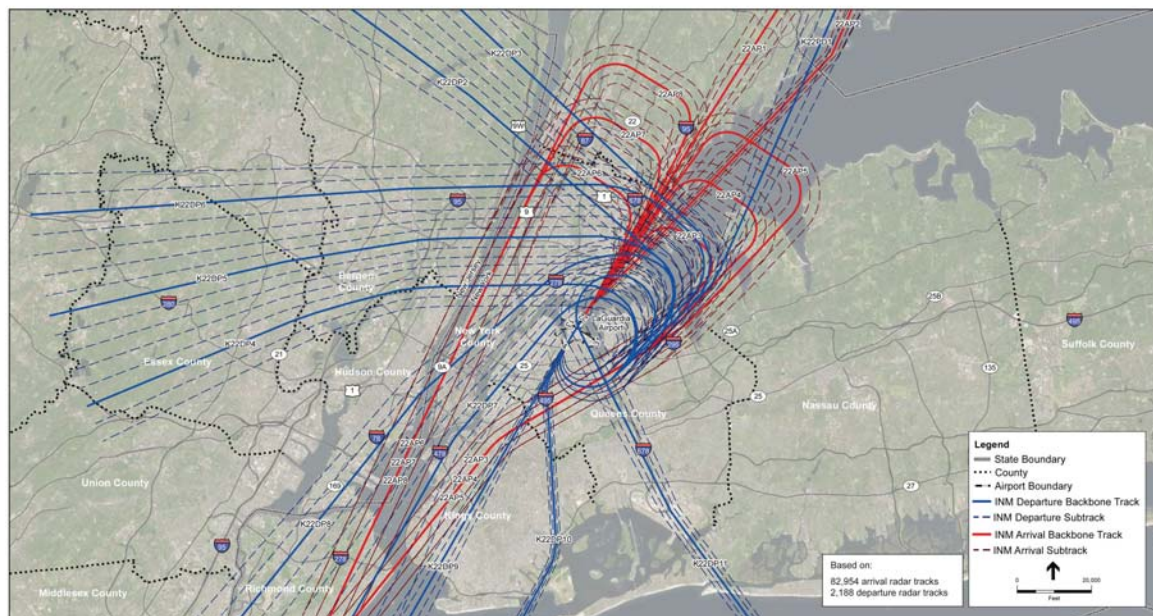
ESA Study Team

27

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 INM Flight Tracks: Runway 22



SOURCE: NAIP 2013; KB Environmental Sciences, Inc., 2016.
NOTE: INM - Integrated Noise Model.

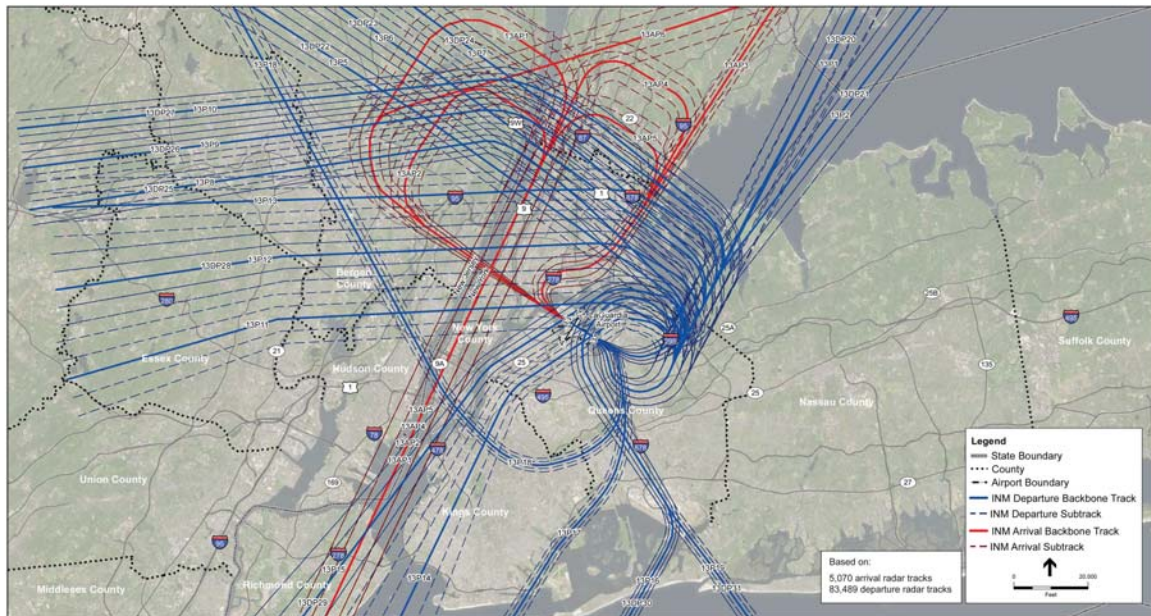
ESA Study Team

28

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 INM Flight Tracks: Runway 13



SOURCE: NAIP, 2013; KB Environmental Sciences, Inc., 2016.
NOTE: INM - Integrated Noise Model.

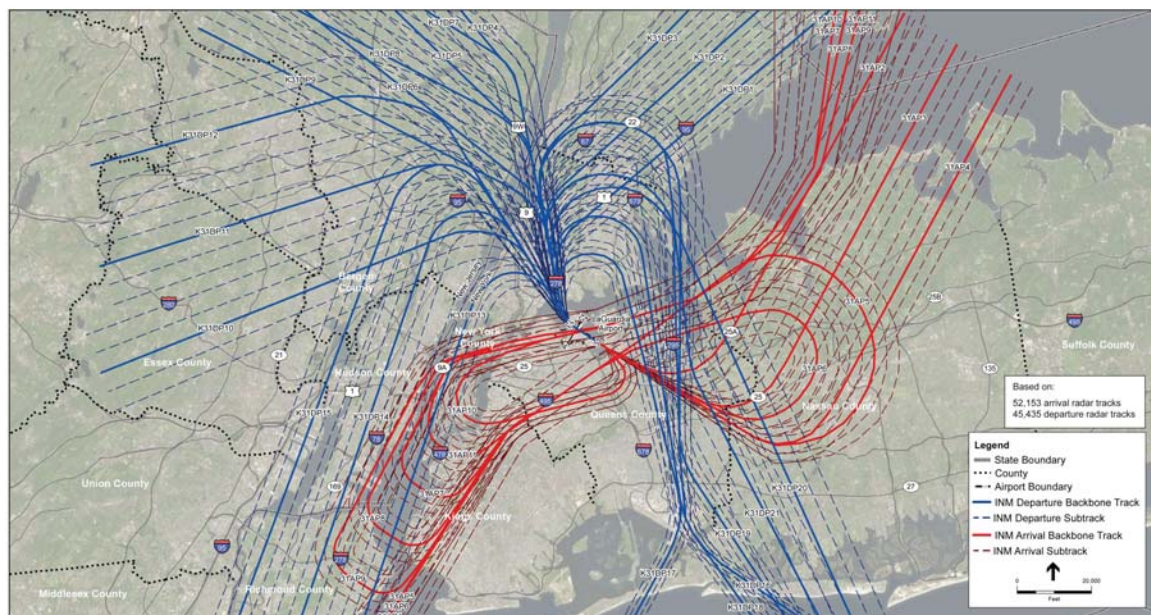
ESA Study Team

29

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

2016 and 2021 INM Flight Tracks: Runway 31



SOURCE: NAIP, 2013; KB Environmental Sciences, Inc., 2016.
NOTE: INM - Integrated Noise Model.

ESA Study Team

30

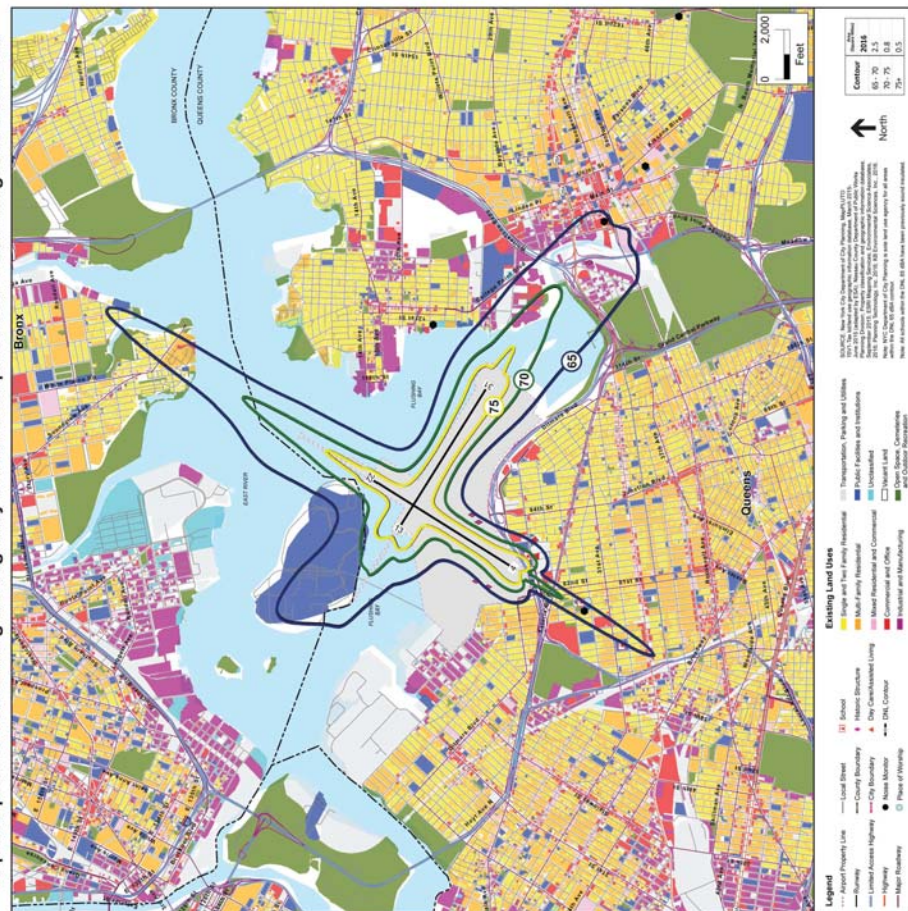
THE PORT AUTHORITY
OF NY & NJ

2016 and 2021 Noise Exposure Contours

DRAFT - Subject to Change

2016 DNL 65, 70, and 75 Contours

The draft DNL contours provided on this map are for informational purposes only and do not represent a commitment by the Port Authority to provide noise mitigation. Further analysis is required prior to determining the eligibility of individual parcels for noise mitigation treatment.



LaGuardia Airport 14 CFR Part 150 Study

DRAFT - Subject to Change

Noise Exposure Within the 2016 DNL 65, 70, and 75 Contours

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools ¹	Hospitals and Residential Healthcare	Historic Resources	Day Care
2016								
DNL 65-70	1,579.3	3,655	9,787	7	2	0	5	2
DNL 70-75	517.4	2	6	0	1	0	0	1
DNL 75+	339.1	0	0	0	0	0	0	0
Total	2,435.8	3,657	9,793	7	3	0	5	3

NOTE: The household and population estimates provided above were developed using census block-level demographic data from the 2010 Decennial Census and New York City housing data. This approach provided an average number of persons per household for each individual census block, which accounted for changes in land use, housing types, and residential density within the different areas in the DNL 65 and higher contours.

¹ These schools were included in the School Soundproofing Program, and are compatible with DNL 65+ (see Section 2.6.1).

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Households	Population
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Single and Two Family Residential	37.6	0.0 [*]	0.0	37.6	1,129	3,312
Multi-Family Residential	34.7	0.0	0.0	34.7	1,715	4,370
Mixed Residential and Commercial	13.1	0.0	0.0	13.1	813	2,111
Commercial and Office	39.9	3.4	0.0	43.3	-	-
Industrial and Manufacturing	60.4	13.3	0.0	73.7	-	-
Transportation, Right of Way, Parking and Utilities	227.4	13.6	5.2	246.4	-	-
Public Facilities and Institutions	223.3	10.5	0.2	234.0	-	-
Open Space, Cemeteries, and Outdoor Recreation	31.3	4.3	0.0	35.6	-	-
Vacant	30.0	6.6	0.0	36.6	-	-
Airport Property	172.6	152.5	278.2	603.3	-	-
Water (Off Airport Property)	709.0	313.2	55.6	1,077.8	-	-
Total	1,579.3	517.4	339.1	2,435.8	3,657	9,793

NOTE: Numbers may not add up, due to rounding.

^{*}Single and Two Family Residential uses are within the DNL 70-75 contour. The total acres is <0.0 and does not appear in the table due to rounding.

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

ESA Study Team

32

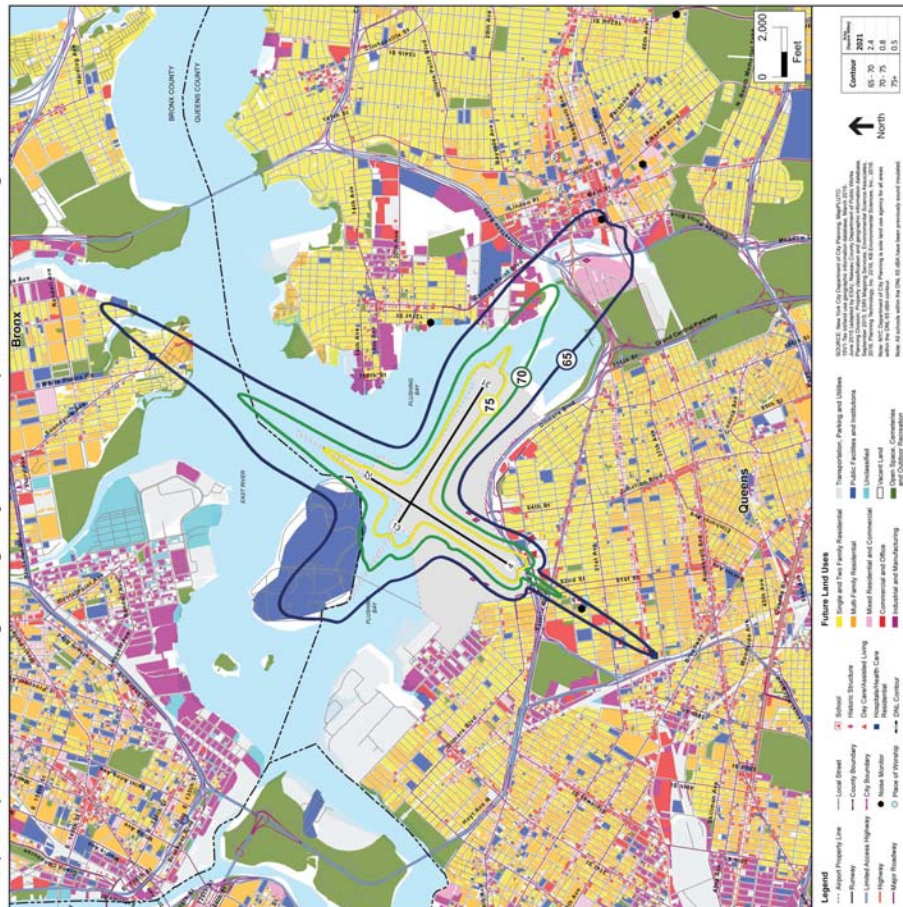
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

DRAFT - Subject to Change

2021 DNL 65, 70, and 75 Contours

The draft DNL contours provided on this map are for informational purposes only and do not represent a commitment by the Port Authority to provide noise mitigation. Further analysis is required prior to determining the eligibility of individual parcels for noise mitigation treatment.



THE PORT AUTHORITY
OF NY & NJ

ESA Study Team

33

LaGuardia Airport 14 CFR Part 150 Study

DRAFT - Subject to Change

Noise Exposure Within the 2021 DNL 65, 70, and 75 Contours

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools	Hospitals and Residential Healthcare	Historic Resources	Day Care
2021								
DNL 65-70	1,554.7	3,802	10,255	7	2	2	13	2
DNL 70-75	502.5	4	12	0	1	0	0	1
DNL 75+	332.2	0	0	0	0	0	0	0
Total	2,389.4	3,806	10,267	7	3	2	13	3

NOTES:

1. The household and population estimates provided above were developed using census block demographic data from the 2010 Decennial Census and New York City data. This approach provided an average number of persons per household for each individual census block, which accounted for changes in land use, housing types, and residential density within the different areas in the DNL 65 and higher contours.
2. Because the timing and extent of planned residential development within the DNL 65 contour is uncertain, the household and population estimates in this table do not include potential housing units associated with the Willets Point Development Plan and construction of additional housing units at the Sky View Parc condominium complex.
3. These schools were included in the School Soundproofing Program, and are compatible with DNL 65+ (see Section 2.6.1).

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

Land Use Category	Land Uses Exposed to DNL 65 and Higher (acres)				Households	Population
	DNL 65-70	DNL 70-75	DNL 75+	Total		
Single and Two Family Residential	40.4	0.0*	0.0	40.4	1,207	3,556
Multi-Family Residential	35.2	0.0	0.0	35.2	1,739	4,436
Mixed Residential and Commercial	6.5	0.0	0.0	6.5	860	2,275
Commercial and Office	40.2	3.0	0.0	43.2	-	-
Industrial and Manufacturing	59.4	12.4	0.0	71.8	-	-
Transportation, Right of Way, Parking and Utilities	222.7	13.8	5.0	241.5	-	-
Public Facilities and Institutions	212.8	8.4	0.1	221.3	-	-
Open Space, Cemeteries, and Outdoor Recreation	33.0	4.7	0.0	37.7	-	-
Vacant	29.6	6.0	0.0	35.6	-	-
Airport Property	172.2	152.3	274.9	599.4	-	-
Water (Off Airport Property)	702.7	301.9	52.2	1,056.8	-	-
Total	1,554.7	502.5	332.2	2,389.4	3,806	10,267

NOTE: Numbers may not add up, due to rounding.

*Single and Two Family Residential uses are within the DNL 70-75 contour. The total acres is <0.0 and does not appear in the table due to rounding.

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

ESA Study Team

34

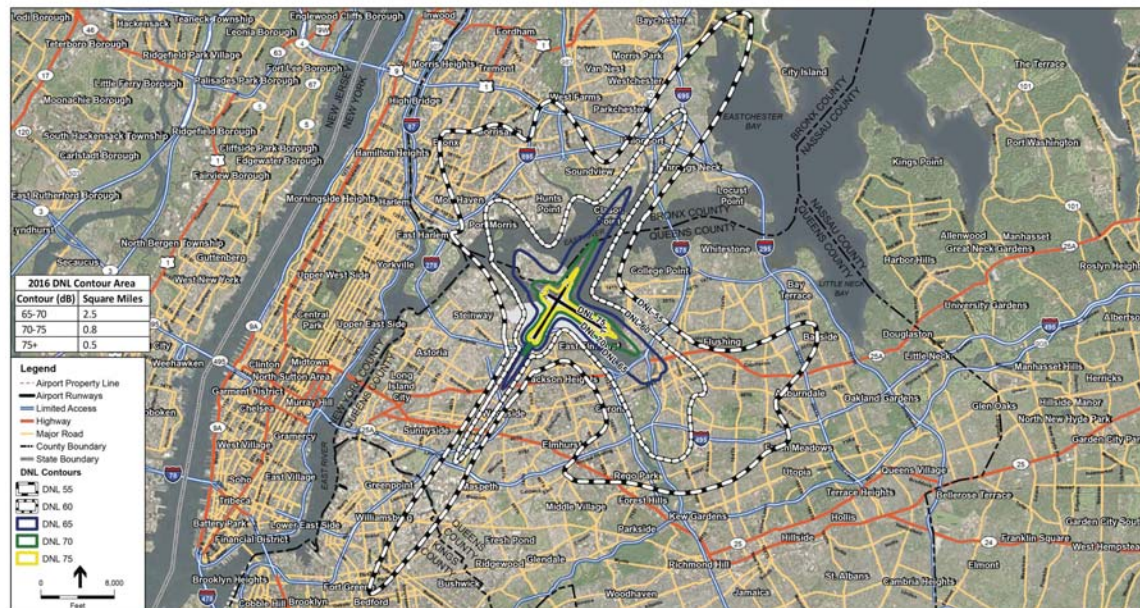
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

DRAFT - Subject to Change

2016 DNL 55 and 60 Contours

FOR INFORMATIONAL PURPOSES ONLY



SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.

ESA Study Team

35

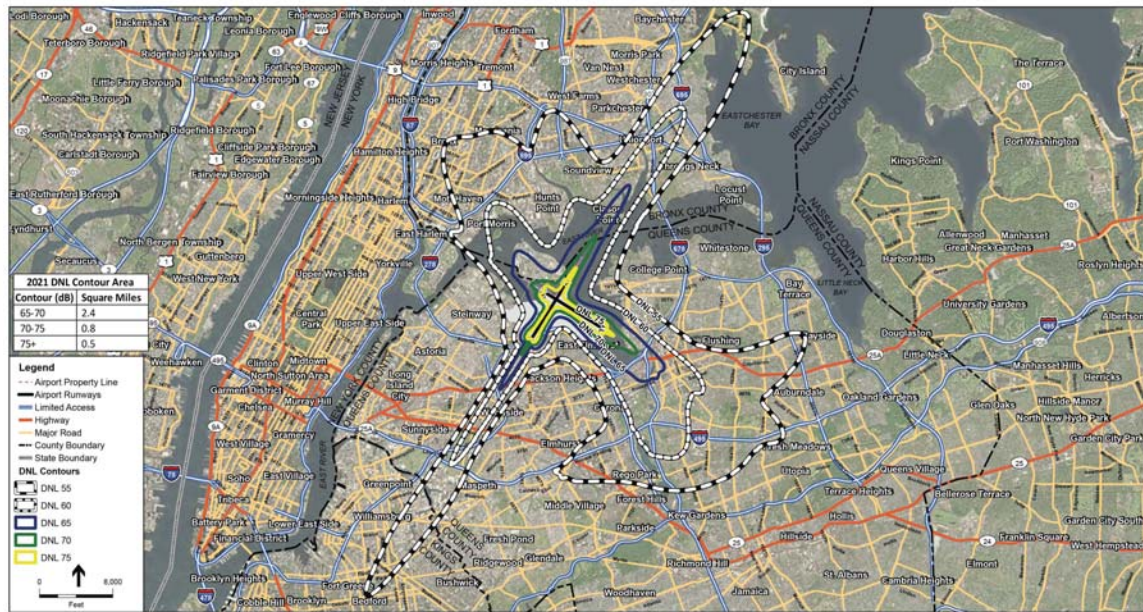
THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

DRAFT - Subject to Change

2021 DNL 55 and 60 Contours

FOR INFORMATIONAL PURPOSES ONLY



ESA Study Team

39

THE PORT AUTHORITY
OF NY & NJ

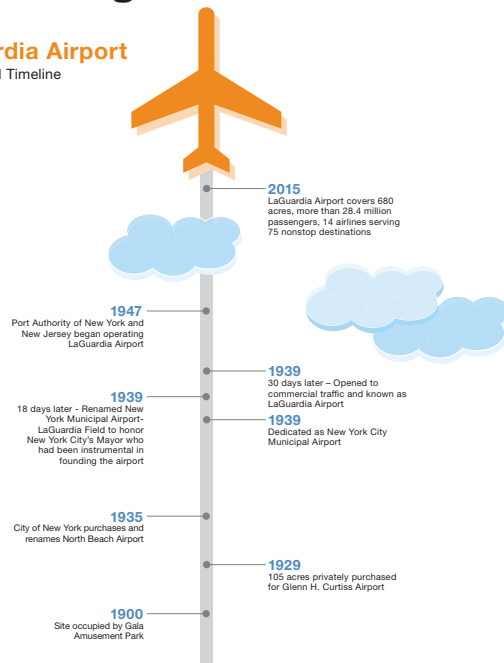
STATION 7

Port Authority and Airport Activities

LaGuardia Airport 14 CFR Part 150 Study

Facts and Figures

LaGuardia Airport Summarized Timeline



Source: Port Authority of New York and New Jersey, 2015 and 2016



Air cargo levels over recent years



ESA Study Team

37

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Community

The Port Authority has long taken an active role in the communities it serves. In 1983, the Port Authority first made a commitment to ensure that students in schools close to its airports always have a quiet learning environment. That commitment continues today with the soundproofing work the Port Authority has done in 77 schools around its airports. This includes 45 schools that are impacted by JFK and LaGuardia and 32 impacted by Newark Liberty and Teterboro.

Source: www.panynj.gov

Additional Community Efforts

- Soundproofing schools surrounding LaGuardia, Newark Liberty, JFK and Teterboro
- Making roadway improvements at Newark Liberty International
- Rehabilitating the Van Wyck Expressway leading to JFK
- Repairing air terminal highways at LaGuardia

ESA Study Team

38

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

School Sound Proofing Program – LGA

School	City
IS 52X	Bronx
Our Lady of Fatima	Jackson Heights
PS 120Q	Flushing
PS 143Q	Corona
PS 161X	Bronx
PS 165Q	Flushing
PS 219Q	Flushing
PS 62X	Bronx
St. Ann	Flushing
St. Sebastian	Woodside
College of Aeronautics (Vaughn)	Flushing
John Bowne HS	Flushing
Lexington School for Deaf	Jackson Heights
Msgr. McClancy Memorial HS	East Elmhurst
PS 146B	Bronx
PS 5X	Bronx
Samuel Gompers Vocat. School	Bronx
St. Anselm	Bronx
St. Athanasius	Bronx
St. Michael	Flushing
St. Pius V (Elementary)	Bronx

- All of these schools have been soundproofed previously as part of the Port Authority School Soundproofing Program
- The schools highlighted in yellow are within the 2016 and 2021 DNL 65 contours
- All schools within the 2016 and 2021 DNL 65 contours have been soundproofed previously as part of the Port Authority School Soundproofing Program

ESA Study Team

39

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Port Authority of New York and New Jersey

1921

Founded in 1921, the Port Authority of New York and New Jersey builds, operates, and maintains many of the most important transportation and trade infrastructure assets in the country.

+\$23 billion
in annual wages

\$80 billion in regional economic activity



By 2030, the number of passengers using our airports annually will soar to 150 million. To prepare, the Port Authority's 2012 capital investment in its airports exceeded \$300 million with \$900 million of capital projects in the pipeline.

The Port Authority of NY & NJ
2012 Annual Report

The Port Authority is a linchpin in the regional economy, annually moving millions of people, and millions of tons of cargo on its network of aviation, rail, surface transportation, and seaport facilities. Port Authority airports handled **10%** of the US aviation passenger traffic and **16.4%** of US air cargo volume.

The Port Authority of NY & NJ
2014 Budget



Supports more than

550,000
regional jobs

ESA Study Team

40

THE PORT AUTHORITY
OF NY & NJ

LaGuardia Airport 14 CFR Part 150 Study

Project Contacts and Website

- **Port Authority of New York and New Jersey**
 - Kelly Mitchell, Project Manager
 - Adeel Yousuf, Noise Office Manager
- **ESA Study Team**
 - Steve Alverson, Project Director
 - Peter Byrne, Deputy Project Director
 - Michael Arnold, LGA Technical Director
- **Website:**
<http://www.panynj.gov/airports/aircraft-noise-information.html>
- **E-Mail:** NYPart150@panynj.gov

ESA Study Team

41

THE PORT AUTHORITY
OF NY & NJ

MONITOR 2

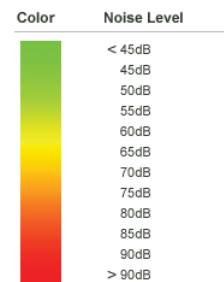
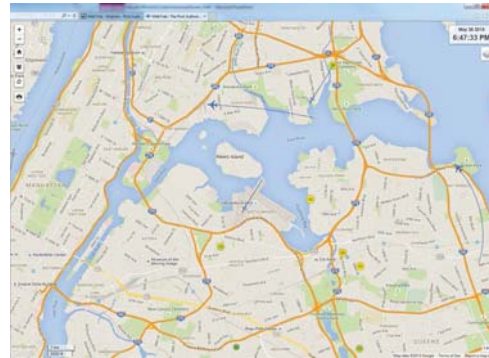
WebTrak

LaGuardia Airport 14 CFR Part 150 Study

WebTrak – Flight Tracking and Noise Information System

- WebTrak displays air traffic patterns within the New York Metropolitan area
- Specific information regarding flights at LaGuardia Airport including aircraft type, altitude, and operation type (arrival or departure)
- Noise levels at noise monitors located near LGA are shown in WebTrak and represent the actual sound level at that those locations at a specific time

<https://www.panynj.gov/airports/webtrak.html>



Appendix K-4

Quarterly Newsletters

This appendix includes documentation of the LaGuardia Airport 14 CFR Part 150 Study's quarterly newsletter, which is distributed to the public electronically.

Part 150 Airport Noise and Land Use Compatibility Study LaGuardia Airport (LGA)

INTRODUCTION

The Port Authority of New York and New Jersey (Port Authority) is conducting a noise and land use compatibility study that complies with Title 14 of the Code of Federal Regulations, Part 150 – Airport Noise Compatibility Planning (14 CFR Part 150) for LaGuardia Airport (LGA). Companion 14 CFR Part 150 Studies are underway at John F. Kennedy International Airport (JFK), Newark Liberty International Airport and Teterboro Airport.

FALL 2015
Newsletter

IN THIS ISSUE

This newsletter is the first in a series that the Port Authority will distribute to those interested in learning more about the Part 150 study for LaGuardia Airport. It contains information about what will be prepared as part of the study, who is conducting the study, public outreach efforts conducted since the start of the study, and how to stay involved. More detailed information is available at the project website http://panynjpart150.com/LGA_homepage.asp



The LGA Part 150 Study Area and Data Collection Area identifies the outer limit for data collection, analysis, public outreach, and other study initiatives. It extends significantly beyond the area required by the Part 150 regulation and associated FAA guidelines.

Part 150 Noise Compatibility Study Background

A Part 150 study is a voluntary process that airport operators can follow to describe noise exposure, and identify means to correct and prevent potential noise effects. While airport operators are not required to conduct Part 150 studies, those that do are required to follow a specific process defined in Title 14 of the Code of Federal Regulations.

The Part 150 Study will have two parts - the Noise Exposure Map and Noise Compatibility Program.

The Noise Exposure Map (NEM) report will identify all noise incompatible land uses within the DNL 65+ dB contour and will identify the location of noise sensitive facilities such as schools, hospitals/health care centers, places of worship, and historic resources.

The Noise Compatibility Program (NCP) will be a plan for reducing aircraft noise incompatibility issues. A large part of the NCP will be working with stakeholders to identify appropriate noise and land use abatement measures.

Why is the Port Authority doing the LGA Part 150 Study now?

In response to growing community concerns about aircraft noise, Governor Cuomo directed the Port Authority to undertake the Part 150 Study at LGA. (The Port Authority is also conducting Part 150 Studies at John F. Kennedy International Airport, Teterboro Airport, and Newark Liberty International Airport at the same time.) Port Authority Aviation Director Thomas Bosco said, "The Port Authority understands it must strive to be a good neighbor in the communities where its airports are located." He added, "We will seek noise mitigation with the FAA where feasible"

The Study Team

The Port Authority has hired a team of experienced noise consultants (led by ESA Airports) to conduct the LGA Part 150 Study. A Technical Advisory Committee (TAC) representing a full-range of airport operations, business, city, county, municipal, and public stakeholders is providing a) general project oversight; b) technical input and guidance; and c) assisting with public outreach and education. The Port Authority has final authority over the study and responsibility for its accuracy and completeness.

We are listening

Through the initial public workshops we've heard a variety of public concerns related to noise levels, aircraft altitudes, frequency of overflights, early morning and late night overflights, and perceived changes in overflight activities, among others. It's important to understand that this Part 150 study will only focus on determining current and projected noise exposure and opportunities for reducing noise exposure in certain locations.

Study Schedule

The LGA Part 150 began in the fourth quarter of 2014 and the NEM is scheduled to be submitted to the FAA for final review and acceptance in the fourth quarter of 2016. The study team is collecting and analyzing data related to land use and community information, as well as aircraft information such as aircraft flight routes, aircraft activity, and operations characteristics. Public workshops in June and October 2015 provided an introduction to the study, the information to be included in the study's analysis, and the project schedule. This data will be used in developing the NEM.

Newsletters of this type will be distributed on approximately a quarterly basis. Public workshops and briefings will be held at several key points in the study process, to permit all interested parties to review assumptions, baseline data, forecasts, draft results, and to provide feedback and suggestions.

PROJECT NEWS

We held public workshops in June (in Queens) and October (in Nassau County). At both workshops the Port Authority and members of the study team were on hand to provide more information about the study and answer questions from residents and business. The meetings were conducted in an "open house" format to allow people to browse project information boards and talk to project teams members at their leisure. If you were not able to attend, all of the materials from the workshops, including presentation boards and handouts, can be viewed and downloaded from the project website http://panynjpart150.com/LGA_PIW.asp. More public workshops are being planned for 2016 – stay tuned for more information!

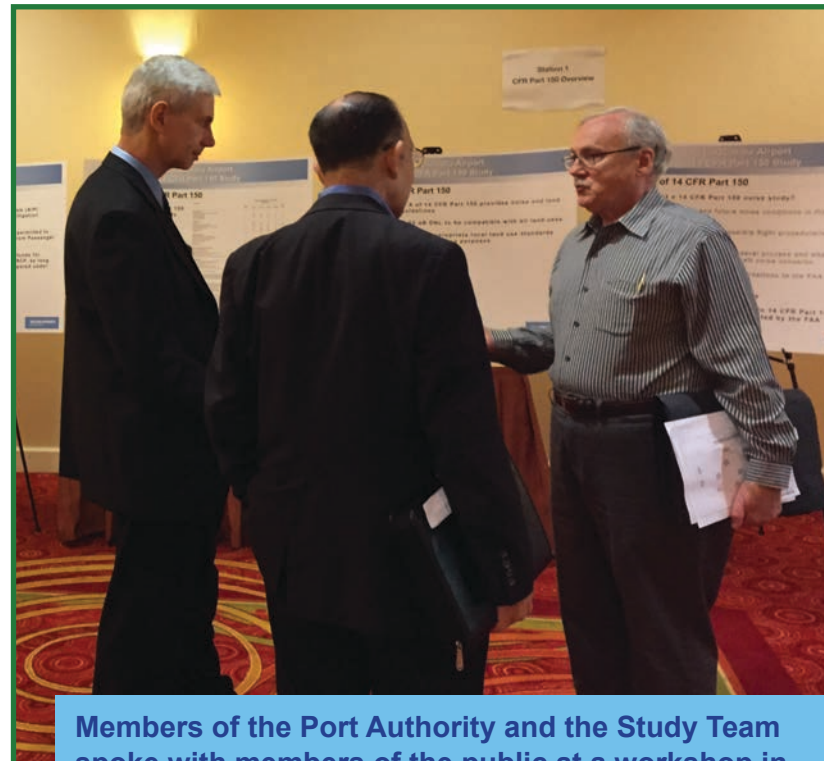


STAY CONNECTED...

Want more information? Want to send us comments and feedback? Need to ask a question?

You've come to the right place! The LGA Part 150 Study is a multi-year process, so the Port Authority has several ways you can participate and stay informed:

- To get the latest project information, the project website (http://panynjpart150.com/LGA_homepage.asp) will be updated regularly with project documents, meeting announcements, and other general information about the study. Click on the link at the bottom of the page to join the mailing list and receive project updates.
- To make comments, give feedback, or ask questions, please email us at NYPart150@panynj.gov.
- The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint please call the noise complaint hotline at **1-800-225-1071**.



Members of the Port Authority and the Study Team spoke with members of the public at a workshop in June 2015.

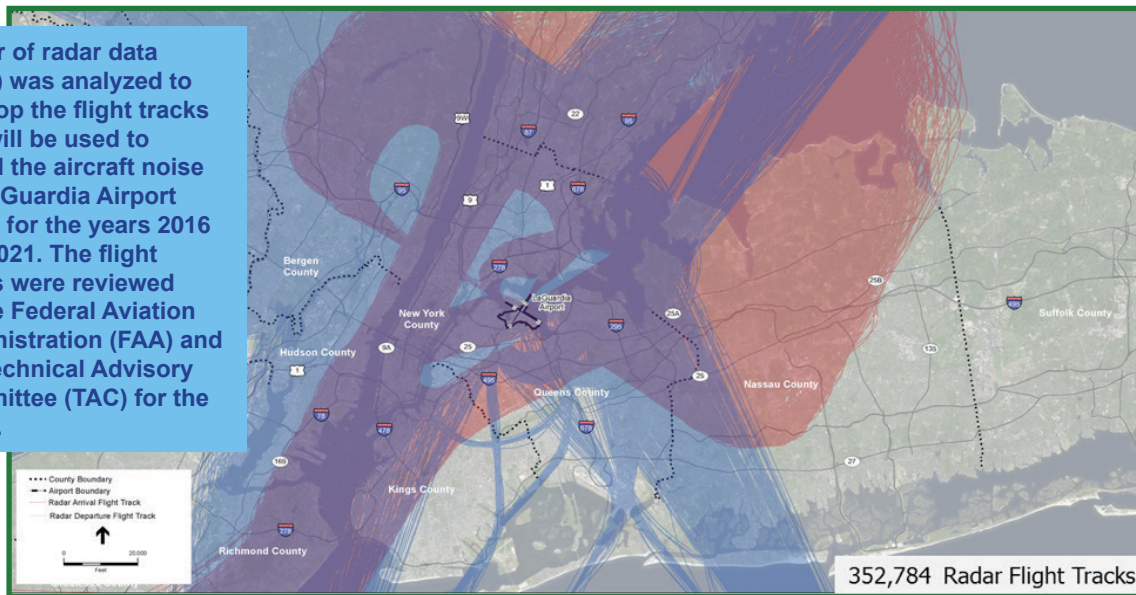
Part 150 Airport Noise and Land Use Compatibility Study LaGuardia Airport (LGA)

INTRODUCTION

WINTER 2016
Newsletter

The Port Authority of New York and New Jersey (Port Authority) is conducting a noise and land use compatibility study that complies with Title 14 of the Code of Federal Regulations, Part 150 – Airport Noise Compatibility Planning (14 CFR Part 150) for LaGuardia Airport (LGA). Companion 14 CFR Part 150 Studies are underway at John F. Kennedy International Airport (JFK), Newark Liberty International Airport, and Teterboro Airport.

A year of radar data (2014) was analyzed to develop the flight tracks that will be used to model the aircraft noise for LaGuardia Airport (LGA) for the years 2016 and 2021. The flight tracks were reviewed by the Federal Aviation Administration (FAA) and the Technical Advisory Committee (TAC) for the study.



IN THIS ISSUE

This newsletter is the second in a series that the Port Authority will distribute to those interested in learning more about the Part 150 study for LaGuardia Airport (LGA). It contains updates on work conducted to date, the Technical Advisory Committee, what's next, and how to stay involved.

PROJECT NEWS AND STUDY SCHEDULE

The Port Authority and members of the study team held a public workshop in Nassau County in October to provide information about the study and answer questions from community members and businesses. Similar to the June public information workshop held in Queens near the airport, this meeting was conducted in an "open house" format to allow people to browse project information boards and talk to project team members. If you were not able to attend, all of the materials from both workshops, including presentation boards and handouts, can be viewed and downloaded from the project website http://panynjpart150.com/LGA_PIW.asp. More public workshops are being planned for 2016 – stay tuned for more information.

The LGA Part 150 began in the fourth quarter of 2014 and the Noise Exposure Map (NEM) is scheduled to be submitted to the FAA for final review and acceptance in the fourth quarter of 2016. The study team is currently collecting and analyzing data related to land use and community information, as well as aircraft information such as aircraft flight routes, aircraft activity, and operations characteristics. This data will be used in developing the NEM.



FLIGHT TRACK MODELING

The ESA Team has been focusing on several aspects of the aircraft noise modeling effort and sharing those analyses with the LGA Technical Advisory Committee (TAC). The figure above, which was presented at the December 2015 LGA TAC meeting, shows the arrival (in red) and departure (in blue) radar flight tracks for LGA for 2014 from the Port Authority's Airport Noise & Management System (ANOMS). These 352,784 radar flight tracks serve as the basis for developing the 535 modeled flight tracks that will be entered into the FAA-approved Integrated Noise Model (INM) to generate the 2016 and 2021 LGA aircraft noise exposure contours.

In addition to a review by the LGA TAC, the FAA air traffic control personnel reviewed the modeled flight tracks for use in the INM. The next step is to forecast the aircraft operations at LGA for 2016 and 2021 by aircraft type and time of day. Those operations will then be distributed across the modeled flight tracks in a manner similar to the way they were used in 2014. The end products will be the existing (2016) and future (2021) noise contours that will be used to assess impacts on noise sensitive uses in the environs surrounding LGA.

LAND USE UPDATE

Over the past several months, the study team collected data related to land use and community characteristics. This included collecting readily available information as well as coordinating with NYC planning agencies and Nassau County planning agencies, towns, and villages. Data collected includes zoning, land use, and population census information. This data includes but was not limited to the locations of noise sensitive uses such as homes, places of worship, schools, nursing homes, hospitals, and recreation area/parks. The team is preparing this data for use in development of the Noise Exposure Map (NEM) and it will also be used to evaluate the potential effect noise would have on noise sensitive areas. The NEM will use this data as baseline information on the maps that display the noise contours developed in this study.

TECHNICAL ADVISORY COMMITTEE (TAC)

Early in the study the Port Authority invited key technical experts to join a Technical Advisory Committee (TAC) that will provide input and review documents throughout the study process. The TAC is comprised of representatives of government planning agencies, regulators, elected officials, airline industry, business organizations, and community representatives. The purposes of the TAC are for members to a) represent the viewpoints of their organizations, b) learn about and review the data that will be used to quantify existing and future noise exposure levels from aircraft operations at LGA, c) review and provide input on potential noise mitigation and noise abatement measures, and d) assist with public outreach and education. TAC member meetings are typically planned every other month for the study duration and are open to the general public.

The TAC has met four times since it was established, and thus far has provided input on the draft study protocol, existing land use maps, the integrated noise model (INM) inputs, and airport activity forecast. The TAC meetings take place during daytime hours at LGA and are open to the public. For more information about the TAC membership, to view meeting presentations and summaries, and to learn about future meeting dates, please visit the study website.

WE ARE LISTENING

Through the initial public workshops we've heard a variety of public concerns related to noise levels, aircraft altitudes, frequency of overflights, early morning and late night overflights, and perceived changes in overflight activities, among others. It's important to understand that this Part 150 study will only focus on determining current and projected noise exposure and opportunities for reducing noise exposure in environs surrounding LGA.

STAY CONNECTED

Newsletters will be distributed on approximately a quarterly basis. Public workshops and briefings will continue to be held at several key points in the study process, to permit all interested parties to review assumptions, baseline data, forecasts, draft results, and to provide feedback.

The next LGA Technical Advisory Committee Meeting is scheduled for:

Date: Wednesday, March 16, 2016

Time: 10:00 a.m. - 1:00 p.m.

Location: LaGuardia Airport, Hangar 7 Center, 3rd Floor

Want more information? Want to send us comments and feedback? Need to ask a question? You've come to the right place! The LGA Part 150 Study is a multi-year process, so the Port Authority has several ways you can participate and stay informed:

- To get the latest project information, the project website (http://panynjpart150.com/LGA_homepage.asp) will be updated regularly with project documents, meeting announcements, and other general information. Click on the link at the bottom of the page to join the mailing list and receive project updates.
- To make comments, give feedback, or ask questions, please email us at NYPart150@panynj.gov.
- The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint please call the noise complaint hotline at **1-800-225-1071**.



Members of the Port Authority and the Study Team spoke with members of the Technical Advisory Committee (TAC) in 2015.

Part 150 Airport Noise and Land Use Compatibility Study

LaGuardia Airport (LGA)

K-198

SUMMER 2016

Newsletter

INTRODUCTION

The Port Authority of New York and New Jersey (Port Authority) is conducting a noise and land use compatibility study that complies with Title 14 of the Code of Federal Regulations, Part 150 – Airport Noise Compatibility Planning (14 CFR Part 150) for LaGuardia Airport (LGA). Companion 14 CFR Part 150 Studies are underway at John F. Kennedy International Airport (JFK), Newark Liberty International Airport, and Teterboro Airport.



IN THIS ISSUE

This newsletter is the third in a series that the Port Authority is distributing to those interested in learning more about the 14 CFR Part 150 study for LGA. It contains images of the preliminary draft Day-Night Average Sound Level (DNL) 65, 70, and 75 dBA contours; the preliminary draft noise exposure information; information on upcoming public workshops; and an introduction to the LGA Noise Compatibility Program (NCP) process.



The Port Authority continues to hold LGA Technical Advisory Committee meetings on a regular basis.

PRELIMINARY DRAFT AIRCRAFT NOISE EXPOSURE CONTOURS

The Study Team used data on LGA's airport layout, aircraft operations, flight paths, and other factors as input into the Federal Aviation Administration's (FAA's) Integrated Noise Model (INM) to generate the DNL 55, 60, 65, 70, and 75 dBA contours for LGA for the years 2016 and 2021. This included FAA-approved user-defined flight profiles for the top ten aircraft that operate at LGA, which were developed with concurrence from several airlines operating at LGA. The user-defined flight profiles more closely match LGA-specific flight patterns than INM standard profiles. The Study Team's data also included FAA-approved aircraft substitutions for aircraft that are not represented in the INM database, as well as an FAA-approved aircraft operations forecast for the year 2021. LGA's DNL 65, 70, and 75 dBA contours are shown in the graphic at the end of this newsletter.

Areas outside DNL 65 are considered compatible land use. For informational purposes only, DNL 55 and 60 dBA contours will be included in the Draft LGA Noise Exposure Map Report. The analysis revealed that the expected retirement of MD-80 aircraft from airline fleets drives much of the changes in contours from 2016 to 2021. These aircraft are generally quieter than other narrowbody aircraft on arrival (such as the Boeing 737 and Airbus 320), yet they are louder on departure than any other aircraft in operation at LGA. The Port Authority expects that MD-80 aircraft will be replaced by aircraft that are louder on arrival, yet quieter on departure by the year 2021.

SEPTEMBER PUBLIC WORKSHOP

The Port Authority will host a public workshop on September 29, 2016 from 6 P.M. to 9 P.M. at the New York LaGuardia Airport Marriott hotel (102-05 Ditmars Boulevard, East Elmhurst, NY 11369). At the workshop, the Noise Exposure Map development process and the 2016 and 2021 noise exposure contours for LGA will be discussed with attendees. The workshop uses an "open house" format where members of the public can arrive and leave at any time between 6 P.M. and 9 P.M. Members of the public are welcome to visit several information stations and speak with the consultant team that developed the Draft LGA Noise Exposure Map Report. Comment forms will be available at the workshop for the public to provide input regarding aircraft noise and the Draft LGA Noise Exposure Map Report.

NOISE COMPATIBILITY PROGRAM

The second phase of the LGA Part 150 study is the Noise Compatibility Program (NCP), scheduled to begin in the late Fall of 2016. During the NCP phase, the Study Team will explore operational, land use, and administrative measures to minimize aircraft noise exposure. Examples of these measures are sound insulation, noise abatement flight tracks, and preferential runway use. The FAA has the authority to approve or disapprove each noise compatibility measure proposed by the Port Authority. A brief introduction to the Noise Compatibility Program phase of the study will be provided at the September 29, 2016 workshop.

NOISE SENSITIVE SITES WITHIN THE DNL 65 CONTOUR – 2016 AND 2021

Table 1: Results of the preliminary land use evaluation for 2016

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools ¹	Hospitals and Residential Healthcare	Historic Resources	Day Care
2016								
DNL 65-70	1,579.3	3,655	9,787	7	2	0	8	2
DNL 70-75	517.4	2	6	0	1	0	0	1
DNL 75+	339.1	0	0	0	0	0	0	0
Total	2,435.8	3,657	9,793	7	3	0	8	3

NOTE: The household and population estimates provided above were developed using census block demographic data from the 2010 Decennial Census and New York City housing data.

¹ All three schools were included in the Port Authority School Soundproofing Program, and are compatible with DNL 65+.

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

Table 2: Results of the preliminary land use evaluation for 2021

Noise Level	Total Area (Acres)	Households	Population	Places of Worship	Schools	Hospitals and Residential Healthcare	Historic Resources	Day Care
2021								
DNL 65-70	1,554.7	3,802	10,255	7	2	2	16	2
DNL 70-75	502.5	4	12	0	1	0	0	1
DNL 75+	332.2	0	0	0	0	0	0	0
Total	2,389.4	3,806	10,267	7	3	2	16	3

NOTES: 1. The household and population estimates provided above were developed using census block demographic data from the 2010 Decennial Census and New York City data.

2. Because the timing and extent of planned residential development within the DNL 65 contour is uncertain, the household and population estimates in this table do not include potential housing units associated with the Willets Point Development Plan and construction of additional housing units at the Sky View Parc condominium complex.

3. All three schools were included in the Port Authority School Soundproofing Program, and are compatible with DNL 65+.

SOURCE: Planning Technology, Inc. and Environmental Science Associates, 2016.

The Study Team used population data from the U.S. Census Bureau's 2010 Decennial Census and parcel data provided by the City of New York to calculate the number of people, households, and noise sensitive facilities within the DNL 65, 70, and 75 dBA contours (See Tables 1 and 2 above).

The Port Authority delivered the draft noise contours and the results of the draft land use evaluations for 2016 and 2021 to the FAA in the Preliminary Draft LGA Noise Exposure Map Report on July 15, 2016. The FAA's comments will be incorporated into the Draft LGA Noise Exposure Map Report that will be released to the public in the fall of 2016 before the September public workshop. The notice of availability for the Draft LGA Noise Exposure Map Report will be placed in local newspapers and noted on the Port Authority's Part 150 Study website, and the Draft Report will be available on the Port Authority's Part 150 Study website and in several localities within the 65 DNL contour. Comments on the report can be submitted within the 30-day public review period using the project e-mail address, which is listed in the "How to Stay Connected" section of the newsletter. In addition, comments may be submitted at the September public workshop.



HOW TO STAY CONNECTED

Want more information? Want to send comments and feedback? Need to ask a question? You've come to the right place! The LGA Part 150 Study is a multi-year process, so the Port Authority has several ways you can participate and stay informed:

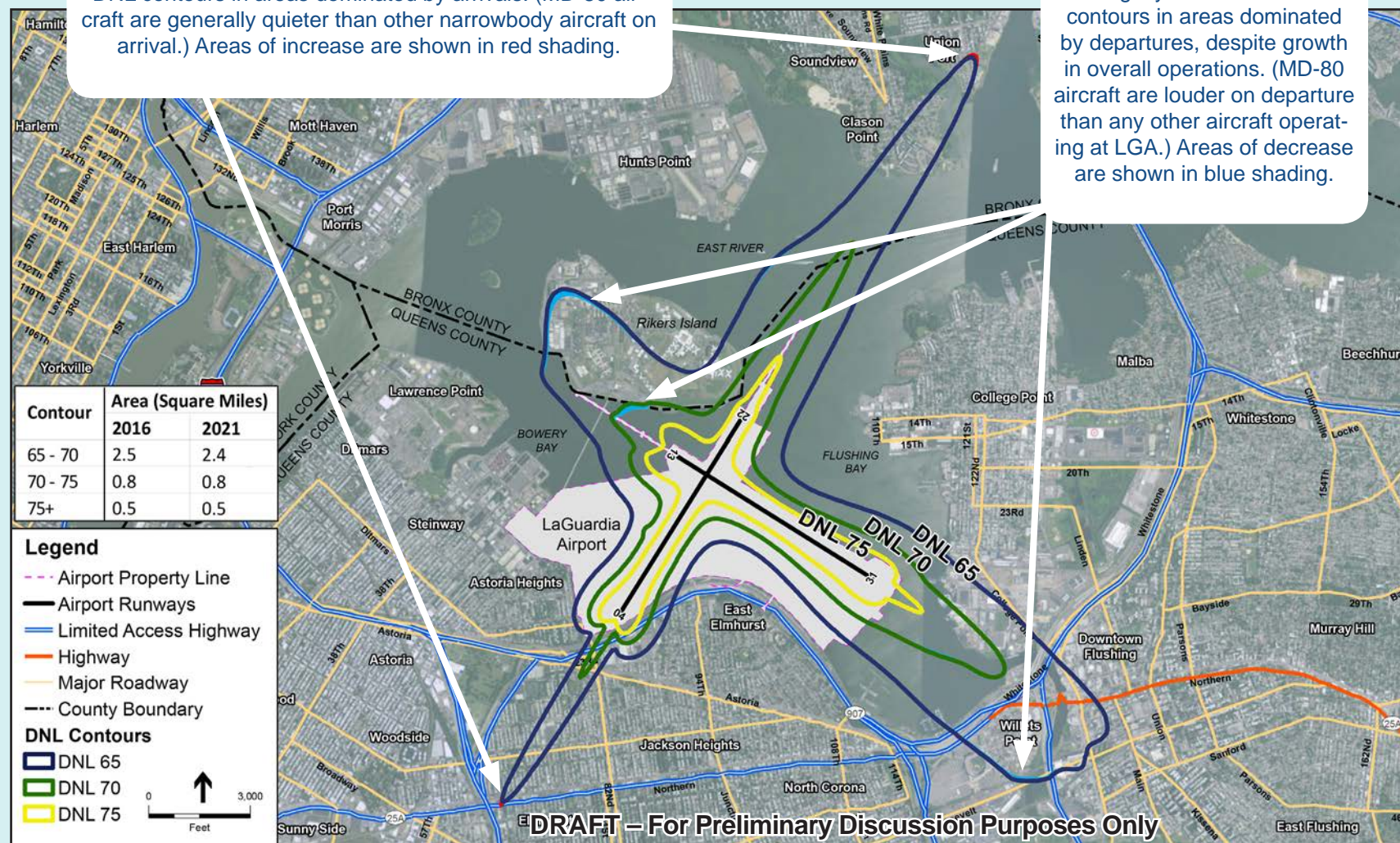
- To get the latest project information, the project website (http://panynjpart150.com/LGA_homepage.asp) will be updated regularly with project documents, meeting announcements, and other general information. Click on the link at the bottom of the home page to join the mailing list and receive project updates.
- To make comments, give feedback, or ask questions, please email **NYPart150@panynj.gov**.
- The Port Authority is interested in hearing from you if aircraft noise is a concern. To file an aircraft noise complaint please call the noise complaint hotline at **1-800-225-1071**.

COMPARISON OF THE 2016 AND 2021 LGA DNL CONTOURS

This image shows the DNL 65, 70, and 75 dBA contours for the year 2016, with changes between 2016 and 2021 indicated in red and blue. The changes in contours are primarily due to expected changes in the aircraft fleet mix at LGA including retirement of MD-80 aircraft. (SOURCE: ESA and KB Environmental Sciences, Inc., 2016; INM 7.0d; ESRI Mapping Services.)

Replacement of the MD-80 aircraft slightly increases the DNL contours in areas dominated by arrivals. (MD-80 aircraft are generally quieter than other narrowbody aircraft on arrival.) Areas of increase are shown in red shading.

Replacement of the MD-80 aircraft slightly decreases the DNL contours in areas dominated by departures, despite growth in overall operations. (MD-80 aircraft are louder on departure than any other aircraft operating at LGA.) Areas of decrease are shown in blue shading.



Appendix K-5

Newspaper Articles

This appendix includes newspaper articles referencing the LaGuardia 14 CFR Part 150 Study. These articles are presented in chronological order and were compiled by monitoring media outlets on a daily basis between August 2014 and April 2016. The summary contains the name of the media outlet, date published, title of the article and circulation/unique visitors per month (UVPM).

Outlet	Article	Circulation / Unique Visitors Per Month
<i>Times Ledger</i> August 21, 2014	Aviation Roundtable Sparks Anger	Circulation: 75,000 UVPM: 69,000
<i>The Island Now</i> August 28, 2014	Aircraft Committee Adds Falling Parts to Concerns	UVPM: N/A
<i>Newsday</i> October 28, 2014	\$8M Noise Studies for JFK, LaGuardia Get Green Light	Circulation: 443,362 UVPM: 1,722,945
<i>am New York</i> October 29, 2014	JFK, LaGuardia noise study gets green light	Circulation: 325,469 UVPM: 239,408
<i>Times Ledger</i> November 7, 2014	Katz Forms Aviation Task Force to Fight Jet Noise in Borough	Circulation: 75,000 UVPM: 69,000
<i>Newsday</i> <i>Newsday.com</i> November 9, 2014	Homes Near Kennedy, LaGuardia May Land Federal Noise Grants	Circulation: 443,362 UVPM: 1,722,945
<i>AM New York</i> <i>AMNY.com</i> November 10, 2014	FAA Reviewing Airport Noise Standards	Circulation: 325,469 UVPM: 262,266
<i>Forum News</i> November 14, 2014	Port Authority, FAA to Upgrade Noise Pollution Standards	Circulation: 60,000 UVPM: N/A
<i>NJ.com</i> December 16, 2014	Aircraft Noise Targeted by Port Authority in 3-Year \$6.6M Study	UVPM: 5,697,658
<i>Airport World</i> January 29, 2015	PANYNJ Reports 3% Jump in Passenger Traffic in 2014	UVPM: N/A
<i>Times Ledger</i> February 12, 2015	Aviation Roundtables Still Not Finalized: CB7	Circulation: 75,000 UVPM: 69,000
<i>Garden City News</i> March 13, 2015	Aircraft Noise Committee Still Fighting	UVPM: N/A

The Forum March 19, 2015	Roundabout with Airports Roundtable	Circulation: 60,000 UVPM: N/A
Queens Chronicle April 30, 2015	Newer LaGuardia Flight Paths Cause Pain in Flushing	Circulation: 160,000 UVPM: 300,000
Queens Chronicle May 7, 2015	Meng Calls for EPA Control Over Noise	Circulation: 160,000 UVPM: 300,000
Times Ledger May 22, 2015	FAA to Conduct First Air Noise Impact Study in Over 25 Years	Circulation: 75,000 UVPM: 69,000
Newsday Newsday.com June 10, 2015	JFK Noise Advisory Panel Meets for 1st Time	Circulation: 443,362 UVPM: 2,065,826
WABC-TV Eyewitness News 7online.com June 15 & 16, 2015	Online story: Port Authority Presents Measures to Reduce Airport Noise During Meeting TV segment on June 15 at 11:09 PM: Reducing Airport Noise TV segment on June 16 at 5:13 AM: Airport Noise	UVPM: 3,170,994 Viewership: 616,216
Brooklyn Downtown Star June 16, 2015	Port Authority Announces Airport Study	UVPM: 45,000
Queens Ledger Queensledger.com June 16, 2015	Port Authority Announces Airport Study	Circulation: 99,453 UVPM: N/A
The Forum June 17, 2015	Port Authority Goes Public with Airport Noise Studies	Circulation: 60,000 UVPM: N/A
Queens Chronicle June 18, 2015	Residents Welcome Noise Study Outreach	Circulation: 160,000 UVPM: 300,000
Queens Tribune June 18, 2015	Cautious Optimism on Plane Noise Study	Circulation: 171,000
The Queens Courier June 18, 2015	Airplane Noise Study to Examine Reach of Aircraft Noise	UVPM: N/A
New York Times June 21 & 22, 2015	Engaging in Softer Conversation About the Roar from New York's Airports	Circulation: 2,149,012 UVPM: 63,649,953
Times Ledger June 22, 2015	Port Authority Launches Noise Office. Presents Part 150 Progress	Circulation: 75,000 UVPM: 69,000
Five Towns Herald June 24, 2015	Registering Their Concerns About Aircraft Noise	UVPM: N/A
Western Queens Gazette July 22, 2015	Americans Set Highest Travel Record in Years	Circulation: 90,000
Times Ledger July 23, 2015	Members of Congress Push for Stricter Aircraft Noise Control	Circulation: 75,000 UVPM: 69,000
DNAInfo July 29, 2015	Pols Vow to Keep Community Interests in Mind During LaGuardia Renovation	UVPM: 467,876

The Office of Sen. Charles Schumer August 12, 2015	Schumer, Gillibrand Announce Over \$3M in Federal Funding to Help Study & Address Airplane Noise in- and- Around JFK Airport; Senators Urge Port Authority to Expedite Completion of Study	UVPM: N/A
Newsday August 13, 2015	Federal Grant Adds \$3.1 for Study to Curb Kennedy Airport Noise	Circulation: 443,362 UVPM: 2,065,826
NY State of Politics August 14, 2015	Perimeter Rule Peril	UVPM: 17,520
Queens Gazette August 19, 2015	Schumer, Gillibrand Get \$3M from Fed for JFK Airport Noise Study	Circulation: 90,000 UVPM: N/A
DNA Info August 20, 2015	Jackson Heights Tops List of Airport Noise Complaints	UVPM: 467,876
Queens Chronicle August 20, 2015	Pols Don't Want Longer LGA Flights	Circulation: 160,000 UVPM: 300,000
Queens Tribune August 27, 2015	New Terminal Aside: Airport Advisory Panel	Circulation: 171,000
The Forum September 2, 2015	Federal DOT Grant to Help Fund LaGuardia Noise Study	Circulation: 60,000 UVPM: N/A
Malverne Herald October 20, 2015	Port Authority Hosts Public Workshop on Plane Noise Study, Oct. 29	Circulation: 73,000
Times Ledger October 23, 2015	Hundreds Attend Jackson Hts. Town Hall on Airplane Noise	Circulation: 75,000 UVPM: 69,000
Office of Congressman Joseph Crowley December 3, 2015	Vice Chair Crowley Reintroduces the Silent Skies Act to Curb Aircraft Noise Pollution	UVPM: N/A
Times Ledger December 11, 2015	Flushing Councilman Wants LGA Flight Path Diverted from Flushing	Circulation: 75,000 UVPM: 69,000
Times Ledger January 14, 2016	CB7 Weighs in on Airplane Noise in Northern Queens	UVPM: 33,000
Queens Tribune January 21, 2016	PANYNJ Offers Residents Airplane Noise Monitors	Circulation: 171,000
Queens Courier February 15, 2016	Northeast Queens Airplane Noise: Community Board Wants a Say in Transit Study	UVPM: N/A
Queens Chronicle March 17, 2016	'Round and 'Round the Roundtable Goes	Circulation: 160,000 UVPM: 300,000
Times Ledger March 17, 2016	Aviation Roundtable Members Argue Over Structure at Meeting	Circulation: 75,000 UVPM: 69,000
Malverne Herald April 7, 2016	Noticing an Increase in Airplane Noise? Here's How to Complain	Circulation: 73,000
Queens Gazette May 25, 2016	Stavisky, Colleagues Call on Congress to Lessen Aircraft Noise	Circulation: 90,000 UVPM: N/A
Office of Senator Charles E. Schumer June 1, 2016	Schumer Calls on Port Authority to Accelerate Completion of Noise Studies Surrounding JFK and	UVPM: N/A

	LaGuardia Airports- Part 150 Study	
Times Ledger June 2, 2016	Schumer Calls in PA to Finish Up Airplane Noise	Circulation: 75,000 UVPM: 69,000
Queens Gazette June 8, 2016	Schumer Urges Port Authority to Expedite Noise Study	Circulation: 90,000 UVPM: N/A
The Forum June 10, 2016	Schumer Pushes Port Authority to Expedite Completion of Part 150 Airport Noise Compatibility Studies	Circulation: 60,000 UVPM: N/A
Long Island Herald June 29, 2016	Schumer Urges Port Authority to Expedite Noise Studies	Circulation: 89,534 UVPM: 73,000
Queens Chronicle June 30, 2016	Not Much Change in Plane Noise	Circulation: 160,000 UVPM: 31,995
Queens Chronicle July 14, 2016	Jack Martins Aims to Succeed Rep. Israel	Circulation: 160,000 UVPM: 31,995
Queens Chronicle September 1, 2016	Records Show More Departures from LGA	Circulation: 160,000 UVPM: 31,995
Queens Tribune September 8, 2016	Data Supports Airplane Noise Concerns	Circulation: 147,000 UVPM: N/A

Compiled by: Nicholas & Lence Communications LLC, 2016.

August 21, 2014
UVP: 69,000
Circulation: 75,000

AUGUST 21, 2014 / NEWS / GOVERNMENT / EAST ELMHURST

Aviation roundtable sparks anger

[Enlarge this image](#)



Photo by Kelsey Durham

Ed Knoesel (c.), of the Port Authority, speaks at Tuesday's roundtable meeting near LaGuardia Airport. Photo by Kelsey Durham

By Kelsey Durham

An ongoing community fight to reduce airplane noise throughout the metropolitan area was fueled by heated tempers Tuesday night at the second aviation roundtable held near LaGuardia Airport in East Elmhurst.

Residents and elected representatives from Queens and Long Island met with officials from the Port Authority and the Federal Aviation Administration at the LaGuardia Marriott Hotel, at 102-05 Ditmars Blvd., to continue discussing the issue of increased plane noise that residents say is burdening their lives and lowering their property values.

After the last set of meetings in June, members of the group Queens Quiet Skies were left unhappy with the way the governor-mandated roundtable meetings were being run, a sentiment that carried over into this week's gathering.

Janet McEneaney, president of QQS, said her group is still fighting to be given a vote on whether to hold three roundtables, one for each of the metropolitan area's major airports, or join them into one gathering, which she and some other advocates are in favor of.

But despite the pressure from the community to take a vote on whether to join the meetings together, the Port Authority continued Tuesday to tell residents that the roundtables will remain separate.

But McEneaney said the Port Authority does not have the power to make that decision alone.

"If we have a vote, I will live with whatever the result is, but I object to the idea of the Port Authority making this decision unilaterally," she said. "They have no right to do that."

Advocates say their main concern with the roundtables so far is that the Port Authority has taken over the discussions and is not allowing the meetings to be run the way other cities across the country facilitate theirs. Residents also voiced objections after the Port Authority said it would not allow them to have input on who the agency hires to run its noise office and to conduct the Part 150 noise study Gov. Andrew Cuomo ordered last year in the same legislation that mandated the roundtables.

"This is almost just another town hall meeting, not a roundtable," said Warren Schreiber, president of the Bay Terrace Community Alliance and a member of Community Board 7. "That's not what it should be, It's time for some organization and structure because without that, this is doomed for failure."

One item on Tuesday's agenda was to begin constructing a set of bylaws for the LaGuardia roundtables, but the meeting adjourned before that discussion took place because community advocates refused to move forward out of fear that creating those bylaws would mean they have accepted the split into three roundtables without being given a vote.

McEneaney told the Port Authority she was "sick and tired" of having to ask the agency's permission to take a vote, which she said she should not have to do, but the Port Authority refused to budge.

"The Port Authority is going to do three roundtables and I highly suggest we move forward and actually talk," said Ian Van Praagh, business negotiations manager for the Port Authority. "We can continue to bicker or we can move forward."

State Sen. Tony Avella (D-Bayside) argued in support of his constituents, saying having three roundtables could be problematic if the bylaws of each or the decisions they make conflict with each other. He said without having everyone involved in the issue gathered in one room together, the roundtables were going nowhere.

"We did not fight to get to this point to have a watered-down version of the roundtables or of the Part 150," Avella said. "We want to have input. Let's get it right the first time, because anything less than that and you'll have the biggest fight on your hands that you've ever had."

McEneaney said that despite pressure from the Port Authority, she and other advocates would continue to fight for their fair say in the decision-making process.

"In nine months, the Port Authority has managed to get together something that in no way resembles a real roundtable," she said. "We have to go back to Gov. Cuomo and make sure we get what we were promised."

Reach reporter Kelsey Durham at 718-260-4573 or by e-mail at kdurham@cnglocal.com.

The Island Now

August 28, 2014

UVPM: N/A

Aircraft committee adds falling parts to concerns

BY RICHARD TEDESCO

August 28, 2014



Stewart Manor resident Lee Ackerman said he was walking his dog last Tuesday afternoon when he discovered a metal plate from an Airbus A380 airliner lying in his backyard.

"It is what it is. It's very disconcerting to have pieces of planes falling into your yard," Ackerman said, recounting the experience at a special meeting of the Town-Village Aircraft Safety and Noise Abatement Committee on Monday night.

He said he reported finding the plane part to the Nassau County Police Department and the Federal Aviation Authority a few days later.

The 12.5-inch by 11.5-inch metal plate bore a diagram of a landing strut and maintenance instructions for an A380, an airliner that can carry 500 passengers.

Ackerman said the plate weighed no more than one pound.

"On a plane worth a couple million dollars, there should not be landing gear falling off," Ackerman said at the meeting in Stewart Manor Village Hall.

Committee Executive Director Kendall Lampkin on Tuesday questioned why more information about the plate that fell into Ackerman's backyard wasn't yet available.

"We're almost a week into this and no [airline] carrier has come forward to say they're missing a part," he said.

Lampkin said he alerted Airbus executives last Friday about the meeting to discuss the fallen plane debris, but said Airbus Group Inc. spokesperson Clay McConnell told him the company was unable to send a representative to the meeting from its Herndon, Va. headquarters. He said McConnell also told him the company was seeking information that could help it identify the plane that dropped the landing gear "template".

Lampkin said Carmine Gallo, regional administrator of the FAA eastern region, told Lampkin he also could not attend the aircraft safety committee meeting.

"Without injury or damage, will they just be able to sweep this under the rug? This is not nebulous and there should be a response," said Cristina O'Keeffe, Stewart Manor's representative on the aircraft safety committee.

Ray Gaudio, East Williston's representative on the aircraft safety committee, said he doubts the FAA is concerned about the incident.

"The FAA doesn't like saying a part fell off a plane. Nothing is going to come of it as far as I'm concerned. This is just going to disappear," Gaudio said.

FAA spokesman Jim Peters said on Tuesday the FAA is investigating the incident.

The federal agency also released a statement saying, "The FAA confirmed that an instruction panel a resident of Stewart Manor in Nassau County found last week was dislodged from the inside of a landing gear door of an Airbus A380 aircraft."

Airbus acknowledged the incident in a statement saying: "We are aware of reports that a placard from an aircraft was found on Long Island. Obviously, we do not know how the label came to be found in a garden. Once an aircraft is delivered to an airline, it becomes their property and maintenance of the aircraft is the responsibility of that airline. If authorities request help from us in any investigation, we would be pleased to assist."

Gaudio said two similar incidents occurred in Nassau County in the past several years, including a 2010 accident when a cargo door from an Alitalia airliner landed on the grounds of what was then a county courthouse building near Franklin Avenue in Garden City. In 2012, he said, blocks of blue ice struck the rooftops of several houses in Valley Stream.

After the meeting, Kurt Langjahr, New Hyde Park's committee representative, said he thinks the plate dropped off the plane because many Airbus A380 parts are glued in place.

"The FAA and the plane mechanics have to make sure the parts stay on the planes," Langjahr said.

In other developments:

- Aircraft safety committee members participating in citizens' "roundtable" to provide input on a Port Authority airport noise study of JFK and LaGuardia airports said little progress has been made toward getting the study underway.

O'Keeffe said the roundtable group of resident from Nassau County, Queens and Brooklyn can't yet agree on whether separate roundtables should be established to address noise issues at JFK and LaGuardia or whether one roundtable should be in place with two subcommittees focusing on issues at each of those airports.

"The fact that it's taken nine months to decide what this roundtable is going to look like is frustrating. It's bureaucracy at its very worst," O'Keeffe said.

Langjahr said he favored one roundtable, adding, "The noise that affects Queens affects us."

State Assemblyman Ed Ra, who had pushed for what is called a Part 150 study, said the Port Authority is saying it can't comply with all the aspects of the study.

"We're trying to nail down some of the parameters with help from the governor's office," Ra said.

Gov. Andrew Cuomo ordered the Port Authority of New York and New Jersey to conduct an airport noise and land compatibility study last November for JFK and LaGuardia.

October 28, 2014

UVPM: 2,065,826

\$8M noise studies for JFK, LaGuardia get green light

October 28, 2014

By CHAU LAM



Planes fly over Canterbury Lane in Roslyn Tuesday, April 01, 2014. Residents on the block have complained about noise from the planes on route to JFK airport. Photo Credit: Danielle Finkelstein

The Port Authority has agreed to pay a California-based environmental consulting firm \$8 million to conduct noise compatibility studies for Kennedy and LaGuardia airports and recommend ways to reduce unwanted sound.

Environmental Science Associates, based in San Francisco, will develop noise exposure maps to identify which neighborhoods surrounding the two airports are receiving excessive jet noise and come up with plans to mitigate its impact on residents, said officials at the bistate agency, which operates the airports in New York and New Jersey.

"It's been a long fight and now it's a reality," said Len Schaier, head of the Citizens for Quiet Skies over North Hempstead, one of numerous advocacy groups that have been working for years to cut aircraft noise over residential communities in Nassau County and Queens. "Finally, we're going to get data to help us understand how the changes to our airspace affect our environments," he said Tuesday.

The Port Authority is also hiring a consultant to conduct similar reviews at Newark Liberty International Airport and Teterboro Airport. Those proposals are due Nov. 10.

The studies at Kennedy and LaGuardia airports, expected to take three years to complete, must be approved by the Federal Aviation Administration.

The FAA, which sets noise standards for land use in and around the airports, measures noise by taking the average of all sounds emitted by planes in a 24-hour period, with greater weight given to aircraft noise between 10 p.m. and 7 a.m. This weighting reflects the added intrusiveness of night noise events. The measurement is called a day-night average noise level, or DNL, expressed in decibels.

Noise levels at DNL 65 dB or above are considered too high for residential neighborhoods and Congress has set aside money to help pay for noise mitigation projects that could include soundproofing homes.

Once the FAA approves the Kennedy and LaGuardia studies, the Port Authority could apply for federal money.

Kendall Lampkin, executive director of the Town-Village Aircraft Safety and Noise Abatement Committee, an umbrella organization that represents thousands of Nassau residents, said his group has been asking for these measurements, known as a Part 150 Noise Compatibility Study, for a decade and he is thrilled that is finally happening.

"I've waited 10 years to get one, and I can see light at the end of the tunnel," Lampkin said.

The Port Authority was ordered by Gov. Andrew M. Cuomo to conduct the studies early this year.

And, after much pressure from advocates and local officials, the authority has also agreed to expand the noise contour maps and look at communities impacted by aircraft noise at thresholds between DNL 55 dB and DNL 65 dB. This would likely include more neighborhoods in Nassau.

"DNL 55 dB is the standard used around the world, except the United States," Schaier said.

November 7, 2014

UVPM: 69,000

Katz forms aviation task force to fight jet noise in borough

By Juan Soto

NOVEMBER 7, 2014

In an effort to have one strong voice in the war against the Federal Aviation Administration, the Queens borough president established a new aviation task force to try to curb airplane noise generated by flights at Kennedy and LaGuardia airports.

Although former borough presidents also had an aviation task force, Melinda Katz recently reshaped it and named the panel the Queens Civic Aviation Coalition. The new group was established Oct. 17. The task force met for the second time Monday.

The panel will write a letter to the FAA addressing concerns of residents in neighborhoods like Bayside and Flushing about jet noise and pollution. In addition, the group will also express its disagreement with the FAA over not conducting environmental studies before making any flight changes.

The Queens Civic Aviation Coalition is comprised of Katz, some of her senior staff, representatives from Community Boards 7, 10, 11 and 14, representatives from several civic associations, an aviation activist and the Queens Quiet Skies activist group.

"I believe it's going to be a very good group for presenting our common interests and point of view," said Janet McEneaney, president of Queens Quiet Skies, an organizations that was formed in northeast Queens. "We will express to the FAA our dismay for their decision to get rid of all environmental reviews for their flight changes."

In addition, the Port Authority, which manages both airports, will host a working meeting of the Aviation Community Roundtable Nov. 20 at York College to further discuss residents' complaints about aircraft noise. The idea of the roundtables is to establish a multifaceted series of steps "to work closer with communities on addressing" jet noise.

The Port Authority said the main objective of the roundtables is to address the noise issues "while supporting growth" at the airports. Residents said the increased plane noise is also burdening their lives and lowering their property values.

In another development, the state agency announced it had hired an environmental company to develop noise exposure maps to seek noise mitigation solutions.

Environmental Science Associates will conduct a study over the next three years to help alleviate aircraft noise complaints from residents. The \$8 million study for both JFK and LaGuardia seeks, among other goals, to use information "to help develop potential plans to help minimize noise impacts."

The so-called federal Part 150 airport noise compatibility will pinpoint areas affected by noise above an average of 55 decibels for information purposes.

"The continuing progress toward the federal Part 150 studies for Kennedy, LaGuardia ... marks another milestone in the agency's efforts to address residents' aircraft noise concerns in New York," said Thomas Bosco, aviation director for the Port Authority.

November 9, 2014

UVPM: 2,065,826

Nassau LONG ISLAND

Homes near Kennedy, LaGuardia may land federal noise grants

Thousands more residents living near Kennedy and LaGuardia airports could be eligible for federal grants to pay for insulating houses and apartments from aircraft noise if the Federal Aviation Administration adopts new noise standards.

The agency has spent the past four years reviewing whether to update the metric it has used for more than three decades to measure the impact of aviation noise on people and land use, according to FAA Administrator Michael P. Huerta.

If the agency revises its criteria, local advocates and residents say thousands of people in Queens and Nassau could benefit. "It's time to stop reviewing. It's time to start taking action," said Len Schaier, president of quietskies.net, a local advocacy group, noting that airports in Europe have modified their standards. "The same plane that makes noise in England makes noise here in New York. If it's too noisy in Heathrow, why isn't it too noisy here?"

The Port Authority estimated 37,294 residents lived in 12,112 dwellings in 2013 in Nassau and Queens where the day-night average noise level (DNL) was 65 decibels or higher -- the threshold that the FAA deems too noisy.

Noise generated by airplanes and airport operations has created a problem for hundreds of thousands of people living near airports and under flight paths across the country and has become a political issue.

Rep. Steve Israel (D-Huntington) and a dozen congressional colleagues wrote a letter to the FAA last month asking that the nationwide review be expedited and that the noise threshold be lowered to 55 DNL.

"The current . . . metric is outdated and disconnected from the real impact that air traffic noise is having on our constituents and should be lowered to a more reasonable standard of 55 decibel DNL," said Israel and his colleagues.

If the FAA drops the noise threshold to 55 DNL, residents and advocates said many more densely populated neighborhoods would be counted among those impacted by aircraft noise. They said the number of people considered to be subjected to excessive noise would double.

Noise mitigation funds

Noise levels at 65 decibels and above are considered too high for residential neighborhoods and Congress has set aside money to help pay for noise mitigation projects that could include soundproofing homes. The average office noise is 60 decibels and an ambulance siren is 95.

Sound insulation work may include the installation of acoustical windows and doors. In certain cases it may mean new heating, ventilation and air conditioning systems to help block out the jet noise to make it easier for residents to sleep, watch television or carry on a conversation inside their homes.

The cost of insulating a home from aircraft noise can vary widely, depending on the size of the home and other factors, said Ron Marsico, a spokesman for the Port Authority.

In Minneapolis, where homeowners have received federal money, full soundproofing cost about \$45,000 per home in 2007. That included new windows and doors, wall insulation, roof baffles, air conditioning, furnaces and duct work.

The assessment is expected to be completed in December 2015, the FAA's Huerta said in a written response to lawmakers' inquiries. Revisions, if any, won't come until 2016 at the earliest.

As part of the examination, Huerta said the FAA plans to conduct a public opinion survey in communities around 20 major airports, which he did not name.

"This research primarily involves developing a national survey to evaluate the American public's annoyance reaction to aircraft noise in the current operating environment," he said.

Noise map updates

The agency also plans to update noise contour maps at the 20 airports, Huerta said, so the FAA could link the survey findings to actual noise levels.

Annoyance, however, is only one factor that impacts those exposed to the incessant roar of jets flying over their homes, Schaeir said.

"The key thing is we have to change the focus from annoyance to annoyance plus the impact on health; the impact on children's education and pollution," he said.

Last month, the Port Authority announced that it has hired Environmental Science Associates, based in San Francisco, to identify which neighborhoods surrounding the Queens airports are receiving excessive jet noise and come up with plans to mitigate its impact on residents. The authority, pressed by advocates and local elected officials, agreed to go beyond the FAA requirement and identify communities impacted by aircraft noise at the lower threshold of 55 DNL.

In 1979, the Aviation Safety and Noise Abatement Act tasked the FAA with coming up with rules for noise compatibility planning. In 1984, the FAA developed a set of regulations -- commonly referred to as a Part 150 study -- that guides airport noise compatibility programs. It consists of two major components: noise exposure maps identifying the levels of noise inside the airports and surrounding neighborhoods, and a noise compatibility program designed to mitigate the noise.

Both must be approved by the FAA before any federal grants would be disbursed. Homeowners, however, cannot apply to the FAA directly for the grants. Airport operators, in this case the Port Authority, may apply for funding, then use the money to help homeowners pay for sound insulation.

To qualify, a residence has to meet two criteria: It must be located in a 65 DNL zone or above, and noise levels inside the home have to be 45 DNL or higher.

Schools soundproofed

Since 1982, the FAA has provided \$5.8 billion to 481 airports to pay for mitigation efforts for residential and public buildings under its Airport Improvement Program, according to a 2012 report by the Government Accountability Office.

The Port Authority has received about \$292 million in grants to help pay for soundproofing public schools near Kennedy, LaGuardia, Newark-Liberty and Teterboro airports since 1983, Marsico said.

Seventy-seven schools have received money for soundproofing since 1983, he said.

The authority chose to participate in the school insulation program, Marsico said, because the Port Authority did not have to conduct a Part 150 study, which he said is required for residential mitigation program.

Marsico did not respond to a question regarding why the Port Authority did not conduct a Part 150 until it was ordered to do so this year by Gov. Andrew M. Cuomo.

According to the GAO report, the Port Authority indicated "a residential noise insulation program would not alleviate noise exposure when people are outside their homes -- they noted complaints peak in the summer -- and AIP's [the Airport Improvement Program's] grant-matching requirements would be financially prohibited."

November 10, 2014
Circulation: 325,469

FAA reviewing airport noise standards

Thousands more residents living near Kennedy and LaGuardia airports could be eligible for federal grants to pay for insulating houses and apartments from aircraft noise if the FAA adopts new noise standards.

The agency has spent the past four years reviewing whether to update the metric it has used for more than three decades to measure the impact of aviation noise on people and land use, according to FAA Administrator Michael P. Huerta.

If the agency revises its criteria, local advocates and residents say thousands of people in Queens and Nassau could benefit. "It's time to stop reviewing. It's time to start taking action," said Len Schaeir, president of quiet skies.net, a local advocacy group, noting that airports in Europe have modified their standards. "The same plane that makes noise in England makes noise here in New York. If it's too noisy in Heath-



Residents in areas near Kennedy and LaGuardia airports have complained about noise.

DANIELLE FINKELSTEIN

row, why isn't it too noisy here?"

The Port Authority estimated 37,294 residents lived in 12,112 dwellings in 2013 in Nassau and Queens where the day-night average noise level (DNL) was 65 decibels or higher — the threshold that the FAA deems too noisy.

Noise generated by airplanes and airport operations has created a problem for hun-

dreds of thousands of people living near airports and under flight paths across the country and has become a political issue.

Rep. Steve Israel (D-Long Island) and a dozen congressional colleagues wrote a letter to the FAA last month asking that the nationwide review be expedited and that the noise threshold be lowered to 55 DNL.

(CHAU LAM)



November 10, 2014

UVPM: 262,266

NEWS

JFK, LaGuardia noise study gets green light

The Port Authority has agreed to pay a California-based environmental consulting firm \$8 million to conduct noise compatibility studies for Kennedy and LaGuardia airports and recommend ways to reduce unwanted sound.

Environmental Science Associates, based in San Francisco, will develop noise exposure maps to identify which neighborhoods surrounding the two airports are receiving excessive jet noise and come up with plans to mitigate its impact on residents, said officials at the bistate agency, which operates the airports in New York and New Jersey.

"It's been a long fight and now it's a reality," said Len Schaier, head of the Citizens for Quiet Skies over North Hempstead, one of numerous advocacy groups that have been working for years to cut aircraft noise over residential communities in Nassau County and Queens. "Finally, we're going to get data to help us understand how the changes to our airspace affect our environments," he said Tuesday.

The Port Authority is also hiring a consultant to conduct similar reviews at Newark Liberty International Airport and Teterboro Airport. Those proposals are due Nov. 10.

The studies at Kennedy and LaGuardia airports, expected to take three years to complete, must be approved by the Federal Aviation Administration.

The FAA, which sets noise standards for land use in and around the airports, measures noise by taking the average of all sounds emitted by planes in a 24-hour period, with greater weight given to aircraft noise between 10 p.m. and 7 a.m. This weighting reflects the added intrusiveness of night noise events. The measurement is called a day-night average noise level, or DNL, expressed in decibels.

Noise levels at DNL 65 dB or above are considered too high for residential neighborhoods and Congress has set aside money to help pay for noise mitigation projects that could include soundproofing homes.

Once the FAA approves the Kennedy and LaGuardia studies, the Port Authority could apply for federal money.

Kendall Lampkin, executive director of the Town-Village Aircraft Safety and Noise Abatement Committee, an umbrella organization that represents thousands of Nassau residents, said his group has been asking for these measurements, known as a Part 150 Noise Compatibility Study, for a decade and he is thrilled that is finally happening.

"I've waited 10 years to get one, and I can see light at the end of the tunnel," Lampkin said.

The Port Authority was ordered by Gov. Andrew M. Cuomo to conduct the studies early this year.

And, after much pressure from advocates and local officials, the authority has also agreed to expand the noise contour maps and look at communities impacted by aircraft noise at thresholds between DNL 55 dB and DNL 65 dB. This would likely include more neighborhoods in Nassau.

"DNL 55 dB is the standard used around the world, except the United States," Schaier said.

Serving the community for 40+ years

November 14, 2014

Circulation: 60,000

Port Authority, FAA to Upgrade Noise Pollution Standards

🕒 14th November 2014 👤 The Forum 📁 Environment 💬 0 Comments



Residents on the perimeters of JFK have long suffered the booming blasts of overhead jets, flying too low, often dumping fuel onto private property just before landing. File Photo

More residents living near Kennedy and LaGuardia airports could be eligible for federal grants to pay for insulating houses from aircraft noise, if the Federal Aviation Administration adopts new standards.

Recent changes to FAA flight procedures require that aircrafts fly lower along more precise paths. Therefore, while actual noise generated by aircrafts has decreased, and the number of people subject to noise has decreased somewhat, lower altitudes and "focused" noise tends to make the situation much worse for those under the newer flight paths.

A proposal before Congress would lower the acceptable DNL value level from 65db(a) to 55db(a). DNL (Day-Night average sound Level) statistics factor in data collected during a 24-hour period, with nighttime hours being weighted and additional 10 dB in consideration of a sensitivity to noise during the nighttime hours. This data is then generally averaged over a year-long period.

"You could have 100 decibels in a day — it's like having a 12-foot snowstorm in one day — and it does a ton of damage, but the average for the year is nothing," said Len Schaier of quietskies.net, an organization "working to keep all aircraft noise at reasonable levels."

In response to growing concerns, Governor Cuomo last year directed the Port Authority of New York and New Jersey to conduct what is commonly known as a Part 150 study, in order to define what steps might be taken in order to mitigate the problem. Created by the FAA in 1984, a Part 150 airport noise compatibility study is a set of regulations with two components: noise contour (exposure) maps demonstrating noise levels at airports and in nearby communities; and a noise compatibility program designed to provide solutions to the problem.



An aerial view of JFK shows the extensive number of communities impacted by the plane noise. File Photo

The Port Authority announced late last month that the contract for the Part 150 study on Kennedy and LaGuardia airports was awarded to consulting firm Environmental Science Associates. The project, expected to cost approximately \$8 million combined for both Kennedy and LaGuardia airports, is to be funded mostly through flight fees and will run from October 2014 to August 2017.

In addition, the Port Authority has already implemented a "webtrak" portion of its website to allow residents to track flight patterns and monitor decibel levels in their

communities, increased staffing to handle noise complaints, and committed to doubling the number of sound monitors around the two airports.

Schaier's focus is to make sure the contracted study is done properly. He explained that normally, actual environmental data collected from sound monitors isn't used because of outside elements (like sound from things other than planes) that can impact data accuracy. His organization has been calling for additional monitors, which should ostensibly be used to see if computer models are presenting consistent data. Schaier also hopes to bring attention to statistics that factor health, as opposed to annoyance, as a consideration in changing FAA standards.

While hearing loss and sleep deprivation are potential side effects of living in proximity to an airport, perhaps more significantly, a study in the British Medical Journal found a correlation between increased cardiovascular disease and exposure to air traffic noise pollution; specifically, there is increased hospital admittance and deaths from cardiovascular illnesses among communities near airports.

Since 1982, the FAA has funded soundproofing of public and private buildings to the tune of nearly \$6 billion. In order to qualify under the current criteria, a home must have a DNL of 45 or higher inside the building and be located within a 65-or-above DNL zone. The Port Authority maintains a noise complaint hotline and an online site to submit complaints specific to plane noise. In fact, it is the Port Authority that must apply to the FAA for federal funding on behalf of the homeowner experiencing noise pollution.

While insulation is one component of soundproofing a home, other mitigation projects, such as implementation of new heating, ventilation, and air conditioning systems; or the installation of acoustical windows and doors, can also be funded. In Minnesota, where residents received federal grants in 2007, full soundproofing cost about \$45,000 per home. Last year, some 600 New York residents living near Buffalo-Niagara International Airport received over \$5 million.

"It's about time we get compensated for all the sleepless nights," said Tom Pawlowski, a retired sanitation worker in South Ozone Park. Pawlowski, who recently upgraded all his doors and windows, plans to look into applying to the Port Authority to make additional soundproofing improvements.

By Eugénie Bisulco



November 29, 2014
Circulation: 443,362

LONG ISLAND

\$8M noise studies get green light

- California firm to measure JFK, LaGuardia sound
- Residents' complaints spur Port Authority action

BY CHAU LAM
chau.lam@newsday.com

The Port Authority has agreed to pay a California-based environmental consulting firm \$8 million to conduct noise compatibility studies for Kennedy and LaGuardia airports and recommend ways to reduce unwanted sound.

Environmental Science Associates, based in San Francisco, will develop noise exposure maps to identify which neighborhoods surrounding the two airports are receiving excessive jet noise and come up with plans to mitigate its impact on residents, said officials at the bistate agency, which operates the airports in New York and New Jersey.

"It's been a long fight and now it's a reality," said Len Schaier, head of the Citizens for Quiet Skies over North Hempstead, one of numerous

advocacy groups that have been working for years to cut aircraft noise over residential communities in Nassau County and Queens. "Finally, we're going to get data to help us understand how the changes to our airspace affect our environments," he said yesterday.

The Port Authority is also hiring a consultant to conduct similar reviews at Newark Liberty International Airport and Teterboro Airport. Those proposals are due Nov. 10.

The studies at Kennedy and LaGuardia airports, expected to take three years to complete, must be approved by the Federal Aviation Administration.

The FAA, which sets noise standards for land use in and around the airports, measures noise by taking the average of all sounds emitted by planes in a 24-hour period, with greater weight given to aircraft noise between 10 p.m. and 7 a.m. This

A plane flies over Roslyn's Canterbury Lane in April. Residents have complained about noise from the planes en route to Kennedy Airport.



weighting reflects the added intrusiveness of night noise events. The measurement is called a day-night average noise level, or DNL, expressed in decibels.

Noise levels at DNL 65 dB or above are considered too high for residential neighborhoods and Congress has set aside money to help pay for noise mitigation projects that could include soundproofing homes.

Once the FAA approves the Kennedy and LaGuardia studies, the Port Authority could

apply for federal money.

Kendall Lampkin, executive director of the Town-Village Aircraft Safety and Noise Abatement Committee, an umbrella organization that represents thousands of Nassau residents, said his group has been asking for these measurements, known as a Part 150 Noise Compatibility Study, for a decade and he is thrilled that is finally happening.

"I've waited 10 years to get one, and I can see light at the end of the tunnel," Lampkin said.

The Port Authority was or-

dered by Gov. Andrew M. Cuomo to conduct the studies early this year.

And, after much pressure from advocates and local officials, the authority has also agreed to expand the noise contour maps and look at communities impacted by aircraft noise at thresholds between DNL 55 dB and DNL 65 dB. This would likely include more neighborhoods in Nassau.

"DNL 55 dB is the standard used around the world, except the United States," Schaier said.

PHOTO BY JIMMY KATZ



December 16, 2014

UVPM: 5,697,658

Aircraft noise targeted by Port Authority in 3-year, \$6.6M study



Residents effected by aircraft noise welcomed news that the Port Authority of New York and New Jersey had awarded a \$6.6 million contract for a 3-year study of the impact of flights in and out of Newark Liberty International and Teterboro Airports. This jet flew over Newark's Forrest Hill neighborhood in July 2013. (John Munson | NJ Advance Media) (John Munson | NJ Advance Media)

NEWARK — People living under some of the nation's busiest air space are hopeful that the skies above may get quieter, now that the Port Authority of New York and New Jersey is spending \$6.6 million to study how to reduce aircraft noise at Newark Liberty International and Teterboro airports.

"It's a very positive step," said Jerome Feder, vice president of the New Jersey Coalition Against Aircraft Noise, a non-profit group. "We're hopeful. We've been looking for them to do this for a long time."

On Wednesday, the Port Authority commissioners awarded a \$6.6 million contract to [Harris Miller Miller & Hanson](#), an airport noise consulting firm based in Burlington, Mass., to prepare maps detailing aircraft noise levels for areas of northern New Jersey around the two airports. The study will begin next month, and last through November 2017.

The Newark/Teterboro study is being conducted under a Federal Aviation Administration program, known as [Part 150](#), that provides federal funds for mitigation projects when airport noise exceeds certain levels.

The studies are being done as the Port Authority and the FAA develop new facilities and implement a new air traffic control system intended to meet increasing demand for air travel at Newark, LaGuardia and JFK, which already make up the busiest airport system in the country.

"It's a very positive step. We've been looking for them to do this for a long time."



example where industrial development would be better than residential.

The results of the studies will be used to determine: what areas are affected by aircraft noise and how seriously; what measures can be taken, from new approach routes to sound proofing; and even appropriate zoning, for

"As we work to deliver 21st Century airports to the region, it's critical that we serve as good neighbors to those that live close to the airports as well," Port Authority Vice Chairman Scott Rechler said in a statement. K-230

A similar study began last month for Kennedy and LaGuardia airports in Queens.

"Will it result in the reduction of noise? Maybe, maybe not. What it will tell us is what people are being subjected to," said Len Schaier, of Port Washington, Long Island, president of Quiet Skies, a Long Island-based group that is part of network of aircraft noise watchdogs in the bi-state region. "I'm encouraged that the studies are starting. I don't think the studies will stop noise, I think they may redistribute the noise more fairly."

In the face of projected growth of air travel in the region, Schaier and others are hoping that noise maps being developed by the studies can be combined with the FAA's new, more precise NextGen air traffic control technology to at least spread out the impact of aircraft noise, if not diminish it overall.

"A highway doesn't have one lane it has three," said Ken Kroll, a member of aircraft noise committee of the Forrest Hill Community Association in Newark, which has been battling what it says is significant [increase in aircraft noise](#) over the past two years from commercial flights at Newark Liberty and corporate and charter jets at Teterboro.

A shortcoming of the New York and New Jersey studies, according to Kroll and others, is that they will use computer models to assess noise impacts, based on frequency of flights, altitudes, type of aircraft and other factors, not actual noise measurements taken on the ground.

Harris, Miller, Miller & Hanson did not respond to a request for comment.

Fortunately for Forrest Hill, where residents say jets fly so low that their homes shake, a noise monitor was installed in the backyard of one of the association members as a result of the group's lobbying efforts.

Marylou Bongiorno said her backyard readings are typically well above levels found to pose a risk of cardiovascular disease by the Harvard University School of Public Health, which published [a study of the effects of aircraft noise](#) in October 2013.

That risk will remain, Bongiorno said, until something is done about the noise, which may not happen until the study is done in late 2017.

"It's very frustrating to know that it's going to be three years before we have some results," she said.

January 29, 2015

UVPM: N/A

NEWS

LAST MODIFIED ON JANUARY 29, 2015

PANYNJ REPORTS 3% JUMP IN PASSENGER TRAFFIC IN 2014



More than 117 million passengers travelled through the Port Authority of New York and New Jersey (PANYNJ) airports in 2014, surpassing the record set in the prior year by more three million fliers – or a roughly 3% jump.

Preliminary data shows an estimated 117.1 million passengers used JFK Kennedy International, Newark Liberty International, LaGuardia, Stewart International and Atlantic City International airports during 2014, with final official numbers expected later this quarter.

PANYNJ says the increase in passenger traffic fuels regional economic growth, with an estimated additional 4,000 jobs and \$700 million in economic benefits whenever another million fliers are added to the airports' ranks.

Overall, passenger growth primarily was driven by international travel, which rose 6%, while domestic growth showed a 1.5% increase, and there was an estimated 75.2 million domestic and 41.9 million international fliers – both new agency records.

JFK International Airport led the way with a record estimated 53.2 million passengers, while LaGuardia also set an airport high with 26.9 million travellers last year, and Newark Liberty set another record with 11.7 million international passengers.

PANYNJ executive director, Pat Foye, says: "These robust, record airline passenger travel numbers support the authority's plans to invest over \$8 billion to modernize its airports over the coming decade.

"Our gateway airports are major economic engines for the region, and an important source of job creation.



Authority officials caution, however, that continued passenger growth must be tied to continued reform of FAA airline airport slot limitations, which place an artificial cap on how many planes can use the three major airports per hour and per day.

Although the region continues to attract interest for more passenger travel, the current FAA slot rules will not allow the forecasted passenger growth at the New York and New Jersey airports to be accommodated.

PANYNJ deputy executive director, Deb Gramiccioni, explains: "Growth in passenger use of our airports is critical to the region's economic health and the Port Authority will continue to make the investments necessary to keep travellers coming to New Jersey and New York.

"State-of-good-repair and robust modernization programmes will remain a priority at all our commercial airports."

The authority's airports combined support more than 550,000 jobs, nearly \$80 billion in annual economic activity and more than \$28 billion in yearly wages.

Understanding that airline flights create noise impacts on surrounding communities, the authority in 2014 also began community noise roundtables to address aircraft noise issues at JFK, LaGuardia and Newark Liberty Airports (Teterboro Airport has an existing group.).

The agency also is in the process of conducting federal Part 150 noise studies for all four airports to help find ways with the Federal Aviation Administration to alleviate some of these issues.



Along with the roundtables and Part 150 studies, the authority implemented a flight tracking system on the agency's website so residents can monitor aircraft and specific decibel levels along flight paths over their communities, increased staffing to handle noise complaints, and committed to doubling the number of noise monitors around the airports.

The authority has more than 100 state-of-good-repair aviation projects as part of the current 10-year Capital Plan, which overall dedicates \$8 billion to airport improvements, a figure supplemented by billions more in planned investment by the airlines and our other airport partners.

Over the past year, a major runway rehabilitation project was completed at Newark Liberty International Airport and United Airlines overhauled concessions at that airport's Terminal C.

JetBlue Airways also opened an international arrivals hall at JFK's Terminal 5, while Delta Air Lines recently opened new gates in phase two of its expansion at JFK's Terminal 4.

Meanwhile, the authority continues its efforts to re-imagine LaGuardia Airport with a new substation and parking deck as preludes to the planned, \$3.6 billion public-private partnership to create a new Central Terminal Building, designed to accommodate the growth of passengers there over the coming decades.

February 12, 2015

UVPM: 69,000

Circulation: 75,000

Aviation roundtables still not finalized: CB 7

By Madina Toure

Advocates and residents who are working to reduce jet noise and pollution around Queens' two major airports are still at odds over the number of roundtables needed as well as membership.

Gov. Andrew Cuomo issued a directive in March calling on the Port Authority, the state agency that manages Kennedy and LaGuardia airports, to start aviation community roundtables with Federal Aviation Administration officials and community representatives in April for the two airports.

But different community stakeholders disagree on the number of roundtables necessary to address the problem as well as the roundtables' membership.

Residents and elected officials in southeast Queens, who are mostly affected by JFK, would like to see one Aviation Community Roundtable for each airport. But where LaGuardia is located, in northeast Queens, the preference is one roundtable.

At the Queens Community Board 7's monthly meeting this week, Warren Schreiber, chairman of the aviation committee, said both sides make credible arguments but there is still a stalemate over the matter.

"They just can't find any type of common ground so this is the third or fourth roundtable meeting that just ended with nothing being done," Schreiber said.

But he noted groups must be able to prove that they have members, hold regular meetings and hold popular elections for positions, calling on the Port Authority to address the question of membership first.

"I thought that they were going about this all wrong," he said. "I think the first thing they should do is establish the membership and then the membership can go along whether there's one or two roundtables ... Everybody's appointing themselves part of this and it's not working out at all."

The issue was discussed at a roundtable meeting Nov. 20, in addition to two other meetings held in June and in August.

The Eastern Queens Alliance, a federation of civic associations from southeast Queens, supports separate roundtables, while Queens Quiet Skies, an advocacy group that started in northeast Queens, wants one roundtable for the two airports.

In his March directive, Cuomo said the two roundtables would include representatives of local elected officials and would allow all parties to seek mutually beneficial ways to manage noise impacts.

He also said the roundtables would provide communities with suggestions, information and ongoing updates during the separate Part 150 Noise Studies, an \$8 million agreement between Port Authority and environmental science associates. The studies would study 65 decibels and day/night levels and for informational purposes, 55 decibels and day/night levels.

On Jan. 28, the Port Authority said both airports had set passenger records in 2014, with 53.2 million passengers at JFK and an airport high of 26.9 million passengers at LaGuardia, according to Schreiber.

The FAA also came up with a solution to address airlines violating their temporary slot assignments. The agency is proposing 81 scheduled operations per hour and two unscheduled operations at JFK and 71 scheduled operations per hour and three unscheduled operations.

This would bring 1,205 slots daily to JFK between 6 a.m. and 10 p.m. and 1,136 slots between 6 a.m. and 9:59 p.m. at LaGuardia.

“They would take off more than their allotted slots and sometimes they wouldn’t use them at all and there was no way of giving them to other airlines,” Schreiber said. “So the FAA — they actually want to do something right in this case — they actually want to make the slots permanent.”

Schreiber also said the FAA Reauthorization and Reform Act of 2012 expires at the end of fiscal year 2015, meaning Congress would have to enact new legislation to authorize funding and set policy priorities for the FAA.

Reauthorization affects the number of slots, technology such as NextGen engines and the community’s clout, he added.

“It can affect how much of a say we as community stakeholders have in their operation,” he said.

Reach reporter Madina Toure by e-mail at mtoure@cnglocal.com or by phone at (718) 260-4566.

©2015 COMMUNITY NEWS GROUP



March 13, 2015

UVPM: N/A

Aircraft Noise Committee still fighting

BY RIKKI N. MASSAND

A long dormant issue may not see any progress in Garden City or elsewhere in suburban New York, as noise from airplanes flying into the city's two major airports, JFK and LaGuardia, continue to be a quality of life concern. The village Environmental Advisory Board discussed recent plans to review issues with the regional representative authorities, including the Port Authority of New York and New Jersey, as well as the Federal Aviation Administration.

Brianna Ciniglio, a journalism student from Hofstra University, attended the EAB's February meeting with her classmate Josh Wilson. She asked the board how noise from passing airplanes affects the community. EAB member and former Village Trustee Laurence Quinn explained that Garden City is a member of TVASNAC, the Town Village Air Safety Noise Abatement Committee. He went over the background info as to how and why the local group formed.

"About eight years ago planes changed their routing and their altitude a bit, and the noise became much more prominent. Planes used to be coming in at 2500 to 2700 feet over the village on their approach to JFK or LaGuardia, and at maybe a 30 to 40 degree angle part of the village would occasionally get a plane overhead. Then eight years ago they changed the routing of planes so there are two to three main avenues that get a much larger number of planes - they're not fanning them out as much. If they happen to fly over your house, it will happen every so often over a period of three or four consecutive days. They used to abide by four hour time periods over a certain section of Long Island and then rotate every four hours. They threw that idea out and planes are coming at a more directed approach, and a large number of people here complained about six years ago," Quinn said.

He added that the average altitude of planes dropped from the 2500 to 2700 foot range, which created minimal noise, to between 1400 and 1900 feet. He said the aircraft noise doubles when altitude is cut in half.

The amount of planes per hour allowed to enter New York area airports also contributes to noise. At the EAB's February meeting Quinn said the current maximum allows for up to 84 planes per hour. The current average is closer to 68 planes per hour, and the contention going on is whether or not the total of up to 84 should be viewed as statute or only a recommendation.

"Initially it was seen as a good idea, but if 84 is seen as a statute they (the FAA will literally push it to 84 when they have less coming in now. We see it as a ploy by the FAA to say that less planes come in than they shoot for, under the maximum the industry is allowed to do," Quinn said.

Also helicopters were rare over Garden City's skies, but now due to the "preferential railroad approach" which means they essentially follow LIRR tracks from Mineola and Floral Park.

"You get hammered if you are a Garden City resident living on a block near those tracks because helicopters are required to come in at an altitude no higher than 60 to 70 feet over your house," Quinn said. Trouve' noted that along Long Island south shore there's a helicopter pad. Quinn said that may be a requirement for rescues, due to the open water of the Atlantic Ocean it borders.

Also, according to medical studies noise rated at over 55 decibels has been found to be hazardous to human health, in particular for blood pressure and heart attacks. The FAA has a long-held standard of 65 decibels. Quinn said in Europe and in the rest of the world the standard is 45 to 55 decibels, and Americans should not be subject to the extra 10 decibels of aircraft noise as it can be dangerous.

One positive Quinn noted was cooperation from the local helicopter alliance. According to Quinn, in the summer time there are many people in the Hamptons who really combat the noise from helicopters and "throw lawsuits left and right, with their own money."

"They basically don't want to annoy the Hampton crowd. The helicopter folks are at least trying to cooperate with communities," he said.

Village Trustee Theresa Trouvé added that in the Hamptons the goal is likely for helicopters to fly over the water. Locally, however the lack of progress in curbing overhead noise disappoints Garden City's EAB.

Quinn says TVASNAC has not held a roundtable meeting with the FAA and Port Authority since last September. December and January sessions were cancelled due to weather, and one may take place in March or April, but Quinn is less than optimistic. "There is supposed to be an organizational plan in March and April, and I suspect nothing is going to happen until maybe this summer, even though the directions for a Part 150 study from Gov. Cuomo is now 17 months in the making," Quinn said.

The Part 150 study for JFK and LaGuardia - which would make airports look at every possible opportunity to mitigate noise - was supposed to have started three to four months ago, and it was to take up the prior 15 months to plan for.

"The progress we through we were having with this roundtable, the Port Authority and the FAA basically just stalled. We had a TVASNAC meeting Monday (February 23) and Carmine Gallo from the FAA said he was going to have someone explain progress in the Part 150 study, but that was cancelled 40 minutes before the last meeting. It's been cancelled three times out of the last four meeting we've had. They are just taking their sweet time," he said.

Quinn did tell the EAB about one positive in the anti-noise campaign, saying that the Quiet Skies Alliance has offered TVASNAC input from regional groups in Chicago and Los Angeles, other major cities facing a similar problem. He said their discussions involved "what's happening and what can be done."

Serving the community for 40+ years

March 19, 2015
Circulation: 60,000

Roundabout with Airports Roundtable

🕒 19th March 2015 👤 The Forum 📁 Neighborhoods 💬 0 Comments



After much back-and-forth, the Port Authority has revised the structure of the NY Airports Roundtable, the purpose of which is to discuss mitigation plans for airplane noise. The new format is causing disagreement among the interested factions.

In an effort to finally get the ball rolling on the NY Airports Roundtable begun nearly a year ago by the Port Authority of New York and New Jersey, the PANYNJ has sent a letter to airport stakeholders outlining a new format and voting structure for the roundtable. Up to now, there has been much debate on these details, to the point where roundtable meetings (originally established as one per New York/New Jersey airport) have been encumbered by issues of style over substance – so that meeting about the proper way to meet has delayed discussion about actual noise mitigation.

The Eastern Queens Alliance, who did not respond to The Forum's requests for comment, had proposed a format that would give JFK its own roundtable. As a larger airport, JFK does contribute more to the problem of airplane noise, so, from the Alliance's perspective, an equal distribution of committee members for each airport (as under the current PANYNJ proposal, allotting 32 each) may prove challenging. They support a two-roundtable arrangement also because it give more control to civic groups and citizens experiencing the noise pollution directly, rather than to an executive committee.

Queens Quiet Skies long supported a one-roundtable structure but was nonetheless displeased with the new proposal, citing concerns with the voting system and committee representation. QQS as well did reply to queries for this story.

Len Schaier, a retired military systems engineer who runs quietskies.net, wants to get back to the crux of the issue: noise mitigation.

"People are wrapped up in the stupidity of what they're calling the committees," he said, adding that "the key" instead is tending to further development of noise maps, an integral component of the FAA Part 150 Noise Compatibility Study.

"Right now it's form over function," Schaier explained, emphasizing the need for a technical advisory committee. "If people get a vote on everything, nothing ever gets done."

Assemblyman Phil Goldfeder (D-Ozone Park), was pleased with the one-roundtable structure. "The Port Authority finally took charge," he said. At the same time, he agreed that disagreements had been a hindrance to progress.

"We've spend more time fighting about the structure of the roundtable than actually addressing the issues at hand, and that's unacceptable. The whole idea is to bring openness to the table, to bring together diverse people who have the same interests. Everyone has to be amenable to change," Goldfeder reasoned.

The next roundtable meeting is scheduled for April 7 at York College.

By Eugénie Bisulco eugenie@theforumnewsgroup.com

April 30, 2015
 Circulation: 160,000
 UVPM: 300,000

Newer LaGuardia flight paths cause pain in Flushing

■ Sound monitors show residents suffer from levels of plane noise considered unhealthy

Story Comments Image (4)

Print Font Size:

Log In Tweet G+ 1 Share 8

Previous Next

Posted: Thursday, April 30, 2015 10:30 am

by Laura A. Shepard, Chronicle Contributor |

0 comments

Residents from all over Queens have complained about changes to air traffic patterns over the last few years. Among those heavily impacted are the people of Flushing, one of the borough's most densely populated communities, and one just east of LaGuardia Airport.

Susan Carroll lives on the 14th floor of a 16-story building in Downtown Flushing. She was born and raised in the neighborhood, where her family has lived for over 50 years. Now she worries that her home is no longer a safe and healthy place to live.

As a child, she hardly noticed planes. They typically flew over Flushing Meadows Corona Park, except for the week of the US Open, when they were temporarily rerouted over Downtown Flushing, flying what is known as the TNNIS route.

"I'm grateful that I grew up at a time when I was able to study and concentrate," Carroll said, recalling her years at Townsend Harris High School and Queens College. "I wonder how the kids deal with it now."

A change in flight paths means more noise



PHOTO COURTESY SUSAN CARROLL

"All of a sudden, in 2012, [it wasn't temporary](#)," Carroll said. The TNNIS route became permanent. At first it didn't really bother her because she left for work early every morning and returned at night, but when she was laid off in 2013 and began spending more time at home, she said, the situation was unbearable.

Dorothy Woo, a longtime Flushing resident and community activist, said the flights sometimes start before 6 a.m. and end after 11 p.m. or midnight.

"It's impossible to concentrate or enjoy life," Woo said. "I'm retired, so I stay home most of the time."

"People are always talking about leaving Flushing," Woo said. "I've been stuck here for 48 years. Now that I'm older it's more difficult to move out."

She explained that she and other senior citizens crave the convenience Flushing provides and don't have the energy to find another place.

"I don't want my house insulated so that I cannot go out," Woo said. "That is not our way of life."

Flushing is the first stop in America for many recent immigrants. Woo said that many are depressed by the noise, but people often say "I don't think we can fight the government" or "We can't move the airport anyway" or "This is too political, it's the elected officials' business."

"People are annoyed, but they accept it," Woo explained. "They know the problem but don't want to be involved. I've heard all kinds of excuses."

She said that she's been fighting since 1994, but the Federal Aviation Administration and the Port Authority, which operates LaGuardia, as well as Kennedy Airport, did not pay attention to complaints from the community until the group Queens Quiet Skies formed and people from North Queens and Nassau County began assisting with research and obtaining information. Many people have asked Woo, "Why is Flushing so quiet?" which she finds frustrating because she's been fighting for so long.

"Our elected officials have to understand that the airline industry is not the only thing New York or Queens people depend on," Woo said.

She criticized the government for being short-sighted and trying to find quick fixes.

"How can the airline industry do this to this dynamic town?" Woo asked.

She explained that paradoxically, industry is booming in Flushing and home values have not dropped.

Jan Tugin, a nurse who lives in Downtown Flushing, said that she's lived in the community for more than 20 years, and before 2013 it wasn't like this.

She calls the Port Authority complaint hotline often, sometimes every day, sometimes every two or three days. "As long as there's noise, I will complain," she said. Tugin has also complained to the office of Rep. Grace Meng (D-Flushing) and written letters to Gov. Cuomo.

Tugin said that she would not want to leave Flushing but if she were to buy another house or apartment, she would have to think about it.

"I can't have a quiet sleep," she said because sometimes she hears planes at 4 a.m. By 6 a.m. the planes are frequent, about 30 seconds apart all day, "like bombs" until late in the evening. "When the noise affects me, I can't do anything."

She continued, "I've been woken up by planes and gone into the hallway of my apartment to try to sleep. It's not comfortable, but it's the best way to sleep sometimes. No one should ever have to go through that."

While she finds the noise infuriating, much of her wrath is fueled by the FAA's lack of apology or admission that anything has changed.

"The biggest insult of all is the FAA saying nothing has changed," Carroll said. "I don't appreciate the attitude that 'you're by the airport, you should expect this noise.'"

Henry Young, a senior consultant in environmental planning and President of Young Environmental Services, took a look at the noise contour maps of Flushing for 2003, 2008 and Aug. 2012 to Feb. 2013. In a letter to Carroll, he wrote "Sadly, they paint a clear picture which is just as you have described it."

Measuring the volume

The Port Authority and FAA measure noise in DNLs, or the average decibel level for a 24 hour period. The agencies consider the 65 DNL contour to be the point where noise is severe enough to warrant soundproofing and mitigation.

In 2008, when the planes flew the traditional route over FMCP, Carroll's building was at 55 DNLs. During the months from August 2012 to February 2013, her location was at 64.3 DNL, just shy of the 65 DNL contour. The contour does extend into the northwest corner of Flushing however, where many people live, and barely grazes the corner of FMCP.

"A change of that magnitude is quite striking," Young said, explaining that the noise impact has tripled relative to what it was a few years ago. "This is consistent with Susan's story. The numbers do bear out her concerns."

"That change would not occur if there was no change in flight track over the residential area of Flushing," Young said.

George Jehn, a pilot for Eastern Airlines and U.S. Airways based at LaGuardia for about 30 years, until he retired in 2005, as well as an elected official for the Airline Pilot's Association Union said "I can probably count on one hand the number of times I flew over Downtown Flushing."

"When we were flying off of runway 13, we would make a 175 degree turn over Flushing Meadows rather than over the populated area," Jehn said.

He said the only reason he could come up with to delay making the turn, as the planes are now doing — all planes have to turn at some point — would be for "airmanship." Now many planes use autopilot, while pilots used to hand fly the routes.

For landings, pilots flew in over the expressway, west of where people live.

"Obviously something's changed," he said. "Back then engines were noisier than they are on today's aircrafts, but complaints were nonexistent."

He called the current routes "totally unnecessary for safety or efficiency." In fact, a longer final approach for landings means more fuel burned, Jehn said.

Last year, the Port Authority installed a portable noise monitor on the roof of Carroll's building. Every day, she checks a website, called Webtrak, which shows the decibel readings the monitors collect in real time. "I just like it make sure it's online and working."

The numbers range from the high 70s to the mid-90s. Carroll's said she's seen readings as high as 96 decibels.

Young speculates that it takes hundreds of flights per day, "a sufficient volume of traffic, considering that aircraft are a lot quieter now," to produce such a high DNL.

"There seems to have been a decision to promote air traffic in and out of LaGuardia," Young said. "Promoting air traffic is not inherently evil, there is no bad guy here, but it has resulted in severe burdens to people in Flushing. Now it's at a level where it really is quite objectionable."

Young pointed out that while some new construction is soundproofed, it's impossible to soundproof the outdoors. That means that in order to escape the worst of the noise people would have to live inside, in sealed environments. New York City building codes require operating windows.

The Port Authority is in the process of conducting a noise study in compliance with federal regulations, known as a Part 150 Study. The study is projected to take several years. When it is complete, some homes may be eligible for soundproofing, and other noise mitigation strategies, such as rezoning may be examined.

Almost all other countries around the world consider 55 DNL to be significant. A study released by the Harvard School of Public Health along with the Boston University School of Public Health found that people, especially older people, who live around airports are more at risk for heart disease and other cardiovascular issues.

"We're clearly in a red zone here," Young said.

He noted that some people, particularly those who leave the area for work during the day are not that adversely affected, while others are "simply devastated," particularly children and seniors.

Young added that jet fuel leaves many small, invisible microparticles in the air that lodge in people's lungs. When they build up in young children, microparticles can cause respiratory illnesses. Some of the particles are covered with carcinogens, but Young said there have not been sufficient studies about cancer rates near airports.

"This neighborhood has been so abused," Carroll said. "I'm sick of hearing that the airports are the economic engines of the city when the planes are making it an impossible place to live. I fail to see the connection."

An accidental expert

Carroll jokes that she's become an "accidental aviation geek," as she frequently writes letters to the Port Authority, FAA and elected officials at all levels of government. Her efforts became an all-consuming passion that has forced her to learn the ins and outs of the airspace and flight procedures.

"I'm using technical terminology that I never thought I'd have to know," Carroll said. "If I'm going to communicate with the Port Authority and the FAA I have to speak their language."

Every morning and throughout the day, Carroll checks an app on her phone to see which way the wind is blowing so that she knows which flight procedures will be in use and how much noise to expect.

"Everything scares me now, with all of the tall buildings and the sheer population density," Carroll said. "So many people are moving here and there are so many children and senior citizens."

"People aren't aware of the harmful effects of so much noise," Carroll said. "Some people see it as just a nuisance or annoyance, but it's so much more than that."

Carroll also worries about her parents and the many senior citizens living in her building. "They should not have to put up with this. My father just turned 80."

Robert Salant heads community relations for Flushing House, a nonprofit retirement home in Flushing. The 12-story building, which is home to about 300 senior citizens, is situated on one of the highest elevations in Flushing, on Bowne Street between 38th Street and Roosevelt Avenue. It's L-shaped construction also makes it an echo chamber so loud noises are magnified.

Salant says that while residents seem satisfied with their overall care and quality of life, one of the few complaints they have is the jet noise from descending planes. The residents on the upper floors are especially unhappy with the constant din.

Many seniors can hear very well, even into their 90s, and many have hearing aides, according to Salant.

Salant has been the Flushing House director of community relations since 1999 and the problem has only gotten worse since then.

Several people including Carroll, say there should be more air quality testing.

"The biggest insult of all is the FAA saying nothing has changed," Carroll said. "I don't appreciate the attitude that 'You're by the airport, you should expect this noise.' ... It makes me so angry to see this done to this historic, thriving community."

Flushing is over 400 years old. When John Bowne built his house in 1661, it was surrounded by farmland. He was arrested by Peter Stuyvesant for allowing Quakers to worship hundreds of years before the Wright brothers flew the first planes at Kitty Hawk in 1903 and LaGuardia Airport opened in 1939.

Trouble at the Bowne House

Now the structure, the oldest house in Queens, vibrates when jets fly overhead and the windows are coated in soot and particulate matter, according to Rosemary Vietor, vice president of the Bowne House Historical Society. This was not the case a few years ago.

Vietor often has trouble giving tours of the house because a lot of the information pertains to the gardens and the exterior. For example, before entering the house, she likes to show visitors that the house is situated facing south for heat and sunlight.

Now she often has to cut the talk short and move inside the house, where she can still hear the planes. Last June, the members tried to have their annual meeting outside, but the barrage of air planes made it too difficult.

"All landmarks are affected by this," Vietor said. "It limits visitors' experiences if they're constantly being interrupted. There's traffic noise down on the street anyway and this adds to it."

Maureen Regan, a trained horticultural therapist at the Queens Botanical Garden has similar complaints. The frequent flights disrupt her instruction time. Every time a plane comes she raises her hand as a signal and stops speaking and waits until the plane passes.

"At LaGuardia, they tried to make it work in the past and there's just no effort now," Carroll said. "How many planes can you squish into this overly congested airspace?"

"It's a joke," Woo said. "We really have to think about the long-term plan. Our country has the most awkward infrastructure. How can the leading western country not realize that people are suffering?" She noted that Japan, Hong Kong and Taiwan all built their airports offshore, far away from population centers.

Carroll commends the efforts of Meng and other officials who have gone to the Port Authority and the FAA on behalf of their constituents, but thinks there would be a lot more progress if officials at all levels of government were working together.

"I don't see the city council and the mayor stepping up," Carroll said. "They're not getting hearings at City Hall and bringing in experts. They're just saying take it up with your state and federal officials. It's deflating because the city owns the land the airport is on. There are things they can do."

Carroll said she's jealous of the people in Phoenix, where the elected officials are threatening to sue the FAA because of the noise impacts.

"Queens has 2.2 million people. We're all exposed to this and we need to be protected. I hope in the future that happens. People all over feel let down," Carroll said.

The airport roundtable

As for the [newly established airport roundtable](#), a forum for citizens to discuss their concerns directly with airport officials, Carroll said she'll wait and see where it goes, but she believes that Downtown Flushing was short-changed. None of Downtown Flushing's city or state level elected officials were selected to sit on the roundtable.

"Someone from Downtown Flushing should be on there," Carroll said. "Some areas are geographically closer, but the runways point at Flushing."

May 7, 2015
Circulation: 160,000
UVPM: 300,000

Meng calls for EPA control over noise

by Liz Rhoades

May 7, 2015

In a letter to the U.S. Environmental Protection Agency, Rep. Grace Meng (D-Flushing) asks the agency to increase its responsibilities to reduce aircraft noise in Queens.

Janet McEneaney, president of [Queens Quiet Skies](#), said Tuesday she applauds Meng's efforts and says it's time the Federal Aviation Administration gave up some of its duties to the EPA.

In her April 30 letter to the EPA, Meng said that the FAA has failed to address "intolerable" plane noise over the borough, adding "I have witnessed an inconceivable lack of coordination between airport operators and the FAA regarding noise control."

She pointed out that the FAA is responsible for flight paths and regulating the airline industry. "The FAA neither has the resources or mission priorities to adequately address intolerable levels of noise in the best interest of my constituents," Meng wrote.

She suggests the EPA consider reopening its Office of Noise Abatement and Control, which oversaw noise control until it was eliminated by President Reagan in 1981.

Meng added that the FAA has failed to convince her or the public that it can objectively handle noise pollution. "The EPA is better suited to study the consequences of noise pollution and propose measures to ameliorate this ongoing problem," she said.

With two major airports in Queens, Meng says, the situation has gotten worse since 2012 when the FAA introduced [new flight patterns](#) over the borough. She noted that the new routes for planes departing from LaGuardia Airport have increased the frequency of flights over residential neighborhoods and that the rise in aircraft noise has negatively impacted the quality of life for residents

The Port Authority, which operates the two airports, is in the midst of a noise study expected to last for years.

McEneaney, of Bayside, organized Queens Quiet Skies in 2012 and is now part of a roundtable group that is addressing aviation problems affecting communities here.

She believes Meng's letter is a beginning and that Congress is taking notice now of plane noise and how to solve it.

"The reality is the FAA is tasked with everything," McEneaney said. "The noise is a public health hazard, not just an annoyance."

She said solving the noise situation should go to the EPA because "the FAA is not tasked with protecting people on the ground."

In addressing the EPA, Meng said in order to properly protect human health from excessive noise, the EPA must include flight noise in its jurisdiction.

In addition, she calls on the FAA to lower its acceptable level of noise pollution, create more optimal flight paths and encourage mechanical upgrades that reduce noise on a per flight basis.

May 22, 2015
Circulation: 75,000
UVP: 69,000

FAA to conduct first air noise impact study in over 25 years

By Tom Momberg

MAY 22, 2015

The Federal Aviation Administration recently announced it will conduct a new survey of airplane noise in neighborhoods around the country's largest airports to determine whether new standards are needed.

But Queens community organizations that were established to mitigate community concerns over airplane noise around LaGuardia and John F. Kennedy and airports said the study is a waste of time and money.

Though it is a decades-old issue, increased airplane traffic and the establishment of new flight patterns at New York airports have produced an increasing number of concerns from borough residents, despite technological advances that have made newer air crafts quieter.

The FAA plans to survey about 12,000 residents in neighborhoods around 20 unidentified airports by phone and by mail, not by measuring noise.

The survey questions will be based on recommendations from the International Commission on Biological Effects of Noise, according to the FAA, which plans to conclude the survey and come up with new recommendations for noise monitoring by 2016.

Queens Quiet Skies President Janet McEneaney said the question is not a matter of whether or not and where people can or cannot tolerate current levels of noise; it is a question of how to actually measure the levels of noise pollution from the ground.

She said it is likely that Congress will pressure the FAA to change the measurement standard this year regardless, due to an increase in national collaboration between communities advocating to lower the standard maximum noise threshold, in which case the study would be unnecessary. Aircraft noise is currently measured using Day-Night Average Sound Level or DNL, which stemmed from a similar social survey of transportation noise conducted in the 1970s. The DNL measurement system averages noise levels across 365 days a year, weighting nighttime levels heavier than daytime.

“That was the result of a consortium of agencies and scientists to measure the compatibility between airports and zoning standards,” McEneaney said. “The current monitoring practices don’t address how we actually experience airplane noise. It was intended to do something very different.”

The FAA established in 1981 a DNL of 65 decibels as the level at which federal funding would be available for noise mitigation strategies. It has gone unchanged ever since, though most countries that use DNL have a maximum standard of 55 decibels.

“This research will provide data for the development of a new dose-response curve (a graphic representation of the relationship between an exposure and an impact, in this case Percent Highly Annoyed and DNL),” a New York FAA spokesman said. “Once we create the new curve, we will determine whether a threshold other than 65 should be used.”

But Queens advocacy groups have said DNL is outdated and doesn’t take into account highs and lows in various neighborhoods, like the nearly 90-decibel levels often recorded in Bayside by the LaGuardia Airport Remote Monitoring System.

Eastern Queens Alliance Environmental Specialist Tamara Mitchell said DNL as the FAA’s and Port Authority’s main assessment tool represents an institutional detachment between local and federal perspectives.

“It is now almost of quarter of century since the issue has been federally addressed and community residents are advocating for the review of noise standards, an assessment of the health implications of exposure to aircraft noise, as well as greater transparency and communications between airport authorities, the FAA and their impacted communities,” Mitchell said.

June 10, 2015

UVPM: 2,065,826

JFK noise advisory panel meets for 1st time



A group advising the Port Authority on its noise and land-use compatibility study met for the first time Wednesday at Kennedy Airport to lay out its objectives, including acting as liaison between the agency and communities.

The gathering of the 23-member JFK Technical Advisory Committee comes more than a year after Gov. Andrew M. Cuomo ordered the authority, a bi-state agency, to conduct the survey, commonly referred to as a Part 150 Study. The study is designed to identify existing noise levels and noise levels in the next five years, from 2016 to 2021, and recommend ways to reduce the impacts on residents.

Ed Knoesel, the authority's environmental services manager, said it's too early to say what residents could expect at the end of the three-year study. All possible ways to reduce aircraft noise will be considered, he said.

"That will be the outcome of the study," Knoesel said after the meeting. "People will know what measures can be done and what measures cannot be done."

Kendall Lampkin, a member of the advisory panel representing the Town of Hempstead, said he does not believe the Port Authority and the Federal Aviation Administration have the money to pay for soundproofing private houses.

"The reason for that is the Port Authority [manages] five airports. What they do for one, they'd have to do for the other," said Lampkin, also executive director of the Town-Village Aircraft Safety & Noise Abatement Committee.

An identical committee for LaGuardia met Tuesday. Each advisory group plans to hold 18 meetings in coming years.

Since Cuomo directed the authority, which operates LaGuardia and Kennedy airports, to take comprehensive measures to address residents' concerns about airplane noise in March 2014, it has:

Created a new noise office and staffed it with six employees whose jobs are to deal with aircraft-related issues. It is headed by Knoesel.

Expanded its noise monitoring program by installing additional noise monitors. The authority has installed at least 13 out of 16 new portable noise monitors.

Introduced a new flight and noise monitoring Web portal, WebTrak, which allows residents to follow flight patterns over their communities. The aim is to make it easier for the public to track, identify and report specific flights when making a noise complaint.

Established an Airport Community Roundtable with two committees, one for LaGuardia and one for Kennedy.

Embarked on noise and land-use compatibility studies for LaGuardia and Kennedy airports. The authority will hold two workshops next week to give the public information about the Part 150 Study, including the methods used to measure aircraft noise exposure.

The LaGuardia open house is next Wednesday, from 6 to 8 p.m. at New York LaGuardia Airport Marriott in East Elmhurst, Queens. The Kennedy open house is next Thursday, also from 6 to 8 p.m., at the Radisson Hotel JFK Airport in Jamaica, Queens.

June 10, 2015
Circulation: 443,362

12

LONG ISLAND

AIRPORT ADVISORY GROUP MEETS



Panelist Kendall Lampkin, representing Hempstead Town, doubts there will be money to soundproof houses.

To help authority with noise, land-use study

BY CHAU LAM
chau.lam@newsday.com

A group advising the Port Authority on its noise and land-use compatibility study met for the first time yesterday at Kennedy Airport to lay out its objectives, including acting as liaison between the agency and communities.

The gathering of the 23-member JFK Technical Advisory Committee comes more than a year after Gov. Andrew M. Cuomo ordered the authority, a bi-state agency, to conduct the survey, commonly referred to as a Part 150 Study. The study is designed to identify existing noise levels and noise levels in the next five years, from 2016 to 2021, and recommend ways to reduce the impacts on residents.

Ed Knoesel, the authority's environmental services manager, said it's too early to say what residents could expect at the end of the three-year study. All possible ways to reduce aircraft noise will be considered, he said.

"That will be the outcome of the study," Knoesel said after the meeting. "People will know what measures can be done and what measures cannot be done."



Len Schaier, an advocate for reducing aircraft noise in Nassau, attends yesterday's meeting.

Kendall Lampkin, a member of the advisory panel representing the Town of Hempstead, said he does not believe the Port Authority and the Federal Aviation Administration have the money to pay for soundproofing private houses.

"The reason for that is the Port Authority [manages] five airports. What they do for one, they'd have to do for the other," said Lampkin, also executive director of the Town-Village Aircraft Safety & Noise Abatement Committee.

An identical committee for LaGuardia met Tuesday. Each advisory group plans to hold 18 meetings in coming years.

Since Cuomo directed the authority, which operates LaGuardia and Kennedy airports, to take comprehensive measures to address residents' concerns about airplane noise in March 2014, it has:

- Created a new noise office and staffed it with six employees whose jobs are to deal with aircraft-related issues. It is headed by Knoesel.

- Expanded its noise monitoring program by installing additional noise monitors. The authority has installed at least 13 out of 16 new portable noise monitors.

- Introduced a new flight and noise monitoring Web portal, WebTrak, which allows residents to follow flight patterns over their communities. The aim is to make it easier for the public to track, identify and report specific flights when making a noise complaint.

- Established an Airport Community Roundtable with two committees, one for LaGuardia and one for Kennedy.

- Embarked on noise and land-use compatibility studies for LaGuardia and Kennedy airports.

- The authority will hold two workshops next week to give the public information about the Part 150 Study, including the methods used to measure aircraft noise exposure.

The LaGuardia open house is next Wednesday, from 6 to 8 p.m. at New York LaGuardia Airport Marriott in East Elmhurst, Queens. The Kennedy open house is next Thursday, also from 6 to 8 p.m., at the Radisson Hotel JFK Airport in Jamaica, Queens.

BRONX *Times*

June 12, 2015

UVPM: N/A

Monsignor Scanlan High School calls on PANYNJ for airplane sound abatement

By Patrick Rocchio

Monsignor Scanlan High School's leadership is calling on the Port Authority to have the Throggs Neck high school included in a federally-funded noise abatement program.

The Port Authority of New York and New Jersey sponsors individual schools in its School Soundproofing Program, which is mostly funded by the Federal Aviation Administration. The money is used to retrofit buildings with soundproofing if they are in the flight paths of airports.

Nearby LaGuardia Airport in Queens creates a huge amount of noise from overhead aircraft that causes Scanlan teachers to stop their lessons, affecting the overall experience of instruction, said Peter Doran, the principal.

"It is noise pollution when you are trying to do your lesson, or if you have a SMART Board on and you are delivering some Internet lesson and you hear a plane come over," he said. "You cannot hear; you have to stop your lesson or replay what you already have shown on the screen."

These interruptions become problematic for teaching, and there are no set patterns to the air traffic, the principal said.

There are times during the day when it is quiet and then there are periods when the low-flying planes appear every 90 seconds, he added.

"It is not continuous for the six and a half hours, but for the time that they are coming over, it is continuous," said Doran.

Joseph Solimine Sr., chairman of the Facilities Committee for the board of directors, supplied the Bronx Times with a letter from PANYNJ that indicates that the school qualified for the program in 1993.

Solimine explained that if a school is in the flight path, known as a contour, and the level of sound exceeds 65 decibels, then a school can qualify for funding, 80 percent of which comes from the FAA and 20 percent from the PANYNJ, which administers the program. "We are saying that the Port Authority and FAA made a commitment...and we want them to honor that," he said.

PANYNJ lost the records of the 1990s correspondence with the school in the World Trade Center attacks in 2001, and after reviewing the sound levels and testing the school again, determined in 2006 that the school no longer qualified for the program, documents supplied by Solimine show.

A letter to the school from PANYNJ in 2006 indicates it is no longer in the flight contour and that "noise levels from aircraft have dropped dramatically in the last few years."

Ongoing sound metering on the school ground is continuing, he and Doran confirmed. Solimine said based on research into the matter, he believes that Scanlan is entitled to funding for many of the buildings on its grounds, which in addition to the high school, includes a pre-k program, and in September, a charter elementary school.

"The campus is 13 acres," he said, adding "This is an educational fortress being interrupted by airplane noise."

If it were to qualify, Solimine, a volunteer board member, said that the school could install new 'soundproof windows,' as well as an upgraded heating and air-conditioning so that windows do not have to be opened when the weather is warm.

Carl Cannizzaro, owner of local firm Ensign Engineering, who is familiar with the situation at Scanlan called it a "20-year epic."

A source at the PANYNJ confirmed that the agency believes that the Monsignor Scanlan no longer qualifies for the program.

"The high school does not meet the FAA guidelines to receive noise soundproof funding because it is not located within the current noise contour map, which includes areas with a 65 (day-night sound level) average for decibel levels," stated a spokeswoman for the Port Authority.

June 15, 2015
UVPM: 3,170,994

TRAVEL

PORT AUTHORITY PRESENTS MEASURES TO REDUCE AIRPORT NOISE DURING MEETING



Monday, June 15, 2015

KEW GARDENS (WABC) -- Reducing airport noise was the focus of a Port Authority meeting on Monday night in Queens.

The Port Authority presented its plans for airport noise compatibility studies at Kennedy and LaGuardia Airports during a Queens borough board meeting in Kew Gardens.

Researchers will develop maps and compile data to identify potential noise reducing measures for area residents.

The Port Authority signed an agreement to conduct the airport noise compatibility studies over the next 3 years.

June 16, 2015

UVPM: 40,000

Port authority announces airport noise study

by Patrick Kearns

Jun 16, 2015

Representatives from the Port Authority were at the Queens Borough Board meeting on Monday to inform the governing body that they will be conducting a Part 150 Noise Compatibility Study for the local airports.

Both New York City airports – LaGuardia and John F. Kennedy – are often an item of contention for Queens residents, and noise has become a big topic of discussion.

At the direction of Governor Andrew Cuomo, federal studies sanctioned by the Federal Aviation Administration (FAA) will be conducted for both noise office staff will be increased to six full-time employees.

Known as Part 150 studies, it will study the area surrounding the airport, creating a noise exposure map to see which areas are the most adversely impacted by the noise. The study also looks at the zoning to see what should have been appropriately built where the noise is greatest.

"It assess the impact of aircraft noise around the airport," Edward Knoesel, senior manager for noise programs for the Aviation Department of the Port Authority, said.

That aspect of the study is known as a noise exposure map, which the Port Authority hopes to have completed for both airports by the third quarter of 2013.

After the creation of the noise exposure map, the study will then develop a plan of action, known as a noise compatibility program.

The goal of the program is to find potential mitigation measures that would reduce levels of aircraft noise exposure that the study deems significant.

It's not easy task to make a change at an airport according to Knoesel, because any change could have a potential domino effect.

"We have four airports with very crowded space," Knoesel said. "Any change is going to have to be looked at closely by the FAA."

In conjunction with the presentation to the borough board, the Port Authority also held public town hall meetings this week to better educate the community on what can and cannot be done to address aircraft noise concerns.

The expected completion of the noise compatibility program is sometime in 2018.

June 16, 2015
Circulation: 99,453
UVPM: N/A

Port authority announces airport noise study

by Patrick Kearns

Jun 16, 2015 | 3561 views | 0 | 17 | | |



The Borough Board meets to hear a presentation on a Port Authority noise study that will be conducted.

Representatives from the Port Authority were at the Queens Borough Board meeting on Monday to inform the governing body that they will be conducting a Part 150 Noise Compatibility Study for the local airports.

Both New York City airports – LaGuardia and John F. Kennedy – are often an item of contention for Queens residents, and noise has become a big topic of discussion.

At the direction of Governor Andrew Cuomo, federal studies sanctioned by the Federal Aviation Administration (FAA) will be conducted for both LaGuardia and John F. Kennedy and the noise office staff will be increased to six full-time

employees.

Known as Part 150 studies, it will study the area surrounding the airport, creating a noise exposure map to see which areas are the most adversely impacted by the noise. The study also looks at the zoning to see what should have been appropriately built where the noise is greatest.

"It assess the impact of aircraft noise around the airport," Edward Knoesel, senior manager for noise programs for the Aviation Department of the Port Authority, said.

That aspect of the study is known as a noise exposure map, which the Port Authority hopes to have completed for both airports by the third quarter of 2013.

After the creation of the noise exposure map, the study will then develop a plan of action, known as a noise compatibility program.

The goal of the program is to find potential mitigation measures that would reduce levels of aircraft noise exposure that the study deems significant.

It's not easy task to make a change at an airport according to Knoesel, because any change could have a potential domino effect.

"We have four airports with very crowded space," Knoesel said. "Any change is going to have to be looked at closely by the FAA."

In conjunction with the presentation to the borough board, the Port Authority also held public town hall meetings this week to better educate the community on what can and cannot be done to address aircraft noise concerns.

The expected completion of the noise compatibility program is sometime in 2018.

Serving the community for 40+ years

June 17, 2015

Circulation: 60,000



Port Authority Goes Public with Airport Noise Studies

Michael V. Cusenza

The Port Authority of New York and New Jersey has recently rolled out public presentations and workshops in an expressed effort to keep communities informed of the progress of the Title 14 Code of Federal Regulations Part 150 Airport Noise Compatibility Studies for John F. Kennedy International and LaGuardia airports.

The workshops, held in an “open house” format, include guided displays that present information regarding the 14 CFR Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure.

Part 150 studies involve the creation of Noise Exposure Maps and Noise Compatibility Programs. A Noise Exposure Map is designed to identify an airport’s present and future noise patterns and the land uses which are not compatible with those noise patterns, while a Noise Compatibility Program shows what measures the airport operator has taken or proposes to take to reduce, and/or prevent the introduction of, non-compatible land uses within the area covered by the airport’s NEM.

"Residents of communities in both New York and New Jersey will be kept better informed about aircraft noise issues with these enhancements to the Port Authority's program that seek additional solutions to these longstanding concerns," said Port Authority Deputy Executive Director Deb Gramiccioni. "We are committed to listening to the concerns of residents around these airports and will continue to look to minimize noise impacts where possible."

Last October, Gov. Andrew Cuomo awarded the Part 150 study contract to Environmental Science Associates. According to the Port Authority, Environmental Science's proposal was the highest rated in the agency's competitive review of four submissions for the contract, which will run between October 2014 and August 2017 with costs estimated at approximately \$8 million combined for both airports. The Port Authority is eligible for Federal Aviation Administration funding to help offset the costs and has applied for available grant money for each airport.

Mitigation efforts taken at other airports that have done Part 150 studies include revamping of flight routes and approach procedures, encouraging airlines to use quieter aircraft and installing soundproofing to eligible properties. The overall goal, according to the Port Authority, is to provide noise relief to communities where possible and practical, while ensuring the continued regional economic benefits of air travel.

In addition to the study, the Port Authority has established an Aviation Noise Office that will be staffed by a team which will be responsible for collecting and reviewing the noise data, while also responding on an enhanced basis to community complaints.

Residents of communities near JFK and LaGuardia can also track planes and flight patterns on the Port Authority's new WebTrak system, which provides graphics identifying aircraft, decibel noise levels, altitudes, airspace location, and origin and destination airports.

This feature helps residents to better identify which planes and aircraft patterns are causing noise issues. WebTrak, already in use at some other U.S. airports, also allows individuals to log aircraft noise complaints while on the site. WebTrak is accessible at <http://webtrak.bksv.com/panynj>.

By Michael V. Cusenza

michael@theforumnewsgroup.com

June 18, 2015
Circulation: 443,362
UVPM: 2,065,826

Lawmakers want impact of aircraft noise addressed in new bill



A large passenger jet passes over the home of Mary-Grace Tomecki Thursday, May 1, 2014, one of the homes and streets in Floral Park directly in the path of jets landing at JFK airport's runway 22L. Tomecki has been working for years to get officials at the FAA and the Port Authority, which operates the airport, to reduce aircraft noise. Photo Credit: Craig Ruttle

A group of lawmakers working to lessen the impact of aircraft noise on communities across the country wants a handful of measures -- including mandating research on the effect airplane noise has on public health -- to be added to a bill that sets funding and policy priorities for the Federal Aviation Administration.

Sixteen members of the Quiet Skies Caucus, which includes Rep. Steve Israel (D-Huntington) and Rep. Grace Meng (D-Flushing), wrote to the chairman and ranking member of the House Transportation and Infrastructure Committee, which is drafting the legislation, asking them to incorporate fixes to help alleviate aircraft noise over neighborhoods.

"Every day, millions of Americans are forced to contend with acute levels of noise from passing aircraft -- noise that disrupts their homes and businesses, negatively affects their health, and reduces their overall quality of life," the July 15 letter stated.

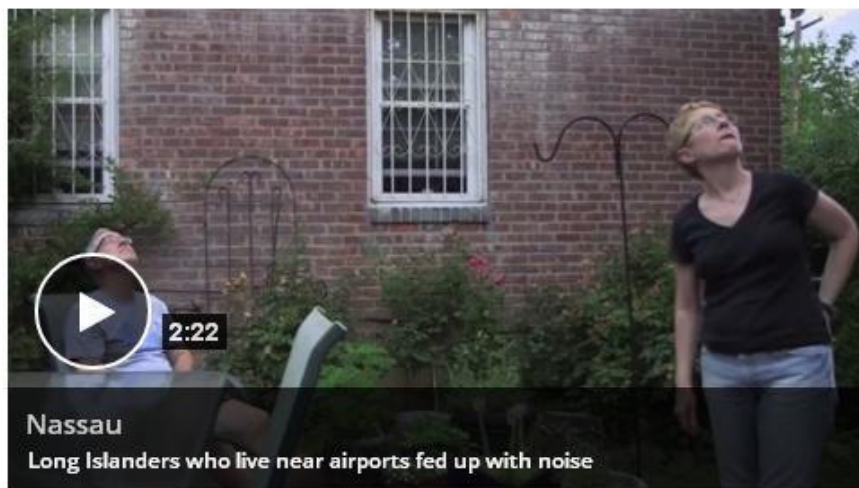
Among the requests are:

Requiring the FAA to give residents advance notice and a chance to be heard before it creates new flight paths or makes changes to existing ones.

Mandating the FAA lower the noise-exposure threshold from 65 DNL (day-night average sound level), established in the 1970s, to 55 DNL.

Clarifying that airport operators can use federal Airport Improvement Program funds to mitigate homes in areas below 65 DNL.

Getting an independent group to study the relationship between public health and long-term exposure to aircraft noise.



Len Schaier, president of the Port Washington-based group quietskies.net, said this is the first time in a decade that federal lawmakers have put forth concrete provisions on airplane noise.

"To me, it's a giant step," Schaier said yesterday. "It means we made the point with our Congress members."

Even if the measures make their way into the House version of the FAA Reauthorization Act, they won't become law unless the Senate adopts the same.

A spokesman for U.S. Sen. Charles Schumer (D-N.Y.) said the senator pledges to "work with the community to lessen noise impacts and to strike the right balance between aircraft traffic and our communities."

U.S. Sen. Kirsten Gillibrand (D-N.Y.) did not return a call for comment yesterday.

"Senators Schumer and Gillibrand can't sit on the sideline anymore," Schaier said. "If we don't get the senators on board, we have nothing."

June 18, 2015

UVPM: 300,000

Circulation: 160,000

Residents welcome noise study outreach

Posted: Thursday, June 18, 2015 10:30 am

by **Laura A. Shepard, Chronicle Contributor** |

0 comments

The Port Authority opened its cabin doors to the community this week, laying out its plan to study the airplane noise impact that many Queens residents say is ruining their lives.

Officials from the Port Authority, Federal Aviation Administration and the firm that will conduct the two studies, one for each area airport, held an open house event Tuesday night at the LaGuardia Marriott. A similar event for communities near Kennedy Airport was set for Wednesday evening, and the Port Authority addressed the Borough Board Monday.



PHOTO BY LAURA A. SHEPARD

"I'm very happy," Janet McEneaney, the president of Queens Quiet Skies and co-chairwoman of the Queens Aviation Roundtable, said at the LaGuardia event. "This is good outreach to the community."

Longtime community activists like McEneaney came out to discuss the issue at the hotel, while new people curious about what's happening in the community also were there, but turnout was lower than expected, likely due to rain and the venue's inaccessibility by subway.

Don Sands, a resident of East Elmhurst, came out because, "It's important to know what's happening in the neighborhood." He said the noise situation has gotten worse for him in the last few years because planes take off to the east more frequently than they did before. He was unfamiliar with the Port Authority complaint system and asked, "How can two people do anything to effect change?"

"We have to follow this issue because we're not planning on moving," a community member who asked to remain anonymous said.

Roberta Goldstein, a Flushing resident, said she's

hopeful that the noise situation will improve after speaking to some of the consultants from Environmental Science Associates, which is doing the studies. "We want to live in peace and harmony, but when the planes are a minute apart we're not happy," she said.

Elna Tullock of Corona was impressed with the Port Authority's outreach effort and would grade it "an A+ times three."

Attendees were encouraged to fill out comment cards, and Steve Alverson, the lead consultant for ESA, said the company will go through each one and respond to every comment in a document to be released within the next few weeks.

Gov. Cuomo ordered the PA to conduct the research in November 2013, due to pressure from residents. The requirements and procedure for the studies, each known as a Part 150, are enshrined in federal law and must be followed so that areas where noise is deemed unsafe can qualify for mitigation funding.

Since then, the Port Authority selected ESA to conduct the studies for JFK and LaGuardia airports. The team has conducted Part 150 studies at more than 30 other airports around the country. This is the first time it will study two airports that are so close together, a situation that does not exist anywhere else.

The studies consist of four phases that will take more than three years. Adrian Jones of ESA said the firm has defined the key issues and plans to publish the study design on the Port Authority within the next month. The next phases involve exhaustive data collection to create new noise exposure maps using computer models. ESA will figure out the current situation and project what it will be in five years. Jones said the plan is to submit the new map by October 2016 and have it accepted by that December.

The process will include 18 public meetings where people can request information and provide feedback. Jones noted that there will be more opportunities for public involvement throughout the process in New York than in other cities because "it's a bigger issue."

McEneaney said that she's excited to see the noise exposure map. Once the map is approved, the consultants will make recommendations — such as changing flight paths, adjusting zoning and land use regulations or providing funding for soundproofing. In 2013 the federal government provided \$107.5 million to prepare Part 150 studies and \$5.9 billion to implement them.

McEneaney also said the roundtable coordinating committee is making progress and that she hopes to present the proposed bylaws to the entire group soon.

She added that the FAA is tasked with protecting the safety of the people in the air, but no federal agency is tasked with protecting the health and safety of the people on the ground. She said she was encouraged by the Environmental Protection Agency's recent announcement that it will cap airplane emissions and hopes it follows through with enforcement.

"Queens Quiet Skies keeps getting members," McEneaney said. "People are fed up with what's happening and everyone wants the same thing: to have the community be a priority."

June 18, 2015
Circulation: 171,000

Cautious Optimism On Plane Noise Study

Posted on June 18, 2015 by tribune in Top News

BY TESS McRAE

Editor

Airport noise has plagued neighborhoods across the borough for decades. Changes have been made and proposals have been shared and yet the problem persists.

The latest attempt to permanently resolve this issue – a Part 150 compatibility study – was presented before Queens community board district leaders and Borough President Melinda Katz during a Borough Board meeting held on Monday.

“The goal is to find potential mitigation measures and reduce levels of aircraft noise deemed significant,” Edward Knoesel, senior manager of environmental and noise programs from the Aviation Department of the Port Authority of New York and New Jersey, said. “It is the Port Authority’s feeling that this mechanism will improve compatibility between airports and surrounding communities.”

Though the procedure for a Part 150 compatibility study is lengthy, it essentially breaks down into two parts: creating a noise exposure map and a comprehensive mitigation plan to reduce noise where needed.

The exposure map is used to determine land use and noise impact using monitors install throughout the districts. The monitors pick up noise from the airplanes over head and translate it into data on the map. Areas that pick up more than 65 decibels and are determined to be “incompatible” for a flight path will be reviewed for mitigation.

“Incompatible areas are usually residential and schools, though we have worked hard to reduce aircraft noise in schools,” Knoesel said.

Should the studies – a separate map will be made for each airport – find incompatible areas, the Port Authority and Technical Advisement Committee, assembled from various stakeholders, will move forward and determine appropriate remediation measures.

Noise issues are typically resolved through noise abatement or mitigation. Part 150 studies conducted in other states have used sound walls and even insulated homes to reduce noise. A more drastic resolution, most recently done in Kentucky, would be to buy out businesses or the homes of families living on incompatible land and relocate them to more appropriate areas.

“That isn’t really possible in an area like New York City,” Knoesel said.

The district managers and Katz were impressed by the proposal, but were concerned by the accessibility of the TAC groups.

"I think it would make sense to have community board members or something on these committees," Community Board 5 District Manager Vincent Arcuri Jr. said.

Katz and several other board members echoed his suggestion.

Knoesel said he would look into including board members on TAC groups.

The Port Authority also presented plans before area residents near John F. Kennedy and LaGuardia International airports.

"There is no doubt this has been an issue for decades," Katz said at the end of the presentation. "We are hopeful and thankful that people are listening. It is though, difficult to understand with all this technology, how we can make planes bigger and land them on top of one another and yet we can't make them quieter."

Reach Editor Tess McRae at (718) 357-7400 ext. 123, tmcrae@queenspress.com or follow her on Twitter @tess_mcrae.

June 18, 2015

UVPM: N/A

Airplane noise study to examine reach of aircraft noise



Photo by Anthony Giudice

Edward Knoesel of the Port Authority explaining the Airport Noise Compatibility Studies to the Borough Board on Monday night.

By Anthony Giudice / agiudice@ridgewoodtimes.com / Tuesday, June 16, 2015 / 2:58 PM

Representatives from the **Port Authority of New York and New Jersey** (PANYNJ) gave a presentation on the Part 150 Airport Noise Compatibility Studies for LaGuardia (LGA) and John F. Kennedy International (JFK) airports during Monday's meeting of the Queens Borough Board at Queens Borough Hall in Kew Gardens.

"Part 150 of the Federal Regulations enable airport operators to undertake studies that provide the public with information about existing and future non-compatible land uses around airports and to create measures that reduce and prevent the introduction of new non-compatible land uses," explained Queens Borough President **Melinda Katz**.

This study will examine the levels of airplane noise around both LGA and JFK, create noise exposure maps (NEMs) for the areas and develop noise compatibility programs (NCPs) for impacted land uses within areas with levels of high noise.

"The Port Authority is conducting these two studies with the goal of finding potential mitigation measures to reduce levels of aircraft noise exposure that are deemed significant," said Edward Knoesel, senior manager of environmental and noise programs for the Aviation Department at PANYNJ. "And that is the federal government that makes determination."

The study aims to find how land is being used within high noise level areas around the airports. Certain land uses, such as a cargo factory, are acceptable in high noise level areas, while other land uses, such as residential buildings, should not be allowed there.

Information from all 2014 flight operations from the airports will be used to help create the NEMs, which will be presented to the Federal Aviation Administration (FAA) in 2016. FAA regulations also require PANYNJ to also present a map for a forecast of operations five years into the future.

The NEMs use a day-night average sound level (DNL) to figure out how much noise is concentrated over each area. Certain land uses within the DNL 65, which is a day-night average of 65 decibels, are considered incompatible.

Once the noise impacts are assessed, measures to reduce aircraft noise and limit its impact on surrounding areas, through noise abatement or noise mitigation, will be considered. Noise abatement reduces noise from the source, in this case airplanes, and noise mitigation helps bring down noise levels inside of the structures themselves, through possible soundproofing building materials.

These options, along with others, will be explored in the NCP section of the study.

"The noise compatibility planning explores operational, that means how to move the aircraft, land use and administrative measures to minimize aircraft noise exposure in that area," Knoesel continued. "The FAA approves individual measures...they may approve some, they may disapprove others."

The FAA has 180 days to review the proposed measures and either approve, disapprove or request more time to examine the measures.

Once measures are accepted, implementation will begin.

June 21, 2015

UVP: 63,649,953

Engaging in a Softer Conversation About the Roar From New York's Airports

By KIRK SEMPLE



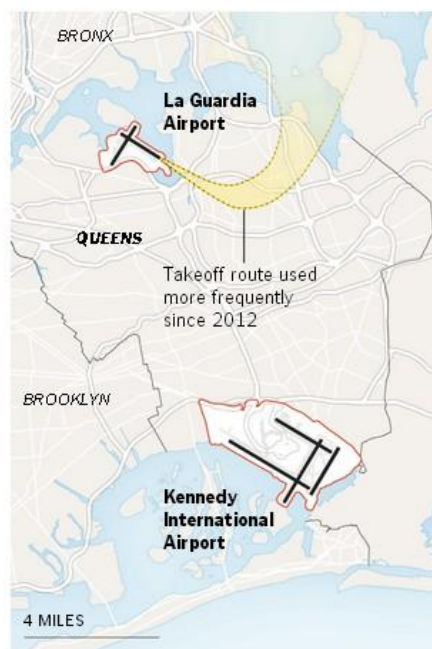
The Port Authority is doing a study to assess noise caused by flights using La Guardia Airport in Queens and other area airports and to recommend abatements. Kevin Hazen for The New York Times

Susan Carroll has developed a tender relationship with the noise monitor on the roof of her apartment building in Queens. She refers to it as “my monitor” (even though she does not own it) and checks on it daily to make sure it is still working (even though she does not operate it).

“I feel very protective of that monitor,” she said. “I feel like I have to watch over it.”

The machine is one of about a dozen that officials have added to the region’s noise monitoring system in the past year. They are a rare, tangible result of years of intense and frustrating lobbying by activists, including Ms. Carroll, against noise pollution from aircraft using the borough’s two airports.

The new monitors have not yet led to any significant solutions to the noise, which, residents contend, is as bad as ever. But the system expansion is among several recent developments that have put the conversation between the activists and airport administrators on much better footing and given long-suffering citizens some hope that the situation may one day improve.



By The New York Times

In an interview this week, Janet McEneaney, a leader of the civic lobby, called the change in the dynamic “a great shift.”

As recently as three years ago, she said, officials at the [Port Authority of New York and New Jersey](#), which operates the city’s airports, “didn’t want to give us the time of day.” But, she added, “I know people at the Port Authority now and can pick up the phone and call.”

Port Authority officials also underscored this new rapport. “A lot has happened and we are more engaged with the community than we were,” said Edward C. Knoesel, senior manager for environmental and noise programs in the Port Authority’s aviation department.

Despite the progress, however, there is uncertainty on all sides of the conversation — among local residents, government officials and aviation executives alike — about whether the various efforts will lead to

popular solutions, particularly as officials seek to weigh the competing demands of safety, commerce, private enterprise and the public good.

Furthermore, the New York metropolitan area has one of the most complicated airspaces in the world, and any changes in operations — like flight schedules and patterns — can set off a cascade of effects across the country.

“We’re going to look for that wiggle room to make the situation better,” Mr. Knoesel said. “It’s tough.”

Complaints about noise pollution [are longstanding in New York City](#), where two major airports, [La Guardia Airport](#) and [Kennedy International Airport](#), are embedded in a densely populated urban landscape.

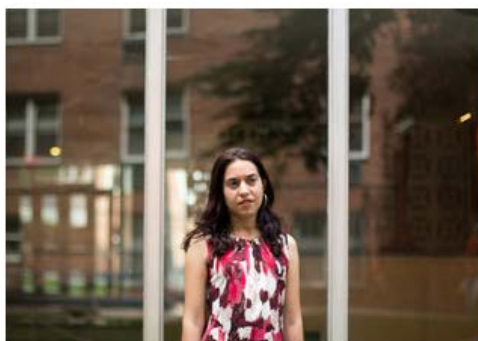
The outcry soared in 2012 when the Federal Aviation Administration, which directs the movement of aircraft in the air and on the ground, approved for more frequent use a takeoff trajectory that concentrated low-flying planes over a section of northeastern Queens, Port Authority officials said.

For residents of neighborhoods beneath that flight path, the change was immediate. Planes began blasting over their homes dozens of times a day. “It sounded like we were being strafed,” said Ms. McEneaney, a longtime resident of the Bayside neighborhood. The problem compelled her to create a group called Queens Quiet Skies.

Complaints also poured into the Port Authority about noise problems on other flight paths, though officials contended that those complaints had more to do with heightened awareness and sensitivity to the issue than to any significant changes in aviation operations.

Civic groups pressured their elected officials to do something, resulting in the passage of a bill in Albany requiring the Port Authority to initiate comprehensive studies of land use and aircraft noise patterns around its airports, including La Guardia and Kennedy as well as at Newark Liberty International Airport and Teterboro Airport in New Jersey.

In November 2013, Gov. Andrew M. Cuomo vetoed the bill, which would have required passage of a similar bill by New Jersey lawmakers to take effect. But at the same time he ordered the Port Authority not only to initiate the studies, but also to form community round tables to discuss noise and other aviation-related issues.



The agency installed a meter that measures airplane noise on top of the apartment building where Susan Carroll lives in Queens.

Kevin Hagen for The New York Times

Port Authority officials last week made several public presentations about the New York studies. The agency has also begun similar initiatives, known as [Part 150 studies](#), for the Newark and Teterboro airports.

As part of the studies, investigators will identify possible measures to reduce aircraft noise and limit its impact, such as changes in takeoff and landing routes, the acquisition of property near the airports and soundproofing of homes and other buildings.

The New York studies are expected to take at least three years, officials said. “That’s a long time for people being negatively

impacted,” said Barbara E. Brown, chairwoman of the Eastern Queens Alliance and a leader in the lobby against aircraft noise.

In the past year or so, the Port Authority has taken additional steps to help address the noise problem — and assuage angry citizens.

Officials doubled the number of noise monitors, to at least 27; tripled the size of the Port Authority office dedicated to noise issues — the [Noise Office](#) — to six people; and made available a flight and noise monitoring web portal, [WebTrak](#), that shows near-real-time aircraft traffic and its effects on the network of noise monitors. The Port Authority has also improved its noise complaint system.

In determining aircraft noise impacts, the federal government uses a measure that takes the average airplane noise exposure in a specific location over a year. The allowable limit is 65 decibels.

The F.A.A. uses computer modeling to gauge noise impact. But local activists and elected officials have demanded a more robust system of noise monitors to check those models against the most current data.

Civic activists seem particularly animated about the round tables ordered by Mr. Cuomo. Though not technically part of the Part 150 studies, the round tables are expected to be a forum for their members to discuss the study’s progress.

But the round-table process in New York has been bogged down by sharp differences among civic leaders. For months, two factions wrestled over whether there should be one round table or two for the airport studies in Queens. The Port Authority stepped in and recommended in February that there should be one. A four-person committee of citizens is working out the bylaws.

The disagreements over the form of the round table — after the hard work it took to get one — have driven some activists to distraction.

“The planes are coming, people are getting hurt and people are fighting about the number of round tables,” Len Schaier, a Nassau County resident and founder of quietskies.net, another civic group, said in an interview. “It doesn’t make any sense to me.” He sighed, then added, “I need a break.”

Activists, public officials and aviation executives alike are wondering what will, in the end, come out of the process.

Ms. Carroll, who said she has become so involved in the noise issue that “it feels like a full-time job,” suggested she was bracing for disappointment.

“I want to be optimistic,” she said. “But based on what’s been going on in recent years, we have to be realistic about what we can achieve.”

June 22, 2015

Circulation: 2,149,012



Engaging in a Softer Conversation About the Roar From Above

Rapport Improves; Plane Noise Persists

By KIRK SEMPLE

Susan Carroll has developed a tender relationship with the noise monitor on the roof of her apartment building in Queens. She refers to it as “my monitor” (even though she does not own it) and checks on it daily to make sure it is still working (even though she does not operate it).

“I feel very protective of that monitor,” she said. “I feel like I have to watch over it.”

The machine is one of about a dozen that officials have added to the region’s noise monitoring system in the past year. They are a rare, tangible result of years of intense and frustrating lobbying by activists, including Ms. Carroll, against noise pollution from aircraft using the borough’s two airports.

The new monitors have not yet led to any significant solutions to the noise, which, residents contend, is as bad as ever. But the system expansion is among several recent developments that have put the conversation between the activists and airport administrators on much better footing and given long-suffering citizens some hope that the situation may one day improve.

In an interview this week, Janet McEneaney, a leader of the civic lobby, called the change in the dynamic “a great shift.”

As recently as three years ago, she said, officials at the Port Authority of New York and New Jersey, which operates the city’s airports, “didn’t want to give us the time of day.” But, she added, “I know people at the Port Authority now and can pick up the phone and call.”

Port Authority officials also underscored this new rapport. “A lot has happened and we are more engaged with the community than we were,” said Edward C. Knoesel, senior manager for environmental and noise programs in the Port Authority’s aviation department.

Despite the progress, however, there is uncertainty on all sides of the conversation — among local residents, gov-



The Port Authority is doing a study to assess noise caused by flights using La Guardia Airport in Queens, top, and other area airports, and to recommend abatement. The agency installed a meter that measures airplane noise on top of the apartment building where Susan Carroll lives in Queens.

ernment officials and aviation executives alike — about whether the various efforts will lead to popular solutions, particularly as officials seek to weigh the competing demands of safety, commerce, private enterprise and the public good.

Furthermore, the New York metropolitan area has one of the most complicated airspaces in the world, and any changes in operations — like flight schedules and patterns — can set off a cascade of effects across the country.

“We’re going to look for that wiggle room to make the situation better,” Mr. Knoesel said. “It’s tough.”

Complaints about noise pollution are longstanding in New York City, where two major airports, La Guardia Airport and Kennedy International Airport, are embedded in a densely populated urban landscape.

The outcry soared in 2012 when the Federal Aviation Administration, which directs the movement of aircraft in the air and on the ground, approved for more frequent use a takeoff trajectory that concentrated low-flying planes over a section of northeastern Queens,

Port Authority officials said.

For residents of neighborhoods beneath that flight path, the change was immediate. Planes began blasting over their homes dozens of times a day. “It sounded like we were being strafed,” said Ms. McEneaney, a longtime resident of the Bayside neighborhood. The problem compelled her to create a group called Queens Quiet Skies.

Complaints also poured into the Port Authority about noise problems on other flight paths, though officials contended that those complaints had more to do with heightened awareness and sensitivity to the issue than to any significant changes in aviation operations.

Civic groups pressured their elected officials to do something, resulting in the passage of a bill in Albany requiring the Port Authority to initiate comprehensive studies of land use and aircraft noise patterns around its airports, including La Guardia and Kennedy as well as at Newark Liberty International Airport and Teterboro Airport in New Jersey.

In November 2013, Gov. Andrew M. Cuomo vetoed the bill, which would



have required passage of a similar bill by New Jersey lawmakers to take effect. But at the same time he ordered the Port Authority not only to initiate the studies, but also to form community round tables to discuss noise and other aviation-related issues.

Port Authority officials last week made several public presentations about the New York studies. The agency has also begun similar initiatives, known as Part 150 studies, for the Newark and Teterboro airports.

As part of the studies, investigators will identify possible measures to reduce aircraft noise and limit its impact, such as changes in takeoff and landing routes, the acquisition of property near the airports and soundproofing of homes and other buildings.

The New York studies are expected to take at least three years, officials said. “That’s a long time for people being negatively impacted,” said Barbara E. Brown, chairwoman of the Eastern Queens Alliance and a leader in the lobby against aircraft noise.

In the past year or so, the Port Authority has taken additional steps to help address the noise problem — and assuage angry citizens.

Officials doubled the number of noise monitors, to at least 27; tripled the size of the Port Authority office dedicated to noise issues — the Noise Office — to six

people; and made available a flight and noise monitoring web portal, WebTrak, that shows near-real-time aircraft traffic and its effects on the network of noise monitors. The Port Authority has also improved its noise complaint system.

In determining aircraft noise impacts, the federal government uses a measure that takes the average airplane noise exposure in a specific location over a year. The allowable limit is 65 decibels. The F.A.A. uses computer modeling to gauge noise impact. But local activists and elected officials have demanded a more robust system of noise monitors to check those models against the most current data.

Civic activists seem particularly animated about the round tables ordered by Mr. Cuomo. Though not technically part of the Part 150 studies, the round tables are expected to be a forum for their members to discuss the study’s progress.

But the round-table process in New York has been bogged down by sharp differences among civic leaders. For months, two factions wrestled over whether there should be one round table or two for the airport studies in Queens. The Port Authority stepped in and recommended in February that there should be one. A four-person committee of citizens is working out the by-laws.

The disagreements over the form of the round table — after the hard work it took to get one — have driven some activists to distraction.

“The planes are coming, people are getting hurt and people are fighting about the number of round tables,” Len Schafer, a Nassau County resident and founder of quiet skies.net, another civic group, said in an interview. “It doesn’t make any sense to me.” He sighed, then added, “I need a break.”

Activists, public officials and aviation executives alike are wondering what will, in the end, come out of the process. Ms. Carroll, who said she has become so involved in the noise issue that “it feels like a full-time job,” suggested she was bracing for disappointment.

“I want to be optimistic,” she said. “But based on what’s been going on in recent years, we have to be realistic about what we can achieve.”

June 22, 2015

UVPM: 69,000

Circulation: 75,000

Port Authority launches noise office, presents Part 150 progress

By Tom Momberg

The Port Authority presented the details of its noise studies at the Queens Borough Board meeting Monday as it announced the opening of new office to work with the community on complaints.

Now in full swing, the Part 150 studies, as they are called, are intended to re-evaluate aviation noise levels around New York's two major airports. The technical analysis for the studies is just beginning.

In an attempt to streamline communication and improve transparency between the airports and the surrounding communities, the new noise office was accompanied by the launch of a new website that will include monthly community updates on the ongoing studies.

"This provides us with a mechanism to improve the compatibility between the airports and surrounding communities," said Edward Knoesel, the senior manager for the Port Authority Aviation Department's environmental and noise programs.

The Port Authority's prime consultant, Environmental Science Associates, will produce noise exposure map reports and see which land use is compatible.

Community members requested that the Port Authority give them more of a stake in the recently initiated Technical Advisory Committee, or TAC, which governs the analysis of the technical parts of the studies.

Under federal regulations governing the study for each Queens airport, aircraft noise is measured using Day-Night Average Sound Level, or DNL. The DNL measurement system averages noise levels across 365 days a year, weighting nighttime levels heavier than daytime.

A DNL of 65 decibels is the baseline level at which federal funding would be available for noise mitigation strategies.

As Environmental Science spends the next year creating noise exposure maps around John F. Kennedy and LaGuardia airports, the firm will have to develop new noise level contours from

ground monitoring systems and cross examine them with zoning and land use where DNL is above 65.

Based on the noise exposure map reports for either airport, the Port Authority will create noise compatibility programs that may result in noise abatement or mitigation strategies for neighborhoods with a heavy impact and apply for federal funding accordingly.

The reports are scheduled to be released in the third quarter of 2016, along with five-year aviation forecasts to help predict future changes to the noise exposure maps and take them into consideration when coming up with mitigation and abatement strategies.

Those strategies may include changes to flight patterns, aircraft operation, airport layout and runway use, or more rarely, soundproofing in some eligible affected properties.

"We want to speed this up as much as we can, but it has to be done according to the regulations," Knoesel said during his presentation.

Because the technical analysis is just beginning, the Port Authority's noise study TAC met for its first workshop last week.

Community Aviation Roundtable Coordinating Committee co-chairs Barbara Brown and Janet McEneaney demanded that there be more community representation on the TAC. Brian Wills and Susan Carroll were designated committee members for those committee meetings, but Brown said representation among airport stakeholders is unbalanced in favor of the airlines.

"Who should be a part of TAC, and who should be represented? What about the stakeholders that live at the mouths of either airport? I didn't see them at the committee meeting," Brown said before the Borough Board. "So I think there needs to be further discussion about proportional representation."

Knoesel said the Port Authority might be up for having that discussion, but would want to be sure that any committee member take the commitment seriously and be knowledgeable on the technical aspects of the study.

Visit the noise office at www.panynj.gov/airports/aircraft-noise-information, where one can submit complaint information and view the public WebTrak system that maps the movement of flights, air traffic patterns and noise level readings, as well as updates to the recently initiated Part 150 noise compatibility studies for each airport.

June 24, 2015

UVPM: N/A

Registering their concerns about aircraft noise

Residents and pols point for the need to get more information

By **Vanessa Parker**



VANESSA PARKER/HERALD

The Environmental Science Associates consulting firm was selected to work with the Port Authority on the state mandated noise study. ESA spokeswoman Jennifer Hogan explained which area her firm is studying.

Opinions from residents to elected officials were positive about the purpose of the first public workshop meeting held by the Port Authority of New York and New Jersey, in conjunction with the Federal Aviation Administration and noise study consulting firm Environmental Science Associates (ESA) on June 17.

The meeting focused on the ESA's work in conducting a noise study referred to as Part 150. The goal is to measure aircraft noise levels and create noise level maps of communities surrounding John F. Kennedy International Airport, and find ways to develop airport-community land usage to abate air and noise pollution.

At the workshop, representatives from the ESA and Port Authority were on hand to allow the public to ask questions to gather understanding about how long the study will take, what tools are

being used to gather aircraft noise information, and how that data would be used.

Ron Marsico, a Port Authority spokesman, said that they have been working with ESA since last fall. "The Governor called for the Part 150 study in the fall of 2013," he said. "The entire Part 150 Study from start to finish will take approximately three to four years to complete." He added that the Port Authority has measured noise levels in the past and will continue to do so in the future.

Betty Braton, the chairperson from Community Board No. 10 in South Ozone Park, Queens, said she thought the study was "a good thing" being done. "As a long-term project, this is good because we will get more noise data from it," she said. "The study of noise with this project could do something to regulate it in the future. If nothing else, it could generate fresh data."

East Rockaway resident Karen Calma said she was glad she came because she and her husband, Charlie, wanted to see specific information about flight patterns over their Bay Park neighborhood.



VANESSA PARKER/HERALD

The Environmental Science Associates consulting firm was selected to work with the Port Authority on the state mandated noise study. ESA spokeswoman Jennifer Hogan explained which area her firm is studying.

Order Photos ▶

said he was glad that the Port Authority held the information session. "Many residents in my district are extremely frustrated at the increased airplane traffic and resulting noise disturbances," he said. "In April, I wrote to the [Federal Aviation Administration](#) with Assemblywoman Michaelle Solages (D-Elmont) urging them to hold a community meeting to discuss how these changes in flight patterns have impacted residents."

For more information about the study, visit www.panynjpart150.com. To submit a formal comment, send an email to nypart150@panyny.gov.

"By participating in this forum, maybe we can have planes taking off in a different place," she said. "I'm submitting an observation. After we lost our home from [Hurricane] Sandy, we stayed at our friends' house in Floral Park. I couldn't believe the noise level of planes overhead." Village of Cedarhurst Mayor Benjamin Weinstock said that he attended the meeting to make it clear to Port Authority officials that decreasing aircraft noise is an important issue. "Unless we become more proactive on the South Shore, we'll be the unhappy recipients of more aircraft noise," Weinstock said. "I think that the goal of such a meeting is to pay attention to learn more about the study and be better informed. If you go to make noise, that's good, but to go, learn what's happening and have a say in the study and in monitoring aircraft noise, that's the most ideal." Assemblyman Todd Kaminsky (D-Long Beach)



July 16, 2015

Members of the Quiet Skies Caucus Send Recommendations to House Transportation and Infrastructure Committee Ahead of the Introduction of the FAA 2015 Reauthorization Act

Jul 16, 2015 | Press Release

Washington – Today, Members of the Quiet Skies Caucus – Rep. Steve Israel (NY-03), Rep. Ruben Gallego (AZ-7), Rep. Grace Meng (NY-06) and Rep. Mike Quigley (IL-05) – sent a [letter](#) to House Transportation and Infrastructure Committee Chairman Rep. Bill Shuster and Ranking Member Rep. Peter DeFazio with recommendations for the 2015 Federal Aviation Administration Reauthorization Act that would help address the harmful impacts of aircraft noise on communities across the country.

The [letter](#) makes the following recommendations:

1. Mandate a robust community engagement process, including pre-decisional public hearings, for new flight paths or procedures or changes to existing flight paths and procedures.
2. Require FAA to use supplemental noise metrics when considering the impact of aviation noise on affected communities and lower the acceptable noise threshold for affected homes and businesses.
3. Clarify that airport operators are legally allowed to implement—and should strongly consider—noise mitigation options in communities experiencing aircraft noise levels below the current noise threshold.
4. Reform Section 213(c)(2) of the FAA Modernization and Reform Act of 2012, which allows FAA to short-circuit the environmental review process when implementing new flight paths.
5. Mandate independent research on the health impacts of aviation noise.

“Long Islanders and Queens residents know all too well the effects of airplane noise thundering above their homes and businesses. As they go through the process of reauthorizing the FAA, I urge Chairman Shuster and Ranking Member DeFazio to work towards finding solutions for communities who are affected by airplane noise, and I believe implementing the recommendations in our letter would represent a substantive step forward towards improving⁷⁶ the quality of life for our citizens,” said **Rep. Steve Israel**.

Rep. Ruben Gallego said, “I strongly encourage Chairman Shuster and Ranking Member DeFazio to consider these recommendations. The FAA’s flight path changes in Phoenix resulted in serious harms to our communities and this issue must be addressed.” He added, “The FAA must do the appropriate community engagement and research before making changes that will affect the public, and these recommendations are a good first step to guarantee that they do so. This issue is not going away and without clear direction from Congress, the new flight paths being implemented through FAA’s NextGen program will continue to reduce the quality of life of communities throughout the country.”

“My district in Queens, New York – and many other communities across the country – continue to suffer from the blistering sounds of airplanes, and that excessive noise is negatively impacting the quality of life in the neighborhoods we represent,” said **Rep. Grace Meng**. “Many of the recommendations we outline in our request are measures that I’ve pushed for since I was elected to Congress, and incorporating our suggestions into this broad FAA bill would be the most effective legislative vehicle to address the problem of aircraft noise. Relief can’t come soon enough for those affected by the barrage of airplanes. I respectfully ask the committee to include our recommendations in the bill.”

“My constituents back home in Chicago are facing unprecedented noise pollution that is eroding their quality of life, lowering their property values, and impacting their health,” said **Rep. Mike Quigley**. “I’ve been working hard to explore solutions to mitigate noise at the local level as well as at the national level with my colleagues in the Quiet Skies Caucus. The reauthorization of the FAA offers a unique opportunity to address airplane noise pollution, and I urge my colleagues on the Transportation and Infrastructure Committee to incorporate new ways to mitigate noise for our constituents in upcoming FAA legislation.”

###

July 22, 2015

UVPM: N/A

Americans Set Highest Travel Record In Years

BY RICHARD GENTILVISO

An estimated 222 million travelers are expected to fly from June 1 through August 31 this summer, making it the busiest in the history of US air travel since 2007 when the previous record of 217 million travelers was reached before the economic downturn, according to Airlines For America, an industry group for the largest US air carriers.

A big chunk of the average 2.4 million daily US air travelers are arriving and departing from John F. Kennedy International and LaGuardia Airports here in [Queens](#) and the Port Authority of [New York](#) and [New Jersey](#) made a presentation on the upcoming Part 150 airport noise compatibility studies for JFK and LaGuardia to the Queens Borough Board and Borough President Melinda Katz in June.

In November 2013, Governor Andrew Cuomo directed the Port Authority to conduct airport noise studies for JFK and LaGuardia to address concerns about noise from residents of [Queens](#) living in close proximity to the two major airports.

The Port Authority has also begun noise roundtables to bring together representatives of the community, elected officials, the Port Authority and the Federal Aviation Administration (FAA) to discuss solutions to the problem of noise.

"A lot has happened and we are more engaged with the community than we were," said Edward Knoesel, a senior manager for environmental and noise programs at the Port Authority in a June 22 [New York Times](#) report.

Concerns over airport noise in [Queens](#) are not new, but a change by the FAA in 2012 approving the increased use of a takeoff trajectory from LaGuardia airport over northeastern Queens aroused a community protest response.

"It sounded like we were being strafed," said Janet McEneaney, a founder of Queens Quiet Skies. Nearly 361,000 flights come in and out of LaGuardia each year.

In response, besides the Part 150 studies, which have not yet begun and are expected to take at least three years to complete, the Port Authority has instituted more immediate changes.

The number of noise monitors in the borough has been doubled to at least 27 and the Port Authority has tripled the size of their Noise Office dedicated to noise issues. A web portal, WebTrek, has also been made available to monitor flights and noise. The site shows near real time aircraft traffic and their resulting effects on noise monitors. The Port Authority has also improved its noise complaint system.

The FAA uses the average airplane noise exposure in a specific location over a year to measure noise impact with an allowable limit of 65 decibels, but community activists are demanding still more noise monitors.

Public workshops near both JFK and LaGuardia by the Port Authority presented information about the upcoming noise study in June. A second round of public workshops by the [PA](#) is scheduled for spring, 2016.

July 23, 2015
UVPM: 69,000
Circulation: 75,000

JULY 23, 2015 / NEWS / TRANSIT ISSUES

Members of Congress push for stricter aircraft noise controls

By Tom Momberg

The three members of Congress' Quiet Skies Caucus from Queens are pushing for tougher aircraft noise controls amid growing concern over the health of residents living near major U.S. airports.

The Quiet Skies Caucus was created in 2014 to work to reduce the impact of aircraft noise in the urban communities they represent across the country. Its members sent recommendations for new noise mitigation strategies to the House Transportation Committee last week, ahead of the introduction of the Federal Aviation Administration Reauthorization Act this September.

Members of the caucus, including U.S. Reps. Grace Meng (D-Flushing), Steve Israel (D-Melville/Queens) and Joe Crowley (D-Jackson Heights), said they have been increasingly worried about the effect aircraft noise from John F. Kennedy and LaGuardia Airports has had on their constituencies.

"One of the things that is happening here, what my colleagues are beginning to realize ... and what I think the creation of this caucus says, is that aircraft noise is not just a regional issue, but a national issue," Crowley said during a phone interview.

The congressman said he feels confident the caucus' recommendations will be heard by U.S. Rep. Bill Shuster (R-Pa.), the Transportation Committee chairman, and U.S. Rep. Peter DeFazio (D-Ore.), the ranking member, and can have a strong impact on the way the FAA considers public health in its oversight of major U.S. airports.

The upcoming legislation and reauthorization of the FAA comes as the FAA is conducting a survey of residents around 20 unidentified major U.S. airports, intended to help the administration come up with new recommendations for noise monitoring by 2016.

Similarly, Gov. Andrew Cuomo has mandated the Port Authority of New York and New Jersey to conduct its own study in Queens based on current federal guidelines.

But if the Quiet Skies Caucus' suggestions make it into the FAA reauthorization legislation, the findings of its survey or of the Port Authority's study may be superseded by stricter rules regarding noise monitoring and aviation noise mitigation strategies.

Meng said she has been disappointed with the FAA's communication over noise issues from city to city, so any new requirements could only be a positive development.

"I think this can really improve the situation for our constituents and work harmoniously together with what the Port Authority is doing," she said in a phone interview.

Crowley said because the FAA is balancing the interests of commerce, industry and people, it should be up to the House to make its urban constituents a higher priority for the FAA in considering any future changes to airport functions or flight patterns.

Firstly, the caucus has suggested a mandate for more robust community engagement and hearings before flight paths or procedures are changed or new ones are introduced.

The proposed recommendations would also require the FAA to use a supplemental noise metric, or the characterization of noise effects in lay terms, rather than the current measurement system that is often too complex for the public to understand.

This proposal would also lower the acceptable noise level at which federal money could be made available for noise mitigation in affected residential and commercial areas.

The caucus has also recommended airport operators be legally permitted (they are currently not) and urged strongly to consider noise mitigation strategies on their own for communities experiencing aircraft noise levels below the federally acceptable noise threshold.

Other recommendations would be to reform the FAA Modernization and Reform Act of 2012, which allowed the FAA to sidestep the environmental review process in implementing new flight patterns, and mandate independent research on the health impacts of aviation noise.

July 28, 2015

Circulation: 2,294,093

UVPM: 37,537,813

La Guardia's Makeover Likely Won't Ease Delays

JACK NICAS and SUSAN CAREY July 28, 2015

The planned overhaul of La Guardia Airport would make for a nicer experience for fliers, but it likely would do little to alleviate the congestion in New York's skies or beyond, aviation analysts said.

New York Gov. [Andrew Cuomo](#) and other officials unveiled plans this week to unify three of La Guardia's decades-old terminals into a gleaming single structure by 2019. The plan includes space for a tram, meeting areas, a potential hotel and rail and ferry links.

It also calls for pushing the terminal about 600 feet closer to the Grand Central Parkway and elevating parts of the building so airplanes can taxi underneath. Officials said those changes would create an additional 2 miles of taxiway space, allowing for more efficient circulation of aircraft and reduced taxi times that "will yield shorter and fewer gate delays."

Air-traffic experts said the additional taxiway space could reduce traffic jams at La Guardia's gates, freeing them up more quickly so that arriving flights can get to the gates more quickly and departing flights can push off from gates earlier. But experts were skeptical the redesign would do much to reduce delays, because aircraft will still be waiting in line on the tarmac to take off from the airport's same two runways.

"It's a bigger parking lot," said New York-based airline consultant Robert Mann, a former airline executive. "Planes will be away from the building, so they're not congesting gates. But at the end of the day, they're not taking off or landing any faster."



New York Gov. Andrew Cuomo and Vice President Joe Biden unveil plans for La Guardia Airport's overhaul. Photo: AP

A spokesman for the Port Authority of New York and New Jersey, which manages La Guardia, said the agency isn't "going to be able to change the airspace over La Guardia.... But the best thing we can do as an airport is to alleviate delays on the ground."

La Guardia, opened in 1939, has long been among the most congested U.S. airports. It accounts for 2.2% of completed flights in the

U.S. but 2.5% of the delayed departures and 2.8% of the delayed arrivals.

In the 12 months through June, about 27% of the flights arriving at La Guardia were at least 15 minutes late, the third-worst rate among the top 30 U.S. airports, behind San Francisco and Chicago O'Hare International, according to aviation-data provider masFlight. About 22% of La Guardia's departing flights in that period were at least 15 minutes late, 10th-worst.

La Guardia also had nearly seven tarmac delays of at least an hour for every 1,000 flights in 2014, the highest rate in the U.S., according to the Global Gateway Alliance, a group that pushes for improvements to New York's airports. The next two highest rates were at the New York area's two other major airports, John F. Kennedy International and Newark Liberty International.

The two biggest challenges for improving La Guardia's punctuality and efficiency are airspace congestion and runway capacity—two issues the redesign doesn't address, said Robert Poole, director of transportation policy at the Reason Foundation, a libertarian think tank.

He said there is little chance La Guardia would ever be able add a runway, because of the expense, space constraints and an increase in aircraft noise that would draw pushback from area residents.

There is more hope for making the city's airspace more efficient. Flight arrival paths at some New York airports conflict, forcing air-traffic controllers to keep planes separated in ways that can bog down arrivals and departures, Mr. Poole said.

The Federal Aviation Administration is working to redesign greater New York's airspace and said it completed the first two phases in May. It is now modifying its approach and over the next year will begin new efforts to further reduce delays, as it has done in other metropolitan areas where multiple airports operate in proximity.

The FAA said it is reviewing the plans to redevelop La Guardia and will discuss the project with the Port Authority.

Michael Baiada, a retired airline pilot who advises airlines on making their operations more efficient, said the delays that plague La Guardia and other airports are the result of an inefficient air-traffic control structure—“a monolith of layers that’s not going away because there’s no other way to do it. If I’m a controller, you need that structure.”

A study last year for Airlines for America, the industry’s leading trade group, said air-traffic-control delays increased at 13 of the largest 20 U.S. airports from 2004 to 2013, even though traffic declined at the same time. The report said that air-traffic delays at La Guardia rose 15% to an average of 60 minutes over the period.

Global Gateway said it was hopeful more taxiway space would reduce delays by allowing aircraft to maneuver more easily to and from gates.

The redesign “is a good first step,” the group said. “However, you can’t blame your parking lot for traffic jams” in the airspace. It said the way to eradicate chronic delays would require the rollout of NextGen, an FAA program to replace the country’s outmoded air-traffic radar system with new satellite-based technology. That effort, however, has been mired for years in bureaucratic battles and cost overruns.

“Basically it seems to be a lot more amenities and the same amount of runway and airspace capacity,” Mr. Mann said of the La Guardia overhaul. “I guess you’ll have a nicer place to sit while you’re delayed.”

July 29, 2015
UVPM: 467,876

Pols Vow to Keep Community Interests in Mind During LaGuardia Renovation

Katie Honan | July 29, 2015



The major overhaul of LaGuardia Airport could put a strain on the neighboring communities.

Office of NYS Governor

EAST ELMHURST — The [estimated \\$4 billion gut renovation of LaGuardia Airport](#) will turn the outdated place into a modern facility, but local pols said they'll fight to keep the community's best interests in mind during construction.

The plan was praised Monday after it was announced by [Gov. Andrew Cuomo](#) and [Vice President Joe Biden](#), who last year said the airport resembled a “third-world country”

The dig about [LaGuardia](#), which is widely considered one of the worst airports in the country because of its outdated facilities and delays, prompted [Cuomo to launch a design competition for smaller renovations](#).

But after trying to develop a larger plan for the airport, Cuomo said the [Port Authority](#) realized it couldn't be fixed piece by piece.

“We need to literally tear it down and rebuild it,” he said.

K-288

Construction, set to begin in 2016 with completion by 2021, will include demolishing Terminal B to build a larger, central terminal that is 600 feet closer to the [Grand Central Parkway](#).

This restructuring will create 2 miles of new space for planes to taxi, which will reduce delays, officials said.

And while the panel overseeing construction and offering suggestions skews heavily towards developers — it’s lead by Dan Tishman, chairman of the Tishman Construction Corporation and a top donor to Cuomo — it also includes [Borough President Melinda Katz](#), who said the communities around LaGuardia are her top priority.

“My role on this committee was to take into account the community concerns of rebuilding the airport,” she said.

“One is rebuilding the actual site, and the other is clearly the noise [from air traffic.]”

Noise from increased air traffic is currently being examined through a [study with the FAA](#), which will give a more accurate assessment of air traffic noise from planes landing and taking off from LaGuardia, Katz said.

“It’s really the first time we’re going to be placing monitors to get a vision and a reading on the perimeter of the noise,” she said.

It’s not clear how the findings of the current noise study will be taken into consideration with the new construction, especially this early on.

Some of the other ideas from the panel, like increased parking at the airport and reconfiguring the site’s roads, stemmed from traffic concerns around the surrounding areas, Katz said.

There will also be a “cell phone lot” so people picking up travelers don’t idle on residential streets or on the shoulder of the Grand Central Parkway, she said.

[State Sen. Tony Avella](#), who has been active with groups pushing to limit air traffic congestion, said he has concerns about traffic increases and additional flights over Queens.

“We need to ensure that as this project goes forward, we are addressing these and any other issues that arise,” he said in a statement.

July 30, 2015

UVPM: 70,574,252

Construction Plans for La Guardia Airport Don't Faze Its Neighbors

KIRK SEMPLE JULY 30, 2015

One cannot live any closer to the terminals of [La Guardia Airport](#) than the residents of East Elmhurst, Queens. Some homes sit only a few hundred yards away from the control tower, on the opposite side of the Grand Central Parkway. The new \$4 billion airport hub envisioned for the site, [announced this week by Gov. Andrew M. Cuomo and Vice President Joseph R. Biden](#), would be even closer.

So it might be assumed that the promise of years of heavy-duty construction and the associated noise, traffic and dust would fill residents with dread.

Not quite.

"We live in New York City, honey," said Michele Mongeluzo, 56, whose house sits on a rise just south of the parkway, offering an unobstructed view of the airport and the proposed construction site. "If you want country living, move to the country."

In interviews this week along the blocks closest to the airport, residents almost universally said that they not only had no trepidation about the construction but that they also actually welcomed it. Improvements, they said, were long overdue.



Michele Mongeluzo, whose house is near La Guardia Airport in East Elmhurst.

Furthermore, they suggested, what was a little construction on top of the [aural challenges](#) — the roaring jet engines, the chop of helicopter rotors, the incessant highway traffic — that they had already contended with and apparently overcome?

“If it’s noisy, I’m used to it,” said Freddy Fuhrtz, 75, who retired as an employee in the cargo division of Pan Am and still lives in the two-story house on 92nd Street where he grew up and raised his children. “It’s progress.”

The seemingly broad support for the project, and the willingness to deal patiently with any related inconveniences, appears to be rooted in an abiding loyalty to the airport. Some residents seem to regard it with the same sort of fondness that residents elsewhere might view a beloved local restaurant or bar.

[La Guardia](#) has always been part of the economic fabric of the neighborhood, providing employment for residents; pilots and flight attendants rent apartments in the area to use during layovers. Some residents recall playing in the terminals as children, back when security was light and they could easily roam as far as the departure gates.

“I love La Guardia!” said Winston Liao, 30, an Asia Bank employee who has lived nearly all his life in East Elmhurst. “Growing up, we used to spend our days there.”

Tanzila Rahman, 39, who moved to the neighborhood with her family two years ago, said she and her relatives occasionally took walks over to the terminals. They particularly enjoy strolling in a grassy area near the terminal.

“It’s like a little meadow,” said Ms. Rahman, who is from Pakistan.

Neighborhood pride runs deep in East Elmhurst. Sitting north of Jackson Heights and Corona, the neighborhood is a mostly residential area of modest two- and three-story homes. Once people settle there, [they tend not to leave](#).

Because of the trajectory of flights, airplane noise for much of East Elmhurst mostly amounts to the periodic and muffled whoosh of a departing flights or the faint whine of taxiing aircraft. As for the traffic on the Grand Central Parkway, the buffers of distance, vegetation and acoustically designed walls have insulated much of the neighborhood from the noise.



Homes in East Elmhurst, Queens, like these at 98th Street, are currently a few hundred yards from the La Guardia control tower. After the overhaul, that distance will close to about 400 feet. John Taggart for The New York Times

But even where aircraft and vehicle traffic is plainly audible, residents do not seem terribly bothered.

“I don’t hear airplanes,” Juan Amalbert, 65, said as a commercial jet took off from a runway near where he sat on Ditmars Boulevard drinking tea and eating chocolate chip cookies. He shook his head: He had not noticed the plane.

“At first there seemed to be a lot of noise,” said Blanca Segovia, 36, a hairdresser, who moved with her family into a two-unit house on 100th Street a decade ago. “We’re used to it now.” Planes taxiing on the runways are visible from her front steps.

“My son has friends stay over, and they are like, ‘There’s so much noise!’ And I’m like, ‘What noise?’ ” said Ms. Mongeluzo, who has lived nearly all of her life in East Elmhurst or neighboring Jackson Heights, the last 21 in the house overlooking the airport.

Her unsentimental advice for anyone troubled by it? “You’re in the city. Get over it!” Also, “Move further away.”

The development plan calls for the demolition of the central terminal, the parking garage and surface lots; the relocation of other terminals; and the construction of a new, unified hub. Renderings show a sleek, sweeping arc of steel and glass hugging the north side of the parkway. Construction is scheduled to begin next year and to be completed by 2021.

Judging by the renderings, some residences may be about 400 feet from the new hub.

State Senator Jose Peralta, whose district includes East Elmhurst, said his office had already received calls from residents in Astoria Heights, a neighborhood to the immediate west of the airport, who were concerned about the project's effects on flight patterns and aircraft noise pollution. But the residents of East Elmhurst, the neighborhood closest to the planned construction site, have been relatively quiet.

In interviews with East Elmhurst residents, however, nearly all said they did not anticipate any problems associated with the construction.



By The New York Times

“They’ve got to do what they’ve got to do,” said Serge Desvarieux, 67, a school bus driver. On a recent afternoon he was cleaning the forecourt of the two-unit, two-story house he bought on 93rd Street nearly two decades ago.

The project, Mr. Desvarieux said, will be “an upgrade to the neighborhood.”

A federal review of the Port Authority of New York and New Jersey’s [environmental assessment](#) for the project concluded that the state’s plan, which is loaded with mitigation measures, would cause “no significant impact” on traffic, air quality and noise pollution.

Construction equipment noise is expected to be “well below” state and city “significance thresholds,” according to the review. Most of the construction activities would go unnoticed compared with “the normal background noise levels in the area.”

Mr. Liao, who lives with his sister and parents in a house on 23rd Avenue K-293
down the block from Ms. Mongeluzo, said neighborhood residents seemed more troubled by other matters, like the scores of Uber drivers who parked illegally along the neighborhood's streets waiting for calls, or the proliferation of homeless shelters (there are already three).

"Shelters and cabs: problem," Mr. Liao said. "Airport: not a problem."

Only one person encountered along East Elmhurst's streets seemed put off by the potential nuisance.

One afternoon this week, Mobassera Brodhan, 40, a real estate agent, was hauling a bag of trash from a house on 23rd Avenue. She recently closed on the house and was preparing to move in with her family. But Ms. Brodhan, who is from Bangladesh, had missed the news about the airport overhaul. The new hub would rise about 800 feet from her front door.

"Oh, wow!" she exclaimed. She started to laugh: the good-natured victim of some kind of cosmic joke. "What a surprise!"

She asked when the construction was supposed to begin. Would it be during the daytime only?

"One more year we have here," she said. "I know construction. Construction makes so much noise." She laughed some more. "We can rent it out. Or sell it."

But she found it hard to entertain the possibility that the noise might not be so bad or that she might get used to it in time. She was new to the neighborhood. "Until it starts, we don't know," she said.

August 7, 2015

UVPM: 81,109

No Fly Zone: Council Members Push Helicopter, Drone Regulations

by [Catie Edmondson](#), Aug 07, 2015



Pointing to insufficient efforts on the part of the Federal Aviation Administration, New York City Council members are taking regulation of the city's skies into their own hands.

In asserting their authority with respect to helicopters and drones on a turf traditionally maintained by the federal government, council members may find themselves in ambiguous legal territory. But they tell Gotham Gazette that they are acting in the interest of public safety and in part to push other levels of government to act.

Council Members Carlos Menchaca, Helen Rosenthal, and Margaret Chin introduced a legislative package of [two bills](#) last month that would prohibit the operation of sightseeing helicopters, citing concerns about noise pollution. The council members are supported by "Stop the Chop NYNJ," a group of community members who complain the noise from sightseeing helicopters are diminishing quality of life.

"What we've tried to do is approach this issue from the perspective of the FAA, from the federal body that's required to regulate this industry. And we've tried so hard to regulate this industry to some avail, but not totally dealing with the problems," Rosenthal said at a press conference in July. "What we've done at the City Council is identify a different way to deal with the problem, and that is through the issue of noise. And in fact what the city can do is to ban tourist helicopters...they are responsible for this incessant noise."

The City Council does not have the authority to regulate airspace over the city in terms of flight patterns— that's under the purview of the FAA. But the council does have some regulatory power, as Rosenthal referenced.

"If the federal government is regulating a field, then federal law generally will trump state law or local law and the question is, did the federal government intend to preempt the field— that is, is the federal government doing all regulations of all helicopters, or did it allow some discretion to the City of New York?" Steven Mirmina, a professor at Georgetown Law and expert in aviation law, told Gotham Gazette. "It looks like [City Council members] did a balancing where they said the federal government regulates a lot of aspects for helicopters, but there is some discretion for the city to regulate also."

Part of the regulatory power stems from the city's capacity as a proprietor, according to aviation attorney Brian Alexander.

"The heliports themselves are owned by the city or the Economic Development Corporation, so...their control of the heliports is the principal way in which the city can control or even ban these types of flights," Alexander said.

This power was affirmed in 1998 after Mayor Giuliani and the City Council approved regulations to reduce helicopter traffic at the 34th Street heliport by nearly 50 percent and to ban weekend flights. The Second Circuit Court largely upheld City Hall's regulations in an appeal after the operator of the heliport, National Helicopter Corporation, successfully sued the city. K-296

As proprietors of the heliports, the City Council has the power to impose "reasonable, nonarbitrary, and non-discriminatory" regulations on noise levels. In the 1998 case *National Helicopter Corporation v. City of New York*, the Court held that the city was acting lawfully in its role as a proprietor— and not as a "police power" - when imposing regulations. Had the city been acting as a police power, the legal grounds for regulating the heliports would have been much more tenuous.

"The regulation [banning weekend flights] is based on the City's desire to protect area residents from significant noise intrusion during the weekend when most people are trying to rest and relax at home," and thus was permissible, Chief Judge Winter wrote in the decision.

Importantly, the bill introduced last month prohibits the operation of helicopters based on their "stages," or noise levels designated by the FAA (There are three stages— the bill bans all of them). When the Council tried to regulate noise from helicopters in 1996 by putting restrictions on the size of helicopters that could fly in and out of the 34th street heliport (the rationale being that larger helicopters are noisier), the Second Circuit Court found that such regulation was discriminatory.

But Mirmina, the law professor, pointed out that the helicopter bill's scope— targeting only sightseeing helicopters— could be problematic.

"If they're concerned about the noise, they could say no helicopters over a certain decibel level. What about media helicopters? Those could be noisier than the tourist helicopters. You could have a sightseeing helicopter that's really quiet. Why are we going to ban all sightseeing helicopters?" Mirmina asked. "So such a ban to me is, while on its face nondiscriminatory, it may also be viewed as not reasonably calculated to achieve their objective of keeping the skies more quiet."

Another potential problem with the bill: because the city does not have the authority to control airspace, it can't ban the tours outright.

"Anything that the city does regulating helicopters...will have no effect on how many helicopters will fly in the city's airspace, that is 100 percent under the control of the FAA," said Chapin Fay, vice president of Mercury, the public strategy firm representing tour industry group Helicopters Matter. "So for example, they could take off and land in New Jersey, they could go to Connecticut or Long Island but they still could fly the same routes they're flying now."

But sightseeing helicopter operators in New Jersey may soon find themselves shut out of the state as well: in March, three Garden State Assembly members introduced a [bill](#) that would prohibit tourist helicopter operations from taking off and landing on "all aviation facilities licensed by the state."

The bills, now introduced to the City Council Committee on Environmental Protection and with eight sponsors in the 51-member body, may see a first hearing as soon as September. They are the latest in a long line of efforts to regulate helicopter traffic in New York.

In 2010, the Economic Development Corporation and helicopter operators agreed that helicopters would no longer fly over Central Park, the Empire State Building, or Brooklyn. The agreement also eliminated short tours between four and eight minutes. Those tours made up one-fifth of sightseeing traffic at the Downtown Manhattan Heliport, and were the most profitable for helicopter operators, the New York Times [reported](#).

In 2008, Air Pegasus, the operator of the heliport at 30th Street, agreed to eliminate sightseeing tours after the Friends of the Hudson River Park [sued the](#) company, arguing that the location of the heliport on the land side of the park violated the law. This agreement— paired with the 1998 ruling of *National Helicopter Corp. v. City of New York*— left the downtown Manhattan heliport the only one open to sightseeing tours.

Drones

While helicopter regulation has a fairly lengthy New York City history, drone regulation does not. The question of the extent of the city's authority to regulate aircraft becomes perhaps more pressing— and more ambiguous— as unmanned aviation vehicles (UAVs), or drones, become more prevalent.

U.S. Senator Chuck Schumer (D-NY) famously described New York City as the “wild west” of drones. Underlining his point is the series of [near-collisions](#) drones have caused near John F. Kennedy and LaGuardia Airports and a [close call](#) with a NYPD helicopter over the George Washington Bridge, to name a few of the twelve or more incidents in the past year alone.

In considering regulation, elected officials have also cited privacy concerns, as drones with cameras attached to them become more affordable for the average citizen to purchase. But federal regulations lag behind the increase in popularity.

In 2012, Congress passed a reauthorization act related to the FAA that, among other requirements, compelled the agency to release finalized rules for UAVs by September 2015. A government audit last March, one month after the agency [released](#) proposed rules, [concluded](#) they would not make the deadline. Finalized rules are not expected for another year.

In the interim, state and local governments are under pressure to tread into the murky territory of drone law.

“Local governments right now are in a really tough position when it comes to drones. And in New York I think that’s probably especially true, not just because of what happened at JFK last week. So every time there’s a negative drone incident, it puts additional pressure on local officials,” said attorney Stephen Hartzell, who specializes in UAS law.

Queens District Attorney Richard Brown released a [statement](#) Tuesday urging hobbyists to “use common sense when choosing to employ unmanned vehicles,” noting that his office “will utilize all legal tools available to insure the safety of those in the air and on the ground.” Queens, of course, is home to both of the city’s major airports.

City Council members have introduced two bills looking to curb the use of drones. [One](#), introduced by Council Member Dan Garodnick would ban drones from the city’s airspace with the exception of NYPD drones that had obtained a warrant. In an interview with Gotham Gazette, Garodnick acknowledged that his bill starts from the “strictest possible place.”

"Our bill is very strict, largely because there exist insufficient tools for enforcement. If you start allowing drones at certain heights or in certain areas or conditions, law enforcement needs to have the ability to both monitor and take action when people do not follow those rules," Garodnick said in reference to what could become quite onerous enforcement. "Today, there is no credible way to do that."

Garodnick said that he believes there is reasonable place and time for drone enthusiasts to operate their unmanned aerial systems, but doesn't want to "open the floodgates" before tools to enforce regulations exist.

The [second](#) bill, introduced by Council Member Paul Vallone, would seek to impose a series of regulations on drone usage.

Vallone's bill would prohibit using UAVs for surveillance purposes, at night or operating them within five miles of any airport and within a quarter mile of schools, houses of worship, hospitals and "open-air assemblies." Importantly, it also would require users to operate their drones within their line of sight, a requirement also suggested by the FAA.

"The legal side of me is always looking to put in a bill that's actually got a good chance of passing, an outright ban on something to me is a real hard way to go about a proper balance," Vallone said. "This bill was put in with the intention of trying to find a balance of places that really need to be protected and giving people a place to fly these if they so choose to do so for their recreation."

The two drone bills take different degrees of approaching the same issue. Both bills enjoy support from other council members: Garodnick's bill has 14 sponsors, Vallone's has 23 (as of August 7). Interestingly, there's overlap within those numbers, with Council Members Costa Constantinides, Daniel Dromm, Julissa Ferreras, Rory Lancman, and Jumaane Williams listed as co-sponsors of both bills.

Vallone explains his bill would act as an interim measure until the FAA releases final rules for UAS operation.

"With the absence of federal, or FAA, guidelines, then we as the greatest city have to take steps to protect ourselves. Once we have our hearing - let's be positive - the bill gets passed and becomes law, it still would be preempted or superseded by whatever FAA guidelines come out," Vallone said. "But hopefully they would take note of the steps we took as a city."

Garodnick struck a somewhat cooler stance when asked how he envisioned his bill would interact with the FAA's forthcoming regulations.

"When the FAA puts together rules that protect the safety of New Yorkers, and when they fully occupy the field of law with their own rules, we will defer. Until that happens, we need to act to protect the privacy and safety of people here," Garodnick said.

Whether local governments' efforts may be preempted by FAA regulation is unclear and likely won't be resolved for several years, according to Hartzell, the attorney.

"It's very easy for people to say, 'wait a second, isn't this preempted? The FAA regulates the airspace, the federal government has sovereignty over our airspace so therefore how can any local or state authority possibly do anything?'" Hartzell said. "And the answer is, it depends on what they want to do and how they do it, and what I promise you is that we won't fully know unless and until there is a law passed that winds up being challenged in court."

To Hartzell, an interesting ambiguity in both Vallone's and Garodnick's bills is the clause that would allow someone to operate a UAV "pursuant to and within the limits of an express authorization by the Federal Aviation Administration."

Express authorization, according to Hartzell, could be interpreted to include [FAA Advisory Circular 91-57](#), which sets voluntary guidelines for flying model aircraft. Though the circular was signed into effect in 1981, its scope includes recreational drones (the FAA put in a [request](#) last year to formally cancel the advisory).

"There's going to be someone that challenges a rule or law that flatly prohibits drone operation. This [language] is interesting because it seems to contemplate some sort of operation as long as somebody is expressly authorized by the FAA," Hartzell said. "So the question is, what does that mean? It could mean that the FAA has to grant somebody specific permission or what somebody is likely to argue is [the advisory circular] could be interpreted as an express authorization written by the FAA itself."

Garodnick told Gotham Gazette that he does not interpret AC 91-57 as giving "express authorization" because it's an advisory memo, not an individual grant.

The FAA does grant companies and individuals such authorizations, giving them the permission to operate drones in a "continuing effort to safely expand and support commercial unmanned aircraft operations in U.S. airspace." The FAA has [passed over 1000](#) of these so-called "Section 333 exemptions." Those who receive Section 333 exemptions would be allowed to operate drones over the city, Garodnick said.

"Councilman Vallone and I are after the same thing, which is a responsible set of rules that protects New Yorkers in a changing technological environment. We put those bills out to start this conversation," Garodnick said (he and Vallone held a joint press conference to announce their bills). "We want to hear feedback from the public at a hearing and we hope that we will be able to craft cutting edge rules which protect New Yorkers and also open the door to some of the novel and exciting uses for drones once we have appropriate enforcement mechanisms."



August 12, 2015

08.12.15

SCHUMER, GILLIBRAND ANNOUNCE OVER \$3 MILLION IN FEDERAL FUNDING TO HELP STUDY & ADDRESS AIRPLANE NOISE IN-AND-AROUND JFK AIRPORT; SENATORS URGE PORT AUTHORITY TO EXPEDITE COMPLETION OF STUDY

Part 150 Study Will Better Evaluate Noise Impacts to Communities Surrounding JFK Airport; Senators Have Long Supported Part 150 Study, And Other Ways to Address Airplane Noise

Schumer, Gillibrand Announces \$3.1 Million in Federal DOT Funding for JFK's Noise Compatibility Study; Senators Urge Port Authority to Speed Up Study So That Noise is Remediated As Soon As Possible

U.S. Senators Charles E. Schumer and Kirsten Gillibrand today announced \$3.1 million in federal Department of Transportation (DOT) funding for JFK Airport's "Noise Compatibility Plan Study." The grant helps fund the Part 150 study, which better evaluates noise impacts to the communities surrounding JFK Airport. Schumer and Gillibrand have long supported the Part 150 study, and today the Senators are urging the Port Authority to expedite completion of the study.

"The Part 150 study will finally evaluate the best ways to address noise impacts in communities surrounding JFK airport in both Queens and Nassau. I am pleased that the Department of Transportation has invested millions in this study and I am urging the Port Authority to expedite its completion so that our long sought relief of airplane noise is provided as soon as possible," **said Senator Schumer.**

"This funding will help facilitate the Part 150 study on airport noise control at JFK Airport," said **Senator Gillibrand.** "The Department of Transportation funding would not only assist the Port Authority's evaluation of the problem, but actively involve the community through public hearings and addressing public concerns."

According to the FAA, the Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in significantly noise-impacted areas. The Part 150 study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings.

According to the FAA, public outreach has already begun. Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures (like take-offs and landings) or routing flight paths over less noise sensitive areas or provide sound insulation for homes, schools and other buildings near the airport.

The Part 150 study has two phases. The first phase involves developing noise exposure maps to identify compatible and non-compatible land uses around the airport. The second step involves identifying mitigation efforts, which leads to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation.

Schumer and Gillibrand have long supported measures to help address the issue of airplane noise in local communities. Specifically, Schumer and Gillibrand successfully pushed for a hotline phone number for airplane noise complaints. And, after their urging, New York State directed the Port Authority to hold regular roundtable discussions in collaboration with FAA representatives and other affected parties regarding issues at two major New York airports. Schumer and Gillibrand have urged the Port Authority and FAA to install additional noise monitors at airports and use the data collected to make decisions about changes to flight patterns.

Schumer and Gillibrand today urged the Port Authority to expedite completion of the Part 150 study so that the issue of airplane noise in the New York metropolitan area can be remediated immediately.

###

August 13, 2015
UVPM: 2,600,213

Federal grant adds \$3.1M for study to curb Kennedy Airport airplane noise

By JOAN GRALLA August 13, 2015



A new multimillion-dollar federal grant to study reduction of airplane noise around Kennedy Airport also should speed the project, lawmakers said Wednesday.

Sens. Chuck Schumer and Kirsten Gillibrand, who both helped secure the funding, said in a joint statement that the federal Department of Transportation will contribute \$3.1 million to the analysis, known as a Part 150 study. A similar grant for LaGuardia Airport is expected to be announced soon, officials said.

"The Part 150 study will finally evaluate the best ways to address noise impacts in communities surrounding JFK airport in both Queens and Nassau," Schumer said. Specifically, the study will identify current noise levels, and estimate how they might develop over the next several years, from 2016 to 2021.

Schumer and Gillibrand (D-N.Y.) urged the Port Authority, which owns and runs the area's major airports, to accelerate work on the study. A Schumer spokesman was not immediately available to comment on how much of the study's cost the grant would fund.

Gov. Andrew M. Cuomo instructed the Port Authority last year to conduct noise studies for both airports, which typically take at least three years and cost about \$4 million to \$6 million.

In a statement, the bi-state agency noted the new grant "will help offset the costs of the agency's ongoing Kennedy Airport noise study initiated at the direction of Gov. Andrew Cuomo."

A Port Authority spokesman did not comment on whether Kennedy's Part 150 study now might be finished sooner.

In October, the Port Authority hired a California-based environmental consulting firm to identify which neighborhoods around the two airports endure excessive jet noise, and devise ways of assisting residents. And in June, groups advising the Port Authority on noise abatement at Kennedy and LaGuardia met for the first time.

Methods that might be recommended for reducing noise include modifying takeoffs and landings or routing flight paths over less-sensitive areas, and providing sound insulation for homes, schools and other buildings near the airports.

STATE OF POLITICS

August 14, 2015

UVPM: 17,520

Perimeter Rule Peril

From the Morning Memo:

On July 27th, Gov. Andrew Cuomo unveiled his much anticipated plan for the overhaul of LaGuardia Airport. With Vice President Joe Biden at his side, Cuomo spoke at length about why New York needs to do this now in order to modernize a key port of entry.

The oft mentioned Biden angle is that the Veep once referred to LaGuardia as something more befitting a third world country. Good point. But what the governor did not mention at his presentation is that there appears to be a behind-the-scenes, wink-and-nod deal with Delta Airlines to lift what is known as the perimeter rule.

For the last 30 years, LaGuardia airport has operated under this rule, which prevents flights from traveling more than 1,500 miles. That means if you want to fly to Europe, South America or even California, you need to fly out of Kennedy or Newark Liberty.

The rule became official in 1984, but it had actually been observed for years prior to that. Delta Airlines, which has a major hub at LaGuardia, wants this rule lifted. Delta is investing heavily in the LaGuardia redesign, and it appears as though the airline would be a lot less eager to do that without a change in the perimeter rule.

Flights to Europe tend to involve the larger jumbo jets, and that is where the big money is – not only because more seats can be sold, but those overnight European flights can also be extraordinarily costly to consumers.

In fact, I helped contribute to that windfall a few summers ago when I flew to Spain. You're welcome, Iberia Airlines. For the record, I flew out of Kennedy.

So, Delta is making the big push on this issue, which includes hiring M Public Affairs – the firm run by Maggie Moran and Richard Bamberger, who was once Cuomo's top spokesman. The plot thickens.

Officially, Cuomo has taken no position on lifting the perimeter rule. But if Delta officials are concerned about losing a public opinion war, perhaps they are onto something.

Last week, a group of upstate legislators, led by Assembly Majority Leader Joe Morelle, expressed concern in a letter written to Cuomo that lifting the perimeter rule would reduce the number of smaller commuter flights out of LaGuardia to underserved upstate cities like Buffalo and Rochester. It's hard to grow the upstate economy, they argued, when people can't get there easily.

Next up, Queens and Long Island Lawmakers, who are already adversely affected by airplane noise coming out of LaGuardia, also sent a letter to the governor, saying they also oppose lifting the perimeter rule. Reached by phone, Queens Assemblyman Ed Braunstein, who spearheaded the downstate effort, said:

“Four to five days a week airplanes fly over our districts once a minute from 6 a.m. to midnight. If you lift the perimeter rule, it opens the door to transcontinental flights. That means larger planes loaded up with fuel that are forced to take off at a shallower angle, and are therefore closer to the ground for a longer period of time.”

In other words, you think the noise is bad now? Wait until this change is made.

Signatories to Braunstein's letter included: Sens. Tony Avella and Toby Ann Stavisky and Assembly members Michael DenDekker, Edward Ra, Michelle Schimel, Aravella Simotas, David Weprin, Ron Kim, Nily Rozic, Michael Simanowitz and Michaelle Solages. (Note that they're almost all from Queens, which also happens to be the governor's childhood home).

In response, Cuomo spokeswoman Beth DeFalco said:

"The governor's top advisors met personally with Assemblyman Braunstein this week to listen to his concerns because the governor takes the issue of airport noise very seriously. That's precisely why Governor Cuomo instructed the Port Authority last year to conduct noise studies for both airports. The Governor has also directed the Port Authority to consider any noise impact that a modification to the perimeter rule could have as the Authority studies the rule."

Supporters of lifting the perimeter rule larger airplanes will be coming to LaGuardia in the coming years regardless of whether it is lifted, and they also note that the newer planes are quieter.

Several local Chambers of Commerce have written letters in favor of lifting the perimeter rule, including Queens, Brooklyn, Manhattan, as well as the New York State Business Council and ABNY.

It's probably not a huge surprise that the business community generally supports this idea, while the elected representatives who serve the people complaining about noise and fewer flights to their districts oppose it.

What's more, there is a bit of a claws-out-and-fur-up fight among the three main carriers hubbed in the region – Delta at LaGuardia, JetBlue at Kennedy and United at Newark.

JetBlue and United have both issued statements opposing the change – also not really a surprise, since it will mean more competition for them on those money making routes.

A few other points worth noting...

One would think that New Jersey governor and current presidential candidate Chris Christie would oppose this change. After all, United is hubbed at Newark, and Christie must sign off on any alteration to the perimeter rule, since the vote would come through the Port Authority – an entity that is (ostensibly) jointly controlled by Christie and Cuomo.

It would stand to reason that Christie would stick up for a New Jersey based company, but his office refused to comment.

I'll refrain from going into detail on the [old conspiracy theories](#) about why Christie is content to let Cuomo do whatever he wants with the New York airports.

Suffice to say, it all goes back to the New York gubernatorial campaign last year, when it appeared as though a deal was reached between the two governors for Cuomo to back off of Bridgegate criticism, while Christie, who was the head of Republican Governors Association at the time, refused to lift a finger to assist Cuomo's GOP opponent, Westchester County Executive Rob Astorino.

An added benefit was Cuomo getting a blank slate for the airports, which includes building out Stewart Airport in Newburgh, to handle more cargo flights.

Finally, Cuomo has been focused on the big picture when it comes to building his legacy. The LaGuardia rebuild is a big part of that. And so is the new Tappan Zee Bridge. As one insider put it, if there was any doubt that Cuomo plans to seek a third term in 2018, one need only consider that he probably aims to shepherd through these two major infrastructure projects for as long as he can while still holding the title of governor – and the control that comes along with it.



August 19, 2015
Circulation: 90,000

SCHUMER, GILLIBRAND GET \$3M FROM FED FOR JFK AIRPORT NOISE STUDY: The federal Department of Transportation has approved \$3.1 million in funding for JFK Airport's Noise Compatibility Plan Study, which helps fund the Part 150 study, which better evaluates noise impacts to the communities surrounding JFK Airport.

Schumer and Gillibrand have long supported the Part 150 study, and now the lawmakers are urging the Port Authority to expedite completion of the study.

Schumer said, "The Part 150 study will finally evaluate the best ways to address noise impacts in communities surrounding JFK Airport in both [Queens](#) and [Nassau](#). I am pleased that the Department of Transportation has invested millions in this study and I am urging the Port Authority to expedite its completion."

Gillibrand stated, "This funding will help facilitate the Part 150 study on airport noise control at JFK Airport. That will not only assist the Port Authority's evaluation of the problem, but actively involve the community through public hearings and addressing community concerns."

According to the FAA, the Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in significantly noise-impacted areas. The Part 150 study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings.

According to the FAA, public outreach has already begun. Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures (like take-offs and landings) or routing flight paths over less noise sensitive areas or provide sound insulation for homes, schools and other buildings near the airport.

The Part 150 study has two phases. The first phase involves developing noise exposure maps to identify compatible and noncompatible land uses around the airport. The second step involves identifying mitigation efforts, which leads to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation.

Schumer and Gillibrand have long supported measures to help address the issue of airplane noise in local communities. Specifically, Schumer and Gillibrand successfully pushed for a hotline phone number for airplane noise complaints. And, after their urging, [New York State](#) directed the Port Authority to hold regular roundtable discussions in collaboration with FAA representatives and other affected parties regarding issues at two major [New York](#) airports. Schumer and Gillibrand have urged the Port Authority and FAA to install additional noise monitors at airports and use the data collected to make decisions about changes to flight patterns.

August 20, 2015

UVPM: 467,876

Jackson Heights Tops List of Airport Noise Complaints

By [Katie Honan](#) | August
20, 2015 8:00am



JACKSON HEIGHTS — When it comes to airplane noise, this neighborhood rises above the rest.

Neighbors in Jackson Heights topped the list of air traffic complaints, logging thousands of calls with the Port Authority about planes taking off and landing at [LaGuardia Airport](#) between Jan 1, 2014 and June 30, 2015, according to data.

While the Port Authority wouldn't provide the number of phone calls made by neighborhood, data released by the agency showed Jackson Heights consistently landed at the top of the list for the most households that made complaints.

More than 1,290 households in Jackson Heights filed complaints about plane noise in 2014 and through June of 2015 — more than any other neighborhood in New York or New Jersey, according to the data.

People can make repeat complaints, but a household is only counted once, according to the Port Authority of New York & New Jersey, which operates the airports.

The most complaints in a single month came in May, when 305 local households called about noisy airplanes out of LGA, contributing to 2,750 individual complaints. Jackson Heights homeowners logged more than half of the complaints for that month.

In June, 3,853 complaints about LaGuardia were logged, originating from 231 households. More than 100 of those homes were located inside Jackson Heights.

Port Authority officials pointed out that the majority of complaints come from a small minority of homes.

In May, 48 percent of the calls were from only 10 households. In June, 60 percent of the calls came from 10 homes, Port Authority officials said.

While Bayside, Flushing and Valley Stream have topped some months with complaints, Jackson Heights callers have been at the top the most.

Between January 2014 and June 2015, they logged the most calls 10 out of the 16 months.

Although the airport is located in East Elmhurst, residents there don't complain as much about the noise — with just 26 households calling in complaints this year.

Activist Susan Carroll, who lives in Flushing, encourages those living with the noise — which includes neighborhoods further out on Long Island in recent years due to new plane routes — to call to complain.

It's just one small part of the comprehensive look at the impact local airports have on residents.

"I don't think it's the end game, and I don't think it could be the only way," Carroll said.

She said her neighborhood, for example, doesn't log as many complaints as Jackson Heights. But it's an equally impacted neighborhood, she said.

"There's barriers, for many reasons people don't complain," she said. "It's a new immigrant community ... it doesn't mean that people don't care."

The Port Authority, for its part, has installed noise monitors to help gather information for upcoming Noise Exposure Maps for JFK and LaGuardia airports, which are expected to be published in 2016 and 2021.

They also held public workshops regarding the study, the national [Part 150 Noise Study](#).

And with the [planned expansion of LaGuardia Airport](#), Carroll said community involvement is needed now more than ever.

"There should be more outreach, people need to spend more time in these neighborhoods impacted," she said.

"All this money [is] spent on monitoring noise but I think, just step outside."

QUEENS Chronicle

August 20, 2015
 Circulation: 160,000
 UVPM: 300,000

Pols don't want longer LGA flights

■ Port Authority studies 1,500-mile limit; residents fear lower planes, more noise

Posted: Thursday, August 20, 2015 10:30 am

by [Michael Gannon](#), Editor | 0 comments

For more than 30 years, regular direct flights to and from LaGuardia Airport have been limited to a range of 1,500 by the Port Authority of New York and New Jersey.

PA Spokesman Ron Marsico confirmed in an email on Wednesday that the agency is studying the potential impacts of changing the Perimeter Rule, which published sources state was formalized in 1984.

But local legislators, in letters to Gov. Cuomo and PA Executive Director Patrick Foye dated Aug. 12, said that would cause even more noise problems than already exist in neighborhoods near the airport.

The letter from Assemblyman Ed Braunstein (D-Bayside) was co-signed by 11 members of the state Senate and Assembly, including Sens. Tony Avella (D-Bayside) and Toby Ann Stavisky (D-Flushing); and Assemblymembers Michael DenDekker (D-Jackson Heights), Ron Kim (D-Flushing), Nily Rozic (D-Fresh Meadows), Michael Simanowitz (D-Flushing), Aravella Simotas (D-Astoria) and David Weprin (D-Fresh Meadows).

The two exceptions to the rule are flights to and from Denver, and those on Saturdays.

The letter states that lifting the Perimeter Rule would have a detrimental effect on communities in the city and Nassau County that already are suffering from 11 increased air traffic in recent years.



FILE PHOTO

The Port Authority is considering lifting its 1,500-mile restriction on flights to and from LaGuardia Airport. But local elected officials worry that planes having to carry more fuel will be heavier and thus fly lower over populated areas on takeoff until they can gain sufficient altitude.

K-375
"Allowing flights of longer than 1,500 miles will result in heavier planes departing from LaGuardia ... because of the extra fuel reserves needed for those flights," Braunstein wrote.

"Our research indicates that heavier planes take longer to reach higher altitudes, and therefore are closer to the ground for a longer time during departure," he added. That may result in increased noise for neighborhoods under the flight paths. The legislators are asking that any change be held in abeyance until after an ongoing Part 150 noise study.

"We should, at very least, wait to see the results ... before we begin adding heavier and louder planes," Braunstein continued.

The change could allow airlines to have more West Coast flights, as well as others to and from foreign countries where passengers headed to the United States are pre-cleared by U.S. Customs, which does not have a presence at LaGuardia.

A spokeswoman for Airlines for America, which represents major airlines, said in an email that it has not taken a position on the matter.

LaGuardia is unpopular with many airline pilots, with its short 7,000-foot runways among their complaints. The Air Line Pilots Association, which represents 52,000 airline pilots in the United States and Canada, could not be reached for comment.

And while LaGuardia has just been approved for a \$4 billion makeover, that does not include the runways, which Cuomo's advisory team said would be too costly and time-consuming to address.

Speaking last Sunday on WABC Radio, retired Capt. Chesley "Sully" Sullenberger said that LaGuardia's runways are perilously short, making the airport "a challenge."

The New York Post quoted him as saying "it's a sad commentary that many of the most advanced airports in the world are outside the United States — in fact, all of them."

Sullenberger was flying out of LaGuardia in 2009 when bird strikes destroyed both his engines. He brought the plane down in "the Miracle on the Hudson," with all 155 passengers and crew surviving.

Queens Tribune

August 27, 2015
Circulation: 171,000
UVPM: N/A

New Terminals Aside: Airport Advisory Panel Calls For Action On Other Issues At LGA, JFK

August 27, 2015

BY YVETTE BROWN



When the announcement was made last month to the proposed renovations at LaGuardia and John F. Kennedy airports, some made note of what was not mentioned.

Borough President Melinda Katz, who serves on the Governor's Airport Advisory Panel, and residents of the communities around LaGuardia Airport had their own ideas, that would improve living conditions and traffic congestion.

The suggestions included a solution to aircraft noise, a solution to parking, a cell phone lot waiting area, employment opportunities and consolidated car rentals.

Noise has been the most common complaint from residents living near the airports. Gov. Andrew Cuomo directed the Port Authority of New York and New Jersey to undertake a series of actions to alleviate the aircraft noise such as establishing a aviation community roundtable, implementing a Federal Port 150 noise study and installing additional monitors to track the noise.

"The Port Authority has already commenced with the Part 150 Airport Noise Compatibility studies, as well as installing additional monitors to track the aircraft noise," said Katz. "Our recommendations also call for creating a LaGuardia cell phone lot, consolidating the ten nearby off-site car rental locations and bringing them onto airport property and creating more short-and long-term airport parking."

Cell Phones And Cabs

The cell phone lot, which JFK already has, would be for individuals who are waiting to pick up arriving passengers. The panel recommended that as part of modernizing the airport, the Port Authority should identify a location for an adequate and accessible cell phone lot waiting area.

In light of this suggestion for cell phone lots, some cab drivers have begun to find a way around the wait by having passengers pay \$5 or \$10 to a dispatcher and then drive straight to the terminal. This has been going on for years and dozens of dispatchers have been caught in the sting operations that are being conducted to stop the payoffs.

On Aug. 12, seven dispatchers at LaGuardia Airport arrived at the Central Air Terminal for what was said to be a training session, but instead they were arrested and accused of bribery.

Queens District Attorney Richard Brown said in a written statement that the bribes may have come about in small amounts and that on a busy day with so many cabbies passing through the terminal, "giving a dishonest dispatcher the opportunity to illegally make hundreds of dollars on a daily basis."

Car Rental Locations

The next suggestion for LaGuardia Airport deals with the car rental locations. There are 10 car rental companies that serve the airport, but only two of them are located on the property.

The recommendation for the Port Authority is for them to explore how the companies can be consolidated into a single facility within a close range or on the airport's property that will be connected by a single mode of transportation. This would provide passengers with easy access to a car rental company of their choosing and it would help to reduce congestion on the adjacent roadways, according to the panel's report.

Parking

As far as the short and long-term parking is concerned, Port Authority is constructing a 1,100-space parking garage on the east end and a 3,100-space parking garage that will be carried out by the public-private partnership for the construction of the western half of the main airport. The Port Authority must conduct a thorough analysis of how many parking spaces will be needed. Suggestions also included parking being located within easy access to the Airport People Mover or within walking distance of the terminals. Parking garages should also be incorporated into the overall architecture to ensure a unified design treatment of the entire airport complex.

"These measures are designed to immediately help alleviate traffic and congestion plaguing the neighborhoods in the vicinity," Katz said explaining how the new parking garage will help travelers and residents.

The project is expected to generate an additional 8,000 direct jobs and 18,000 total jobs. The report explained that not only will the project be significant for the borough of Queens in providing jobs, but it will also increase participation by minority and women owned and Airport Concession Disadvantaged Business Enterprises.

Assemblyman Phil Goldfeder (D-Rockaway Park) and Councilman Eric Ulrich (R-Ozone Park) had concerns regarding employee parking on the premises of JFK. Many employees have had to park over a mile away from the airport due to congestion and have had to take mass transportation to get to the airport. They've sent joint letters to major airline companies at JFK so that they would respond to the reports of what these employees have to do, this disrupts other residential areas in the adjacent neighborhoods surrounding the airport.

"Our middle class families work hard and deserve to enjoy the community they invested in, without having to spend their days and nights circling the block looking for parking," said Goldfeder. "I urge the major airline companies and other occupants of JFK to be good neighbors and put the brakes on this practice."

With JFK employing about 37,000 employees, the Airtrain has accommodated about 700,000 passengers so far this year causing local residents to be caught in the middle. These elected officials have also announced an upcoming meeting with the Transportation Security Administration representatives in regards to finding a solution to this longstanding issue. TSA explained that they do receive a \$25 monthly federal subsidy to help offset costs on the \$60 monthly employee rate charged by the Port Authority-operated garages at JFK.

"We encourage all airport employees to park at on-airport lots and have their fees significantly lower than regular rates to help ease the impact," said a spokesperson from the Port Authority.

In the letter, they addressed the concerns that coincide with the construction to extend JFK's east-west runway which has caused increased traffic and airplane noise for residents of the area.

"Given recent concerns over airplane noise, families in southern Queens have shown considerable patience and understanding in dealing with many nuisances posed by their neighbors at JFK," the letter stated. "It is only fair that the airport take steps to limit the problems our families face."

The Panel also recommends that the Port Authority ensure that airport development supports Gov. Cuomo's goal of 30 percent MWBE participation, according to the report. The suggestions for the Port Authority included ensuring that development reaches a broad spectrum of businesses and job seekers that reflects the community and the region of where the airport is located.

"As much as LaGuardia and JFK International are tremendous economic assets to Queens and to the region, with them has come the need to mitigate the direct, daily impacts of growth upon the thousands of families immediately surrounding them," said Katz. "When convening this blue-ribbon panel on which I have had the pleasure to serve, the governor charged us with ensuring that community needs are addressed."

There have also been suggestions from Goldfeder regarding transportation access for those who live in Rockaway Beach.

"I applaud Gov. Cuomo's ambition for bringing new facilities and world-class amenities to JFK and LaGuardia airports; however, the state needs to ensure that we have the transportation access to match these aggressive plans," said Goldfeder. "The best and most cost-effective way to improve transportation for millions of local families and visitors from all over the world is to reactivate the Rockaway Beach Rail Line. Reactivating this line could link these two vital hubs and create a true north-south corridor in the borough. The Governor's announcement has given us a real chance to transform the transit landscape in Queens and throughout the city. I urge the Governor not to pass up on this once-in-a-generation opportunity and support the full reactivation of the Rockaway Beach Rail Line."

Among the many changes being implemented to LaGuardia Airport, it was also announced that the Port Authority would review the existing perimeter rule – which bans flights to destinations over 1,500 miles away – to determine whether it remains in the best interest of regional air travelers. Delta Air Lines, LaGuardia's largest carrier, has pushed for the rule to be lifted. Along with Delta Air Lines, Assemblyman Edward Braunstein (D-Bayside) and his other assembly and state colleagues sent a letter to Gov. Cuomo and the Port Authority to express their opposition to any consideration of lifting the perimeter rule at LaGuardia Airport.

"Communities in New York City and Nassau County are already suffering from excessive noise due to increased air traffic over the last few years," said Braunstein. "The last thing we should be doing is adding heavier and potentially louder planes to the airspace above these neighborhoods."

The letter stated that allowing flights longer than 1,500 miles will result in heavier planes departing from LaGuardia Airport, due to the extra fuel needed for those flights, meaning they will be louder during takeoff.

"Our research indicates that heavier planes take longer to reach higher altitudes, and therefore are closer to the ground for a longer time during departure," the letter stated. "This may result in an increase in airplane noise for the neighborhoods under these flight paths."

The letter was signed by many of Braunstein's colleagues, including state Sens. Tony Avella (D-Bayside) and Toby Ann Stavisky (D-Flushing) and Assembly Members Michael DenDekker (D-Jackson Heights), Ron Kim (D-Flushing), Edward Ra (R-Nassau County), Nily Rozie (D-Fresh Meadows), Michelle Schimel (D-Nassau County), Michael Simanowitz (D-Kew Gardens Hills), Aravella Simotas (D-Astoria) and Michaelle Solages (D-Nassau County). All represent communities under LaGuardia's flight paths.



September 2, 2015

Circulation: 60,000

UVPM: N/A

Federal DOT Grant to Help Fund LaGuardia Noise Study

2nd September 2015

Michael V. Cusenza



The federal Department of Transportation has earmarked a \$3.1 million grant to help fund LaGuardia Airport's "Noise Compatibility Plan Study," U.S. Sens. Charles Schumer and Kirsten Gillibrand (both D-N.Y.) announced on Monday.

The grant helps fund the Part 150 study, which better evaluates noise impacts to the communities surrounding the airport. Earlier in August, Schumer and Gillibrand announced \$3.1 million in federal funding for John F. Kennedy International Airport's Part 150 study.

According to the FAA, the Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in significantly noise-impacted areas. The Part 150 study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings.

Public outreach has already begun. Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures, such as take-offs and landings, or routing flight paths over less noise-sensitive areas, or provide sound insulation for homes, schools and other buildings near the airport.

The Part 150 study has two phases: The first phase involves developing noise exposure maps to identify compatible and non-compatible land uses around the airport. The second step involves identifying mitigation efforts, which leads to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation.

"We need the right tools to assess the noise impacting our communities we know how to best address it," Gillibrand added. "This funding is an important step in our work to help alleviate the concerns of our neighbors in Queens and on Long Island."

Both senators have urged the Port Authority to expedite completion of the studies "so that the issue of airplane noise in the New York metropolitan area can be remediated immediately."



Circulation: 73,000

UVPM: N/A

Residents take up grass-roots effort to combat plane noise

September 2nd, 2015

By **Rossana Weitekamp**



Sid Krinsky, a retired engineer and a West Hempstead resident, doesn't want to complain about aircraft noise — he really doesn't. He understands that the Port Authority of New York and New Jersey has much bigger fish to fry, and just wants to focus on solutions that will help mitigate the noise.

Elaine Miller, a Lynbrook school district teacher and a Malverne resident, is also concerned about plane noise, and wants to contact people who also feel passionate about the issue and explain what needs to be done to fight the Federal Aviation Administration.

The two are part of a grass-roots organization called PlaneSense4LI, spearheaded by North Hempstead resident Frances Gould and Miller, who met several years ago at a meeting of the Town of Hempstead's Town and Village Aircraft Safety and Noise Abatement Committee meeting. After attending the meetings, however, they decided they really needed to start a group of their own. "We thought the TVASNAC committee wasn't doing enough," Miller said, "and we've grown to over 200 people now."

Miller, who grew up in Lynbrook and moved to Malverne 20 years ago, said that she had never experienced such frequent aircraft noise in the area, and felt she had to act. "I started to collect data on the amount of planes that flew over my home at any given time," Miller said. "I started late spring of last year, and there was no change in the pattern that the planes flew in, so the whole idea of wind and weather affecting plane patterns is not true. I could have up to over 300 planes in one day. My average would be 186 planes a day."

Miller said that the Federal Aviation Administration told her it could not change the planes' flight patterns because of the weather. "They picked one path and continued to use it again and again and again," she said. "I had planes flying over my house from 5 in the morning till 2 in the morning. You cannot sleep. The roar of those engines, the high-pitched sounds that come in ... It's like a highway in the sky."



September 10, 2015

Meng, Crowley and Israel Express Concern About Increased Airplane Noise That May Result from Elimination of Perimeter Rule at LaGuardia Airport

Sep 10, 2015 | Press Release

Today, U.S. Reps. Grace Meng (D-Queens), Joseph Crowley (D-Queens) and Steve Israel (D-Queens/L.I.) called on the head of the Port Authority New York and New Jersey to consider and address any noise effects that may be caused by the elimination of the perimeter rule, a current restriction limiting flights at LaGuardia Airport to a distance of 1,500 miles.

In a letter to Port Authority Executive Director Patrick Foye, the lawmakers urged that aircraft noise not be increased over the Queens-New York Metropolitan area if the rule is lifted. The Port Authority is presently looking at ending the 30-year-old regulation which if repealed, would allow airlines at LaGuardia to expand longer distance flights and areas served by LaGuardia Airport.

"Queens, Long Island and other communities throughout the New York area are already overburdened with excessive and blistering airplane noise," said Meng, Crowley and Israel. "The last thing we need is more noise over our communities. It is critical that the Port Authority consider and address any noise effects that may result from lifting the perimeter rule at LaGuardia."

A copy of the letter that the Congressmembers sent to Executive Director Foye [is attached](#).

Meng, Crowley and Israel are members of the Congressional Quiet Skies Caucus. Established last year, the Caucus works to mitigate excessive airplane noise that adversely affects communities.

October 20, 2015

Circulation: 73,000

Port Authority hosts public workshop on plane noise study, Oct. 29

By **Rossana Weitekamp**

October 20, 2015



The Port Authority of New York & New Jersey will be hosting a public information workshop on Oct. 29 to provide information regarding the Part 150 Airport Noise Compatibility Planning Studies for John F. Kennedy and LaGuardia airports.

The workshop will include guided displays that will present information regarding the Part 150 Study process, the project schedule, noise metrics, and methods used to quantify aircraft noise exposure.

A second round of public information workshops will be conducted in the Spring of 2016 to provide information regarding the primary products of the 14 CFR Part 150 Study – the 2016 and 2021 Noise Exposure Maps.

The workshop will be held in an “open house” format from 6 p.m. to 8 p.m. on Oct. 29. No formal presentation will be given in order to provide the public with the maximum opportunity for one-on-one interaction and sharing of information and concerns. You may attend the workshop any time during the two-hour open house.

JFK & LGA Public Information Workshop
DATE: Thursday, October 29, 2015
TIME: 6:00PM - 8:00PM
LOCATION: Nassau Community College (NCC)
College Center Building, Multipurpose Room
One Education Drive
Garden City, NY 11530

All visitors to the campus are required to obtain a vehicle pass from the Public Safety Office prior to parking in any campus lot. The vehicle pass will allow you to park in designated student parking areas while visiting the campus.

TIMES *Ledger*

SERVING QUEENS SINCE 1919

October 23, 2015

UVPM: 69,000

Circulation: 75,000

Hundreds attend Jackson Hts. town hall on airplane noise

By Bill Parry

OCTOBER 23, 2015



A standing-room-only-crowd of nearly 400 concerned citizens packed into the auditorium at PS 69 in Jackson Heights for a town hall meeting on LaGuardia Airport aircraft noise Sunday. The Federal Aviation Administration and the Port Authority of New York and New Jersey sent representatives, who made presentations on noise monitoring and emissions tracking, highlighting safety standards and their efforts to minimize the impact of noise on residents.

FAA Regional Administrator Carmine Gallo said another noise monitors would be placed in Jackson Heights, while PA director of government and community relations Ian Van Praah discussed construction work being done on Runway 22 that directly affects residents of Jackson Heights and its surrounding neighborhoods.

When that runway is out of commission for construction projects on weekend mornings, planes fly directly over Jackson Heights. State Sen. Jose Peralta (D-East Elmhurst) pointed out that every Saturday and Sunday between 6 a.m. and 9 a.m., an average of 160 planes fly above Jackson Heights.

State Assemblyman Francisco Moya (D-Jackson Heights) called the constant noise more than just a nuisance for local residents.

"It may actually have a detrimental impact on health," he said. "The time has come for solutions that put the needs of residents first."

Several in the audience suggested the projects on Runway 22, which include paving and maintenance, begin after 9 a.m. as opposed to the current 6 a.m. start time.

“We need quieter skies,” said Peralta, who hosted the meeting. “These are the hours when we are trying to get some rest after a long week at work. This is a decades-old problem, but in the last few years, there has clearly been an increase in airplane noise and complaints in Jackson Heights. One hears the thundering noise from aircraft jet engines several times on a daily basis, and at times, it feels as if the jets are about to land on 37th Avenue. This clearly has a negative impact on our quality of life.”

State Assemblyman Michael DenDekker (D-East Elmhurst), who lives and works along the flight path to LaGuardia, said, “I’m grateful that we had the opportunity to allow the community to voice their concerns to the Port Authority. And I’m very happy that the Port Authority listened to our concerns.”

U.S. Rep. Joe Crowley (D-Jackson Heights) said, for the first time publicly, that he would reintroduce an updated Silent Skies Act in Congress. When Crowley introduced the original legislation at LaGuardia Airport’s Marine Air Terminal in December 2013, he demanded the FAA require newly developed Stage 4 quieter engines. Since then Stage 5 quieter engines have been developed.

“The Silent Skies Act will require older, noisier airplanes to be phased out,” Crowley said. “It will also require the FAA to adopt newly developed noise standards for all new airplane designs. While these planes can never be truly silent, making their engines quieter will go a long way toward providing the relief our residents deserve.”

Crowley also said he would co-sponsor U.S. Rep. Grace Meng’s legislation, announced Oct. 2, that would require the Environmental Protection Agency to take the lead in combatting aircraft noise over the borough, as well as affected communities across the country. The Flushing Democrat charged that the FAA had “failed the residents of Queens” when she introduced her Quiet Communities Act of 2015.

November 19, 2015

Circulation: 171,000

Plane Noise Advocates Skeptical Of New Bill

Aircraft noise across Queens and Nassau is a perennial issue for New York City and Long Island and extends back to when the real estate boom after World War II created large communities around the airports.

Earlier this month, U.S. Rep. Ruben Gallego (D-Arizona) introduced a bill that would create community representatives to review the process of drawing new flight paths over airport communities.

Local Representatives Joseph Crowley (D-Queens/Bronx), Grace Meng (D-Flushing), Steve Israel (D-Long Island) and Gregory Meeks (D-Jamaica) all co-sponsored the bill.

Gallego's release on the issue states, "The FAA Community Accountability Act would establish a new process to compel the FAA to reconsider existing flight routes that are exposing residents to unacceptably high levels of aviation noise. The legislation would also end the presumption under current law that flight paths implemented through the NextGen program may not follow pre-existing routes, even when these paths better reflect land use around the airport."



File Photo

A new bill proposed in Congress could change airplane flight patterns.

The bill would also create community representative positions, "to serve as effective, independent voices for airport communities within the agency. Finally, the bill would prevent the FAA from bypassing the environmental review process for new flight paths over the objections of local communities," stated Gallego.

Neighbors of Queens' airports have established noise abatement advocates like the JFK and LaGuardia Airport Committees, Queens Quiet Skies, the Eastern Queens Alliance, the Town-Village Aircraft Safety And Noise Abatement Committee in Nassau County and most recently The New York Community Aviation Roundtable, which seeks to unite all these committees as one voice.

Warren Schreiber, chairman of Queens Quiet Skies, said he is, "concerned how impartial that community ombudsman will be."

Barbara Brown, chairwoman of the Eastern Queens Alliance, and Schreiber were in agreement, both stating legislation like this is, "a step in the right direction." Brown added, "There's lots of legislation talking about public involvement." She said that a bill like this might be "honored in letter but not in spirit." Agencies often take in community input but then disregard it during implementation, Brown said.

Brown and Schreiber are co-chairing the New York Aviation Roundtable which met recently at Borough Hall to discuss the parliamentary procedures and by-laws of their new committee.

Israel noted, "This bill will ensure that residents affected by airplane noise have a voice in urging the FAA to reconsider placing these noisy flight paths over their homes and communities."

Crowley said, "Unfortunately, aircraft noise pollution isn't merely a nuisance – it poses health risks, disrupts student learning and drowns out the joys of daily life. Our airports will never be perfect neighbors, but we can certainly work to make them better ones."

Meng stated, "We must ensure that the concerns of those impacted by noise are addressed, and that they have a say in the flight patterns that disrupt their lives. The FAA has been virtually unresponsive to the problems involving aircraft noise. The agency must be held more accountable, and this bill would help accomplish that".

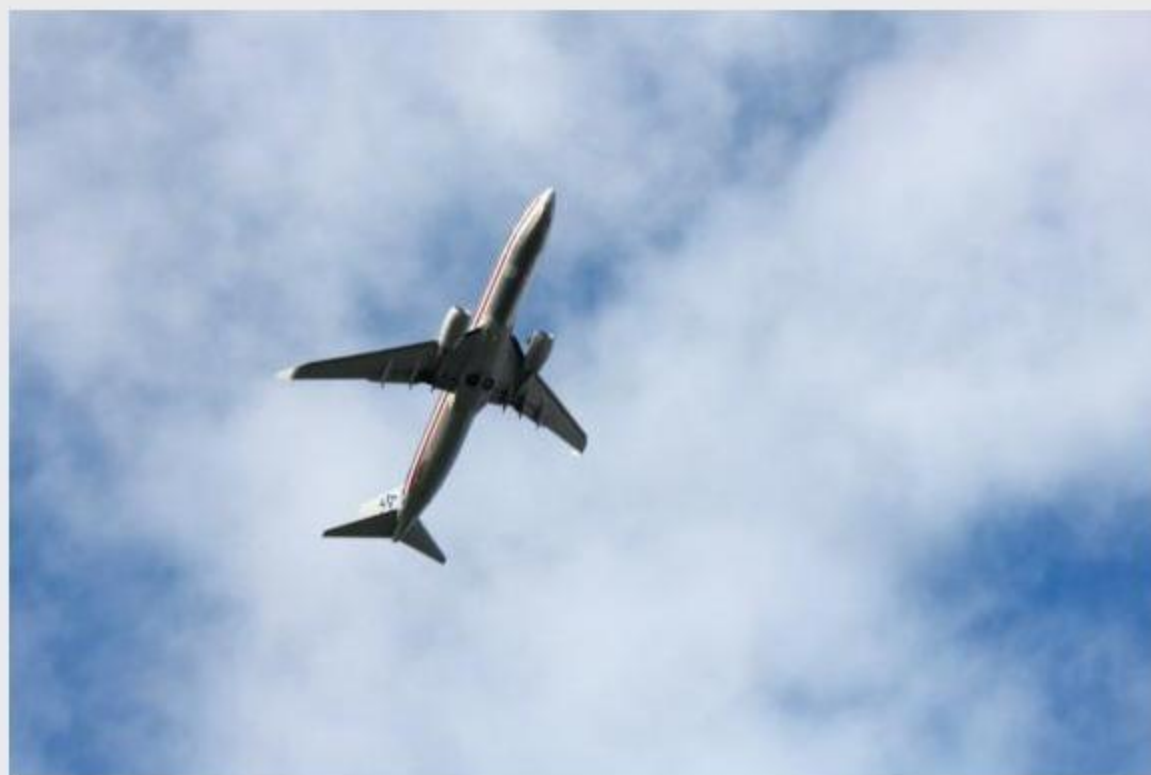


December 3, 2015

Vice Chair Crowley Reintroduces The Silent Skies Act to Curb Aircraft Noise Pollution

SHARE    ...

Dec 3, 2015 | Issues: In the Community



Legislation requires airlines to begin stocking fleets with newer, quieter aircraft

(Queens, NY) – Today, Rep. Joe Crowley (D-Queens, the Bronx), Vice Chair of the Democratic Caucus, announced the reintroduction of *The Silent Skies Act (H.R. 4171)*, legislation that aims to improve the quality of life for communities heavily impacted by aircraft noise pollution by requiring airlines to begin stocking fleets with newer, quieter aircraft. Originally introduced in the 113th Congress, the bill instructs the Federal Aviation Administration (FAA) to issue regulations by the end of 2016 requiring all U.S. commercial airplanes to meet Stage 4 noise standards, which is a significantly lower decibel level than those currently in use.

"While airplanes can never be truly silent, making their engines quieter will go a long way toward providing the relief residents who live nearby our airports deserve," said Rep. Crowley. "That's why I'm reintroducing the Silent Skies Act, which will require older, noisier airplanes to be phased out. But it will also require the FAA to adopt newly developed noise standards for all new airplane designs. Aircraft noise pollution isn't merely a nuisance – it impacts our ability sleep, learn and enjoy daily life."

In 2006, the FAA issued regulations requiring all new commercial aircraft designs to meet Stage 4 noise standards. However, the FAA did not address whether airlines would need to phase out older, louder airplanes or retrofit them with quieter engines. The requirements outlined in Crowley's bill would be phased in at a rate of 25 percent every five years, so that all commercial airplanes meet these quieter standards by 2037.

The *Silent Skies Act* also requires new aircraft designs to meet standards recently adopted by the International Civil Aviation Organization. These new, more stringent standards, known as Stage 5, would have to be met by 2017 in order for the new designs to be certified by the FAA.

In addition, Crowley's legislation would authorize a new partnership program for the development of technologies to help meet better noise standards and result in quieter airplane engines. The partnership is a grant program that requires a portion of revenues from the sale of successful, new technologies to be paid back into the program.

"Through fleet replacement and investment in new technologies, quieter airplanes are an achievable goal," Crowley continued. "When it comes to aircraft noise, it's important that we find solutions that can benefit all of the communities surrounding our airports – and the Silent Skies Act would do just that."

Crowley has worked extensively with community leaders, federal officials, and representatives from New York City and State to abate the congestion and noise that schools, businesses, and homes are subjected to because of their close proximity to LaGuardia Airport. In April 2001, Crowley authored a plan to alleviate community concerns associated with the airport. In 2002, he secured \$100,000 in federal funding for the Environmental Protection Agency (EPA) to carry out an air quality and noise study in the neighborhoods surrounding LaGuardia. He also secured \$240,000 for LaGuardia Airport Noise Monitors to track airport noise at LaGuardia and ensure curfews were being met.

In 2014, Crowley co-founded the [Quiet Skies Caucus](#) in Congress, which works to raise awareness on the issue of aircraft noise and find meaningful solutions to the problem. The caucus consists of members from across the country whose constituents are adversely affected by incidents of airplane and helicopter noise.

Congressman Crowley is the nine-term representative from the 14th Congressional District of New York, which includes sections of Queens and the Bronx. He is a member of the powerful Ways and Means Committee and serves as Vice Chair of the Democratic Caucus in the House of Representatives.

TIMES *Ledger*

SERVING QUEENS SINCE 1919

December 11, 2015

UVPM: 69,000

Circulation: 75,000

DECEMBER 11, 2015 / NEWS / GOVERNMENT / FLUSHING

Flushing councilman wants LGA flight path diverted from Flushing

[Enlarge this image](#)



Photo by Michael Shain

City Councilman Peter Koo is calling on City Planning and the Federal Aviation Administration to think about using the old flight paths for LaGuardia Airport.

By Madina Toure

Advocates praised and echoed City Councilman Peter Koo's (D-Flushing) sentiment that the FAA should consider reverting to LaGuardia Airport's old flight paths.

Before 2012, flight paths were routed over Citi Field, the tennis stadium and Flushing Meadows Corona Park but would be diverted over Flushing during the US Open. But in 2012, the FAA approved the Flushing flight path for general use.

In a response dated Dec. 2, to the Department of City Planning's draft document of the environmental impact statement for the proposed Flushing West waterfront development plan, Koo said low-flying planes and the resulting noise have caused health concerns for residents in his district. He noted that the proposed development area would be directly under LaGuardia's current flight paths in the 65 DNL (day night average sound level) area. This is a measurement taken by federal agencies such as the FAA over 24 hours.

Susan Carroll, a Flushing community advocate and a member of Queens Quiet Skies, who is also a representative on the New York Community Aviation Roundtable, said the

Port Authority installed a noise monitor on the roof of her building on Franklin Avenue in August 2014.

She can hear planes just about every minute for hours with noise levels anywhere from 70 to 90 decibels.

"When Councilman Koo spoke out about this, I was very happy to see it because in the past, Flushing has taken a back seat to Bayside as far as speaking out about this issue when we're impacted even more," Carroll said. "I think it's about time that Flushing took the lead in saying you have to come up with a better way."

Koo said the FAA has not conducted a comprehensive review of the flight paths approved in 2012 and he keeps his patio door closed because of the noise.

"The noise problem was not that bad in Flushing, but after that (2012) every day, they fly over downtown Flushing," he said. "By the Sheraton Hotel area, you can actually see the airplane flying over and sometimes you worry about it hitting the roof of the hotel."

The FAA said changes to flight patterns would result from a collaborative effort between the Port Authority and the FAA and that the PA—which is conducting airport noise compatibility studies for LGA as well as the John F. Kennedy, Newark Liberty International and Teterboro airports—formed the roundtable.

“Noise compatibility studies, also called Part 150 studies, may result in recommendations for mitigating aircraft noise,” the FAA said in a statement.

Warren Schreiber, chairman of Community Board 7’s aviation committee and vice president of Queens Quiet Skies, said Koo’s statement starts a “much-needed” conversation and credited U.S. Reps. Grace Meng (D-Flushing), Joe Crowley (D-Jackson Heights) and Steve Israel (D-Melville) with being vocal on the issue.

But he does not expect the FAA to revert to the old flight paths, noting that they do not notify CB7 of whether they will alter paths as developers need a determination of no hazard from the FAA and the PA.

“They do issue that determination, but they don’t tell us if they’re going to alert the flight tracks,” Schreiber said.

The Flushing West plan would clean up and rezone 60 acres on the Flushing waterfront and create a planned community with waterfront access and housing and commercial space.

Joe Marvilli, a City Planning press officer, thanked Koo for his input on the issue.

“We are aware of the noise concern regarding LaGuardia Airport, which will be analyzed during the environmental review for Flushing West,” Marvilli said in a statement.

A Port Authority spokesman said the PA supports rotating use of runways where possible to spread out flights.

Reach reporter Madina Toure by e-mail at mtoure@cnglocal.com or by phone at (718) 260-4566.

TIMES *Ledger*

SERVING QUEENS SINCE 1919

January 14, 2016

UVPM: 69,000

Circulation: 75,000

JANUARY 14, 2016 / NEWS / TRANSIT ISSUES / FLUSHING

CB7 weighs in on airplane noise in northern Queens

[Enlarge this image](#)



Photo by Madina Toure

Representatives from the Port Authority and Environmental Science Associates discuss airplane noise with Community Board 7.

By Madina Toure

Members of Community Board 7 had strong opinions on how the Port Authority is tackling the airplane noise issue, expressing concerns about everything from placement of noise monitors to insufficient community representation at the board's monthly meeting Monday night in Flushing.

Representatives from the PA and Environmental Science Associates briefed board members about the Part 150 studies, whose goal is to re-evaluate aviation noise levels around LaGuardia and John F. Kennedy airports, New York's two major airports. Environmental Science is the prime consultant for the studies.

At the meeting at Union Care Plaza Center, Chuck Apelian, CB 7's vice chairman, who ran the meeting on behalf of CB 7 Chairman Gene Kelly, conceded that a more in-depth discussion is needed on the subject.

"This really deserves more time than what's happening right now and it deserves to have an interaction through a committee, not through a board meeting," Apelian said. "Technical data, the involvement, the engagement, the whys and the where, how have to go through a committee."

Gov. Andrew Cuomo directed the PA to undertake Part 150 studies for JFK and LaGuardia in response to growing community concerns about aircraft noise. In 2014, the PA signed an agreement with Environmental Science Associates.

The studies consist of creating noise exposure maps and a noise compatibility program. The map is designed to identify an airport's present and future noise patterns as well as land uses incompatible with those noise patterns.

The noise compatibility program shows what measures the airport has taken or proposes to take to reduce or prevent the introduction of incompatible land uses within the area covered by the airport's map.

Aircraft noise is calculated using Day-Night Average Sound Level, or DNL, a 24-hour average noise level. The Federal Aviation Administration said a DNL of 65 decibels or greater is incompatible with residential communities.

James Cervino, chairman of CB 7's environmental committee, questioned a lack of noise monitors close to College Point and Flushing, but board member Joe Femenia, president of the College Point Civic and Taxpayers Association, said there is a noise monitor on 120th Street and 23rd Avenue in College Point.

Peter Byrne, deputy project director for the ESA study team, said the data from noise monitors would be compared to what they get out of the integrated noise model, which is what they are running for the Part 150 study.

"We use what's happening, what we're picking up on those monitors, and compare what we get out of the integrated noise model to make sure that we're getting something that approximately is what we're seeing up on the ground," Byrne said.

There were also concerns about the makeup of the technical advisory committee for LaGuardia. Alison Tan, another board member, noted that there is a lack of community representation.

"I'm just curious, I don't see any groups there that specifically represent Flushing or College Point," Tan told the representatives.

Kelly Mitchell, a project major for PA, said that the committee is very technical and that people and organizations on the committee are usually part of several organizations.

"We tried to have the broad representation for the communities that are affected by the airport noise," Mitchell said.

January 21, 2016
Circulation: 171,000

PANYNJ Offers Residents Airplane Noise Monitors

Posted on January 21, 2016 by tribune in News, Top News

BY LYNN EDMONDS

Staff Writer

Queens residents who are fed up with airplane noise can request that the Port Authority of New York and New Jersey install a noise monitor on their house as part of a study that the authority is undertaking to measure airplane noise surrounding La Guardia Airport. A simultaneous study is taking place at JFK Airport.



Photo by Lynn Edmonds

Some locations of airplane noise monitors in Queens.

The end result of the study, called the Part 150 Area Study, will be a detailed, color-coded map that shows the noise level in rings around the airport. That information will be used to make recommendations to the Federal Aviation Authority as to how they can mitigate the noise effects, possibly through actions such as changing flight patterns or insulating buildings. Eighty percent of funding to pay for the implementation of those recommendations will come from the federal government. The study recommendations are not binding and they must not negatively affect safety or be prohibitively expensive.

Though the noise exposure map will measure multiple steps of noise pollution, one of the critical thresholds is 65 decibels, or about as loud as a normal-to-slightly-loud conversation. The FAA may undertake actions to mitigate noise for properties with this level of noise exposure, especially

sensitive locations like schools, houses of worship and hospitals.

The study began in October 2014 and will be completed in August 2017, with an estimated cost of \$8 million. The impetus for the study was a directive from Gov. Andrew Cuomo.

Cuomo ordered that the Port Authority undertake the area study, as well as host two community roundtables on airplane noise, double the number of noise monitors, create a dedicated noise office and maintain a new website for tracking flights so the especially noisy ones can be identified.

Warren Schreiber, who is Interim Vice Chair of the New York Community Aviation Roundtable that the Cuomo directive called for, as well as a member of Community Board 7, said that in some ways, the study was affirming what residents near the airport already knew.

"Sometimes it looks as though I can just reach up and touch [the planes], and the ground is shaking; I don't need someone to tell me that that's a problem," he said.

But he said he was glad the Port Authority was undertaking the study.

"I still think it's worth the effort. As long as we have the information, we can use that as ammunition in our arguments," Schreiber said. ^{K-340}

Those interested in installing the noise monitors on their property must have an electrical outlet that the outdoor device can plug into, a good wireless connection, and not have a lot of ambient noise coming from other sources that would impact the results. The Port Authority will reimburse the charge that these 200-pound devices will incur on residents' electrical bills, usually just about \$5.

At the CB 7 meeting last Monday, one member from college point volunteered to install a monitor at his home.

But one aspect of the study that community members have been less than happy with is the makeup of the Technical Advisory Committee, which was determined by the Port Authority.

Only one member of the committee will be an unpaid volunteer from the community.

"My main concern is that you have a Technical Advisory Committee that is so top heavy with industry people, government people," Schreiber said.

Another CB 7 member expressed concern about the board's makeup as well.

"I don't see representatives from Flushing and College Point, where we bear the brunt of the airplane noise," Alison Tan said.

Reach Lynn Edmonds at (718) 357-7400 x127, ledmonds@queenstribune.com or @Ellinoamerikana

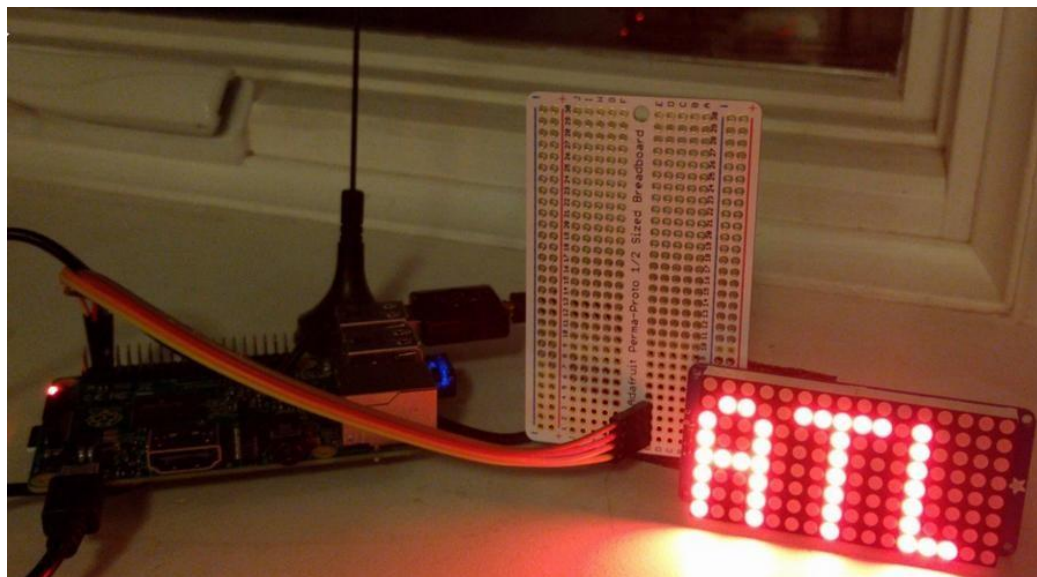
January 25, 2016

UVPM: 16,855,667

Man devises genius airplane tracker for his house near LaGuardia Airport

BY CAILEY RIZZO

3 DAYS AGO



[Jeremy Merrill](#) lives underneath a flight path to LaGuardia Airport in New York. Merrill is a curious man.

After watching countless planes land at LaGuardia and wondering where they were flying from, the New York Times journalist/developer [devised a system](#) to display the plane's origin on his windowsill.

The software he created, called [Flyover](#), basically takes a bunch of information that airplanes are transmitting via their transponders, runs it through a couple different programs, then displays the origin airport of ["that plane flying over my apartment RIGHT NOW."](#)

Every few seconds, passenger jets broadcast information about themselves over radio systems, called ADS-B and Mode S.

Contained in the information are the plane's location, altitude, registration number and flight number. Merrill collects this information using a [SDR antenna](#).

Popular flight-tracking tools and apps like FlightRadar 24 and Flight Aware also use such transponder information to help track flights around the world.

Flyover uses the program [Dump1090](#) to collect the information that airplanes are releasing. This is then translated onto a webpage, where flights are tracked and displayed on a map.

Merrill excluded flights that are flying at above 10,000 feet, since those are unlikely to be landing at LaGuardia since the airport is so close to where he lives.

From there, Merrill's contraption analyzes the flight numbers to determine the plane's route, using [Virtual Radar Service](#).

Once the route is established, it's just a matter of displaying the origin airport on the LED display in Merrill's windowsill.

The LED screen works as a sort of "ambient notification," constantly connecting Merrill to what's happening in the skies above him.

"I really like building ambient/automatic notifiers for myself, to protect against my own absentmindedness," Merrill told *Mashable*. "For instance, a computer sends me an email each morning telling me which subway to take based on delays — so I don't have to remember to go to the MTA's status page. I also have [a computer that predicts](#) (using machine learning and the city's BusTime API) when a bus near my apartment is about to arrive, then notifies me with red and green lights to tell me when to go catch it."

The system he rigged up could, at least in theory, be used to also identify the type of the aircraft and the airline, as well.



February 15, 2016

UVPM: N/A



Northeast Queens airplane noise: community board wants a say in transit study

By Alina Suriel

Northeast Queens residents want their voices heard loud and clear regarding airplane noise in their skies.

Community Board 7 (CB 7) of **Flushing, Whitestone, and College Point** is requesting that Borough President **Melinda Katz** push for more community stakeholder inclusion in advisory committees tasked with reducing airport noise pollution.

The technical advisory committees were created as part of Federal Airport Noise Compatibility Planning Part 150 Study undertaken by Port Authority at **the request of Governor Andrew Cuomo**. Both LaGuardia and Kennedy Airports are being studied by separate advisory groups as part of a larger roundtable discussion on the general issue of airplane noise.

Both committees are made up largely of government agencies and airline industry professionals, including representatives from various commercial airlines, the Federal Aviation Administration, the Town of Hempstead, the Queens borough president and the city Department of Environmental Protection. The community is represented in one seat of each group by a member of NY Community Aviation Roundtable. K-344

Community members are allowed to sit and listen to information presented in the open meetings, but they are barred from having any input during committee discussion and are instead relegated to speaking one at a time during a public participation session.

According to Warren Schreiber of the CB 7 Aviation Committee, the board will submit a letter to Katz asking her to request an increase of committee seats for community groups.

Schreiber disputed claims by Port Authority that community members will not be able to give meaningful input because they lack the technical knowledge of the other committee members. He said that the lived experience of those residing near airports were a valuable addition to the ongoing study.

"When we hear noise, we know what it is," Schreiber said.

CB 7 Chair Eugene Kelty that it would increase transparency for all residents if there would more community stakeholders in the technical advisory committee. He believed that these representatives should be chosen from community boards to enable the efficient sharing of information with residents and other boards affected by the issue.

"We have a foothold in the area and we should have some type of access to the committee," Kelty said, "and then we can communicate."

Susan Carroll — a community activist who has been following the issue of airplane noise for years and participates as a representative of NY Community Aviation Roundtable — said that the advisory committee should have members personally familiar with different levels of noise caused by planes throughout the years. She says that as a longtime Flushing resident, she can notice a noise increase since a rerouting of low flying planes in 2012 dubbed "**the Tennis Climb.**"

"They need the community input because we're the ones living with this noise," Carroll said.

February 23, 2016

UVP: 69,000

Circulation: 75,000

FAA reform bill raises concern from Queens leaders

By Gabriel Rom

February 23, 2016

Northern Queens communities are paying close attention to the proposed FAA reauthorization bill, called the Aviation Innovation Reform and Reauthorization Act.

On Feb. 3, the House Transportation Subcommittee unveiled a proposed law to increase regulations on noise quality in communities near airports.

Yet borough lawmakers and activists remain skeptical.

"There is no question we need a long-term FAA reauthorization that ensures the safety of the flying public, makes investments in research and development, and helps create good paying jobs," U.S. Rep. Joe Crowley (D-Jackson Heights) said. Crowley helped form the House Quiet Skies Caucus in 2014 with several other members of Congress, including U.S. Rep. Grace Meng (D-Flushing).

"Unfortunately, as the bill currently stands, I have many concerns, including that it contains an attempt to privatize air traffic control. However, if there is a silver lining, it is that we may finally see a concerted effort to address the very serious issue of aircraft noise pollution."

The bill would require the Federal Aviation Administration to conduct a study on the effect of aircraft noise exposure on communities around airports and to consider noise when approving new departure flight paths. It would also require that the FAA review community involvement practices when implementing an entirely new airspace design, and make recommendations on how to engage the community in these specific instances.

"The provision of the AIRR Act that has gotten the most press is the proposal to take air traffic control away from the FAA and privatize it, controlled by a corporation whose board of directors would be composed of the airlines and the unions," said Janet McEneaney, president of the Quiet Skies advocacy group. "If such a corporation came into existence, our communities would have to be significantly represented on the board."

The state Comptroller's Office has also announced that it will be conducting a survey on noise in New York City neighborhoods and would like city residents to take the survey.

The city, which is in the process of distributing the survey, is hoping to learn about residents' experience with noise in neighborhoods and solicit ideas for noise mitigation. The survey, which follows a nationwide FAA impact study, must be completed by those who are interested by March 15.



QUEENS Chronicle

March 17, 2015
 Circulation: 160,000
 UVPM: 300,000

'Round and 'round the roundtable goes

JFK-LaGuardia, Queens-Nassau factions still divided on bylaws, representation

Posted: Thursday, March 17, 2016 10:30 am

by Laura A. Shepard, Chronicle Contributor |

0 comments



PHOTO BY LAURA A. SHEPARD

Eastern Queens Alliance Member Patrick Evans claimed during a heated meeting that some on the airport roundtable ignore the concerns of brown and black people.



Frustrations, rivalries and even racial tension exploded on March 10 at the latest meeting where political and resident representatives continued their efforts to form a community aviation roundtable so residents can discuss their problems with the Federal Aviation Administration and Port Authority.

The group made limited progress in amending a draft of bylaws as it regressed to debating the fundamental question: Should there be two roundtables, one for LaGuardia Airport and one of JFK, or one roundtable for the combined airspace?

"Unfortunately, we're back to the same debate we started two years ago," Barbara Brown, president of the coordinating committee, said, referring to the mandate from Gov. Cuomo in November 2013. "We still have not ratified bylaws and been able to discuss substantive issues and there are a lot of issues coming out of both airports that affect stakeholders on the ground."

Assemblywoman Michele Titus (D-South Ozone Park) said that when she sponsored the related bill, her legislative intent was to form two separate roundtables, as the Eastern Queens Alliance has supported. State Sen. Tony Avella (D-Bayside) interjected, saying he wrote the bill in question and that it called for one roundtable for New York airspace.

While the two elected officials argued their points, others in attendance shouted personal attacks at one another and officials until the meeting was brought back to order. K-347

Ultimately, the group voted to uphold a motion from a previous meeting to go forward with one combined roundtable, which will be made up of a committee for each airport, and a coordinating committee.

Then the talk turned to the wording of specific items in the bylaws.

"Article five is whole lot of mumbo jumbo," Patrick Evans, a member of the Eastern Queens Alliance, said referring to the section on voting and decision making, which calls for all proposed actions to be submitted to the roundtable coordinating committee for publication 14 days before being considered by the full roundtable.

"It's an effort to water down the autonomy of the JFK and LaGuardia roundtables," Evans said. "It's an intensive amount of governance and we'll never get anything done."

"I understand your objections, but we need some sort of structure and procedure," Avella said. "I know it's a longer period of time, more paperwork, but we're dealing with very serious issues."

In the absence of ratified bylaws, the coordinating committee chose to restrict voting power to the 64 entities selected by the Port Authority a year ago.

The list included impacted community boards and elected officials, but not civic associations and community groups in the name of objectivity and fairness. The EQA, Queens Quiet Skies and TVASNAC, the Town-Village Aircraft Safety & Noise Abatement Committee, were not allowed votes.

Max Kramer, on behalf of Congresswoman Kathleen Rice (D-Nassau), criticized the underrepresentation of Nassau County and the difficulty of attending meetings in Queens. He called for the addition of four TVASNAC seats because it is an official governmental entity and most directly correlates with community boards.

Betty Braton, from Community Board 10, proposed tabling the motion until a formula for population equity can be devised because it would be unfair for a hypothetical village of 8,000 people to have an equal vote with a community board that represents more than 200,000.

Brown pointed out that the issues impact areas beyond Queens and Nassau, though no one from the Bronx or Brooklyn was present. Brown, president of the EQA, is the chairwoman. Janet McEneaney of Bayside, the longtime president of Queens Quiet Skies was co-chairwoman for a while, but had to step down last year when she accepted a judgeship because that proved a conflict of interest.

The meeting was at Queens Borough Hall. About 20 people were able to vote, but there were nearly 50 people present. While the group debated limiting the noise threshold for individuals who can bring complaints to the roundtable — it was rejected for technical infeasibility — the talk eventually turned to environmental justice and diversity.

"The people who live around LaGuardia don't look like many of the people on this board," Patrick Evans said. "The people who live at the mouth of the runways are not here. A lot of Asians and Hispanics live by LaGuardia, but you want to reach out to Long Island."

Warren Schreiber, a member of the coordinating committee who sits on Community Board 7, said he is there representing one of the city's most diverse boards.

"It makes me sick to my stomach that you're accusing me of a racial component," Assemblyman Ed Braunstein (D-Bayside) said to the aspersion that the legislators and representatives from Northeast Queens would try to limit diverse participation. "I feel like I'm going to throw up."

"There is a racial undercurrent here," Evans continued. "It's because you, you and you don't want to listen to anyone who is black or brown," pointing at several members.

Brown noted that other roundtables limit their jurisdictions using a five-mile radius from the airport or height limit.

"When we sit in a room and the room looks different from the people it represents, it is an issue and we need diversity at this table and lots of other tables around town," she said.

"I have grave reservations about the industry having a voice," community activist and environmentalist Dan Mundy said. "It baffles me that they can vote, as we're already battling a top-heavy industry." He said the FAA and Port Authority only participate in an advisory capacity and that the airlines and cargo industry should have a similar status.

The next meeting will be in April.

TIMES *Ledger*

SERVING QUEENS SINCE 1919

March 17, 2016
UVPM: 69,000
Circulation: 75,000

MARCH 17, 2016 / NEWS / ENVIRONMENT / KEW GARDENS

Aviation roundtable members argue over structure at meeting

[Enlarge this image](#)



Photo by Madina Toure

Barbara Brown, chairwoman of the interim coordinating committee, and Warren Schreiber, vice chairman of the committee, lead the aviation roundtable meeting.

By Madina Toure

The highly anticipated New York Community Aviation Roundtable meeting was marked by tension last week as people spent nearly three hours debating everything from the roundtable's structure to individuals directly affected by airplane noise.

The March 10 meeting at Borough Hall at 120-55 Queens Blvd. had about 40 attendees.

In March 2014, Gov. Andrew Cuomo put out a press release calling on the Port Authority, the state agency that manages the John F. Kennedy and LaGuardia airports, to start aviation community roundtables with Federal Aviation Administration officials and community representatives for the two airports.

"The governor always intended one roundtable, two committees, one for each airport. One roundtable," said state Sen. Tony Avella (D-Bayside), who snapped at Barbara Brown of the Eastern Queens Alliance when she contended the Cuomo's intention was for two roundtable to be created.

As the discussion continued, there was strong disagreement over whether the governor had called for one or two roundtables to tackle the issue of plane noise over Queens.

In November 2013, Cuomo vetoed a state Senate bill that would have forced the PA to conduct a single study on airplane noise levels in New York and New Jersey. He instead asked that a study be completed for JFK and LaGuardia and that a community roundtable be established.

But state Assemblywoman Michele Titus (D-Far Rockaway) clashed with Avella over whether the governor intended to call for the creation of one or two roundtables.

Avella introduced legislation in 2012 calling for the Port Authority to do a noise compatibility study to map out high noise areas near the airport, but there was no mention of a roundtable. Titus picked up the bill for the state Assembly in May 2013.

"As the sponsor of the legislation, that was not my legislative intent at all (one roundtable) and our conversations with the governor at all," Titus said.

Avella introduced a motion at the meeting requesting that everyone honor the one roundtable-two committee structure recommended by the Port Authority, but withdrew the motion once everyone decided to recognize it.

Another part of the draft bylaws discussed at the meeting was a provision that Queens members of the roundtable must live or work within an area affected by average airplane noise near JFK or LGA. One citizen member per airport committee will be selected.

The level of airport noise, called DNL, represents the average sound level over a 24-hour period.

State Assemblyman Ed Braunstein (D-Bayside) said the noise requirements for the airport roundtable member excluded people in his district.

But Patrick Evans, a representative from the office of U.S. Rep. Gregory Meeks (D-Jamaica), said the people at the lowest ends of the economic stratum, which he said includes blacks, Hispanics, Asians and some Caucasians—do not have the luxury of attending the roundtable meetings because they are trying to make a living.

These people, who make up the communities that surround LGA and JFK, experience even greater DNL levels than the average, he continued.

“I remember going to northern Queens, Bayside and I was trying to work with Bayside on these airport issues and some eloquent assemblyman from up in Bayside told me, ‘This is a LaGuardia issue. This is not about JFK,’” Evans said.

Braunstein said he was “sick to his stomach” about the idea of a racial factor.

“I want to see airplane noise alleviated in your neighborhood, in everybody’s neighborhood,” the assemblyman said.

The meeting was held as the House of Representatives passed a short-term FAA bill Monday night without provisions to combat airplane noise, according to U.S. Rep. Grace Meng (D-Flushing).

Reach reporter Madina Toure by e-mail at mtoure@cnglocal.com or by phone at (718) 260-4566.

©2016 COMMUNITY NEWS GROUP

Malverne HERALD

April 7, 2016

Circulation: 73,000

UVPM: N/A

Noticing an increase in plane noise? Here's how to complain

By Rossana Weitekamp



Many Malverne residents have noticed a considerable increase in the amount of plane noise recently, leaving many to wonder whether it will ever end.

The short answer: Who knows?

While the Federal Aviation Administration now has several efforts under way that are helping it to quantify the noise — including plane noise monitor boxes and a “Part 150” study, which is measuring and analyzing the noise — there are numerous other factors that make it seem like the noise is a permanent issue.

Some efforts underway are:

- **John F. Kennedy International Airport’s flights per hour.** According to Larry Hoppenhauer, Malverne’s representative on the Town of Hempstead’s Town-Village Aircraft Safety & Noise Abatement Committee, the airport still hasn’t maximized the number of planes that could take off and land each hour. Currently, JFK is permitted 81 take-offs and landings per hour. “They haven’t reached capacity yet,” said Hoppenhauer. “They’re usually around 76 flights per hour.”
- **Bigger planes.** There is an increase in the number of larger planes being used at JFK. “Planes are bigger and are carrying more passengers,” said Hoppenhauer, “and they’re flying closer to the ground on takeoff because of it.” Flying closer to the ground increases noise.
- **Reducing the Day-Night Sound Level.** Even if interest groups like TVASNAC and others are successful in getting the maximum allowable plane noise level down to a day-night average of 55 decibels from an average of 65 — a standard set by the Federal Aviation Administration in the 1970s — the federal government has in the past offered soundproofing only to select institutions, like schools. An effort to soundproof homes, Hoppenhauer said, would probably never be initiated because of the tremendous cost.
- **The Part 150 Study.** The study, mandated by Gov. Andrew Cuomo to measure the noise level in JFK’s and LaGuardia Airport’s flight paths, is at least a year away from being completed.

- **The Port Authority's "perimeter rule."** This rule prevents flights using LaGuardia from traveling farther than 1,500 miles. The Port Authority, however, is considering increasing the perimeter, which would mean that even more local plane noise.
- **Renovations at LaGuardia.** Plans for a complete overhaul of the airport are in the works. They include two miles of new taxiways that would address the airport's chronic problems with flight delays.

So what, in the midst of all these obstacles, can residents do to make their voices heard? We asked Len Schaier, founder of QuietSkies.net, for some advice.

1. Write to your U.S. senators. "We will not be able to get anywhere without Schumer and Gillibrand's support, and we need that support now," Schaier said. "Our senators are making no effort to introduce legislation that would give us the ability to get mitigation, and we have to show them that people on the ground have rights, just like these airlines have rights, and we need to get those rights respected." Here is their contact info.

Senator Kirsten Gillibrand
155 Pinelawn Road, Suite 250
Melville, N.Y. 11747
(631) 249-2825
www.gillibrand.senate.gov/contact

Senator Chuck Schumer
145 Pinelawn Rd # 300
Melville, N.Y. 11747
(631) 753-0978
www.schumer.senate.gov/contact/email-chuck

2. Write to your state legislators. "Ask state legislators to put pressure on Schumer and Gillibrand to do something," Schaier said. "Our state senators need to be told that people want this." Here is their contact info.

Brian Curran
(For Malverne and W.H. residents)
100 Merrick Road
Lynbrook, N.Y. 11563
(516) 561-8216
curranb@assembly.state.ny.us

Earlene Hooper
(for Lakeview residents)
33 Front St., Suite 104
Hempstead, N.Y. 11550
(516) 489-6610

3. File noise complaints. You can file a complaint online with the Port Authority every time you hear plane noise. Go to this abbreviated link: <http://bit.ly/RicIcF>.

You can call also the Port Authority's Airport Noise Complaint Line, at (800) 225-1071

4. Get on the QuietSkies.net email list. Schaier encourages you to join his email list, to receive updates on future meetings or legislation relating to plane noise. Write to lschaier@quietskies.net to be put on the list.

5. Make your voice heard to every political candidate you meet. "Anyone running for public office should be told that if they want your vote, they should be supporting legislation to reduce the aircraft noise threshold," said Schaier. "People need to make that perfectly clear."

May 25, 2016
Circulation: 90,000
UVPM: N/A

STAVISKY, COLLEAGUES CALL ON CONGRESS TO LESSEN AIRCRAFT NOISE: State Senator Toby Ann Stavisky (D-Flushing), in partnership with senators from New York City and Long Island and aircraft noise and pollution awareness group, Quiet Skies, wrote a letter to U.S. Senators Charles Schumer and Kirsten Gillibrand regarding loud and disruptive airplane noise.

The bipartisan letter called for a change to the noise threshold from 65 Day/Night Noise Level to 55 Day/Night Noise Level. The lower figure being requested reflects an acceptable sound level determined by a number of organizations and agencies, including the Environmental Protection Agency, World Health Organization and Harvard School of Medicine.

"It is easy to dismiss airplane noise as a non-issue if you are not one of the thousands of families being affected day in and day out. But we now know the current threshold of 65 DNL is obsolete. Having been created in the 1970s, it could not take into account the numerous studies that suggest the negative health impact. The seven senators who signed onto this letter and I are calling on Senator Gillibrand and Senator Schumer to address the issue of aircraft noise, especially now, when Congress is drafting legislation to reauthorize the Federal Aviation Administration. With the Port Authority now conducting the Part 150 Study, we must take things a step further by reducing the noise threshold."

"Residents of Queens and Nassau county are thankful that Senator Stavisky has taken the lead in the State Senate to help show our US Senators that we need their help to change the noise threshold from 65 to 55 DNL using legislation currently in the congress," Quiet Skies President Len Schaier said. We are not against progress, a healthy aviation industry nor are we trying to deny a place for aircraft to land. We do believe, however, that along with safety and efficiency, people's health and quality of life on the ground also matters. Lowering the threshold will allow the Port Authority of New York and New Jersey and the FAA to justify noise mitigation for many of those currently suffering."

The letter was signed by the following State Senators from both the Democratic and Republican parties from Queens, Long Island and other districts:

Toby Ann Stavisky, Kemp Hannon, Michael Gianaris, Martin J. Golden, Jose R. Peralta, Joseph P. Addabbo Jr., Leroy Comrie, Gustavo Rivera.



June 1, 2016
UVPM: N/A

06.01.16

SCHUMER CALLS ON PORT AUTHORITY TO ACCELERATE COMPLETION OF NOISE STUDIES IN COMMUNITIES SURROUNDING JFK & LAGUARDIA AIRPORTS ; COMPLETION OF 'PART 150 NOISE STUDIES' COULD HELP REMEDIATE AIRPLANE NOISE & PROVIDE LONG - SOUGHT RELIEF TO COMMUNITIES

Part 150 Studies Will Better Evaluate Noise Impacts to Communities Surrounding JFK & LaGuardia Airport & Recommend Mitigation Measures; Schumer Has Long Supported Part 150 Studies, And Other Ways to Address Airplane Noise

Schumer Pushes Port Authority to Expedite Completion of Part 150 Studies; Senator Says a Completed Study Could Mean Additional Federal Resources for Noise Mitigation Measures

Schumer: While There Is No Silver Bullet When Addressing Airplane Noise, the Completion of Part 150 Studies Can Help Provide Some Relief to Communities

U.S. Senator Charles E. Schumer today urged the Port Authority of New York and New Jersey to complete its Part 150 noise studies as quickly and thoroughly as possible so that it can begin taking noise mitigation steps. The Part 150 studies aim to evaluate noise impacts to the communities surrounding JFK and LaGuardia Airport and, once complete, the studies will recommend measures to mitigate excessive noise where possible. Schumer has long supported the Part 150 studies.

"While there is no silver bullet when it comes to addressing noise pollution around airports, the completion of the Part 150 studies can help play an important role in providing relief to communities," said Senator Schumer. "These important studies will finally evaluate the best ways to address noise impacts in communities surrounding JFK and LaGuardia Airport. The Port Authority should complete these studies as quickly as they can so that our long sought relief of airplane noise is provided as soon as possible."

According to the FAA, the Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in significantly noise-impacted areas. The Part 150 study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings. Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures (like take-offs and landings) or routing flight paths over less noise sensitive areas or provide sound insulation for homes, schools and other buildings near the airport.

The Part 150 study has two phases. The first phase involves developing noise exposure maps to identify compatible and non-compatible land uses around the airport. The second step involves identifying mitigation efforts, which leads to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation.

Schumer has long supported measures to help address the issue of airplane noise in local communities. Specifically, Schumer successfully pushed for a hotline phone number for airplane noise complaints. And, after his urging, New York State directed the Port Authority to hold regular roundtable discussions in collaboration with FAA representatives and other affected parties regarding issues at two major New York airports. Schumer has urged the Port Authority and FAA to install additional noise monitors at airports and use the data collected to make decisions about changes to flight patterns.

Schumer today urged the Port Authority to expedite completion of the Part 150 studies so airplane noise mitigation measures can be implemented as quickly as possible, providing relief to New York communities. Schumer went on to say that there are a number of federal resources – in particular using Airport Improvement Program (AIP)-funds for noise mitigation measures – that can only be fully utilized once the studies are complete, and so the studies should be completed quickly to ensure that these communities have every available tool in the toolbox to address this issue.

A copy of Schumer's letter is below:

Dear Mr. Foye:

I write to reiterate my support for the Federal Airport Noise Compatibility Planning Part 150 studies that the Port Authority of New York and New Jersey is currently undertaking, and to urge you to complete the studies and begin taking noise mitigation steps as quickly as you can without sacrificing thoroughness.

As you know, the Port Authority committed to conducting the Part 150 studies in fall of 2013, in order to evaluate noise impacts to the communities near JFK and LaGuardia Airports. Once complete, the studies will recommend measures to mitigate excessive noise where possible. Other airports that have completed Part 150 studies have taken noise mitigation efforts like updating flight routes and approach procedures, encouraging airlines to use quieter aircraft, and installing soundproofing in eligible homes. Last summer, I was pleased that the Department of Transportation awarded a total of more than \$6 million in federal funding to the Port Authority to help facilitate the Part 150 studies for both JFK and LaGuardia.

I understand that in October 2014, the Port Authority signed a three-year contract, ending in August 2017 with Environmental Science Associates to conduct the Part 150 studies. I urge the Port Authority to do everything reasonable and possible to speed up the Part 150 process, and complete the studies as expeditiously as possible. As you know, each day thousands of New Yorkers are adversely impacted by airplane noise. These communities need relief, and the noise mitigation measures that will follow the Part 150 studies will be key to improving the quality of life for the many New Yorkers living near airports. After the studies are complete, I pledge to do all that I can to assist the Port Authority with procuring the Airport Improvement Program (AIP) grant funds that might be needed to implement noise mitigation measures recommended by the Noise Compatibility Program that comes out of the study. There is no silver bullet when it comes to addressing noise pollution around airports, but completion of the Part 150 studies can help play an important role in providing relief to communities. There are a number of federal resources – in particular using AIP funds for noise mitigation measures – that can only be fully utilized once the studies are complete, and so to ensure we have every available tool in the toolbox to address this issue, I urge you to complete the studies as quickly as possible.

Thank you in advance for your attention to this important matter. I look forward to continuing to work with you to mitigate the impacts of airplane noise on communities in New York.

Sincerely,

U.S. Senator Charles E. Schumer

June 2, 2016
Circulation: 75,000
UVPM: 60,000

Schumer calls on PA to finish up airplane noise studies

By **Madina Toure**

JUNE 2, 2016

U.S. Sen Charles Schumer (D-N.Y.) is calling on the Port Authority to accelerate the completion of airplane noise studies in communities surrounding John F. Kennedy and LaGuardia airports.

Once they are completed, the Part 150 studies, which assess the effects of aircraft noise, will propose measures to reduce excessive noise. Schumer said he has been a longtime supporter of the studies.

“While there is no silver bullet when it comes to addressing noise pollution around airports, the completion of the Part 150 studies can help play an important role in providing relief to communities,” he said. “These important studies will finally evaluate the best ways to address noise impacts in communities surrounding JFK and LaGuardia Airport.”

The Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that consists of a meticulous approach for airport operators, airlines, pilots, neighboring communities and the FAA to use as they work together to decrease the number of people who live in high-noise areas.

The study mandates that members of the public can directly participate in the process through public hearings and meetings.

Through the study, airport operators can consider different methods of lowering the noise, including changing operational procedures such as takeoffs and landings, routing flight paths over less noise-sensitive areas or providing sound insulation for homes, schools and other buildings near airports.



The Gazette

The Gazette Is Proud Of
Over 34 Years Of Dedicated
New Coverage

K-358

The Weekly Community Publication Dedicated To Bringing Our Readers A Vital Locally-Oriented View Of The News

June 8, 2016

Circulation: 90,000

UVPM: N/A

Schumer Urges Port Authority To Expedite Noise Study

2016-06-08



The Part 150 studies aim to evaluate noise impacts to the communities surrounding JFK and LaGuardia Airport (pictured), and, once complete, the studies will recommend measures to mitigate excessive noise where possible. Schumer has long supported the Part 150 studies.



U.S. Senator Charles E. Schumer urged the Port Authority of New York and New Jersey on June 1st to complete its Part 150 noise studies as quickly and thoroughly as possible so that it can begin taking noise mitigation steps. The Part 150 studies aim to evaluate noise impacts to the communities surrounding JFK and LaGuardia Airport and, once complete, the studies will recommend measures to mitigate excessive noise where possible. Schumer has long supported the Part 150 studies.

"While there is no silver bullet when it comes to addressing noise pollution around airports, the completion of the Part 150 studies can help play an important role in providing relief to communities," said Senator Schumer. "These important studies will finally evaluate the best ways to address noise impacts in communities surrounding JFK and LaGuardia Airports. Port Authority should complete these studies as quickly as they can so that our long-sought relief of airplane noise is provided as soon as possible."

Schumer explained that according to the FAA, the Part 150 study, also known as the Airport Noise Compatibility Planning, is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in significantly noise-impacted areas. The Part 150 study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings. Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures (like take-offs and landings) or routing flight paths over less noise sensitive areas or provide sound insulation for homes, schools and other buildings near the airport. The Part 150 study has two phases. The first phase involves developing noise exposure maps to identify compatible and non-compatible land uses around the airport. The second step involves identifying mitigation efforts, which leads

to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation.



Schumer has long supported measures to help address the issue of airplane noise in local communities. Specifically, Schumer successfully pushed for a hotline phone number for airplane noise complaints. And, after his urging, New York State directed Port Authority to hold regular roundtable discussions in collaboration with FAA representatives and other affected parties regarding issues at two major New York airports. Schumer has urged Port Authority and FAA to install additional noise monitors at airports and use the data collected to make decisions about changes to flight patterns.

Schumer urged Port Authority on Wednesday to expedite completion of the Part 150 studies so airplane noise mitigation measures can be implemented as quickly as possible, providing relief to New York communities. Schumer went on to say that there are a number of federal resources – in particular using Airport Improvement Program (AIP)-funds for noise mitigation measures – that can only be fully utilized once the studies are complete, and so the studies should be completed quickly to ensure that these communities have every available tool in the toolbox to address this issue.

June 10, 2016
Circulation: 23,000
UVPM: N/A

Schumer Pushes Port Authority to Expedite Completion of Part 150 Airport Noise Compatibility Studies

By Michael V. Cusenza

U.S. Sen. Charles Schumer (D-N.Y.) has reached out to the Port Authority of New York and New Jersey to urge the agency to complete its Part 150 Airport Noise Compatibility Planning studies as quickly and thoroughly as possible, so that it can begin taking noise mitigation steps and gradually improve the quality of life of the communities surrounding John F. Kennedy International and LaGuardia airports.

"As you know, each day thousands of New Yorkers are adversely impacted by airplane noise. These communities need relief," Schumer wrote in a letter to Port Authority Executive Director Patrick Foye.

According to the FAA, the Part 150 study is part of a program that provides a structured approach for airport operators, airlines, pilots, neighboring communities and the FAA to work together to reduce the number of people who live in noise-impacted areas – including south Queens communities Howard Beach, Hamilton Beach, and Lindenwood. The study requires that members of the public have an opportunity for active and direct participation in the process through public meetings and hearings.

Through the Part 150 study, airport operators may consider different ways to reduce noise, including changing operational procedures (like take-offs and landings) or routing flight paths over less noise sensitive areas or provide sound insulation for homes, schools and other buildings near the airport, Schumer said.

The study has two phases: The first phase involves developing noise exposure maps to identify compatible and non-compatible land uses around the airport. The second step involves identifying mitigation efforts, which leads to a Noise Compatibility Program. Airports that conduct Part 150 studies and develop Noise Compatibility Programs are eligible for federal funds for noise mitigation, Schumer noted.

"While there is no silver bullet when it comes to addressing noise pollution around airports, the completion of the Part 150 studies can help play an important role in providing relief to communities," Schumer said. "These important studies will finally evaluate the best ways to address noise impacts in communities surrounding JFK and LaGuardia airports. The Port Authority should complete these studies as quickly as they can so that our long sought relief of airplane noise is provided as soon as possible."

Port Authority representatives did not return messages seeking comment on the letter to Foye and Schumer's request.

Over the last several years, New York's senators have tackled the issue of airplane noise in area neighborhoods. In August 2015, Schumer and U.S. Sen. Kirsten Gillibrand (D-N.Y.) announced \$3.1 million in federal Department of Transportation funding for Part 150. They also successfully pushed for a hotline phone number for airplane noise complaints. And, after Schumer and Gillibrand's urging, the State directed the Port Authority to hold regular roundtable discussions in collaboration with FAA representatives and other affected parties regarding issues at JFK and LaGuardia.

Additionally, last month, U.S. Rep. Grace Meng (D-Flushing) met with the National Aeronautics and Space Administration to discuss ways to combat the familiar roar of aircraft over parts of the World's Borough.

UVPM: 44,681

Complaints about plane noise pile up

by Chris Adams

Thursday, June 23, 2016

Aviation noise from New York City-bound planes has become the major complaint among Old Westbury residents, according to Deputy Mayor Leslie Fastenberg.

Since the village opened a section on its website for public comments, 75 percent of the complaints addressed the issue of plane noise, Fastenberg said.

"I've only been in office for 10 months and this has moved to the top of my list of problems that we have got to address," Fastenberg said. "The groundswell of concern by our residents is shocking."

Fastenberg said the noise was an issue for her as a homeowner in Old Westbury before she took office, and the problem could lead to decreased property values in the area.

"Everyone is complaining the planes are coming in lower and lower all the time," Fastenberg said. "You can read the writing on the bottom of the plane sometimes. That's too low."

The trustees have been in contact with Rep. Grace Meng of the Sixth District, who is involved with legislation to resolve the issue, Fastenberg said. Meng raised concerns about a potential flight path change into Newark, which would increase air traffic over her district.

"I am dismayed at the possibility of more aircraft noise over Queens," Meng said in a letter to FAA Administrator Michael Huerta. "In 2012, new flight patterns over Queens slapped increased airplane noise over our borough, a move that continues to ruin quality of life for Queens residents. We will not accept any new noise and we'll do everything in our power, legislative and otherwise, to fight this plan should it negatively impact our borough. The FAA must immediately clarify whether this new plan for Newark Airport will cause any new aircraft noise over Queens."

Meng, whose district encompasses northern Queens, has also been working with NASA on the development of technology to reduce plain noise,

Fastenberg said.

"In Europe, airlines are fined if they don't have sound attenuating technologies," Fastenberg said. "These are the kinds of things we have to become aware of."

Meng's efforts paid off when Gov. Andrew Cuomo helped establish a roundtable dedicated to the issue with the Port Authority, according to a press release. Jordan Goldes, communications director for Meng, said, "The group's purpose is to address the ongoing and future concerns that residents of Queens and the New York metropolitan area have about noise and other airport issues that negatively affect their quality of life."

Additional sound monitoring systems were also put in place to record accurate data about the airplane noise, Goldes said.

Recently, Mayor Fred Carillo wrote a letter to Nassau County Executive Edward Mangano in support of East Hills Mayor Michael Koblenz's request to consider litigation against the FAA for the noise. Carillo wrote that noise has created "intolerable conditions that disrupts the quality of life of Old Westbury and East Hills residents."

"I was thrilled that Mayor Carillo has joined Mayor Koblenz in that suit, and we're going to stay on it aggressively, and make sure Old Westbury is represented at the table for these discussions," Fastenberg said.

In addition to legal and legislative action, Fastenberg said there are immediate solutions which should be considered as well. Descending planes could come in at higher altitudes, and make their turns over water instead of land, Fastenberg said.

The issue has become highly politicized, but trustees are determined to gather support from both parties, Fastenberg said.

"As the members of the board we spend so much time looking next door to us. We're concerned about the construction, your lighting, your drainage, but we never look up," Fastenberg said. "So this is a whole new reality."

July 29, 2016
Circulation: 89,534

Schumer urges Port Authority to expedite noise studies

Posted June 29, 2016

By Stephen Romano



In an effort to expedite the noise studies known as Part 150, Sen. Charles Schumer (D-NY) readdressed the problem of airplane noise over houses in a letter to Pat Foye, the executive director of the Port Authority of New York and New Jersey.

Part 150 studies, which is also being called Airport Noise Compatibility Planning, are part of a program that's expected to the amount of airplane noise being emanated over the communities closest to John F. Kennedy International Airport on the South Shore of Queens such as the Five Towns and several others, and LaGuardia Airport on the North Shore of the borough.

The studies are part of a program that requires the Federal Aviation Administration (FAA), communities, airport operators and airlines to work together in order to reduce noise in the most affected areas.

Schumer's letter to Foye expressed concern about the speed in which the studies are being conducted. The Port Authority agreed to conduct the studies beginning in the fall of 2013. Its contract with the Environmental Science Associates — which was intended to assist the studies — ends in 2017. The Port Authority received \$6 million in federal funding from the Department of Transportation to aid and help facilitate the studies.

In the letter, Schumer said, "As you know, each day thousands of New Yorkers are adversely impacted by airplane noise. These communities need relief, and the mitigation measures that will follow the Part 150 studies will be key to improving the quality of life for the many New Yorkers living near airports."

Once completed, the studies are intended to show data that will provide the airports and airlines to alter flight patterns, avoiding the neighborhoods they are currently being impacted. Airports that conduct studies and develop their own noise programs will be eligible for federal funds to assist in noise mitigation.

Kevin Denning, the director of the Town-Village Airport Safety & Noise Abatement Committee (TVASNAC), said the group agrees with Schumer's assessment. "We don't believe the Port Authority has moved quickly enough to address noise related issues in our communities," Denning said. TVASNAC, which is comprised of representatives from a dozen municipalities, works to require the FAA and Port Authority to mitigate aircraft noise. Atlantic Beach, Cedarhurst, Lawrence, Long Beach, Malverne, Valley Stream and Woodsburgh are part of TVASNAC.

At a Technical Advisory Committee meeting held at JFK on June 22, the study consultant, Environmental Sciences Associates, unveiled a draft of the 65, 70 and 75 day-night sound level maps that Denning said did not provide enough detail. He said more detailed maps are expected to be unveiled as soon as this week.

Port Authority officials said it is committed to completing the noise studies and noted that the ESA's time frame for conducting the studies is three to five years as the work must be done in compliance with all FAA requirements. Officials added, that at Foye's direction, staff will "work to accelerate completion of the studies" and noted that the studies require a "more comprehensive approach and thorough analysis."

"There is no silver bullet when it comes to addressing noise pollution around airports," said Schumer, "but the completion of the Part 150 studies can help play an important role in providing relief to communities."



June 30, 2016

Circulation: 160,000

UVPM: 31,995

Not much change in plane noise patterns

Posted: Thursday, June 30, 2016 10:30 am | Updated: 11:41 am, Thu Jul 7, 2016.

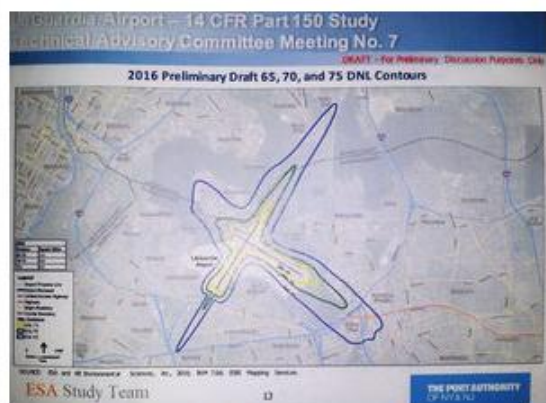
by Victoria Zunitch, Chronicle Contributor | 

PHOTO BY VICTORIA ZUNITCH

Airport noise contour maps are great, but what residents really want are concrete mitigation strategies.

The Port Authority's LaGuardia Airport noise study group last week released a draft noise contour map of areas potentially eligible for sound mitigation money that shows no substantial change from a map produced several years ago.

But residents of Bayside and Flushing who attended a June 21 meeting on the map expressed substantially less concern with the mapping phase of the study than with actual noise reduction and mitigation.

"What they're doing is technically correct, but they're not addressing the larger issue, which is the effect on 10,000 people per square mile," said Bayside resident Clarence Beninati.

The draft map was created as part of a noise study known as Part 150 and presented by Steve Alverson, a senior associate with the environmental science and planning firm ESA and the project director of the Port Authority's Noise Compatibility Study for LaGuardia, John F. Kennedy, Newark Liberty and Teterboro airports.

Part 150 is a Federal Airport Aviation Regulation program providing U.S. airports with the right to voluntarily balance operational needs with the noise those operations create in surrounding neighborhoods.

The map shows a narrow band of areas surrounding and extending from LaGuardia's runway that experience an Average Day/Night Sound Level of 65 decibels or more. The DNL threshold of 65 is the metric the FAA uses to quantify airport-vicinity noise.

The study group noted that the expected retirement of the MD-80 aircraft may alter the noise patterns shown on the map to a small degree by 2021 because the MD-80 is quieter than some other aircraft on arrival and noisier on takeoff.

Homes within areas acknowledged by the FAA to have a DNL of 65 or higher may be eligible for money for noise mitigation strategies, such as sound-control windows.

Other types of changes, such as alterations to flight paths or runway use, could mitigate noise outside of the 65 DNL contour, Alverson said.

The next step for the study group will be to look at ways to mitigate the exposure, Alverson said. The group has begun planning public workshops to be held at easily accessible venues where it will seek community input on how airport noise affects people and to gather suggestions.

The JFK draft map was presented the next day. The study group expects to send the LaGuardia study to the Federal Aviation Administration for review by mid-July and the Kennedy study by late August.

During the public comments portion of the hearing, residents had a few issues with the draft map, such as questions about the types of noise monitors used and how measurements of ambient community noise and aircraft noise are counted.

But they primarily focused on possible solutions.

Several residents commented at the meeting that because the threshold of 65 DNL is an average, households outside of the mapped noise contours can still experience extremely disruptive noise.

"We have a very big push with congressional representatives to change the threshold to 55 from 65," Len Schaier of QuietSkies.net told the Chronicle after the meeting.

Beninati, a retired electrical engineer, said he has done his own aircraft noise studies at his home and concluded that 55 would still be too high, as it would be loud enough to interrupt backyard conversation, disrupt thought processes and cause anxiety and high blood pressure.

"At some point, we need to address the pathways these planes need to take. And with that, where those planes could fly with minimal impact on the community," Beninati said.

He has also created maps of observed LaGuardia takeoff patterns.

"There is a range in which they can change the flight paths," Beninati said.

Bryan Serra of Bayside said flight paths changed for the worse about three years ago, making the noise "quite hellish" in his neighborhood. He'd like to see them change again to avoid hurting quality of life and property values in his neighborhood.

One of Beninati's maps shows takeoff patterns during westerly wind conditions consistently flying over densely residential Bayside and the Clearview Expressway, which he says creates a canyon effect that amplifies the low-frequency noise of the airplanes.

Beninati has concluded that the FAA needs to give a higher priority to avoiding residential areas in favor of flying over commercial areas.

"They need to focus on the commercial zones," he said. "The fact is, they're saturating the human population with noise and pollution. We need to limit that."

July 14, 2016

Circulation: 160,000

UVPM: 31,995

Jack Martins aims to succeed Rep. Israel

by Ryan Brady

Thursday, July 14, 2016



PHOTO BY RYAN BRADY

State Sen. Jack Martins, a Republican who represents Nassau County's North Shore in the New York's upper chamber, will likely face former Nassau County Executive Tom Suozzi in the general election for the 3rd Congressional District, which includes parts of the counties of Queens, Nassau and Suffolk.

The beliefs of state Sen. Jack Martins (R-Nassau), who plans to face former Nassau County Executive Tom Suozzi in the general election for the 3rd Congressional District, fall somewhere in the middle.

"I think that the issues are not black and white, they're not conservative or progressive," Martins said in a Monday sitdown interview with the Chronicle's editorial board.

The state senator — who characterizes himself as "not ideologically rigid" — supported Gov. Cuomo's NY SAFE Act gun control bill along with Albany's paid family leave and \$15 minimum wage plans, and would back the proposal to ban guns for people who are on the terrorist watch list.

Being a moderate, however, does not mean that he does not want serious change for America.

"Anyone who's out there saying that we're OK, that the economy is robust, that the health care system works, that the Affordable Care act is providing people with opportunities isn't listening, isn't holding these town hall meetings and isn't hearing from people directly," said Martins, who has met with residents of Queens in the 3rd Congressional District, which is represented by retiring Rep. Steve Israel (D-Nassau, Suffolk, Queens).

One vexation that affects residents of the district in all three counties — especially the northeast part of Queens — is airplane noise, an issue that Martins plans on tackling in Congress.

"Whether it's Queens, whether it's Nassau, whether it's Suffolk County, airplane noise has been a consistent concern," Martins said. As state senator, he co-sponsored a bill to make the Port Authority of New York and New Jersey conduct a "Part 150" study of airplane noise. The governor vetoed the legislation, but

directed the transportation agency to conduct the studies for JFK and LaGuardia Airport, in a victory for quiet skies advocates.

"There is a marked difference between having an airplane flying over Port Washington or flying over Douglaston or flying over Mineola as opposed to an airplane flying over some cornfield in Kansas," he said.

Although he plans on joining the Quiet Skies Caucus, the senator is frustrated by it.

"I just wish they did something, to be frank with you," said Martins, a lawyer by profession who previously served as the mayor of Mineola, LI. "It's great to be part of a caucus if there's some accountability associated with actually following through on something."

The senator also expressed interest in the usage of new landing patterns and technologies for reducing airplane noise.

Martins points to his achievements as Mineola's mayor and as state senator as evidence that he works hard for his constituents.

When he was the executive municipal official of the Nassau County village, Martins oversaw a master plan for the community, which he said was long-needed.

"When people complained that there was no place for their kids to live because we hadn't built those apartments, we asked, 'Why not?'" Martins said. "And we found a place to be able to build the apartments in a way that was consistent with the single-family community."

The state senator is confident that the Republicans will keep their majority in the House of Representatives after this fall's election, and that as a member of the party, he will be a more effective representative of the 3rd District's residents.

"To be in a position to affect policy means having a majority member in Congress," he said.

However, he says he will "work across the aisle" in the federal legislature and find common ground with those who aren't Republicans.

After Martins successfully challenged the petitions of Phillip Pidot, a Nassau-based former corporate fraud investigator aiming to succeed Israel, his potential rival began a legal battle to force a Republican primary in the race. Last week, Pidot dropped his original federal lawsuit, and has since filed new lawsuits in state supreme and federal courts with the same goal of compelling the state senator to face him in a primary.

Martins does not seem worried.

"It is July 11, Mr Pidot is not on the ballot, he never has been on the ballot," the state senator said. "I'm focused on the general election on November 8."

Queens' Largest Weekly Community Newspaper Group

September 1, 2016

Circulation: 160,000

UVPM: 31,995

Records show more departures from LGA

Ryan Brady

September 1, 2016



Queens Quiet Skies Vice President Brian Will and state Sen. Tony Avella (D-Bayside) on Tuesday said official records confirm what residents have long contended: a significant increase in flights from LaGuardia Airport over northeast Queens and Jackson Heights in recent years.

"Northeast Queens in 2002 had 57,000 departures over it," Will said. "By 2016, we are on pace for over 100,000 departures. That's nearly a doubling of the departures over this neighborhood."

The quiet skies advocate also discussed how Jackson Heights had been affected by LaGuardia's flights.

"They have had a seven-fold increase in departures," he added, noting that the neighborhood's burden of flights has been on a smaller scale than the borough's northeast section. "Mostly on weekends, when families are in the park, et cetera."

"I'm not really blaming [the Port Authority of New York and New Jersey] for this sort of increase," he said "This is the [Federal Aviation Administration]."

The quiet skies advocacy group has urged for more accountability from the federal aviation agency.

"When we talk to the FAA, they say that this is because of wind and weather," Will said, referring to the increase for the statistics in one of the data sets, which covered the period between 2002 and 2016. "No, this is an operational change. Prevailing winds have not changed in the past 14 years. We get northwest winds in the winter, we have pretty much variable wind in the summer and that's been pretty much the same."

Henry Euler of the Auburndale Improvement Association also discussed the airplane noise burden faced by northeast Queens.

"This is such a serious problem in our community with the noise and the pollution of the airplanes, and we're so grateful to Senator Avella and to the people of Queens Quiet Skies for working with communities to try to get the FAA and the Port Authority to change," Euler said.

"We all felt we were getting more airplane noise over this community," Avella said. "Now, the records show it. But even with the impact we're getting, other neighborhoods are getting it as well."

The senator also mentioned the need to complete the Part 150 noise study and to get the New York Community Aviation Roundtable, plagued by infighting, "up and running."

"The powers to be — the Port Authority and the FAA — have to bite the bullet and I'm gonna be public about this, [they] have to tell this one community group from JFK that they cannot forestall moving ahead on this," said Avella, who has criticized Eastern Queens Alliance activist Barbara Brown for holding autonomous meetings of the JFK contingent of the roundtable with the Port Authority and FAA.

"We're all in this together, and the faster we can get the roundtable up, the faster we can address these issues," he added.

September 8, 2016
Circulation: 147,000
UVPM: N/A

Data Supports Airplane Noise Concerns

JAMES FARRELL

September 08, 2016



There has been an increase in airplane departures over northeast Queens in recent years, even as the overall capacity and prevailing seasonal winds have stayed the same, according to a study released Aug. 30 by a community group called Queens Quiet Skies.

The study claims to confirm many residents' concerns that airplane noise has become worse over northeast Queens and in Jackson Heights.

"When we talk to the FAA, they say this is because of wind and weather," said Brian Will, vice president of Queens Quiet Skies, who presented the findings alongside state Sen. Tony Avella (D-Bayside) and other community leaders at a press conference on Aug. 30. "No. This is an operational change. Prevailing winds have not changed for the past 14 years."

The departure data, which were obtained from the Port Authority through a Freedom of Information Request filed by Queens Quiet Skies, show a 47 percent increase in departures from LaGuardia over northeast Queens, and indicate there will be over 100,000 departures in 2016. Meanwhile, Jackson Heights has seen nearly a seven-fold increase in departures, Will said at the press conference. Most of that increased traffic happens on weekends, Will added.

In 2002, LaGuardia's northeast Queens runway—runway 13—accounted for 37.5 percent of all departures. In 2014, it accounted for nearly half, the study claims.

"We all felt that we were getting more airplane noise over this community," said Avella. "Now the records show it."

Avella also explained that there is still significant work to be done to change things, especially making progress in beginning the New York Community Aviation Roundtable, which would bring the various factions—the airports, the community members, the agencies—together to discuss potential solutions. The roundtable has been held back by disputes between members.

"The one thing that comes out of this is we need to finish the Part 150 study, we need to have some sort of noise-abatement program, not only for northeast Queens but for the entire metropolitan area, and we need to get this roundtable up and running," he said. "The faster we get the roundtable up, the faster we can start to address these issues."

The Part 150 Study refers to an ongoing study being conducted by the Port Authority of New York and New Jersey to look deeper at the airplane noise issue.

Roberta Goldstein is an educator in an elementary school in Flushing. She says that she is concerned about the effects that airplane noise may be having on her students.

"These airplanes are flying right over so many schools in my neighborhood," she said.

She also added that she has spent some days counting the planes and keeping her own personal data. She said that her early counts had planes at around every four and a half minutes.

"Now, sometimes, it's every minute," she said.

September 29, 2016

UVPM: 1,539,618

Port Authority's noise exposure maps for Teterboro Airport debut with little noise

SEPTEMBER 29, 2016

BY MEGHAN GRANT



Kristen Frendak of Rutherford has taken up the habit of wearing earplugs while in bed.

It's not just her sleep she says that's being disturbed by the planes coming in and out of Teterboro, however.

"Our quality of life is being disturbed," Frendak said.

Port Authority of New York and New Jersey officials held a hearing with citizens on Sept. 22 to discuss an early draft of a noise compatibility study, part of a \$6 million project, for the densely-populated neighborhoods surrounding Teterboro Airport.

Approximately six Rutherford residents attended the open-door meeting to voice their frustration over the noise issue. Lauren Cates, a Rutherford resident for eight years, said in the last few months she's noticed an increase in flyovers. "The noise has been incessant. I can't open my window or go outside with my kids," Cates said. "It's just one after another."

Stuyvesant Avenue resident Lori Cates agreed, adding that the planes fly over every three minutes.

Being conducted under a Federal Aviation Administration (FAA) program offering federal funding for noise mitigation, the Title 14 Code of Federal Regulations (CFR) Part 150 Study is the first of its kind for Teterboro Airport. The study area included 14 Meadowlands municipalities, including Rutherford, Carlstadt, Lyndhurst, North Arlington and East Rutherford. Similar studies are also being conducted by the Port Authority at nearby Newark Liberty International Airport, John F. Kennedy International Airport and LaGuardia Airport.

Two primary components make up these studies – Noise Exposure Map (NEM) reports, information on the existing conditions of noise exposure to the region and five-year forecast for airport noise; and the Noise Compatibility Program (NCP), an evaluation of noise abatement and mitigation options. Recently, the Port Authority completed a draft of the NEM reports.

The Port Authority recently showcased the draft results of their reports at a hearing at the Bergen County Complex in Hackensack. Approximately two dozen Port Authority staffers and consultants waiting to take questions and explain the charts and graphs displayed around the room. Public turnout was nearly dwarfed by the number of presenters.

Noise maps, forecast

The Noise Exposure Map describes the airport layout and operation, noise exposure and nearby land use, mapping out the noise/land use compatibility being experienced in 2016, and forecasted conditions for 2021. Noise as it occurs over a 24-hour period is represented by Day-Night Sound Level (DNL). Nighttime (10 p.m. to 7 a.m.) noise is treated differently than daytime noise, assuming that the sound level in the overnight hours are louder than they really are, assigning a 10 decibel penalty. Certain land uses – like residences, schools and outdoor music spaces – are considered by the FAA to be incompatible uses where noise exposure levels are greater than DNL 65 dB. Aircraft noise may be experienced in areas beyond the DNL 65 dB noise contour, but according to the Port Authority, only those areas with noise levels of DNL 65 dB or higher are considered incompatible [with certain levels of noise exposure].

The oldest operating airport in the New York-New Jersey metro area, the facility has a 100,000-pound weight limit for planes using its runways, built into the Port Authority's charter.

Within the study area, there are presently 382 estimated residents, one day care (Learning Tree Academy Daycare in Moonachie) and one school (Bergen County Technical High School) within the DNL 65 to 70 noise level; and 19 estimated residents within the DNL 70 to 75 level, according to the draft report. The technical high school was soundproofed under a Port Authority program. In the last 30 years, the agency spent close to \$400 million on soundproofing at 77 schools, including Becton Regional High School in East Rutherford and Sylvan School in Rutherford.

According to the Port Authority, they have determined a detailed forecast for Teterboro Airport operations, consistent with the FAA-approved terminal area forecast. In 2016, the airport will experience 171,112 in annual operations – about 83 percent of which are jet traffic. By 2021, those operations are forecasted to increase to 187,036, with 84 percent being made up of jet traffic.

Under the forecasted increase in airport operations, the Noise Exposure Map estimates that one house of worship (North Jersey Vineyard Church) and a hotel (Travelodge) will be added to the DNL 65-70 level range, and 392 residents affected.

The draft forecasts that 41 residents will be in the DNL 70-75 level.

Once the noise maps are approved by the FAA later this year, the Port Authority and Technical Advisory Committee, will begin to develop the Noise Compatibility Program, with the goal of reducing "incompatibilities with surrounding land uses," Port Authority literature read. A draft of the program report is expected to be submitted to the FAA in late 2017.

New Jersey federal lawmakers announced last year that they had taken measures to ensure weight limits stay in place at Teterboro to keep larger planes from utilizing the airport, adding an amendment to a funding bill. The same language was added to the fiscal year 2017 bill.

"Prohibits funds provided by this bill from being used to change weight restrictions or prior permission rules at Teterboro Airport in New Jersey," the proposed federal Department of Transportation appropriation bill read.

Residents speak out

Many of those that came out on Sept. 22 were Rutherford residents, expressing their objections not to the projected noise levels, but those they are experiencing now.

"I can't talk to my neighbor on my front porch when a plane comes over," said Summit Cross resident Gerri Wartel. She recalled how the noise of a low-flying plane scared her son's substitute teacher at Sylvan School in the days after 9-11, since she was new to the borough. "These planes have to be less than 500 feet above my house. They have their landing gear down already," she said.

Wartel said she called the Port Authority's complaint hotline many times.

"They tell me 'oh we are busy this month, it will slow down next month.' They've been telling me that for the past 15 years," she said.

Some residents said there has been a noticeable increase in noise and flyovers frequency in the last few years.

"They come one to two minutes apart at some times, it feels like I live at an airport and not a residential area," said Maggie McGill.

Mike Piccirillo has been living in Moonachie for 14 years. His property is so close to the airport that facility employees asked him to either have the tree in his yard cut back or removed. He chose to have the tree trimmed.

According to Piccirillo, he's seen air traffic increase slightly in recent years, especially on Sunday evenings when jet owners are returning from weekends away.

"I choose to live here [in a community near an airport]," Piccirillo said, adding that he believes the Port Authority will "do the right thing" and listen to residents.

Hackensack residents Connie Bovino and Jerry Weber, leaders of the Condominium and Cooperative Unit Owners Advisory Board, presented the Port Authority with a petition containing 250 signatures. Bovino explained that the petition was intended to express residents' concern about safety, as the area has many high rises, and pollution.

According to records provided by the Port Authority, in 2015 there were 95 noise complaints filed in Carlstadt, 4 in East Rutherford, 19 in Lyndhurst and 178 in Rutherford. So far this year, there have been 38 complaints in Carlstadt, 7 in East Rutherford, 3 in Lyndhurst and 40 in Rutherford.

Public comments on the TEB 14 CFR Part 150 Study are being accepted. They can be submitted through email at NJPART150@panynj.gov.

To file a noise complaint with the Port Authority, call their hotline at 1-800-225-1071.

APPENDIX L

Public Comments and Responses

This appendix includes a copy of public and agency comments received throughout the development of the Noise Exposure Maps (NEMs). The official comment period for the NEM Report was between September 22, 2016 and October 24, 2016; comments received during the draft NEM Report comment period have the prefix “C.”; comments received at the public workshops held on September 29, 2015 and October 29, 2015 are also denoted with the prefix “C”. All comments received before the NEM Report comment period, with the exception of those received at public workshops, have the prefix “P,” to reflect they were prior to official comment periods.

Full-size copies of the comment letters can be viewed on the project website at www.panynjpart150.com/LGA_documents.asp.

C-001-001

From: Susan Carroll [<mailto:susanc718@yahoo.com>]
 Sent: Thursday, September 29, 2016 8:22 PM
 To: Knoesel, Edward <eknoesel@panynj.gov>
 Subject: Re: LGA Part 150 Questions/Comments/Concerns

PS I would also add that the approach plate for Expressway Visual 31 should say 'noise abatement' on it, as should the LGA Five Departure plates for the Whitestone, Maspeth, & Coney Climbs.

On Sep 29, 2016, at 8:13 PM, Susan Carroll <susanc718@yahoo.com> wrote:

Hi Ed,
 Great seeing you tonight! My elected representatives might send some form of this to the FAA, but here is a list of my questions/comments/concerns for the NCP portion of the LGA Part 150 study:
 Thanks,
 Susan

1) When the runway 13 TNNIS RNAV Climb was initially approved for increased use in 2012, the understanding was that it would be used in conjunction with the GLDMN and NTHNS RNAV Climbs, so the noise would be dispersed. In order for all three climbs (or at the very least, TNNIS and GLDMN) to be used together, the FAA was supposed to make procedural changes to the shared airspace with JFK. To this date, the FAA has not done so, and instead allowed TNNIS to be the sole climb out in use for hours at a time and for many days in a row. Why have the changes to the airspace not been made yet?

2) Flushing residents' observations and Port Authority web trak data show that when the GLDMN and NTHNS departures are in use, they take off over downtown Flushing instead of [Flushing Meadows Corona Park](#), despite the FAA's claims that they are overlays of the conventional departures, the Maspeth and Coney Climbs. The RNAV criteria for these climbs call for the planes to remain on runway heading 134 for one mile, which puts them over downtown Flushing, before turning southwest, so by definition, they cannot take off over the park. Why does the JUTES RNAV departure for LGA runway 22 allow for a tight turn at 540 feet, while the GLDMN and NTHNS have to wait one mile? A turn at altitude would allow for takeoff over Flushing Meadows.

3) LGA still uses the conventional Flushing Climb sometimes, which is the climb upon which TNNIS is based. If that is the case, why can't LGA use the Maspeth and Coney Climbs as well, since they allow for a right turn over Flushing Meadows at 400 feet, at least until their RNAV counterparts, the GLDMN and NTHNS, are adjusted?

C-001-001

The development of the 2016 and 2021 Noise Exposure Maps relied on the actual radar flight tracks that reflect the departure and arrival procedures that were flown at LGA in 2014. Appendix E shows the radar flight tracks used for the study. Appendix F shows the frequencies of operations on these flight tracks, ground locations of these flight tracks, runway utilization, aircraft type, and other operational characteristics. The next phase of the study, the Noise Compatibility Program, will review your observations and examine proposals to reduce noise exposure.

C-001-001

4) Many times, the Flushing/TNNIS Climb is used when there are strong NE winds, even though there is usually not an airspace conflict with JFK in these weather conditions, thereby making its use unnecessary. The excuse given is that the winds are pushing the planes on the noise abatement Whitestone Climb into JFK airspace. Why does this issue seem to occur so frequently now, when it was rare historically?

5) The TNNIS CATEX for increased use in 2012 stated that this departure procedure would not be used between the hours of 10 PM - 7 AM, yet it is always used at this time, no matter the weather conditions. Why does that occur?

6) When runway 4-22 is closed on weekends and winds favor runway 13 to be used for departures and arrivals, the policy on climb outs is inconsistent. Sometimes the Whitestone is used; other times, it is Flushing/TNNIS. Some in the aviation community have said that in case an arrival on runway 13 needs to do a go-around, the straight-out departure (aka Flushing/TNNIS) is safer; others have said the Whitestone is the better operation. Is it simply up to whoever is on duty at the LGA Tower and the NY TRACON facility?

7) The FAA keeps track of TNNIS Climb usage, but not the Flushing. The similarity of these climbs renders the FAA's TNNIS statistics inaccurate. Both need to be added together. Incidentally, the Flushing Climb, prior to 2012, was very rarely used outside of the US Tennis Open, precisely because of the numerous noise complaints it generated.

8) Planes fly the Whitestone Climb very inconsistently. Some make the noise abatement turn over the park quickly, while others wait till they are over downtown Flushing to do so, thus negating the purpose of this flight path. Why does that occur?

C-001-002

9) While it is understood that land 22/depart 13 is the most efficient configuration at LGA, why can't runway 31 be used more often for departures instead, in off-peak hours and after 10 PM, if winds permit? Runway 31 is much better for noise abatement.

10) In 2009, the River Visual noise abatement approach to runway 13 was discontinued because of a discovered airspace conflict with EWR. Why hasn't the FAA resolved this issue over the past seven years? Bringing back this approach would bring relief to Flushing and many other Queens communities.

11) Historically, the Expressway Visual approach to runway 31

C-001-002

The FAA chooses runways for aircraft operations based on the following priorities: runway availability (particularly, whether a runway is closed due to construction), weather, air traffic and airspace conflicts, operational efficiency, and noise. The next phase of the study, the Noise Compatibility Program, will review your observations related to Runway 31 and the River Visual Approach and consider your recommended operational procedures where feasible.

C-001-001

was designed to avoid downtown Flushing by overflying Flushing Meadows instead. However, now, planes are regularly extended into downtown Flushing on final approach. Several explanations have been given for this change, including the introduction of the RNAV Visual 31 and the need to provide spacing for the departures on runway 4. Why do planes continue to fly deep into Flushing long after the departures have ended for the night?

12) The Localizer approach to runway 31 has been used more and more over the past few years, in many cases when the wind and weather do not warrant its use. That would appear to be simply because of its efficiency for the LGA tower, due to the orderly sequencing of planes on final approach. This approach flies at low altitudes throughout Queens, culminating in downtown Flushing (in fact, the planes overfly Flushing twice on this route), and should only be used as a last resort, not a first. Additionally, the new EWR runway 29 approach is incompatible with the LGA Expressway Visual approach as currently designed and may cause a further increase of the Localizer 31 as a result. The EWR runway 29 approach should be adjusted to work with the Expressway Visual.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

-----Original Message-----

From: Raymond Moradel [mailto:remoradel@gmail.com]

Sent: Friday, September 30, 2016 1:39 PM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: Increased Plane Traffic Noise - Jackson Heights and East Elmhurst Neighborhoods

To whom it may concern,

C-002-001 I am concerned about the increased plane traffic and noise flying to and from LaGuardia airport, over the neighborhoods of Jackson Heights and East Elmhurst. I have noted this increase when comparing what I experienced back in 2010 when I initially moved into the neighborhood in 2010.

C-002-002 This increased plane traffic and noise lowers the quality of life for the residents within these neighborhoods.

I hope that the Port Authority, the city and state are considering an option of reducing or eliminating this plane traffic and noise over residential neighborhoods. That this item is especially being considered as part of the revamping of LaGuardia airport.

Thank you for your attention to this matter.

Raymond E. Moradel

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

C-002-001

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

C-002-002

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

-----Original Message-----

From: NYPART150STUDIES [<mailto:NYPART150STUDIES@panynj.gov>]

Sent: Monday, October 24, 2016 10:16 AM

To: Steven Alverson

Cc: Michael Arnold; Adrian Jones; Yousuf, Adeel

Subject: FW: LaGuardia Airport - Noise Complaint/Comment

Hi Steve,

Below is initially a noise complaint. However towards the end of the email I think we can include as a comment to our NEM report since they are asking is any alternative take-off/landing routes over Flushing that can be looked into to alleviate some of the overhead flights within their area.

Thanks,

Kelly Mitchell, PMP, LEED AP BD+C
Aviation Department

The Port Authority of NY & NJ

4 World Trade Center | 150 Greenwich Street, 18th Floor | New York, NY 10007

P: 212.435.3728 | M: 646.596.2215

-----Original Message-----

From: Alice Tou [<mailto:t7695@yahoo.com>]

Sent: Friday, October 21, 2016 9:47 AM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: LaGuardia Airport - Noise Complaint

Dear Sir/Madam,

C-003-001 I am a resident of Flushing, New York and for the past few years, the entire neighborhood of Flushing has been battling with the plane noise from LaGuardia airport. My address is: 144-70 41 Avenue, Flushing, NY 11355. Since I live in the heart of flushing, the noise is extremely bothersome and it starts as early as 5:45 am and sometimes doesn't stop until 11 pm, averaging 1 to 2 minutes per flight and causes excessive vibration. It seems like the plane flies right above the building where I live. The noise has interrupted everyone's sleep in the neighborhood. My husband works late and goes to sleep around 4 am. Many times the noise wakes him up as early as 6 am or as soon as the planes start flying. As many of the residents in Flushing are immigrants and have limited English proficiency, they do not know where or how to file complaints of this issue. I have filed numerous online complaints with Port Authority of NY and NJ but the situation has never changed. If anything, it's only getting worse. I have spoken with many of my neighbors and other residents in Flushing, almost all of them are bother by the plane noise causing by planes' take-offs from LaGuardia Airport. If possible, please help us on this issue by asking FAA/LaGuardia airport to consider an alternative route and do not use Flushing as its take-off/landing routes. Please contact me at my email or via telephone if you have any additional questions.

Thank you very much.

Regards,
Alice Tou
Tel: 917-957-3669

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

C-003-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

From: Dolias [<mailto:kedolias@gmail.com>]
 Sent: Thursday, September 29, 2016 4:25 PM
 To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>
 Subject: Part 150 - Feedback

Hi,
 We are unable to attend the Part 150 feedback meeting this evening. We are providing some of our feedback and suggestions for work at LGA below.

- C-004-001** While we understand that runway construction--and associated noise for Queens residents--is at times necessary to keep LaGuardia's runways in safe operating condition, it is evident that the FAA and/or Port Authority is not taking Queens residents' quality of life into consideration as much as they should. A few changes would improve the quality of life of Queens taxpayers.
- C-004-002** 1) **Post a schedule in advance (at least a month) of planned maintenance.** Of course changes to the schedule occur, but certainly the Port Authority knows before Friday around 3pm (when construction plans are usually posted) what construction will happen each weekend. If the MTA can post subway construction schedules, the Port Authority can post runway construction schedules. Doing so would allow Queens residents to plan ahead, as it's nearly impossible to enjoy the outdoors in Jackson Heights, for example, when planes are departing from runway 22. Moreover, **the Port Authority should be more transparent about long-term construction plans.** The PA was untruthful at a town hall meeting at PS 69 last fall, claiming that major construction on runway 13/31 would be ending shortly, when in fact an additional taxiway project was slated to take place throughout the first three quarters of 2016.
- C-004-003** 2) Outside of true emergencies, **make the 11pm-6am ban on flights mandatory, not voluntary.** That's only a seven hour respite from insufferable plane noise; it's unconscionable to also subject residents to planes rattling their windows and waking their babies at 2am.
- C-004-004** 3) **During construction on runway 13/31, make better use of runway 4,** as fewer residents are impacted by use of that runway. The Port Authority insists it uses runway 22 because of wind constraints, but the FAA/PA often switches from runway 4 to runway 22 without any change in wind as indicated on the PA's own website.
- 4) If there is going to be construction and associated noise, make it worthwhile. Some Sundays one or two planes takeoff runway 22 at 6am, waking up the entire neighborhood, but then the construction ends and the planes stop. Think about the residents. Stop the construction just a few minutes earlier so as not to wake people up. (Or, if you must wake thousands of residents, get enough work done to make a difference)

Thank you,

Kriton and Erin Dolias

917 543 4995

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

C-004-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to aircraft noise for various communities located around the LGA airport. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and projected (2021) noise exposure at LGA, and from those results make recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

C-004-002

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine administrative measures that can help improve community and operator education and awareness.

C-004-003

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will consider operational procedures where feasible. It is important to note that due to federal grant assurances, the Port Authority cannot impose a mandatory limitation on flights at LGA without successfully completing a 14 CFR Part 161 Study and approval of the limitation by the FAA.

C-004-004

The FAA chooses runways for aircraft operations based on the following priorities: runway availability (particularly, whether a runway is closed due to construction), weather, air traffic and airspace conflicts, operational efficiency, and noise. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine operational and administrative procedures where feasible.

C-005-001

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

From: Susan Carroll <susanc718@yahoo.com>
Date: October 19, 2016 at 12:19:32 PM EDT
To: "Edward C. Knoesel" <eknoesel@panynj.gov>
Subject: Additional suggestion - LGA Part 150

Hi Ed,

C-005-001 | An additional noise abatement suggestion I have for the LGA Part 150 is that between the hours of 10 PM - 7 AM, planes should be required to do the full noise abatement Expressway Visual approach, when that route is in use.

Thanks,
Susan

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

From: Janet McEaney [<mailto:queensquietskies@aol.com>]
Sent: Monday, October 24, 2016 12:12 AM
To: Bernbach, Justin <jbernbach@panynj.gov>
Subject: Part 150 Study Comment

I have searched for the web page at which I can make a comment on the Part 150 study. I can't find it and I have to go do some other things now. I am attaching the Queens Quiet Skies comment to this email. I would appreciate it if you would be kind enough to send it to the appropriate place.

Thanks,

Janet

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

QUEENS QUIET SKIES COMMENT ON THE LGA PART 150 STUDY

- C-006-001** The Part 150 study team has submitted a draft Noise Exposure Map (NEM) for public comment. Within the map's 65-DNL contour lines lie relatively small, unpopulated areas. The new 65 DNL contours are nearly identical to those produced by the Port Authority in 2013. There is little hope that an adequate noise mitigation plan -- including flight track changes, curfew extension, night restrictions, altitude adjustments and runway shifting -- will result for hundreds of thousands of residents and workers newly affected by increased aviation noise.
- The maps were constructed using the Integrated Noise Model (INM). Despite several rounds of TAC meetings, there was little transparency as to how and where the study data was acquired. TAC meetings gave the community few opportunities for free-flowing discussion or exchange of ideas. Many questions that troubled public participants at the beginning of the study still remain. We still have not had answers to questions about the specific roles of subcontractors, how and where money was allocated, and most importantly, how data sources were chosen.
- Several subcontractors on the study have acted as paid aviation industry lobbyists. The studies were not conducted by impartial contractors using scientific methods. The makeup of the study's Technical Advisory Committee membership, appointed by the Port Authority, is irrational and weighted heavily towards members of the aviation industry. For these reasons, and others outlined below, the studies have the unfortunate effect of giving the perception that the outcomes were manipulated, thus eroding public support and trust.
1. INCOMPLETE FLIGHT DATA
- C-006-002** In early 2016, Queens Quiet Skies filed a FOIA request asking the Port Authority for all runway utilization and usage statistics for the entirety of LaGuardia Airport history. The data shows 197,214 total known departures for 2014, the baseline year of the Part 150 studies. The study team, working directly for the same agency that supplied the runway utilization data, assessed total departures for 2014 to be only 175,947. This is a 10.7% decrease in accounted departures from the Port Authority runway utilization statistics versus the data used for the Part 150 study. Thus, for, for the LGA Part 150 study, over 20,000 departures were potentially overlooked.
- Further, the Port Authority runway utilization data shows total known operations (departures plus arrivals) were 399,136 for the year 2014. The Part 150 study team assessed only 370,012 total annual aircraft operations for LaGuardia, a 7% drop-off.
- C-006-003** For flight tracks, the Part 150 team used the ANOMS system, which relies on PASSUR for data. The reliability of ANOMS had been called into question several times during various TAC meetings, mostly for the reasons stated above. Suggestions had been made to supplement ANOMS data with additional statistics from the FAA Air Traffic Organization (ATO), the FAA's Data Warehouse and National Offload Program (NOP), industry data and the Port Authority runway utilization data quoted above. These suggestions were disregarded.
- The Port Authority data obtained by Queens Quiet Skies is available for anyone to see, has not been extrapolated or manipulated, and shows an unacceptable discrepancy between actual 2014 flights and flights assessed by ANOMS for the Part 150 study.
2. VARIATION IN FAA AVIATION FORECAST OPINIONS
- C-006-004** The FAA and the aviation industry have assumed for several years that air travel will increase greatly in the near term. Some independent studies indicate that air travel demand could double by 2050. Billions of dollars of taxpayer money has already been allocated for NextGen and Airspace Redesign initiatives in order to meet this expected rise in demand.
- However, as a basis for the Part 150 studies, the FAA assumed that travel demand and aircraft operations would not increase between 2014 and 2021. Thus, the Part 150 studies were based on an assumption

C-006-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for noncompatible land uses exposed to DNL 65 and higher.

As shown in Chapter 5 of the LGA Noise Exposure Map Report, there are almost 10,000 people within the Day-Night Average Sound Level (DNL) contour in the base year of 2016, and over 10,000 people within the DNL 65 contour in the forecast year of 2021. These contours were generated using the methodology shown in Chapter 4 and in the Study Protocol (Appendix I), which was a methodology developed collaboratively with the Technical Advisory Committee (TAC) and in accordance with the requirements in 14 CFR Part 150. Chapter 4 and Appendix I discuss data sources and use of data in depth.

14 CFR Part 150, §150.21(b) requires that Noise Exposure Maps and associated documentation be developed in consultation with regular aeronautical users of the airport. At LGA, a variety of aircraft types are operated by a number of different aeronautical users (aircraft operators). As required by §150.21(b), the Port Authority is also consulting with the state of New York, various public and planning agencies whose areas of jurisdiction fall within the DNL 65 contour, and federal officials (including regional officials of the Federal Aviation Administration). The Port Authority is also providing interested members of the public the opportunity to submit their views, data, and comments on the LGA 14 CFR Part 150 Study. As described in Chapter 6, the TAC meetings are open to the public, and every TAC meeting contains an agenda item for public comment.

C-006-004	that rising demand will not result in an increase in aircraft operations until after 2021, despite industry statistics showing the exact opposite.
	3. PERIMETER RULE EXCLUSION
C-006-005	<p>A perimeter rule currently in effect at LGA restricts flights within a fixed radius of miles from the airport. Changing or dropping the perimeter at LGA would allow significantly larger aircraft to be accommodated. Larger aircraft would increase noise for surrounding areas. They would have an altered departure threshold (lifting off further down the runway and closer to human habitats), would turn more slowly (thus bypassing noise-compatible areas such as Flushing Meadows) and would have a much lower trajectory (heavier planes at lower altitude). Larger aircraft, like those common at JFK, have 4 engines instead of 2, further increasing noise. LaGuardia's current fleet mix is comprised of only 2-engine aircraft.</p> <p>With a runway expansion project (RSA improvement), a new terminal, NextGen, RECAT and airspace redesign all being implemented at once, the perimeter rule will almost certainly be lifted. The Port Authority has delayed its expected decision to expand or drop the perimeter at LGA. We believe the reason for the delay is to avoid including the results of expanding or dropping the perimeter in the LGA TAC study.</p>
	4. NOISE MONITOR DATA EXCLUSION
	In almost every location, measured DNL from carefully-placed monitors exceeded the modeled DNL used in the study. For example, the FLUSH monitor, site #16, exceeded modeled noise by nearly 5 DNL. The study team somehow concluded that measured noise from monitors exceeded modeled DNL by .1 to 3 dB in all but one monitor location.
C-006-006	TAC members were told that noise monitor data would be excluded from the study because community noise exceeded aircraft noise in these locations, and that measured field data was contaminated by non-aircraft related sources. The Part 150 study team identified these community noise sources as, among other things: wind in the trees, rain, crickets and cicadas. Thus, these multi-million dollar studies, ordered by Governor Cuomo to assess drastic increases in jet engine noise pollution, managed to avoid the use of any pertinent field data. That is not our idea of sound scientific sampling. (We note, parenthetically, that crickets and cicadas spawn cyclically, over specific summer months and skipped the baseline year of the Part 150 studies.)
C-006-007	If wind, rain and multi-legged fauna did introduce a legitimate sampling bias, then the noise monitor data was rightly excluded. However, there was no alternate plan to acquire field data. Replication of modeled study results were obviously avoided. No other options were pursued to support modeled data with field data other than the stationary monitors. There were multiple subcontractors on the study and a sufficient budget, which was supplemented by additional funds from Senator Schumer. It could, and should, have been done better.
	Real scientific studies should have been carried out by an independent contractor that is not allied with, or dependent on income from, the aviation industry. The contractor should have used relevant field data, instead of avoiding it. Community input should have been sought before the study began, when study parameters were being set up, instead of excluded as in these TAC studies.
C-006-008	<p>We are still waiting for the answers to many questions about how the Part 150 studies were set up and carried out, as well as questions about the unequal, unrepresentative makeup of the appointed TAC membership.</p> <p>A large number of Queens residents expected unbiased, scientific noise mitigation studies. The Port Authority must prove to us that this is what they are delivering.</p>

C-006-002

The base year of the LGA 14 CFR Part 150 Study is 2016, not 2014. A total operational count of 378,764 operations was used as the number of operations for 2016. Section 4.3.2 and Appendix F-1 of the LGA Noise Exposure Map Report describe operational counts in further detail. The Port Authority's LGA runway usage data for calendar year 2014 shows 183,428 total aircraft departures, rather than the 197,214 or 175,947 departures mentioned in the comment. During this same calendar year, there were 366,963 total operations (including arrivals and departures) at LGA. Note, however, that calendar year 2014 operational counts were not used in the Integrated Noise Model; only 2016 and 2021 operational counts were used. Calendar year 2014 data was only used to develop flight tracks and runway utilization distributions (that is, what percentage of total operations should be assigned to each runway end). Section 4.5.1 and Appendix F-2 of the LGA Noise Exposure Map Report give further detail on the development of runway use information, while Section 4.5.2 and Appendix E of the LGA Noise Exposure Map Report give further detail on the development of flight tracks.

C-006-003

Prior to its use in developing the 2016 and 2021 Noise Exposure Maps, the ANOMS flight track data were reviewed for accuracy. The ANOMS flight tracks align with the published departure and arrival procedures. In addition, a sample of FAA National Offload Program (NOP) data was obtained and reviewed.

As previously mentioned, the base year of the LGA 14 CFR Part 150 Study is 2016, not 2014. A total operational count of 378,764 operations was used as the number of operations for 2016. Section 4.3.2 and Appendix F-1 of the LGA Noise Exposure Map Report describe operational counts in further detail.

The Port Authority's LGA runway usage data for calendar year 2014 shows 183,428 total aircraft departures and 366,963 total operations (including arrivals and departures) at LGA. Note, however, that calendar year 2014 operational counts were not used in the Integrated Noise Model; only 2016 and 2021 operational counts were used. Calendar year 2014 data was only used to develop flight tracks and runway utilization distributions (that is, what percentage of total operations should be assigned to each runway end). Section 4.5.1 and Appendix F-2 of the LGA Noise Exposure Map Report give further detail on the development of runway use information, while Section 4.5.2 and Appendix E of the LGA Noise Exposure Map Report give further detail on the development of flight tracks.

C-006-004

As per the Study Protocol in Appendix I, the operational forecast used for the Study utilized the projected 378,764 annual aircraft operations at LGA in 2016 and 387,234 annual aircraft operations in 2021 consistent with the FAA's Terminal Area Forecast (TAF). As described on page F-7 of Appendix F in the LGA NEM Report, the 2.2 percent growth in operations between 2016 and 2021 is reflective of the airlines' upgauging of their fleets, which allows them to carry more passengers with the same or fewer operations.

In addition, as stated in Section 1.1.3 of Appendix B, in an effort to further reduce operational delays at LGA, the FAA held a slot (a reservation for an Instrument Flight Rules takeoff or landing by an air carrier or an aircraft in air transportation) lottery in December 2000 among the flights operating under exemptions from the Port Authority's Perimeter Rule, to reduce the number from 300 to 159 between the hours of 7:00 AM and 10:00 PM. In 2008, the FAA changed the slot rule at LGA, reducing the number of slots per hour and slot limits were extended from 6:00 AM to 9:59 PM. Existing slot limits for LGA are 71

scheduled operations per hour and three unscheduled operations per hour (Monday-Friday 6:00 AM to 9:59 PM and Sundays 12:00 PM to 9:59 PM). This demand management measure results in a modest growth of less than 10,000 operations between 2016 and 2021. See Section 4.3.2 and Appendix F-1 for information regarding the forecast and the FAA's approval for use in developing the Noise Exposure Maps.

C-006-005

To reduce congestion at LGA, the Port Authority instituted a Sunday-through-Friday "Perimeter Rule" in 1984 that prohibits nonstop flights from LGA to cities more than 1,500 statute miles away with the exception of flights to Denver, Colorado. At this time, it is not known whether the Perimeter Rule will be lifted in the future. The Port Authority has stated at several TAC meetings that public input will be sought before action is taken on the Perimeter Rule. If there is a significant change in operational characteristics at LGA, an update to the Noise Exposure Maps would be required. This has been stated by the FAA at several Technical Advisory Committee (TAC) and New York Community Airport Roundtable (NYCAR) meetings.

C-006-006

14 CFR Part 150, §A150.1(b) states that noise monitoring "may be utilized by airport operators for data acquisition and data refinement, but is not required by [14 CFR Part 150] for the development of noise exposure maps or airport noise compatibility programs." Noise monitor data was not excluded from the LGA 14 CFR Part 150 Study due to contamination. Rather, the Study Protocol in Appendix I states that "noise monitoring data will only be used for comparisons and not used to calibrate the noise model." 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps. The FAA does not allow the use of noise monitor data to "calibrate" the model. Appendix G-1 contains the FAA's agreement on the use of the Integrated Noise Model version 7.0d for the LGA 14 CFR Part 150 Study.

In this report, 2014 and 2015 monthly noise level data for the monitors near LGA are provided in Section 4.6. The data, expressed in Day-Night Average Sound Level (DNL), provide information regarding aircraft noise in communities around LGA. It should be noted that only partial year information is available for many of the monitoring sites and that the closure and reconstruction of Runway 4L-22R at JFK in 2015 affected runway use at LGA that year. The 2015 noise level data are provided for informational purposes only as per the study protocol (in Appendix I, Section 6.6) and the request of the Technical Advisory Committee (TAC).

C-006-007

14 CFR Part 150, §A150.1(b) states that noise monitoring “may be utilized by airport operators for data acquisition and data refinement, but is not required by [14 CFR Part 150] for the development of noise exposure maps or airport noise compatibility programs.” 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps. The FAA does not allow the use of noise monitor data to “calibrate” the model. For these reasons, noise monitoring data presented in this Report is for informational purposes only.

Modeled DNL represents the noise from aircraft operations only, excluding noise from all other sources. In addition, the use of computer modeling allows an entire year of aircraft operations to be represented in the base year of 2016 and the forecast year of 2021. This cannot be done with data from many of the monitoring sites due to the existence of only partial-year data for 2016 and the lack of data for any future year.

C-006-008

The process for conducting Noise Compatibility Studies is established by Title 14, Code of Federal Regulations, Part 150, which contractors must adhere to throughout the Study process. The Noise Exposure Map Report will be submitted to the FAA, which reviews the Report, and if the Noise Exposure Maps and the report are found to meet FAA requirements, they are accepted by the FAA. The FAA is also required to review each recommended Noise Compatibility Program measure and approve it, disapprove it, approve or disapprove it in part, or take no action on it (only relevant for Noise Compatibility Program measures involving flight procedures).

14 CFR Part 150, §150.21(b) requires that Noise Exposure Maps and associated documentation be developed in consultation with regular aeronautical users of the airport. At LGA, a variety of aircraft types are operated by a number of different aeronautical users (aircraft operators). As required by §150.21(b), the Port Authority is also consulting with the state of New York, various public and planning agencies whose areas of jurisdiction fall within the DNL 65 contour, and federal officials (including regional officials of the Federal Aviation Administration). The Port Authority is also providing interested members of the public the opportunity to submit their views, data, and comments on the LGA 14 CFR Part 150 Study. Section 3.4 of the Study Protocol (included in Appendix I of this Report) details the makeup of the Technical Advisory Committee (TAC). The purpose of the TAC is to provide advisory input to the Port Authority for the 14 CFR Part 150 Study. The TAC consists of stakeholders including: the FAA, community representatives, airlines, airport tenants, appointees by elected officials and others. This gives representation to the primary stakeholder groups associated with land use, LGA's aircraft operations, and noise exposure from LGA as required by 14 CFR Part 150.

C-007-001

The Technical Advisory Committee (TAC) membership table has been updated to reflect the requested revisions.

From: Mitchell, Kelly [<mailto:kmitchell@panynj.gov>]
Sent: Wednesday, October 19, 2016 3:26 PM
To: ChpFam@aol.com
Cc: Steven Alverson
Subject: Re: TAC Report Table 6.1, Chap 6.2

Thank you Marilyn for documenting your observation/comment. As I mentioned to you today, this will be corrected prior to our final submission to the FAA.

Kelly M.

Sent from my iPhone

On Oct 19, 2016, at 5:48 PM, "ChpFam@aol.com" <ChpFam@aol.com> wrote:

C-007-001 Kelly,
Regarding the TAC membership table in the LGA Draft Noise Exposure Map report, I found something that needs to be corrected.
When Brian Will resigned, Warren Schreiber became the Rounddale rep. After a few meetings, due to a personal situation he was temporarily unable to attend the meetings & asked me to be the alternate.
Please correct Table 6.1 in Chapter 6.2

Since Warren's personal situation has now been resolved, it is my understanding that he will soon be able to attend the TAC meetings again.

Respectfully,
Marilyn Chapoteau

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

COMMITTEE ON
SMALL BUSINESS
RANKING MEMBER
SUBCOMMITTEE ON
AGRICULTURE, ENERGY AND TRADE

COMMITTEE ON
FOREIGN AFFAIRS
SUBCOMMITTEE ON
MIDDLE EAST AND NORTH AFRICA
SUBCOMMITTEE ON
ASIA AND THE PACIFIC



Grace Meng
Congress of the United States
Sixth District, New York

CONGRESSIONAL ASIAN PACIFIC
AMERICAN CAUCUS
EXECUTIVE BOARD MEMBER

CHAIR
TASK FORCE ON
ECONOMIC DEVELOPMENT

CONGRESSIONAL KIDS SAFETY CAUCUS
CO-CHAIR

ASSISTANT WHIP

<http://www.meng.house.gov>
www.facebook.com/repgracemeng
twitter: @repgracemeng

October 25, 2016

Ms. Kelly Mitchell
JFK & LGA Airports Part 150 Studies Program Manager
Aviation Department
4 World Trade Center
150 Greenwich Street – 18th Floor
New York, NY 10007

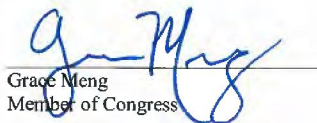
Dear Ms. Mitchell:

I write to comment on the proposed Part 150 Noise Exposure Map for La Guardia Airport. Several constituents have contacted my office to express concerns pertaining to the proposed map. Respectfully, as their elected Representative, I urge you to give full consideration to their expressed concerns, particularly those highlighted below.

C-008-001 | In the 'Queens Quiet Skies' (QQS) comment submission, it is alleged that the 2014 runway utilization data used by the Part 150 study team does not align with the runway utilization data obtained earlier this year through a freedom of information (FOI) request (197,214 departures were reportedly included in the FOI data, while only 175,947 departures were reportedly assessed). Further, QQS characterizes the Part 150 study as assuming no increase in aircraft operations through 2021, despite increased projections of air travel demand. Finally, they express serious concern over the possible exclusion of noise monitor data from the Part 150 study.

C-008-002 | I ask that the concerns of QQS be explicitly addressed. The claims of possible exclusion of more than 20,000 departures and noise monitor data from the study's analysis, as well as assuming no future increase in aircraft operations should be further explained to the satisfaction of the general public. I thank you for your time spent reviewing their concerns, and look forward to working with you to ensure effective noise mitigation policies are pursued in the near future.

Sincerely,


Grace Meng
Member of Congress

118-35 QUEENS BLVD., 17TH FL.
FOREST HILLS, NY 11375
(718) 358-MENG (6364)

1317 LONGWORTH
WASHINGTON, DC 20515
(202) 225-2601

40-13 169TH STREET
FLUSHING, NY 11358
(718) 358-MENG (6364)

Please sign up for Rep. Meng's newsletter at <https://meng.house.gov/contact/newsletter>

C-008-001

The base year of the LGA 14 CFR Part 150 Study is 2016, not 2014. A total operational count of 378,764 operations was used as the number of operations for 2016. Section 4.3.2 and Appendix F-1 of the LGA Noise Exposure Map Report describe operational counts in further detail. The Port Authority's LGA runway usage data for calendar year 2014 shows 183,428 total aircraft departures. During this same calendar year, there were 366,963 total operations (including arrivals and departures) at LGA. Note, however, that calendar year 2014 operational counts were not used in the Integrated Noise Model; only 2016 and 2021 operational counts were used. Calendar year 2014 data was only used to develop flight tracks and runway utilization distributions (that is, what percentage of total operations should be assigned to each runway end). Section 4.5.1 and Appendix F-2 of the LGA Noise Exposure Map Report give further detail on the development of runway use information, while Section 4.5.2 and Appendix E of the LGA Noise Exposure Map Report give further detail on the development of flight tracks.

C-008-002

As per the Study Protocol in Appendix I, the operational forecast used for the Study utilized the projected 378,764 annual aircraft operations at LGA in 2016 and 387,234 annual aircraft operations in 2021 consistent with the FAA's Terminal Area Forecast (TAF). As described on page F-7 of Appendix F in the LGA NEM Report, the 2.2 percent growth in operations between 2016 and 2021 is reflective of the airlines' upgauging of their fleets, which allows them to carry more passengers with the same or fewer operations.

In addition, as stated in Section 1.1.3 of Appendix B, in an effort to further reduce operational delays at LGA, the FAA held a slot (a reservation for an Instrument Flight Rules takeoff or landing by an air carrier or an aircraft in air transportation) lottery in December 2000 among the flights operating under exemptions from the Port Authority's

Perimeter Rule, to reduce the number from 300 to 159 between the hours of 7:00 AM and 10:00 PM. In 2008, the FAA changed the slot rule at LGA, reducing the number of slots per hour and slot limits were extended from 6:00 AM to 9:59 PM. Existing slot limits for LGA are 71 scheduled operations per hour and three unscheduled operations per hour (Monday-Friday 6:00 AM to 9:59 PM and Sundays 12:00 PM to 9:59 PM). This demand management measure results in a modest growth of less than 10,000 operations between 2016 and 2021. See Section 4.3.2 and Appendix F-1 for information regarding the forecast and the FAA's approval for use in developing the Noise Exposure Maps.

C-008-003

14 CFR Part 150, §A150.1(b) states that noise monitoring "may be utilized by airport operators for data acquisition and data refinement, but is not required by [14 CFR Part 150] for the development of noise exposure maps or airport noise compatibility programs." Noise monitor data was not excluded from the LGA 14 CFR Part 150 Study due to contamination. Rather, the Study Protocol in Appendix I states that "noise monitoring data will only be used for comparisons and not used to calibrate the noise model." 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps. The FAA does not allow the use of noise monitor data to "calibrate" the model. Appendix G-1 contains the FAA's agreement on the use of the Integrated Noise Model version 7.0d for the LGA 14 CFR Part 150 Study.

In this report, 2014 and 2015 monthly noise level data for the monitors near LGA are provided in Section 4.6. The data, expressed in Day-Night Average Sound Level (DNL), provide information regarding aircraft noise in communities around LGA. It should be noted that only partial year information is available for many of the monitoring sites and that the closure and reconstruction of Runway 4L-22R at JFK in 2015 affected runway use at LGA that year. The 2015 noise level data are provided for

informational purposes only as per the study protocol (in Appendix I, Section 6.6) and the request of the Technical Advisory Committee (TAC).

C-008-004

The concerns of Queens Quiet Skies were addressed in responses C-006-001 through C-006-008. Responses C-006-001 and C-006-004 address the claims of the possible exclusion of more than 20,000 departures and responses C-006-006 and C-006-007 address the claims of the possible exclusion of noise monitoring data.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

SEE ATTACHED LETTER DATED SEPT. 29, 2016.

Name: PETER DOAN, PRINCIPAL Organization: MONSIGNOR SCANLON H.S.
Street Address: 915 HURTHANSON RD. PKWY City: BRONX State: N.Y. Zip: 10465
Tel: 718-430-0101 Email: pdoan@SCANLONHS.EDU

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.



Monsignor Scanlan High School

915 HUTCHINSON RIVER PARKWAY

BRONX, NEW YORK 10465-1897

(718) 430-0100

Fax (718) 892-8645

www.scanlanhs.edu

OFFICE OF THE PRINCIPAL

The Port Authority of New York & New Jersey
4 World Trade Center
150 Greenwich Street
New York, NY 10007

Subject: LaGuardia Airport
Title 14 Code of Federal Regulations (CFR) Part 150
Draft Noise Exposure Map Report, Prepared for September 2016

Gentlemen:

Monsignor Scanlan High School is a four-year private, Roman Catholic high school located in the Throggs Neck section of The Bronx, New York City. It is part of the Roman Catholic Archdiocese of New York and is accredited by the Middle States Association of Colleges and Schools and the New York State Board of Regents.

The 470 student high school is located on a nine (9) acre campus, which is also the home of the Grand Concourse Academy Charter School, a charter elementary school.

390 children attend Grand Concourse Academy Charter School and are mostly Hispanic; Black, non-Hispanic; and Asian/Pacific Islander. 20% of the Grand Concourse Academy Charter School students have "limited English proficiency." 87% of the 390 students here have subsidized lunches.

Monsignor Scanlan High School students and faculty have suffered from aircraft induced noise for the past 25 years. On June 18, 1993 MSGR Scanlan received notification from the PANYNJ, that the Msgr Scanlan School was "considered noise impacted and was an eligible candidate for the PA School Soundproofing Program".

PANYNJ assurances in letters dated 1994 and 2000 considered Scanlan noise impacted, however, in Jan. 24, 2006, the PANYNJ notified Scanlan that it was located outside the 65DNL line dated 2006. Despite Msgr. Scanlan repeated requests of the PANYNJ for reconsideration which came to naught, the PANYNJ agreed on May 15, 2013 to install a noise monitor on the school campus. The noise monitor is there to this day. (See Attached).

Over 10,000 data points were recorded from August 1, to August 31, 2014 with results as follows:

- 66.8<Max level<92.4
- 78<SEL<95.3
- <65.5Leq<81.3

C-009-001

The values presented in the comment are single-event noise levels, not cumulative noise levels such as the Day-Night Average Sound Level (DNL) as required by 14 CFR Part 150, §A150.101(a). Single-event metrics such as the Sound Exposure Level (SEL) may be used to calculate DNL, but are not directly comparable to DNL values. DNL is a 24-hour average of noise with 10 decibels added to each nighttime (10 P.M. - 7 A.M.) noise event to account for increased sensitivity to these events. Monsignor Scanlan High School was removed from the School Sound Insulation Program because it was previously determined that it was outside of the DNL 65 contour.

Although the Port Authority located a noise monitor at Monsignor High School in 2013, 14 CFR Part 150, §A150.1(b) states that noise monitoring "may be utilized by airport operators for data acquisition and data refinement, but is not required by [14 CFR Part 150] for the development of noise exposure maps or airport noise compatibility programs." The Study Protocol in Appendix I states that "noise monitoring data will only be used for comparisons and not used to calibrate the noise model." 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps. The FAA does not allow the use of noise monitor data to "calibrate" the model.

C-009-001

So to be sure, Monsignor Scanlan HS is indeed an interested party, and Pursuant to Title 14 CFR Part 150, Subpart B, Section 150.21(b), has expressed its concern to the PANYNJ regarding the outcome of the Part 150, and the correctness and adequacy of the draft noise exposure maps.

C-009-002 | Monsignor Scanlan HS respectfully takes exception to the results of the subject Draft Report, and specifically the Noise Exposure Map in Appendix M for reasons as follows;

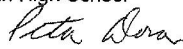
- C-009-003** |
1. Aircraft fly directly and continuously over our school. (See photo attached),
 2. Both the 2016 and 2021 Noise Exposure Maps attached show the 65DNL line extending into the south Bronx, about a mile short of the M. Scanlan School.
 3. The maps imply that the Monsignor Scanlan HS is beyond the 65DNL and as a consequence, not impacted by aircraft noise.
 4. The maps do not reflect the actual impact of aircraft noise on the Monsignor Scanlan HS. (See attached dBA readings taken on Sept. 26, 27 during school hours).

C-009-004 | As you will see from the attached noise readings, aircraft fly overs are continuous and on a frequency of 1-2 minutes, and sometimes less. Interior noise readings range from 77 to 81 dBA. During morning classroom hours, the average noise reading was 78dBA. Needless to say what the impact is on students and faculty.

C-009-005 | Monsignor Scanlan HS, as an interested party and Pursuant to Title 14 CFR Part 150, Subpart B, Section 150.21(b), expresses in this letter its concern regarding the outcome of the part 150, and the correctness and adequacy of the draft noise exposure maps. The subject report reinforces our concern that our students and faculty will continue, as we have been for the past twenty five years, to be adversely effected by aircraft noise.

We present this letter of concern at the Sept. 29, 2016 Public Workshop at LGA for your review, consideration and request a response from PANYNJ.

Very truly yours,
M. Scanlan High School

Principal 

Cc: Senator Charles Schumer, (D-NY), Congressman Joseph Crowley, (D-14)

C-009-002

It is understood that aircraft fly over the school. Flight tracks were modeled in this area; Appendix E shows the radar flight tracks used for the study, while Appendix F shows the frequencies of operations on these flight tracks.

C-009-003

Appendix C, Section 1.5 describes that noise exposure values of Day-Night Average Sound Level (DNL) 75, 70, and 65 were used as the criterion levels for the noise analysis. Although the FAA considers aircraft noise exposure lower than DNL 65 to be compatible with most land uses, persons residing outside the area exposed to DNL 65 and higher may still be annoyed by aircraft noise.

As stated, 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps.

C-009-004

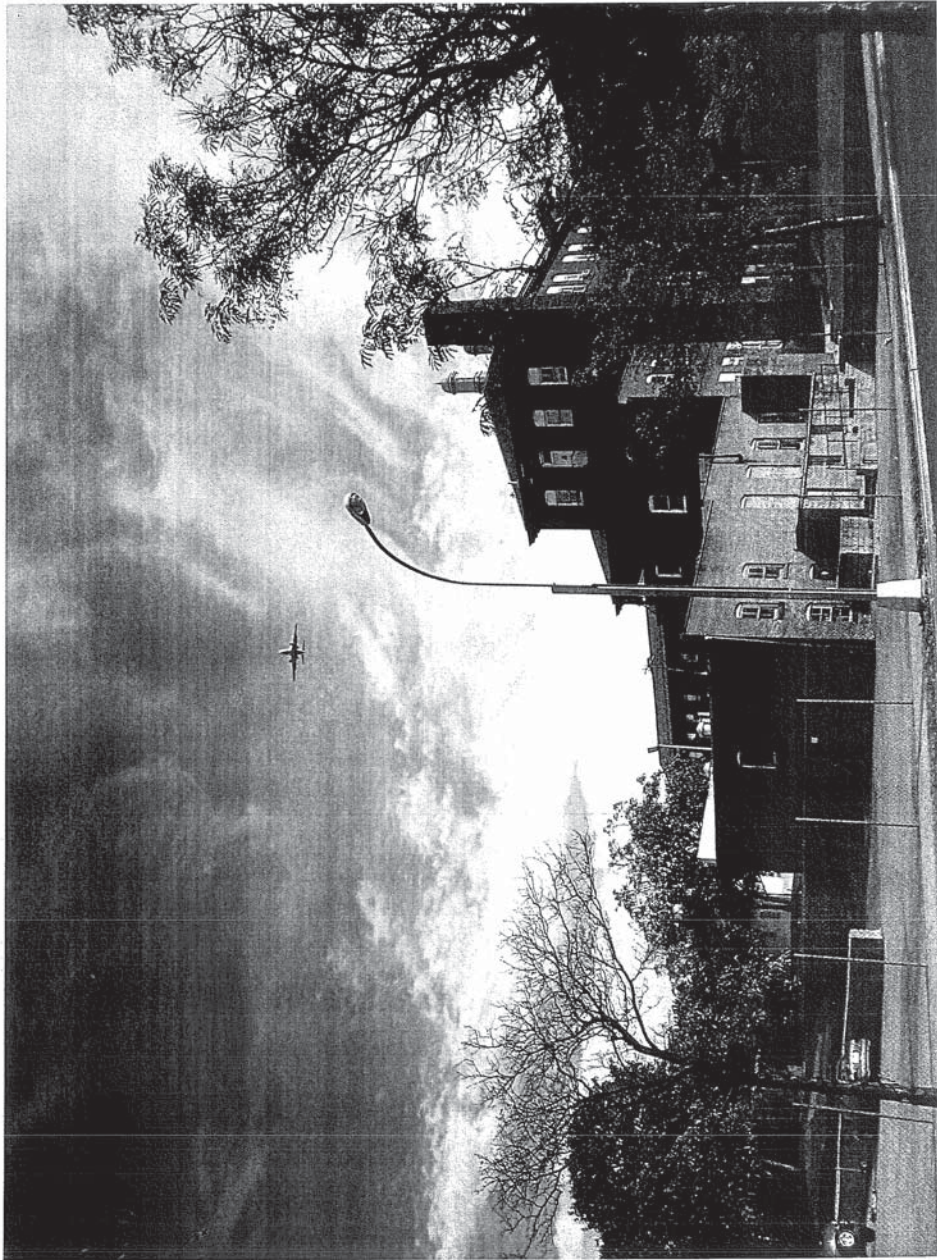
As stated previously, the values presented in the comment are single-event noise levels, not cumulative noise levels such as the Day-Night Average Sound Level (DNL) as required by 14 CFR Part 150, §A150.101(a). Single-event metrics such as the Sound Exposure Level (SEL) may be used to calculate DNL, but are not directly comparable to DNL values. DNL is a 24-hour average of noise with 10 decibels added to each nighttime (10 P.M. - 7 A.M.) noise event to account for increased sensitivity to these events. Monsignor Scanlan High School was removed from the School Sound Insulation Program because it was previously determined that it was outside of the DNL 65 contour.

Although the Port Authority located a noise monitor at Monsignor High School in 2013, 14 CFR Part 150, §A150.1(b) states that noise monitoring "may be utilized by airport operators for data acquisition and data refinement, but is not required by [14 CFR Part 150] for the

development of noise exposure maps or airport noise compatibility programs.” The Study Protocol in Appendix I states that “noise monitoring data will only be used for comparisons and not used to calibrate the noise model.” 14 CFR Part 150 requires the use of modeling, rather than noise monitor data, to produce noise exposure maps. The FAA does not allow the use of noise monitor data to "calibrate" the model.

C-009-005

The process for conducting Noise Compatibility Studies is established by Title 14, Code of Federal Regulations, Part 150, which must be adhered to throughout the Study process, including public/stakeholder involvement. The Noise Exposure Maps and the report must meet the FAA requirements outlined in the 14 CFR Part 150 Study checklist shown at the beginning of the LGA Noise Exposure Map Report. All of the required 14 CFR Part 150 Study inputs meet the FAA requirements shown in the checklist.



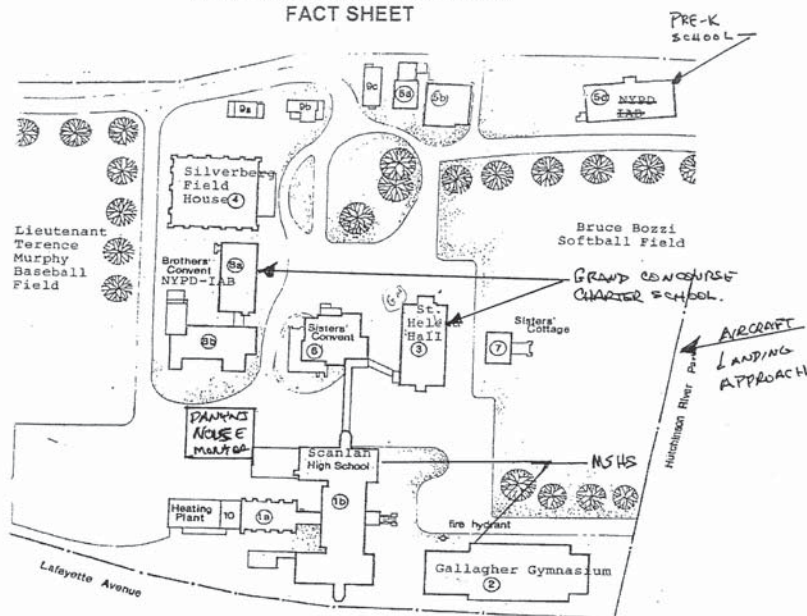
[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 1 Msgr. Scanlan Site Plan

MSGR. SCANLAN HIGH SCHOOL FACT SHEET



Site Plan

MSGR. SCANLAN HIGH SCHOOL OF ST. HELENA'S PARISH

915 Hutchinson River Parkway, Bronx, N.Y. 10465
Sister Marie O'Donnell O.P., Principal Rev. Msgr. Thomas B. Derivan, Pastor

Prepared by: Joe Solimine, Sr.
Ramón Vélez, Jr., CPM®, LREB

THE PORT AUTHORITY OF NY & NJ

Brian W. Simon
Executive
Government and Community Relations

May 15, 2013

Honorable Joseph Crowley (D-14)
Member of Congress
United States House of Representatives
2800 Bruckner Blvd., Suite 201
Bronx, NY 10465

Dear Congressman Crowley:

Thank you so much for providing me an opportunity to meet with Monsignor Derivan and the Advisory Board of the Monsignor Scanlan High School. I was honored to learn more about this dynamic co-educational secondary school, and discuss first-hand the challenges faculty and students face with aircraft noise within the region.

As discussed, the Port Authority (PA) will install a portable noise monitor on school grounds, so that we may track and create noise profiles for aircraft departures. The profiles measure an aircraft's compliance with Port Authority's aircraft noise limitations. The installation of the portable noise monitor will take place in late summer/early fall 2013. The timing of this roll out is dependent upon gaining the Port Authority's Board of Commissioner's approval on May 29, 2013 and initiating a new contract that provides for the replacement of the existing Airport Noise Abatement Monitoring System (ANAMS) software at and around all Port Authority airports. This new software will also provide a new web portal for noise complaint filing and management, as well as noise contour services for all airports.

As discussed in our meeting, the noise contour maps will be updated to reflect the latest and most accurate data in order to meet the parameters set forth by our regulator, the Federal Aviation Administration. Please know that we are committed to being proactively responsive to the communities that host and are adjacent to our aviation facilities. Our objective is to make community concerns regarding noise abatement one of our highest priorities.

I wanted to provide a brief overview on ANAMS. Our system has been in place at JFK, EWR, and LGA since 1989. Using noise monitors located in communities surrounding the airports, the system creates noise profiles of aircraft departures to measure an aircraft's compliance with the Port Authority's aircraft noise limitations. This information is a critical component used to address customer concerns and community issues in the areas surrounding the airports.

225 Park Avenue South, 13th Floor
New York, NY 10003
T 212 435 6909 F 212 435 6926
bwsimon@panynj.gov

Congressman Joseph Crowley (D-14)
May 15, 2013
Page 2

THE PORT AUTHORITY OF NY & NJ

Mr. Edward Knoesel, the Aviation Department's Environmental Services Manager, will reach out to the school, in order to identify a location on school grounds, and discuss in greater- detail the installation of the monitor.

Sincerely,



Brian W. Simon
Director
Government and Community Relations

C: Monsignor Derivan
Advisory Board
Ralph Tragale
Ed Knoesel

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com



Attachment No 3
PANYNJ Noise Monitor

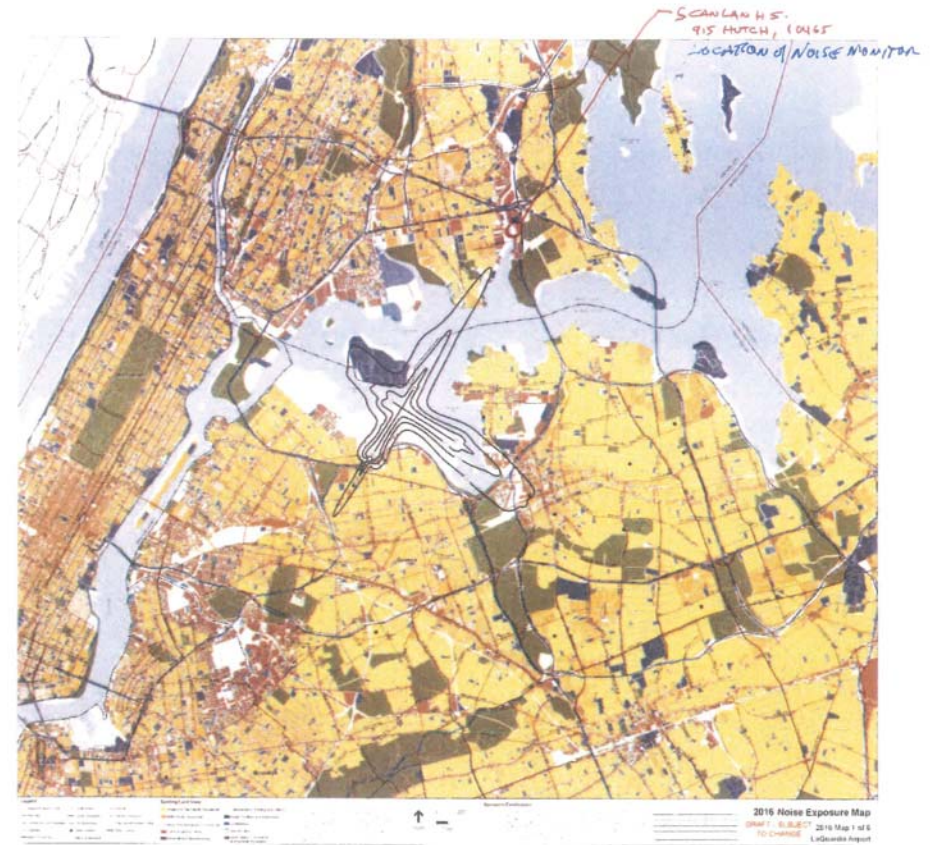
[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 4

2016 and 2021 noise exposure Maps





[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 5 PANYNJ Letters Confirming Msgr. Scanlan "Noise Impacted"

- (1) PANYNJ Letter June 18, 1993 from John J. Sullivan, General Manager Aviation Technical Services.
- (2) PANYNJ Letter dated September 23, 1994 from Alfred Graser, General Manager Aviation Technical Services

11/30/2005 10:20 FAX 178 863 6178

ENSHN ENGINEERING

003/007

THE PORT AUTHORITY OF NY & NJ

AVIATION DEPARTMENT
 David Z. Prinos
 Director of Aviation
 One World Trade Center
 New York, N.Y. 10048
 (212) 436-7000
 (212) 941-8000

June 18, 1993

Rev. John J. Haggerty
 Administrator
 Msgr. Scanlon H.S. - of St. Helena Parish
 915 Hutchinson Parkway
 Bronx, NY 10460

Dear Father Haggerty:

In our June 7th response to your letter requesting the Port Authority's consideration of Msgr. Scanlon H.S. and St. Helena School for our School Soundproofing Program, we erroneously identified St. Helena Commercial H.S. as not eligible for the program.

As you are aware, the criteria for the selection of schools for the program is based on guidelines to determine aircraft noise impact. Specifically, schools located within the 65 Ldn contour are considered to be significantly noise impacted and are, therefore, eligible for the program. Based upon this criteria, both St. Helena Commercial H.S. and Msgr. Scanlon H.S. are considered noise-impacted and are eligible candidates for the Port Authority's School Soundproofing Program.

The school we identified as being outside the contour and therefore not eligible for consideration under the soundproofing program is St. Helena Elementary School.

The Port Authority is committed to continuing with the school soundproofing program and it is our intent that as long as federal funds are available, St. Helena Commercial H.S. as well as Msgr. Scanlon H.S. will continue to be considered candidates for a future annual soundproofing program.

Sincerely,

Richard J. Sullivan
 for John J. Sullivan
 General Manager
 Aviation Technical Services

We have direct-dial telephone:

PAGE 3

FILE NO. 528 09/26 '00 09:39 ID: MSGR SCANLAN HIGH SCHOOL FAX: 171889282845

NOV-18-2005 02:42 PM ENSIGN ENGINEERING P.C. 718 863 6178

P.11

THE PORT AUTHORITY OF NY & NJ

David Z. Prinos
 Director of Aviation
 One World Trade Center
 New York, N.Y. 10048
 (212) 436-7000
 (212) 941-8000

September 22, 1994

Fr. John J. Haggerty
 Administrator
 Msgr. Scanlan H.S. of St. Helena Parish
 915 Hutchinson River Parkway
 Bronx, NY 10460

Dear Father Haggerty:

Thank you for your September 3, 1994 letter requesting the Port Authority's reconsideration to include Msgr. Scanlan H.S. and St. Helena Commercial H.S. in our School Soundproofing Program.

As we have indicated in our letter of June 18, 1993, both St. Helena Commercial and Msgr. Scanlan are eligible candidates for school soundproofing.

It is important to note that no eligible school is refused funding. To date there are approximately 173 schools significantly impacted by our airports and therefore eligible for soundproofing. However, due to funding limitations, we are only able to include a limited number of schools in the program each year. Since implementation of the soundproofing program, which presently includes 50 schools, a total of twenty-three schools in the Metropolitan area have been completed and twenty-seven more are in progress. Clearly, priority must go to those schools where noise impacts are most severe.

Please be assured that the Port Authority is committed to continuing to expand the program as long as funds are available and will give every consideration to your request to include St. Helena Commercial H.S. and Msgr. Scanlan H.S. in future programs.

Sincerely,

Richard J. Sullivan
 for John J. Sullivan
 General Manager
 Aviation Technical Services

PAGE 2

FILE NO. 528 09/26 '00 09:38 ID: MSGR SCANLAN HIGH SCHOOL FAX: 171889282845

[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 6
Sound Level Readings (dBA) September 26th and 27th, 2016 @
Monsignor Scanlan High School

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)
September 29, 2016

Introduction

In response to the September 2016 Part 150 Draft Report, Monsignor Scanlan High School requested Ensign Engineering, P.C. take aircraft induced noise levels at the school.

Ensign Engineering, PC engineers took noise level readings during flyovers on Sept. 26, and 27, 2016. Readings were taken in the 4th floor Library (as a representative classroom). During the readings, three windows were open for ventilation.

Weather conditions on both days were clear and mild (70F plus or minus). Wind was from the south west at about 4-6 mph.

Extech Instruments Sound Level Meter Model 407730 was used to measure dBA.

As you will see from the attached noise readings, aircraft fly overs are continuous and on a frequency of 1-2 minutes, and sometimes less. Interior noise readings range from 77 to 81 dBA. The average noise level was 78dBA, whereas noise levels should be not more than 50 dBA. (See attached NYC School Construction Sound Criteria).

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)

Noise Levels

9/26/2016		
Weather: Clear & Sunny, Winds from SW @4-6MPH		
#	TIME	dBA (DECIBALS)
1	2:55	68.4
2	2:57	67.3
3	2:58	77.6
4	3:00	78.4
5	3:02	68.6
6	3:04	78.2
7	3:05	78.8
8	3:07	78.2
9	3:08	78.0
10	3:09	72.1
11	3:10	81.5
12	3:12	79.9
13	3:14	68.7
14	3:16	78.2
15	3:17	78.2
16	3:18	79.6
17	3:20	78.4
18	3:21	77.6
19	3:23	77.0
20	3:24	78.4
21	3:26	78.6
22	3:28	78.9
23	3:29	79.5
24	3:31	74.8
25	3:33	67.9
26	3:35	78.0
27	3:37	79.5
28	3:38	73.4
29	3:39	76.1
30	3:41	80.7
31	3:43	79.3

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

32	3:44	78.6
33	3:46	78.6
34	3:47	78.8
35	3:49	79.3
36	3:52	78.8
37	3:53	78.8
38	3:55	78.4
39	3:56	78.6
40	3:58	78.2
41	3:59	78.0
42	4:01	78.4
43	4:03	78.2
44	4:04	78.6
45	4:07	78.8
46	4:09	78.8
47	4:10	78.2
48	4:12	78.8
49	4:14	78.2
50	4:17	80.5
51	4:20	78.0
52	4:21	73.9
53	4:22	74.2
54	4:24	83.5 (Due to Ambulance)
55	4:25	73.0
	MAXIMUM	81.5
	MINIMUM	67.3
	AVERAGE	77.1
KEY		PM

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School**915 Hutchinson River Parkway, Bronx, New York 10465****Sound Level Readings (dBA)****Noise Levels**

9/27/2016		
Weather: Clear & Sunny, Winds from SW @4-6MPH		
#	TIME	dBA (DECIBALS)
1	8:29	78.6
2	8:30	79.8
3	8:33	78.6
4	8:34	78.6
5	8:35	79.9
6	8:37	73.3
7	8:38	78.4
8	8:39	78.2
9	8:41	76.1
10	8:45	78.8
11	8:46	78.4
12	8:48	78.8
13	8:50	68.7
14	8:54	79.1
15	8:57	73.3
16	8:59	78.0
17	9:00	78.0
18	9:02	70.6
19	9:03	79.1
20	9:05	78.8
21	9:06	78.8
22	9:08	76.1
23	9:09	74.3
24	9:11	77.8
25	9:12	78.9
26	9:13	78.0
27	9:15	78.8
28	9:16	73.3
29	9:18	74.8
30	9:20	79.5
31	9:23	78.6
32	9:20	77.6

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

33	9:26	78.6
34	9:27	78.4
35	9:29	78.2
36	9:30	78.6
37	9:32	78.8
38	9:35	75.9
39	9:38	78.2
40	9:40	78.6
41	9:42	79.3
42	9:45	78.9
43	9:49	78.8
44	9:51	73.6
45	9:52	78.2
46	9:56	75.4
47	9:59	78.6
48	10:01	78.6
49	10:09	78.9
50	10:11	78.2
51	10:16	78.6
52	10:18	78.2
53	10:23	78.8
54	10:26	79.1
55	10:27	78.6
56	10:31	78.2
57	10:32	78.8
58	10:34	78.8
59	10:35	78.8
60	10:36	78.2
61	10:37	78.6
62	10:39	78.6
63	10:40	77.6
64	10:43	78.9
65	10:44	78.8
66	10:46	75.9
67	10:47	79.8
68	10:49	78.8
69	10:50	78.4
70	10:55	79.5
71	10:58	68.9
72	10:59	79.1

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

73	11:00	78.2
74	11:03	78.4
75	11:08	78.6
76	11:11	79.1
77	11:15	80.1
78	11:23	79.6
79	11:27	74.8
80	11:29	68.9
81	11:33	79.3
82	11:34	79.1
83	11:36	78.3
84	11:46	78.4
85	11:49	79.6
86	11:51	80.1
87	11:53	78.4
88	11:54	78.2
89	11:57	78.6
90	11:59	78.4
91	12:01	79.1
92	12:03	78.9
93	12:04	78.8
94	12:07	78.8
95	12:10	78.6
96	12:12	80.1
97	12:14	78.8
98	12:16	78.4
99	12:20	78.8
100	12:22	77.0
101	12:24	79.5
102	12:26	80.1
103	12:27	78.8
104	12:31	78.4
105	12:32	79.1
106	12:33	78.2
107	12:35	79.1
108	12:36	78.8
109	12:44	79.1
110	12:47	77.6
111	12:49	78.8
112	12:50	77.6

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

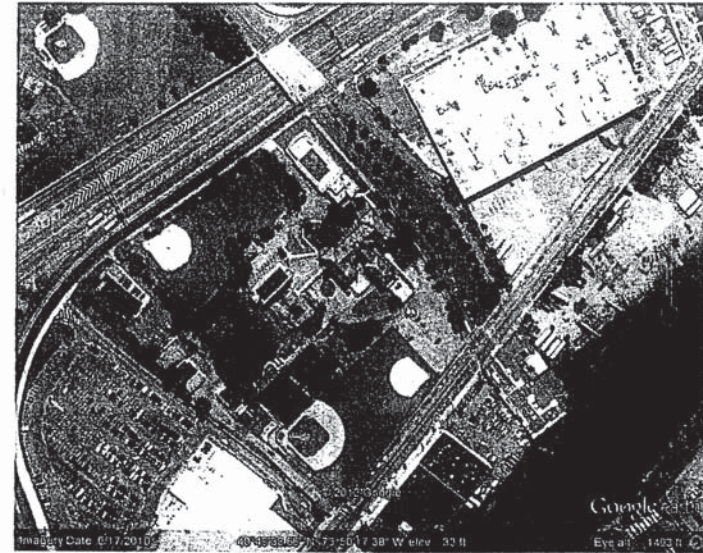
113	12:52	78.2
114	12:54	79.8
115	12:56	75.6
116	12:57	78.4
117	12:59	78.6
118	1:00	78.4
119	1:01	78.6
120	1:48	77.6
121	1:50	79.3
122	1:51	78.6
123	1:52	79.3
124	1:54	76.6
125	1:56	74.5
126	1:59	79.6
127	2:01	79.3
128	2:03	78.8
129	2:05	79.1
130	2:10	78.4
131	2:13	78.0
132	2:16	78.0
133	2:17	79.3
134	2:19	79.5
135	2:22	79.6
136	2:24	78.6
137	2:26	78.2
138	2:27	77.6
139	2:29	74.5
140	2:31	79.6
141	2:34	79.6
142	2:38	78.6
143	2:50	79.3
144	2:53	78.0
145	2:59	78.2
146	3:03	68.8
147	3:05	68.9
148	3:06	79.5
149	3:11	78.8
150	3:14	79.8
151	3:16	78.9
152	3:24	78.2

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

153	3:26	78.9
154	3:28	78.9
	MAXIMUM	80.1
	MINIMUM	68.7
	AVERAGE	78.0
		AM
KEY		PM

**MSGR. SCANLAN HIGH SCHOOL
FACT SHEET**

BUILDING	NAME	STORY	SQUARE FT	CLASSROOM	WINDOWS
Building 1	Scanlan Hall	4	39,000	40	388
Building 2	Gallagher Gymn	1.5	22,800	2	154
Building 3	Helena Hall	5	15,500	30	154
Building 4	Convent	2	4,000	2	77
Building 5	Marist Hall	2	11,000	6	119
Building 6	Silverberg Gymn	2	21,500	5	61
Building 7	Police Building <i>Boil. C.R. - 6th</i>	2	10,000	6	68
Building 8	Residences	2	1,800	n/a	22
Building 9	Residences	2	1,800	n/a	23
Building 10	Residences	2	1,800	n/a	26
Building 11-12	Former Business School	1	6,000	6	79

Student 400
Faculty - 125

500 (13,000)

*Not
Applicable*

[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 2PANYNJ Letter dated May 15, 2013 to
Honorable Joseph Crowley (D-14)**THE PORT AUTHORITY OF NY & NJ**Brian W. Simon
*Director
Government and Community Relations*

May 15, 2013

Honorable Joseph Crowley (D-14)
Member of Congress
United States House of Representatives
2800 Bruckner Blvd., Suite 201
Bronx, NY 10465

Dear Congressman Crowley:

Thank you so much for providing me an opportunity to meet with Monsignor Derivan and the Advisory Board of the Monsignor Scanlan High School. I was honored to learn more about this dynamic co-educational secondary school, and discuss first-hand the challenges faculty and students face with aircraft noise within the region.

As discussed, the Port Authority (PA) will install a portable noise monitor on school grounds, so that we may track and create noise profiles for aircraft departures. The profiles measure an aircraft's compliance with Port Authority's aircraft noise limitations. The installation of the portable noise monitor will take place in late summer/early fall 2013. The timing of this roll out is dependent upon gaining the Port Authority's Board of Commissioner's approval on May 29, 2013 and initiating a new contract that provides for the replacement of the existing Airport Noise Abatement Monitoring System (ANAMS) software at and around all Port Authority airports. This new software will also provide a new web portal for noise complaint filing and management, as well as noise contour services for all airports.

As discussed in our meeting, the noise contour maps will be updated to reflect the latest and most accurate data in order to meet the parameters set forth by our regulator, the Federal Aviation Administration. Please know that we are committed to being proactively responsive to the communities that host and are adjacent to our aviation facilities. Our objective is to make community concerns regarding noise abatement one of our highest priorities.

I wanted to provide a brief overview on ANAMS. Our system has been in place at JFK, EWR, and LGA since 1989. Using noise monitors located in communities surrounding the airports, the system creates noise profiles of aircraft departures to measure an aircraft's compliance with the Port Authority's aircraft noise limitations. This information is a critical component used to address customer concerns and community issues in the areas surrounding the airports.

225 Park Avenue South, 13th Floor
New York, NY 10003
T. 212 435 6909 F. 212 435 6976
bwsimon@panynj.gov

Congressman Joseph Crowley (D-14)
May 15, 2013
Page 2

THE PORT AUTHORITY OF NY & NJ

Mr. Edward Knoesel, the Aviation Department's Environmental Services Manager, will reach out to the school, in order to identify a location on school grounds, and discuss in greater- detail the installation of the monitor.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Simon", written over a horizontal line.

Brian W. Simon
Director
Government and Community Relations

C: Monsignor Derivan
Advisory Board
Ralph Tragale
Ed Knoesel

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ F: 718-863-6178 ♦ cjc@ensignengineering.com



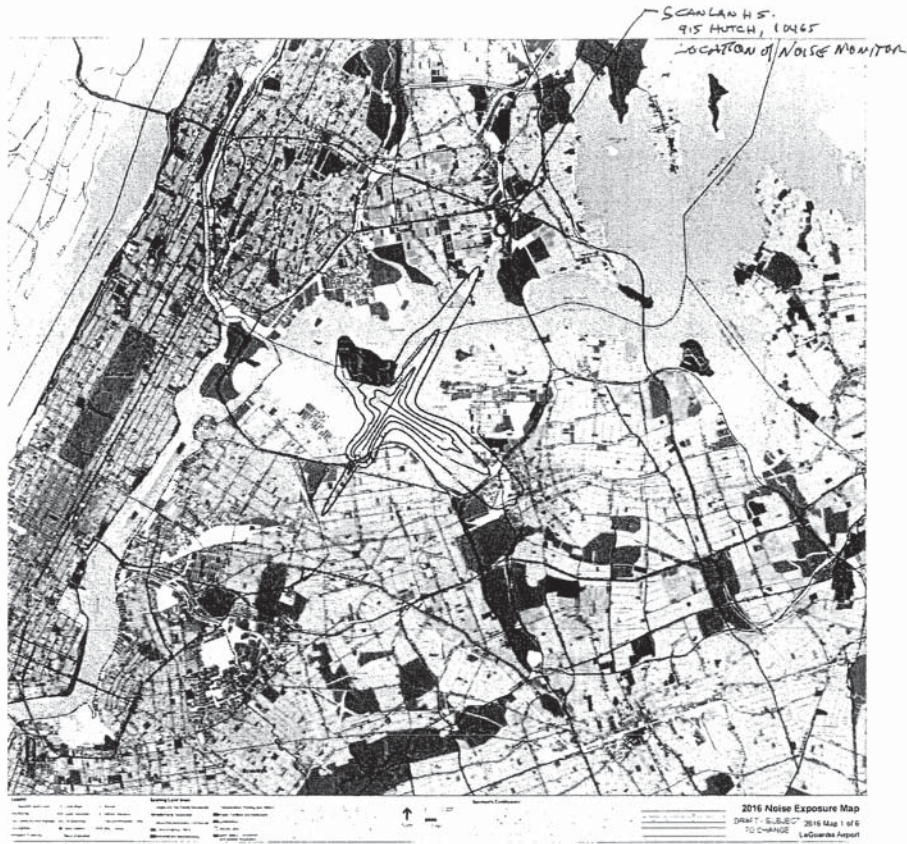
Attachment No 3
PANYNJ Noise Monitor

[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 4
2016 and 2021 noise exposure Maps



[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 5**PANYNJ Letters Confirming Msgr. Scanlan "Noise Impacted"**

- (1) PANYNJ Letter June 18, 1993 from John J. Sullivan, General Manager Aviation Technical Services.
- (2) PANYNJ Letter dated September 23, 1994 from Alfred Graser, General Manager Aviation Technical Services

V170V/2008 10:20 FAX 178 869 8178

ENSON ENGINEERING

003/007

THE PORT AUTHORITY OF NY & NJ

AVIATION DEPARTMENT

David Z. Pridgen
Director of Aviation
One World Trade Center
New York, N.Y. 10048
(212) 455-7000
(212) 941-8000

June 18, 1993

Rev. John J. Haggerty
Administrator
Msgr. Scanlon H.S. - of St. Helena Parish
915 Hutchinson Parkway
Bronx, NY 10465

Dear Father Haggerty:

In our June 7th response to your letter requesting the Port Authority's consideration of Msgr. Scanlon H.S. and St. Helena School for our School Soundproofing Program, we erroneously identified St. Helena Commercial H.S. as not eligible for the program.

As you are aware, the criteria for the selection of schools for the program is based on guidelines to determine aircraft noise impact. Specifically, schools located within the 1200 contour are considered to be significantly noise impacted and are, therefore, eligible for the program. Based upon this criteria, both St. Helena Commercial H.S. and Msgr. Scanlon H.S. are considered noise impacted and are eligible candidates for the Port Authority's School Soundproofing Program.

The school we identified as being outside the contour and therefore not eligible for consideration under the soundproofing program is St. Helena Elementary School.

The Port Authority is committed to continuing with the school soundproofing program and it is our intent that as long as federal funds are available, St. Helena Commercial H.S. as well as Msgr. Scanlon H.S. will continue to be considered candidates for a future annual soundproofing program.

Sincerely,

Richard J. Sullivan
for John J. Sullivan
General Manager
Aviation Technical Services

FILE NO. 1525 09/25/93 10:58:39 ID: MSGR SCANLAN HIGH SCHOOL FAX: 7188928845 PAGE 3

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

David Z. Meyer
Director of Aviation
One World Trade Center
New York, N.Y. 10048
(212) 512-2500
(212) 512-2500

September 22, 1994

Fr. John J. Haggerty
Administrator
Mggr. Scanlan H.S. of St. Helena Parish
918 Hutchinson River Parkway
Bronx, NY 10465

Dear Father Haggerty:

Thank you for your September 2, 1994 letter requesting the Port Authority's reconsideration to include Mggr. Scanlan H.S. and St. Helena Commercial H.S. in our School Soundproofing Program.

As we have indicated in our letter of June 18, 1993, both St. Helena Commercial and Mggr. Scanlan are eligible candidates for school soundproofing.

It is important to note that no eligible school is refused funding. To date there are approximately 173 schools significantly impacted by our airports and therefore eligible for soundproofing. However, due to funding limitations, we are only able to include a limited number of schools in the program each year. Since implementation of the soundproofing program, which presently includes 50 schools, a total of twenty-three schools in the Metropolitan area have been completed and twenty-seven more are in progress. Clearly, priority must go to those schools where noise impacts are most severe.

Please be assured that the Port Authority is committed to continuing to expand the program as long as funds are available and will give every consideration to your request to include St. Helena Commercial H.S. and Mggr. Scanlan H.S. in future programs.

Sincerely,


Alfred J. Graser
General Manager
Aviation Technical Services

[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 6 Sound Level Readings (dBA) September 26th and 27th, 2016 @ Monsignor Scanlan High School

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)
September 29, 2016

Introduction

In response to the September 2016 Part 150 Draft Report, Monsignor Scanlan High School requested Ensign Engineering, P.C. take aircraft induced noise levels at the school.

Ensign Engineering, PC engineers took noise level readings during flyovers on Sept. 26, and 27, 2016. Readings were taken in the 4th floor Library (as a representative classroom). During the readings, three windows were open for ventilation.

Weather conditions on both days were clear and mild (70F plus or minus). Wind was from the south west at about 4-6 mph.

Extech Instruments Sound Level Meter Model 407730 was used to measure dBA.

As you will see from the attached noise readings, aircraft fly overs are continuous and on a frequency of 1-2 minutes, and sometimes less. Interior noise readings range from 77 to 81 dBA. The average noise level was 78dBA, whereas noise levels should be not more than 50 dBA. (See attached NYC School Construction Sound Criteria).

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)

Noise Levels

9/26/2016		
Weather: Clear & Sunny, Winds from SW @4-6MPH		
#	TIME	dBA (DECIBALS)
1	2:55	68.4
2	2:57	67.3
3	2:58	77.6
4	3:00	78.4
5	3:02	68.6
6	3:04	78.2
7	3:05	78.8
8	3:07	78.2
9	3:08	78.0
10	3:09	72.1
11	3:10	81.5
12	3:12	79.9
13	3:14	68.7
14	3:16	78.2
15	3:17	78.2
16	3:18	79.6
17	3:20	78.4
18	3:21	77.6
19	3:23	77.0
20	3:24	78.4
21	3:26	78.6
22	3:28	78.9
23	3:29	79.5
24	3:31	74.8
25	3:33	67.9
26	3:35	78.0
27	3:37	79.5
28	3:38	73.4
29	3:39	76.1
30	3:41	80.7
31	3:43	79.3

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

32	3:44	78.6
33	3:46	78.6
34	3:47	78.8
35	3:49	79.3
36	3:52	78.8
37	3:53	78.8
38	3:55	78.4
39	3:56	78.6
40	3:58	78.2
41	3:59	78.0
42	4:01	78.4
43	4:03	78.2
44	4:04	78.6
45	4:07	78.8
46	4:09	78.8
47	4:10	78.2
48	4:12	78.8
49	4:14	78.2
50	4:17	80.5
51	4:20	78.0
52	4:21	73.9
53	4:22	74.2
54	4:24	83.5 (Due to Ambulance)
55	4:25	73.0
	MAXIMUM	81.5
	MINIMUM	67.3
	AVERAGE	77.1
KEY		PM

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

Monsignor Scanlan High School
915 Hutchinson River Parkway, Bronx, New York 10465
Sound Level Readings (dBA)

Noise Levels

9/27/2016		
Weather: Clear & Sunny, Winds from SW @4-6MPH		
#	TIME	dBA (DECIBALS)
1	8:29	78.6
2	8:30	79.8
3	8:33	78.6
4	8:34	78.6
5	8:35	79.9
6	8:37	73.3
7	8:38	78.4
8	8:39	78.2
9	8:41	76.1
10	8:45	78.8
11	8:46	78.4
12	8:48	78.8
13	8:50	68.7
14	8:54	79.1
15	8:57	73.3
16	8:59	78.0
17	9:00	78.0
18	9:02	70.6
19	9:03	79.1
20	9:05	78.8
21	9:06	78.8
22	9:08	76.1
23	9:09	74.3
24	9:11	77.8
25	9:12	78.9
26	9:13	78.0
27	9:15	78.8
28	9:16	73.3
29	9:18	74.8
30	9:20	79.5
31	9:23	78.6
32	9:20	77.5

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

33	9:26	78.6
34	9:27	78.4
35	9:29	78.2
36	9:30	78.6
37	9:32	78.8
38	9:35	75.9
39	9:38	78.2
40	9:40	78.6
41	9:42	79.3
42	9:45	78.9
43	9:49	78.8
44	9:51	73.6
45	9:52	78.2
46	9:56	75.4
47	9:59	78.6
48	10:01	78.6
49	10:09	78.9
50	10:11	78.2
51	10:16	78.6
52	10:18	78.2
53	10:23	78.8
54	10:26	79.1
55	10:27	78.6
56	10:31	78.2
57	10:32	78.8
58	10:34	78.8
59	10:35	78.8
60	10:36	78.2
61	10:37	78.6
62	10:39	78.6
63	10:40	77.6
64	10:43	78.9
65	10:44	78.8
66	10:46	75.9
67	10:47	79.8
68	10:49	78.8
69	10:50	78.4
70	10:55	79.5
71	10:58	68.9
72	10:59	79.1

[Type here]

*Ensign Engineering, P.C.*1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

73	11:00	78.2
74	11:03	78.4
75	11:08	78.6
76	11:11	79.1
77	11:15	80.1
78	11:23	79.6
79	11:27	74.8
80	11:29	68.9
81	11:33	79.3
82	11:34	79.1
83	11:36	78.3
84	11:46	78.4
85	11:49	79.6
86	11:51	80.1
87	11:53	78.4
88	11:54	78.2
89	11:57	78.6
90	11:59	78.4
91	12:01	79.1
92	12:03	78.9
93	12:04	78.8
94	12:07	78.8
95	12:10	78.6
96	12:12	80.1
97	12:14	78.8
98	12:16	78.4
99	12:20	78.8
100	12:22	77.0
101	12:24	79.5
102	12:26	80.1
103	12:27	78.8
104	12:31	78.4
105	12:32	79.1
106	12:33	78.2
107	12:35	79.1
108	12:36	78.8
109	12:44	79.1
110	12:47	77.6
111	12:49	78.8
112	12:50	77.6

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

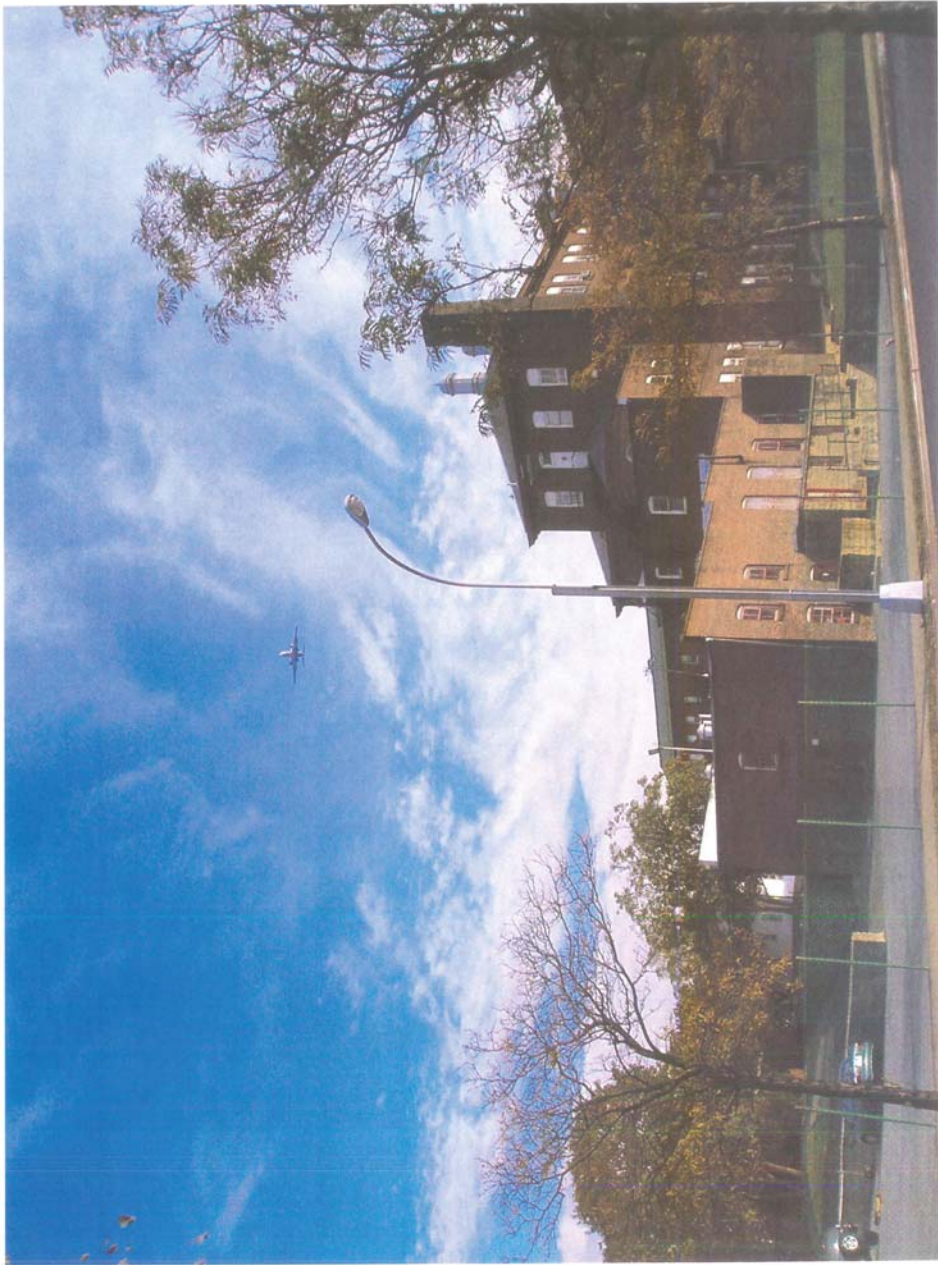
113	12:52	78.2
114	12:54	79.8
115	12:56	75.6
116	12:57	78.4
117	12:59	78.6
118	1:00	78.4
119	1:01	78.6
120	1:48	77.6
121	1:50	79.3
122	1:51	78.6
123	1:52	79.3
124	1:54	76.6
125	1:56	74.5
126	1:59	79.6
127	2:01	79.3
128	2:03	78.8
129	2:05	79.1
130	2:10	78.4
131	2:13	78.0
132	2:16	78.0
133	2:17	79.3
134	2:19	79.5
135	2:22	79.6
136	2:24	78.6
137	2:26	78.2
138	2:27	77.6
139	2:29	74.5
140	2:31	79.6
141	2:34	79.6
142	2:38	78.6
143	2:50	79.3
144	2:53	78.0
145	2:59	78.2
146	3:03	68.8
147	3:05	68.9
148	3:06	79.5
149	3:11	78.8
150	3:14	79.8
151	3:16	78.9
152	3:24	78.2

[Type here]

Ensign Engineering, P.C.

1111 Calhoun Avenue, Bronx, NY, 10465 ♦ P: 718-863-5590 ♦ cjc@ensignengineering.com

153	3:26	78.9
154	3:28	78.9
	MAXIMUM	80.1
	MINIMUM	68.7
	AVERAGE	78.0
		AM
KEY		PM



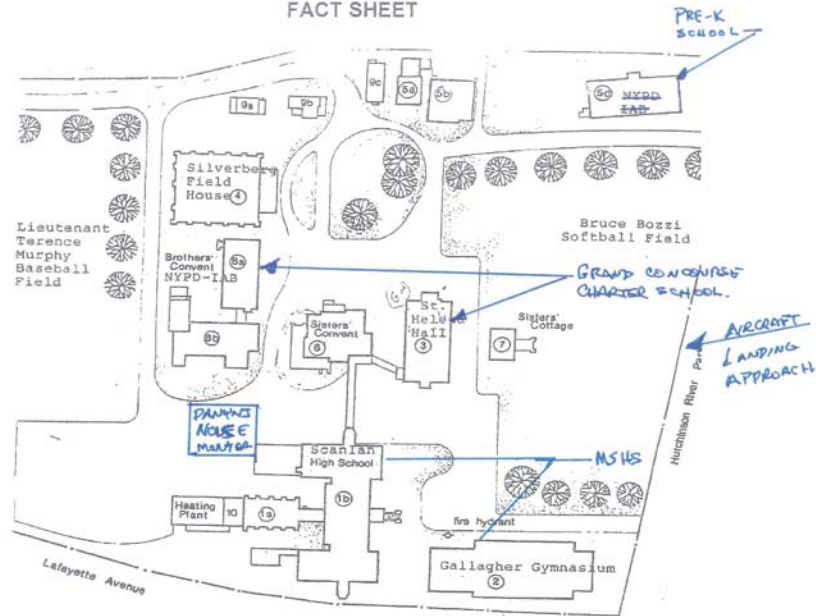
[Type here]

Monsignor Scanlan High School

915 Hutchinson River Parkway, Bronx, NY, 10465 ♦ P: 718-430-0100 ♦ scanlanhs.edu

Attachment No 1 Msgr. Scanlan Site Plan

MSGR. SCANLAN HIGH SCHOOL FACT SHEET



Site Plan

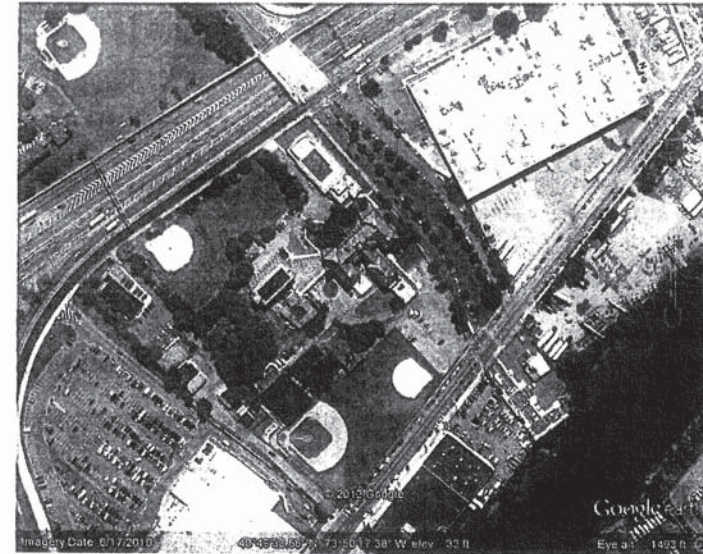


MSGR. SCANLAN HIGH SCHOOL OF ST. HELENA'S PARISH

915 Hutchinson River Parkway, Bronx, N.Y. 10465
Sister Mario O'Donnell O.P., Principal Rev. Msgr. Thomas B. Derivan, Pastor

Prepared by: Joe Solimine, Sr.
Ramón Vélez, Jr., CPM, LREB

MSGR. SCANLAN HIGH SCHOOL FACT SHEET



BUILDING	NAME	STORY	SQUARE FT	CLASSROOM	WINDOWS
Building 1	Scanlan Hall	4	39,000	40	388
Building 2	Gallagher Gym	1.5	22,800	2	154
Building 3	Helena Hall	5	15,500	30	154
Building 4	Convent	2	4,000	2	77
Building 5	Maris Hall	2	11,000	6	119
Building 6	Silverberg Gym	2	21,500	5	61
Building 7	Police Building	2	10,000	6	68
Building 8	Residences	2	1,800	n/a	22
Building 9	Residences	2	1,800	n/a	23
Building 10	Residences	2	1,800	n/a	26
Building 11-12	Former Business School	1	6,000	6	79

Student 400
Faculty 125

SA 113,000

Not Applicable

9/29/16



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-010-001

C-010-002

C-010-003

We would like to request ~~the~~ installation of sound monitor system in underhill Ave ~~park~~ & 188 st park. The airplanes fly over my roof every two minutes and sometimes even more frequent. They start from 6 am in the morning and sometimes end over midnight. We are awakened by the airplane noise every morning and disrupted by airplane in our sleep. My blood pressure ~~and~~ raises and heartbeat fastened as airplane fly over my roof. We need a solution to this. We can't live our lives under the airplane track or let it fly low over our roof. And we love our neighborhood so selling our house

Name: Carina Yang Organization: is not one of them
Street Address: 4891 187 st City: Fresh Meadows State: NY Zip: 11365
Tel: 917 816-8850 Email: enjoylucky@yahoo.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-010-001

Installation or relocation of noise monitors may be considered during the Noise Compatibility Program phase of the 14 CFR Part 150 Study.

C-010-002

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure. It is important to note that due to federal grant assurances, the Port Authority cannot impose a mandatory limitation on flights at LGA without successfully completing a 14 CFR Part 161 Study and approval of the limitation by the FAA.

C-010-003

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-011-001

A noise monitor was promised for my yard 2 yrs ago!
So, what happened?

C-011-002

I hear planes taking off before 6AM at least at a week!
We were told years ago that there would be no
takeoffs before 6AM
And no landings after 11 PM except in emergencies!

C-011-003

What happened to the gate @ Marine Terminal #2 St.
entrance/exp?!

Name: FRANCES McDONAH Organization: UCCA, QRO
Street Address: 22-31 80 St City: ELMHURST State: NY Zip: 11376
Tel: 718-721-8392 Email: Politicaljunkie2011@hotmail.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-011-001

Installation or relocation of noise monitors may be considered during the Noise Compatibility Program phase of the 14 CFR Part 150 Study.

C-011-002

In the 1980s, the Port Authority established a voluntary restriction on aircraft operations between midnight and 6:00 A.M. While this restriction has been in use since that time, operations may occur during these hours at the request of an aircraft operator or as a result of delays. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

C-011-003

The LGA 14 CFR Part 150 study only focuses on aircraft noise exposure and will not address airport access.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-012-001

C-012-002

LIVE APPROXIMATELY 37 MILES FROM LA GUARDIA AIRPORT
LOW FLYING AIRCRAFT UNDER REGULATION HEIGHT.
CAUSING EXTREME NOISE - (LAST NIGHT - 9/28/16)
UNTIL 12 P.M. CHECK HEIGHT OF INCOMING FLIGHTS
REQUEST NOISE MONITOR

Name: DANIEL RASPENTE Organization: _____
Street Address: 1155 76th City: BAYLEN State: NY Zip: 11228
Tel: 1-646-853-0971 Email: _____

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-012-001

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

C-012-002

Installation or relocation of noise monitors may be considered during the Noise Compatibility Program phase of the 14 CFR Part 150 Study.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-013-001

I work in Flushing and lived in Oakland garden, Queens
everyday I walk on Flushing street of, I am often
troubled by the aircraft noise that I can't
hear ~~my~~ my phone clearly. the airplane noise also
bother me at home. I couldn't have a good
night sleep. I hope this can be changed.

Name: Jenny Rao Organization:
Street Address: 5831-201st ST City: Oakland garden State: NY Zip: 11364
Tel: 646-203-7492 Email: Jenny101280@hotmail.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-013-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

C-014-001

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-014-001

why the departing airplane
is not mainly taking
off on the waterway. Like
northwest direction?

Apparently the impact will
be much less than the
current South East routing.

Name: YING CHENG Organization:
Street Address: 76-16 176 ST City: QUEENS State: N-Y Zip: 11366
Tel: 917-553-7715 Email:

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

I am from Fresh Meadows, my address
53-02 193 St. Fresh Meadows, NY 11365.

I moved into this place in 2006. It was quiet at that time. But since ~~last summer~~ the aircraft is taking departure from our area, so low and so loud, it makes our life upside down. Early in the morning, like 6am, we were awoken. Late in the evening, it was staying with us. The kids can't go out to play at Underhill Ave playground (which is the largest positive factor that makes us to decide to reside here), the signal of the ~~TV~~ Internet is interrupted... I hope something to be done to give us back the quiet living environment.

Name: Fang Teng Organization:
Street Address: 5302 193 St City: Fresh Meadows State: NY Zip: 11365
Tel: 718-767-0098 (H) Email: fagteng@yahoo.com
917-698-7887 (cell)

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-015-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

C-015-001



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #2
September 29, 2016

Draft Noise Exposure Map Report Comment Form

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

C-016-001

What the purpose of this study? Will
the study alleviated our residential
area from the noise pollution

Name: SUB CHUN Kwok Chun Organization:
Street Address: 192-06 53 AV City: Fresh Meadows NY State: NY Zip: 11365
Tel: 718-767-2485 Email:


Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-016-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

C-017-001

Thank you for your interest in the project. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

	14 CFR Part 150 Study LaGuardia Airport Public Information Workshop #2 September 29, 2016	Draft Noise Exposure Map Report Comment Form
---	--	---

Please use the space below to provide your questions and comments regarding the Draft Noise Exposure Map Report for LaGuardia Airport. Your comments and/or questions will be reviewed and considered during the production of the Final Noise Exposure Map Report. Your participation in the process is appreciated.

THANK YOU
for the Study
Presentation
But just please plane noise
less (taking off & arriving) frequent

Name: Kan Wang Organization: HOME OWNER
 Street Address: 13810 Franklin City: Flushing State: NY Zip: 11355
 Tel: 718 359 0105 Email: wangtk@ycru.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

C-017-001

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

C-018-001 We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不休息。它让人简直疯了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Eddie Deng
48-27 187th ST.
Fresh Meadows, NY 11365
12

C-018-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure. This response applies to all 38 signed petition letters and 4 petition signature pages.

P-001-001

Comment noted.

P-001-002

Under 14 CFR Part 150, §A150.101(a), aircraft noise must be calculated and measured using the Day-Night Average Sound Level (DNL). DNL is a 24-hour average of noise with additional weighting for nighttime events between 10 P.M. and 7 A.M.; Community Noise Equivalent Level (CNEL) is only mandated in California and cannot be used for this Study.

Under 14 CFR Part 150, all land uses are considered compatible with noise levels below DNL 65. The FAA can only consider areas beyond the DNL 65 contour where a local community has adopted a lower standard, such as DNL 60 or DNL 55. Currently New York has not adopted a lower standard.

P-001-003

14 CFR Part 150 sets forth specific requirements for the official Noise Exposure Maps. Only the Day-Night Average Sound Level (DNL) 65 and greater contours are depicted on these maps, as required by the Part 150 regulation. DNL 65 is the level of significance under the current regulations and all land uses outside the 65 DNL are considered compatible land use with aircraft noise.

As stated in Section 6.7 of the Study Protocol for JFK and LGA 14 CFR Part 150 Studies (included in Appendix I), "The DNL 55 and 60 contours are not required to satisfy the requirements of 14 CFR Part 150 and will be depicted on separate maps that will be located in a technical appendix. The DNL 55 and 60 contours will be provided for information purposes only on separate figures labeled as such."

From: Stan Goldstein [mailto:goldsteinusa@gmail.com]
Sent: Tuesday, August 30, 2016 4:58 AM
To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>
Subject: Re: LGA Airport's 14 CFR Part 150 Airport Noise and Land Use Compatibility Study_Summer 2016 Newsletter

Thank you, Kelly Mitchell, for your very prompt response, it is greatly appreciated.

P-001-001 Let me bring to your attention that the noise impact study came about, not to satisfy the FAA's requirements, but rather *despite* the FAA's initial conclusion that a study was not required (under the FAA's eyes-closed interpretation of "categorical exemption"). The FAA's initial conclusion was strongly, and repeatedly, embraced by the PA as well.

To his great credit, the study was ordered by Governor Andrew Cuomo, at the urging of several civic groups, and a plethora of individuals; it was supported by several elected officials, at both city, county, town, and state levels. It was also supported by our US Senators and some of our US Representatives. To hint that the study came about at the instigation of the FAA (or the PA) goes against history, since both organizations did everything possible to prevent and delay the study. (There is no reasonable doubt that the study is required by the CFR.)

P-001-002 As you are most likely aware, the DNL (Day Night Level) is a less than ideal metric for measuring airplane noise for several reasons, but it is used, despite its varied drawbacks, since there is no better, established, method; although many argue for CNEL (California's Community Noise Equivalent Level) which offers advantages. Most of the civilized countries in the world use a 55 DNL threshold. The notable exception is the USA, which still uses the superannuated, 65 DNL threshold. Many people in the NYC-LI area, and across the country, feel that a 55 DNL is a more reasonable limit. This conclusion is supported by the scholarly research of prestigious institutions. Please be assured that there are widespread, coast to coast, grass root, efforts in place to superseded the 65 DNL with a 55 DNL standard.

P-001-003 It will be very nice, well received by the community, and a boon to local health and tranquility if the PA supports the 55 DNL as a replacement for the existing 65 DNL. Including it alongside the other levels & contours will give it more attention than showing it separately. I remind you that it was previously agreed that the 55 DNL contour would also be used in the study. No one said anything about sticking it in some out of the way, obscure, appendix, where it will provide less immediate information, muster less attention, and possibly be ignored.

Again, I ask that the PA include the 55 and 60 DNL data along with, and contiguous with, the data for the 65, 70 & 75 DNL's. It is time for the PA to reverse its long-standing attitude of allowing ever increasing noise levels and proactively focus on noise reduction instead.

S

ee ya'
Stan Goldstein

All material is © Copyright. This email including any attachment(s) is intended for the use of the individual or entity to which it is addressed, and contains information that is privileged, confidential, and/or exempt from disclosure under applicable law . . . blah, blah, blah . . .

On Fri, Aug 26, 2016 at 2:09 PM, NYPART150STUDIES <NYPART150STUDIES@panynj.gov> wrote:

Good Afternoon Mr. Goldstein,

As per FAA's regulations, 14 CFR Part 150 Airport Noise and Compatibility Study requires the creation of Noise Exposure Maps (NEM) of 65+ DNL contours. These noise contours will serve as the basis for the next phase of the Study's deliverable, the Noise Compatibility Program, which will explore operational, land use, and administrative measures to minimize aircraft noise exposure. However, supplemental NEMs were developed for informational purposes only, showing the 55 & 60 DNL contours. These will be included in the draft NEM Report in the Appendixes section and will also be on display at the LGA Public Workshop on September 29, 2016.

Thank you for your interest in the LGA Part 150 Study.

NY Part 150 Studies

Aviation Noise Office
The Port Authority of NY & NJ

From: Stan Goldstein [<mailto:goldsteinusa@gmail.com>]
Sent: Friday, August 26, 2016 1:14 PM
To: Mitchell, Kelly <kmitchell@panynj.gov>
Subject: Re: LGA Airport's 14 CFR Part 150 Airport Noise and Land Use Compatibility Study_Summer 2016 Newsletter

Hello—

It is my distinct recollection that the study is supposed to also include the 55 DNL contour. Why am I only seeing the 65, 70 & 75 contours and numbers?

See ya'

Stan

Goldstein

All material is © Copyright. This email including any attachment(s) is intended for the use of the individual or entity to which it is addressed, and contains information that is privileged, confidential, and/or exempt from disclosure under applicable law . . . blah, blah, blah . . .

Sent: Friday, August 26, 2016 10:43 AM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: LGA Airport's 14 CFR Part 150 Airport Noise and Land Use Compatibility Study_Summer 2016 Newsletter

Members of the General Public who have joined the LGA Part 150 Study mailing list,

Attached please find the 14 CFR Part 150 Airport Noise and Land Use Compatibility Study Newsletter for LaGuardia Airport (LGA). This is the third in a series that the Port Authority of New York and New Jersey is distributing to those interested in learning more about the LGA's Part 150 Study process. Please feel free to share this link with others who are interested:
<http://panynjpart150.com/AdminPages/GetProjectFile.asp?a=JFK4&f=JFK%20-%20Part%20150%20Study%20Newsletter%20-%20Summer%202016.pdf>

This newsletter has also been posted on the project's website.

Attachment(s):

LGA Airport Part 150 Summer Newsletter

Thank you for having an interest in the LGA Part 150 Study.

NY Part 150 Studies

Aviation Noise Office
The Port Authority of NY & NJ

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-002-001

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

-----Original Message-----

From: NYPART150STUDIES

Sent: Thursday, June 23, 2016 9:57 AM

To: Lucy <lucy.chan1@gmail.com>

Cc: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: RE: Airplane noise

Thank you for providing your comment on the 14 CFR Part 150 Noise Compatibility Studies for JFK and/or LGA Airports. Your comment will be reviewed by our Aviation's Noise Office and shared with the Federal Aviation Administration (FAA). Thank you again for contacting the Port Authority of New York & New Jersey.

NY Part 150 Studies

Aviation Noise Office

The Port Authority of NY & NJ

-----Original Message-----

From: Lucy [<mailto:lucy.chan1@gmail.com>]

Sent: Sunday, June 19, 2016 10:53 AM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: Airplane noise

I reside on 192 06 53rd avenue, fresh meadows, NY 11365 .The planes are rerouted to my area. There is at least 5 planes that uses the route by my residence within 10 minutes. This is very disturbing for our neighborhood. Please consider rerouting the plane, we moved to this area for the peaceful environment. This is very unfair for the residence of our neighborhood. Thank you for your attention to this matter.

Sincerely,

Lucy Chan

Sent from my iPhone

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-002-001

P-003-001

The distribution of noise is related to the number of aircraft operations and the distribution across flight paths. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

From: NYPART150STUDIES
Sent: Friday, October 30, 2015 1:52 PM
To: 'ArenTung@aol.com'
Subject: RE: Further Formal Comment

Thank you for providing your comment on the 14 CFR Part 150 Noise Compatibility Studies for JFK and/or LGA Airports. Your comment will be reviewed by our Aviation's Noise Office and shared with the Federal Aviation Administration (FAA). Thank you again for contacting the Port Authority of New York & New Jersey.

NY Part 150 Studies
Aviation Noise Office
The Port Authority of NY & NJ

From: ArenTung@aol.com [<mailto:ArenTung@aol.com>]
Sent: Friday, October 30, 2015 10:18 AM
To: NYPART150STUDIES
Subject: Further Formal Comment

I was at the informational workshop last night at NCC
Here is a final thought:
Ultimately it will be discovered that there has been an increase in air traffic and air noise. I understand that there is a process to institute change within a federal organization such as the FAA

P-003-001 Calculate the % of decibel noise increase that has occurred within the last 5 years and disburse it equitably between all areas based on the previous decibel level.

By this prorated process - everyone will understand that we all will experience a small increase in noise based on what we previously had.

Those who chose to live next to an airport understand that planes are a part of their quality of life, however for those of us who bought property based on quiet, and then were deceived by the change in air space noise, are facing a change in our quality of life that is not fair, when others have not experienced any change and others have decreased in their decibel limits that they bought into.

Aren Tung
arentung@aol.com

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY. PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

-----Original Message-----

From: Raymond Moradel [mailto:remoradel@gmail.com]

Sent: Friday, September 30, 2016 1:39 PM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: Increased Plane Traffic Noise - Jackson Heights and East Elmhurst Neighborhoods

To whom it may concern,

P-004-001 I am concerned about the increased plane traffic and noise flying to and from LaGuardia airport, over the neighborhoods of Jackson Heights and East Elmhurst. I have noted this increase when comparing what I experienced back in 2010 when I initially moved into the neighborhood in 2010.

This increased plane traffic and noise lowers the quality of life for the residents within these neighborhoods.

I hope that the Port Authority, the city and state are considering an option of reducing or eliminating this plane traffic and noise over residential neighborhoods. That this item is especially being considered as part of the revamping of LaGuardia airport.

Thank you for your attention to this matter.

Raymond E. Moradel

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-004-001

The frequency of operations can change over time because airlines have the flexibility to schedule operations to meet the demands of the traveling public. The FAA chooses runways for aircraft operations based on the following priorities: runway availability, weather, air traffic and airspace conflicts, operational efficiency, and noise. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

-----Original Message-----

From: Alice Tou [mailto:t7695@yahoo.com]

Sent: Friday, October 21, 2016 9:47 AM

To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>

Subject: LaGuardia Airport - Noise Complaint

Dear Sir/Madam,

P-005-001

I am a resident of Flushing, New York and for the past few years, the entire neighborhood of Flushing has been battling with the plane noise from LaGuardia airport. My address is: 144-70 41 Avenue, Flushing, NY 11355. Since I live in the heart of Flushing, the noise is extremely bothersome and it starts as early as 5:45 am and sometimes doesn't stop until 11 pm, averaging 1 to 2 minutes per flight and causes excessive vibration. It seems like the plane flies right above the building where I live. The noise has interrupted everyone's sleep in the neighborhood. My husband works late and goes to sleep around 4 am. Many times the noise wakes him up as early as 6 am or as soon as the planes start flying. As many of the residents in Flushing are immigrants and have limited English proficiency, they do not know where or how to file complaints of this issue. I have filed numerous online complaints with Port Authority of NY and NJ but the situation has never changed. If anything, it's only getting worse. I have spoken with many of my neighbors and other residents in Flushing, almost all of them are bothered by the plane noise causing by planes' take-offs from LaGuardia Airport. If possible, please help us on this issue by asking FAA/LaGuardia airport to consider an alternative route and do not use Flushing as its take-off/landing routes. Please contact me at my email or via telephone if you have any additional questions.

P-005-002

Thank you very much.

Regards,

Alice Tou

Tel: 917-957-3669

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-005-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

P-005-002

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

From: Len Schaier [<mailto:lschaier@gmail.com>]
 Sent: Friday, July 24, 2015 9:44 AM
 To: NYPART150STUDIES
 Cc: Rizzuto, Teresa
 Subject: Protocols

Please see below or attached .

quietskies.net
 53 Birch Street Port Washington, NY 11050
 516 944 3570

6/3/2015 Rev 7/25/15

Technical requirements/considerations for inclusion into Part 150 Study Protocols

- P-006-001** The following technical requirements/considerations should be considered during development of the protocols and Noise Exposure Maps (NEMs) for the Part 150 Study.
- A. Consider all relevant flight tracks and profile data to help assure accurate representation of all contours including the 60 and 55 DNL contours.
 - B. Analysis to include tracks and profile data for aircraft using Visual Flight Rules (VFR), Hold Down Modes, or other operating modes that may impact the accuracy of noise contours in the NEM.
 - C. Use actual take off gross weights or average load factors for operations at each of the NY airports.
 - D. Include normal growth of slot usage and any other slot changes which may become known in the study period.
 - E. Include consideration of Multiple Runway Operations (MRO) and operations taking advantage Wake Recat which may become known in the study period.
 - F. Include consideration of any perimeter rule changes which may become known in the study period.
 - G. Incorporate remaining tasks under Airspace Redesign and NextGen which may include Required Navigation Performance (RNP) procedures, Continuous Descent Approach (CDA) as well as implementation of the New York Metroplex, and other task/changes that may be identified during the five-year study period.
 - H. Periodically use noise monitors for model data refinement and verification of modeling results. Report results of the comparisons to the Technical Advisory Committee.
 - I. Model outputs shall be provided in graphical and Excel formats or their equivalents with census track information, latitude and longitude data, suitable to allow a reader to compare model and actual noise levels determinations at noise monitor locations.
 - J. Composite noise exposure maps and excel sheets shall be provided which show total noise impacts due to both airports (LGA and JFK) added together.

P-006-001

The Study Protocol used for the 14 CFR Part 150 Study can be found in Appendix I. The Study Protocol was developed by the Study Team in collaboration with the Port Authority and FAA. The FAA reviewed and agreed to the Study Protocol. Comment suggestions lettered A through G were incorporated into the Study Protocol and/or noise analysis. In response to suggestion H: 14 CFR Part 150 does not permit the use of noise measurements to "calibrate" the noise model. In response to suggestion I: the Study Protocol defines the noise analysis outputs that will be included in the 14 CFR Part 150 Study. In response to suggestion J: the LGA and JFK 14 CFR Part 150 Studies are separate studies, and the results will not be combined into a single composite map.

Len Schaier, President
quietskies.net

--

"The Congress declares that it is the policy of the United States
to promote an environment for all Americans free from
noise that jeopardizes their health or welfare."

NOISE CONTROL ACT of 1972

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT
AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE
RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY,
PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY
ANY PRINTOUTS.

From: Fang Teng [<mailto:fagteng@yahoo.com>]
Sent: Thursday, May 05, 2016 6:30 AM
To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>
Subject: Re: 3/16 meeting at LGA

P-007-001

Dear Sir/Madam,
 Below is my record for the aircraft noise in our area:
 April 29
 I hear the flight 6:00 in the morning. The noise comes from Northern Blvd.
 After 7:00 the noise comes from overhead.
 April 30
 It was a quiet day.
 May 1,
 It was a noisy day again.
 May 2, i made a complaint call.
 I was awoken 6:07 this morning. Later I force me back to sleep by trying to repeat some Bible verses in my head. but 7:14 was aroused up again, 7:24 is another loud one 7:38, 7:43, 7:53
 8:13, 8:24, 8:31
 After that the aircraft noise stayed with us a whole day
 May 3
 6:28 I was awakened
 In the afternoon when I got home, it is about 3:50pm, the noise is loud.
 In the evening, when I got back from SAB it is about 8:00 pm the noise is still with us till now it is 10:58 pm the noise is still loud. So the whole day, this community was abused by the noise.
 Actually the noise was with us a whole day yesterday as well.
 May 4
 I can hear the noise was nearing starting from 6:09

P-007-002

This was a still quiet area, to my understanding, two years ago. My friend who came from China visited me that summer, we took a walk at underhill playground. We can hear the insects making noise.
 Now the spring is here, but it is still cold. All the doors and windows are closed and we are still awakened so early in the morning and annoyed so late at night.
 We need to know who made this decision to make such sharp change to the living quality to this society? This is NY's best school district, you are making this area unfit for kids to live. Who is ruining this society?

Best,
 A group of mom in Fresh Meadows

Sent from my iPhone

On Mar 14, 2016, at 4:11 PM, NYPART150STUDIES <NYPART150STUDIES@panynj.gov> wrote:

P-007-001

The frequency of operations can change over time because airlines have the flexibility of scheduling flights to meet demands of the traveling public. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

P-007-002

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher. Based on the aircraft operations data analyzed for the purposes of the 14 CFR Part 150 Study, the Port Authority did not compare whether there was a change in operations two years ago.

Dear Fang Teng,

As per your request, the location for the March 16, 2016 LGA Part 150 Technical Advisory Committee Meeting is provided below. The location for the March 15, 2016 JFK Part 150 Technical Advisory Committee Meeting has also been provided.

LGA Technical Advisory Committee Meeting

DATE: Wednesday, March 16, 2015
TIME: 10:00AM - 1:00PM
LOCATION: LaGuardia Airport - Hangar 7 Center, Flushing, NY 11371 (3rd Floor)

JFK Technical Advisory Committee Meeting

DATE: Tuesday, March 15, 2015
TIME: 10:00AM - 1:00PM
LOCATION: John F. Kennedy International Airport - South Service Road Bldg. #14, Jamaica, NY 11430 (2nd Floor)

Sincerely,

NY Part 150 Studies
Aviation Noise Office
The Port Authority of NY & NJ

-----Original Message-----

From: Fang Teng [<mailto:fagteng@yahoo.com>]
Sent: Monday, March 14, 2016 3:08 PM
To: NYPART150STUDIES
Subject: 3/16 meeting at LGA

Dear Sir/ Madam,
Pls advise the exact address to the meeting. We can't get it via Google map.
Your help in this matter will be highly appreciated.
Fang Teng

Sent from my iPhone
NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

From: NYPART150STUDIES
 Sent: Thursday, March 10, 2016 11:17 AM
 To: 'Kevin Mui'
 Subject: RE: Noise contour

Thank you for providing your comment on the 14 CFR Part 150 Noise Compatibility Studies for JFK and/or LGA Airports. Your comment will be reviewed by our Aviation's Noise Office and shared with the Federal Aviation Administration (FAA). Thank you again for contacting the Port Authority of New York & New Jersey.

NY Part 150 Studies
 Aviation Noise Office
 The Port Authority of NY & NJ

From: Kevin Mui [<mailto:kevin.mui@gmail.com>]
 Sent: Thursday, March 10, 2016 11:04 AM
 To: NYPART150STUDIES
 Subject: Noise contour

P-008-001 The noise contour and study, needs to stretch all the way up towards Glen Cove. We have aircrafts coming in, 30-40 seconds apart, at under 2000 feet, almost on a daily basis.

P-008-002 A helpful LI citizen has been documenting exactly what my family is going through, via a YouTube live stream. Below is only a small clip of what we are experiencing.

<https://youtu.be/4HXvuldYbys?t=3m57s>

This isn't right, and you know it.

Kevin Mui

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-008-001

Appendix D of the Report describes how the study area and data collection area were determined for the LGA 14 CFR Part 150 Study. In particular, the Port Authority used the most current set of historic noise contours for LGA out to the Day-Night Average Sound Level (DNL) 60 contour to establish the Study Area, which provided a conservative area that would fully encompass the future DNL 65, the threshold for compatibility under 14 CFR Part 150. The Study Area is where detailed land use data was required to support population, household, and land use evaluations in the Study. The historic noise contours used were completed prior to the Study as part of other projects. The historic DNL 60 contour, which is less than DNL 65 and is considered compatible under 14 CFR Part 150, did not extend into Glen Cove. The LGA 14 CFR Part 150 study DNL 65 contour also does not extend into Glen Cove. Glen Cove is considered compatible with existing and future condition noise levels, since it is outside of the DNL 65 contour.

P-008-002

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

From: Yousuf, Adeel [mailto:ayousuf@panynj.gov]
 Sent: Friday, August 26, 2016 12:20 PM
 To: lschaier@quietskies.net
 Cc: Mitchell, Kelly; Steven Alverson
 Subject: RE: RE: CNEL

Len,
 After looking in to this further, following is the response to your question.

In California, the CNEL evening weighting is applied to each aircraft operation from 7:00:00 pm to 9:59:59 pm. During the evening period, each operations is treated as though it were three, which equates to a 4.77 dB penalty to each SEL event. It is generally understood that a set of CNEL contours would be about 1 dB larger than a set of DNL contours using the same number of operations, fleet mix, etc. However, the effect on the contours is a function of how many operations there are during the evening period and the types of aircraft that are flying.

Regards.
 Adeel.

From: Len Schaier [mailto:lschaier@gmail.com]
 Sent: Friday, August 26, 2016 12:40 PM
 To: salverson@esassoc.com
 Cc: lschaier@quietskies.net; Yousuf, Adeel <ayousuf@panynj.gov>
 Subject: Fwd: RE: CNEL

Steve,

P-009-001 I am working with some state legislators to review whether it makes sense for us to establish the CNEL metric here in NY.

I can't really wait until October, as Adeel suggests below, to talk to you about what impact a change might have.

I understand that the superficial difference between DNL and CNEL is a 4 db penalty added to the noise of each aircraft flying in the 7Pm to 11pm slot, but I may be wrong.

If correct it would seem like the contours for NY airports would show more that the +/-1 db difference between CNEL and DNL noise study values.

If you get a few minutes can you give me a call to talk about the idea.

Please let me know in advance when you might call so I can be sure I am near the phone.

Getting more information might help us avoid wasting alot of time and effort on legislative efforts to set CNEL as the metric for NY

Of course if my summary above is correct then an email should do the trick.

Len

P-009-001

Under 14 CFR Part 150, §A150.101(a), aircraft noise must be calculated and measured using the Day-Night Average Sound Level (DNL). DNL is a 24-hour average of noise with additional weighting for nighttime (i.e., 10 dB is added to each noise event between 10:00 P.M. to 7:00 A.M.). The Community Noise Equivalent Level (CNEL) is a 24-hour average of noise with additional weightings for both nighttime and evening. Each noise event during the evening (7:00 P.M. to 10:00 P.M.) is multiplied by three, and each nighttime noise event is multiplied by ten. These weightings add 4.77 dB and 10 dB to each evening and nighttime noise event, respectively. Until such time that there is a locally adopted metric such as CNEL, the Noise Exposure Maps must be accepted by the FAA, and as such, must utilize the DNL metric for this Study.

From: NYPART150STUDIES
Sent: Tuesday, August 09, 2016 2:02 PM
To: MICHAEL G KROPOSKI <mkroposki@sbglobal.net>
Cc: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>
Subject: RE: Revised memo to FAA concerning User defined profiles for 10 aircraft

Mr. Kroposki,

Thank you for your interest in the 14 CFR Part 150 Noise Compatibility Studies for JFK and/or LGA Airports. At the present time the information you are requesting will be available on our project website (<http://panynjpart150.com/>) in the following documents on these dates:

- LGA Airport's Draft Part 150 Noise Exposure Map (NEM) Report: Late September 2016
- JFK Airport's Draft Part 150 Noise Exposure Map (NEM) Report: Late October 2016

We encourage you to visit our site during these time periods as this is also the opportunity for the public to review & comment on these reports.

Thank you again for contacting the Port Authority of New York & New Jersey.

NY Part 150 Studies
 Aviation Noise Office
 The Port Authority of NY & NJ

From: MICHAEL G KROPOSKI [<mailto:mkroposki@sbglobal.net>]
Sent: Friday, August 05, 2016 1:11 PM
To: NYPART150STUDIES <NYPART150STUDIES@panynj.gov>
Subject: Revised memo to FAA concerning User defined profiles for 10 aircraft

P-010-001

Dear Sirs,

I would like to obtain a copy of the above cited memo which is mentioned on page 15 of TAC meeting notes #6.

Thank you for your prompt attention to this request,

Sincerely,
 Michael Kroposki

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

P-010-001

A memo dated May 17, 2016 was sent from the Port Authority to the FAA requesting review and approval of user-defined profiles for certain aircraft modeled in the LGA 14 CFR Part 150 Study. On June 13, 2016, the FAA approved the profiles. The user-defined profile memo is located in Appendix E-2, while the FAA's approval letter is located in Appendix G-1.

P-011-001

The questions, along with the Port Authority's answers, were distributed to the Technical Advisory Committee (TAC) at the fourth TAC meeting held on December 8, 2015. The questions can be found beginning on page H-189 of Appendix H-4.

From: Mitchell, Kelly
 Sent: Monday, November 23, 2015 11:03 AM
 To: lschaier@quietskies.net
 Cc: Yousuf, Adeel
 Subject: RE: LGA Airport Technical Advisory Committee_December 8, 2015 Meeting Notification

Your welcome Len.

I will review the new version, dated 11/22/15, with my team for use at December's meetings.

Thanks,

Kelly M.
 PA Aviation – Noise Office
 P: 212.435.3728 | M: 646.596.2215

From: Len Schaier [<mailto:lschaier@gmail.com>]
 Sent: Monday, November 23, 2015 10:54 AM
 To: Mitchell, Kelly; lschaier@quietskies.net
 Cc: Yousuf, Adeel
 Subject: Re: LGA Airport Technical Advisory Committee_December 8, 2015 Meeting Notification

Thanks Kelly,

P-011-001 | I have attached the current version of my question sheet. There are a few new questions but none that should not be very problematic.

I would be helpful if your answers to all questions could follow the format of the new sheet but, if that cannot be done before the meeting, then I'm sure I can work around any formatting issues.

Len

On 11/23/2015 9:23 AM, Mitchell, Kelly wrote:

Len,

Thank you for your request.

Our study team will be distributing your questions with our responses during both the JFK & LGA "Review Homework Assignment (Study Protocol)" segment of the meeting.

May you enjoy yourself as well and see you in December.

Kelly Mitchell, PMP, LEED AP BD+C
 Aviation Department
 The Port Authority of NY & NJ
 4 World Trade Center | 150 Greenwich Street, 18th Floor | New York, NY 10007
 P: 212.435.3728 | M: 646.596.2215

From: Len Schaier [<mailto:lschaier@gmail.com>]
Sent: Monday, November 23, 2015 7:43 AM
To: Mitchell, Kelly
Cc: lschaier@quietskies.net
Subject: Re: LGA Airport Technical Advisory Committee_December 8, 2015 Meeting Notification

Kelly,

I would like to distribute my questions on the Protocol at both the LGA and JFK meetings. That should make it easier for attendees to follow the discussion.

Is that ok with the PANYNJ?

Thanks in advance. Hope you have a good thanksgiving.

Len

On 11/18/2015 10:49 AM, Mitchell, Kelly wrote:

Dear LGA Part 150 TAC Member,

The next LGA Part 150 TAC meeting will be held on the following date:

LGA Technical Advisory Committee Meeting

DATE: Tuesday, December 8, 2015

TIME: 1:00PM - 4:00PM

LOCATION: LaGuardia Airport, Hangar 7 Center, 3rd Floor
Flushing, NY 11371

Parking Lot 6 (directly across from Hangar 7) is a pay lot. Please bring your parking ticket into the meeting as meeting attendees will receive a parking voucher to be used when exiting the lot. If Parking Lot 6 is full, Parking Lot 7 is across the street from Hangar 7 South. Driving instructions are attached.

We asked that you review your homework assignment, the Study Protocol (available: http://panynipart150.com/LGA_SP.asp) and please have questions and comments prepared when we meet in December.

We ask that TAC members refrain from distributing member organization printed materials at TAC meetings without the Port Authority's prior written consent. If you or your organization would like to distribute materials at a future TAC meeting, a request for approval should be submitted to the Port Authority no later than five (5) business days prior to the TAC meeting date. Requests may be sent to Kelly Mitchell (kmitchell@panynj.gov) or by replying to this email.

Seating at the TAC meeting is limited. However, the meeting will be open to the public. In order to promote balanced and constructive interaction, members of the public will be asked to refrain from commenting during the meeting. A brief public comment period will be held at the end of the meeting.

We appreciate your role as a committed member and we look forward to seeing you! Please understand that scheduling complexities make it impossible to accommodate all date requests.

Attachment(s):

TAC Meeting # 4 Agenda_Draft
 Directions to Meeting Location
 LGA TAC Meeting # 3 Summaries – This document will be available on the project website on Friday, November 20, 2015
http://panynipart150.com/LGA_documents.asp.

Sincerely,

Kelly Mitchell, PMP, LEED AP BD+C
Aviation Department
The Port Authority of NY & NJ
 4 World Trade Center | 150 Greenwich Street, 18th Floor | New York, NY 10007
 P: 212.435.3728 | M: 646.596.2215

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

--

"The Congress declares that it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes their health or welfare."
 NOISE CONTROL ACT of 1972

NOTICE: THIS E-MAIL AND ANY ATTACHMENTS CONTAIN INFORMATION FROM THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY AND AFFILIATES. IF YOU BELIEVE YOU HAVE RECEIVED THIS E-MAIL IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY, PERMANENTLY DELETE THIS E-MAIL (ALONG WITH ANY ATTACHMENTS), AND DESTROY ANY PRINTOUTS.

--

"The Congress declares that it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes their health or welfare."
 NOISE CONTROL ACT of 1972

Thank you for your interest in the project.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

Name: MARVA Phillips Blvd Organization: _____
Street Address: 106-14 Ditmars City: E. Elm State: Ny Zip: 11369
Tel: _____ Email: marvabp@yahoo.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-013-001

Concern over what's been 5-10 hour periods
or more of airplanes landing every 45 sec. to 1 1/2 -
weekend of May 13th the air traffic was constant all weekend
day and night.

P-013-002

This should not be happening over any populated area.
Either more time between flights or for shorter periods.
It is intolerable. ~~What~~ What other reason for this than
airline profits?

This also affects real estate/property
values.

Name: Elizabeth Sturges Llerena Organization:

Street Address: 33-45 74th St. City: Jackson Heights State: NY Zip: 11372

Tel: 718 672 2097 Email: elizabethsturgesllerena@gmail.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-013-001

The frequency of operations can change over time, because airlines have the flexibility to change their flight schedules in order to meet the demands of the traveling public. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

P-013-002

While the 14 CFR Part 150 Study does not analyze changes in property values, the Noise Compatibility Program phase of the Study will examine proposals to reduce noise.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-014-001

I have lived near LaGuardia Airport for more than 50 years. I have notice that MORRIS Jets are taking off at later hours of the night like 9 PM 10 PM and 12 Midnight. I have also notice that MORE PLAINS are departing off of Runway 1331 why wasn't the community notified of this change

P-014-002

Name: DON ESPANASON Organization:
Street Address: 10656 Ditmars Blvd City: EAST ELMHURST State: NY Zip: 11369
Tel: Email: DONALD.E.SANDS@GMAIL.COM

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-014-001

The frequency of operations can change over time, because airlines have the flexibility to change their flight schedules in order to meet the demands of the traveling public. In the 1980s, the Port Authority established a voluntary restriction on aircraft operations between midnight and 6:00 A.M. While this restriction has been in use since that time, operations may occur during these hours at the request of an aircraft operator or as a result of delays. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

P-014-002

The Port Authority does not have authority to establish or change aircraft flight paths and operating times. The FAA is responsible for directing aircraft, while aircraft operators have the authority to choose operating times at LGA. The FAA chooses runways for aircraft operations based on the following priorities: runway availability (particularly, whether a runway is closed due to construction), weather, air traffic and airspace conflicts, operational efficiency, and noise. The next phase of the 14 CFR Part 150 study, the Noise Compatibility Program, will consider the feasibility of administrative measures such as improved notification of aircraft operational changes.

THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY

14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-015-001

As a 41 year resident of northern Flushing the past 4 years have been a deteriorating quality of life issue. At times aircraft fly a minute apart for hours at a time. The implementation of Nextgen without an Environmental Impact Study has impacted all of us!

P-015-002

Teaching and learning, health, property values and rights to a quiet enjoyment of our homes have all been affected. Please have handouts of the information from today's workshop. I realize I can access the aforementioned online that it will be available soon according to one from the P.A. If the baseline for the noise study

P-015-003

Name: Roberta L. Goldstein Organization: Queens Quiet Skies
Street Address: 3537 170 St City: FLUSHING State: NY Zip: 11358
Tel: 646 2362130 Email: robertagoldsteinteacher@gmail.com

PLEASE
HELP
US!

We love
the air!
We love
travel
We love
peace & quiet

used is Summer 2014 (when it was noisiest). I do not believe a TRUE baseline study will result. Should not the baseline noise be BEFORE NEXTGEN began?
Respectfully submitted RL Goldstein

P-015-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

P-015-002

The public workshop's information handouts are always available during the workshop sessions and all the display boards are made available for public review on the Port Authority's Part 150 website soon after each workshop. Appendix K-1 of the LGA 14 CFR Part 150 Report contains the workshop materials that were displayed at the first Public Information Workshop.

P-015-003

14 CFR Part 150 requires that the noise modeling baseline be representative of current conditions at LGA. Section 4 of the Report ("NEM Development and Land Use Compatibility") details the information that was gathered in order to define these current conditions. In particular, 2014 data was used to develop runway utilization and flight tracks for modeling, while the number of operations was based on 2016 forecast data.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-016-001

I am not happy with what is going on.

P-016-002

Planes are being redirected over Flushing Bay all day + night. The sea gulls @ the marina are a nuisance. It is dangerous to the flight path of the planes to fly over Shea Stadium/marina way.

P-016-003

I heard that people may be brought out of their premises if they cannot stand the noise. Is that true?
How will the community be impacted by the sound, pollution from the emissions of the plane.
Who will receive the money for insulation or building materials?
What is the intended outcome for this study? Why is this study being done?
Is there any long term negative impact for the people living in the area of the study?

Name:		Organization:	
Street Address:	City:	State:	Zip:
Tel:		Email:	

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-016-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. A variety of factors affect the choice of aircraft flight paths, including weather, safety considerations, and availability of runways. The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will examine proposals to reduce noise exposure.

P-016-002

The Study has a specific focus on noise exposure and does not analyze aircraft emissions, safety issues such as the risk of bird strikes, or human health effects related to aircraft operations.

P-016-003

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher. The Study focuses on noise exposure and land use compatibility; it does not analyze the human health effects of aircraft operations.

The next phase of the 14 CFR Part 150 Study, the Noise Compatibility Program, will consider noise mitigation where feasible. In particular, this will involve analyzing whether properties within the DNL 65 contour may be eligible for sound insulation, acquisition, or other considerations. If the Noise Compatibility Program recommends a sound insulation program, contractors would submit bids to participate; these bids would include

building materials and labor. Participation in a mitigation program would be voluntary, and would be limited to eligible homes within the DNL 65 or greater contour.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

P-017-001

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

I am a 50 year resident. I hope you can go back to your old air routes over the water. I do a lot of volunteer gardening in my neighborhood (46 Ave. Between 195 & 195 St. in Auburndale). I am out for hours on some days and when the LaGuardia planes depart on certain days, it becomes so noisy and very annoying and I feel my blood pressure goes up and I no longer enjoy gardening as I did in the past. The plane noise becomes embarrassing when we have company especially when they say "how do you put up with all this airplane noise?" In the summer, we have to mostly stay indoors and put the a/c on high to block the noise.

Name: Mary Donahue Organization: 46 Ave. Beautification Committee
Street Address: 45-67 194 St. City: Auburndale State: NY Zip: 11358
Tel: 718 357-3365 Email: _____

P-017-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

Addendum

2nd Comment Form

After speaking with many
knowledgeable Port Authority Representatives
I now have HOPE!

Thank you for what you are doing!

Name: Roberta L. Goldstein

Organization: GRANDMA

Street Address: 3537 170 St

City: FLUSHING

State: NY

Zip: 11358

Tel: 646 2362130

Email: robertagoldsteinteacher@gmail.com

Queens
Quiet
Skies
Too

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-018-001

14 CFR Part 150 encourages the participation of citizens in 14 CFR Part 150 Studies. The Port Authority appreciates the opportunity to communicate with the public during the course of the Study.

P-018-001



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

50 year resident -

My husband George Donahue, is physically challenged with (lumbar) spinal stenosis. He has had many mini strokes & 2 major strokes, has high blood pressure etc.

He is 81, retired, and did enjoy sitting on our front patio until 3 years ago when planes from LaGuardia were flying low very loud and interfered with his relaxation.

Now he sits on the patio now, listening to the ball game on his portable radio (normal volume) he gets very upset when the radio is drowned out by a loud plane. His blood pressure rises and it's not healthy for him. He wrote a letter to the FAA and was angry when he received the reply. We are 4 miles away from the airport and it should not be bothering him.

Name: *Mary Donahue* Organization: *Queens Fed 11 member*
Street Address: *45-67 194 St* City: *Flushing* State: *NY* Zip: *11358*
Tel: *718 357-3365* Email: *-*

1.5! He cannot jump up and go inside the house so he can answer his portable phone. Later when he is in the house, he calls the person back. This is not right.

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

This is not healthy.

P-019-001

The Port Authority undertook the 14 CFR Part 150 Study process to address public concerns related to noise from aircraft overflights for various communities located around the Port Authority-managed airports, including LGA. The overall goal of the 14 CFR Part 150 Study includes documenting the current (2016) and five-year projected (2021) noise exposure of Day-Night Average Sound Level (DNL) 65 dB and higher at LGA, and from those results making recommendations in the Noise Compatibility Program to help reduce noise exposure for non-compatible land uses exposed to DNL 65 and higher.

THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY

14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-020-001

Noise Study:

Will the study include a count of flights between the "self-enforced 11pm to 6 AM curfew"? Will the study include a "reasonably foreseeable assumption" of future flights during the "self-enforced 11pm to 6 AM curfew"? If not, why not?

Name: Stan Goldstein Organization:
Street Address: 35-37 170 St City: Flushing State: NY Zip: 11358
Tel: 646-236-2134 Email: goldsteinUSA@gmail.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-020-001

In the 1980s, the Port Authority established a voluntary restriction on aircraft operations between midnight and 6:00 A.M. While this restriction has been in use since that time, operations may occur during these hours at the request of an aircraft operator or as a result of delays. The study included a reasonably foreseeable assumption about the future operations during this voluntary restriction period.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

P-021-001

Next time - pick a location more accessible by
public transit
- maybe have an opening presentation

Name: Susan Carroll Organization: Flushing resident / LGA member
Street Address: 13870 Francis Ave Apt 14K City: Flushing State: NY Zip: 11355
Tel: 646-222-4255 Email: susan_c18@yahoo.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-021-001

The Port Authority will continue to consider ease of access when selecting the locations of upcoming workshops. The workshops are designed to give as much time as possible for the public to review information and have discussions with the Port Authority and the Study Team. They are also structured so that citizens can come to the workshop at any time and have access to the same information as everyone else; for that reason, there are no presentations at the workshops.



14 CFR Part 150 Study
LaGuardia Airport
Public Information Workshop #1
June 16, 2015

Comment Form

Please use the space below to provide your questions and comments regarding the 14 CFR Part 150 Study for John F. Kennedy International Airport. Your comments and/or questions will be reviewed and considered during the Study. Your participation in the process is appreciated. If you wish to receive future project updates, please provide your contact information below.

Noise Study:

P-022-001

Will the future "reasonably foreseeable assumptions" include an anticipated PEAK DAY? Will an anticipated PEAK Hour be included? If not, why not?

Name: Stan Goldstein Organization:
Street Address: 35-37 170th St City: Flushing State: NY Zip: 11358
Tel: 646-236-2134 Email: GoldsteinUSA@gmail.com

Please note that comments can only be accepted with the full name and address of the individual commenting. Before including your address, phone number, e-mail address, or other personal identifying information (PII) in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask in your comment to withhold from public review your personal identifying information, that cannot be guaranteed.

P-022-001

As required by 14 CFR Part 150, the reasonably foreseeable future assumptions depicts the annual average day operations at LGA in 2021. Therefore, an analysis of the peak day and peak hour was not included in the study, as such an analysis does not comply with the requirements of 14 CFR Part 150.

ATTACHMENT 1

This attachment includes all 38 signed petition letters and the 4 petition signature pages mentioned in response C-018-001.

NYCityMap

Search for a location:

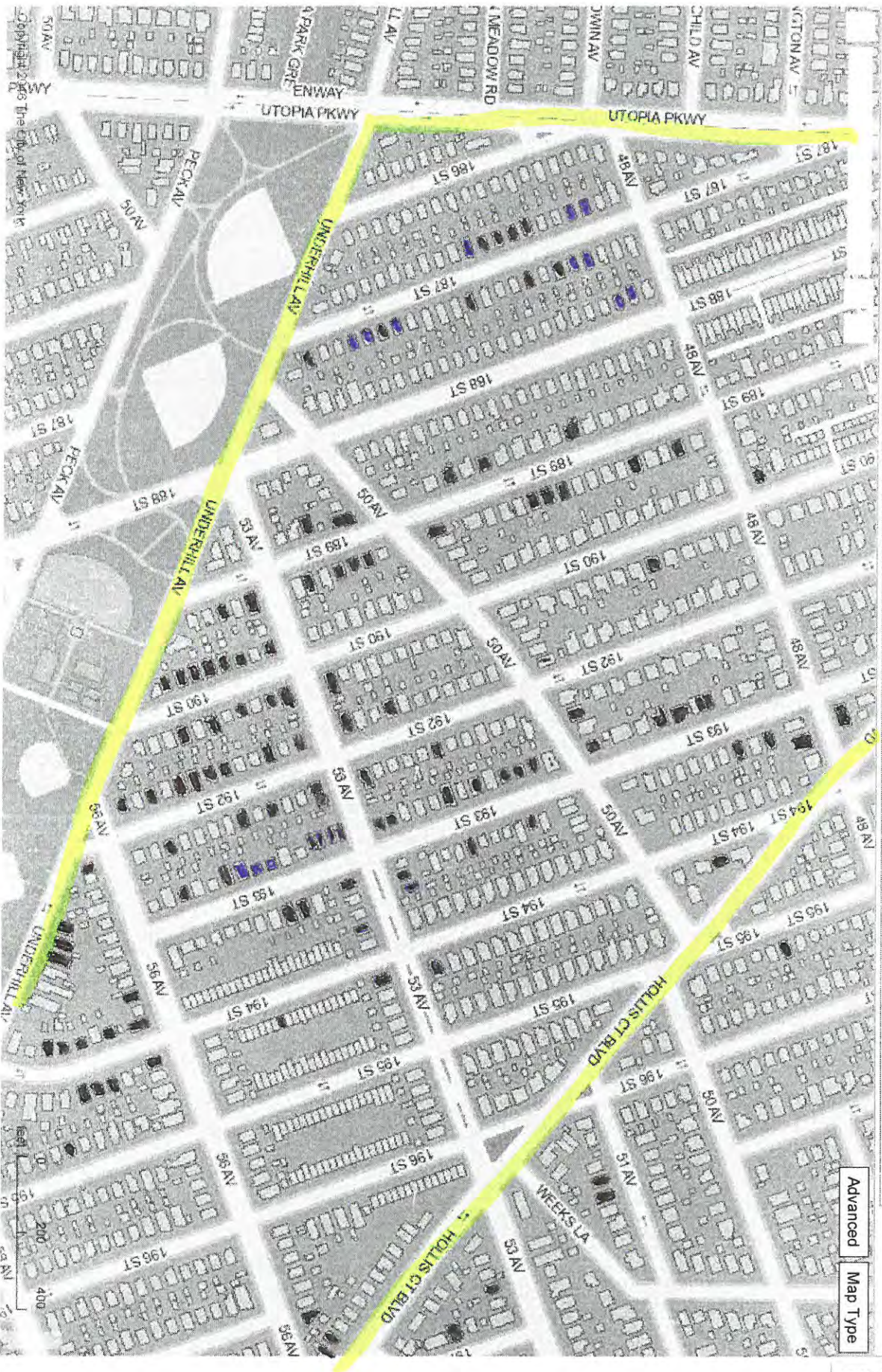
Enter an address, intersection, community district, ZIP code, etc...

Search

- [Residents](#) | [Business](#) | [Visitors](#) | [Government](#) | [Office of the Mayor](#) | [Search](#) | [Email Updates](#) | [Contact Us](#)
- [Feedback Form](#) | [User Guide](#) | [Disclaimer](#) | [Other Map Themes](#) | [Blog](#)

Advanced Map Type

Ac Se Se Lc



July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.


尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Eddie Deng
48-27 187th ST.
Fresh Meadows, NY 11365


July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.


尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。


48-30 187th Street, Fresh Meadows, NY 11365

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 193-10 56TH AVE
FRESH MEADOWS NY 11365

Signature: [Signature]

Address: 193-02 56TH AVE

Signature: [Signature]

Address: _____

Signature: _____

Address: _____

Signature: _____

Address: _____

Signature: _____

Address: _____

Signature: _____

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。 从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。 早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。 何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。 因为噪音， 我们房子的窗户经年需要关闭。 因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。 我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。 这是如此让人烦扰。 早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。 我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。 请还给我们一片清明清静的天空。

Address: 陈力峰

Signature: 陈力峰

Address: _____

Signature: _____

Address: _____

Signature: _____

Address: 5316 193 St

Signature: Chen

Address: _____

Signature: _____

Address: _____

Signature: _____

Petition for Quiet Sky to be brought back to Fresh Meadows and Bayside, also install aircraft noise & track monitoring system at Underhill Ave Park (188 Street).

Print Name	Signature	Mailing address	Email Address
Su Hui Mei	Su Hui Mei	53-32 193 St	
Pamela Wang	Pamela Wang	192-03 53rd Ave	pmwang@ymail.com
Anita Wang	Anita Wang	48-25 190 St	AnitaWang@gmail.com
Steven Wang	Steven Wang	184-17 145th	Siripat@live.com
Carol Wang	Carol Wang	50-19 184th St	Catbrother26@yahoo.com
Lien Hui Wang	Lien Hui Wang	53-32 193 St	
Irene Chen	Irene Chen	53-15 192nd	
Quan Chen	Quan Chen	Fresh Meadows	
Ming Chen	Ming Chen	53-24 192nd St	
Ni Hui	Ni Hui	56-01 187 St	
Fran Yan	Fran Yan	50-15 180 St	
Jessie Ma	Jessie Ma	53-03 192 St	
John Elmer	John Elmer	53-24 192 St	
Chia Chang	Chia Chang	53-23-192 St	
Tie Lo Au	Tie Lo Au	53-12 192nd St	
Rui Hu	Rui Hu	53-32 192 St	
Chun Fong Li	Chun Fong Li	53-36 192 St	
Danielle Zard	Danielle Zard	53-52 192nd St	
Camille Pfly	Camille Pfly	53-44 192 St	
Karen Phelan	Karen Phelan	53-43 192 St	
Joanna Allas	Joanna Allas	192-03 Underhill Ave	
Lu Yao	Lu Yao	56-32 195th	
Karl Osmitt	Karl Osmitt	56-39 194th	summerst1598@aol.com
DORIS	DORIS	56-23 194 St	TonyDoris1950@yahoo.com
OH Sui	OH Sui	53-16 190 St	
DOUGLAS LAM	DOUGLAS LAM	53-12 190 St	
KONG KAN	KONG KAN	53-20 190 St	
KIT YU	KIT YU	53-24 190 St	
Cheng Salland	Cheng Salland	53-31 190th St	

Petition for Quiet Sky to be brought back to Fresh Meadows and Bayside, also install aircraft noise & track monitoring system at Underhill Ave Park (188 Street).

[illegible]

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 19305 53rd Ave Fresh Meadows NY Address: _____

Signature: [Signature] Signature: _____

Address: _____ Address: _____

Signature: _____ Signature: _____

Address: _____ Address: _____

Signature: _____ Signature: _____

Petition for Quiet Sky to be brought back to Fresh Meadows and Bayside

Print Name	Signature	Mailing address	Email Address
DARRIN O'CONNOR	[Signature]	53-11 189 ST	docoanor@gmail.com
XUE JUN ZHANG	[Signature]	188-12 53 AVE	Senwang2@gmail.com
Jian zhen chen	[Signature]	50-23 189 ST	Jian Chen 1981@yahoo.com
Shirley Chen	[Signature]	50-15 189 ST	shirleychen1975@gmail.com
WANG J. CHOI	[Signature]	188-20 50 AVE	
Frank Tang	[Signature]	50-26 189 ST	untangf@gmail.com
Daniel	[Signature]	53-04 189 ST	ADICATE78@aol.com
ESYKES	[Signature]	190-30 53 AVE	ESYKES6888@aol.com
LI HUI LU	[Signature]	FRESH MEADOWS	
LI RZAN	[Signature]	53-03 189 ST	
Robert Yung	[Signature]	50-18-189 ST	robertyung@gmail.com
QING HE	[Signature]	50-07 189th	hoyee.nam57@yahoo.com
CARMINE	[Signature]	50-11 189th ST	
ANN YUAN	[Signature]	189-03 56th AVE	
ROGER YUS	[Signature]	46-76 192 ST	
W M YU	[Signature]	46-76 192 ST	
	[Signature]	48-68 159TH	
JOHNNY AN	[Signature]	48-60 189 ST	
Vin Yi	[Signature]	48-45 189 ST	
Lee Lim	[Signature]	48-49 189 ST	
Kicky	[Signature]	646 255 0611	
Linda Zhu	[Signature]	347 48-41 189 Street	yellowbanana127@hotmail.com
SHAOCHUAN YU	[Signature]		54036190@qq.com
LEONA NG	[Signature]	4836 189 ST	
Peter Wang	[Signature]	4821 189th ST	
Bing Jin	[Signature]	48007 189 ST	

Petition for Quiet Sky to be brought back to Fresh Meadows and Bayside, also install aircraft noise & track monitoring system at Underhill Ave Park (188 Street).

[illegible]

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 53-17 193 St. Fresh Meadows

Address: _____

Signature: [Signature]

Signature: _____

Address: 56-36 194 St.

Address: _____

Signature: Bruce Hillen

Signature: _____

Address: _____

Address: _____

Signature: _____

Signature: _____

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: <u>1875 St Freshmeadow</u>	Address: <u>53-54 Hollis Court Blvd</u>
Signature: <u>Xinner Ruan</u>	Signature: <u>[Signature] Fresh Meadows</u>
Address: <u>197 St Fresh Meadow</u>	Address: <u>53-60 Hollis Court Blvd</u>
Signature: <u>Xuefeng Chen</u>	Signature: <u>Yilin Lin</u> Fresh Meadows
Address: <u>192th St Fresh meadow</u>	Address: <u>196-27 56th Ave Fresh meadow</u>
Signature: <u>[Signature]</u>	Signature: <u>[Signature]</u> NY 11365

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消夏。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 5015 193RD ST.

Signature: [Signature]

Address: 192-27 50th Ave

Signature: [Signature]

Address: 4840 193rd St

Signature: [Signature]

Address: 50-08 193 St

Signature: [Signature]

Address: 48-27 195 St

Signature: Diao Min Lin

Address: 48-34 193rd Street

Signature: [Signature]

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。 我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。 从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。 早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。 夏天， 你可以在后院的阳台上轻松消夏。 何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。 因为噪音， 我们房子的窗户经年需要关闭。 因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。 我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。 这是如此让人烦扰。 早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。 我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。 请还给我们一片清明清静的天空。

Address: 50-52 193 Street

Signature: [Signature]

Address: 5048 193 ST.

Signature: Paula [Signature]

Address: 50-32 193 ST

Signature: [Signature]

Address: 50-24 193 ST

Signature: [Signature]

Address: 50-16 193 ST

Signature: [Signature]

Address: 50-12 193 ST

Signature: [Signature]

Fresh Meadows, NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Joireen Flaherty, 48-14 187 St. Fresh Meadows, N.Y. 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

48-19 187th Street, NY

Elvis Y. Lee

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Deter (only) 48-18 187 street
 Linda Ma Fresh Meadows NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员, 孟昭文众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀的鸣声伴你入梦。在夏天, 你可以在你后院的阳台上, 读读书以消夏。这是何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机没有经过任何的合法程序, 被允许飞过这里, 是如此之经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤, 我们的孩子需要禁足家中, 即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开, 以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况, 谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

48-42 187 st Wang Shu lan
Cheng Y

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

George Schepel
48-47 187 St
Fr Meadows 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Handwritten signature: BSA L
 48-79 187 St
 Flushing fresh meadow NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员, 孟昭文众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀的鸣声伴你入梦。在夏天, 你可以在你后院的阳台上, 读读书以消夏。这是何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机没有经过任何的合法程序, 被允许飞过这里, 是如此之经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤, 我们的孩子需要禁足家中, 即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开, 以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况, 谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

4875 187 Street
 130th HANNAH AVE 11368
 M. Frankli
 Eleni Frankli
 Kristina Frankli
 Kristina Frankli

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Grace Meng
48-47 1875

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Janet Tung
48-71 187 St
Fm NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。


4834 187 St Fresh Meadows NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Selma M. Chen

4831 187th St Fresh Meadows, NY 11365.

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Meng Lee

Susan Lee

Maat Young Lee

48-23 187 ST.

11265

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

48-26 187TH Street Fresh Meadows NY 11365

 Jenna Williams

 Zhichang Li

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

18-38 18th St, Fresh Meadows NY, 11365
- Meghan Shiu -

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员, 孟昭文众议员, 顾雅明市议员,

Chinese


我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

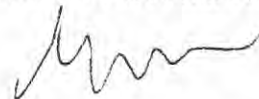
从前, 这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀的鸣声伴你入梦。在夏天, 你可以在你后院的阳台上, 读读书以消夏。这是何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机没有经过任何的合法程序, 被允许飞过这里, 是如此之经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤, 我们的孩子需要禁足家中, 即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开, 以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况, 谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

August
Lam





4891 187 street Fresh Meadows NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

G.K. Madan
48-06, 188th Street
Fresh Meadows
NY 11365

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows and Bayside.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们拥有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此之经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

Baljeet Kaur
48-10, 188 street
Fresh Meadows, NY, 11365

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。 我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。 从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。 早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。 夏天， 你可以在后院的阳台上轻松消夏。 何等的闲散， 平静， 平和。

现在， 从LGA机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。 因为噪音， 我们房子的窗户经年需要关闭。 因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。 我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。 这是如此让人烦扰。 早上不到6点飞机就开始聒噪， 到了晚上11点了还不停息。

我们需要知道谁能够帮助我们 这样的巨大变化是我们不接受的。 我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。 请还给我们一片清明清静的天空。

Address: 174-52 Pidgeon Meadow Rd, Flushing, NY 11365 Signature: _____

Signature: Wen

Address: Er Chun Lian

Address: 170 610 7018

Signature: _____

Signature: Xuehui Chen

Address: Tai Leng Weng

Address: Chun Xiang Lin

Signature: Wang Jie Gu

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的FAA 官员，孟昭文国会众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民，我们需要政府相关官员了解LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀鸣声伴你入梦。夏天，你可以在后院的阳台上轻松消夏。何等的闲散，平静，平和。

现在，从LGA机场起飞的飞机飞过这里，是如此经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音，我们的孩子需要禁足家中，即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开，以对抗外面的飞机噪音。这是如此让人烦扰。早上不到6点飞机就开始聒噪，到了晚上11点了还不停息。

我们需要知道谁能够帮助我们 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区，抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 48-23 FRANCIS HENNES

Signature: Ling Wu, Feng Shu n. Li

Signature: Qin GaoYang FRESH

Address: 53-18 197st Fresh Meadows

Address: 197-01 58 Ave HEARDS

Signature: [Signature]

Signature: Vincent Casella

Address: _____

Address: 56-07 176pl
FRESH meadows. N.Y 11565
Helen Li

Signature: Jessica Eng

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员, 孟昭文国会众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民, 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀鸣声伴你入梦。夏天, 你可以在后院的阳台上轻松消夏。何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机飞过这里, 是如此经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音, 我们的孩子需要禁足家中, 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开, 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们, 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 82-71 166 St JAHACA, NY 11432 Address: 58-14 20th St Bayside NY 11361

Signature: [Signature] Signature: [Signature]

Address: 48-11 193rd Flushing, NY 11365 Address: 48-31 203rd St Bayside NY 11361

Signature: [Signature] Signature: [Signature]

Address: 45-21 193rd Fresh Meadows NY 11365 Address: [Signature]

Signature: [Signature] Signature: [Signature]

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消暑。何等的闲散， 平静， 平和。

现在， 从LGA机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经年需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到6点飞机就开始聒噪， 到了晚上11点了还不停息。

我们需要知道谁能够帮助我们 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 56-26 197TH ST FLUSHING
11365

Signature: [Signature]

Address: 56-34 197TH ST 11365

X Signature: [Signature]

Address: 56-16 186ST FRESH MEADOWS
111025

Signature: [Signature]

Address: 48-33 194 ST

Signature: [Signature]

Address: 56-20 201ST

Signature: [Signature]

Address: 58-45 FRESH MEADOWS

St
111025

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员, 孟昭文国会众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民, 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀鸣声伴你入梦。夏天, 你可以在后院的阳台上轻松消夏。何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机飞过这里, 是如此经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音, 我们的孩子需要禁足家中, 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开, 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不休息。

我们需要知道谁能够帮助我们, 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 194-04 56 Ave

Signature: [Signature]

Address: 5012 194th St

Signature: [Signature]

Address: 56-19 194th St

Signature: [Signature]

Address: 56-20 194th St

Signature: [Signature]

Address: 53-33 194th St

Signature: [Signature]

Address: 56-15 194th St

Signature: [Signature]

July 01, 2016

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed and turned our lives upside down.

Before this was a quiet area and an established community. We have the best school district here, and that is the reason why we move into this area. Before, you could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer time, you could simply relax on the porch of your backyard, reading one or two pages. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area so often and so low. The noise has caused many difficulties to our lives and living quality. Our house windows have to be closed all seasons because of the blasting noise. Our kids have to stay at home because of the loud noise, meanwhile the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. It is so annoying. It can bother us as early as before 6:00am in the morning and it can end as late as 11:00pm. It drives people crazy.

We need to know who can help us make drastic change and who has the authority to relieve such a big burden to the residents of this area. We strongly protest this change and ask for the clear and quiet sky to be brought back to Fresh Meadows.

尊敬的 FAA 官员，孟昭文众议员，顾雅明市议员，

我们是新鲜草原和贝赛的居民。我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前，这里是一个安静而高尚的社区。我们有全纽约市最好的学区，这也是我们搬进这个社区的最大原因。从前，你可以看见孩子们在公园玩，居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱，晚上蟋蟀的鸣声伴你入梦。在夏天，你可以在你后院的阳台上，读读书以消夏。这是何等的闲散，平静，平和。

现在，从 LGA 机场起飞的飞机没有经过任何的合法程序，被允许飞过这里，是如此经常，如此之低矮，所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音，我们房子的窗户经年需要关闭。因为噪音可能对孩子脑袋的损伤，我们的孩子需要禁足家中，即使风和日丽的天气也不让出门。我们的空调必须整个夏天都打开，以对抗外面的飞机噪音。这是如此地让人烦扰。早上不到 6 点飞机就开始聒噪，到了晚上 11 点了还不停息。它让人简直疯掉了。

我们需要知道谁可以帮助我们改变这样的境况，谁可以有权柄帮助我们卸下这个包袱。我们强烈地反对飞机低空飞过我们的社区，抗议这样不经咨询就作出的改变。请还给我们一片清明清静的天空。

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员, 孟昭文国会众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民, 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀鸣声伴你入梦。夏天, 你可以在后院的阳台上轻松消夏。何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机飞过这里, 是如此经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音, 我们的孩子需要禁足家中, 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开, 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不休息。

我们需要知道谁能够帮助我们, 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 54-24 194 St Freshmeadows NY
11365

Signature: [Signature]

Address: 19233 Underhill Ave
Fresh Meadows NY 11365

Signature: [Signature]

Address: 192-55 Underhill Ave.

Signature: [Signature]

Address: 192-17 Underhill Ave Fresh Meadows

Signature: [Signature]

Address: 192-17 Underhill Ave Fresh Meadows

Signature: [Signature]

Address: _____

Signature: _____

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员, 孟昭文国会众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民, 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀鸣声伴你入梦。夏天, 你可以在后院的阳台上轻松消夏。何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机飞过这里, 是如此经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音, 我们的孩子需要禁足家中, 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开, 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们, 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 45-24 193 ST

Signature: [Signature]

Address: Schofield Zeejolt

Signature: _____

Address: 193-08 40 AVE

Signature: [Signature]

Address: _____

Signature: [Signature]

Address: 48-20-1138

Signature: _____

Address: _____

Signature: _____

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。 从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。 早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。 夏天， 你可以在后院的阳台上轻松消夏。 何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。 因为噪音， 我们房子的窗户经年需要关闭。 因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。 我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。 这是如此让人烦扰。 早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不休息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。 我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。 请还给我们一片清明清静的天空。

Address: 50-32 192 St

Signature: [Signature]

Address: 50-73 192 St

Signature: [Signature]

Address: 50-37 190 St

Signature: [Signature]

Address: 53-32 192 St

Signature: [Signature]

Address: 53-32 192 St

Signature: [Signature]

Address: 50-413 192 St

Signature: [Signature]

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员, 孟昭文国会众议员, 顾雅明市议员,

我们是新鲜草原和贝赛的居民, 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前, 这里是一个安静而高尚的社区。我们有全纽约市最好的学区, 这也是我们搬进这个社区的最大原因。从前, 你可以看见孩子们在公园玩, 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱, 晚上蟋蟀鸣声伴你入梦。夏天, 你可以在后院的阳台上轻松消夏。何等的闲散, 平静, 平和。

现在, 从 LGA 机场起飞的飞机飞过这里, 是如此经常, 如此之低矮, 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音, 我们房子的窗户经年需要关闭。因为噪音, 我们的孩子需要禁足家中, 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开, 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪, 到了晚上 11 点了还不休息。

我们需要知道谁能够帮助我们, 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区, 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: <u>47-36 199th Flushing, NY 11358</u>	Address: <u>47-35-19 18th Flushing, NY 11358</u>
Signature: <u>[Signature]</u>	Signature: <u>[Signature]</u>
Address: <u>47-32-189th Flushing, NY 11358</u>	Address: <u>47-36-19 18th Flushing, NY 11358</u>
Signature: <u>[Signature]</u>	Signature: <u>[Signature]</u>
Address: <u>47-38-195th Flushing, NY 11358</u>	Address: <u>47-51-198th Flushing, NY 11358</u>
Signature: <u>[Signature]</u>	Signature: <u>[Signature]</u>

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。 我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。 从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。 早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。 夏天， 你可以在后院的阳台上轻松消暑。 何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。 因为噪音， 我们房子的窗户经年需要关闭。 因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。 我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。 这是如此让人烦扰。 早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。 我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。 请还给我们一片清明清静的天空。

Address: <u>64-24 134 ST Fresh Meadows</u>	Address: <u>53-04 197th Street Fresh Meadows</u>
Signature: <u>[Signature]</u>	Signature: <u>Tian Ya Lin</u>
Address: <u>196-22 51 ST AVE Fresh Meadows</u>	Address: <u>50-32 193 ST Fresh Meadows</u>
Signature: <u>Xiao Li Lin</u>	Signature: <u>[Signature]</u>
Address: <u>196-18 51 Ave Fresh Meadows</u>	Address: <u>192-9 SOUTH AVE FRESH Meadows</u>
Signature: <u>[Signature]</u>	Signature: <u>[Signature]</u>

FAA officials, Congresswoman Grace Meng, and City Council Member Peter Koo,

We are the residents of Fresh Meadows and Bayside. We need to let the pertinent government officials know that the aircraft noise from LGA has greatly disturbed our lives.

Before, this was a quiet area and an established community. We have the best school district here, and that is the reason why this area holds so much appeal. You could see kids playing on the playground and families having conversation on the sidewalk. You could hear the birds singing on the trees in the morning and you could hear crickets chirping in the air of night. In the summer, you could relax on the porch of your backyard. It was serene, tranquil and peaceful.

Now, the airplanes from LGA are flying over this area too frequent and too low. The noise has caused many difficulties to our living quality. Our windows have to be closed all year because of the constant noise. Our kids have to stay at home because of it, even though the weather is getting better outdoors. Our air conditioners have to be turned on to counteract the noise during the whole summer. The torment can start as early as before 6:00am in the morning and it can end as late as 11:00pm.

We need to know who can help us undo this drastic change. We strongly protest the switch without asking our residence opinion and request for the clear and quiet sky to be brought back to us.

尊敬的 FAA 官员， 孟昭文国会众议员， 顾雅明市议员，

我们是新鲜草原和贝赛尔的居民， 我们需要政府相关官员了解 LGA 机场起飞的飞机已经严重影响到我们的正常生活。

从前， 这里是一个安静而高尚的社区。我们有全纽约市最好的学区， 这也是我们搬进这个社区的最大原因。从前， 你可以看见孩子们在公园玩， 居民们在街角闲散地耳语。早上你可以听见小鸟的歌唱， 晚上蟋蟀鸣声伴你入梦。夏天， 你可以在后院的阳台上轻松消暑。何等的闲散， 平静， 平和。

现在， 从 LGA 机场起飞的飞机飞过这里， 是如此经常， 如此之低矮， 所发出的噪音严重妨碍了我们的正常作息和生活品质。因为噪音， 我们房子的窗户经常需要关闭。因为噪音， 我们的孩子需要禁足家中， 即使风和日丽的天气也无法出门。我们的空调必须整个夏天打开， 以对抗外面的飞机噪音。这是如此让人烦扰。早上不到 6 点飞机就开始聒噪， 到了晚上 11 点了还不停息。

我们需要知道谁能够帮助我们， 这样的巨大变化是我们不接受的。我们强烈地反对飞机低空飞过我们的社区， 抗议这样不征询社区居民意见就作出的改变。请还给我们一片清明清静的天空。

Address: 20014 46 AVE Bayside NY 11361 Address: 58-35 230 ST

Signature: [Signature] Signature: [Signature]

Address: 6701 197th Street Fresh Meadows NY 11365 Address: 58-44 230 ST

Signature: [Signature] Signature: [Signature]

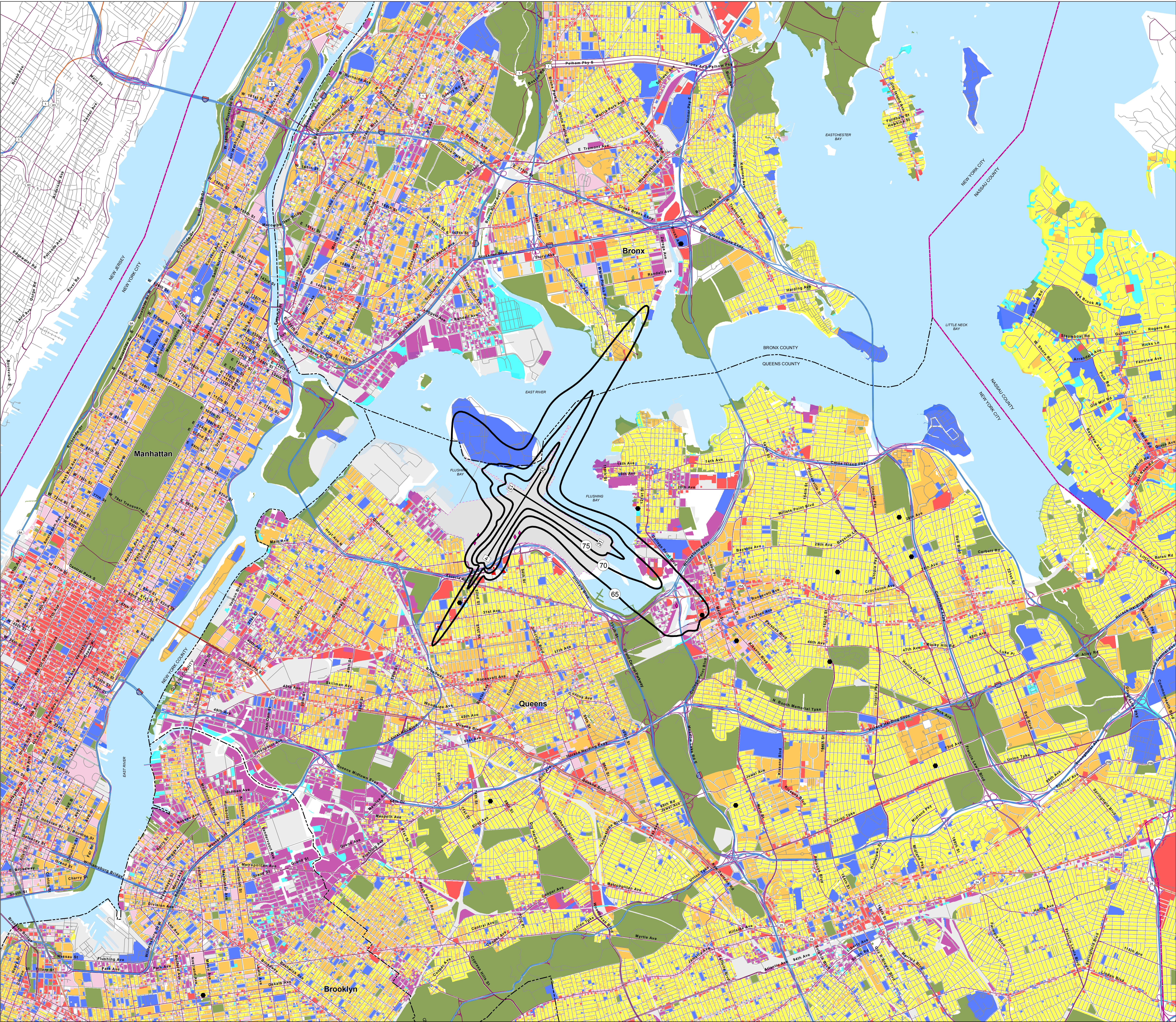
Address: 7124 242nd St Little Neck 11364 Address: 53-04 206 St Oakland Gardens

Signature: [Signature] Signature: [Signature] NY 11364

APPENDIX M

Official Noise Exposure Maps

This appendix includes the official 2016 and 2021 Noise Exposure Maps, which depict the DNL 65, 70, and 75 contours on a land use map; the flight tracks; and the noise monitor locations. The New York City Department of City Planning is the sole land use agency for all areas within the 2016 and 2021 DNL 65 contours.



Legend

- Airport Property Line
- Runway
- Limited Access Highway
- Highway
- Major Roadway
- Local Street
- County Boundary
- City Boundary
- Noise Monitor
- Place of Worship
- School
- Historic Structure
- Day Care/Assisted Living
- DNL Contour

Existing Land Uses

- Single and Two Family Residential
- Multi-Family Residential
- Mixed Residential and Commercial
- Commercial and Office
- Industrial and Manufacturing
- Transportation, Parking and Utilities
- Public Facilities and Institutions
- Unclassified
- Vacant Land
- Open Space, Cemeteries and Outdoor Recreation

SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot land use geographic information database, March 2015; June 2015 (updated by ESRI); Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services Environmental Science Associates, 2016; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc. 2016. Note: NYC Department of City Planning is sole land use agency for all areas within the DNL 65 dBA contour. Note: All schools within the DNL 65 dBA have been previously sound insulated.

North

0

2,000

Feet

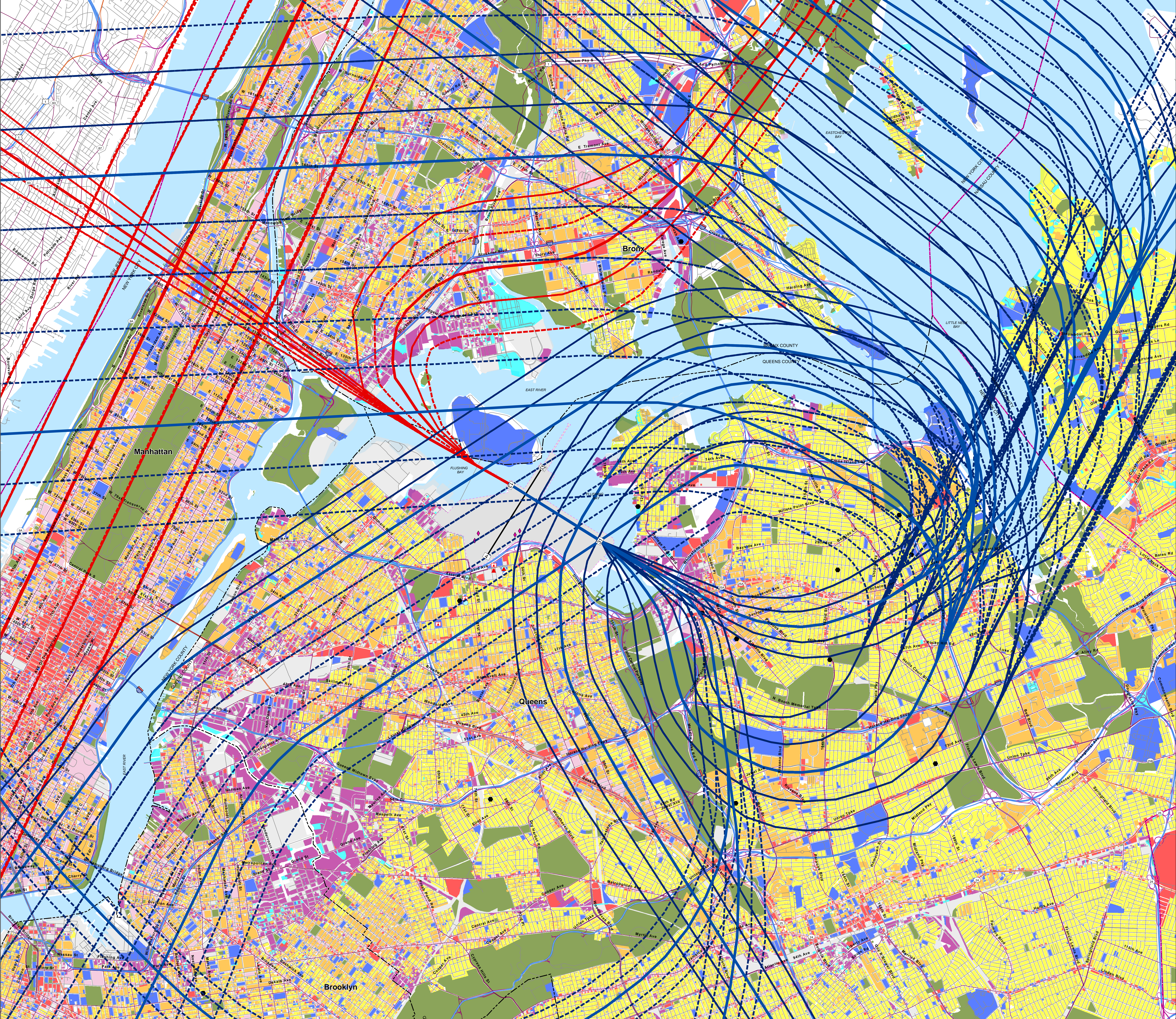
Sponsor's Certification

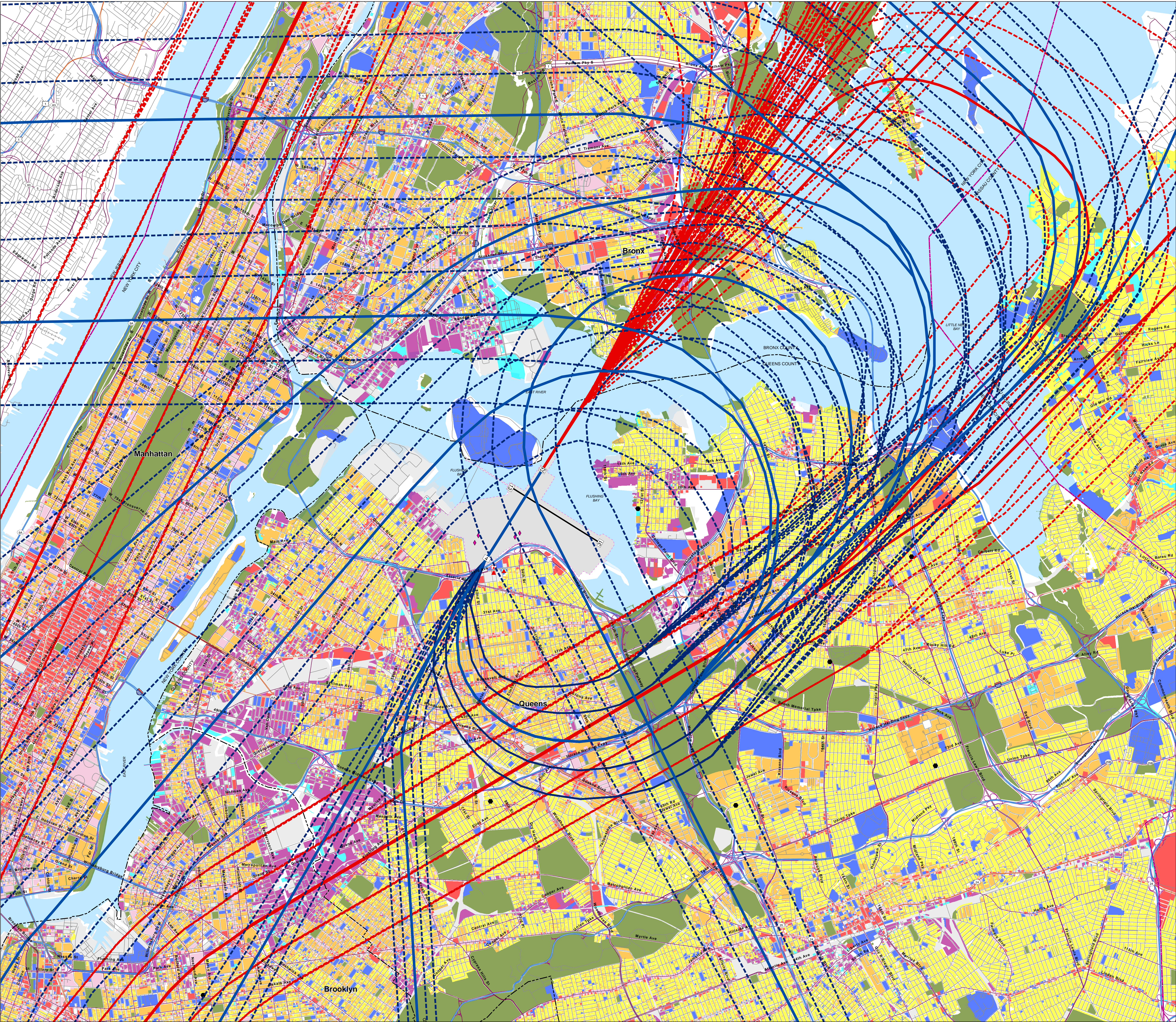
The Port Authority of New York and New Jersey certifies that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the LaGuardia Airport 2016 noise exposure map and descriptions of forecast aircraft operations. The 2016 operations at LaGuardia Airport are hereby certified to be consistent with fleet mix, forecast operational levels, and flight procedures depicted on this 2016 noise exposure map.

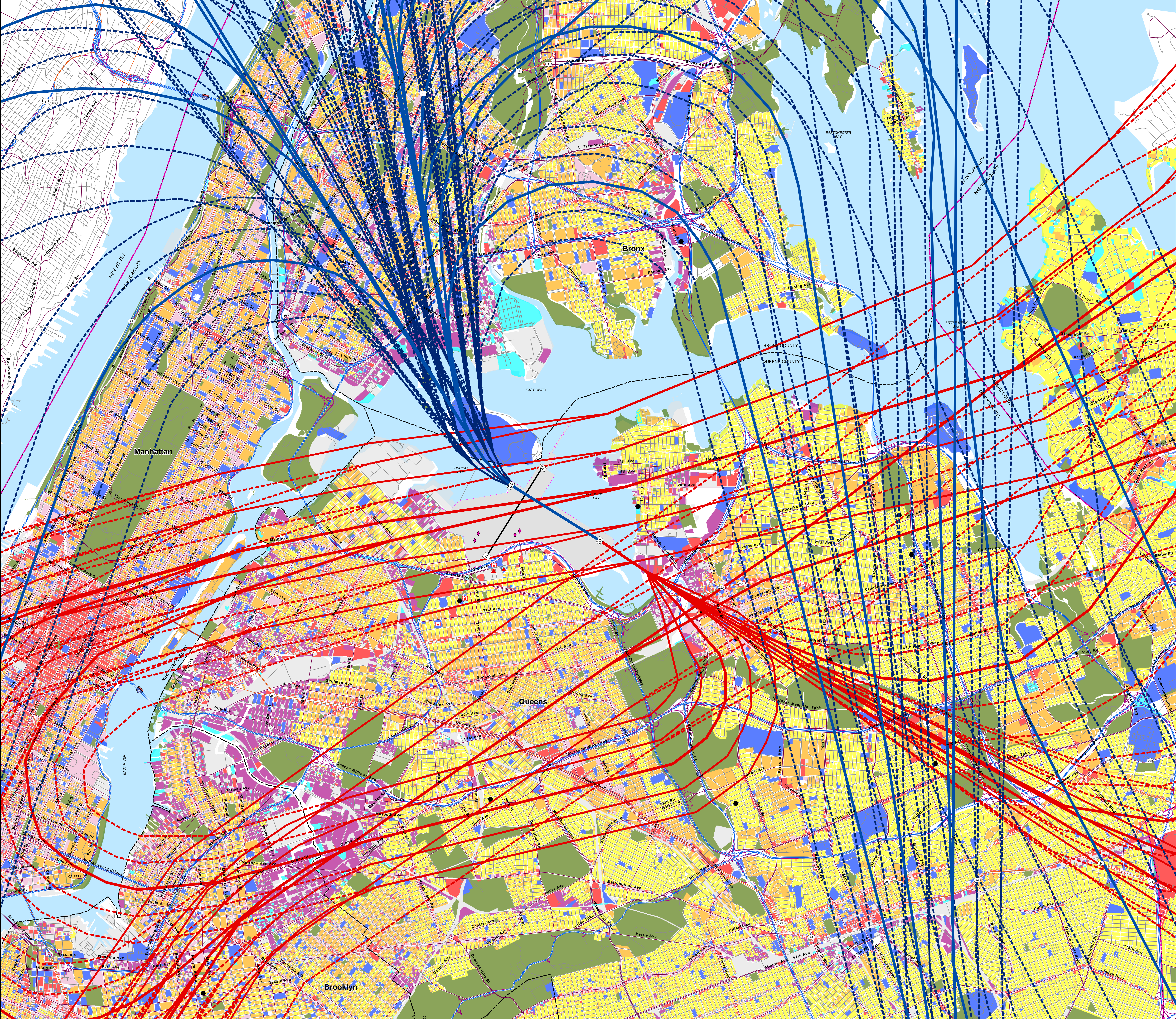
By: Huntley A. Lawrence
Title: Aviation Director, Port Authority of New York and New Jersey
Address: 4 World Trade Center, 150 Greenwich Street, 18th Floor, New York, NY 10007
The original copy of this Map 1 of 6 (2016 Noise Exposure Map) was signed by Huntley A. Lawrence on March 28, 2017 and is available for review by contacting the Port Authority - Aviation Noise Office at airport15industrial@panynj.gov.
Signature: _____
Date: _____

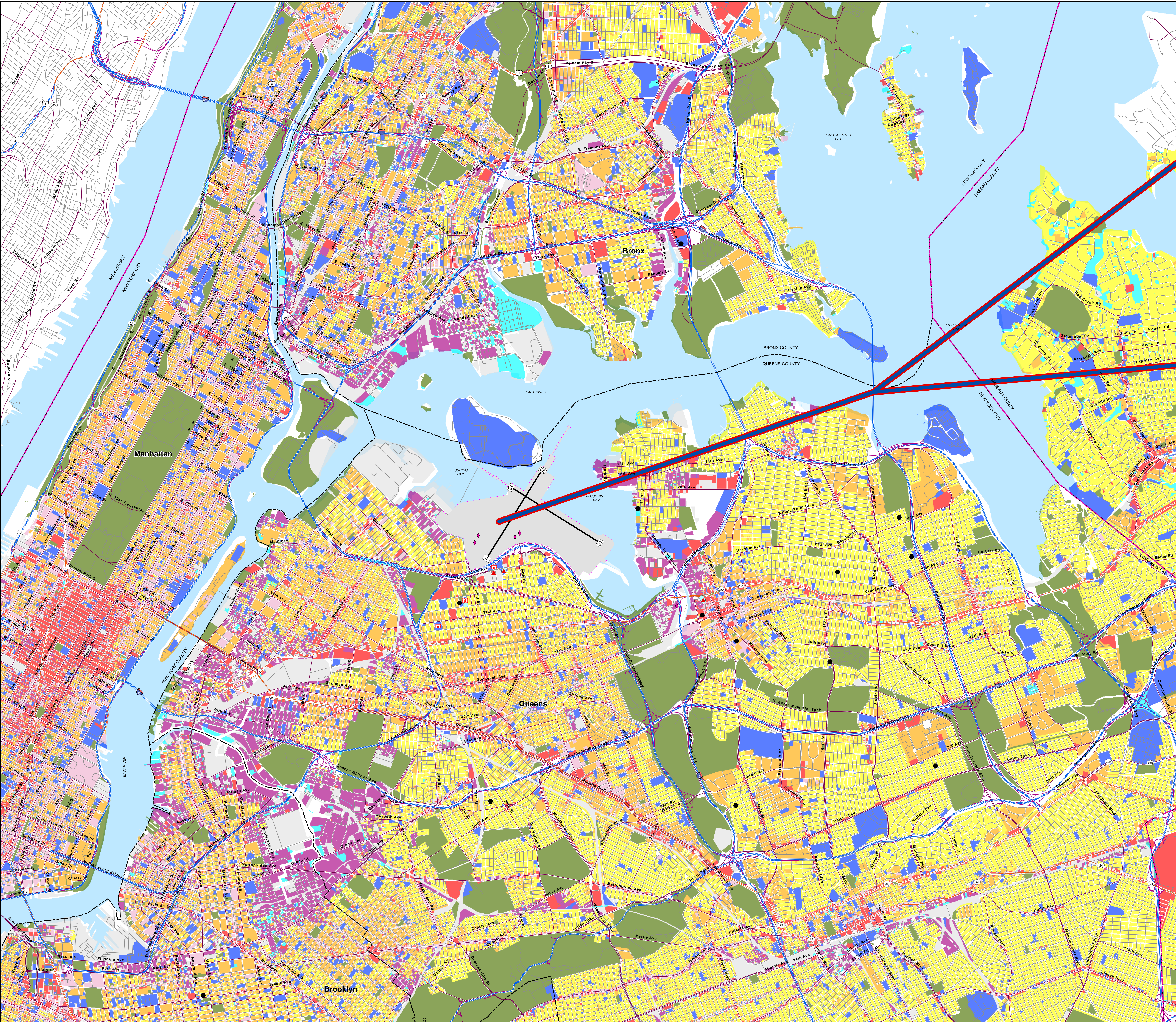
2016 Noise Exposure Map

2016 Map 1 of 6
LaGuardia Airport









Legend

Runway

Limited Access Highway

Highway

Major Roadway

Noise Monitor

City Boundary

County Boundary

Local Street

School

Historic Structure

Day Care/Assisted Living

Departure Backbone Track

Arrival Backbone Track

Transportation, Parking and Utilities

Public Facilities and Institutions

Unclassified

Vacant Land

Open Space, Cemeteries and Outdoor Recreation

Single and Two Family Residential

Multi-Family Residential

Mixed Residential and Commercial

Commercial and Office

Industrial and Manufacturing

Place of Worship

SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax land use geographic information database, March 2015; June 2015 (adopted by ESA); Nassau County Department of Public Works Planning Division, Property classification and geographic information database, September 2015; ESRI Mapping Services, Environmental Science Associates, 2015; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc., 2016. Note: NYC Department of City Planning is sole land use agency for all areas within the DNL 65 dBA contour. Note: All schools within the DNL 65 dBA have been previously sound insulated.

North

0

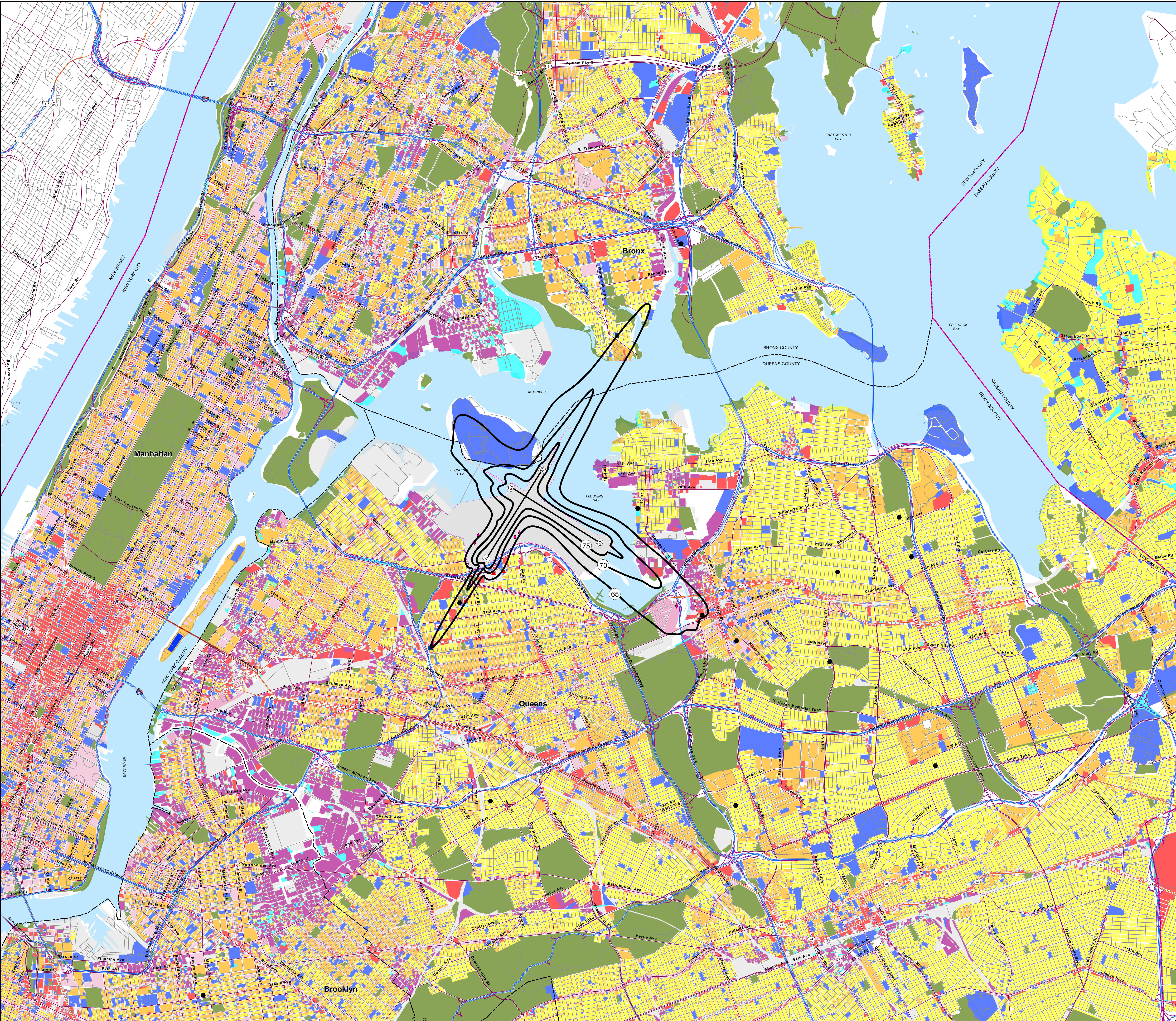
2,000

Feet

INM Helicopter Flight Tracks

2016 Map 6 of 6

LaGuardia Airport



Legend

- Airport Property Line
- Runway
- Limited Access Highway
- Highway
- Major Roadway
- Local Street
- County Boundary
- City Boundary
- Noise Monitor
- Place of Worship
- School
- Historic Structure
- Day Care/Assisted Living
- DNL Contour
- Single and Two Family Residential
- Multi-Family Residential
- Mixed Residential and Commercial
- Commercial and Office
- Industrial and Manufacturing
- Transportation, Parking and Utilities
- Public Facilities and Institutions
- Unclassified
- Vacant Land
- Open Space, Cemeteries and Outdoor Recreation

SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot land use geographic information database, March 2015; June 2015 (updated by ESRI, Nassau County Department of Public Works Planning Division; Property classification and geographic information database, September 2015; ESRI Mapping Services Environmental Science Associates, 2016; Planning Technology, Inc. 2016; KB Environmental Sciences, Inc. 2016. Note: NYC Department of City Planning is sole land use agency for all areas within the DNL 65 dBA contour. Note: All schools within the DNL 65 dBA have been previously sound insulated.

↑

North

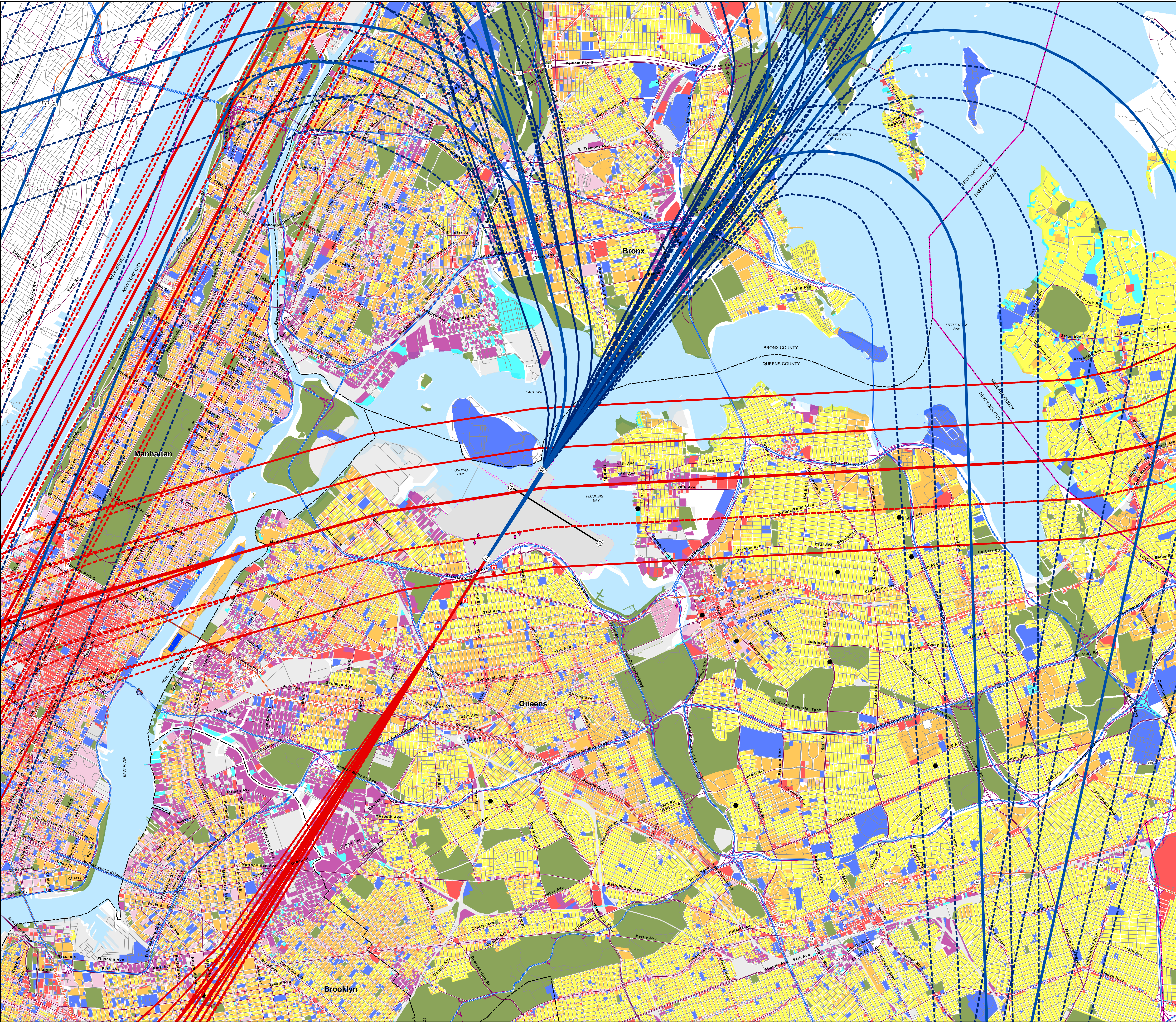
0

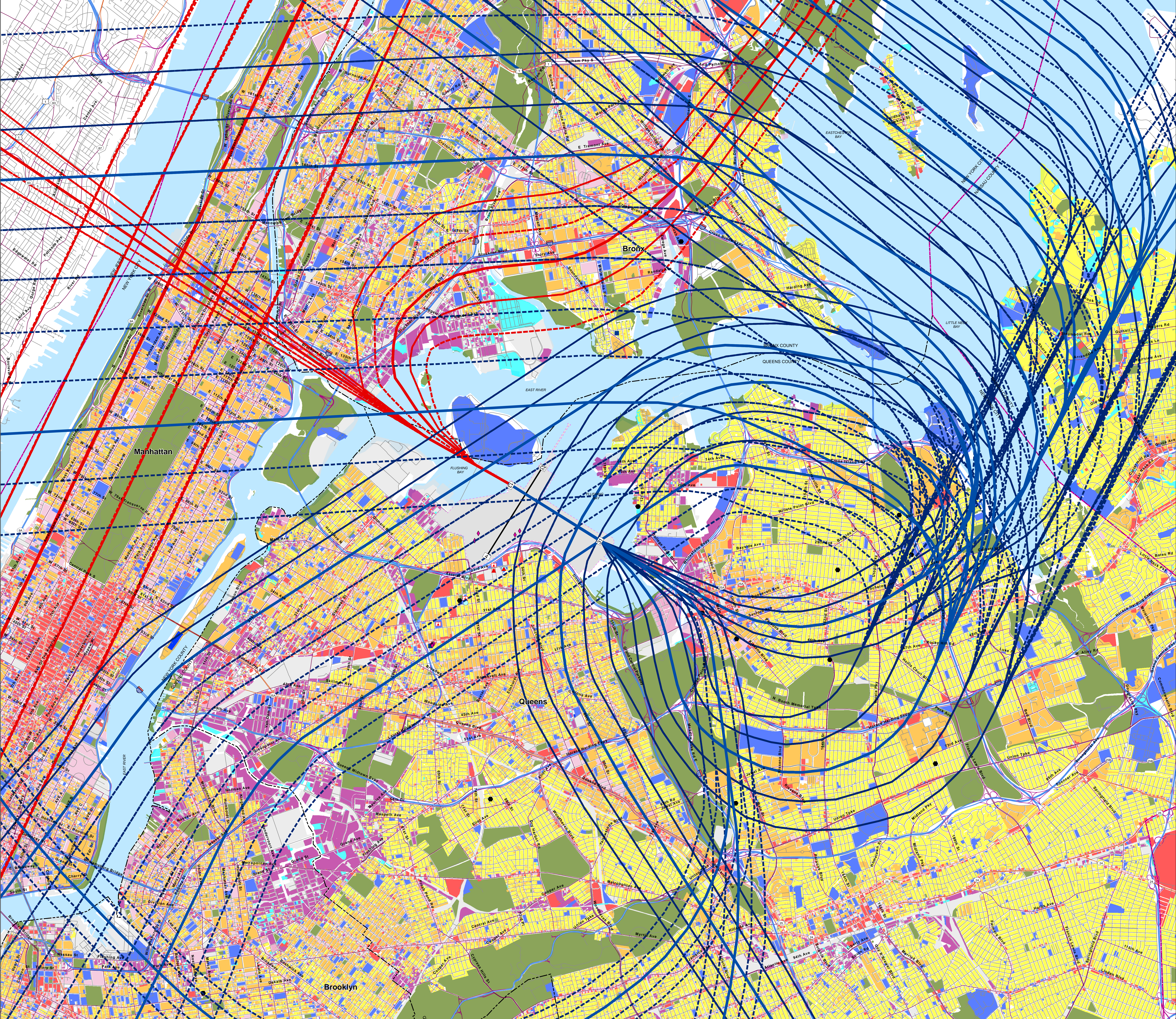
2,000

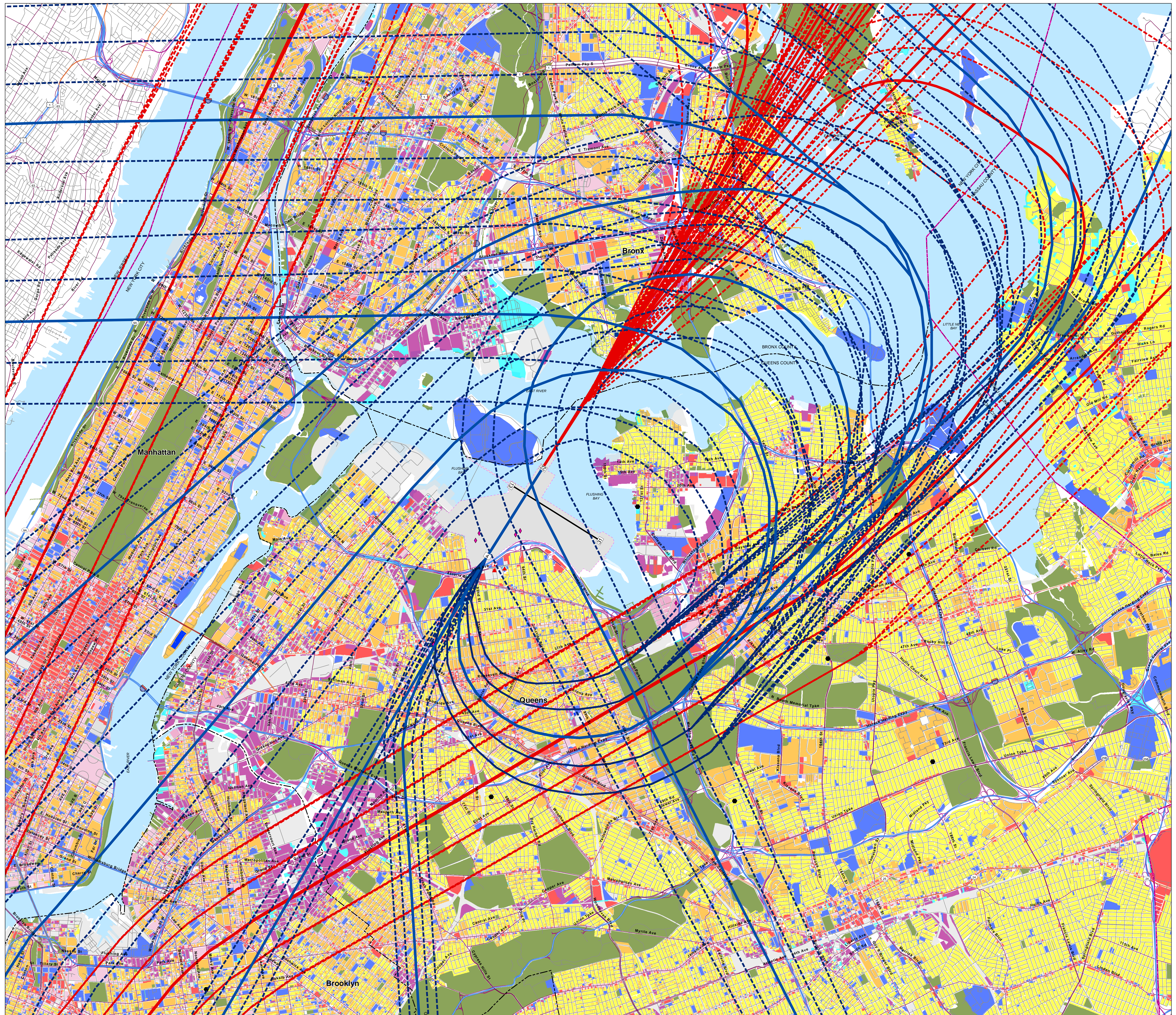
Feet

Sponsor's Certification
The Port Authority of New York and New Jersey certifies that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the LaGuardia Airport 2021 noise exposure map and descriptions of forecast aircraft operations. The 2021 operations at LaGuardia Airport are hereby certified to be consistent with expected fleet mix, forecast operational levels, and flight procedures depicted on this 2021 noise exposure map as of December 31, 2016.

By: Huntley A. Lawrence
Title: Aviation Director, Port Authority of New York and New Jersey
Address: 4 World Trade Center, 150 Greenwich Street, 16th Floor, New York, NY 10007
The original copy of 2021 Map 1 of 10 2021 Noise Exposure Map was signed by Huntley A. Lawrence on March 28, 2017 and is available for review by contacting the Port Authority - Aviation Noise Office at npa15nnoise@panynj.gov.
Signature: _____ Date: _____

















Legend

--- Airport Property Line	— Local Street
— Runway	- - - County Boundary
— Limited Access Highway	— City Boundary
— Highway	● Noise Monitor
— Major Roadway	○ Place of Worship

Existing Land Uses

 Single and Two Family Residential	 Transportation, Parking and Utilities
 Multi-Family Residential	 Public Facilities and Institutions
 Mixed Residential and Commercial	 Unclassified
 Commercial and Office	 Vacant Land
 Industrial and Manufacturing	 Open Space, Cemeteries

SOURCE: New York City Department of City Planning, MapPLUTO 15V1-Tax lot/land use geographic information database, March 2015- June 2015 (adapted by ESA); Nassau County Department of Public Works Planning Division, Property Classification and geographic information database, September 2015; ESRI Mapping Services and Environmental Science Associates, 2016; Planning Technology, Inc., 2016; KB Environmental Sciences, Inc., 2016.

Note: NYC Department of City Planning is sole land use agency for all areas within the DNL 65 dBA contour.

Note: All schools within the DNL 65 dBA have been previously sound insulated.



A number line is shown with tick marks at 0 and 2. A shaded region is indicated between 0 and 1.

INM Flight Tracks - Runway 22

2021 Map 4 of 6
LaGuardia Airport

