



WELCOME!



FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT



14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY



Public Information Workshop #2
January 2019

Station 1: Part 150 Overview

14 CFR Part 150 Overview

- Establishes the methodology to be followed when preparing aircraft noise exposure maps and developing airport/airport environs land use compatibility programs.
- Interim Rule on Federal Aviation Regulations (FAR) Part 150, *Airport Noise Compatibility Planning* issued in 1981 and finalized in 1985, later recodified as Title 14 Code of Federal Regulations (CFR) Part 150.
- Issued in response to provisions contained in the *Aviation Safety and Noise Abatement Act of 1979*.
- Part 150 studies must adhere to 14 CFR Part 150 guidelines to be considered, accepted, and approved by FAA.

14 CFR Part 150 Overview

- 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 accepted and approved by FAA

FLL's Part 150 Efforts Span 3 Decades



14 CFR Part 150 Overview

Key Issues for this Part 150 Study

- Operational Changes
 - Opening of New Runway
 - Change in Operation of North Runway
 - Potential Changes Related to NextGen/Metroplex
- Ongoing Residential Sound Insulation Program
- Community Education
- Expectation Management



Overview of 14 CFR Part 150

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 aircraft are exempt.
- **Local noise ordinances** set noise standards and provide for compatible land use planning but aircraft are exempt.

Who Can Regulate Airport Noise?

- **Federal Aviation Administration:** (1) Controls aircraft while in flight; (2) Responsible for controlling noise at its source (i.e., aircraft engines); (3) Certifies aircraft and pilots.
- **Airport Proprietors/BCAD:** (1) Very limited authority to adopt local restrictions; (2) Responsible for capital improvement projects and infrastructure.
- **Local Governments and States:** (1) Promote compatible land use through zoning; (2) Require real estate disclosure; (3) Mandate sound-insulating building materials.

FEDERAL LAW PREEMPTS STATE AND LOCAL REGULATIONS

Overview of 14 CFR Part 150

Noise Exposure Map Report (NEM)

- Develop a comprehensive database of current conditions
- Noise contour development and impact analysis
- Prepare and submit Noise Exposure Map (NEM) Report

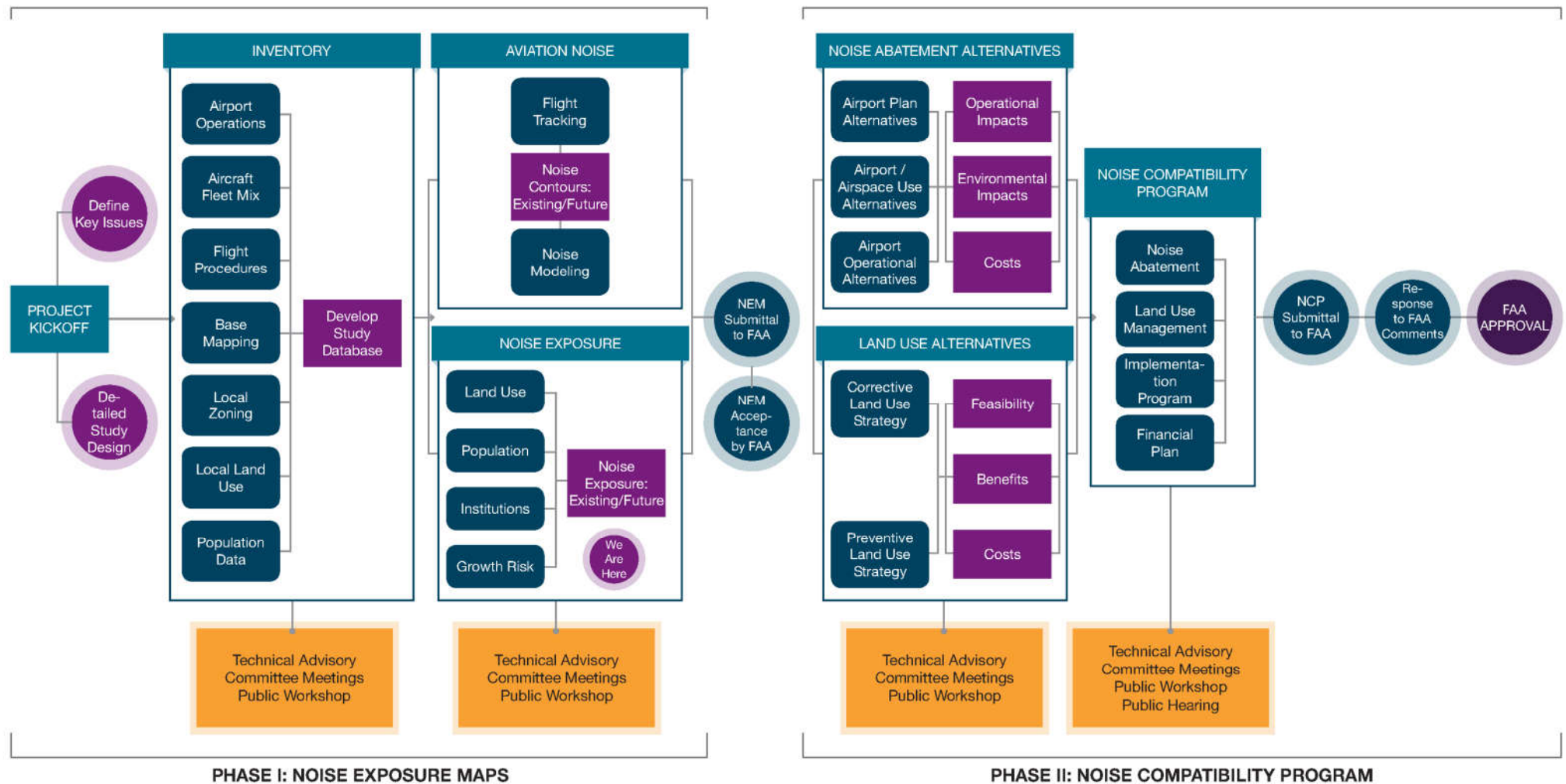
Noise Compatibility Program (NCP)

- Identify and evaluate noise abatement alternatives
- Identify and evaluate compatible land use alternatives
- Identify and evaluate administrative measures
- Prepare and submit Noise Compatibility Program (NCP) Report

Stakeholder Outreach Program

- Local Jurisdictions/Agencies
- FAA
- Public

Overview of 14 CFR Part 150 – General Study Process



Project Schedule

Noise Exposure Maps

- Data Collection
- Public Outreach
- Noise Modeling
- NEM Report/FAA Acceptance

Summer 2016-Winter 2017

Fall-Winter 2017

Winter 2017-Summer 2018

Winter 2018-Spring 2019

Noise Compatibility Program

- Alternatives Analysis
- NCP Report
- Public Hearing
- FAA 180 Day Review/ROA

Spring 2019

Summer-Fall 2019

Fall 2019

Winter 2019-Spring 2020

Overview of 14 CFR Part 150

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 Program** - A noise compatibility program report includes descriptions and a detailed evaluation of noise abatement and noise mitigation options applicable to an airport.
- **Noise Abatement Measures** - These measures 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 Measures** - These measures 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.

Station 2: Understanding Noise and Sound Level Metrics

Compatible Land Use

Aircraft Noise Compatibility Guidelines

- 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

The 14 CFR Part 150 process is the Airport Sponsor's mechanism to improve the compatibility between the Airport and surrounding communities

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
Governmental 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, 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, 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 1

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.

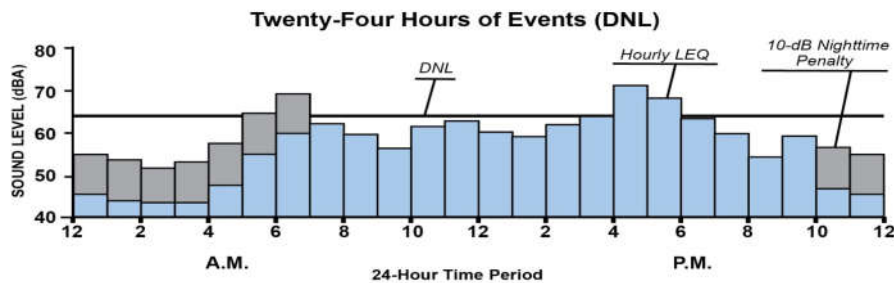
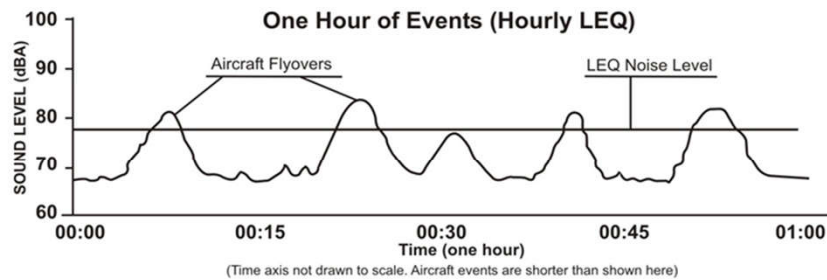
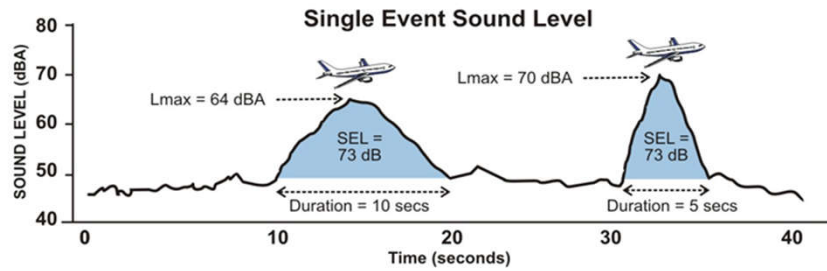
Notes

(1)	Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (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.	(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 the normal noise level is low.
(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 the 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 the 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.
		(7)	Residential buildings require an NLR of 30.
		(8)	Residential buildings not permitted.

Day-Night Average Sound Level

- 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 weighted by an additional 10 dB to account for the higher sensitivity to noise during nighttime hours and for the expected further decrease in background levels that typically occur in the nighttime
- FAA requires the use of DNL for airport noise assessments
- Average Annual Day aircraft noise exposure is calculated over a broad area and then depicted using contour lines of equal noise levels
- Reflects cumulative average day noise exposure for the purposes of determining overall compatibility – not noise generated by a single event

Understanding Aircraft Sound Levels



IDENTICAL DNL LEVELS

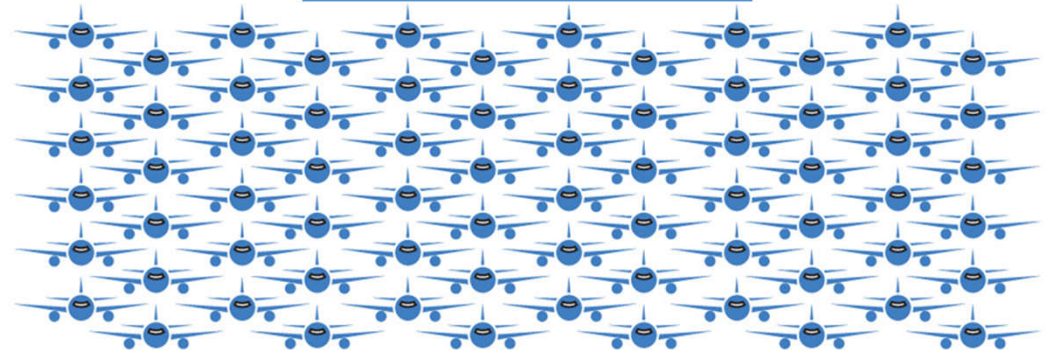
1 Event/Day SEL 114.4 dBA = DNL 65



10 Events/Day SEL 104.4 dBA = DNL 65



100 Events/Day SEL 94.4 dBA = DNL 65



Station 3: Noise Modeling Inputs

About Noise Modeling

Noise Modeling

- Aircraft noise modeling allows:
 - Calculation of noise exposure at any point
 - Depicting annual average aircraft 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
- Aviation Environmental Design Tool (AEDT) replaced the Integrated Noise Model (INM) when it was released in 2015. The current version, AEDT 2C, will be used for the FLL Part 150 Study.

Noise Modeling Methodology

Model Inputs

- The Amount of Noise Exposure is determined by:
 - Aircraft types
 - Stage length
 - 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
- Other Factors
 - Meteorological Conditions
 - Terrain



Aviation Environmental Design Tool (AEDT) Version 2C



2018 and 2023 Aircraft Operations and Time of Day

Estimated Annual Aircraft Operations

Aircraft Category	2018 Operations	2023 Operations
Widebody	6,298	6,190
Narrowbody	235,089	258,149
Regional Jet	28,572	33,915
General Aviation	65,041	66,512
Total	335,000	364,765

Note: An aircraft operation is equal to one arrival/landing or one departure/takeoff
Source: Ricondo & Associates, Inc., 2017; Environmental Science Associates, 2018.

Estimated Annual Aircraft Operations by Time of Day (All Aircraft)

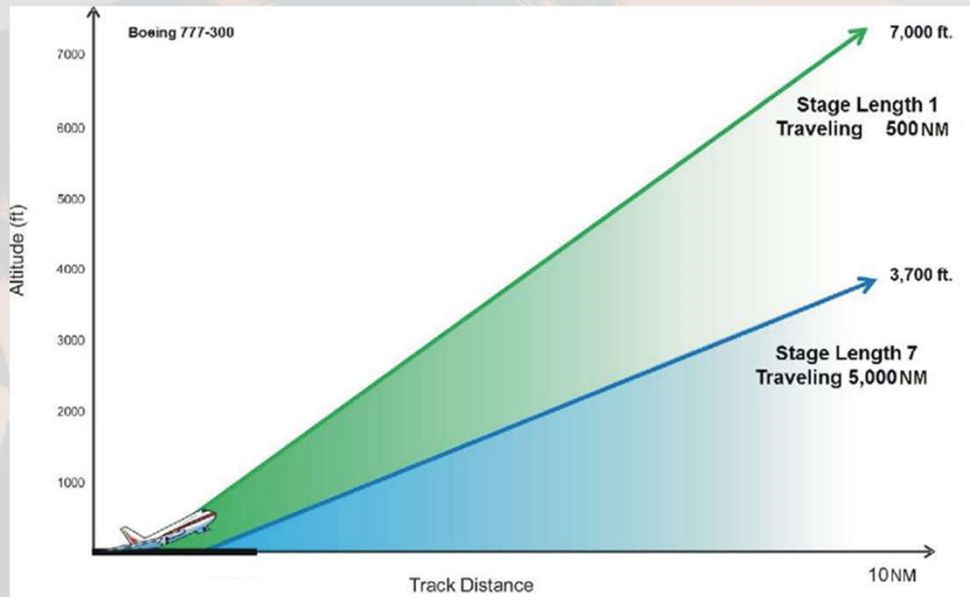
Study Year	Arrivals		Departures	
	Day	Night	Day	Night
2018	84.5%	15.5%	89.5%	10.5%
2023	84.1%	15.9%	89.1%	10.9%

Note: An aircraft operation is equal to one arrival/landing or one departure/takeoff

Source: Environmental Science Associates, 2018; Broward County Aviation Department, Airport Noise and Operations Management System (ANOMS) data for calendar year 2016.

Aircraft Departure Stage Length

Stage Length Comparison for Boeing 777-300



AEDT 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

SOURCE: Federal Aviation Administration, 2018

Estimated Departure Stage Length (All Aircraft)

Study Year	Stage Length Category						
	1	2	3	4	5	6	7
2018	28.72%	50.38%	15.53%	4.87%	0.25%	0.23%	0.02%
2023	27.78%	48.77%	17.35%	5.60%	0.31%	0.15%	0.04%

NOTE: Values may not add to 100 percent due to rounding. No aircraft exceeded a departure stage length of 7.

SOURCE: Environmental Science Associates, 2018; Broward County Aviation Department, Airport Noise and Operations Management System (ANOMS) data for calendar year 2016.

2016 Runway Use – East Flow

Legend

Arrivals

Departures

Day: 52%
Night: 74%

Day: 29%
Night: 7%

Day: 49%
Night: 65%

Day: 32%
Night: 16%

10L

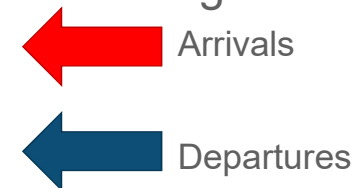
28R

10R

28L

2016 Runway Use – West Flow

Legend



Day: 12%
Night: 16%

Day: 7%
Night: 3%

Day: 12%
Night: 18%

Day: 7%
Night: 1%

10L

28R

10R

28L

Runway Use - Arrivals

Estimated Arrival Runway Use (All Fixed-Wing Aircraft)

Arrivals (Time of Day)	North Runway		South Runway	
	10L	28R	10R	28L
2018				
Daytime Arrivals	52.6%	12.5%	28.0%	6.9%
Nighttime Arrivals	73.8%	17.6%	7.4%	1.2%
2023				
Daytime Arrivals	51.8%	12.0%	28.9%	7.2%
Nighttime Arrivals	73.5%	17.6%	7.6%	1.3%

NOTE: Does not include helicopter operations. Values may not add to 100 percent due to rounding.

SOURCE: Environmental Science Associates, 2018; Broward County Aviation Department, ANOMS data for calendar year 2016.

Runway Use - Departures

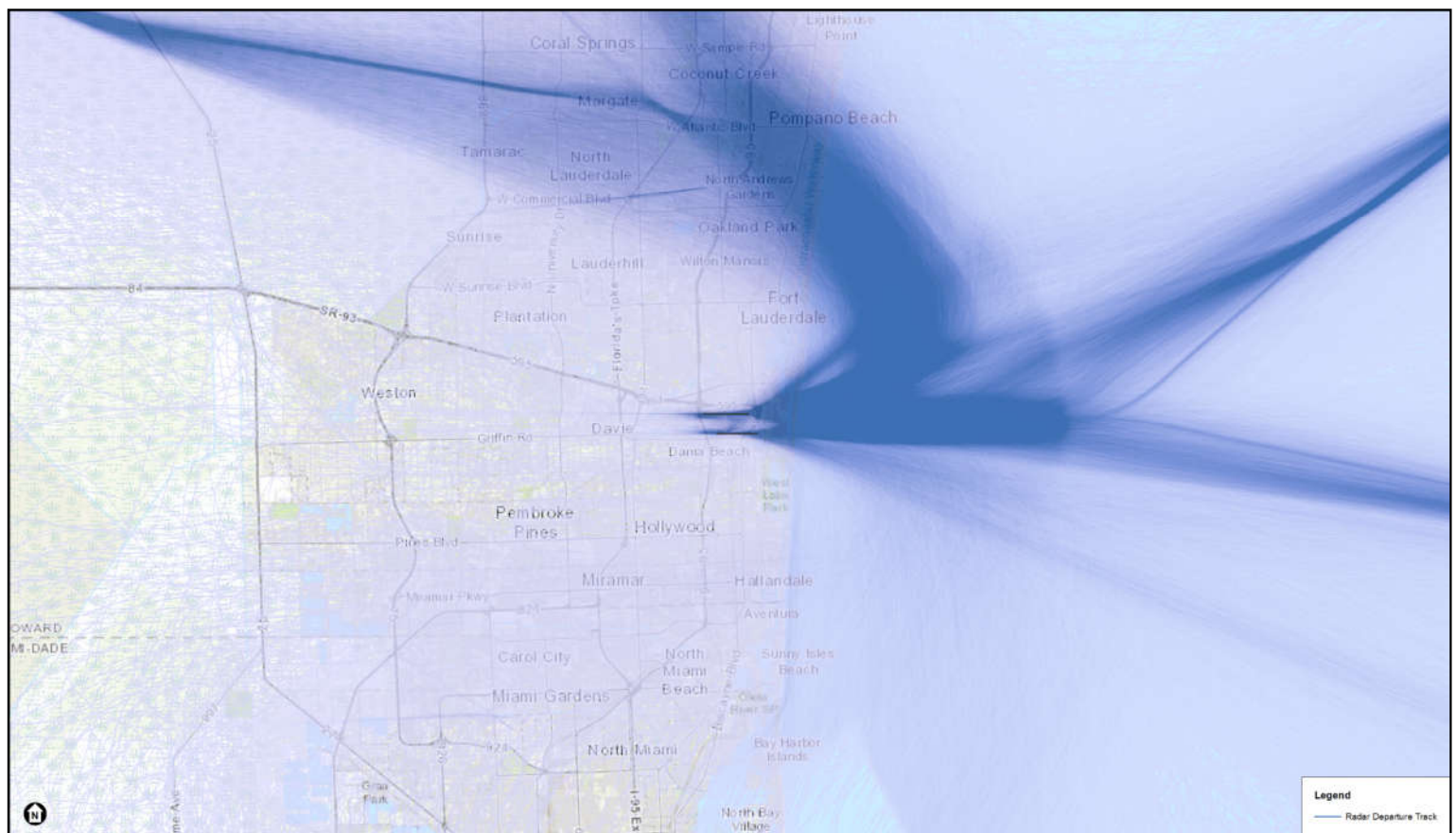
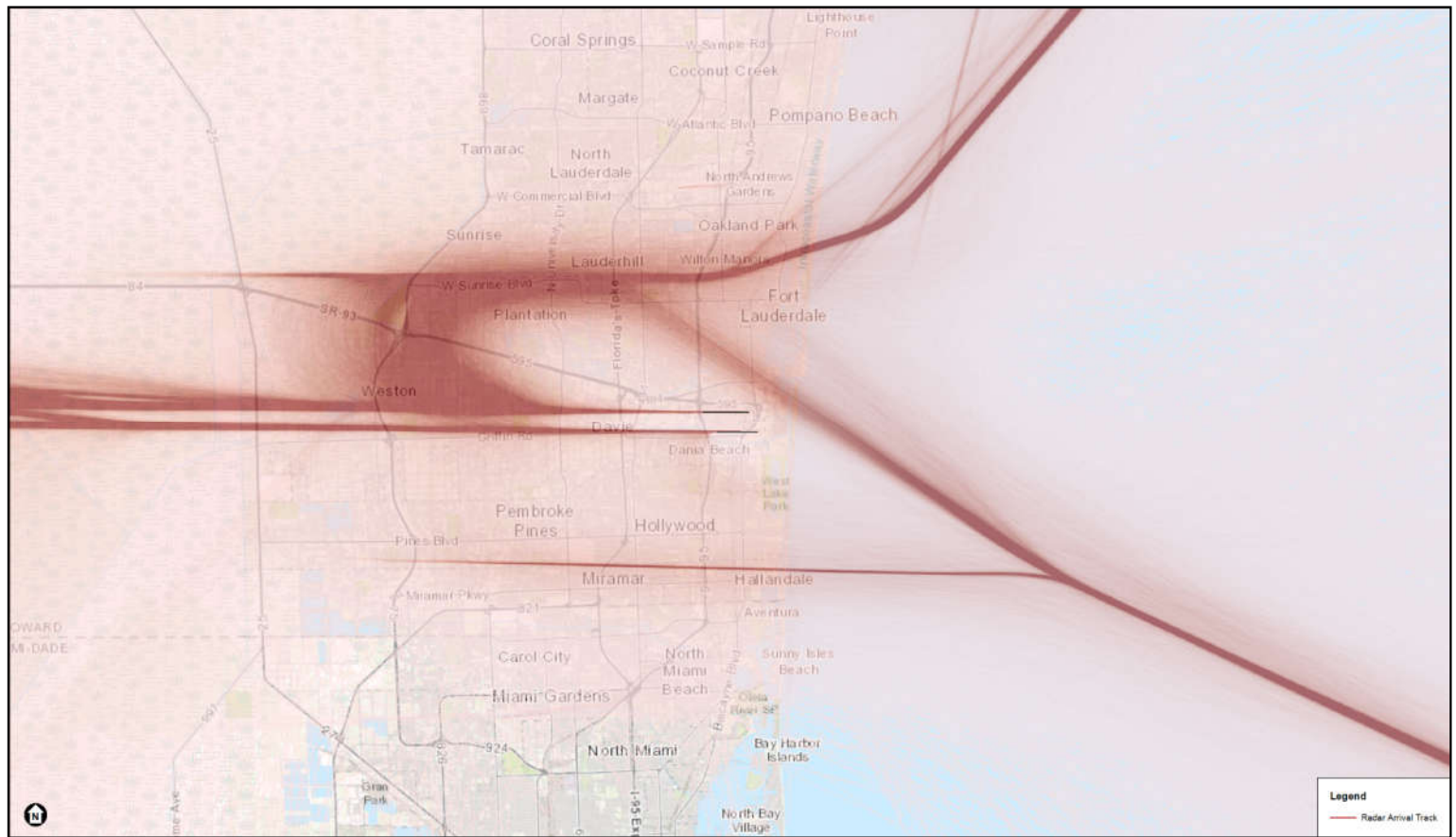
Estimated Departure Runway Use (All Fixed-Wing Aircraft)

Arrivals (Time of Day)	North Runway		South Runway	
	10L	28R	10R	28L
2018				
Daytime Arrivals	49.2%	12.5%	31.6%	6.7%
Nighttime Arrivals	64.3%	16.5%	15.8%	3.4%
2023				
Daytime Arrivals	46.9%	11.8%	34.0%	7.2%
Nighttime Arrivals	62.7%	16.0%	17.4%	3.8%

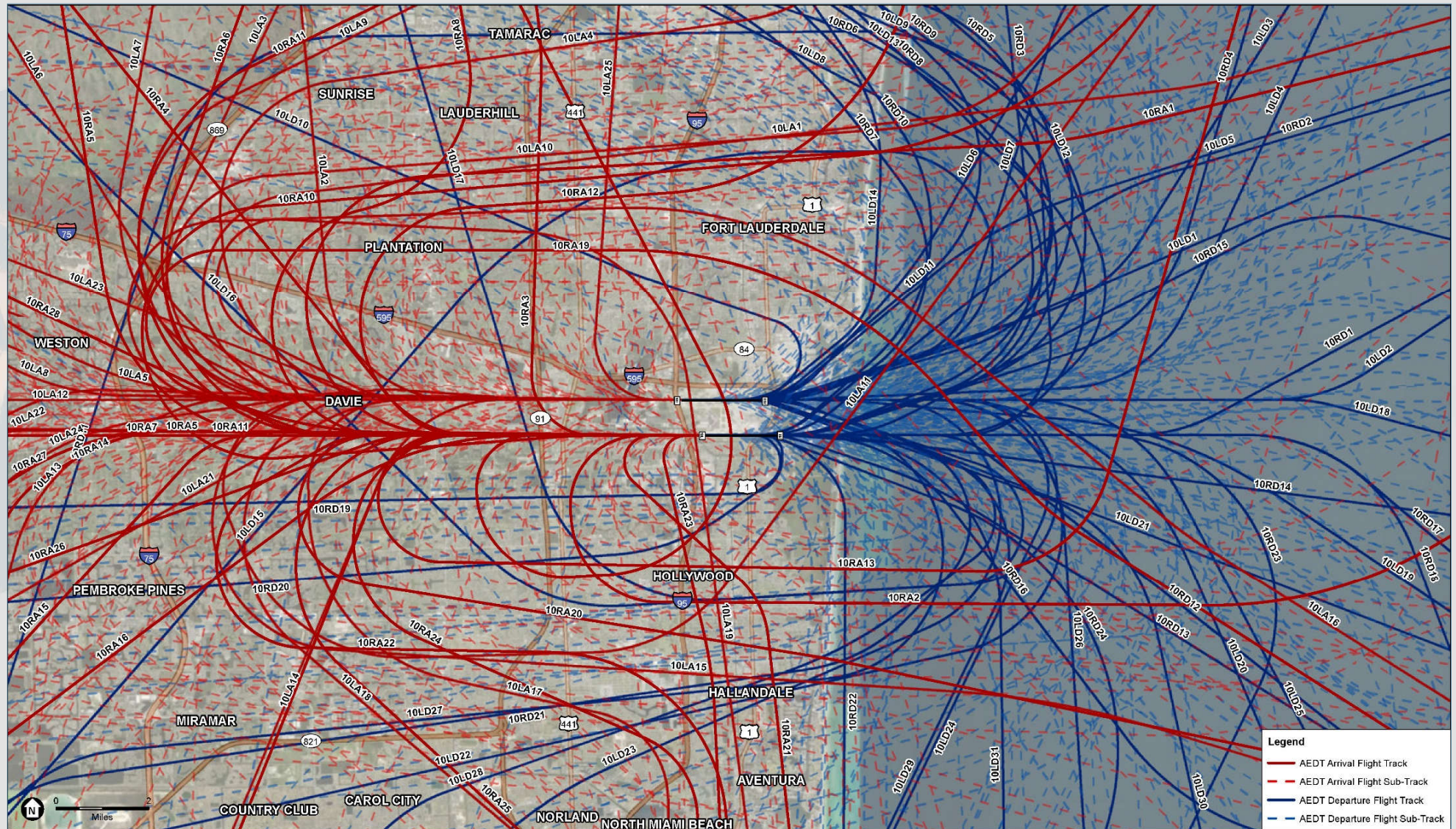
NOTE: Does not include helicopter operations. Values may not add to 100 percent due to rounding.

SOURCE: Environmental Science Associates, 2018; Broward County Aviation Department, ANOMS data for calendar year 2016.

2016 East Flow Arrivals & Departures



AEDT Flight Tracks – Runways 10L and 10R (East Flow)

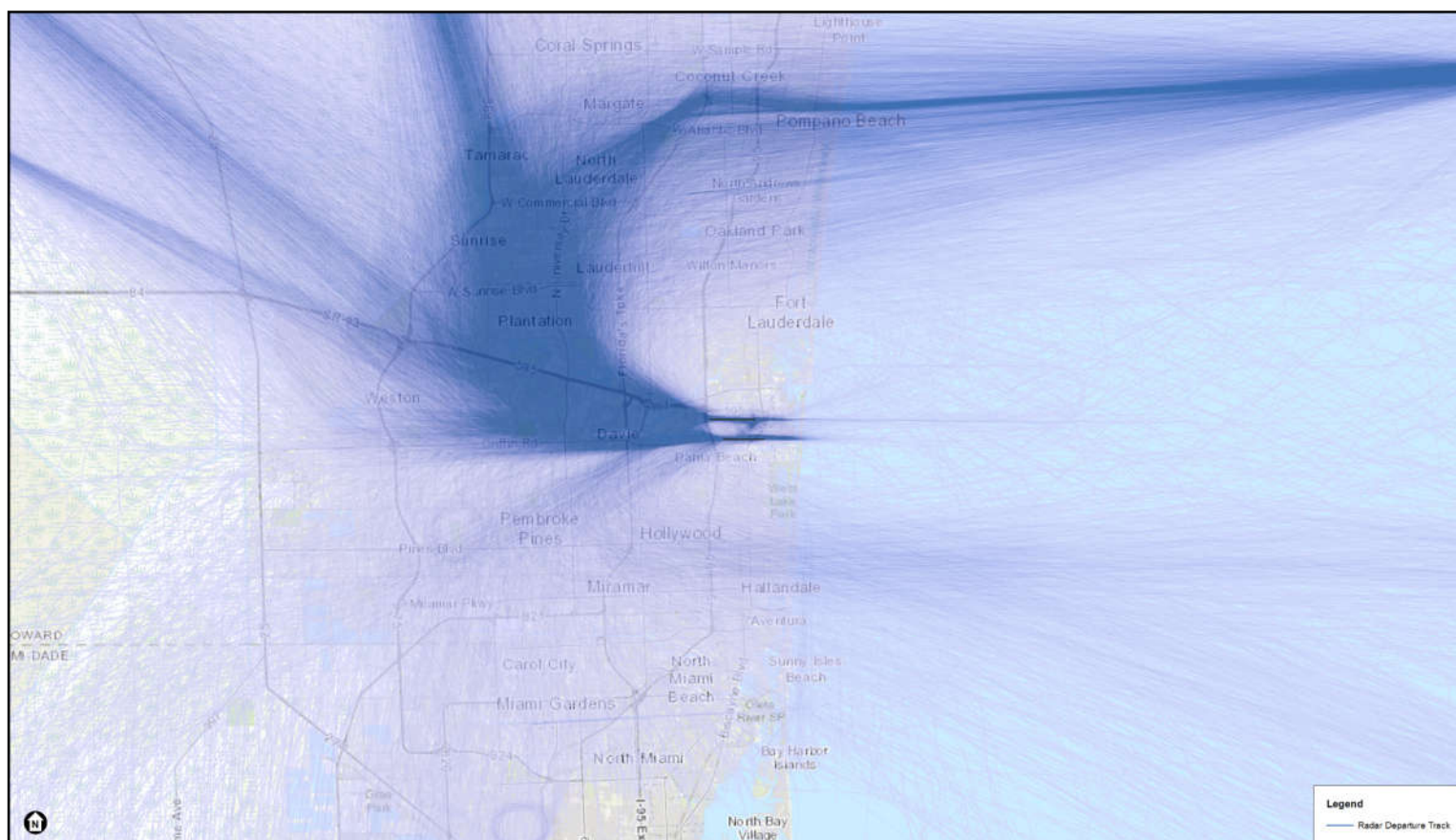
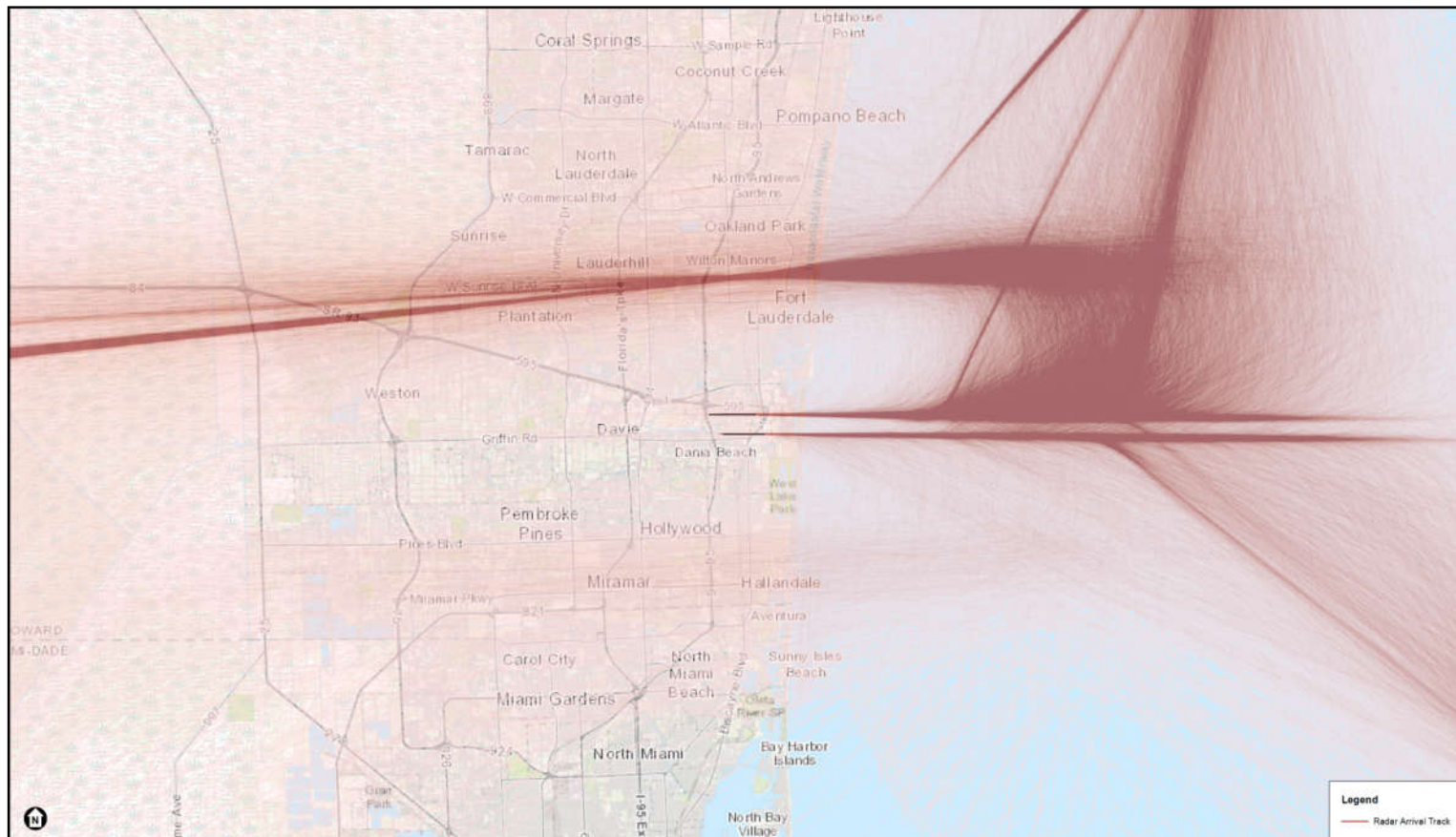


SOURCE: AEDT 2d; ESA, 2018; World Imagery (Aerial)

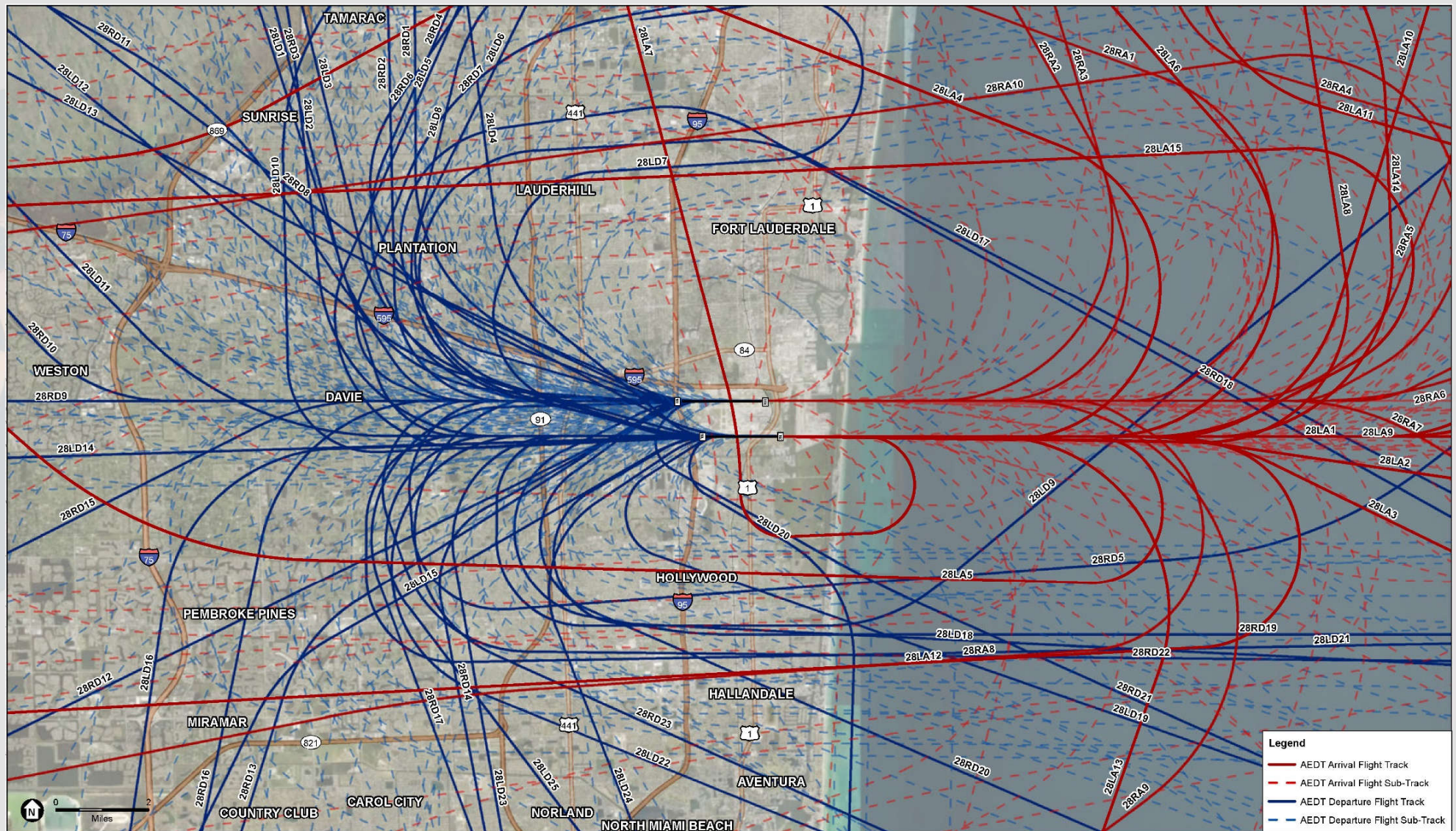
NOTE: AEDT flight sub-tracks are used to replicate radar track dispersion.

Fort Lauderdale-Hollywood International Airport 14 CFR Part 150 Study - 150120

2016 West Flow Arrivals & Departures



AEDT Flight Tracks – Runways 28L and 28R (West Flow)

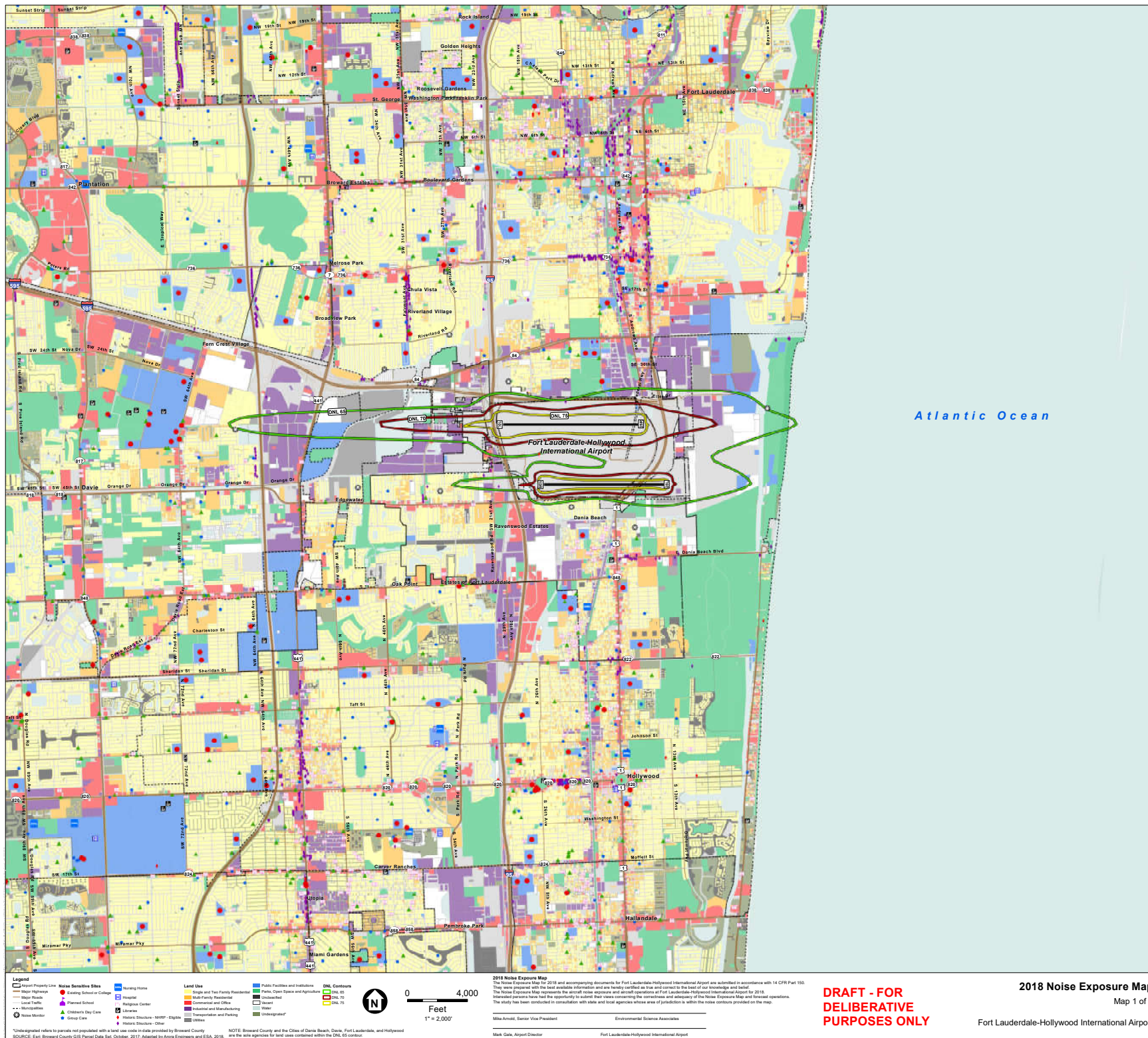


SOURCE: AEDT 2d; ESA, 2018; World Imagery (Aerial)

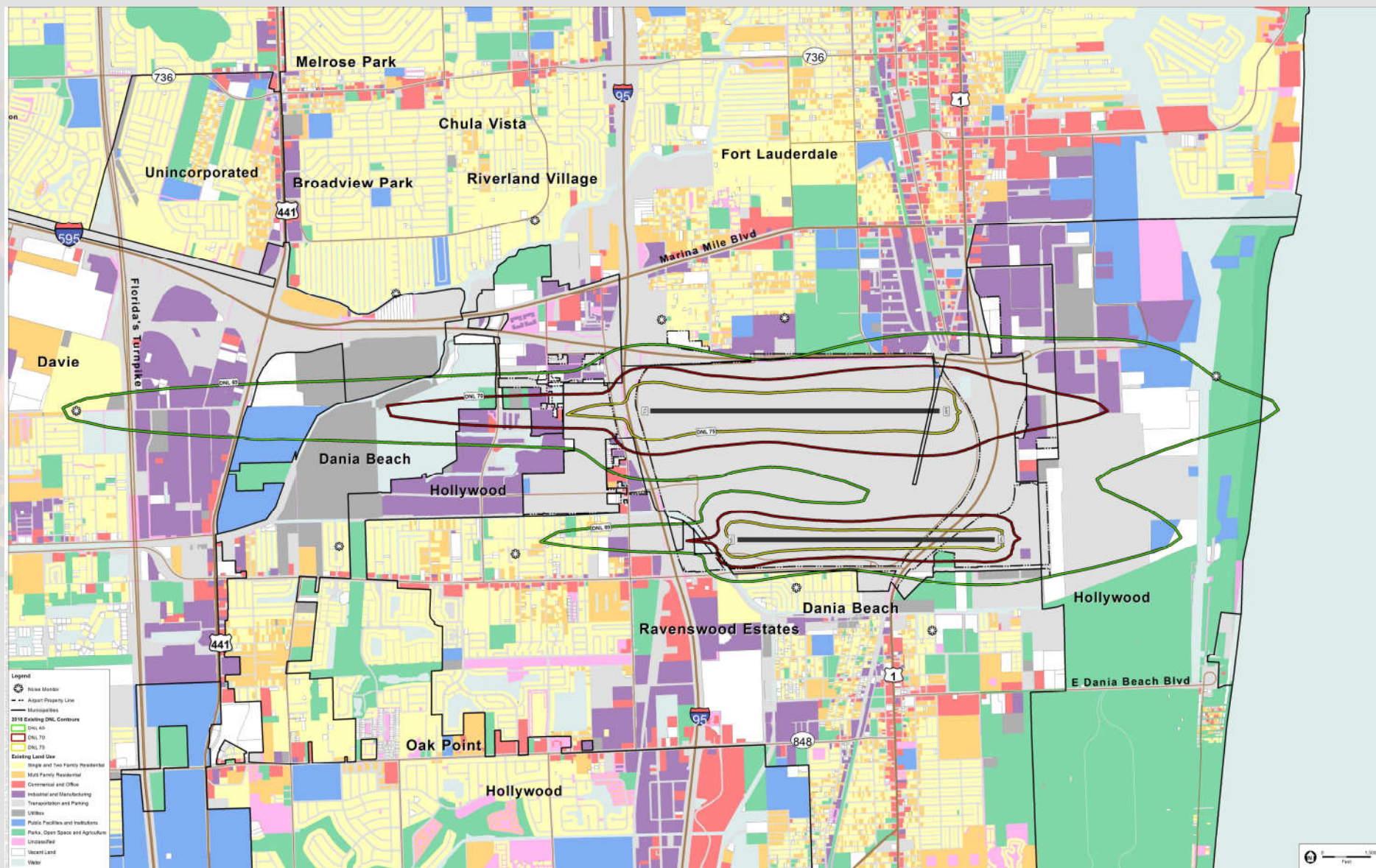
NOTE: AEDT flight sub-tracks are used to replicate radar track dispersion.

Fort Lauderdale-Hollywood International Airport 14 CFR Part 150 Study . 150120

Station 4: Noise Modeling Results



2018 DNL 65, 70, and 75 Noise Contours



Noise Exposure Within the 2018 DNL 65, 70, and 75 Contours

Land Uses Exposed to DNL 65 and Higher - 2018

Land Use Category ¹	Land Uses Exposed to DNL 65 and Higher (Acres) ²				Housing Units ³	Population ³
	DNL 65- 70	DNL 70- 75	DNL 75+	Total		
Single and Two Family Residential	30.8	0.0	0.0	30.8	226	475
Multi-Family Residential	0.3	0.0	0.0	0.3	12	22
Utilities	143.2	7.2	0.0	150.4	-	-
Commercial and Office	11.9	2.7	0.0	14.6	-	-
Industrial and Manufacturing	240.8	41.2	0.0	282.0	-	-
Transportation and Parking	1,282.3	598.8	459.6	2,340.6	-	-
Public Facilities and Institutions	121.3	1.2	0.0	122.6	-	-
Parks, Open Space, and Agriculture	76.7	12.7	0.0	89.4	-	-
Vacant	214.1	3.2	0.0	217.3	-	-
Water (Off Airport Property)	154.4	43.0	0.0	197.5	-	-
Total	2,276.0	710.0	459.6	3,445.7	238	497

NOTE: Land uses acreage present within the DNL 70-75 contours may be shown as 0.0 due to rounding. Totals may not add up, due to rounding.

SOURCES:

¹ Land Use Categories derived from October 2017 Broward County parcel data with land use information

² Noise contours from Environmental Science Associates (ESA)

³ Housing units and population estimates derived from 2010 Census block-level data.

Noise Exposure Within the 2018 DNL 65, 70, and 75 Contours

Noise Sensitive Sites Exposed to DNL 65 and Higher - 2018

Noise Level ¹	Total Area (Acres)	Housing Units ²	Population ²	Religious	Schools ³	Hospitals	Historic Resources	Day Cares	Group Care	Libraries	Nursing Homes
DNL 65-70	2,276.0	238	497	0	0	0	3	0	0	0	0
DNL 70-75	710.1	0	0	0	0	0	0	0	0	0	0
DNL 75+	459.6	0	0	0	0	0	0	0	0	0	0
Total	3,445.7	238	497	0	0	0	3	0	0	0	0

SOURCES:

¹ Noise contours from Environmental Science Associates (ESA)

² Housing units and population estimates derived from 2010 Census block-level data.

³ Public school data from Broward County Public Schools; private schools from Florida Geographic Data Library (FGDL).

⁴ All other noise sensitive site data from Florida Geographic Data Library (FGDL).

Housing Units and Population Not In Current FLL Sound Insulation Program¹ - 2018

Noise Level ²	Housing Units ³	Population ³
DNL 65-70	90	190
DNL 70-75	0	0
DNL 75+	0	0
Total	90	190

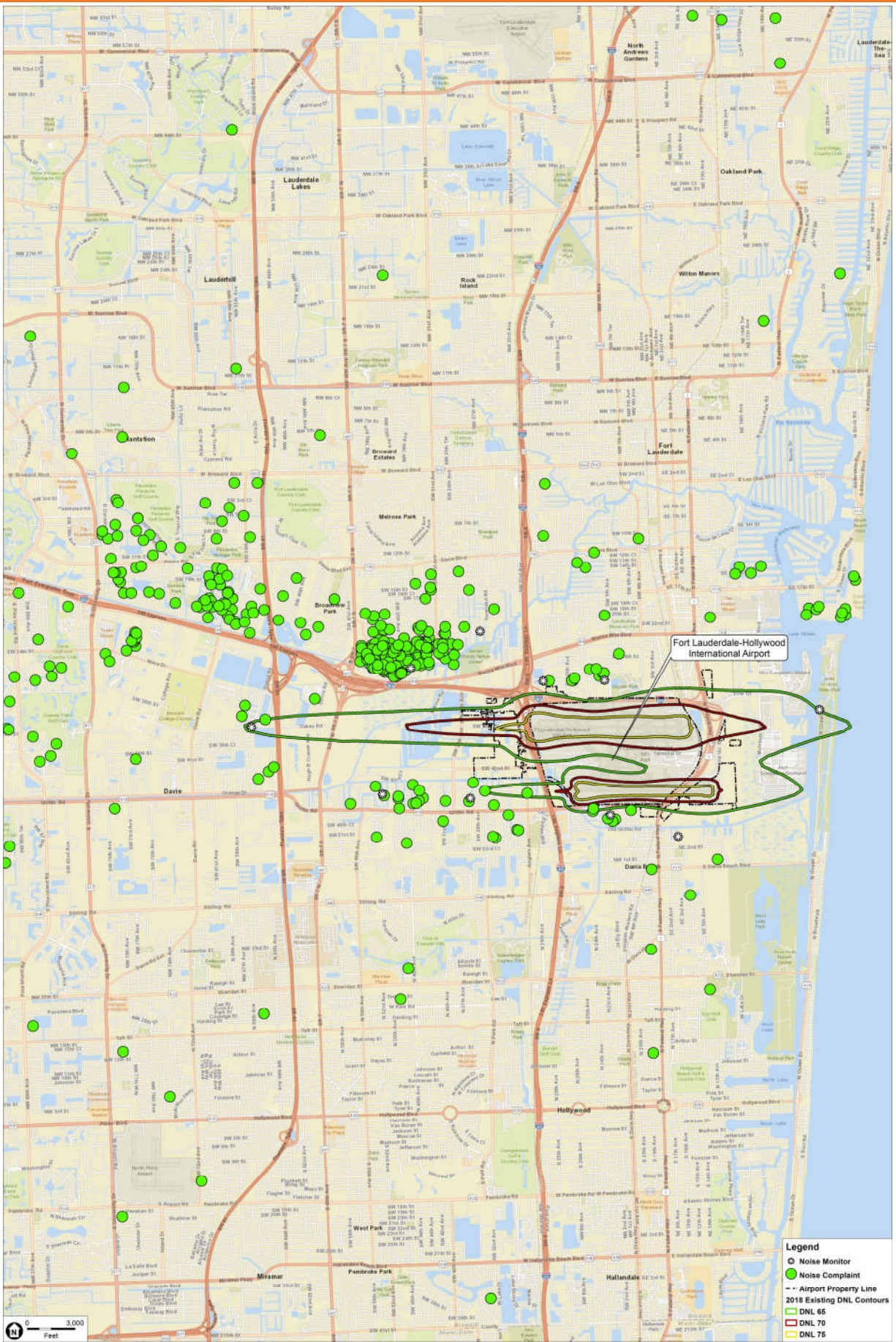
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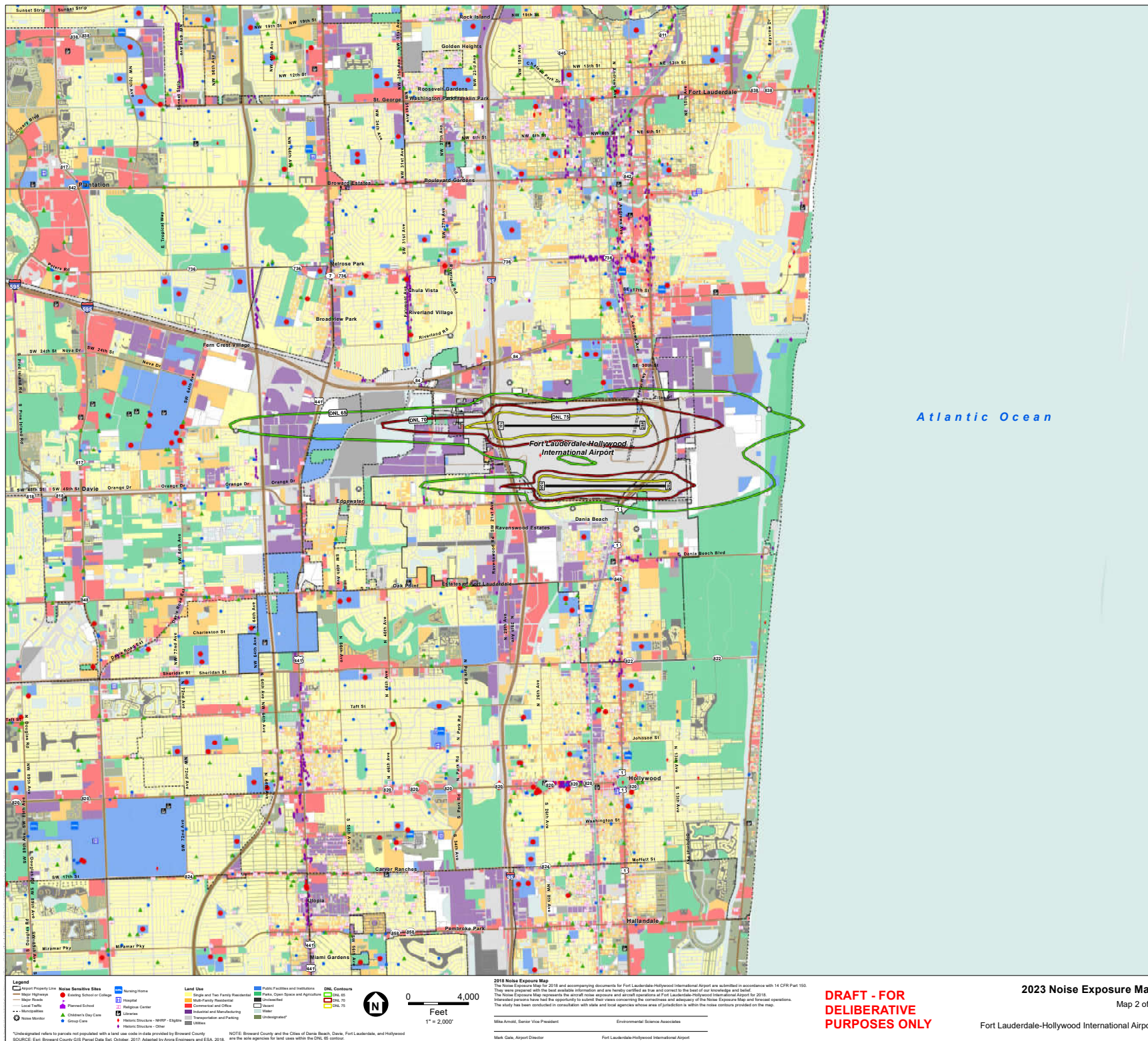
¹ FLL Sound Insulation Program housing unit data from Broward County Aviation Department. All housing units within the existing SIP boundary were excluded from this table regardless of if they received treatment, elected not to participate, were deemed compatible through interior testing, or were determined to be ineligible.

² Noise contours from Environmental Science Associates (ESA)

³ Housing units and population estimates derived from 2010 Census block-level data.

FLL 2018 Part 150 Noise Contours with FLL Noise Complaints





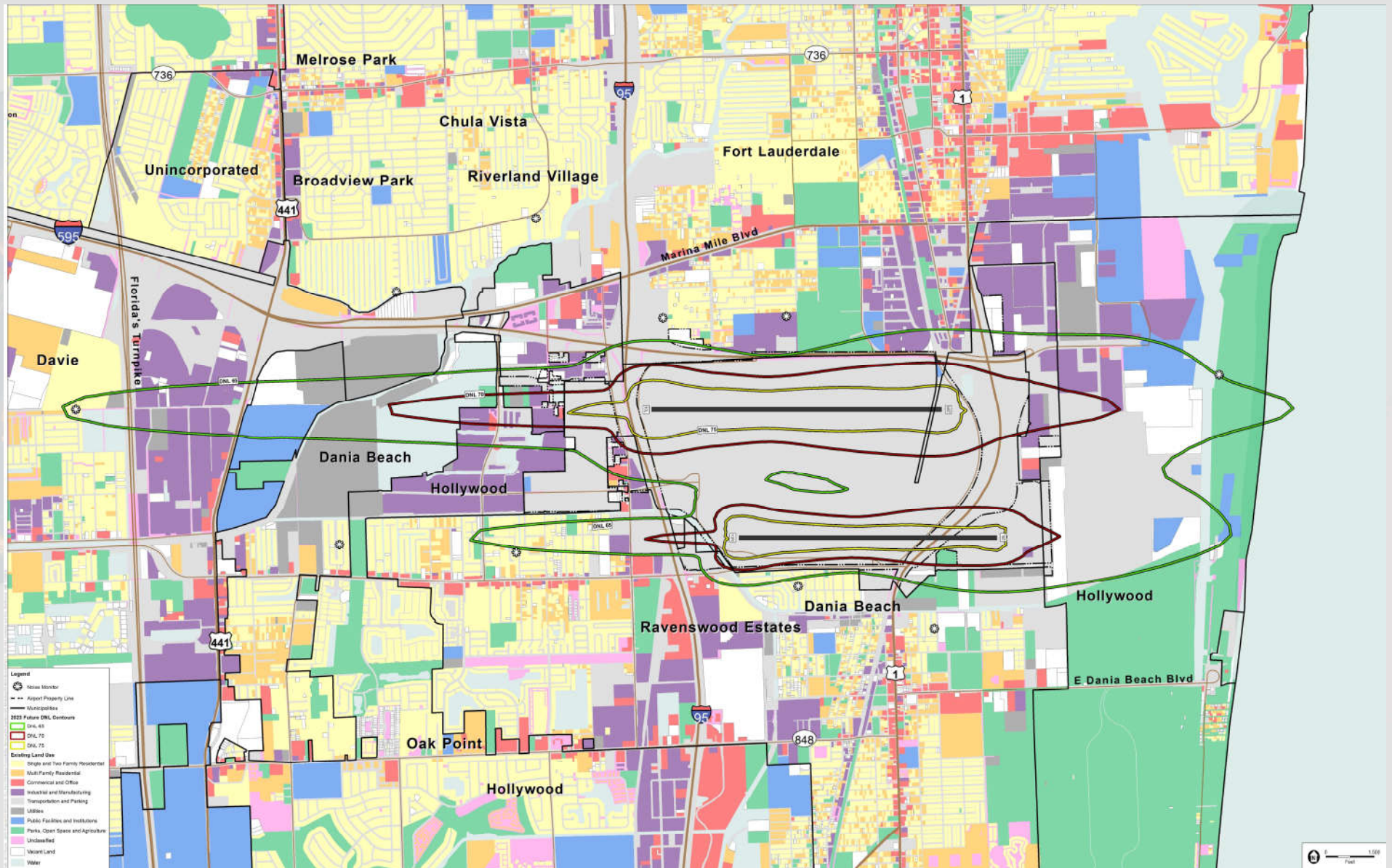
Atlantic Ocean

2018 Noise Exposure Map
The Noise Exposure Map for 2018 and accompanying documents for Fort Lauderdale-Hollywood International Airport are submitted in accordance with 14 CFR Part 155. These were prepared with the best available information and are hereby certified as true and correct to the best of our knowledge and belief.
Interrelated persons have had the opportunity to submit their views concerning the information and adequacy of the Noise Exposure Map and forecast operations. The study has been conducted in consultation with state and local agencies whose area of jurisdiction is within the noise exposure map and forecast operations.
Mike Arnold, Senior Vice President
Mark Gale, Airport Director
Environmental Science Associates
Fort Lauderdale-Hollywood International Airport

**DRAFT - FOR
DELIBERATIVE
PURPOSES ONLY**

2023 Noise Exposure Map
Map 2 of 5
Fort Lauderdale-Hollywood International Airport

2023 DNL 65, 70, and 75 Noise Contours



Noise Exposure Within the 2023 DNL 65, 70, and 75 Contours

Land Uses Exposed to DNL 65 and Higher - 2023

Land Use Category ¹	Land Uses Exposed to DNL 65 and Higher (Acres) ²				Housing Units ³	Population ³
	DNL 65- 70	DNL 70- 75	DNL 75+	Total		
Single and Two Family Residential	76.9	0.0	0.0	76.9	536	1,099
Multi-Family Residential	0.3	0.0	0.0	0.3	12	22
Utilities	146.8	7.4	0.0	154.2	-	-
Commercial and Office	13.9	2.7	0.0	16.7	-	-
Industrial and Manufacturing	248.6	47.8	0.0	296.4	-	-
Transportation and Parking	1,429.3	679.6	503.3	2,612.1	-	-
Public Facilities and Institutions	128.0	1.3	0.0	129.3	-	-
Parks, Open Space, and Agriculture	113.2	15.6	0.0	128.8	-	-
Vacant	255.6	4.2	0.0	259.8	-	-
Water (Off Airport Property)	166.3	47.2	0.0	213.5	-	-
Total	2,579.0	805.7	503.3	3,888.0	548	1,121

NOTE: Land uses acreage present within the DNL 70-75 contours may be shown as 0.0 due to rounding. Totals may not add up, due to rounding.

SOURCES:

¹ Land Use Categories derived from October 2017 Broward County parcel data with land use information

² Noise contours from Environmental Science Associates (ESA)

³ Housing units and population estimates derived from 2010 Census block-level data.

Noise Exposure Within the 2023 DNL 65, 70, and 75 Contours

Noise Sensitive Sites Exposed to DNL 65 and Higher - 2023

Noise Level ¹	Total Area (Acres)	Housing Units ²	Population ²	Religious	Schools ³	Hospitals	Historic Resources	Day Cares	Group Care	Libraries	Nursing Homes
DNL 65-70	2,579.0	548	1,121	0	0	0	3	0	0	0	0
DNL 70-75	805.7	0	0	0	0	0	0	0	0	0	0
DNL 75+	503.3	0	0	0	0	0	0	0	0	0	0
Total	3,888.0	548	1,121	0	0	0	3	0	0	0	0

SOURCES:

¹ Noise contours from Environmental Science Associates (ESA)

² Housing units and population estimates derived from 2010 Census block-level data.

³ Public school data from Broward County Public Schools; private schools from Florida Geographic Data Library (FGDL).

⁴ All other noise sensitive site data from Florida Geographic Data Library (FGDL).

Housing Units and Population Not In Current FLL Sound Insulation Program¹ - 2023

Noise Level ²	Housing Units ³	Population ³
DNL 65-70	108	231
DNL 70-75	0	0
DNL 75+	0	0
Total	108	231

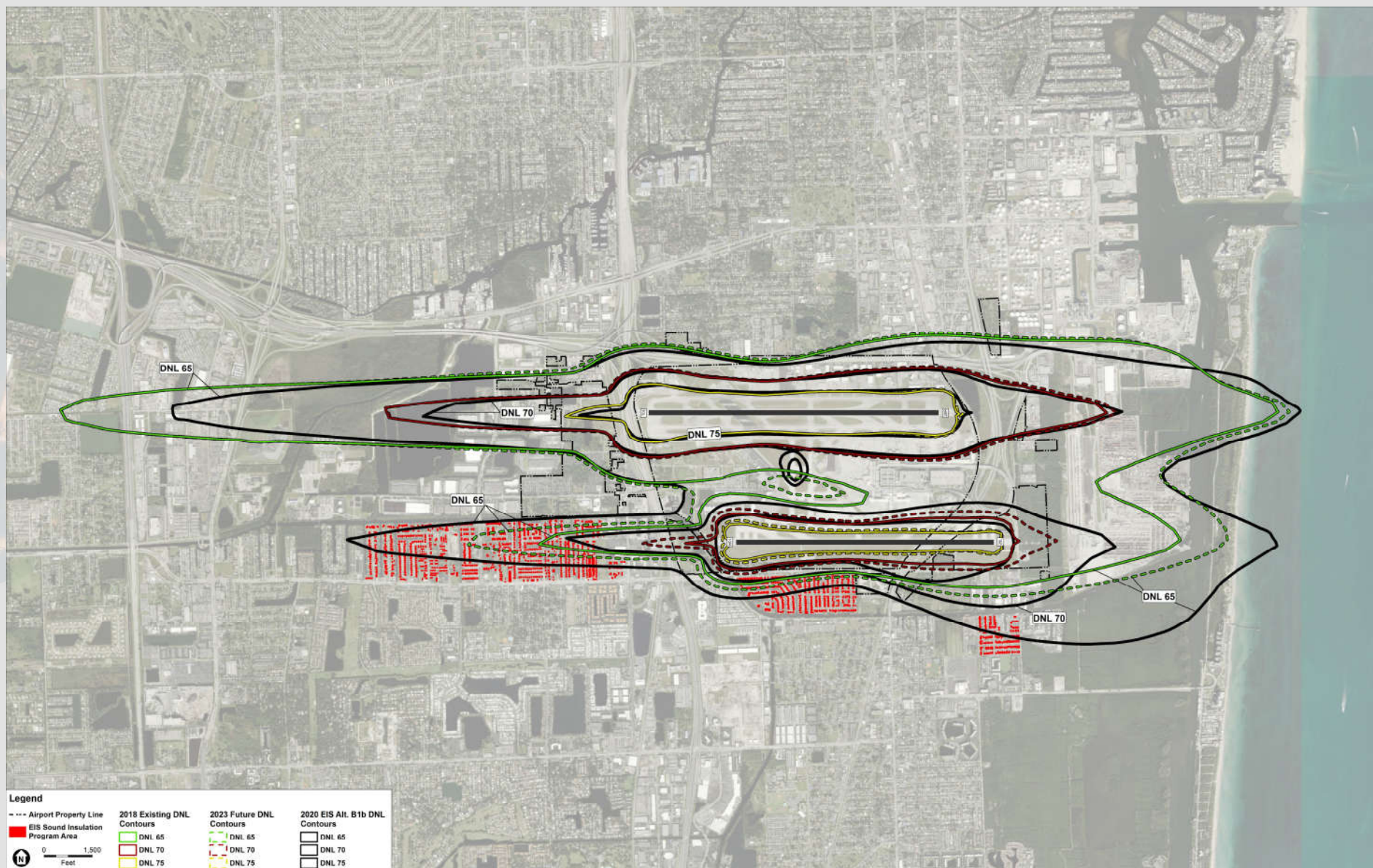
SOURCES:

¹ FLL Sound Insulation Program housing unit data from Broward County Aviation Department. All housing units within the existing SIP boundary were excluded from this table regardless of if they received treatment, elected not to participate, were deemed compatible through interior testing, or were determined to be ineligible.

² Noise contours from Environmental Science Associates (ESA)

³ Housing units and population estimates derived from 2010 Census block-level data.

2018 and 2023 Part 150 Study Noise Contours with EIS 2020 Noise Contours



Comparison of 2018 and 2023 Noise Exposure

Change in Land Use Noise Exposure – 2018 to 2023

Land Use Category ¹	Net Change in Acreage by Land Use (Acres) ²			
	DNL 65-70	DNL 70-75	DNL 75+	Total
Single and Two Family Residential	46.1	0	0	46.1
Multi-Family Residential	0	0	0	0
Utilities	3.6	0.2	0	3.8
Commercial and Office	2	0	0	2.1
Industrial and Manufacturing	7.8	6.6	0	14.4
Transportation and Parking	147	80.8	43.7	271.5
Public Facilities and Institutions	6.7	0.1	0	6.7
Open Space, Cemeteries, and Outdoor Recreation	36.5	2.9	0	39.4
Vacant	41.5	1	0	42.5
Total Change	11.9	4.2	0	16

NOTE: Land uses acreage present DNL 70-75 contour may be shown as 0.0 due to rounding.

SOURCES:

¹ Land Use Categories derived from October 2017 Broward County parcel data with land use information

² Noise contours from Environmental Science Associates (ESA)

³ Housing units and population estimates derived from 2010 Census block-level data.

Station 5: NCP, Schedule, Comments

Required Elements of a Noise Compatibility Program (NCP)

- 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

Noise Mitigation

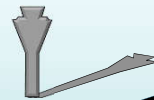
Addresses non-compatible land uses

- Preventative: addresses future uses
- Remedial: addresses existing uses



Noise Abatement

Reduces noise exposure by moving the source



Major NCP Strategy Options

Noise Abatement

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Run-up 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

* Subject to further notice, review, and approval requirements in 14 CFR Part 161

Review of NCP Measures

All NCP Measures Must Consider:

- Reduction of existing incompatible land use and prevention / reduction of future incompatible land use
 - The FAA will not approve NCP measures that do not reduce exposure to noise of DNL 65 and higher
- 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

Comments

You may provide written comments during this public workshop.
Comment forms are available at this meeting to submit here or by mail
to:

Aviation Department
C/O FLL Part 150 Study
2200 SW 45th Street, Suite 101
Dania Beach, FL 33312

Please submit your comments by **January 23, 2019.**

Part 150 Study updates are provided on the Project website at:

www.fllpart150.com

Thank You for Your Participation!