PORT AUTHORITY NY NJ

Part 150 Noise Abatement Measures

April 23, 2023

AIR LAND RAIL SEA

Airport Noise Compatibility Planning Part 150 Overview

A Part 150 study is a voluntary study conducted by airports under guidance from the Federal Aviation Administration (FAA) to address airport noise and land use compatibility.

Two phases:

1. Noise Exposure Map (NEM)
   - Aircraft noise exposure
   - Land use compatibility

2. Noise Compatibility Program (NCP)
   - Measures to improve land use compatibility including:
     - Noise abatement measures
     - Land use (noise mitigation) measures
     - Program management measures

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NCP Timeline

LGA

- Final NCP was submitted to the FAA on June 15th, 2022
- NCP's approved by the FAA on December 15th, 2022
- Federal Register Notice was published on December 21st, 2022

JFK

- Final NCP was submitted to the FAA on September 6th, 2022
- NCP's approved by the FAA on March 14th, 2023
- Federal Register Notice was published on March 20, 2023

Part 150 Website: Aircraft Noise Compatibility Planning Study - Aircraft Noise

LGA NEM Map

Legend

- Airport Property Line
- Airport Easement Line
- Airport Runways
- Major Highways
- Highways
- Major Roads
- County Boundary

DNL Contours

- 2021 Revised Contours
- 2021 FAA-Accepted Contours

Future Land Use

- 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
- Vacant Land
- Unclassified

LaGuardia Airport 14 CFR Part 150 Study . 140037

Figure 2-1

2021 FAA-Accepted and Revised Noise Exposure Map DNL Contours LaGuardia Airport

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JFK NEM Map

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, 2016; ESRI Mapping Services.

John F. Kennedy International Airport 14 CFR Part 150 Study.140037

Figure 5-2
2021 DNL Contours
John F. Kennedy International Airport

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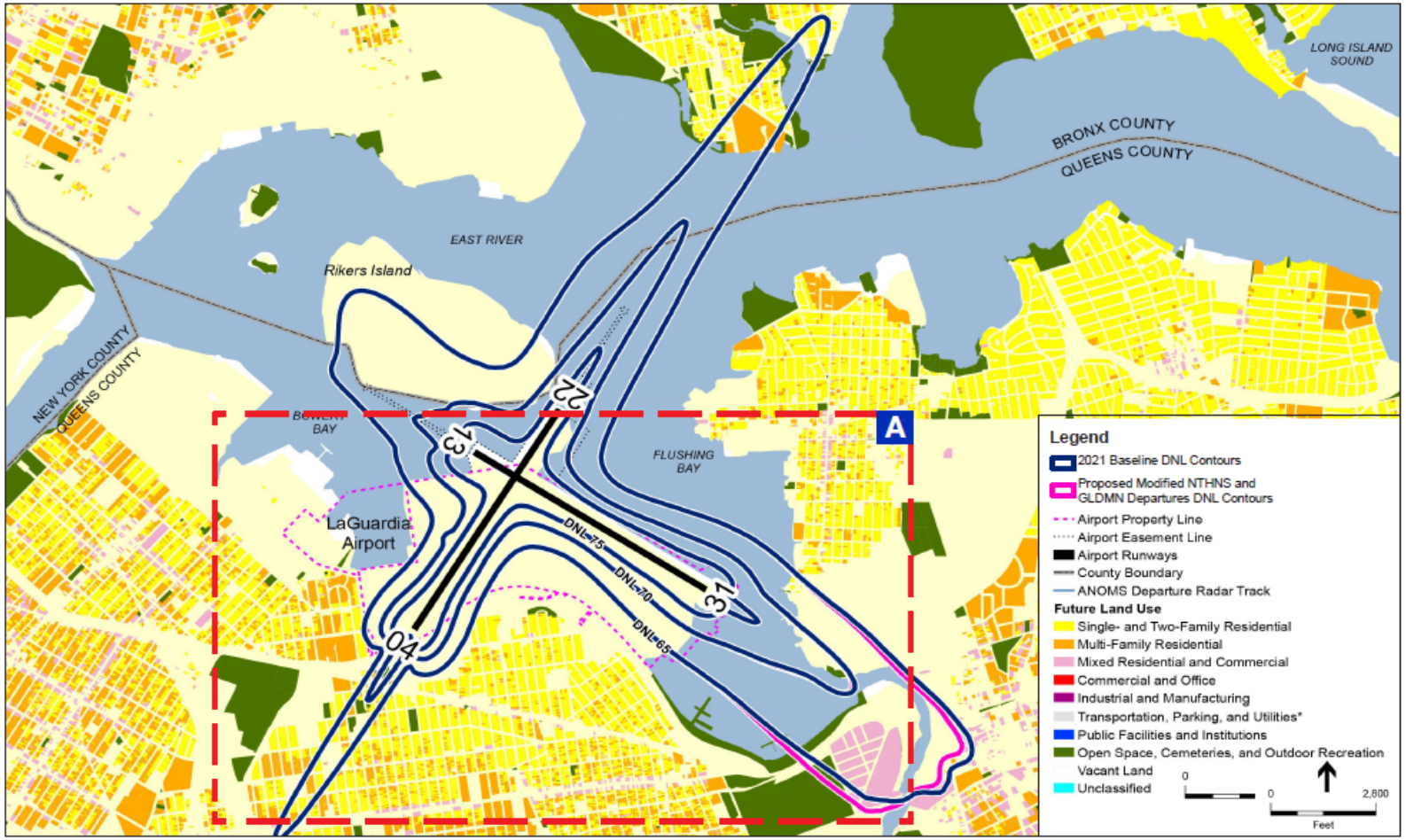
LGA ROA Summary

Noise abatement measures:

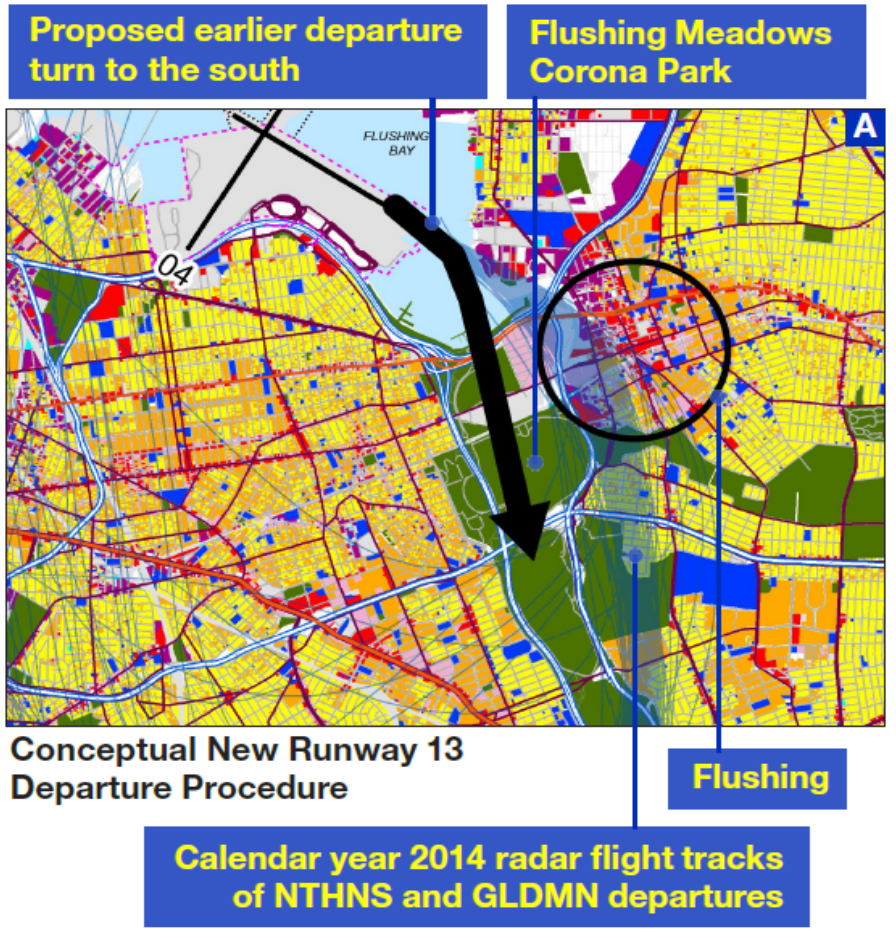
NA 1: Modify NTHNS and GLDMN Runway 13 RNAV SIDs to Direct Aircraft Away from Flushing, New York	Approved/Implemented and Tracking in FQP
NA 3: Implement Offset Approach to Runway 22 to Reduce Noise Exposure Over Clason Point	Approved/Implemented and Tracking in FQP
NA 4: Reduce Runway 4 Departure Noise Over Clason Point	Approved/In development by FAA
NA 5: Reduce Runway 13 Departures at Night	Approved/In development by FAA
NA 6: Implement Noise Abatement Departure Profiles (NADPs) on a Voluntary Basis for Runways 4 and 13	Disapproved for Purposes of Part 150/Implemented through FQP
NA 8: Continue Existing Mandatory Departure Noise Limit	Existing

These noise abatement measures were approved because they showed noise benefits inside the 65 DNL contour

Noise Abatement Measure 1 – Modify NTHNS and GLDMN Runway 13 RNAV SIDS to Direct Aircraft Away from Flushing – Implemented and Tracking in FQP



2021 Baseline NEM and New Runway 13 Departure Procedure DNL 65, 70, and 75 Contours



Conceptual New Runway 13 Departure Procedure

Calendar year 2014 radar flight tracks of NTHNS and GLDMN departures

Estimated reduction of 309 people and 114 dwelling units from the DNL 65 contour.

RNAV = Area Navigation; SID = Standard Instrument Departure

*This measure is already in place (Published May 21, 2020)

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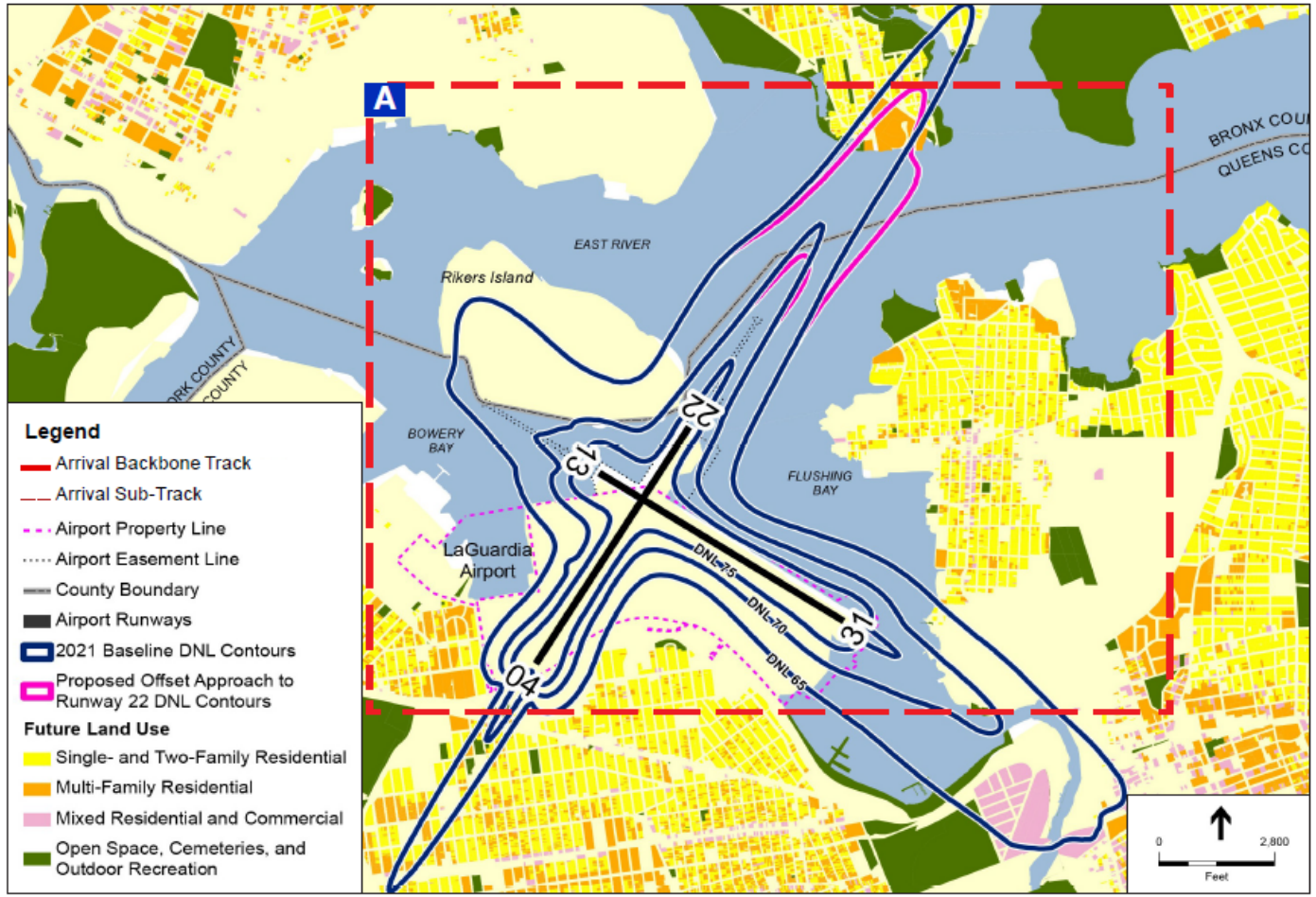
Noise Abatement Measure 3 – Implement Offset Approach to Runway 22 to Reduce Noise Exposure over Clason Point – Implemented and Tracking in FQP



2021 Baseline NEM and Offset Approach to Runway 22 DNL 65, 70, and 75 Contours

Offset RNAV approach track of 239° magnetic heading until intercept with extended centerline of Runway 22

Proposed Offset Approach to Runway 22

Extended centerline of Runway 22 magnetic heading 224°

Estimated reduction of up to 159 people and 53 dwelling units from the DNL 65 contour

*This measure is already in place (published October 7, 2021)

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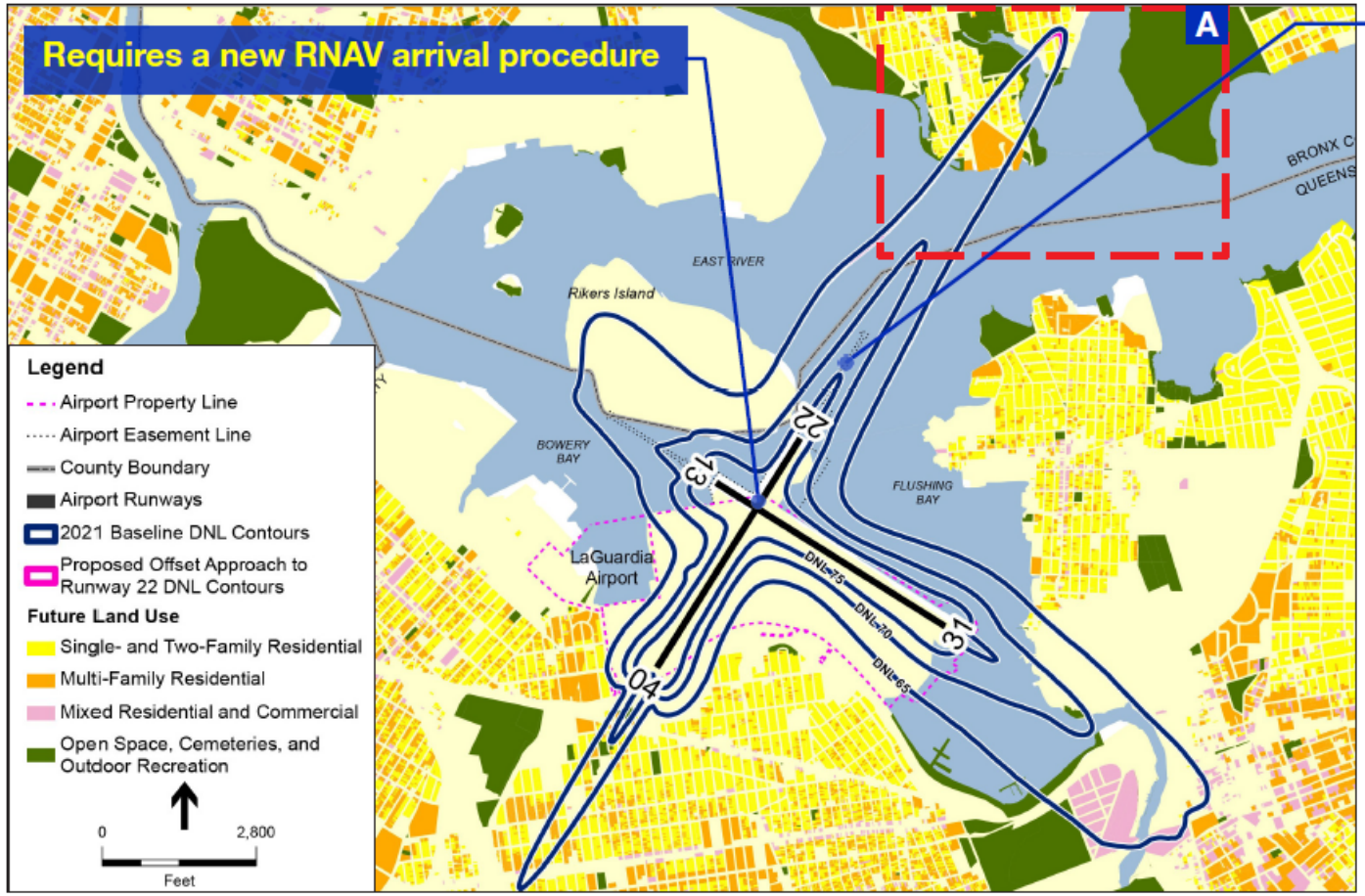
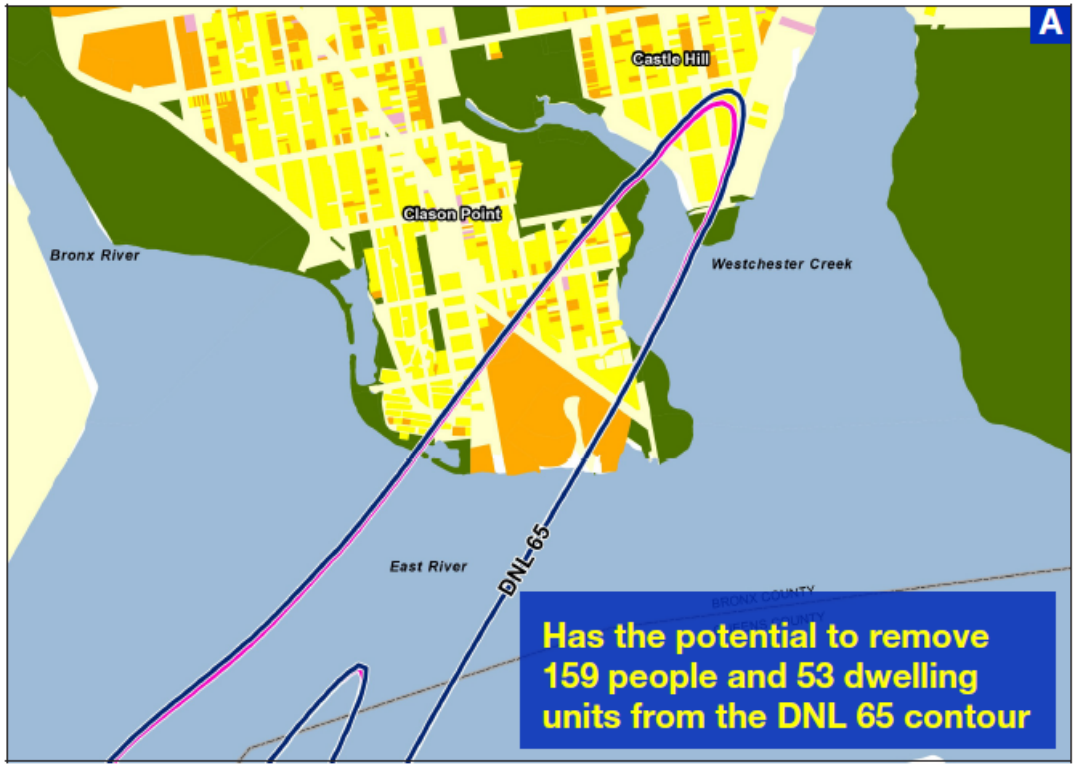
Noise Abatement Measure 4 – Reduce Runway 4 Departure Noise over Clason Point – In development by FAA



2021 Baseline NEM and Modified Runway 4 Departure Heading DNL 65, 70, and 75 Contours

Approximately 2.5% of heading 040° daytime and nighttime departures were reassigned to the 055° heading



2021 Baseline NEM and Modified Runway 4 Departure Heading DNL 65, 70, and 75 Contours over Clason Point

Estimated reduction of up to 2,062 people and 730 dwelling units from the DNL 65 contour

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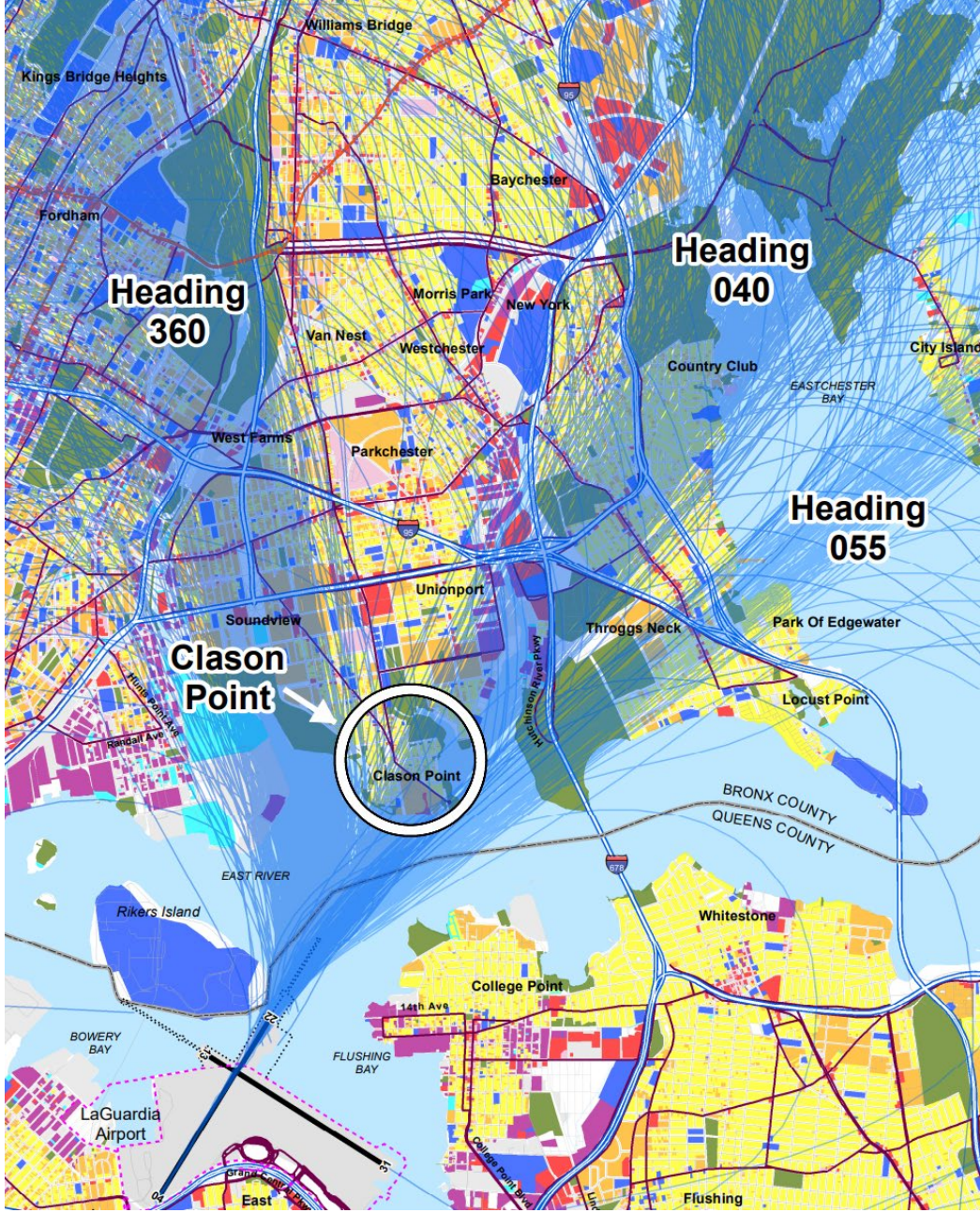
LGA NA 4 - Reduce Runway 4 Departure Noise Over Clason Point

The main goal with this measure is to reduce 040 headings and reassign them to 055 headings



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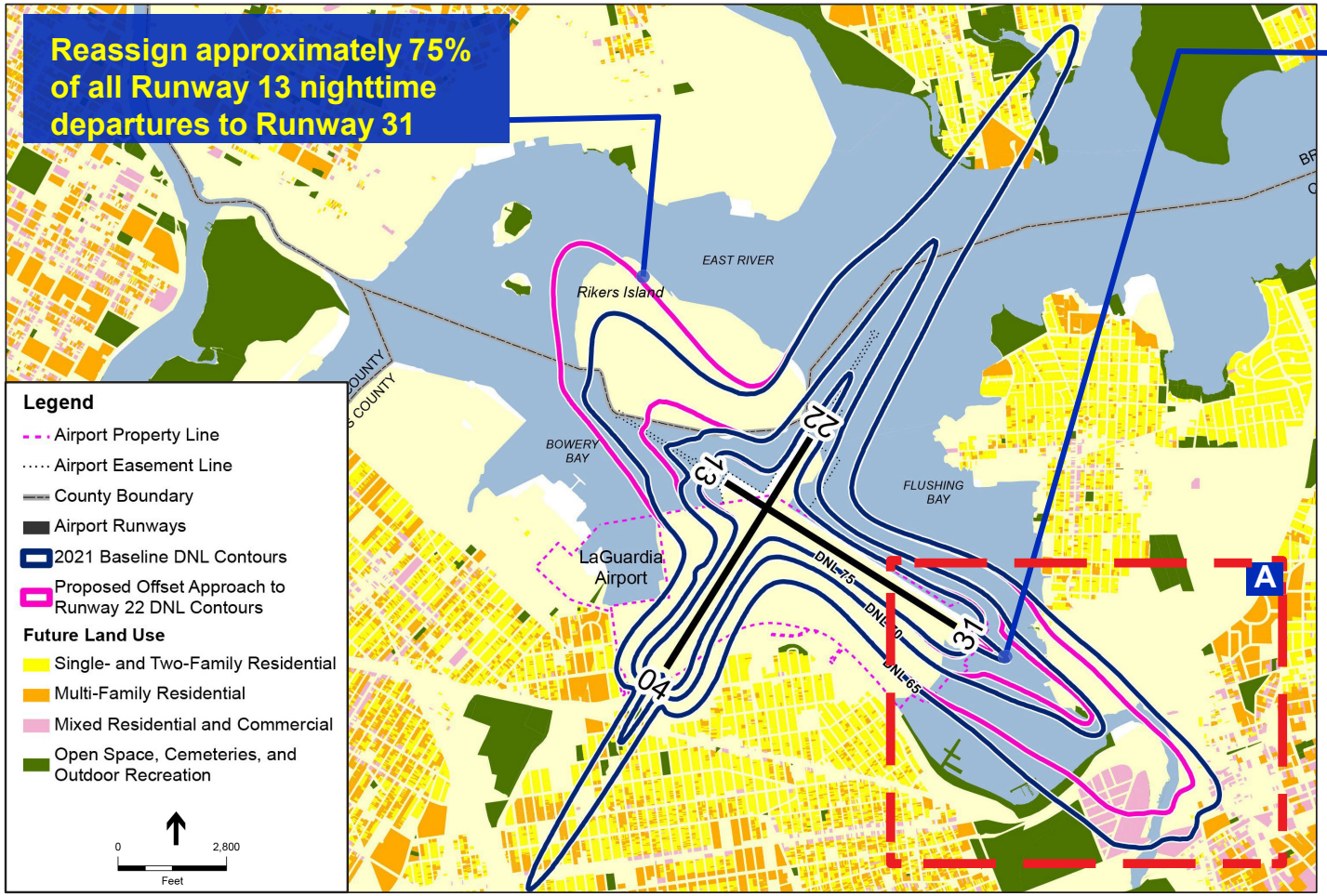
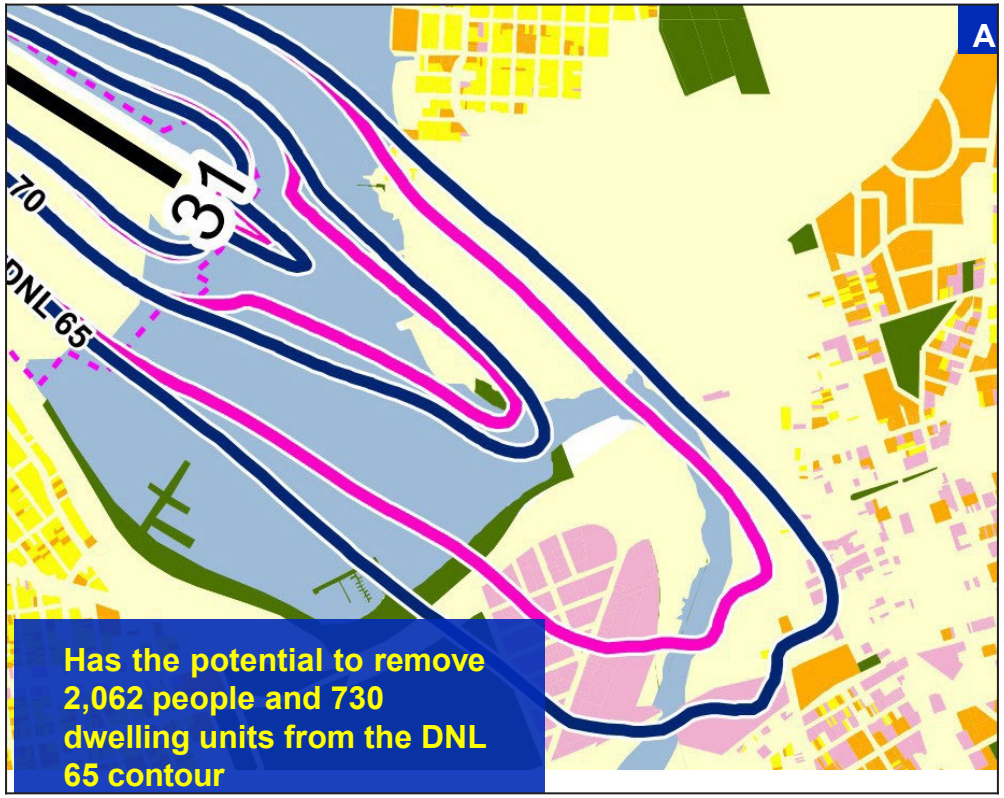
Noise Abatement Measure 5 – Reduce Runway 13 Departures at Night – In development by FAA

Reassign approximately 75% of all Runway 13 nighttime departures to Runway 31



2021 Baseline NEM and Reduced Runway 13 Night Departures DNL 65, 70, and 75 Contours

Not all Runway 13 nighttime departures can be eliminated due to wind/weather patterns that support aircraft safety and performance



Has the potential to remove 2,062 people and 730 dwelling units from the DNL 65 contour

2021 Baseline NEM and Reduced Runway 13 Night Departures DNL 65, 70, and 75 Contours over Flushing

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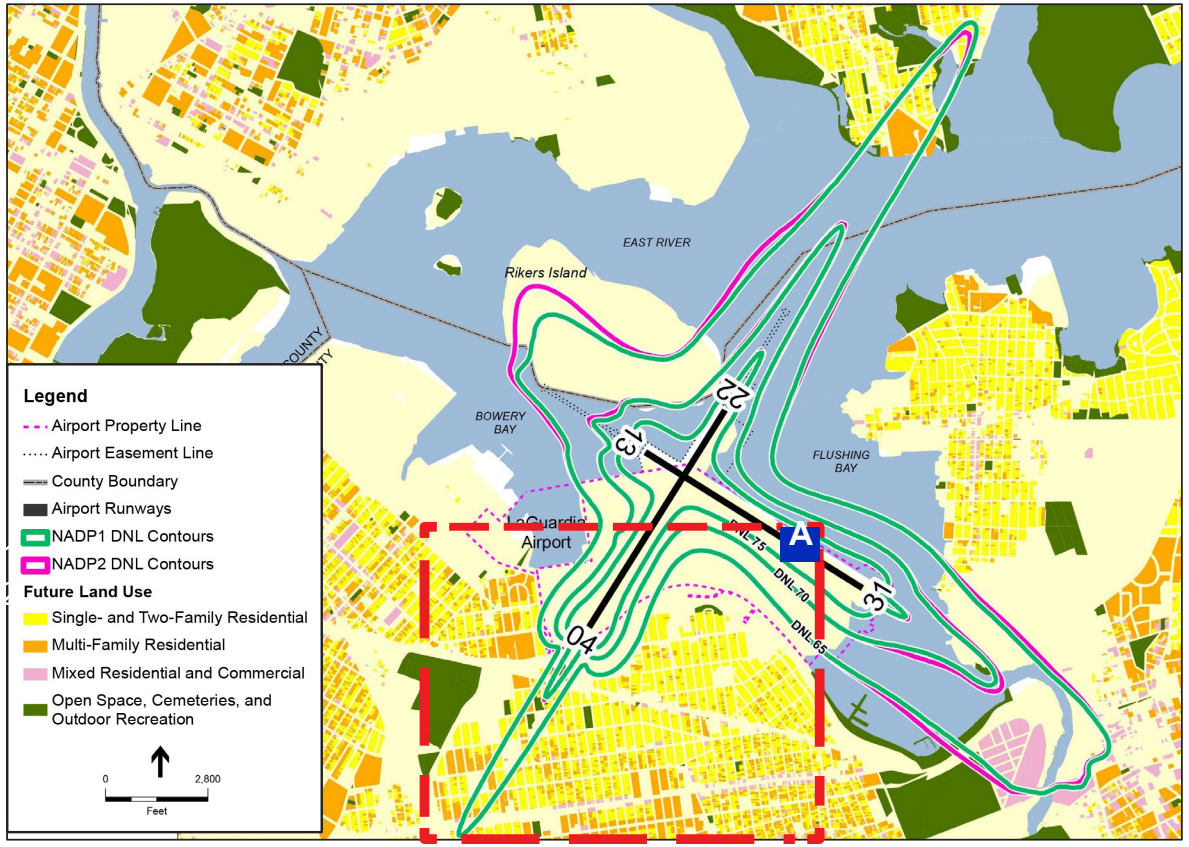
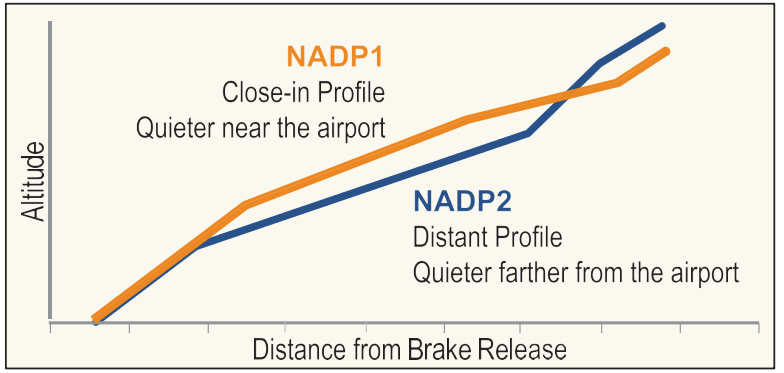
Noise Abatement Measure 6 – Implement Noise Abatement Departure Profiles (NADPs) on a Voluntary Basis for Runways 4 and 13 – Implemented in FQP

NADP1 and NADP2 DNL 65, 70, and 75 Contours



DNL contours reflect the top nine aircraft types expected to operate at LGA in 2021 (approximately 90% of all Airport departures) utilizing NADP1 and NADP2 Profiles

Altitude vs. Distance Profiles for Typical NADP1 and NADP2 Departure Profiles



NADP2 was recommended for Runway 4

NADP1 was recommended for Runway 13

NADP1 and NADP2 DNL 65, 70, and 75 Contours over Jackson Heights and Ditmars Steinway

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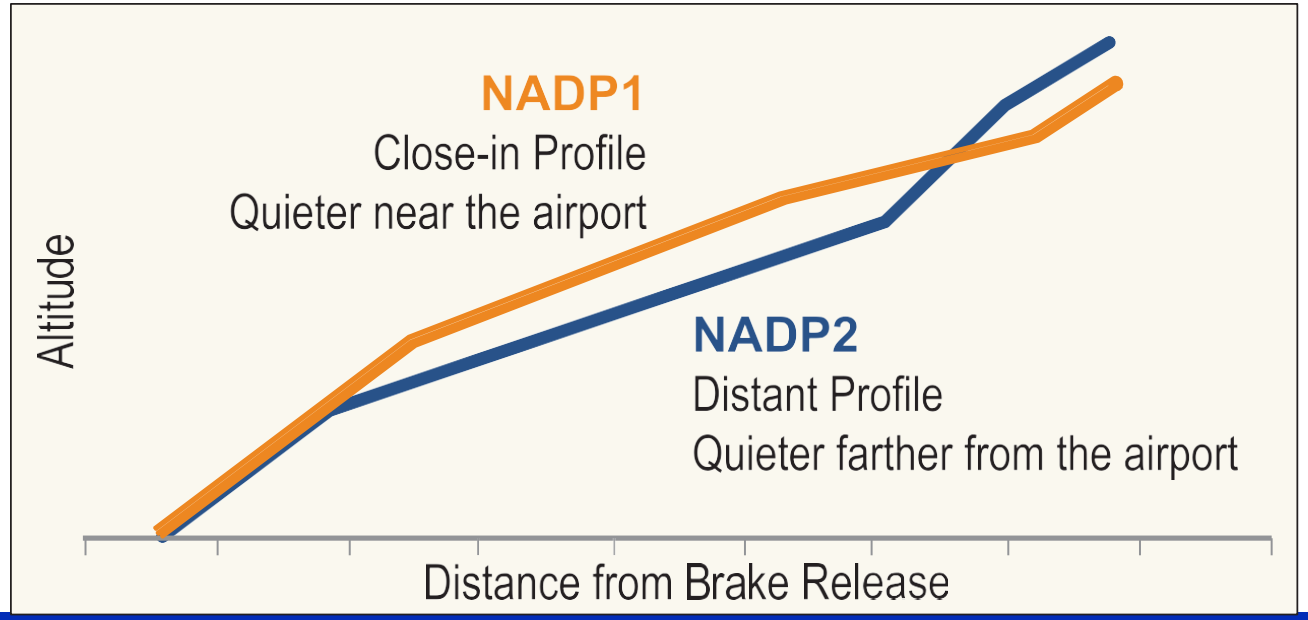
Noise Abatement Measure 5 – Implement Noise Abatement Departure Procedure on a Voluntary Basis for Each Runway End

LGA Noise Abatement Departure Profiles (NADP)	
4	NADP2
13	NADP1



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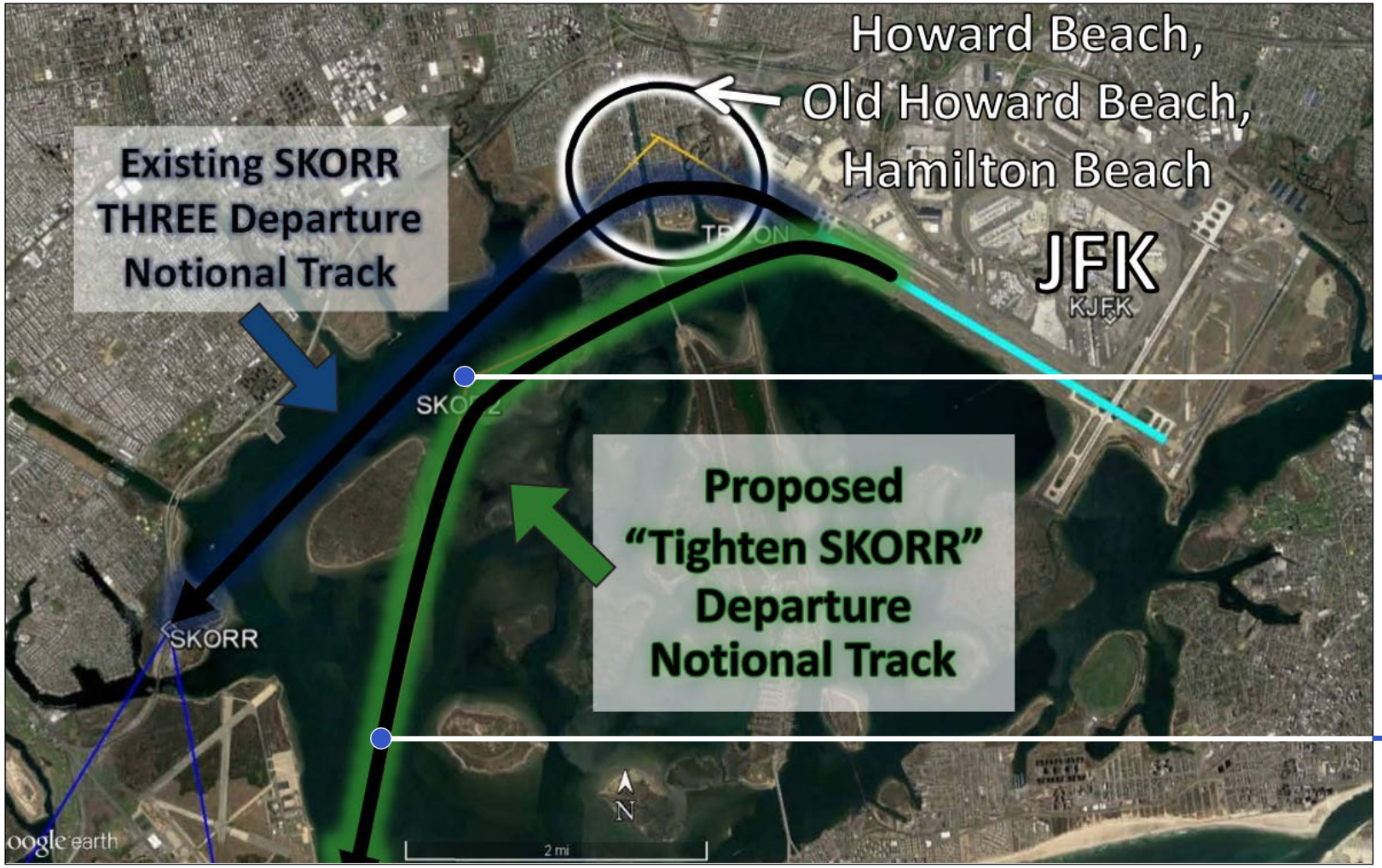
JFK ROA Summary

Noise abatement measures:

NA 1: Implement “Tighten SKORR” Departure Procedure	Approved/In development by FAA
NA 2: Turn Runway 22L and 22R Departures to Heading 240 at Night	Approved/Implemented and Tracking in FQP
NA 3: Reduce Runway 31L Intersection Departures at Night	Approved/Implemented and Tracking in FQP
NA 4: Combine “Tighten SKORR” Departure Procedure with Reduce Runway 31L Intersection Departures at Night	Approved
NA 5: Implement Noise Abatement Departure Procedure on a Voluntary Basis for Each Runway End	Disapproved for purposes of part 150/Implemented through FQP
NA 7: Continue Existing Mandatory Departure Noise Limit and $250 Penalty	Existing

These noise abatement measures were approved because they showed noise benefits inside the 65 DNL contour

Noise Abatement Measure 1 – Implement "Tighten SKORR" Departure Procedure –In Development by FAA



The "Tighten SKORR" departure procedure is proposed to reduce aircraft overflights of Howard Beach, Old Howard Beach, and Hamilton Beach (in Queens)

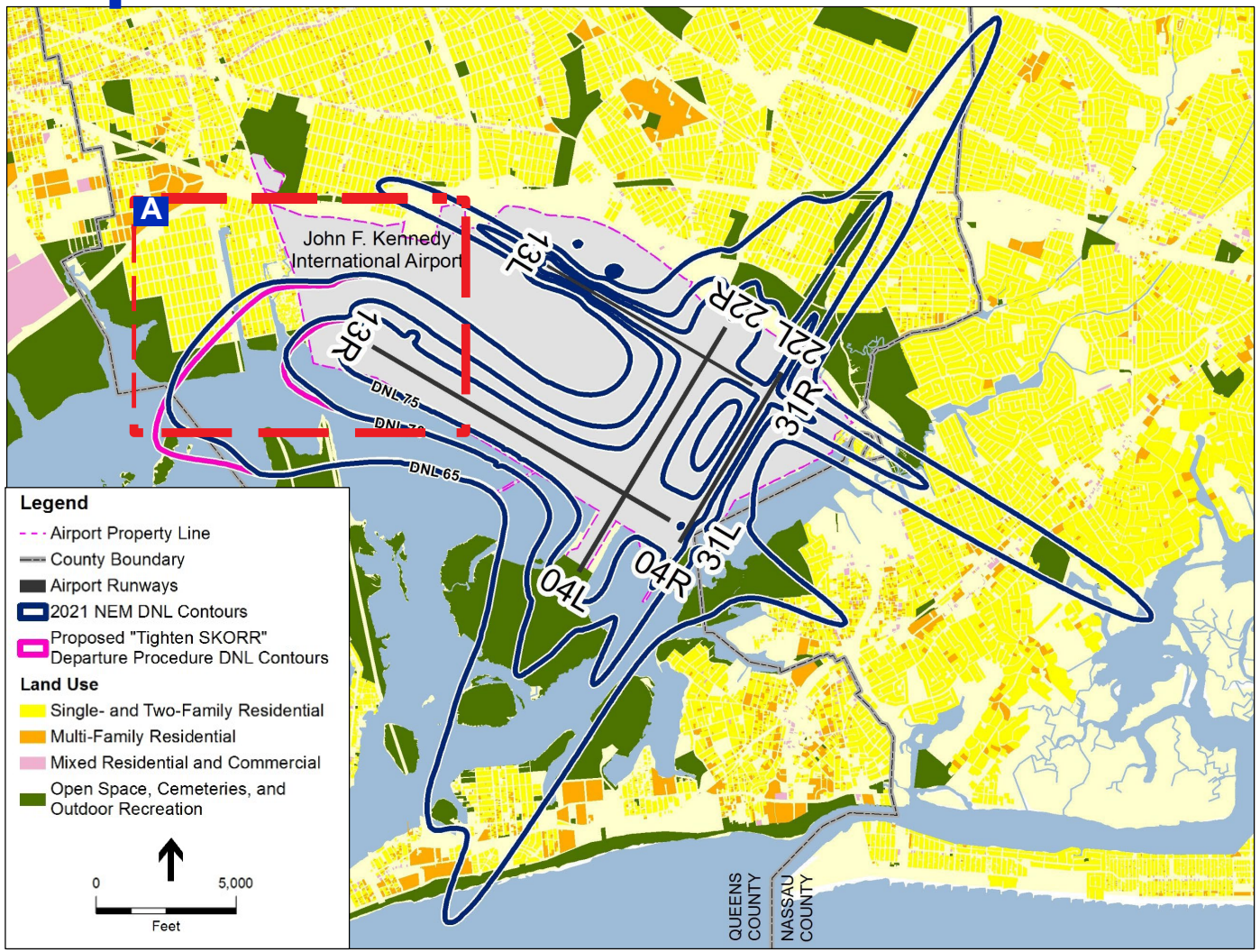
Moves SKORR waypoint to Jamaica Bay

Aircraft depart over the water rather than areas with residential land use

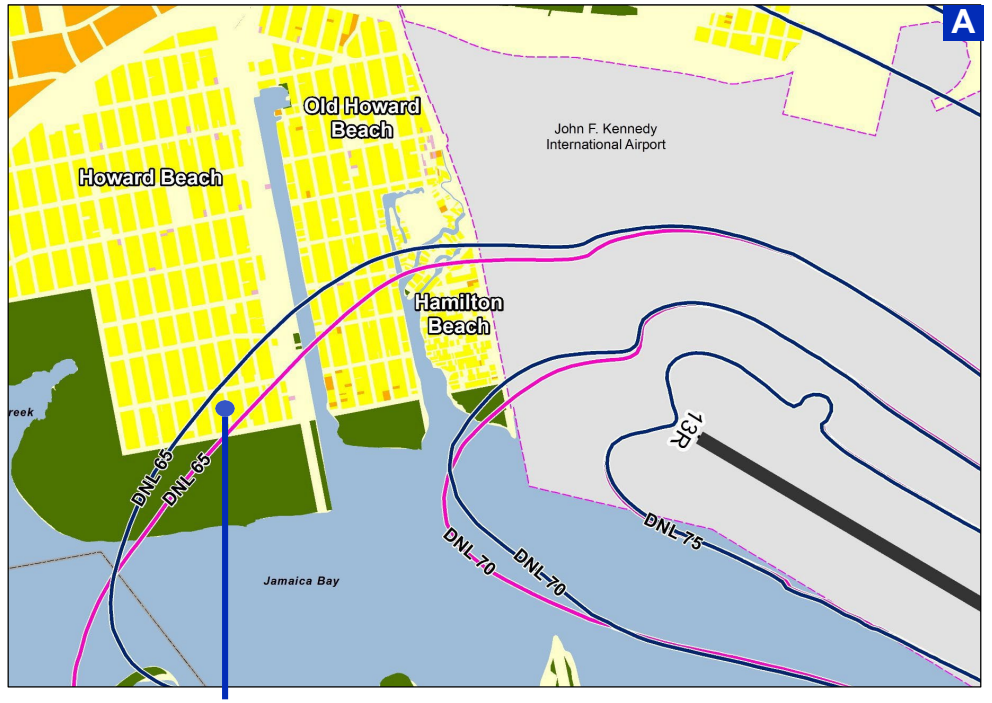
Existing SKORR THREE and Proposed "Tighten SKORR" Notional Tracks - Example for Runway 31L

See Section 2.2 of the JFK NCP for more information.

Noise Abatement Measure 1 – Implement "Tighten SKORR" Departure Procedure



DNL 65, 70, and 75 Contours - 2021 NEM and "Tighten SKORR" Departure Procedure

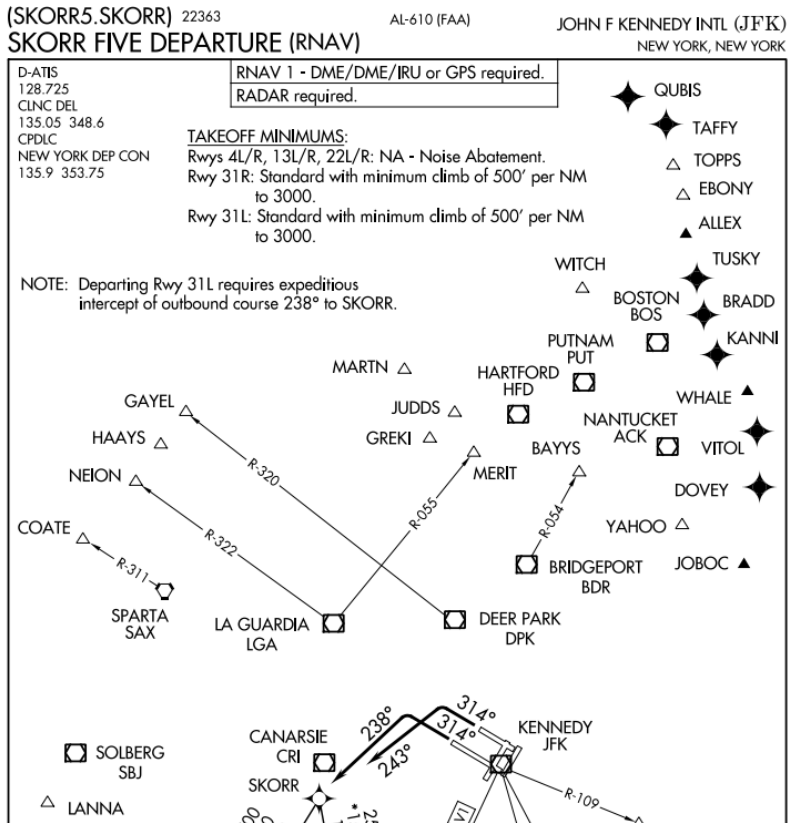


DNL 65, 70, and 75 Contours - 2021 NEM and "Tighten SKORR" Departure Procedure over Howard Beach, Old Howard Beach, and Hamilton Beach

Has the potential to remove 923 people and 351 dwelling units from the DNL 65 contour

See Section 2.2 of the JFK NCP for more information.

Noise Abatement Measure 1 – SKORR Status



- FAA provided a presentation to the JFK Airport Committee at the December 2023, on an interim solution for this measure since the full procedure development and implementation could take several years.

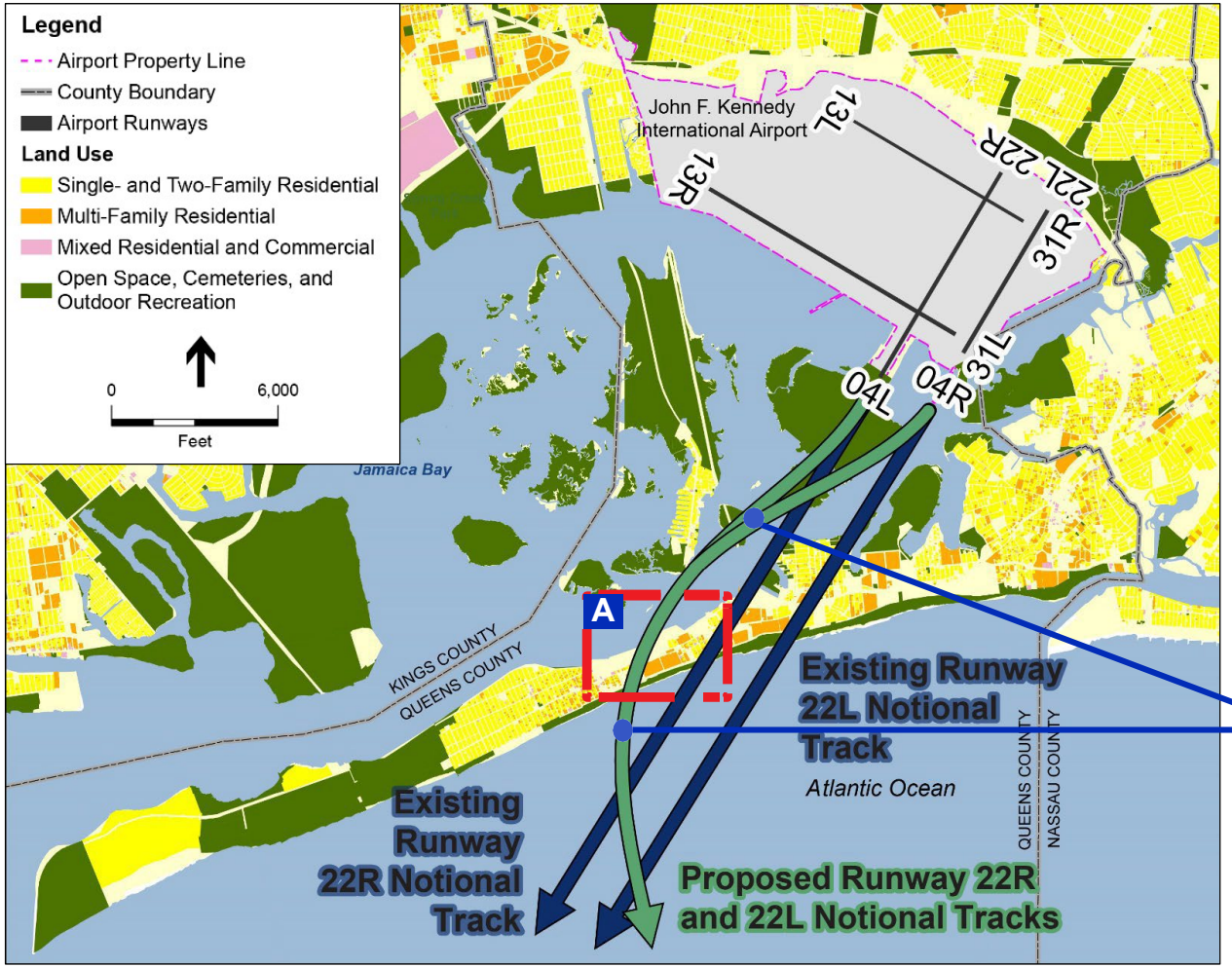
- An interim fix to help reduce noise for Howard Beach, Old Howard Beach, and Hamilton Beach communities involved adding a note to the flight chart to advise pilots to turn as soon as possible to intercept the course to SKORR when departing RWY31L.

  "DEPARTING RWY 31L REQUIRES EXPEDITIOUS INTERCEPT OF OUTBOUND COURSE 238 DEGREES TO SKORR." or *Asking flight crews to start turn to intercept 238 course as soon as speed & altitude will safely allow. This will help avoid flying over some of the residential area.*

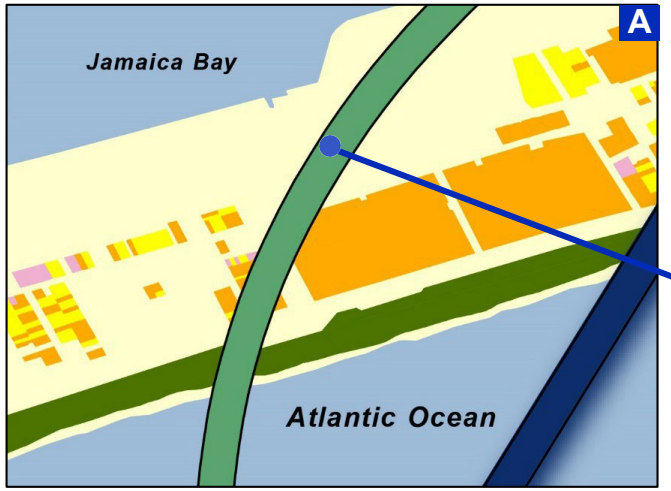
- The interim measure was published on December 29th, 2022

- **Anticipated publication date by the FAA is August 2025**

Noise Abatement Measure 2 – Turn Runway 22L and 22R Departures to Heading 240 at Night – Implemented



Turn Runway 22L and 22R Departures to Heading 240 at Night



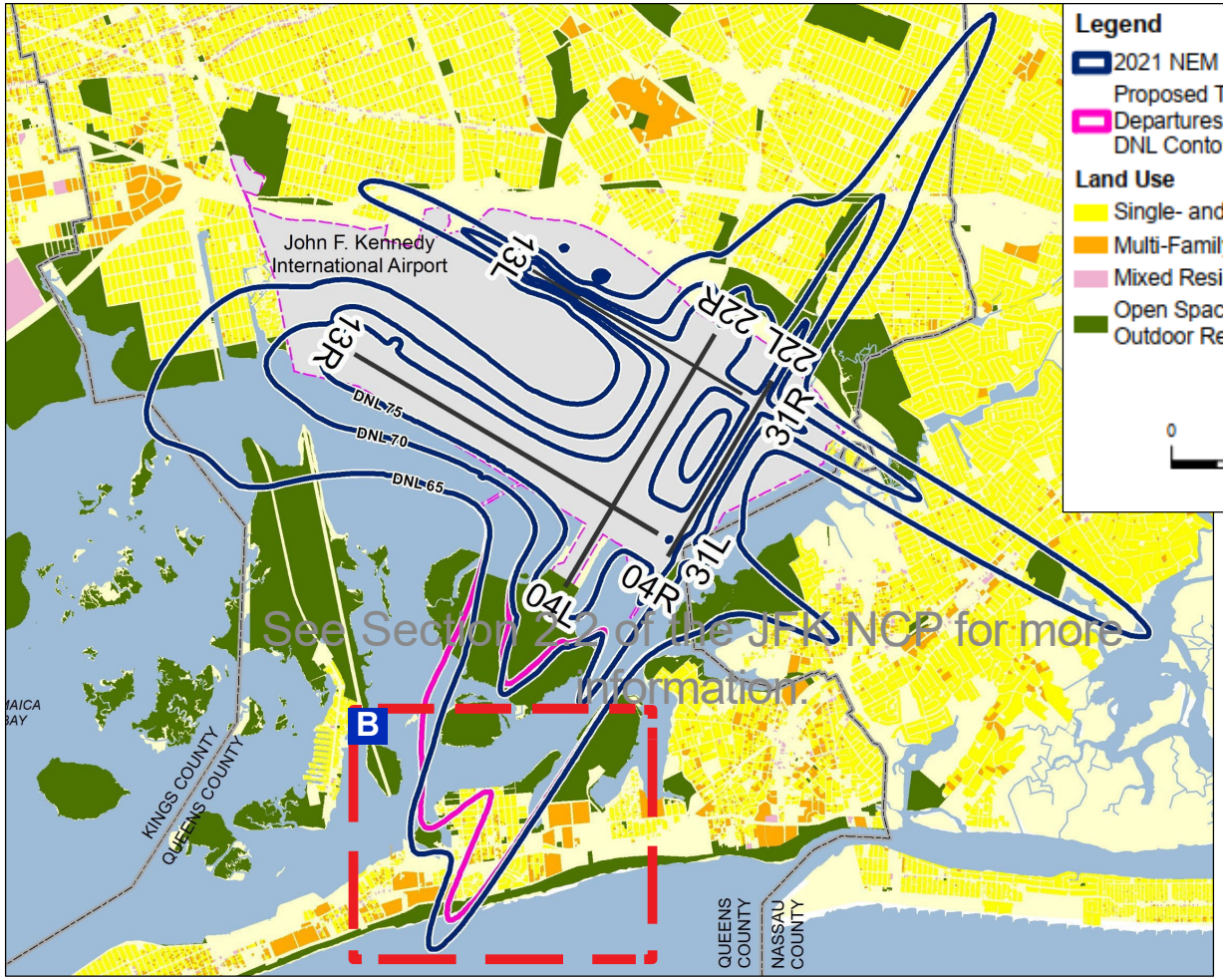
Turn Runway 22L and 22R Departures to Heading 240 at Night over The Rockaways

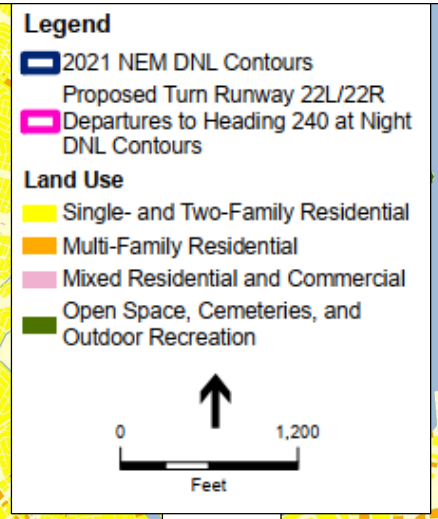
Proposed track flies over area with less residential land use

Aircraft departing from Runways 22L and 22R would make a right turn to magnetic heading 240 shortly after takeoff, then a left turn to overfly The Rockaways

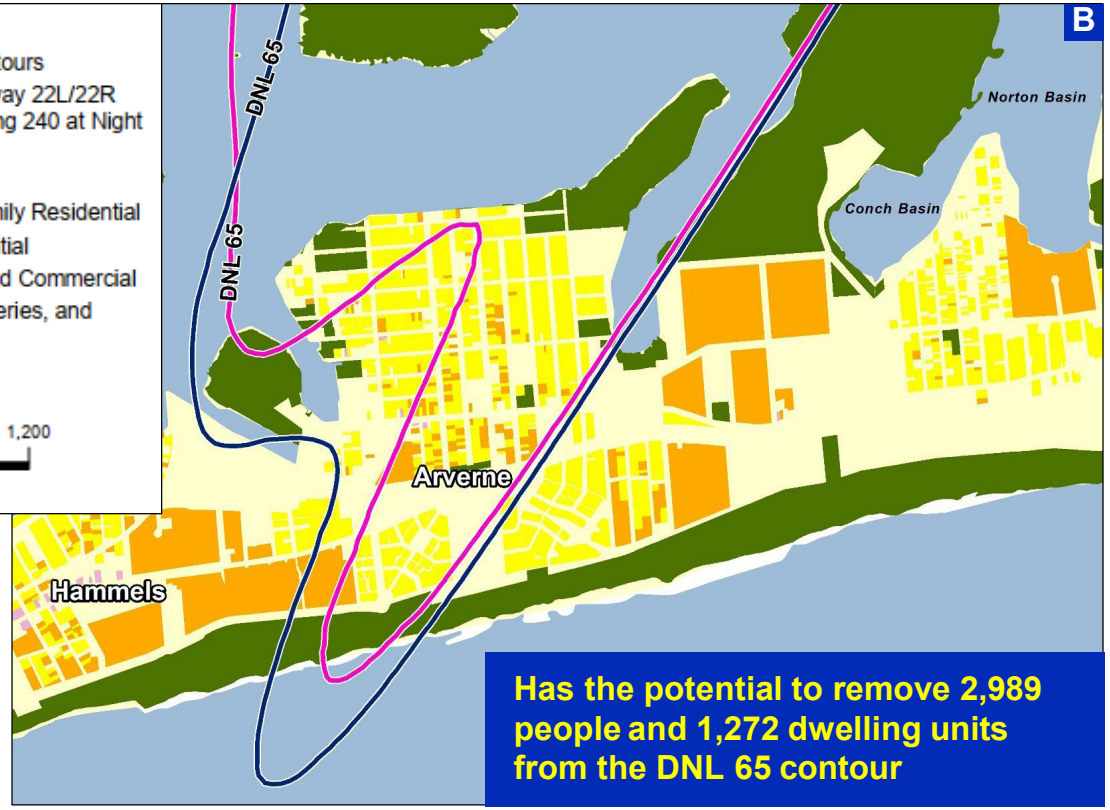
See Section 2.2 of the JFK NCP for more information.

Noise Abatement Measure 2 – Turn Runway 22L and 22R Departures to Heading 240 at Night





DNL 65, 70, and 75 Contours - 2021 NEM and Turn Runway 22L/22R Departures to Heading 240 at Night



Has the potential to remove 2,989 people and 1,272 dwelling units from the DNL 65 contour

DNL 65, 70, and 75 Contours - 2021 NEM and Turn Runway 22L/22R Departures to Heading 240 at Night over Arverne and Hammels

See Section 2.2 of the JFK NCP for more information.

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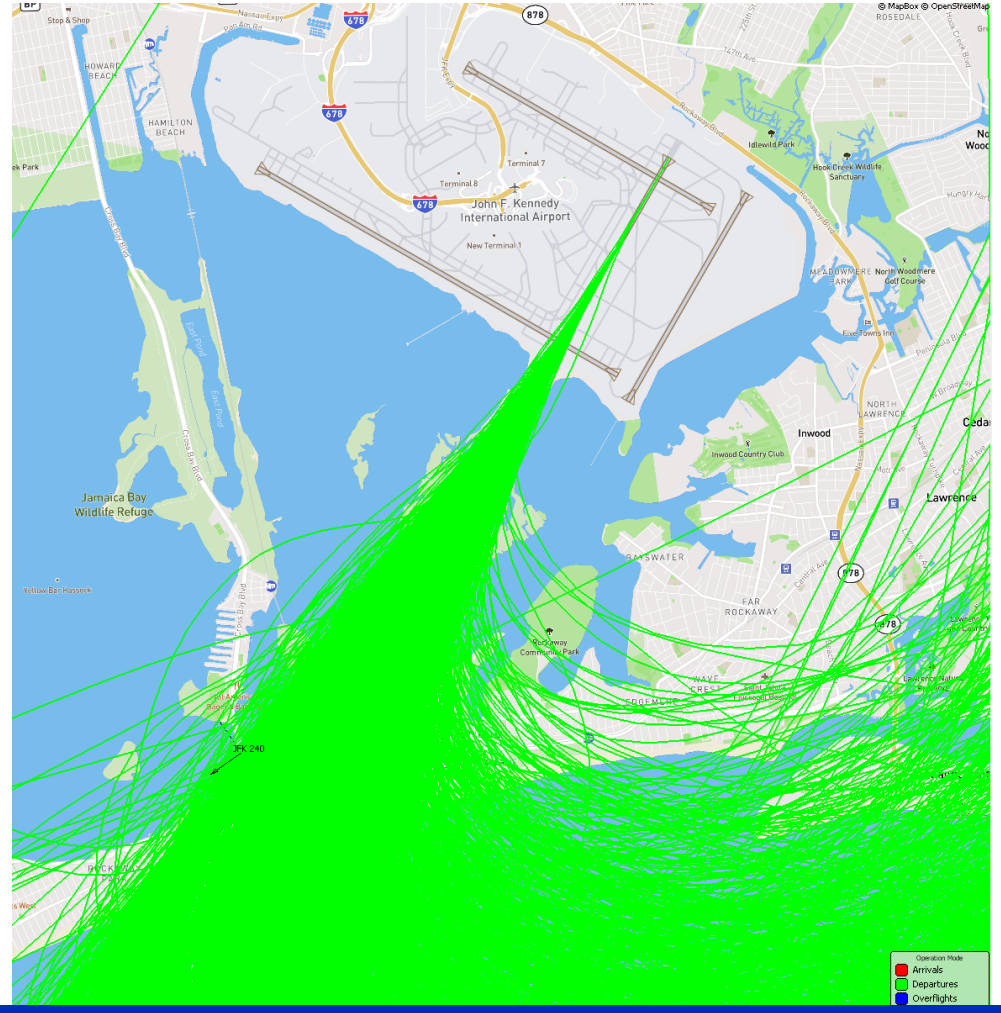
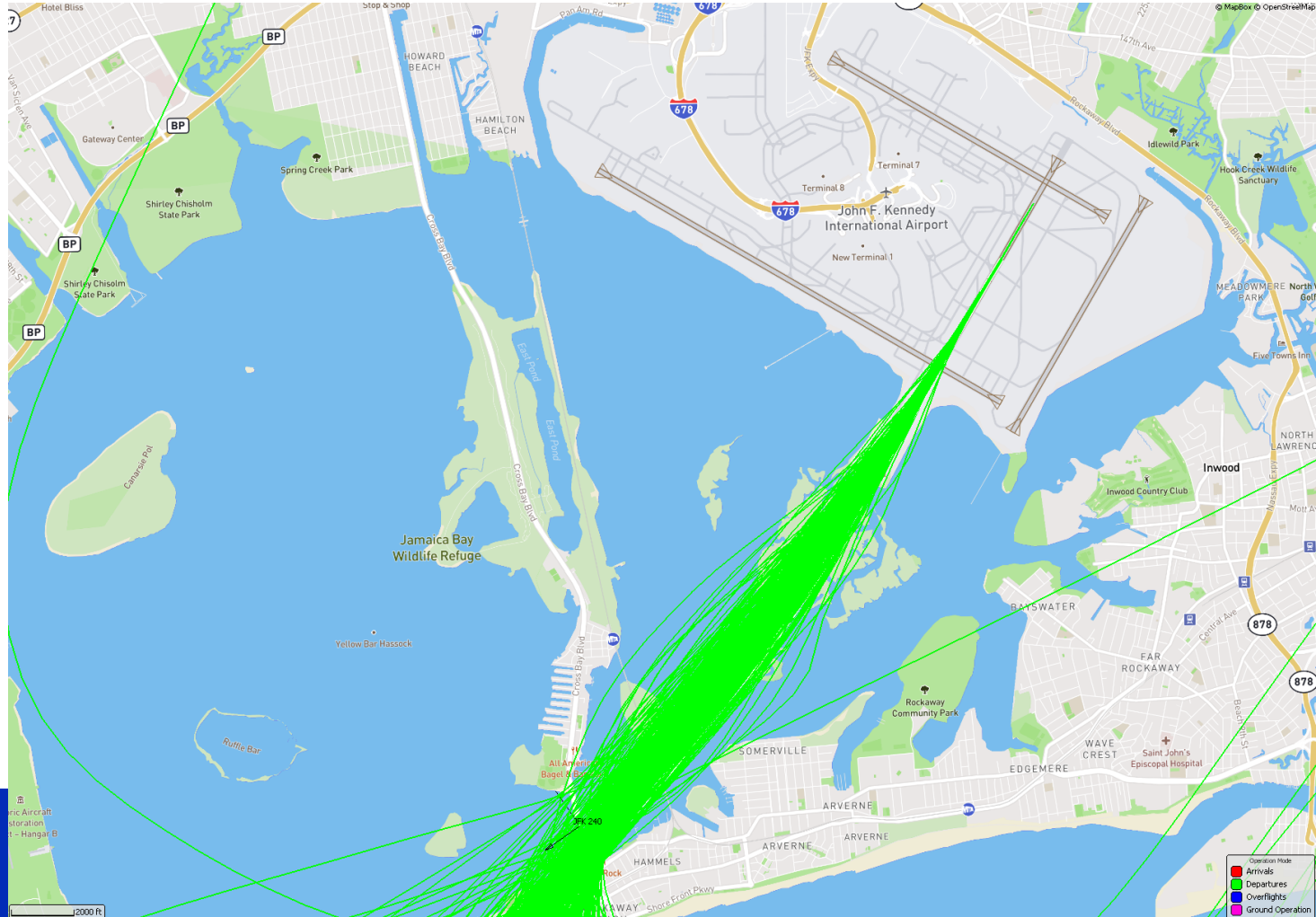
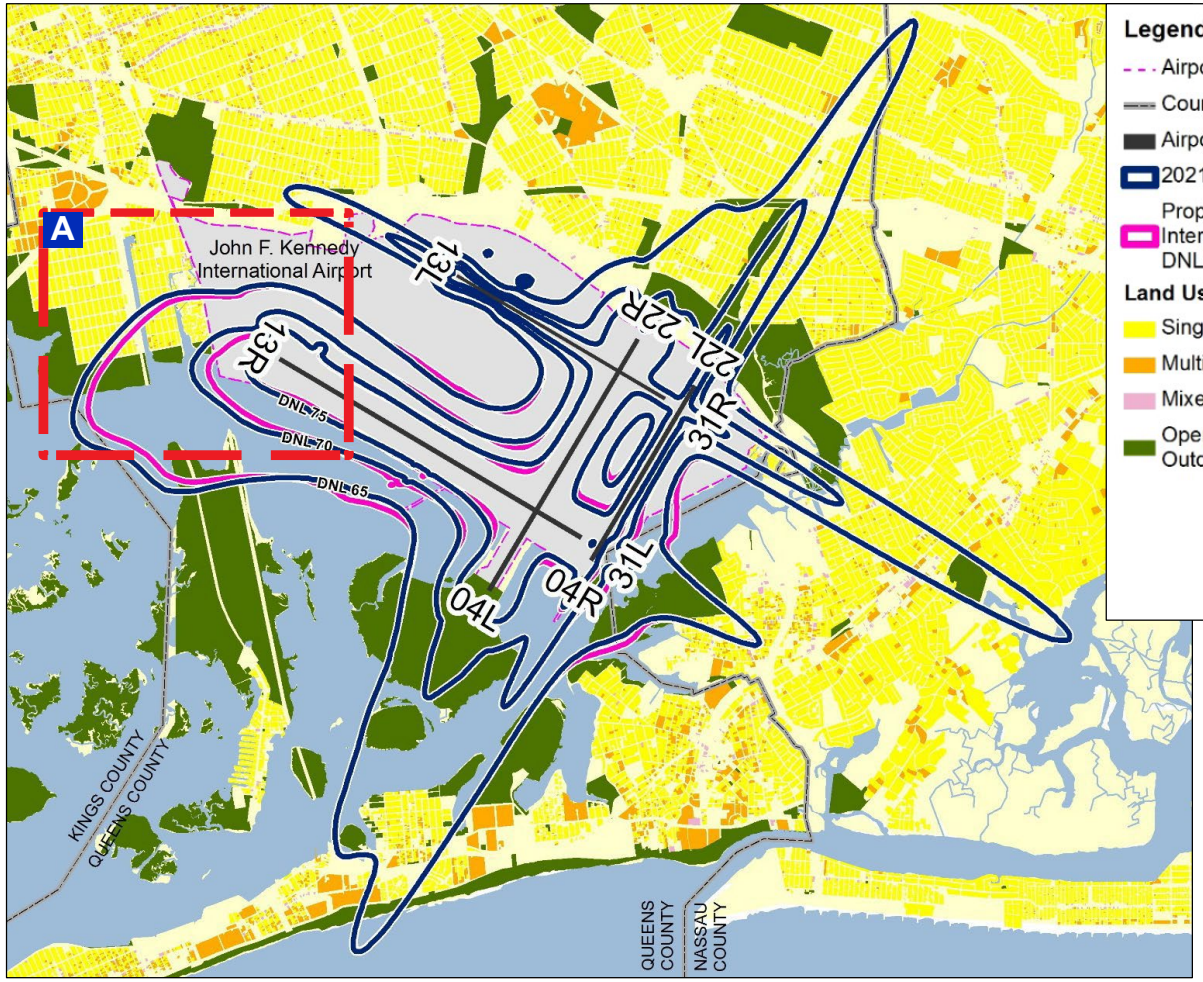
JFK NA 2 - Turn Runway 22L and 22R Departures to Heading 240 at Night



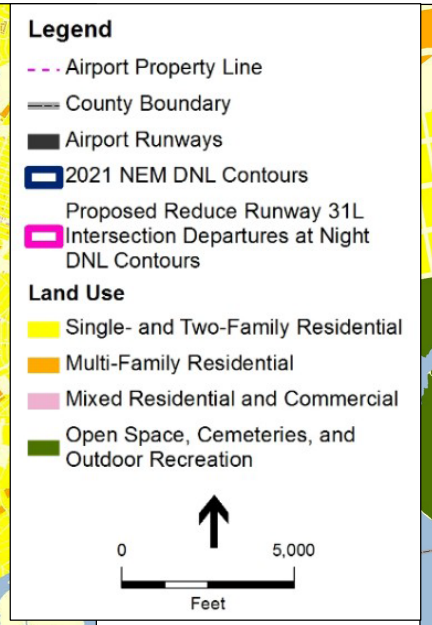
- October 1st – April 1st (10 PM - 6 AM)
- Percentage usage is 16% (P150 Modeled percentage: 50%)

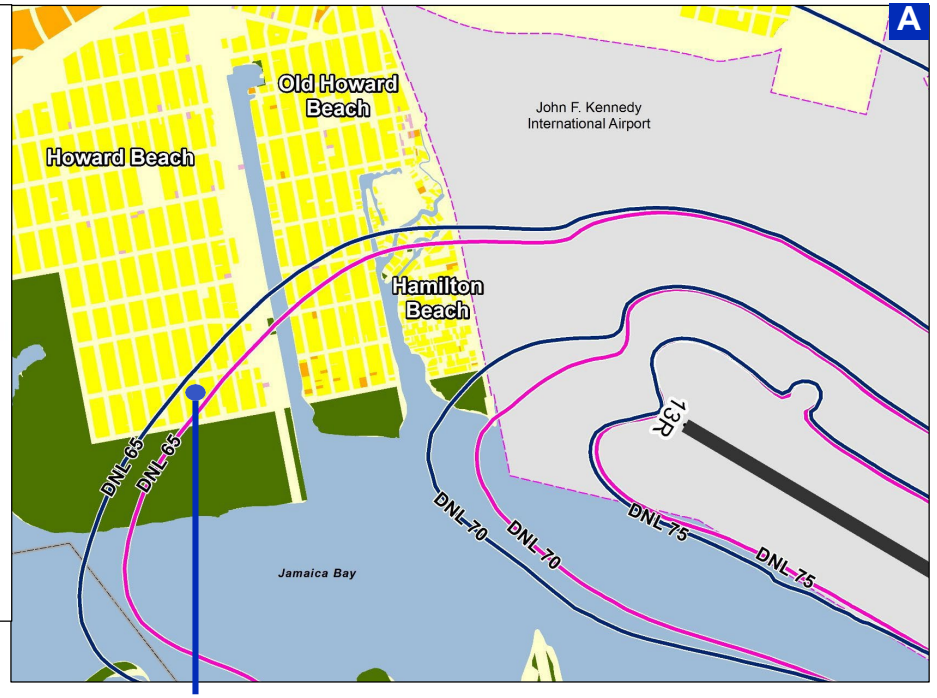


Noise Abatement Measure 3 – Reduce Runway 31L Intersection Departures at Night – Implemented



DNL 65, 70, and 75 Contours - 2021 NEM and Reduce Runway 31L Intersection Departures at Night





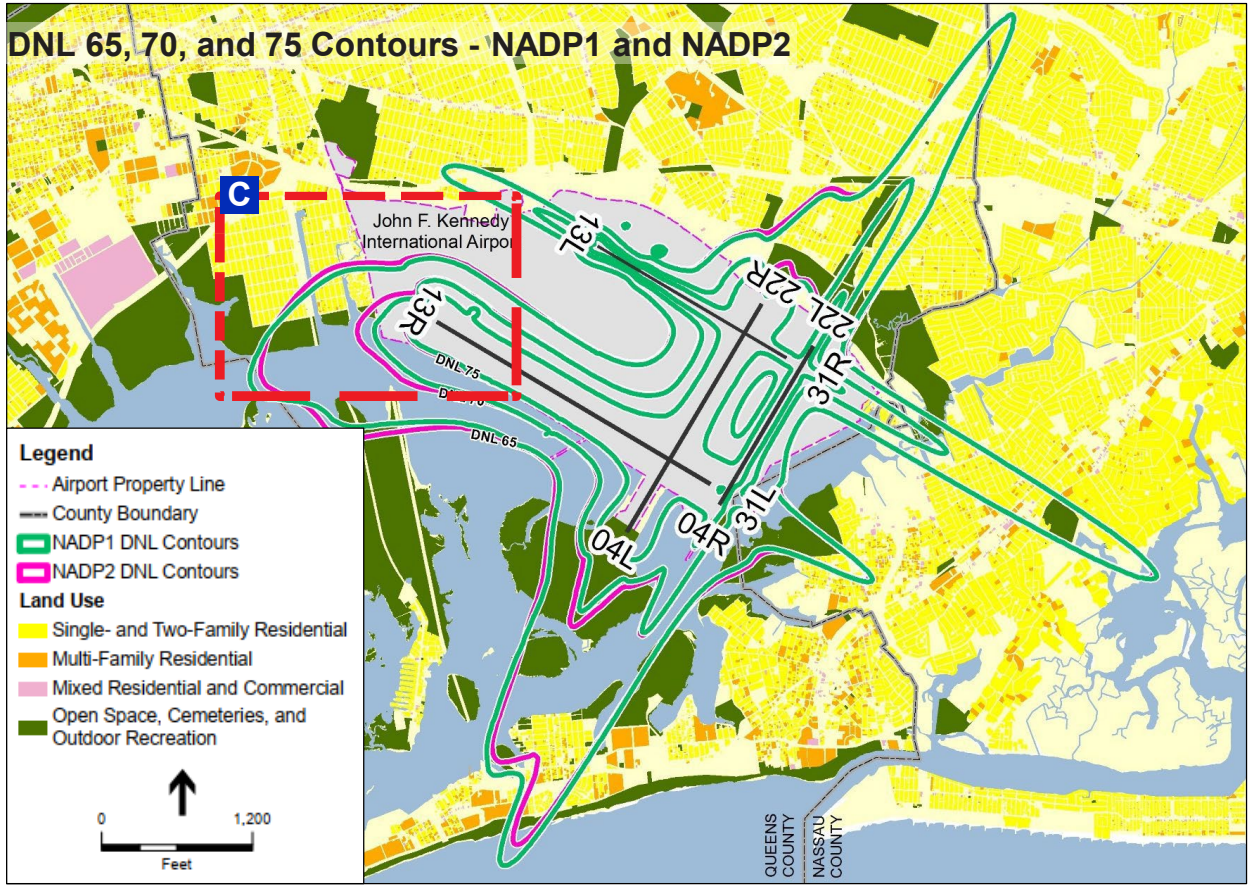
DNL 65, 70, and 75 Contours - 2021 NEM and Reduce Runway 31L Intersection Departures at Night over Howard Beach, Old Howard Beach, and Hamilton Beach

Has the potential to remove 689 people and 266 dwelling units from the DNL 65 contour in Queens

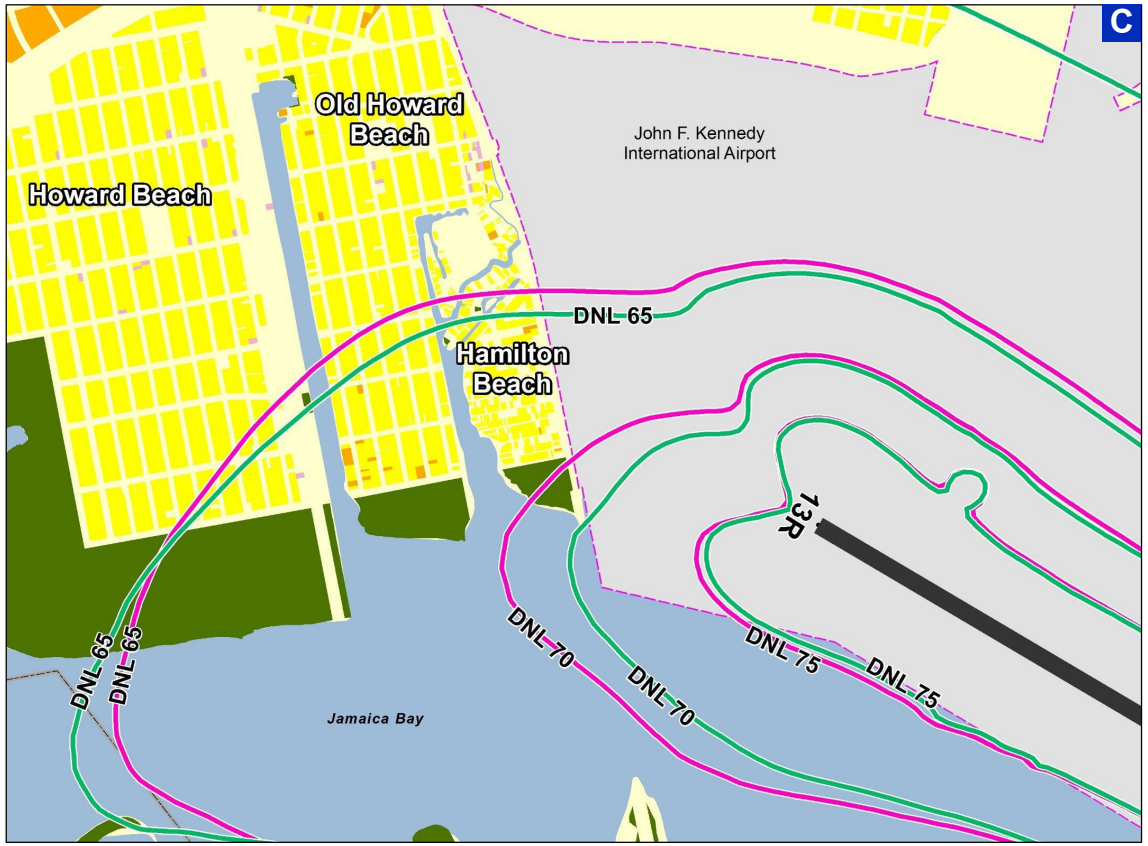
See Section 2.2 of the JFK NCP for more information.

See Section 2.2 of the JFK NCP for more information.

Noise Abatement Measure 5 – Implement Noise Abatement Departure Procedure on a Voluntary Basis for Each Runway End – Implemented in FQP



DNL contours reflect the top nine aircraft types expected to operate at JFK in 2021 (approximately 76% of Airport operations) utilizing NADP1 and NADP2 Profiles



NADP1 and NADP2 DNL 65, 70, and 75 Contours over Howard Beach, Old Howard Beach, and Hamilton Beach

See Section 2.2 of the JFK NCP for more information.

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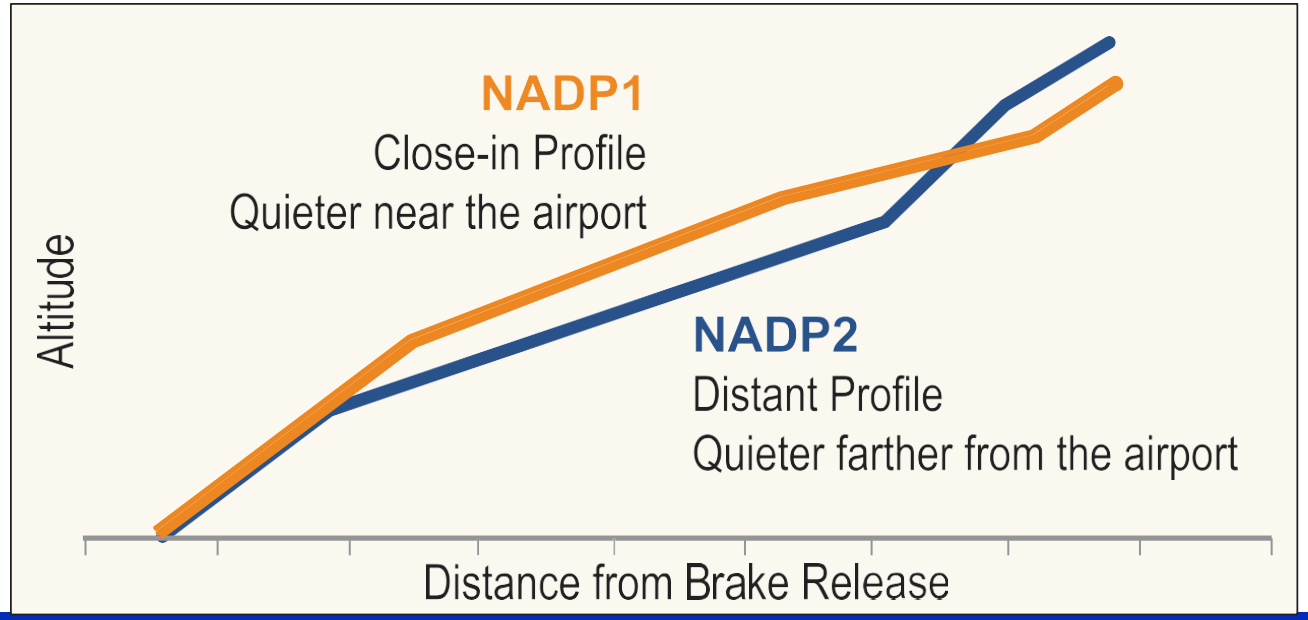
Noise Abatement Measure 5 – Implement Noise Abatement Departure Procedure on a Voluntary Basis for Each Runway End

JFK Noise Abatement Departure Profiles (NADP)	
4L	NADP1
4R	NADP1
22L	NADP2
22R	NADP2
31L	NADP1
31R	NADP1



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