



U.S. Department
of Transportation
**Federal Aviation
Administration**

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December 16, 2022

Mr. Charles R. Everett, Jr.
Director, Aviation
Port Authority of New York and New Jersey
Aviation Department
4 World Trade Center
150 Greenwich Street, 18th Floor
New York, New York 10007

RE: LaGuardia Airport 14 CFR Part 150 Study- Noise Compatibility Program Record of Approval

Dear Mr. Everett:

The Federal Aviation Administration (FAA) has evaluated the Noise Compatibility Program (NCP), for LaGuardia Airport, contained in Title 14, Code of Federal Regulations (CFR), Part 150 Study and related documents submitted to this office under the provisions of Section 104(a) of the Aviation Safety and Noise Abatement Act of 1979, as amended. The recommended NCP proposed by the Port Authority of New York and New Jersey is described in Chapters 3 through 5 of the Study. I am pleased to inform you that the Director of the Airports Division, Eastern Region has signed the Record of Approval (ROA) for the NCP. The ROA includes approval of four of the eight recommended Noise Abatement measures, all three Land Use measures, and all 12 Program Management measures. Three of the Noise Abatement Measures were disapproved and one was found to have no FAA action. The specific rationale of the FAA action for each NCP measure is set forth in the enclosed ROA. The effective date of this approval is December 15, 2022.

Each Airport NCP developed in accordance with 14 CFR Part 150 is a local program and not a federal program. The FAA does not substitute its judgment for that of the airport sponsor with respect to which measures should be recommended for action. The FAA's approval, disapproval or no action taken on 14 CFR Part 150 program recommendations is measured according to the standards expressed in Part 150 and the Aviation Safety and Noise Abatement Act of 1979, and is limited to the following determinations:

- a. The Noise Compatibility Program was developed in accordance with the provisions and procedures of 14 CFR Part 150;

- b. Program measures are reasonably consistent with achieving the goals of reducing existing non-compatible land uses around the airport and preventing the introduction of new incompatible land uses;
- c. Program measures would not create an undue burden on interstate or foreign commerce, unjustly discriminate against types or classes of airport grant agreements, or intrude into areas preempted by the Federal government;
- d. Program measures relating to the use of flight procedures can be implemented within the period covered by the program without derogating safety, adversely affecting the efficient use and management of the navigable airspace and air traffic control responsibilities of the Administrator prescribed by law.

Specific limitations with respect to FAA's approval of an Airport Noise Compatibility Program are delineated in 14 CFR Part 150, Section 150.5. Approval is not a determination concerning the acceptability of land uses under Federal, State or local law. Approval by itself does not constitute a FAA implementation action. A request for Federal action or approval to implement specific Noise Compatibility Measures may be required. An FAA decision on the request may require an environmental assessment of the proposed action. Approval does not constitute a commitment by the FAA to financially assist in the implementation of the program nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA under applicable federal funding programs. Where federal funding is sought, requests for project grants must be submitted to our office for consideration.

The FAA will publish a notice in the Federal Register announcing the approval of this Noise Compatibility Program. You are not required to give local official notice, however, you may do so if you wish.

Thank you for your continued interest in noise compatibility planning. If you have questions concerning this matter, please contact Andrew Brooks at 718-553-2511. Thank you for your continued interest in noise compatibility planning.

Sincerely,

**MARIE C
JENET**

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MARIE C JENET
Date: 2022.12.16
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for

Evelyn Martinez
Manager

FEDERAL AVIATION ADMINISTRATION

RECORD OF APPROVAL

14 CFR PART 150 NOISE COMPATIBILITY PROGRAM

LAGUARDIA AIRPORT

NEW YORK, NEW YORK

<u>Patrick J Wells</u>	<u>AGC-600 (A)</u>	<u>12/15/2022</u>	<u>X</u>	<u> </u>
Regional Counsel, AEA-7		Date	CONCUR	NONCONCUR

DAVID A FISH Digitally signed by DAVID A FISH Date: 2022.12.15 14:46:28 -05'00'	<u> </u>	<u>X</u>	<u> </u>
Director, Airports Division, AEA-600	Date	APPROVED	DISAPPROVED

RECORD OF APPROVAL
LAGUARDIA AIRPORT
NOISE COMPATIBILITY PROGRAM

INTRODUCTION

The LaGuardia Airport (LGA), New York, New York, Noise Compatibility Program (NCP) describes the current and future non-compatible land uses based upon the parameters established in Title 14 of the Code of Federal Regulations (CFR), Part 150, *Airport Noise Compatibility Planning*. Preparation of this Part 150 Study was initiated by the Port Authority of New York and New Jersey (Port Authority), the airport sponsor, in 2014. LGA submitted their Noise Exposure Maps (NEM) for the period 2016 through 2021. The FAA determined that the NEMs were prepared in accordance with procedures contained in 14 C.F. R. Part 150 and accepted the maps on May 5, 2017. A revised, "With Program" 2021 NEM, depicting the phase out of MD-88 operations by Delta and the implementation of NCP program measures that were in place prior to 2021, was submitted with the LGA NCP on June 15, 2022. The FAA determined that the revised NEM was prepared in accordance with procedures contained in 14 C.F. R. Part 150 and accepted the map on June 16, 2022. The LGA NCP measures were developed subsequent to the initial submission of NEMs for review and approval by FAA. The program evaluated a total of ninety eight measures and recommends a total of twenty three measures to prevent the introduction of additional non-compatible land uses and to reduce the effect of the noise generated at the airport. The recommendations include eight noise abatement measures, three land use management measures, and twelve program management measures. The recommended measures are summarized in Section 3.0 (Noise Abatement Measures), Section 4.0 (Land Use Management Measures), and Section 5.0 (Program Management Measures) and Appendix H of the NCP. More detailed descriptions and additional information on each measure can be found in Section 3.2 (Noise Abatement Measures), Section 4.2 (Land Use Management Measures), and Section 5.2 (Program Management Measures) of the NCP.

FAA approval discussed herein is for the approval of measures the Port Authority recommends taking and this approval only indicates the recommended measures would, if implemented, be consistent with the purposes of Title 14 CFR Part 150. FAA approval does not constitute decisions to implement the measures nor does it constitute a commitment by the FAA to provide financial assistance to the Port Authority for the recommended measures. In addition, later decisions concerning possible implementation of the recommended measures may be subject to environmental protection laws and regulations or other procedures or requirements, as applicable.

The measures are identified below by program element and referenced to the NCP by page number. Each program element summarizes as closely as possible the airport operator's recommendations as found in the NCP. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval, or other determinations do not represent the opinions or decisions of the FAA.

NOISE ABATEMENT MEASURES (NCP Section 3.0)

1. Modify NTHNS and GLDMN Runway 13 RNAV SIDs to Direct Aircraft Away from Flushing, New York (Page 3-8)

Description: NTHNS FOUR DEPARTURE (NTHNS procedure) and GLDMN FIVE DEPARTURE (GLDMN procedure) are existing Area Navigation (RNAV) Standard Instrument Departure (SID) procedures at LGA for turbojet aircraft. In both procedures, aircraft departing Runway 13 initially fly a magnetic heading of 134 degrees, then turn right toward the south (185 degrees) and fly toward the first waypoint (KIWIE), located approximately four nautical miles (NM) south of LGA. After reaching the KIWIE waypoint, aircraft then continue either to the south (toward the NTHNS waypoint) or turn back to the north (toward the GLDMN waypoint) and then on to other locations, as directed by Air Traffic Control (ATC).

The intention for the modification to the NTHNS and GLDMN procedures is for aircraft to turn to the south sooner after departure than they currently turn when following the existing NTHNS and GLDMN procedures, thereby reducing the likelihood that departing aircraft would overfly the populated areas of Flushing. This would be accomplished by adding a new waypoint at a location approximately 0.4 NM east of LGA, which would serve to direct aircraft away from populated areas of Flushing. The modification of the NTHNS and GLDMN procedures could reduce non-compatible land uses in Flushing.

FAA Action: APPROVED AS VOLUNTARY. Analysis contained within the NCP (Table 3-2, page 3-10) demonstrates that this measure could reduce the number of residential units within the 65 decibel (dB) day-night average sound level (DNL) contour by 266. The analysis also shows that this measure could reduce the numbers of places of worship and day care facilities within the 65 dB DNL contour by three and one, respectively. Inclusion of these analytical results is presented as the basis upon which the decision was made, as it demonstrates that implementation of the measure could lead to demonstrable noise reduction. Further, approval of this measure as voluntary does not commit the FAA or Port Authority to achieving the assumptions used for modeling as a target of implementation of the measure. The proposed procedure FAA published revised departure procedures NTHNS FIVE and GLDMN SIX on May 21, 2020 to achieve the intent of this recommendation. GLDMN SEVEN was subsequently published on December 31, 2020 to further revise that procedure. Note that the current procedure has a right turn toward the south at 179 degrees, updated from the 185 degrees in place at the time this measure was proposed. This recommendation is considered implemented and the inclusion of these procedures is reflected in the revised "With Program" 2021 NEM submitted with the NCP and accepted by the FAA on June 16, 2022. It was reflected in the revised "With Program" 2021 NEM due to the publication of the procedure being in place prior to 2021. Use of the procedures is subject to Air Traffic Controller discretion based on operating conditions in place at the time of departure.

2. Create New Runway 13 Departure Procedure with an Immediate Left Turn over Compatible Land Uses (Page 3-18)

Description: This NCP measure involves implementing a new departure procedure for Runway 13 that would direct aircraft to make a left turn shortly after takeoff. Aircraft would initiate the turn before reaching the Whitestone Expressway. This measure is intended to place aircraft over predominantly

commercial and industrial land uses while avoiding residential areas in Flushing. This could reduce non-compatible land uses in Flushing.

FAA Action: DISAPPROVED. Procedures that would need to be developed to achieve the intended result of this measure would cause operational conflicts for other aircraft on arrival to LGA Runway 22, creating potential unsafe operating environments and loss of required separation. Specifically, FAA Order 7110.65, Air Traffic Control requires at least 3NM or 1000' separation between Instrument Flight Rules (IFR) aircraft. This separation standard would not be guaranteed (also known as loss of positive control) with an early left turn from RWY 13, which presents a safety risk to the National Airspace System (NAS). Additionally, as helicopters and float planes transit overhead LGA airport in the Class Bravo airspace, separation with early turning RWY 13 departures cannot be guaranteed with the overhead flow of these aircraft. Lastly, in the event that a RWY 22 arrival needed to be pulled off the final approach course (for separation or pilot request), ATC would have limited options to turn the aircraft safety away from the proceeding aircraft and/or an early turning RWY 13 departure. This is due to the complexity of the airspace around LGA airport and its proximity to JFK, LGA, and TEB. Implementation of this measure would not meet necessary approval criteria established by 14 CFR Part 150.35(b)(3)(ii) and (iii).

3. Implement Offset Approach to Runway 22 to Reduce Noise Exposure Over Clason Point (Page 3-31)

Description: This NCP measure involves increasing the time that aircraft arriving to Runway 22 remain over water rather than overflying Clason Point and Castle Hill in the Bronx. Aircraft flying an Instrument Landing System (ILS) approach to Runway 22 follow a path aligned with the runway for the last several miles of the approach (heading 224 degrees). An existing procedure, identified as the Localizer-type Directional Aid Alpha (LDA-A) approach to Runway 22, places aircraft arrivals on an offset path approximately 10 degrees (heading 234 degrees) until they are approximately 1 NM from the end of the runway. At this point, aircraft align with the runway and fly a straight-in approach. This procedure is known as an "offset approach" because for the majority of the approach, aircraft are not precisely aligned with the extended runway centerline. This approach generally keeps aircraft east of Clason Point and Castle Hill in the Bronx.

The LDA-A approach to Runway 22 uses a navigational beacon to direct the aircraft on approach and is flown only in certain weather conditions. Developing an RNAV overlay of this current LDA-A offset approach may allow this procedure to be used more often and may reduce non-compatible land uses in the Clason Point and Castle Hills areas of the Bronx.

FAA Action: APPROVED AS VOLUNTARY. Based on a review of 2014 operational data, the Port Authority identified that 40% of Runway 22 arrivals during both day and night would use the revised procedure (Page 3-31). Analysis contained within the NCP (Table 3-9, Page 3-39) demonstrates that this measure could reduce the number of residential units within the 65 dB DNL contour by 544. Inclusion of this assumption and analytical result does not reflect FAA concurrence with the level of operations that could potentially be reallocated under this measure, rather it is presented as the basis upon which the decision was made, as it demonstrates that reallocation of operations in accordance with the measure could lead to demonstrable noise reduction. Further, approval of this measure as voluntary does not commit the FAA

or Port Authority to achieving the assumption used for modeling as a target of implementation of the measure. FAA published arrival procedure RNAV (GPS) X RWY 22 on October 7, 2021 that started as an RNAV overlay of the LDA-A offset approach; however, the offset was increased from 234 degrees with the LDA-A to 239 degrees under the RNAV approach. This recommendation is considered implemented. This procedure is not reflected in the revised "With Program" 2021 NEM as it was not in place for the full 2021 year; however, this measure is considered implemented at the time of issuance of this Record of Approval. Use of the procedure is subject to Air Traffic Controller discretion based on operating conditions in place at the time of arrival.

4. Reduce Runway 4 Departure Noise Over Clason Point (Page 3-41)

Description: This NCP measure involves increasing the use of an existing Runway 4 departure procedure to result in a reduced number of departures overflying Clason Point in the Bronx. The current LAGUARDIA FIVE DEPARTURE procedure indicates that aircraft departing Runway 4 are to initiate a right turn to a magnetic heading of 055 degrees shortly after takeoff. This places aircraft to the east of Clason Point to overfly water, and then compatible land use, while gaining altitude. Increasing the use of this turn may reduce non-compatible land uses in the Bronx.

FAA Action: APPROVED AS VOLUNTARY. The Port Authority analyzed LGA Runway 4 departure flight tracks using 2014 operational data to determine the percentage of aircraft that flew the 040 and 055 headings for both daytime and nighttime. The 2014 operational data indicated that the departure track use for heading 040 at LGA was 8.4 percent of all departures in the daytime and 9.5 percent of all departures at night, while the track use for heading 055 was 1.4 percent in the daytime and 4.2 percent at night. An analytical assumption was made that aircraft flying the 040 heading and then continuing to the northeast could likely fly a 055 heading. From a review of the operational data, it was determined that 2.5 percent of all departing aircraft at LGA flew the 040 heading and then continued on to the northeast in the daytime and nighttime. Therefore, aircraft that flew the 040 heading and ultimately continued on to the northeast were reassigned to the 055 heading, for the purposes of modeling this NCP measure. The track use for the 040 heading was therefore changed to 5.9 percent in the daytime and 7.0 percent at night for modeling purposes, while the track use for the 055 heading was changed to 3.9 percent in the daytime and 4.2 percent at night. All other departure track use remained unchanged (Page 3-41). Analysis contained within the NCP (Table 3-12, Page 3-49) demonstrates that this measure could reduce the number of residential units within the 65 dB DNL contour by 53. Inclusion of these assumptions and analytical results does not reflect FAA concurrence with the level of operations that could potentially be reallocated under this measure, rather it is presented as the basis upon which the decision was made, as it demonstrates that reallocation of operations in accordance with the measure could lead to demonstrable noise reduction. Further, approval of this measure as voluntary does not commit the FAA or Port Authority to achieving the assumption used for modeling as a target of implementation of the measure. Revised LAGUARDIA SEVEN DEPARTURE procedure was published on December 31, 2020 and includes the following language in the Departure Route Description: "TAKEOFF RUNWAY 4 (Sound Climb): Climb on heading 044° to 500 then climbing right turn to heading 055°, maintain 5000." Use of the procedure is subject to Air Traffic Controller discretion based on operating conditions in place at the time of aircraft operation.

5. Reduce Runway 13 Departures at Night (Page 3-51)

Description: This NCP measure involves reducing the number of departures from Runway 13 at night (10:00:00 P.M. to 6:59:59 A.M.). If a portion of aircraft currently departing Runway 13 were instead assigned to depart Runway 31, there would be a reduction in noise for non-compatible land uses to the east in Flushing and an increase in noise over compatible land uses immediately west of LGA. Elimination of all nighttime Runway 13 departures is not feasible because certain wind and weather conditions necessitate the use of Runway 13 for departures to meet aircraft safety and performance requirements.

FAA Action: APPROVED AS VOLUNTARY. Based on a review of 2014 operational data, the Port Authority identified up to 75% of Runway 13 nighttime departures that could potentially be reassigned to Runway 31 and used that reallocation of runway utilization as the basis for analysis (Page 3-51). Analysis contained within the NCP (Table 3-15, Page 3-52) demonstrates that this measure at the assumed reallocation rate could reduce the number of residential units within the 65 dB DNL contour by 730. Inclusion of this assumption and analytical result does not reflect FAA concurrence with the level of operations that could potentially be reallocated under this measure, rather it is presented as the basis upon which the decision was made, as it demonstrates that any level of reallocation of operations in accordance with the measure could lead to demonstrable noise reduction. Further, approval of this measure as voluntary does not commit the FAA or Port Authority to achieving the assumption used for modeling as a target of implementation of the measure. Use of the procedure is subject to Air Traffic Controller discretion based on operating conditions in place at the time of aircraft operation.

6. Implement Noise Abatement Departure Profiles on a Voluntary Basis for Runways 4 and 13 (Page 3-57)

Description: This NCP measure involves the voluntary implementation of noise abatement departure profiles (NADPs), which are aircraft climb-out profiles that can provide noise reduction benefits. In 1993, the FAA published acceptable criteria for two safe NADPs for commercial jet aircraft: the close-in NADP, also known as NADP1, and the distant NADP, also known as NADP2 (FAA Advisory Circular [AC] 91-53A). The close-in NADP provides noise reduction benefits to areas adjacent to an airport, whereas the distant NADP provides noise reduction benefits farther from an airport.

Figure 3-17 (Page 3-58) gives a general, comparative overview of both types of NADP. The NADPs outline criteria for speed, thrust settings, and airplane configurations used in connection with each NADP. The designs of NADPs and their frequencies of use are specific to individual aircraft operators and aircraft types. Airport operators cannot mandate the use of NADPs at an airport because airport operators do not have the authority to require specific operating profiles for aircraft in flight. Implementation of NADPs is voluntary and at the choice of aircraft operators; however, FAA AC 91-53A encourages aircraft operators "to use the appropriate NADP when an airport operator requests its use to abate noise for either a close-in or distant community."

FAA Action: DISAPPROVED FOR PURPOSES OF PART 150. Documentation provided in support of this measure by the Port Authority did not include analysis comparing implementation of the measure to the accepted NEM for LGA, rather it included a comparative analysis of implementation of potential NADP 1

and NADP 2 procedures at LGA. FAA does not concur with the Port Authority's statements in the NCP that an analysis comparing implementation of the measure to the accepted NEM cannot be done. Accordingly, the NCP does not show that implementation of this measure would reduce non-compatible land use within the 65 dB DNL contour, in accordance with 14 CFR Part 150.23(e)(5) and 150.35(a). A future update to the NCP addressing the analytical deficiency identified may result in the FAA reconsidering the decision for this measure. Disapproval of this measure for purposes of Part 150 does not prevent the Port Authority from pursuing further implementation of this measure outside of the Part 150 context.

7. Implement Nighttime Optimized Profile Descent Procedures (Page 3-71)

Description: This NCP measure involves the implementation of Optimized Profile Descent (OPD) arrival profiles at LGA. An OPD is an arrival procedure that optimizes reduction of noise and air pollutant emissions by minimizing changes in thrust using a favorable initial flight path angle, and through strategic management of flaps and landing gear. Aircraft on an OPD are generally configured with flaps and landing gear, airspeed, and approach angle before they are five miles from the runway, mostly benefitting areas outside of the DNL 65 contour.

Because of the busy and complex nature of the region's airspace as a whole, aircraft are typically directed by air traffic controllers to hold at a constant altitude for a certain period of time and then directed to drop to a lower altitude and hold for a certain period of time. In congested airspace, aircraft may be required to follow a number of these steps prior to landing. OPDs are being recommended only during nighttime hours, given that the airspace is much less busy. Figure 3-22 (Page 3-71) illustrates the OPD concept by comparing a conceptual OPD to a descent with hold-downs, where aircraft increase power and fly at constant altitude when instructed by ATC.

FAA Action: **DISAPPROVED FOR PURPOSES OF PART 150.** Documentation provided in support of this measure by the Port Authority states that this measure would not benefit non-compatible land use within the 65 dB DNL contour. As such, the measure does not meet the standard for approval by the FAA, in accordance with 14 CFR Part 150.23(e)(5) and 150.35(a). A future update to the NCP demonstrating reductions of non-compatible land use within the 65 dB DNL contour may result in the FAA reconsidering the decision for this measure. Disapproval of this measure for purposes of Part 150 does not prevent the Port Authority from pursuing further implementation of this measure outside of the Part 150 context.

8. Continue Existing Mandatory Departure Noise Limit (Page 3-73)

Description: The Port Authority has pursued aircraft noise abatement measures for several decades. In 1959, the Port Authority established a mandatory aircraft departure noise limit of 112 PNdB for aircraft departures at LGA. Operators of aircraft that violate the departure noise limit at LGA are contacted by the Port Authority and notified of the violation. The existing monitoring system at LGA, which currently consists of 10 monitors, supports the Port Authority's enforcement of this departure noise limit. The departure noise limit is a measure that was established before such measures were restricted by the Airport Noise and Capacity Act (ANCA) in 1990. The Port Authority is recommending continuation of the existing departure noise limit, with no changes, to continue restricting operational activity that violates the limit. This provides benefits to communities in the vicinity of LGA.

FAA Action: NO ACTION. This measure was in place prior to ANCA and is not subject to review under 14 CFR Part 161. It is the continuance of a pre-existing practice at LGA.

LAND USE MEASURES (NCP Section 4.0)

1. Sound-Insulate Eligible Dwelling Units (Page 4-5)

Description: The Port Authority is proposing to provide sound insulation for eligible residential dwelling units within the 65 dB DNL contour. Types of dwelling units include, but are not limited to, single-family units, multi-family units (up to and including high-rise apartment buildings), and mixed-use structures with retail on the ground floor and residential units above. Sound insulation programs provide compatible noise environments inside structures as a means to mitigate aircraft noise exposure. Sound insulation treatments may include window and door replacement, caulking, weather stripping, and positive air ventilation. Positive ventilation systems use a fan to draw outside air into an indoor space, pressurizing the space. Indoor air is exhausted out of the building through sound-insulated exterior openings. Ventilation-only treatments are limited to structures where positive ventilation does not already exist.

The goal of sound insulation under 14 CFR Part 150 is to provide an average interior DNL of 45 dB or below and to provide at least a 5 dB improvement to the noise level reduction of the structure. Based on the experience of other airports' residential sound insulation programs, sound insulation is effective in reducing interior noise exposure and has a high level of satisfaction among dwelling unit occupants.

In residential sound insulation programs funded, in part, by FAA Airport Improvement Program (AIP) grants, a dwelling unit is eligible for sound insulation only if it meets all of the criteria set forth in FAA Order 5100.38D, Airport Improvement Program Handbook (AIP Handbook), Appendix R. To be eligible, the dwelling unit must meet the following criteria:

1. It must be located within the DNL 65 dB contour of an FAA-approved NEM.
2. It must have been constructed before publication of FAA-approved DNL contours. Dwelling units constructed in the vicinity of LGA after April 9, 2014, are not eligible for federally funded sound insulation.
3. It must be in compliance with the local building code.
4. It must have an average noise level in habitable rooms above DNL 45 dB (with windows closed).

The FAA also has discretion to fund sound insulation for dwelling units located in structures that contain a mix of residential and commercial uses (e.g., buildings with retail on the first floor and apartments in upper floors). In addition, a modular structure that has a noise-sensitive use may be eligible for federally funded sound insulation if the structure is permanent and meets the building requirements for non-modular structures, as given in Appendix R of the AIP Handbook.

The following dwelling units may be eligible for federally funded positive ventilation systems in addition to or in lieu of residential sound insulation:

- Dwelling units that qualify for sound insulation and do not have existing positive ventilation systems
- Dwelling units that do not qualify for sound insulation and do not have existing positive ventilation yet require it so that exterior doors and windows can be kept closed to obtain the noise-level reduction required for compatibility

Dwelling units that do not have positive ventilation systems and are determined to be eligible for federally funded positive ventilation systems would be divided into two groups:

- Existing interior noise exposure of at least DNL 45 dB
- Existing interior noise exposure below DNL 45 dB, but only with having all exterior doors and windows closed

In exchange for accepting sound insulation under LGA Land Use Measure 1, the Port Authority is requiring the property owner to provide to the Port Authority an avigation easement. An avigation easement is a conveyance of airspace over property for use by an airport. The property owner has restricted use of their property subject to the airport sponsor's easement for overflight and other applicable restrictions on the use and development of the parcel. Avigation easements run with the land (i.e., are attached to the property for as long as the easement is in effect). Therefore, an avigation easement binds future property owners and informs them of the property's exposure to aircraft noise while also restricting use of the parcel as described in the avigation easement.

FAA Action: APPROVED. This measure could potentially benefit 3,524 dwelling units and 9,484 people located in the DNL 65 dB contour, excluding block rounding and neighborhood equity, based on the accepted LGA NEM. This number is only a representation of structures located within the currently accepted NEM and may change either due to structures not meeting all requirements for program eligibility as discussed in the NCP (Pages 4-6 through 4-8) or due to a change to the DNL 65 dB contour itself on a future updated NEM submission. Prior to the start of the Sound Insulation Program (SIP), the Port Authority shall develop a policy and procedure manual (PPM) to guide RSIP implementation and an acoustical testing protocol (ATP). The PPM should outline SIP objectives and priorities; community outreach process; identify and define boundaries for eligible structures, including proposals for treatment of neighborhood equity and block rounding (in accordance with Appendix R of the AIP Handbook); and the suggested avigation easement language. The ATP outlines the acoustical testing process to ensure the acoustical testing of residential structures is conducted accurately and efficiently. The ATP shall be provided to FAA for review and concurrence.

Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance and will be dependent upon the accepted NEM at the time the request is submitted, provided the NEM can be validated for currency.

2. Sound-Insulate Eligible Non-Residential Noise-Sensitive Structures (Page 4-12)

Description: The Port Authority is proposing to provide sound insulation for eligible non-residential noise-sensitive structures within the DNL 65 dB contour. Non-residential noise-sensitive structures include public use facilities such as schools and places of worship; hospitals and residential healthcare facilities; day care facilities; and libraries. Sound insulation programs provide compatible noise environments inside structures to mitigate aircraft noise exposure. Sound insulation treatments may include window and door replacement, caulking, weather stripping, and positive air ventilation.

The purpose of sound insulation is to provide an average interior DNL of 45 dB or below and to provide at least a 5 dB improvement to the noise level reduction of the structure with the installation of the treatments. All eligibility requirements in Appendix R of the AIP Handbook, must be met.

In non-residential sound insulation programs funded in part by FAA AIP grants, a non-residential noise-sensitive structure is eligible for sound insulation only if it meets all of the criteria set forth in the AIP Handbook, Appendix R. To be eligible, the structure must meet the following criteria:

- 1) It must be located within the DNL 65 dB contour of an FAA-approved NEM.
- 2) It must have been constructed before publication of FAA-approved DNL contours. In the case of LGA, FAA-approved DNL contours were first made available to the public on April 9, 2014. Therefore, structures constructed in the vicinity of LGA after April 9, 2014, are not eligible for federally funded sound insulation.
- 3) It must be in compliance with the local building code.
- 4) It must have an average noise level in habitable rooms above DNL 45 dB (with windows closed).

According to Table C-5 of the AIP Handbook, the FAA may not authorize the installation of sound insulation for structures with non-residential noise-sensitive land uses that are located in temporary commercial facilities (e.g., a house of worship or day care facility under lease in a retail/commercial facility).

The following structures may be eligible for federally funded positive ventilation systems in addition to or in lieu of structural sound insulation:

- Structures that qualify for sound insulation and do not have existing positive ventilation systems
- Structures that do not qualify for sound insulation and do not have existing positive ventilation yet but require it so that exterior doors and windows can be kept closed to obtain the noise-level reduction required for compatibility

Structures that do not have positive ventilation systems and are determined eligible for federally funded positive ventilation systems would be divided into two groups:

- Existing interior noise exposure of at least DNL 45 dB
- Existing interior noise exposure below DNL 45 dB, but only with having all exterior doors and windows closed

The 2021 With Program DNL contours do not include any schools that did not receive sound insulation treatments during previous Port Authority sound insulation programs. The Accepted 2021 NEM includes four places of worship (Idara Tableegh Ul-Islam, Roman Catholic Church Our Lady of Fatima Convent, Our Lady of Fatima Roman Catholic Church, and The Korean Church of Queens) and two day care facilities (Grace Day Care Center, Inc. and Metro Family Residence) (Table 4-3, Page 4-14) for a total of six non-residential noise-sensitive structures within the DNL 65 dB contour.

The following historic sites are contained within the 2021 With Program DNL 65 dB contour, but are not noise-sensitive and therefore are not eligible for sound insulation: Empire Millworks Building, LGA Hangar 3, LGA Hangar 5, LGA Hangar 7, and the Marine Air Terminal.

FAA Action: APPROVED. This measure could potentially benefit users and attendees of these six non-compatible noise-sensitive structures located in the DNL 65 DNL contour based on the accepted LGA NEM. This approval is for structures located within the currently accepted NEM identified in Table 4-3 on Page 4-14 of the NCP and may change either due to structures not meeting all requirements for program eligibility as discussed in the NCP (Pages 4-6 through 4-8 and 4-12) or due to a change to the DNL 65 dB contour itself on a future updated NEM submission. Prior to the start of the SIP, the Port Authority shall develop a PPM to guide SIP implementation and an ATP. The PPM and ATP specific to these six structures can be combined with the PPM and ATP identified in the approval of Land Use Measure 1 and shall be provided to FAA for review and concurrence.

Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance and will be dependent upon the accepted NEM at the time the request is submitted, provided the NEM can be validated for currency.

3. Include Aircraft Noise in Real Estate Disclosures (Page 4-17)

Description: Real estate disclosure is a preventive land use strategy that is focused on raising property buyers' awareness of aircraft noise impacts. Real estate disclosures provide the opportunity for prospective buyers to learn about the property and the seller's experience in it. Such disclosures can inform buyers while also protecting the sellers from future legal action by revealing issues that can negatively affect the value, usefulness or enjoyment of the property. Some communities near airports include aircraft noise in real estate disclosure forms to ensure that the buyer is aware that the property is in the vicinity of an airport.

FAA Action: APPROVED. The decision whether to pursue such a policy is an issue for government entities responsible for land use planning or real estate transactions to decide. The Port Authority should work directly with any state and/or local governments that wish to develop this preventive land use measure.

PROGRAM MANAGEMENT MEASURES (NCP Section 5.0)

1. Maintain Noise Office (Page 5-3)

Description: The Port Authority is proposing to continue to operate the Noise Office, which is a vital link between the Airport and communities on aircraft noise concerns. Following issuance of this Record of Approval, the Port Authority's Noise Office's responsibilities will expand to include implementation of the recommended NCP measures and monitoring adherence with the implemented noise abatement measures. It is possible that the Port Authority may need additional staff resources in the Noise Office to adequately address the increased responsibilities that come with the implementation and monitoring of NCPs at four airports simultaneously.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey.

2. Maintain Noise and Operations Management System (Page 5-4)

Description: The Port Authority is proposing to continue use of the Noise and Operations Management System (NOMS), which supports the investigation of noise complaints as well as communication with the public about the noise environment associated with LGA. The Airport NOMS (ANOMS) also retains historical data so that noise and operational trends can be determined. Maintenance of the NOMS will enable the Port Authority to investigate noise complaints and provide a means to monitor adherence to NCP noise abatement measures for LGA. Of the 10 noise monitors in the current LGA NOMS, one noise monitor is located within the Accepted 2021 With Program NEM DNL 65 contour.

FAA ACTION: APPROVED. The Port Authority may seek to maintain and/or replace existing noise monitors. Only noise monitors within the accepted NEM at the time of any potential funding requests would be eligible for federal funding for replacement if all other eligibility criteria are met. Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance.

3. Maintain Public Flight Tracking Portal (Page 5-6)

Description: The existing public flight tracking portal is an internet-based system that allows the public to view aircraft movements in the New York area via a website. The flight tracking portal provides a public interface for the Port Authority's NOMS and is therefore a key communication and educational tool used by the Noise Office. The Port Authority is proposing to continue use of this system.

FAA ACTION: APPROVED. Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance and will be dependent upon the accepted NEM at the time the request is submitted, provided the NEM can be validated for currency.

4. Maintain Noise Complaint Management System (Page 5-7)

Description: The existing noise complaint management system is used by the Port Authority to collect and manage noise complaint information from each of the airports in its system. The Port Authority provides

noise complaint reports to the FAA on a monthly basis for informational purposes. The use of a noise complaint management system enables the Noise Office to efficiently respond to noise complaints and gain insights from noise complaint data. The Port Authority is proposing to continue use of this system.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey. Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance and will be dependent upon the accepted NEM at the time the request is submitted, provided the NEM can be validated for currency.

5. Maintain Noise Office Website (Page 5-8)

Description: The Port Authority's Noise Office website provides links to submit a noise complaint, public flight tracking portal, noise monitoring, data reports, and airport community roundtables. The noise information website also contains a link to a central web page for each of the Port Authority's four 14 CFR Part 150 Studies. Thus, the Noise Office website serves as a single point of entry to all of the publicly available information and services provided by the Noise Office. The Port Authority is proposing to continue use of this website.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey.

6. Continue Community Outreach Activities (Page 5-9)

Description: The Port Authority facilitated the development of the New York Community Aviation Roundtable (NYCAR) in 2014 in collaboration with FAA and representatives of nearby communities. The Port Authority and the FAA have non-voting advisory status on the NYCAR, as indicated in the NYCAR by-laws. The Port Authority is proposing to continue to participate in the NYCAR and conduct additional community outreach activities.

The NYCAR has a subcommittee specifically focused on LGA operations. The NYCAR meets on a regularly scheduled basis to provide ongoing communication with the Port Authority and the FAA, seeking mutual and feasible ways to manage aircraft noise impacts. The Noise Office leverages these types of in person outreach activities to support and maintain meaningful dialogue with communities, the FAA, and other aviation stakeholders regarding aircraft noise.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey.

7. Establish and Manage a Fly Quiet Program (Page 5-10)

Description: A Fly Quiet Program is a voluntary collaboration of the airport proprietor, aircraft operators, and air traffic controllers that encourages pilots and air traffic controllers to use noise abatement flight procedures and preferential runways. It also typically includes an aircraft operator/pilot awareness

campaign with promotional materials (e.g., handouts/flyers, signage, and other educational materials) to ensure pilots know about the recommended noise abatement procedures at the Airport. Adherence to the Fly Quiet Program would benefit surrounding non-compatible land uses by reducing aircraft noise on both a single event and cumulative basis, in part through encouraging aircraft operators to proactively reduce aircraft noise levels. The exact reduction in aircraft noise levels would be dependent on the level of adherence to the Program. The Port Authority would hire a consultant to develop the program.

The Port Authority recommends initiating a voluntary Fly Quiet Program for LGA. The Fly Quiet Program would be used to facilitate implementation of recommended noise abatement measures approved by the FAA. The Fly Quiet Program would also be used as a forum for developing and discussing noise abatement measures that may provide benefits outside of the 14 CFR Part 150 process. The Noise Office would monitor aircraft operator adherence to the voluntary noise abatement procedures through the Fly Quiet Program and would issue a report describing this adherence. The program would also include the preparation of comprehensive reports of DNL values at noise monitors using the data acquired and maintained in the Port Authority's NOMS. The Fly Quiet noise reports would be published on the Noise Office website to document the progress of the program and shared with various stakeholders including, but not limited to, the FAA, NYCAR members, land use planners, and aircraft operators.

FAA Action: APPROVED AS VOLUNTARY. Use of any procedure, including those that would be the subject of a Fly Quiet Program, is subject to Air Traffic Controller discretion based on operating conditions in place at the time of aircraft operation. Further, approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance and will be dependent upon the accepted NEM at the time the request is submitted, provided the NEM can be validated for currency.

8. Make Aircraft Noise Contours Available in a Geographic Information System (GIS) (Page 5-11)

Description: An interactive NEM (presenting DNL 65 dB and higher contour lines) can provide the public, land use planning agencies, and other stakeholders with easy access to an airport's noise contours to enhance awareness and decision-making regarding aircraft noise. This measure would involve the Port Authority providing a Google Earth file (or other readily useable file) of the Accepted LGA 2021 With Program DNL 65, 70, and 75 dB DNL contours to the public for download. The Port Authority could also host a map on its Noise Office website that would include these GIS layers as a downloadable file containing noise contour shapes for easy viewing by interested parties.

Interactive noise contour maps for LGA were developed as part of this Study, containing the 2016 and 2021 NEMs previously accepted by the FAA in 2017. Those maps allow users to determine whether their residence or any other noise-sensitive building is within or outside of the DNL 65 dB contours. They were favorably received when showcased at the LGA draft NEM workshops and subsequently posted for public access on the LGA 14 CFR Part 150 website. It is the Port Authority's intention to maintain public access to these maps. The Port Authority will also provide the Accepted 2021 With Program NEM 65, 70, and 75 dB DNL contours to the local planning agencies with land uses within the contour boundaries.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey.

9. Update the Noise Exposure Map (Page 5-12)

Description: The FAA requires that an airport operator maintain NEMs that reflect current or reasonably projected conditions in order to obtain FAA funding for noise programs. Specifically, 14 CFR Part 150.21(d), states that an airport operator shall “promptly prepare and submit a revised noise exposure map” if any change in the operation of the airport creates a “substantial, new non-compatible use” or a “significant reduction in noise over existing non-compatible uses” that is not reflected on the FAA-accepted NEM on record. The former condition reflects an increase of DNL 1.5 dB in terms of the DNL over non-compatible uses or over uses that are made non-compatible by the noise increase, while the latter condition reflects a reduction of DNL 1.5 dB over uses that were formerly non-compatible but are made compatible by the noise reduction.

Consistent with Part 150 requirements, the Port Authority will evaluate any changes in the noise environment at LGA and notify the FAA whether they believe the NEM continues to be a reasonable representation of current and/or forecast conditions at LGA or submit an updated NEM to the FAA for acceptance. The Port Authority anticipates updating the NEMs when operations at LGA stabilize as the aviation sector continues to recover from the COVID-19 pandemic.

FAA ACTION: APPROVED. The FAA retains discretion to evaluate and determine currency of the NEMs based on information submitted by the Port Authority so long as the Port Authority continues to seek federal funding for implementation of measures approved under 14 CFR Part 150. Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance to update the NEMs.

10. Update the Noise Compatibility Program (Page 5-14)

Description: 14 CFR Part 150.23(e)(9), states that NCPs must include a “[p]rovision for revising the program if made necessary by revision of the noise exposure map.” This may occur if a significant change is identified that results in a revision to the NEMs. Examples of changes are a large addition of non-compatible land uses, or new elements required to achieve land use compatibility. The NCP does not require an update with each NEM update. The Port Authority proposes updating the NCP only when additional measures and/or modified measures are required to reduce non-compatible land use in accordance with an updated NEM.

FAA ACTION: APPROVED. The FAA retains discretion to recommend updates to the NCP as a whole or to individual measures at such time that revised NEMs are submitted by the Port Authority and so long as the Port Authority continues to seek federal funding for implementation of measures approved under 14 CFR Part 150. Approval of this measure is not a commitment of future federal funding under any grant-in-aid program administered by the FAA. Final determinations regarding eligibility and funding will be made at such time the Port Authority submits requests for federal financial assistance to update the NCPs.

11. Post Monthly Color-Coded DNL Values on Port Authority Website (Page 5-15)

Description: Noise monitoring reports with color-coded values could help the public, land use planning agencies, and other stakeholders easily understand the noise environment in the vicinity of LGA to enhance awareness and decision-making regarding aircraft noise. This measure would involve the Port Authority providing noise monitoring reports with monthly DNL values for each noise monitor that are coded with different colors based on which ranges the values fall into, such as DNL 60.0 to 64.9 dB, DNL 65 to 69.9 dB, and so on. Noise monitoring reports with color-coded values are currently available on the Port Authority's aircraft noise website. It is the Port Authority's intention to continue providing these reports.

FAA ACTION: APPROVED. Implementation of this continued measure is considered to be within the authority of the Port Authority of New York and New Jersey.

12. The Port Authority to Coordinate with the FAA on Development and Implementation of NextGen Procedures (Page 5-16)

Description: The FAA's NextGen implementation involves managing flight procedures for numerous airports in the region and is not specific to LGA. The Port Authority is a member of the NextGen Advisory Committee (NAC), a federal advisory committee that makes recommendations to the FAA regarding the possible implementation of NextGen in the New York/New Jersey/Philadelphia airspace; this includes air traffic and airspace management recommendations. As a collaborating member of the NAC, the Port Authority can advance measures for further FAA evaluation by either directly engaging with the FAA's NY Terminal Radar Approach Control (TRACON) or submitting measures to the NAC for its consideration. This measure proposes the continuation of the Port Authority's role on the NAC and to consider dispersal headings or other lateral track variations pursuant to Section 175 of the FAA Reauthorization Act of 2018 when the FAA is evaluating new or amended area navigation departure procedures under NextGen.

FAA ACTION: APPROVED.