

APPENDIX H

Technical Committee Meetings

This Appendix includes details of Technical Committee (TC) meetings associated with the Fort Lauderdale-Hollywood International Airport Part 150 Study. Documentation in this Appendix includes copies of TAC meeting notices, agendas, attendance sheets, presentation materials, and summaries.

- Appendix H-1 TC Meeting #1 – May 26, 2017
- Appendix H-2 TC Meeting #2 – August 23, 2017
- Appendix H-3 TC Meeting #3 – March 7, 2018
- Appendix H-4 TC Meeting #4 – November 7, 2018

Appendix H-1
Technical Committee
Meeting #1
May 26, 2017

Technical Committee

Meeting #1

Meeting Notice and

Attendance Roster



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport

2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

**NOTICE OF TECHNICAL COMMITTEE MEETING
14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND
LAND USE COMPATIBILITY STUDY
FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT**

The Broward County Aviation Department (BCAD) formed a Technical Committee (TC) to support the Fort Lauderdale-Hollywood International Airport (FLL) 14 Code of Federal Regulations (CFR) Part 150 Study. TC membership includes appointed representation from all affected airport stakeholders (experts in land use, airport operations, air traffic control, etc.).

FLL Technical Committee Meeting

Date: Friday, May 26, 2017

Time: 10:00AM - 12:00PM

Location: Aviation | Maintenance Division; 3400 SW 2nd Avenue; Fort Lauderdale, FL 33315

The Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. Space for the TC meetings will be limited. However, they are open to the public, provided space is available. In order to promote efficient, balanced and constructive interaction among the TC members, discussions will be limited to TC members. There will be no public comment period. The public can provide comments at the upcoming public workshops and through the study website at www.fllpart150.com.



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

MEETING LOCATION CHANGE

**NOTICE OF TECHNICAL COMMITTEE MEETING
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LAND USE COMPATIBILITY STUDY
FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT**

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FLL Technical Committee Meeting

Date: Friday, May 26, 2017

Time: 10:00AM - 12:00PM

Location: Secret Woods Nature Center – Julia Hall; 2701 W. SR 84; Dania Beach, FL 33312

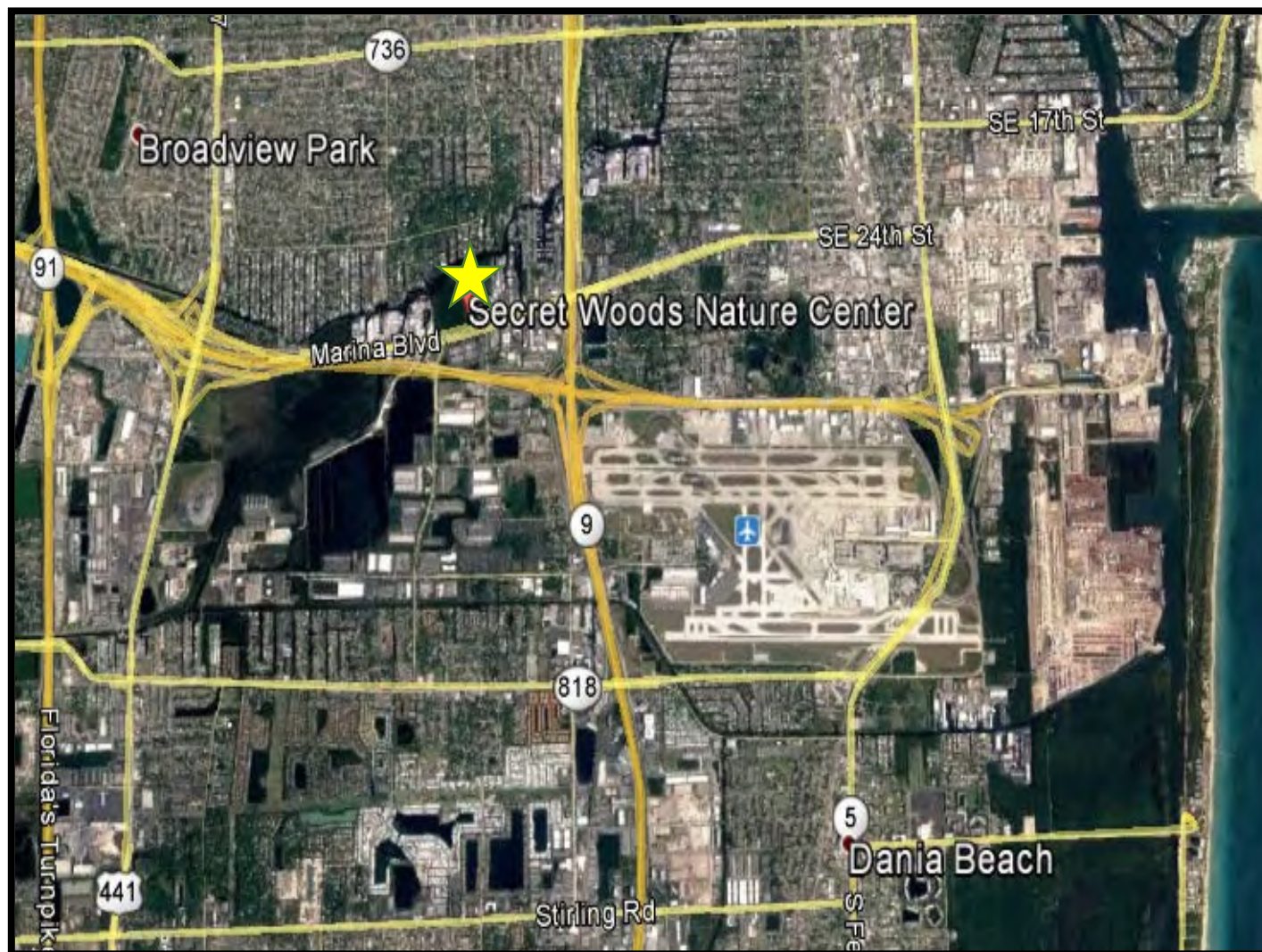
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Secret Woods Nature Center

Julia Hall

2701 W. SR 84

Dania Beach, FL 33312



From the East: Take FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the West: Take FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the North via I-95: Follow I-95 to South to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the South via I-95: Follow I-95 North to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the North via US-441: Follow US-441 South to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the South via US-441: Follow US-441 North to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Friday, May 26, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

First & Last Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Debra Van Valkenburgh (A)		ANAC			perhelion@hotmail.com	
Gary Luedtke		ANAC	954-966-8013		gluedtke@gmail.com	
Allan Siegel (A)	Public Informations Officer	Broward County Aviation Department	954-359-6978		Asiegel@broward.org	
Brad Ostendorf		Broward County Aviation Department	9-359 2395		bostendorf@broward.org	
Gregory Meyer	Public Information Officer	Broward County Aviation Department - PIO	954-359-6116		GMeyer@broward.org	
John Pokryfke	Asst. Director of Operations, Aviation	Broward County Aviation Department - Airport Operations	954-359-6475		JPOKRYFKE@broward.org	
Michael Nonnemacher (A)	Acting Assistant Executive Director	Broward County Aviation Department - Airport Operations			mnonnemacher@broward.org	
Mike Pacitto (A)	Director of Planning	Broward County Aviation Department - Airport Manager's Office	954-560-0766		mpacitto@broward.org	
Tom Nazzaro	Airport Manager, Aviation	Broward County Aviation Department - Airport Business	954-359-6821		TNAZZARO@broward.org	
Will Castillo (A)	Airport Planning Manager	Broward County Aviation Department - Airport Noise Office	954-359-2291		wcastillo@broward.org	
Winston Cannicle	Noise & Environmental Officer	Broward County Aviation Department - Airport Noise Office	954-359-6181		WCANNICLE@broward.org	
Chris Akagbosu	Director, Facility of Planning & Real Estate Dept.	Broward County School Board	754-321-2162		chris.akagbosu@browardschools.com	
Karen Boudros	Executive Director	Broward Workshop	954-462-9112		kareen@browardworkshop.com	
Matt Wood	Growth Management Director	City of Cooper City	954-434-4300		MWood@coopercityfl.org	
Brad Kaine (A)		City of Dania Beach			bkaine@daniabeachfl.gov	
Marc LeFerrier		City of Dania Beach	954-924-6805 x3643		mleferrier@ci.dania-beach.fl.us	
Angelina Pluzhnyk Evans	Chief Civic Affairs Officer	City of Fort Lauderdale	561-715-9112 - C		lina@chyden.net	
Edward Rebholz	Edward Rebholz	City of Fort Lauderdale	973-476-5609		ed@edrebholz.com	
Geoff Rames (A)	U.P. LAND ISLES CIVIC DEPT. ASST.	City of Fort Lauderdale	954-327-9095		GRAMES.LICIA@GMAIL.COM	
Lorie Mertens-Black		City of Hollywood	954-921-3599		lmertens-black@hollywoodfl.org	
Peter Dokuchitz	Principal Planner / City of Plantation	City of Plantation	954-797-2265		pdokuchitz@plantation.org	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Friday, May 26, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

First & Last Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
John R. Flint	City Manager / CEO	City of Weston	954-385-2000		jflint@westonfl.org	
Julia Lundrigan	Delta Flight Ops	Delta Airlines	404-773-2882	678 427 1350	Julia.Lundrigan@delta.com	
Allan Nagy	Environmental Program Specialist	FAA - Orlando Airports District Office	407-812-6331 x130		Allan.Nagy@faa.gov	
Mary Morrissey	Senior Manager	FedEx	954-359-7432		mmmorrissey@fedex.com	
Sid Cooley (A)		FLL Airport Traffic Control Tower	954-921-9200		sidney.cooley-jr@faa.gov	
Theodore (TJ) DellNegri	Tower Manager	FLL Airport Traffic Control Tower	954-921-9201		theodore.delnegri@faa.gov	
Randie Shane	CEO/Executive Director	Greater Dania Beach Chamber of Commerce	954-926-2323		rshane@daniabeachchamber.org	
Bob Swindell	President and CEO	Greater Fort Lauderdale Alliance Economic Development Agency	954-524-3113		bswindell@gflalliance.org	
Dan Lindblade, CAE	CAE - President and CEO	Greater Fort Lauderdale Chamber of Commerce	954-462-4911		dan@ftlchamber.com	
Anne Hotte	CEO/Executive Director	Greater Hollywood Chamber of Commerce	954-923-4000		anne@hollywoodchamber.org	
Jason Annunziata	Station Manager	JetBlue	954 233-4722	646 912-2775	Jason.Annunziata@jetblue.com	
Bob Hildebidle	Air Traffic Manager A	Miami Air Traffic Management/TRACON	305-869-5402	954-292-6515 206 378 6684	Bob.Hildebidle@faa.gov	
Alex Gertson (A)	Director of Airports and Ground Infrastructure	NBAA			gvoos@NBAA.org	
Gregory Voos		NBAA				
Mark Hemmerle	Front Line Manager	South Florida Flight Standards Division (FSDO)	954-641-6015		Mark.W.Hemmerle@faa.gov	
Edwin Solley	Manager ATC Systems	Southwest Airlines	407-850-1563		Edwin.solley@wnco.com	
Michael Shiver	General Manager	Spirit Airlines	954-359-0933		michael.shiver@spirit.com	
Charles Taylor	Intergovernmental Affairs Manager	Town of Davie	954-797-1034		Charles_Taylor@davie-fl.gov	
Phillip Holste (A)	Assistant Town Administration	Town of Davie			Phillip_Holste@davie-fl.gov	
Richard Lemack	Town Administrator	Town of Davie	954-797-1034		Richard_Lemack@davie-fl.gov	
John Eastman	John Eastman	Town of Southwest Ranches	954-465-8383		john426@bellsouth.net	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Friday, May 26, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

First & Last Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Mark Modrich (A)	AA Pilot/Resident	Town of Southwest Ranches	954-540-4854	954-252-5040	MMODRICH@AOL.COM	
Kevin Hoffman - Corporate Contact	Corporate Contact	UPS	502-329-3913		khoffmann@ups.com	

SAM Robbin	CEO	NATIONAL JETS/Broward Workshop	954 868 2166	3AMRobbin@nationaljets.com	
Kevin Wu Kevin Coutam, Jr	Airport Manager Airport Planner	BCAD - OPS BCAD - PD	954 359.1216 954 359 1599	954. 279. 4740	kwu@broward.org kcoutejr@broward.org



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Friday, May 26, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Public/Residents

Please Print Clearly

First & Last Name	Title	Company Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Richard Penninger				954-591-1241	RCP37c Juno. com	
Michelle CARTER	Planning	BCAD	379-2581		micarter@broward.org	
Rufus A. James	Airport Manager	City of Fort Lauderdale	9-828-4968		rjames@fortlauderdale.gov	
Roy Liddicott	Capt.	BSO		ON FILE		
Rob Furman	LT.	BSO		ON FILE		
Dave Rickerson	Sr. Director	KHVA		407-404-0735	dave.rickerson@kimberlykorn.com	
Bob Leonard	conceded citizen			(954) 232-7141	leonard bob@att.net	
Jim Andre	Public - Local BC			9/24/662	GHOHNO@BellSouth.net	
GERIE RAMES	V. P.	LAUDERDADE CIVIC DUPRA ASSOC	954-327-9045		GRAMES.LICAP@BELL.COM	
Deen Harley	Vice Chair DBAAC	Broward College		513-652-5140	dharley@broward.edu	
Linda Armstrong	HDA - Pres - VHI Chairman Griffin Leck CDD		847-757-1073		windycitylindie@gmail.com	
DR. JUSTIN GRUBSICH	Senior Associate	Pew Charitable Trust	347-205-7601	SAME	justinrg@gmail.com	
DAVE REICH			954-871-7363		reichd@bellsouth.net	
ICHALIL NASSER	Direc1	GBP Energy	703-231-8332	703-231-8332	kmnasser@yahoo.com	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

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Public/Residents

Please Print Clearly

First & Last Name	Title	Company Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
LIZ FORDRED			954 260 6419		LIZ FORDRED@gmail.com	<i>[Signature]</i>
PETE FORDRED			954 651 4819		PFORDRED@GMAIL.COM	<i>[Signature]</i>

Technical Committee

Meeting #1

Materials Presented at Meeting



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

Meeting Agenda
Technical Committee Meeting No. 1
14 CFR Part 150 Study
Fort Lauderdale-Hollywood International Airport
May 26, 2017 – 10AM to 12PM EDT

1. Welcome and Introductions
2. Purpose and Objectives of the Technical Committee (TC)
3. Role of the TC Meeting Facilitator
4. TC Charter and Participation Agreement
5. Fort Lauderdale-Hollywood International Airport Overview
6. 14 CFR Part 150 Overview
7. Data Collection Process and Status
8. Future TC Meetings
9. Questions from TC Members
10. Adjourn



14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY

Technical Committee Meeting #1
May 26, 2017



1

Agenda

- Introductions and Opening Remarks
- Technical Committee (TC)
 - Purpose and Objectives of the Technical Committee
 - Role of the TC Meeting Facilitator
 - TC Charter and Participation Agreement
- Airport Overview
- Part 150 Study Overview
- Introduction to Aircraft Noise, Modeling, and Compatibility
- Initial Data Collection
- Project Schedule
- TC Questions



Welcome and Introductions



Welcome and Introductions – Consultant Team



Environmental Science Associates (ESA)

- 500+ person environmental consulting firm
- Experience at more than 150 airports nationally
- Highly complex projects
 - LaGuardia Part 150
 - John F. Kennedy International Part 150
 - Los Angeles International Part 150
 - San Francisco International Part 150
 - Hartsfield-Jackson Atlanta International Part 150
 - O'Hare Modernization Program EIS
- More than 100 airport noise-related studies in Florida



Welcome and Introductions – Consultant Team



Welcome and Introductions – Consultant Team



Garth Solutions, Inc. (GSI)
Public Outreach/Facilitation/Communications



Kimley-Horn and Associates, Inc. (KHA)
Land Use Planning/Public Outreach Support



Vanasse Hangen Brustlin, Inc. (VHB)
Technical Support/Public Outreach Support



American Infrastructure Development, Inc. (AID)
Strategic Planning/Public Outreach Support



Lewis, Longman, & Walker, P.A. (LLW)
Land Use Planning Legal Support



Planning Technology, Inc. (PTI)
Website Design



Arora Engineers (Arora)
Geographic Information Systems/Mapping



Technical Committee



TC Members

- BCAD
- ANAC
- Southwest Airlines
- Delta Airlines
- JetBlue*
- Spirit Airlines
- FedEx*
- UPS*
- NBAA
- Greater Fort Lauderdale Chamber of Commerce
- Greater Hollywood Chamber of Commerce
- Greater Dania Beach Chamber of Commerce
- Greater Fort Lauderdale Alliance Economic Development Agency
- Broward Workshop
- City of Dania Beach
- City of Fort Lauderdale
- City of Hollywood
- Town of Davie
- City of Plantation
- City of Cooper City
- Town of Southwest Ranches
- City of Weston
- Broward County Planning and Development Management Division*
- Broward County School Board*
- FAA - Orlando Airports District Office
- Miami Air Traffic Management/TRACON
- FLL Airport Traffic Control Tower
- South Florida Flight Standards Division (FSDO)

*Participation in the Technical Committee not yet confirmed.



Purpose and Objectives of the TC

- Broward County Aviation Department (BCAD) has formed a Technical Committee (TC) for the Part 150 Study for Fort Lauderdale-Hollywood International Airport (FLL)
- BCAD has invited a cross section of key stakeholders to serve on the TC
- The TC is composed of primary and alternate members who are authorized to represent their organization and/or constituents for the duration of the FLL Part 150 Study, which is estimated at three years
- TC meetings will be conducted in a professional and respectful manner
- TC meetings will be open to the public, subject to space availability



Purpose and Objectives of the TC

- TC members represent the interests of their organization and/or constituents
- The TC's role is to support the FLL Part 150 Study
 - Review study assumptions
 - Provide technical feedback within the context of the Part 150 Study (noise exposure maps and noise compatibility program)
 - TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members
- TC members are also expected to advise their organization and/or constituents of the TC's discussions
- BCAD will respect and consider the TC's technical input, but retains responsibility for, and decision making authority on, the FLL Part 150 Study



Role of the TC Meeting Facilitator

- To ensure that the TC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item at his or her sole discretion
- The meeting facilitator, or BCAD, may cancel or suspend a TC meeting due to disrespectful or disruptive behavior



TC Charter and Participation Agreement

- The TC Charter and Participation Agreement are included in today's handout materials
- The Charter describes the role of the TC and describes the conduct of the TC meetings
- Please return the signed Participation Agreement to BCAD today
- BCAD anticipates there will be 8 TC meetings during the Study's duration
- TC meetings will be held quarterly, on average
- Every effort will be made to schedule TC meeting dates and times that will be convenient to the majority of TC members
- TC membership is voluntary and TC members will not be compensated for their time

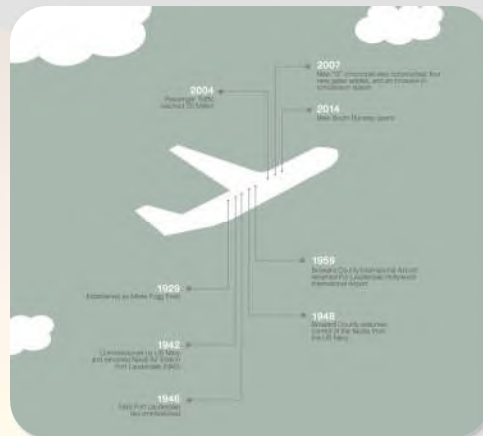


Airport Overview



FLL Overview

- FLL is 21st in the U.S. in total passenger traffic and 13th in domestic origin and destination passengers
- Each day an average of 80,000 travelers pass through FLL
- The new South Runway opened in September 2014
- Nonstop flights to over 100 U.S. and international cities
- 139,920 total jobs (direct, indirect, and induced)



FLL Overview



FLL Overview - Roles and Responsibilities

Three core organizations are involved in aircraft operations at FLL:

- Federal Aviation Administration (FAA)
 - Directs the safe movement of aircraft in the air and on the ground
- BCAD
 - Manages the airport(s), improves and maintains airport facilities
 - No control over where aircraft fly
- Pilots
 - The pilot in command has ultimate responsibility for the safe operation of his/her aircraft



Part 150 Study Overview



14 CFR Part 150 Overview

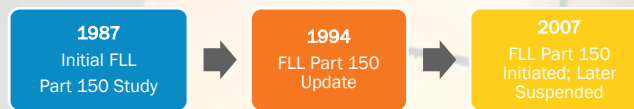
- Interim Rule on Federal Aviation Regulations (FAR) Part 150, *Airport Noise Compatibility Planning* issued in 1981 and finalized in 1985, later recodified as Title 14 Code of Federal Regulations (CFR) Part 150
- Issued in response to provisions contained in the *Aviation Safety and Noise Abatement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



Part 150 Study Overview

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

FLL's Part 150 Efforts Span 3 Decades



Part 150 Study Overview

Key Issues

- Operational Concerns
 - 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



Part 150 Study Overview

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



Part 150 Study Overview

Analyze, Evaluate, Educate

- Determine existing and future noise conditions in the vicinity of an airport
- Identify incompatible uses
- Identify measures to improve compatibility
 - Evaluate the feasibility of possible flight procedure/land use changes
 - Submit locally-endorsed recommendations to the FAA regarding noise reduction measures
 - Approved measures may be eligible for Federal grant funding
- Educate communities on the Federal process and what can and cannot be done to address aircraft noise concerns

**Part 150 Studies Must Adhere to 14 CFR Part 150
Guidelines to be Accepted and Approved by FAA**



Part 150 Study Overview

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)

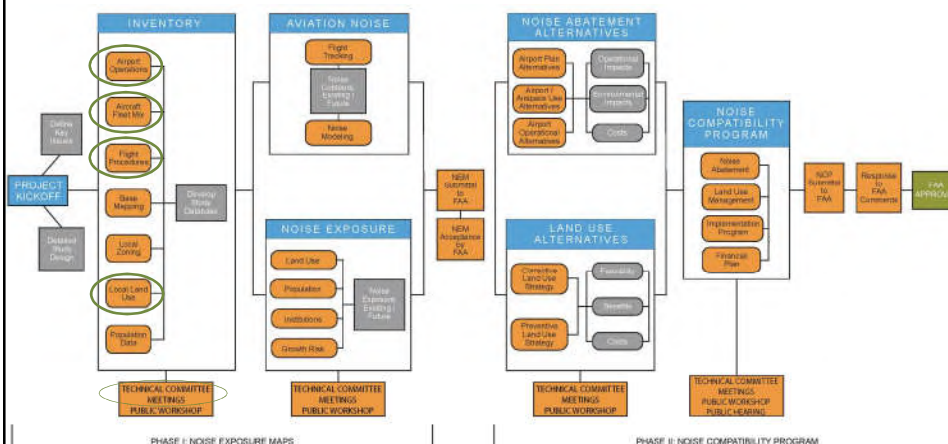
- Identify and evaluate noise abatement alternatives
- Identify and evaluate compatible land use alternatives
- Identify and evaluate administrative measures
- Prepare and submit Noise Compatibility Program (NCP) Report

Stakeholder Outreach Program

- Local Jurisdictions/Agencies
- FAA
- Public



Part 150 Study Overview – General Study Process



Other Milestones:

- BCAD Initiation of a Study Coordination Committee in Fall 2016
- FAA Approval of the FLL Part 150 Study Forecast on April 10, 2017
- Website launched on May 3, 2017

Noise, Modeling and Compatibility



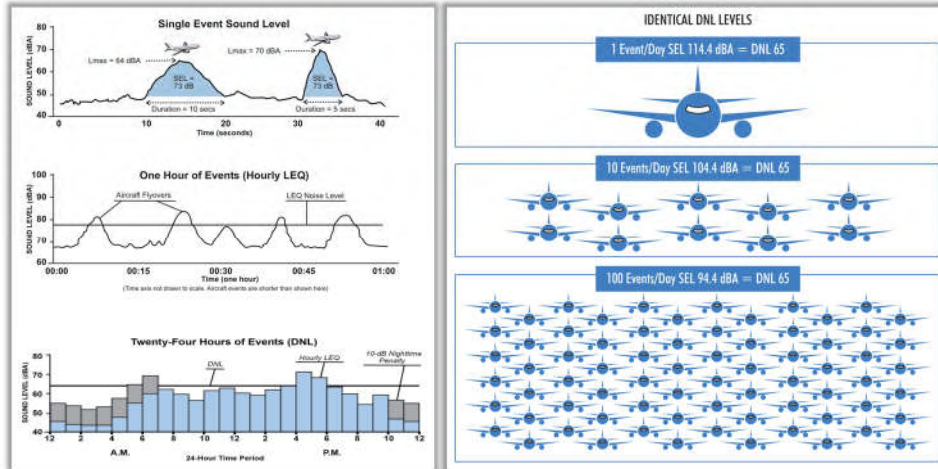
Introduction to Aircraft Noise - DNL

Day-Night Average Sound Level (DNL)

- 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)
- Noise occurring between 10 p.m. to 7 a.m. is penalized by 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



Introduction to Aircraft Noise - DNL



Part 150 Study Overview – 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.

Part 150 Study Overview – Modeling

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



**Aviation Environmental
Design Tool (AEDT)
Version 2C**



Part 150 Study Overview – Land Use Compatibility

Land Uses

- Existing and Future Land Use
- Land parcel data
- Zoning
- Jurisdictional boundaries and neighborhoods

Noise Sensitive Uses

- Residential
- Places of worship
- Schools, colleges and universities
- Libraries/cultural institutions
- Hospitals and residential healthcare facilities
- Daycare and assisted living facilities
- Historic properties



Part 150 Study Overview - Land Use Compatibility

Land Use Compatibility

- 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 55	55-59	60-64	65-69	70-74	Over 75
Residential						
Residential other than mobile homes and transient housing	Y	Y	Y	N	N	N
Mobile home park	Y	Y	Y	N	N	N
Transient housing	Y	Y	Y	N	N	N
Public Use						
Schools	Y	Y	Y	N	N	N
Hospitals and nursing homes	Y	Y	Y	N	N	N
Churches, auditoriums and concert halls	Y	Y	Y	N	N	N
Government offices	Y	Y	Y	N	N	N
Transportation	Y	Y	Y	N	N	N
Hotels	Y	Y	Y	N	N	N
Commercial Use						
Offices, business and professional	Y	Y	Y	N	N	N
Wholesale and retail stores	Y	Y	Y	N	N	N
Restaurants and food service	Y	Y	Y	N	N	N
Amusement and recreation	Y	Y	Y	N	N	N
Hotels	Y	Y	Y	N	N	N
Gas stations	Y	Y	Y	N	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y	N	N	N
Photographic and similar	Y	Y	Y	N	N	N
Alcohol and beverage production and bottling	Y	Y	Y	N	N	N
Food processing and packaging	Y	Y	Y	N	N	N
Printing and publishing	Y	Y	Y	N	N	N
Recreation						
Amusement and recreation	Y	Y	Y	N	N	N
Camping	Y	Y	Y	N	N	N
Swimming	Y	Y	Y	N	N	N
Boating	Y	Y	Y	N	N	N
Fishing	Y	Y	Y	N	N	N
Hunting	Y	Y	Y	N	N	N
Other	Y	Y	Y	N	N	N



Part 150 Study Overview – Land Use Compatibility



Part 150 Overview - FAQs

Frequently Asked Questions

- Will the study “fix” all the noise issues around the airport?
 - No, overflights of residential areas are unavoidable and sensitivity to noise varies by person
- What type of noise monitoring will be conducted?
 - None, all analysis is modeling based which allows consistency and evaluation of future conditions
- Will the Study address concerns about safety, soot, or other concerns related to aircraft operation?
 - The Part 150 process focusses exclusively on noise and land use compatibility



Initial Data Collection



Part 150 Study Overview - Years of Analysis

Noise Exposure Maps – Baseline Conditions

- Base year and a future year which is at least 5 years into the future
- Basis of comparison for effectiveness of potential noise abatement measures
- Year of submittal must be consistent with base year
 - Existing Condition: 2017
 - Future Condition: 2022
- Existing Condition based on recent 12 months of operational data applied to 2017 projected activity level



Data Collection – Operational Information

- CY 2016 data from the BCAD's Airport Noise and Operations Management System (ANOMS):
 - Airport Operations
 - Aircraft Fleet Mix
 - Time of Day of Operation
 - Arrival and Departure Flight Tracks
 - Flight Profiles
 - Stage Length
- 2016 FAA Air Traffic Activity Data System (ATADS)
- BCAD Master Plan Update Forecasts



Data Collection - 2016 Operational Information

Annual Aircraft Operations

Date	Air Carrier	Air Taxi	General Aviation	Military	Total
January 2016	19,945	2,849	3,377	39	26,210
February 2016	19,026	2,711	3,188	49	24,974
March 2016	21,120	3,343	3,948	55	28,466
April 2016	18,871	3,203	3,334	52	25,460
May 2016	17,807	3,031	2,884	106	23,828
June 2016	17,461	2,704	2,672	47	22,884
July 2016	17,853	2,818	2,781	42	23,494
August 2016	17,382	2,586	2,551	73	22,592
September 2016	15,224	2,203	2,267	55	19,749
October 2016	15,498	2,182	2,622	45	20,347
November 2016	18,378	2,599	3,450	50	24,477
December 2016	21,455	2,832	3,437	34	27,758
Total	220,020	33,061	36,511	647	290,239

Source: FAA Air Traffic Activity Data System (ATADS), 2016.

Data Collection - 2016 Operational Information

Daytime and Nighttime Operations

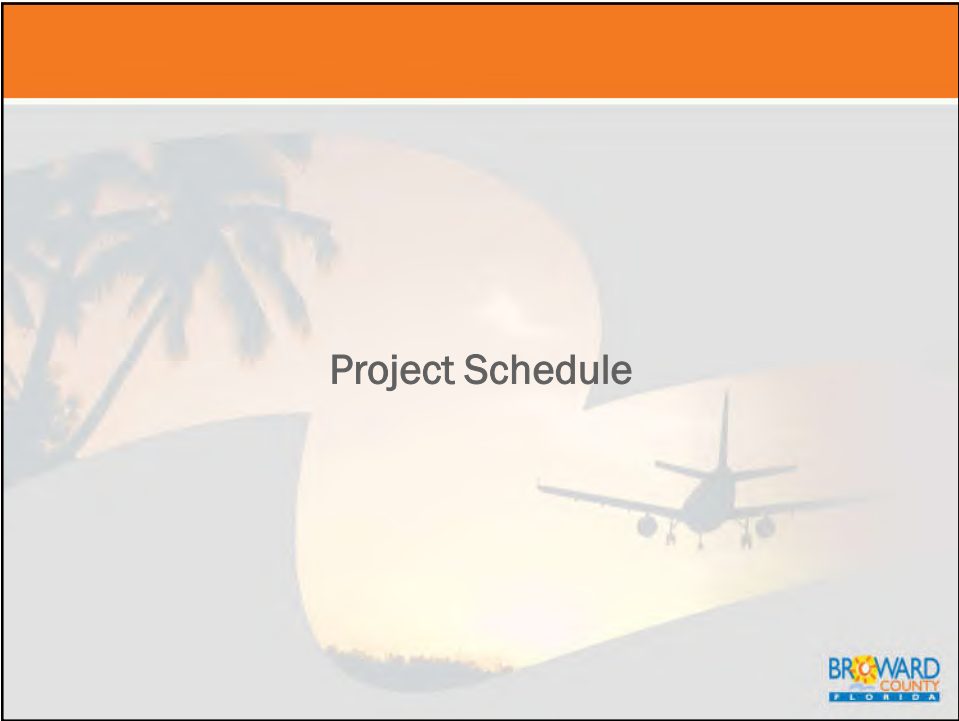
Operation Type	Day	Night	Grand Total
Arrivals	84%	16%	100%
Departures	90%	10%	100%
Grand Total	87%	13%	100%

Source: Airport Noise Monitoring and Management System (ANOMS), 2016.

Runway Usage

Operation Type	Runway	Day	Night	Grand Total
Arrivals	10L	52%	74%	55%
	10R	29%	7%	26%
	28L	7%	1%	6%
	28R	12%	18%	13%
Arrivals Total		100%	100%	100%
Departures	10L	49%	65%	51%
	10R	32%	16%	30%
	28L	7%	3%	6%
	28R	12%	16%	13%
Departures Total		100%	100%	100%

Source: Airport Noise Monitoring and Management System (ANOMS), 2016.



Preliminary Study Schedule

Noise Exposure Maps

- Data Collection Summer 2016-Fall 2017
- Public Outreach Fall-Winter 2017
- Noise Modeling Fall-Winter 2017*
- NEM Report/FAA Acceptance Summer 2018*

Noise Compatibility Program

- Alternatives Analysis Spring-Fall 2018
- NCP Report Fall-Winter 2018
- Public Hearing Spring 2019
- FAA 180 Day Review/ROA Fall-Winter 2019

* Schedule may shift depending on availability of FAA's Metroplex flight path data.

BROWARD COUNTY
FLORIDA

Future Meetings

Technical Committee

- TC Meeting #2
- TC Meeting #3 (Tentative)

Tentatively August 2017

Fall 2017

Public Workshops

- Overview of Part 150 Process

TBD*

* Date for public involvement is dependent on the Study Coordination Committee.

TC and Public Workshop materials will be available on the project website immediately following each meeting
www.flpart150.com



Study Website

Project Website – www.flpart150.com

- Project information
- Notification of upcoming meetings
- Comment mechanism
- Links to other websites



Questions from TC Members



Technical Committee

Meeting #1

Meeting Summary

Fort Lauderdale-Hollywood International Airport
14 CFR Part 150 Noise and Land Use Compatibility Study
Technical Committee Meeting #1

May 26, 2017

Meeting Notes

Agenda and Key Topics:

- Welcome and Introductions
- Technical Committee Roles and Responsibilities
- Fort Lauderdale-Hollywood International Airport (FLL) Airport Overview
- 14 CFR Part 150 Overview
- Noise, Modeling, and Land Use Compatibility
- Initial Data Collection
- Project Schedule

Meeting Summary:

As the inaugural meeting, the primary focus was to establish a clear understanding of the roles, responsibilities, and expectations of the Technical Committee (TC) members. The TC's role is to support the FLL Part 150 Study, review study assumptions, and provide technical feedback within the context of the Study (Noise Exposure Maps and Noise Compatibility Program). TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members. TC members are responsible for advising their organization and/or constituents of the TC's discussions.

- The Technical Committee convened for its first meeting at 10:00 AM on May 26, 2017 at the Secret Woods Nature Center in the Julia Hall.
- The meeting began with introductions of participants and was followed by opening remarks from Mark Gale, Aviation Director for FLL.
- The meeting facilitator established ground rules for the TC members. Since the meeting format did not allow for public participating, attending members of the public were advised of ways in which they could submit comments which included the project website (www.flpart150.com) and at future public meeting (dates TBD).
- Michael Arnold, Part 150 Study Project Director representing the ESA consulting team presented Study information to TC members. The presentation provided an overview of FLL, the purpose and process of a Part 150 Study, data collection, anticipated timeline, and next steps related to the FLL Part 150 Study.

Questions & comments from TC members:

Q: Does the committee have access to the accelerated forecast approved on April 10?

A: Yes. It will be presented at a future TC meeting and will be available on the FLL Master Plan Update website (<http://www.broward.org/Airport/Community/MasterPlan>).

Q: Where is the funding for the study coming from?

A: The Federal Aviation Administration (FAA) is providing 75% and the Broward County Aviation Department (BCAD) is funding the remaining 25%.

Q: How will the Part 150 Study and the Airport Master Plan Update work together?

A: The main information developed in the Master Plan that will be used in the noise study is the forecasted aircraft activity levels. If there are any changes to the airfield in the Master Plan Update those changes would need to be incorporated in the future noise analysis. In this case, any airfield changes prior to 2022 would be included in the Part 150 Study future condition, which will also model the accelerated baseline forecast operational levels.

Q: Are we strictly talking about aircraft noise and not car traffic around the airport?

A: That is correct. The study is limited to aircraft noise. The Master Plan Update will study vehicle traffic around the airport.

Q: FLL operates to the east 80% of the time and the west the remaining 20%. Aircraft flows vary depending on the season. How is the difference in operations weighed in the noise study using DNL?

A: Day-Night Average Sound Level (DNL) is the only metric approved by FAA for compatibility purposes. It reflects annual average day sound exposure. This metric doesn't depict the specific fluctuations of noise based on season or peak times, even though the model includes those periods.

Q: Noise occurring between 10pm and 7am is penalized by 10 decibels to account for higher sensitivity?

A: With the DNL metric, any aircraft activity occurring within that time frame is adjusted by 10 decibels to account for the increased sensitivity to noise at night. One nighttime aircraft operation has the same effect on the noise contours as 10 daytime aircraft operations.

Q: Do you have an existing land use compatibility map for FLL?

A: We will be developing an existing land use map as part of the study. Compatibility will be determined once we have modeled existing and future conditions.

Q: Is compatibility tied to aircraft's distance to the airport and the height above the residences?

A: We look at the altitude and location of flight tracks in three dimensions when setting up the model. We also include specific engine types when we model aircraft operations.

C: The contours are wider where planes take off and narrower where planes land.

Q: Can you add equestrian areas in categories of noise sensitivities for the Town of Davie?

A: Equestrian is not a separate category in land use data; however, we can look at those types of uses and where they are located. Humans are the priority when it comes to land use impacts.

When we look at making changes that result in flight path changes, we will consider whether there is an impact on the community, as well as the equestrians to the extent possible.

Q: Will the study recommend the installation of more noise monitors in highly impacted areas around FLL?

A: We will look at the existing noise monitors when determining the necessary adjustments to recommend in the Study, which may include relocating or installing additional monitors.

Q: Are you looking at 2014 in the noise study comparison? Are you just looking at 2015 and 2016?

A: 2017 is the existing condition year; we will not be modeling 2014, 2015, or 2016 aircraft operations. Actual aircraft operational data from 2016 will be applied to 2017 aircraft operations (counts) in order to accurately model the existing conditions. We will look at the existing (2017) and future (2022) conditions to determine how to improve noise impacts in the future.

Q: How are stage lengths analyzed and will you be getting actual weights?

A: We will use destination and aircraft profile (altitude) information from FLL's Airport Noise Monitoring and Management System (ANOMS). We will use actual weight information if it is available.

Q: In your modeling, how do you account for flight operations with the various pilot flight patterns?

A: We will use 2016 flight operations data from ANOMS to develop flight tracks.

Q: What is included in Air Taxi column? Does it include charter operators or just commuters?

A: Air Taxi operations include small commercial aircraft operations, such as charter and commuter aircraft.

Q: How do you account for the explosion in population growth?

A: Census population estimates will be included in the data collection effort.

Q: Are we able to get a brief update on the Master Plan at each of these meetings?

A: The Master Plan Update has recurring Technical Advisory Committee meetings that provide an update at the beginning of each of those meetings.

Q: Do you have expectations for the next meeting?

A: We will post on the website a copy of 14 CFR Part 150 for you to review for next meeting. Please fill out the Participation Agreement and return it to us before that meeting.

Q: Are military aircraft included in this Study?

A: Yes.

Actionable Next Steps:

As agreed upon by the TC members, the next meeting will be held at the Secret Woods Nature Center - Julia Hall, in August 2017, on a Wednesday morning.

Meeting Adjourned at 12:00 PM

Appendix H-2
Technical Committee
Meeting #2
August 23, 2017

Technical Committee

Meeting #2

Meeting Notice and

Attendance Roster



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

**Subject: Fort Lauderdale-Hollywood International Airport
14 CFR Part 150 Study - Technical Committee Meeting #2**

Please save the date for the next Technical Committee meeting to support the Fort Lauderdale-Hollywood International Airport Part 150 Study.

Date: Wednesday, August 23, 2017

Time: 10:00AM - 12:00PM

Location: Secret Woods Nature Center | Julia Hall; 2701 W. SR 84; Dania Beach, FL 33312

Please arrive 10 minutes early to allow time to check in prior to the start of the meeting.

Broward County Board of County Commissioners

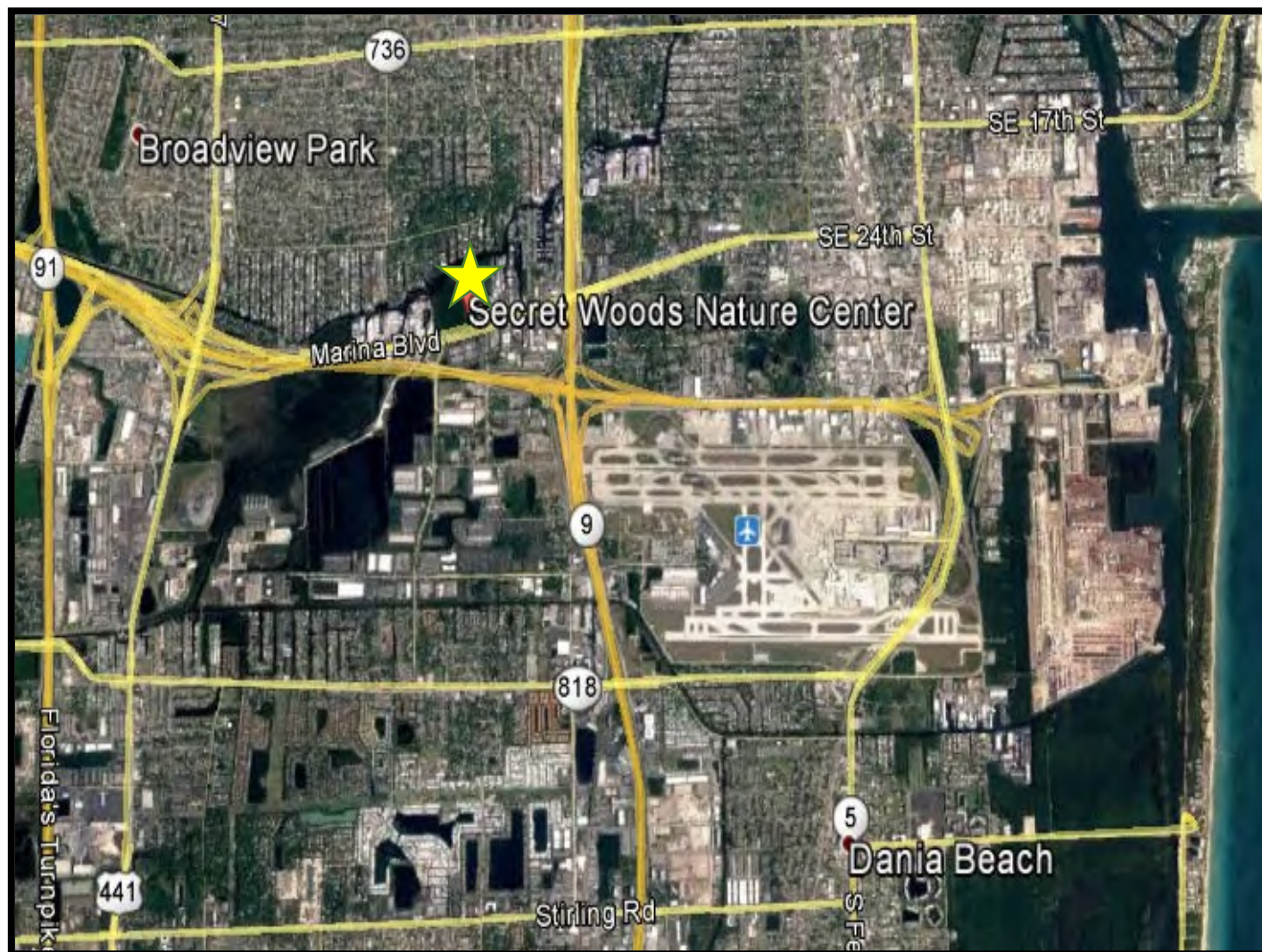
Mark D. Bogen • Beam Furr • Steve Geller • Dale V.C. Holness • Chip LaMarca • Nan H. Rich • Tim Ryan • Barbara Sharief • Michael Udine
www.broward.org/www.fl.net

Secret Woods Nature Center

Julia Hall

2701 W. SR 84

Dania Beach, FL 33312



From the East: Take FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the West: Take FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the North via I-95: Follow I-95 to South to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the South via I-95: Follow I-95 North to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the North via US-441: Follow US-441 South to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the South via US-441: Follow US-441 North to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee 2

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Akagbosu	Chris	Director, Facility of Planning & Real Estate Dept.	Broward County School Board	754-321-2162		chris.akagbosu@browardschools.com	
Annunziata	Jason	Station Manager	JetBlue	954 233-4722	646-942-2775	Jason.Annunziata@jetblue.com	
Boutros	Kareen	Executive Director	Broward Workshop	954-462-9112		kareen@browardworkshop.com	
Cannicle	Winston	Noise & Environmental Officer	Broward County Aviation Department - Airport Noise Office	954-359-6181		WCANNICLE@broward.org	
Castillo (A)	Will	Airport Planning Manager	Broward County Aviation Department - Airport Noise Office	954-359-2291		wcastillo@broward.org	
Cooley (A)	Sid		FLL Airport Traffic Control Tower	954-921-9200		sidney.cooley-jr@faa.gov	
Coutain, Jr.	Ken	Airport Planner	Broward County Aviation Department - P/D	954-359-1599		kcoutain@broward.org	
DelNegri	Theodore (TJ)	Tower Manager	FLL Airport Traffic Control Tower	954-921-9201		theodore.delnegri@faa.gov	
Dokuchitz	Peter	Principal Planner / City of Plantation	City of Plantation	954-797-2265		pdokuchitz@plantation.org	
Eastman	John	John Eastman	Town of Southwest Ranches	954-465-8383		john426@bellsouth.net	
Flint	John R.	City Manager / CEO	City of Weston	954-385-2000		jflint@westonfl.org	
Gaenicke	Sierra		VHB			sgaenicke@vhb.com	
Gale	Mark	Director of Aviation	Broward County Aviation Department			mgale@broward.org	
Gertsen (A)	Alex	Director of Airports and Ground Infrastructure	NBAA	202-737-4477		Associationagertsen@nbaa.org	
Govin	Yasmin		Broward County Aviation Department - Airport Business	954-359-6145		ygovin@broward.org	
Hemmerle	Mark	Front Line Manager	South Florida Flight Standards Division (FSDO)	954-641-6015		Mark.W.Hemmerle@faa.gov	
Hildebidle	Bob	Air Traffic Manager A	Miami Air Traffic Management/TRACON	305-869-5402	954-292-6515	Bob.Hildebidle@faa.gov	
Hoffman	Kevin	Corporate Contact	UPS	502-329-3913		khoffmann@ups.com	
Holste (A)	Phillip	Assistant Town Administration	Town of Davie	954-797-1034		Phillip_Holste@davie-fl.gov	
Hotte	Anne	CEO/Executive Director	Greater Hollywood Chamber of Commerce	954-923-4000		anne@hollywoodchamber.org	
Kaine (A)	Brad	Director of Public Services	City of Dania Beach	954-924-6808		bkaine@daniabeachfl.gov	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
LaFerrier	Marc	Director, Community Development	City of Dania Beach	954-924-6805 x3643		mllaferrier@ci.dania-beach.fl.us	
Lemack	Richard	Town Administrator	Town of Davie	954-797-1034		Richard_Lemack@davie-fl.gov	
Lindblade, CAE	Dan	CAE - President and CEO	Greater Fort Lauderdale Chamber of Commerce	954-462-4911		dan@ftlchamber.com	
	Gary		ANAC	954-966-8013		gluedtke@gmail.com	
	Julia	Delta Flight Ops	Delta Airlines	404-773-2882	678-427-1350	Julia.Lundrigan@delta.com	
Mertens-Black	Lorie	Chief Civic Affairs Officer	City of Hollywood	954-921-3599		lmertens-black@hollywoodfl.org	
Meyer	Gregory	Public Information Officer	Broward County Aviation Department - PIO	954-359-6116		GMeyer@broward.org	
Modrich (A)	Mark	AA Pilot/Resident	Town of Southwest Ranches	954-540-4854	954-252-5040	mmodrich@aol.com	
Morrissey	Mary	Senior Manager	FedEx	954-359-7432		mmmorrissey@fedex.com	
Nagy	Allan	Environmental Program Specialist	FAA - Orlando Airports District Office	407-812-6331 x130		Allan.Nagy@faa.gov	on phone
Nazzaro	Tom	Airport Manager, Aviation	Broward County Aviation Department - Airport Business	954-359-6821		tnazzaro@broward.org	
Nonnemacher (A)	Michael	Acting Assistant Executive Director	Broward County Aviation Department - Airport Operations			mnonnemacher@broward.org	
Ostendorf	Brad	Environmental Manager	Broward County Aviation Department	954-359-2395	954 829 0857	bostendorf@broward.org	
Pacitto (A)	Mike	Director of Planning	Broward County Aviation Department - Airport Manager's Office	954-560-0766		mppacitto@broward.org	
Pluzhnyk Evans	Angelina	Chief Civic Affairs Officer	City of Fort Lauderdale	561-715-9112 -C	same	lina@chyden.net	
Pokryfke	John	Asst. Director of Operations, Aviation	Broward County Aviation Department - Airport Operations	954-359-6475		jpokryfke@broward.org	
Rames (A)	Geoff	Lauderdale Isles Water Management District	City of Fort Lauderdale	954-327-9095		grames.lcia@gmail.com	
Rebholz	Edward		City of Fort Lauderdale	973-476-5609		ed@edrebholz.com	
Robbin	Sam	CEO	National Jets/Broward Workshop	954-868-2166		samrobbin@nationaljets.com	
Shane	Randie	CEO/Executive Director	Greater Dania Beach Chamber of Commerce	954-926-2323		rshane@daniabeachchamber.org	
Shiver	Michael	General Manager	Spirit Airlines	954-359-0933		michael.shiver@spirit.com	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Siegel (A)	Allan	Public Informations Officer	Broward County Aviation Department	954-359-6978		Asiegel@broward.org	
Solley	Edwin	Manager ATC Systems	Southwest Airlines	407-850-1563		Edwin.solley@wnco.com	
Swindell	Bob	President and CEO	Greater Fort Lauderdale Alliance Economic Development Agency	954-524-3113		bswindell@gflalliance.org	
Taylor	Charles	Intergovernmental Affairs Manager	Town of Davie	954-797-1034		Charles_Taylor@davie-fl.gov	
Van Valkenburgh (A)	Debra		ANAC			perhelion@hotmail.com	
Voos	Gregory	South Regional Representative	NBAA	202-737-4475		gvoos@nbaa.org	
Wood	Matt	Growth Management Director	City of Cooper City	954-434-4300		MWood@coopercityfl.org	
Wu	Kevin	Airport Manager	Broward County Aviation Department - OPS	954-359-1216	954-279-4740	kwu@broward.org	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #2

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Akagbosu	Chris	Director, Facility of Planning & Real Estate Dept.	Broward County School Board	754-321-2162		chris.akagbosu@browardschools.com	
Annunziata	Jason	Station Manager	JetBlue	954 233-4722	646-942-2775	Jason.Annunziata@jetblue.com	
Boutros	Kareen	Executive Director	Broward Workshop	954-462-9112		kareen@browardworkshop.com	
Cannicle	Winston	Noise & Environmental Officer	Broward County Aviation Department - Airport Noise Office	954-359-6181		WCANNICLE@broward.org	
Castillo (A)	Will	Airport Planning Manager	Broward County Aviation Department - Airport Noise Office	954-359-2291		wcastillo@broward.org	
Cooley (A)	Sid		FLL Airport Traffic Control Tower	954-921-9200		sidney.cooley-jr@faa.gov	
Coutain, Jr.	Ken	Airport Planner	Broward County Aviation Department - P/D	954-359-1599		kcoutain@broward.org	
DelNegri	Theodore (TJ)	Tower Manager	FLL Airport Traffic Control Tower	954-921-9201		theodore.delnegri@faa.gov	
Dokuchitz	Peter	Principal Planner / City of Plantation	City of Plantation	954-797-2265		pdokuchitz@plantation.org	
Eastman	John	John Eastman	Town of Southwest Ranches	954-465-8383		john426@bellsouth.net	
Flint	John R.	City Manager / CEO	City of Weston	954-385-2000		jflint@westonfl.org	
Gaenicke	Sierra		VHB			sgaenicke@vhb.com	
Gale	Mark	Director of Aviation	Broward County Aviation Department			mgale@broward.org	
Gertsen (A)	Alex	Director of Airports and Ground Infrastructure	NBAA	202-737-4477		Associationagertsen@nbaa.org	
Govin	Yasmin		Broward County Aviation Department - Airport Business	954-359-6145		ygovin@broward.org	
Hemmerle	Mark	Front Line Manager	South Florida Flight Standards Division (FSDO)	954-641-6015		Mark.W.Hemmerle@faa.gov	
Hildebidle	Bob	Air Traffic Manager A	Miami Air Traffic Management/TRACON	305-869-5402	954-292-6515	Bob.Hildebidle@faa.gov	
Hoffman	Kevin	Corporate Contact	UPS	502-329-3913		khoffmann@ups.com	
Holste (A)	Phillip	Assistant Town Administration	Town of Davie	954-797-1034		Phillip_Holste@davie-fl.gov	
Hotte	Anne	CEO/Executive Director	Greater Hollywood Chamber of Commerce	954-923-4000		anne@hollywoodchamber.org	
Kaine (A)	Brad	Director of Public Services	City of Dania Beach	954-924-6808		bkaine@daniabeachfl.gov	




Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #2

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
LaFerrier	Marc	Director, Community Development	City of Dania Beach	954-924-6805 x3643		mferrier@ci.dania-beach.fl.us	
Lemack	Richard	Town Administrator	Town of Davie	954-797-1034		Richard_Lemack@davie-fl.gov	
Lindblade, CAE	Dan	CAE - President and CEO	Greater Fort Lauderdale Chamber of Commerce	954-462-4911		dan@ftlchamber.com	
Luedtke	Gary		ANAC	954-966-8013		gluedtke@gmail.com	
Lundrigan	Julia	Delta Flight Ops	Delta Airlines	404-773-2882	678-427-1350	Julia.lundrigan@delta.com	
Mertens-Black	Lorie	Chief Civic Affairs Officer	City of Hollywood	954-921-3599		lmertens-black@hollywoodfl.org	
Meyer	Gregory	Public Information Officer	Broward County Aviation Department - PIO	954-359-6116		GMeyer@broward.org	
Modrich (A)	Mark	AA Pilot/Resident	Town of Southwest Ranches	954-540-4854	954-252-5040	mmodrich@aol.com	
Morrissey	Mary	Senior Manager	FedEx	954-359-7432		mmmorrissey@fedex.com	
Nagy	Allan	Environmental Program Specialist	FAA - Orlando Airports District Office	407-812-6331 x130		Allan.Nagy@faa.gov	
Nazzaro	Tom	Airport Manager, Aviation	Broward County Aviation Department - Airport Business	954-359-6821		tnazzaro@broward.org	
Nonnemacher (A)	Michael	Acting Assistant Executive Director	Broward County Aviation Department - Airport Operations			mnonnemacher@broward.org	
Ostendorf	Brad		Broward County Aviation Department	954-359-2395		bostendorf@broward.org	
Pacitto (A)	Mike	Director of Planning	Broward County Aviation Department - Airport Manager's Office	954-560-0766		mppacitto@broward.org	
Pluzhnyk Evans	Angelina	Chief Civic Affairs Officer	City of Fort Lauderdale	561-715-9112 - C		lina@chyden.net	
Pokryfke	John	Asst. Director of Operations, Aviation	Broward County Aviation Department - Airport Operations	954-359-6475		jpokryfke@broward.org	
Rames (A)	Geoff	Lauderdale Isles Water Management District	City of Fort Lauderdale	954-327-9095		grames.lucia@gmail.com	
Rebholz	Edward		City of Fort Lauderdale	973-476-5609		ed@edrebholz.com	
Robbin	Sam	CEO	National Jets/Broward Workshop	954-868-2166		samrobbin@nationaljets.com	
Shane	Randie	CEO/Executive Director	Greater Dania Beach Chamber of Commerce	954-926-2323		rshane@daniabeachchamber.org	
Shiver	Michael	General Manager	Spirit Airlines	954-359-0933		michael.shiver@spirit.com	




Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #2

Date / Time: Wednesday, August 23, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Siegel (A)	Allan	Public Informations Officer	Broward County Aviation Department	954-359-6978		Asiegel@broward.org	
Solley	Edwin	Manager ATC Systems	Southwest Airlines	407-850-1563		Edwin.solley@wnco.com	
Swindell	Bob	President and CEO	Greater Fort Lauderdale Alliance Economic Development Agency	954-524-3113		bswindell@gfalliance.org	
Taylor	Charles	Intergovernmental Affairs Manager	Town of Davie	954-797-1034		Charles_Taylor@davie-fl.gov	
Van Valkenburgh (A)	Debra		ANAC			perhelion@hotmail.com	
Voos	Gregory	South Regional Representative	NBAA	202-737-4475		gvoos@nbaa.org	
Wood	Matt	Growth Management Director	City of Cooper City	954-434-4300		MWood@coopercityfl.org	
Wu	Kevin	Airport Manager	Broward County Aviation Department - OPS	954-359-1216	954-279-4740	kwu@broward.org	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Friday, May 26, 2017 10:00 AM - 12:00 PM

Location: Secret Wood Nature Center

First & Last Name	Title	Company Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
David Ramacorti	Director	Ricordo & Associates	561 277-3715	954-254-1501	d-ramacorti@ricordo.com	
Rufus James	Airport Manager	Fort Lauderdale Executive	954-828-4968	954-931-4232	rjames@fortlauderdale.gov	
Heather McIntyre	Guest	live in Lauderdale Isles	305.987.7466	SAA	mcintyrehe@msc.com	
PAT WRIGHT	Guest				RCWPAW@Juno.com	
JOHN EASTMAN	TOWN of SW RANCHES	(TC member)				
SARA Nichols	Realtor	TRANSSTATE REALTY	954 854 5424	—	saranichols321@yahoo.com	

Technical Committee

Meeting #2

Materials Presented at Meeting



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

Meeting Agenda
Technical Committee Meeting No. 2
14 CFR Part 150 Study
Fort Lauderdale-Hollywood International Airport
August 23, 2017 – 10AM to 12PM EDT

1. Introductions
2. Review of the Role of the TC Meeting Facilitator
3. Review of TC Meeting No.1
4. Data Collection Process and Status
5. AEDT Model Inputs
6. Aircraft Activity Forecast
7. Runway Use
8. Flight Track Analysis (Examples)
9. Future TC Meetings
10. Questions from TC Members
11. Adjourn



14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY

Technical Committee Meeting #2
August 23, 2017



1

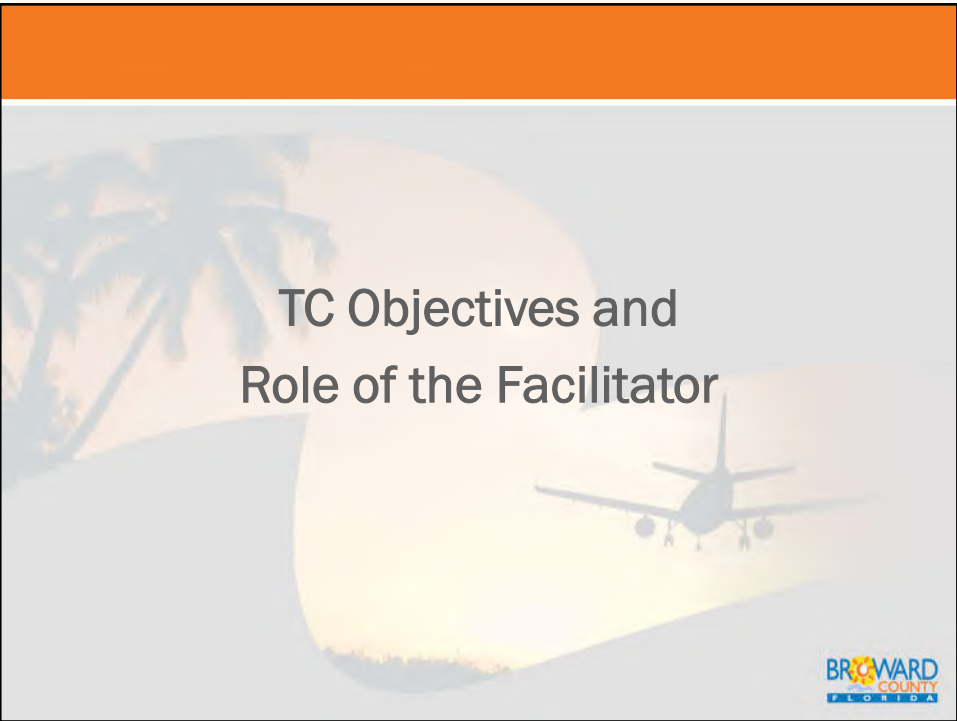
Agenda

- Introductions
- Review of the Role of the TC Meeting Facilitator
- Review of TC Meeting No.1
- Data Collection Process and Status
- AEDT Model Inputs
- Aircraft Activity Forecast
- Runway Use
- Flight Track Analysis (Examples)
- Questions from TC Members
- Future TC Meetings
- Adjourn





Welcome and Introductions



TC Objectives and Role of the Facilitator



Purpose and Objectives of the TC

- Broward County Aviation Department (BCAD) has formed a Technical Committee (TC) for the Part 150 Study for Fort Lauderdale-Hollywood International Airport (FLL)
- BCAD has invited a cross section of key stakeholders to serve on the TC
- The TC is composed of primary and alternate members who are authorized to represent their organization and/or constituents for the duration of the FLL Part 150 Study, which is estimated at three years
- TC meetings will be conducted in a professional and respectful manner
- TC meetings will be open to the public, subject to space availability



TC Members

- | | |
|---|--|
| • BCAD | • City of Dania Beach |
| • ANAC | • City of Fort Lauderdale |
| • Southwest Airlines | • City of Hollywood |
| • Delta Airlines | • Town of Davie |
| • JetBlue | • City of Plantation |
| • Spirit Airlines | • City of Cooper City |
| • FedEx* | • Town of Southwest Ranches |
| • UPS | • City of Weston |
| • NBAA | • Broward County Planning and Development Management Division* |
| • Greater Fort Lauderdale Chamber of Commerce | • Broward County School Board |
| • Greater Hollywood Chamber of Commerce | • FAA - Orlando Airports District Office |
| • Greater Dania Beach Chamber of Commerce | • Miami Air Traffic Management/TRACON |
| • Greater Fort Lauderdale Alliance | • FLL Airport Traffic Control Tower |
| • Economic Development Agency | • South Florida Flight Standards Division (FSDO) |
| • Broward Workshop | |

*Participation in the Technical Committee not yet confirmed.



Purpose and Objectives of the TC

- TC members represent the interests of their organization and/or constituents
- The TC's role is to support the FLL Part 150 Study
 - Review study assumptions
 - Provide technical feedback within the context of the Part 150 Study (noise exposure maps and noise compatibility program)
 - TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members
- TC members are also expected to advise their organization and/or constituents of the TC's discussions
- BCAD will respect and consider the TC's technical input, but retains responsibility for, and decision making authority on, the FLL Part 150 Study



Role of the TC Meeting Facilitator

- To ensure that the TC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item at his or her sole discretion
- The meeting facilitator, or BCAD, may cancel or suspend a TC meeting due to disrespectful or disruptive behavior

Reminder - Please sign and return the TC Participation Agreement if you haven't done so already



Summary of TC #1



Summary of TC #1

- Technical Committee (TC)
 - Purpose and Objectives of the Technical Committee
 - Role of the TC Meeting Facilitator
 - TC Charter and Participation Agreement
- Airport Overview
- Part 150 Study Overview
- Introduction to Aircraft Noise, Modeling, and Compatibility
- Initial Data Collection
- Project Schedule



Summary of TC #1

14 CFR Part 150

- 14 Code of Federal Regulations (CFR) Part 150 establishes the parameters of the Airport Noise and Land Use Compatibility Planning process
- 14 CFR Part 150 also establishes the methods and metrics to be used in aircraft noise analyses for other types of federal and state aircraft noise analyses
- Voluntary program established to allow airports to explore opportunities for improving compatibility surrounding communities
- Sets forth the methodology and procedures to be followed when preparing aircraft noise exposure maps and developing airport land use compatibility programs



Summary of TC #1

14 CFR Part 150

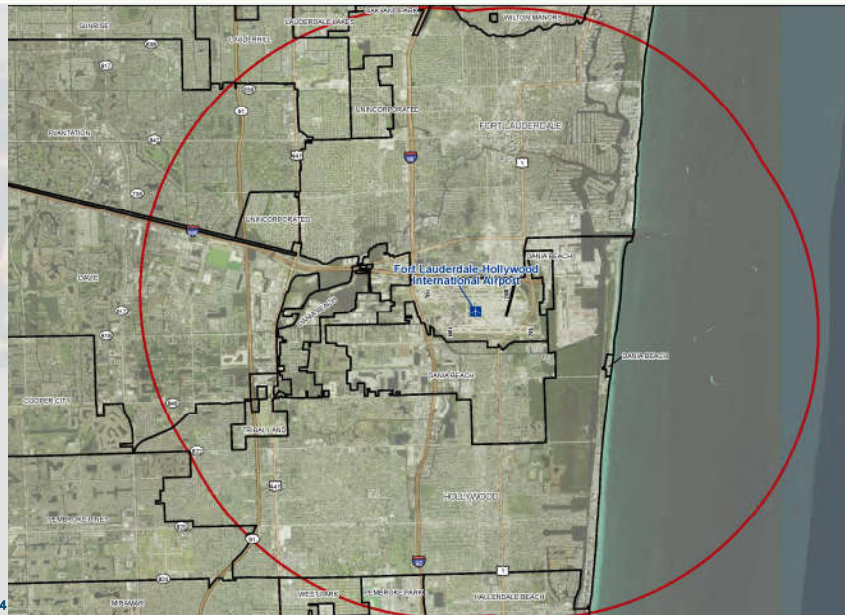
- Assesses the impacts of aircraft noise on the area surrounding an airport
- Deems noise levels below 65 dB Day-Night Average Sound Level (DNL) to be compatible with all land uses
- Identifies measures to reduce aircraft noise (noise abatement) and limit its impacts (noise mitigation)
- Outlines a program for implementation of noise abatement and mitigation measures
- Allows FAA-approved measures to be eligible for FAA funding



Data Collection Process and Status



Data Collection – Minimum NEM Area



Initial Data Collection – Land Use Compatibility

- City of Fort Lauderdale Zoning Ordinances
- City of Fort Lauderdale Zoning Map
- City of Fort Lauderdale General Land Use Maps
- City of Fort Lauderdale Mapped Historic Sites
- Fort Lauderdale Comprehensive Plan Elements
 - Future Land Use Element
 - Parks and Recreation Element
 - Schools Element
 - Transportation Element
 - Comp Plan Evaluation Report
- City of Davie Zoning and Noise Ordinances
- City of Dania Beach Zoning Ordinance



Initial Data Collection – Land Use Compatibility

- City of Dania Beach Zoning Ordinance
- Dania Beach Land Use Map
- Dania Beach Zoning Map
- Dania Beach Future Land Use Plan Element
- City of Hollywood Noise Ordinance
- Cooper City Zoning and Noise Ordinance
- Cooper City Public Schools Comprehensive Plan Element
- Cooper City Future Land Use Element
- Cooper City Future Land Use Element
- Weston Zoning Ordinance
- Plantation Zoning and Noise Ordinance



Initial Data Collection – Land Use Compatibility

Future Coordination Meetings:

- City of Dania Beach
- City of Fort Lauderdale
- City of Hollywood
- Town of Davie
- City of Plantation
- City of Cooper City
- Town of Southwest Ranches
- City of Weston



AEDT Model Inputs



AEDT Model Inputs

Aviation Environmental Design Tool (AEDT)

- Among other things, the AEDT calculates the cumulative 24-hour noise exposure for the annual average day at an airport
- Primary area of focus is the 65 dB DNL contour
- Annual-average day DNL contours will not always match short-term measured values due variables such as:
 - Runway use
 - Fleet mix
 - Wind and weather conditions
 - Pilot/controller techniques



AEDT Model Inputs

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

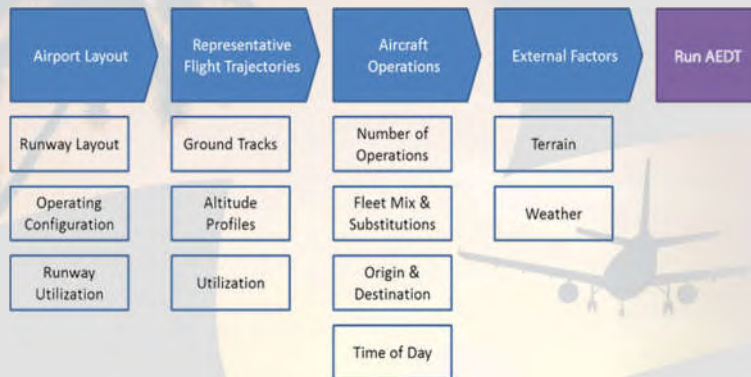


**Aviation Environmental
Design Tool (AEDT)
Version 2C SP2**



AEDT Model Inputs

AEDT Inputs



Aircraft Activity Forecast

Aircraft Activity Forecast

FAA Forecast Approval:

- FAA approved use of Master Plan Update (MPU) Accelerated Baseline Forecast for the FLL 14 CFR Part 150 Study

Fiscal Year	FAA TAF	MPU Accelerated Baseline Forecasts
2017	304,590	329,300
2018	311,559	335,000
2023	343,194	364,765

Sources: FAA, Terminal Area Forecasts, 2017,
Ricondo & Associates, Inc., 2016



ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Drive
Suite 400
Orlando, FL 32822
Phone: (407) 812-6331 Fax: (407) 812-6978

April 10, 2017

Mr. William Castillo
Airport Planning Manager
Broward County Aviation Department
2200 SW 45th Street, Suite 101
Dania Beach, Florida 33312

Dear Mr. Castillo:

RE: Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, FL
Approval of Forecast for use in the 14 CFR Part 150 Study

This letter responds to your request for approval to use the Accelerated Baseline Forecasts for the purposes of the 14 Code of Federal Regulations (CFR) Part 150 Study for the Fort Lauderdale-Hollywood International Airport (FLL).

On January 13, 2017, the Federal Aviation Administration (FAA) approved the Baseline Forecast for FLL and accepted the Accelerated Baseline Forecast prepared in the Master Plan Update for sensitivity purposes and for the purpose of establishing facility requirements.

The FAA notes that the Accelerated Baseline Forecast varies less than 10 percent in the 5 year period and 15 percent in the 10 year period from the FAA's 2016 Terminal Area Forecast (TAF) published in January, 2017.

The FAA has determined that the Accelerated Baseline Forecast is consistent with the FAA's most recent TAF for FLL, and therefore, we approve the use of the Accelerated Baseline Forecast for the ongoing FLL Part 150 Study.

If you have any questions, please feel free to contact me at (407) 812-6331, ext. 130.

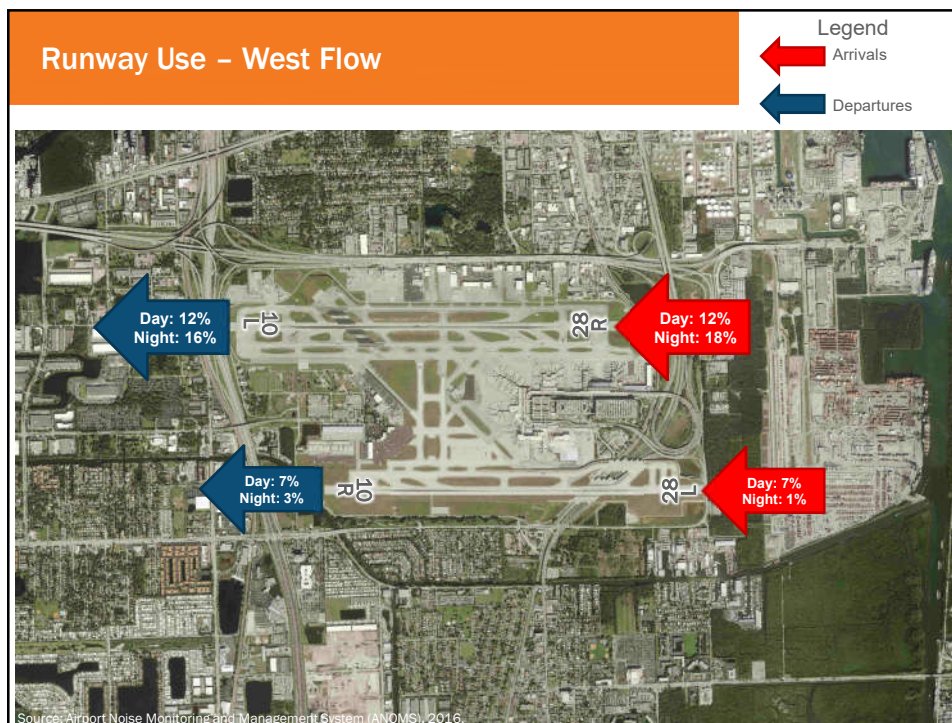
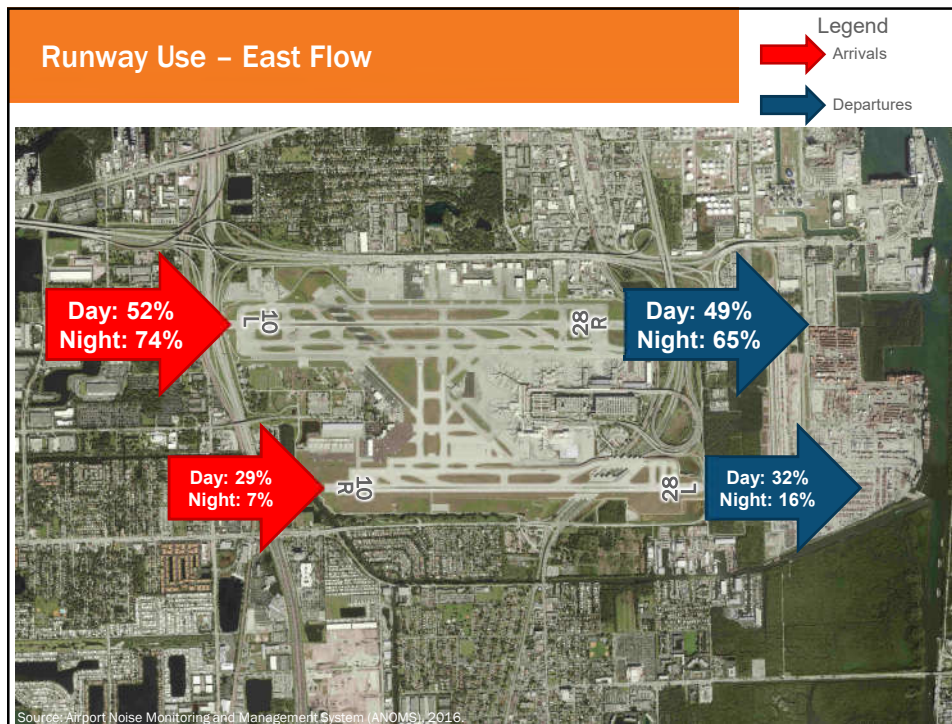
Sincerely,

Alan M. Nagy
FAA Orlando ADO Environmental Program Specialist



Runway Use





Runway Use

Daytime and Nighttime Operations

Operation Type	Day	Night	Grand Total
Arrivals	84%	16%	100%
Departures	90%	10%	100%
Grand Total	87%	13%	100%

Source: Airport Noise Monitoring and Management System (ANOMS), 2016.

Runway Usage

Operation Type	Runway	Day	Night	Grand Total
Arrivals	North Runway			
	10L	52%	74%	55%
	28R	12%	18%	13%
	Total	64%	92%	68%
	South Runway			
	10R	29%	7%	26%
Departures	28L	7%	1%	6%
	Total	36%	8%	32%
	North Runway			
	10L	49%	65%	51%
	28R	12%	16%	13%
	Total	61%	81%	64%
	South Runway			
	10R	32%	16%	30%
	28L	7%	3%	6%
	Total	39%	19%	36%

Flight Track Analysis

ANOMS System

Airport Noise and Operations Monitoring System (ANOMS)

- Operational data collected for calendar year 2016
- Flight and aircraft radar data originate from the Passive Surveillance Secondary Radar (PASSUR) system that collects both the flight track and flight identification
- Data collected by PASSUR is downloaded and processed by Bruel & Kjaer and incorporated into BCAD's ANOMS



Noise Monitoring Sites/Limitations



Noise Monitoring Sites/Limitations

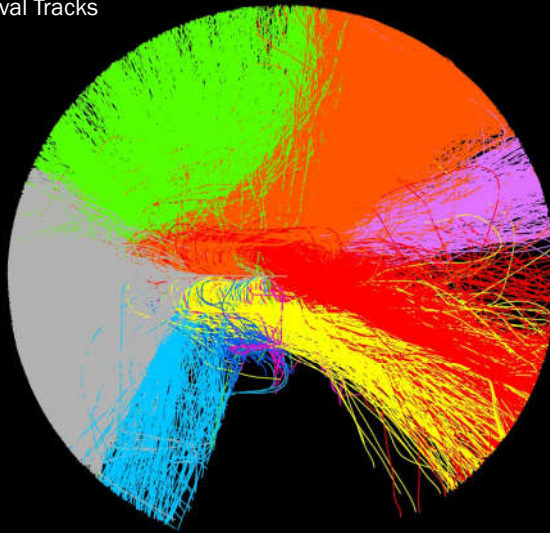
Noise Monitoring Sites

1. 3640 Southwest 55th Avenue, Davie
2. 4548 Southwest 37th Avenue, Dania Beach
3. 4609 Southwest 28th Avenue, Dania Beach
4. 805-B Northwest 13th Avenue, Dania Beach
5. 325 Northeast 3rd Avenue, Dania Beach
6. 1021 Southwest 32nd Court, Fort Lauderdale
7. 1750 Southwest 32nd Street, Fort Lauderdale
8. 3411 Southwest 27th Street, Fort Lauderdale
9. 3900 Southwest 100th Avenue, Davie
10. 2343 Southwest 27th Avenue, Fort Lauderdale
11. 6503 N Ocean Dr., Hollywood FL 33019
(Von D. Mizell and Eula Johnson State Park, formerly John U Lloyd State Park)



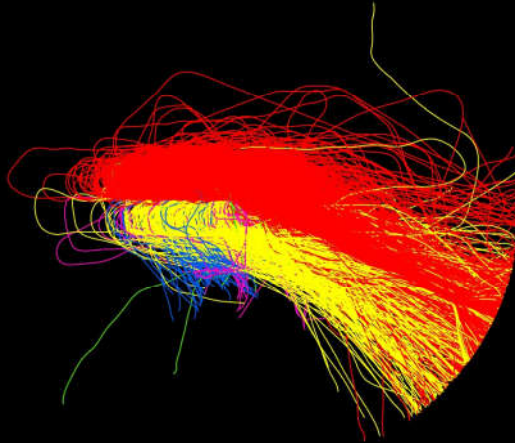
Flight Track Analysis

Runway 10L Arrival Tracks



Flight Track Analysis

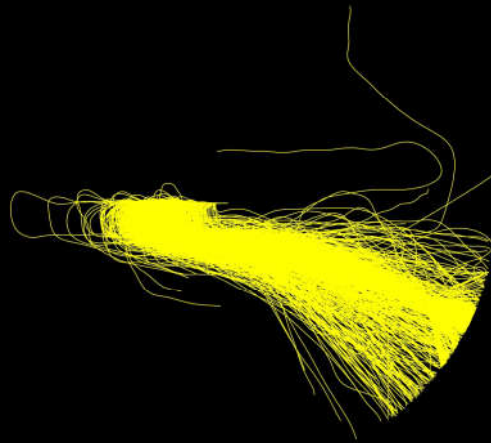
Runway 10L Arrival Tracks
from Southeast



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Flight Track Analysis

Runway 10L Arrival Tracks from
Southeast – South Downwind



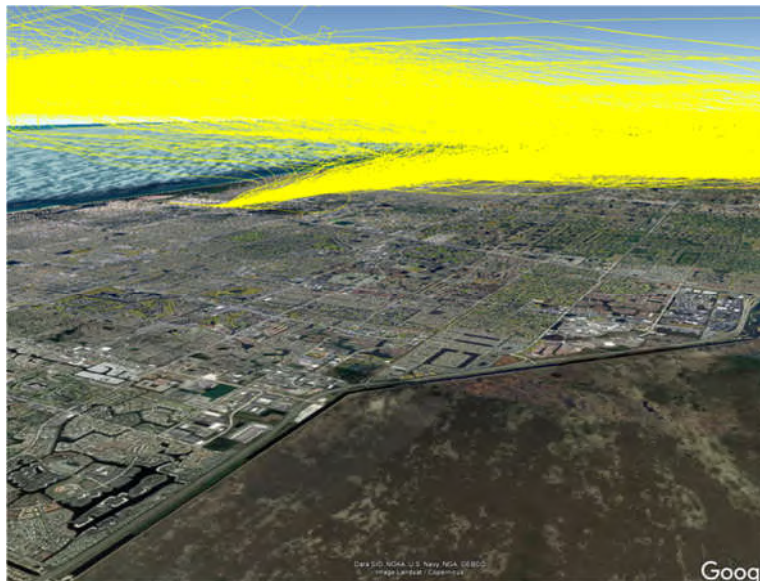
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Flight Track Analysis



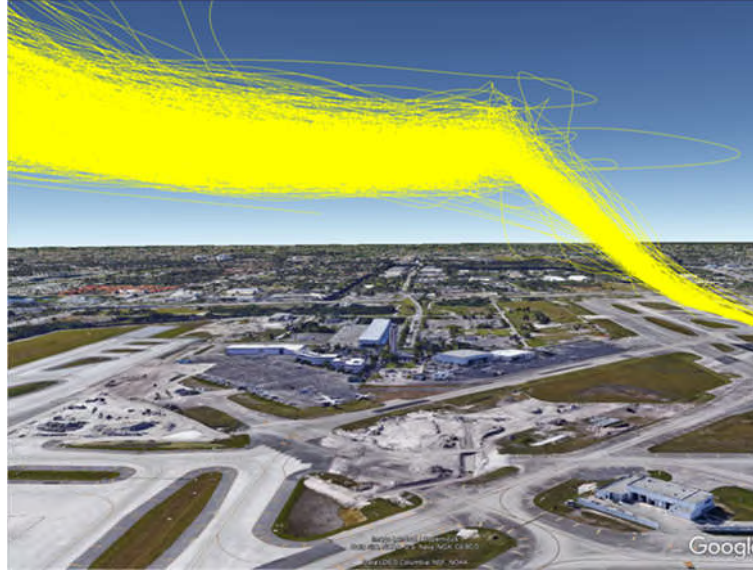
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Flight Track Analysis



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Flight Track Analysis



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Questions from TC Members

Future TC Meetings



Future Meetings

Technical Committee

- TC Meeting #3 (Tentative)
- TC Meeting #4 (Tentative)

November 2017

January/February 2018

Public Workshops

- Overview of Part 150 Process

October/November 2017

TC and Public Workshop materials will be available on the project website immediately following each meeting
www.flpart150.com



Adjourn



Technical Committee

Meeting #2

Meeting Summary

Fort Lauderdale-Hollywood International Airport
14 CFR Part 150 Noise and Land Use Compatibility Study
Technical Committee Meeting #2
August 23, 2017

Meeting Minutes

Committee Members in Attendance

Chris Akagbosu – BCPS	Julia Lundrigan – Delta Airlines
Peter Dokuchitz – City of Plantation	Allan Nagy – FAA (remote attendee)
John Eastman – Town of Southwest Ranches	Angelina Pluzhnyk Evans – City of Fort Lauderdale
John R. Flint – City of Weston	Geoff Rames – City of Fort Lauderdale
Mark Hemmerle – FSDO	Edward Rebholz – City of Fort Lauderdale
Marc LaFerrier – City of Dania Beach	Edwin Solley – Southwest Airlines
Richard Lemack – Town of Davie	Charles Taylor – Town of Davie
Dan Lindblade – Greater Fort Lauderdale Chamber of Commerce	Gregory Voos – NBAA
Gary Luedtke – ANAC	Matt Wood – City of Cooper City

Others Present

Winston Cannicle – BCAD	Brad Ostendorf – BCAD
Will Castillo – BCAD	Mike Pacitto – BCAD
Ken Coutain, Jr. – BCAD	Allan Siegel – BCAD

Agenda and Key Topics:

- Welcome
- Technical Committee Roles and Responsibilities
- Review of Technical Committee (TC) Meeting #1
- Data Collection Process and Status
- Aviation Environmental Design Tool (AEDT) Model Inputs
- Aircraft Activity Forecast
- Runway Use
- Flight Track Analysis
- Future Technical Committee Meetings

Meeting Summary:

- The Technical Committee convened for its second meeting at 10:00 AM on August 23, 2017 at the Secret Woods Nature Center in the Julia Hall.
- The meeting began with re-introductions of participants.
- Ground rules for the TC members were reviewed by the facilitator. Attending members of the public were advised of ways in which they could submit comments including the project website (www.fllpart150.com) and at future public meeting (dates TBD).
- The role of TC members as well as content presented at the inaugural meeting were reviewed. This included TC's role in supporting the FLL Part 150 Study, review of study assumptions, and providing technical feedback within the context of the study (Noise Exposure Maps and Noise Compatibility Program). TC members were encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members. TC members were also expected to advise their organization and/or constituents of the TC's discussions.
- A presentation of key topics was given by Michael Arnold, Part 150 Project Director representing the ESA consulting team. The presentation included the following information:
 - A review of the material presented in TC #1.
 - Overview of the data collection process and status
 - An introduction to AEDT and modeling inputs
 - The Aircraft Activity Forecast – The FAA's approval of the Master Plan accelerated baseline forecast for use in the Part 150 study and the use of 2018 and 2023 activity levels for the baseline noise conditions
 - Runway usage – Individual runway use in CY 2016 and flows including the heavily weighted east flow operation
 - Daytime/Nighttime operations (10:00 pm – 6:59:59 AM) - Use in overall terms as well as how it relates to the CY 2016 activity on the individual runways by operation type (arrival or departure). Potential for greater annoyance and 10 dB weighting of nighttime activities (each nighttime operation is equal to 10 daytime operations)
 - A review of the flight track analysis process and presentation of example radar and flight tracks as well as the existing noise monitoring locations. Discussion of flight track locations and densities and limitations of an 11 site noise monitoring system when evaluating noise conditions in broad areas around the airport.
 - Upcoming schedule

Questions & Comments from Technical Committee (TC) members:

Q: Will we be receiving minutes of this meeting?

A: A meeting summary will be prepared.

Q: Is there a process in place to reset the membership list of the Technical Committee? Will there be outreach to the TC members that have not attended either meeting?

A: The goal is to get active participation, so we will be contacting TC members that are not in attendance, after this meeting, to see if they are able to provide the input, feedback and resources needed throughout the course of the project.

Q: Does the minimum NEM area represent aircraft altitudes to 30,000 feet?

A: No, the NEM area represents at least 30,000 feet in horizontal ground distance from runway ends. It doesn't indicate height or elevation. 14 CFR Part 150 requires that flight tracks be reflected on the official noise exposure maps for a distance of at least 30,000ft from the runway ends. That is how the jurisdictions involved in this study were identified.

Q: Will the schools and future locations be considered for evaluation of zone of impact?

A: Yes, we are collecting that type of information as part of our process, and we will likely reach out to BCPS for additional information. There is a large GIS data collection component to the study. It's not only related to schools, but places of worship, hospitals and noise sensitive areas. It is important to know when a new school is being constructed so that when we are evaluating potential changes in flight tracks, we aren't moving a track over a future school location. We will also be conducting land use meetings with each of the jurisdictions identified to review the information we have collected. We want to make sure that we have the most recent information that is available and determine what might not be reflected in that data. We will be using the TC as a resource to determine the best contact for each of the jurisdictions.

Q: How does a person interpret the 65 DNL?

A: It is difficult to determine, because each person responds differently to sound exposure and the DNL metric is an annual, average day cumulative noise exposure that reflects the combination of sound exposure levels, frequency of overflights and the increased potential for annoyance based on time of day. In the last meeting we introduced this metric and explained how it is calculated. Single events are combined into hourly activity, and each nighttime operation (arrivals or departures between 10PM and 7AM) is weighted with a ten decibel penalty. That overall average for the average annual day establishes the 65 decibel contour. You can't actually measure it on a single event basis with a sound level meter because it is a cumulative average of all the aircraft activity that is occurring.

Q: That level (DNL 65 dB) is equated to what in our area?

A: The FAA uses the DNL metric to determine compatibility of various land uses with aircraft noise. Based on this metric, they identify the types of uses that would be compatible and not compatible within a given area. The DNL 65 dB metric is the level below which most noise sensitive land uses are considered compatible with aircraft noise. Because it is cumulative, the DNL metric factors in frequency of occurrence, sound level and time of day

as factors which influence compatibility. The Part 150 study will define where the DNL 65 dB contour falls relative to the communities around FLL.

Q: Does the aircraft activity forecast consider the runway reconstruction?

A: Yes. It is assumed the runway reconstruction would be completed by 2023, and the existing conditions analysis will be conducted based on the 2018 forecast. As a result, the contours will not be affected by the temporary change in operation resulting from the runway reconstruction.

Q: Where is the forecast from, and is there information about how it was developed?

A: The forecast was developed by the Broward County Aviation Department as part of its on-going Master Plan. The forecast scenario that we are using for the purpose of evaluating aircraft noise is the accelerated baseline forecast. The Master Plan website is www.fll.net/masterplan.

Q: How do the forecast numbers compare to the actual numbers reported by the airport?

A: The operations are very similar to, and within 10 percent of, the FAA's Terminal Area Forecast (TAF). If you reviewed the data from last year, the airport is right around what the FAA had projected in the TAF. The FAA does factor in some growth, but the accelerated baseline developed for the purpose of the Master Plan considers what happens if that growth occurs faster.

Q: Where can we also see the accelerated baseline forecast and what is the methodology for forecasting?

A: The methodology and accelerated baseline forecast is part of the Master Plan and there is a Master Plan public workshop coming up in October (Note – this has been rescheduled for early 2018).

Q: Will the study take into account all types of aircraft?

A: Yes, it considers all departures and arrivals. In addition to air carrier aircraft, there are smaller commuter aircraft, and other types of aircraft. The study includes not only all of the commercial service, and fixed-wing aircraft, but also helicopter activity at the airport.

Q: What hours are defined as daytime?

A: Daytime is from 7am to 10pm and nighttime is 10pm to 7am.

Q: What is the reason why the north runway has a higher use than the other runways?

A: The north runway is longer, there are more gates on the north side of the airport, and there is an interlocal agreement with surrounding jurisdictions to voluntarily maximize use the north runway as the preferred runway. The Consultant Team will review runway use in more detail in the NCP phase.

Q: May we use 2017 in the analysis because 2016 was an unusual year that was really warm? 2015 should also be included.

A: 2016 is used to establish the baseline operational conditions because there was a taxiway connector that hadn't been completed until late 2015. The 2016 runway and flight track use

is then applied to the 2018 and 2023 activity levels and adjustments are made based on expected changes. The modeling effort will use average weather data from the past 30 years.

Q: Any plan or concerns about reactivating the NW to SE runway or the cross-wind runway?

A: There are currently no plans to reactivate that runway. In fact, some of the pavement has even been removed from that former runway.

Q: Can existing runways handle larger aircraft like A380s?

A: No the airport cannot handle A380 aircraft. The airport is designed for Group V aircraft, and A380s, 747-800, and other large planes are Group VI aircraft. However, larger aircraft are still allowed to land for emergencies at the airport, such as being diverted from another airport due to weather. At this moment, the airport does not have the infrastructure to accommodate very large aircraft for scheduled service so we are not planning for Group VI aircraft.

Q: What is the geographic area captured by noise monitors?

A: Noise monitors represent individual points, so they capture noise related to overflights of that that specific point. That is why FAA requires noise modeling for the Part 150 Study - because monitors only capture noise at their specific points. It's not possible to set up monitors in a large enough volume to develop noise contours. There are also a variety of outside factors that affect noise measurements that may not be related to aircraft, such as wind and community noise sources.

Q: What is the significance of the colors in the flight track analysis?

A: In order to model the aircraft operations, we've started to separate the flights into groups of tracks coming from or heading to various locations. It could be flights coming from the southwest, west, or flights using a certain type of procedure coming into the airport. We separate those groups of tracks to analyze them individually. In this case, the colors are used to represent the variety of locations reflected; where they are coming from.

Q: Do you have any data for the North/Northeast runway?

A: We are analyzing all arrival and departure operations for all of the runways at FLL as part of the study.

Q: What is the mileage from the center to outer ring?

A: The overall area reflected on the sample radar track graphic is estimated to be approximately 30 miles; the ring that is depicted is approximately 30,000 feet from each runway end.

Q: It may be helpful to overlay the arrival procedures to help give a frame of reference.

A: The backbone of many of the tracks, where the heaviest concentrations are, are typically the published procedures that aircraft are flying as they leave the airport.

Q: What is the altitude difference as you span the length of the track analysis?

A: It varies. On the downwind near the airport, aircraft are around 5,000 feet. We are analyzing altitudes as part of the modeling effort.

Q: How come none of the flights arrive through the south runway?

A: The images and data presented are a sample that is representative of arrivals on the north runway. This is the approach that is the most heavily used at the airport and these tracks reflect just a portion of those that aircraft use when arriving to FLL. All runways and arrival/departure operations will be modeled, but the graphics have not yet been developed.

Q: When will departure analysis be available?

A: We are in the process of analyzing all of that information and the study will include all of the flight tracks that are used in the modeling. They will be presented with the percentages of use and aircraft information. We anticipate there will be approximately 300 tracks modeled for this study.

Q: How do you determine flight track dispersal?

A: We look at track density in GIS, then do dispersion based on that information. We are overlaying all of the radar data to create tracks and setting up dispersion so it is reflective of current conditions as possible.

Q: Would you consider changing procedures so that planes are required to stay above 5,000ft until descent?

A: New procedures are being implemented by the FAA (optimized profile descent) reduce fuel burn and noise while keeping aircraft higher longer. Recommendations in the NCP could include pursuing these types of procedures.

Q: There are very few noise monitors in the NW/NE surrounding areas of the airport. Why is that?

A: Because the aircraft used to depart straight out and now they are turning at a 15-degree diversion heading due to the south runway. In the NCP phase of the study, we will be evaluating an upgrade to the monitoring system and will consider recommending relocating the monitors so they are more reflective of current aircraft operations.

Q: How did the current monitors arrive at their locations?

A: Monitors have been at their locations for 20 years or more for various reasons generally associated with the historic configuration of the airfield.

Q: How long does the education portion of the study take and when will we get to the discussion and input portion?

A: The goal is to have draft noise contours by the time we reach the Technical Committee meeting #4, so we know what areas are incompatible. At that point, we will present material on noise compatibility and start the discussion and collection of ideas. We will look at noise mitigation, land use controls, and a variety of other measures.

Q: What would be a valuable use of time for TC members to help the process and bring some value to the conversation?

A: It would be helpful if TC members would relay feedback, input, or concerns from the local and business community about airport operations and noise implications. We will be holding the first round of public workshops at five separate venues around the airport soon to solicit input from the community.

Actionable Next Steps:

As agreed upon by the TC members, the following meeting will be held at the Secret Woods Nature Center - Julia Hall, in November 2017.

Meeting Adorned at 12:00 PM

Appendix H-3
Technical Committee
Meeting #3
March 17, 2018

Technical Committee

Meeting #3

Meeting Notice and

Attendance Roster

REMINDER FOR UPCOMING MEETING

NOTICE OF TECHNICAL COMMITTEE MEETING 14 CODE OF FEDERAL REGULATION (CFR) PART 150 AIRPORT NOISE AND LAND USE COMPATIBILITY STUDY FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

The Broward County Aviation Department (BCAD) formed a Technical Committee (TC) to support the Fort Lauderdale-Hollywood International Airport (FLL) 14 Code of Federal Regulations (CFR) Part 150 Study. TC membership includes appointed representation from all affected airport stakeholders (experts in land use, airport operations, air traffic control, etc.).

FLL Technical Committee Meeting

Date: Wednesday, March 7, 2018

Time: 10:00AM - 12:00PM

Location: Secret Woods Nature Center – Julia Hall; 2701 W. SR 84; Dania Beach, FL 33312

The Part 150 Study will quantify existing and future aircraft noise exposure levels, assess land use impacts according to federal standards, and seek ways to minimize those impacts to the greatest extent practical within 14 CFR Part 150 guidelines. Space for the TC meetings will be limited. However, they are open to the public, provided space is available. In order to promote efficient, balanced and constructive interaction among the TC members, discussions will be limited to TC members. There will be no public comment period. The public can provide comments at the upcoming public workshops and through the study website at www.fllpart150.com.



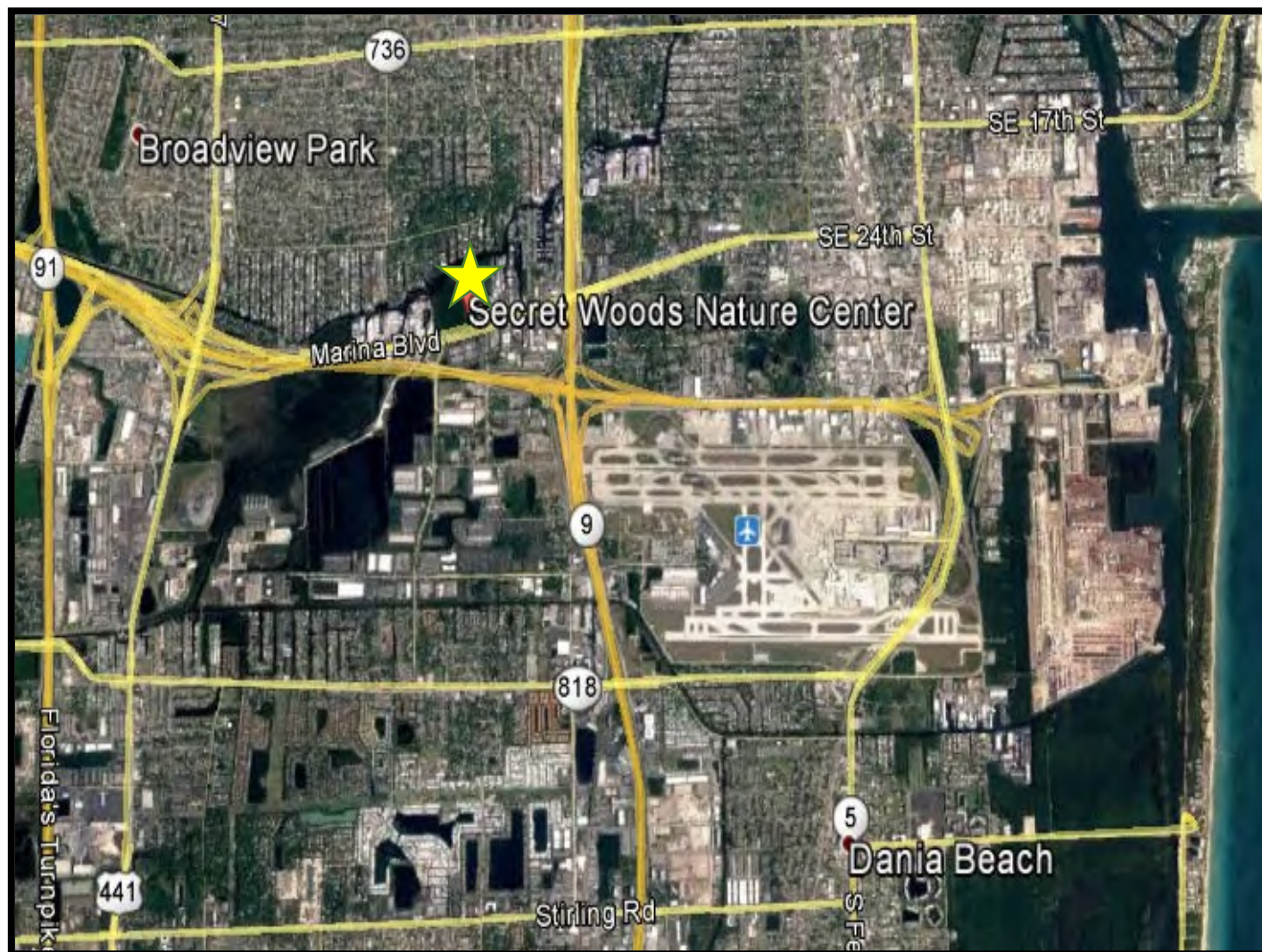
AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

Secret Woods Nature Center

Julia Hall

2701 W. SR 84

Dania Beach, FL 33312



From the East: Take FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the West: Take FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the North via I-95: Follow I-95 to South to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the South via I-95: Follow I-95 North to Exit 25, FL-84 / Marina Mile Blvd. Head west on FL-84 / Marina Mile Blvd. and turn right into the Secret Woods Nature Center.

From the North via US-441: Follow US-441 South to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.

From the South via US-441: Follow US-441 North to FL-84 / Marina Mile Blvd. and make a U-turn after SW 26th Terrace. Turn right into the Secret Woods Nature Center.



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #3

Date / Time: Wednesday, March 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Akagbosu	Chris	Director, Facility of Planning & Real Estate Dept.	Broward County School Board	754-321-2162		chris.akagbosu@browardschools.com	
Annunziata	Jason	Station Manager	JetBlue	954 233-4722	646-942-2775	Jason.Annunziata@jetblue.com	
Anton	Mitch	Leadership Hollywood XLI	Hollywood Chamber of Commerce	954-646-3639	954-646-3639	scpanther3@aol.com	
Boutros	Kareen	Executive Director	Broward Workshop	954-462-9112		kareen@browardworkshop.com	
Cannicle	Winston	Noise & Environmental Officer	Broward County Aviation Department - Airport Noise Office	954-359-6181		WCANNICLE@broward.org	
Castillo (A)	Will	Airport Planning Manager	Broward County Aviation Department - Airport Noise Office	954-359-2291		wcastillo@broward.org	
Anne	Castro		Study Coordination Committee			annecastro@msn.com	
Cooley (A)	Sid		FLL Airport Traffic Control Tower	954-921-9200		sidney.cooley-jr@faa.gov	
Coutain, Jr.	Ken	Airport Planner	Broward County Aviation Department - P/D	954-359-1599		kcoutain@broward.org	
DelNegri	Theodore (TJ)	Tower Manager	FLL Airport Traffic Control Tower	954-921-9201	9-870-1674	theodore.delnegri@faa.gov	
Dokuchitz	Peter	Principal Planner / City of Plantation	City of Plantation	954-797-2265		pdokuchitz@plantation.org	
Eastman	John	John Eastman	Town of Southwest Ranches	954-465-8383		john426@bellsouth.net	
Flint	John R.	City Manager / CEO	City of Weston	954-385-2000		jflint@westonfl.org	
Gaenicke	Sierra		VHB			sgaenicke@vhb.com	
Gale	Mark	Director of Aviation	Broward County Aviation Department			mgale@broward.org	
Gertsen (A)	Alex	Director of Airports and Ground Infrastructure	NBAA	202-737-4477		Agertsen@nbaa.org	
Govin	Yasmin		Broward County Aviation Department - Airport Business	954-359-6145		ygovin@broward.org	
Hemmerle	Mark	Front Line Manager	South Florida Flight Standards Division (FSDO)	954-641-6015		Mark.W.Hemmerle@faa.gov	
Henry	Rebecca	Assistant Manager	Federal Aviation Administration Orlando Airports District Office	407-4184-4225		Rebecca.Henry@faa.gov	
Hildebidle	Bob	Air Traffic Manager A	Miami Air Traffic Management/TRACON	305-869-5402	954-292-6515	Bob.Hildebidle@faa.gov	
Hoffman	Kevin	Corporate Contact	UPS	502-329-3913		khoffmann@ups.com	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #3

Date / Time: Wednesday, March 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Holste (A)	Phillip	Assistant Town Administration	Town of Davie	954-797-1034		Phillip_Holste@davie-fl.gov	
Hotte	Anne	CEO/Executive Director	Greater Hollywood Chamber of Commerce	954-923-4000		anne@hollywoodchamber.org	
Kaine (A)	Brad	Director of Public Services	City of Dania Beach	954-924-6808		bkaine@daniabeachfl.gov	
LaFerrier	Marc	Director, Community Development	City of Dania Beach	954-924-6805 x3643		mllaferrier@ci.dania-beach.fl.us	
Lemack	Richard	Town Administrator	Town of Davie	954-797-1034		Richard_Lemack@davie-fl.gov	
Lindblade, CAE	Dan	CAE - President and CEO	Greater Fort Lauderdale Chamber of Commerce	954-462-4911		dan@ftlchamber.com	
Luedtke	Gary		ANAC	954-966-8013		gluedtke@gmail.com	
Lundrigan	Julia	Delta Flight Ops	Delta Airlines	404-773-2882	678-427-1350	Julia.lundrigan@delta.com	
Mertens-Black	Lorie	Chief Civic Affairs Officer	City of Hollywood	954-921-3599		lmertens-black@hollywoodfl.org	
Meyer	Gregory	Public Information Officer	Broward County Aviation Department - PIO	954-359-6116		GMeyer@broward.org	
Modrich (A)	Mark	AA Pilot/Resident	Town of Southwest Ranches	954-540-4854	954-252-5040	mmodrich@aol.com	
Morrissey	Mary	Senior Manager	FedEx	954-359-7432		mmmorrissey@fedex.com	
Nazzaro	Tom	Airport Manager, Aviation	Broward County Aviation Department - Airport Business	954-359-6821		tnazzaro@broward.org	
Nonnemacher (A)	Michael	Acting Assistant Executive Director	Broward County Aviation Department - Airport Operations			mnonnemacher@broward.org	
Ostendorf	Brad	Environmental Compliance Manager	Broward County Aviation Department	954-359-2395	954-829-0867	bostendorf@broward.org	
Pacitto (A)	Mike	Director of Planning	Broward County Aviation Department - Airport Manager's Office	954-560-0766		MPPACITTO@broward.org	
Pluzhnyk Evans	Angelina	Chief Civic Affairs Officer	City of Fort Lauderdale	561-715-9112 - C	561-715-9112 - C	lina@chyden.net	
Pokryfke	John	Asst. Director of Operations, Aviation	Broward County Aviation Department - Airport Operations	954-359-6475		jpokryfke@broward.org	
Rames (A)	Geoff	Lauderdale Isles Water Management District	City of Fort Lauderdale	954-327-9095		grames.lucia@gmail.com	
Rebholz	Edward		City of Fort Lauderdale	973-476-5609		ed@edrebholz.com	
Robbin	Sam	CEO	National Jets/Broward Workshop	954-868-2166		samrobbin@nationaljets.com	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #3

Date / Time: Wednesday, March 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Shane	Randle	CEO/Executive Director	Greater Dania Beach Chamber of Commerce	954-926-2323		rshane@daniabeachchamber.org	
Shiver	Michael	General Manager	Spirit Airlines	954-359-0933		michael.shiver@spirit.com	
Siegel (A)	Allan	Public Informations Officer	Broward County Aviation Department	954-359-6978		Asiegel@broward.org	
Siwinski	Ben	Sr. Planner	VHB		727 6311860	BSiwinski@VHB.com	
Solley	Edwin	Manager ATC Systems	Southwest Airlines	407-850-1563	407 3998109	Edwin.solley@wnco.com	
Swindell	Bob	President and CEO	Greater Fort Lauderdale Alliance Economic Development Agency	954-524-3113		bswindell@gflalliance.org	
Taylor	Charles	Intergovernmental Affairs Manager	Town of Davie	954-797-1034	(9) 599-1813	Charles_Taylor@davie-fl.gov	
Van Valkenburgh (A)	Debra		ANAC			perhelion@hotmail.com	
Voos	Gregory	South Regional Representative	NBAA	202-737-4475		gvoos@nbaa.org	
Wood	Matt	Growth Management Director	City of Cooper City	954-434-4300		MWood@coopercityfl.org	
Wu	Kevin	Airport Manager	Broward County Aviation Department - OPS	954-359-1216	954-279-4740	kwu@broward.org	



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee

Date / Time: Wednesday March 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

First & Last Name	Title	Company Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Will O'Hall		BCAD	x2291			
Ryan Goldman		BCAD	x6216		rgoldman@broward.org	
BRAD O'STEWART	ENVIRONMENTAL	BCAD	x2395			
Winston Cannick	Env. Emp.	BCAD	x6181		wcannick@broward.org	
Richard C Pfenninger			954-591-1741		RCP 37e Jono. Cor	
Robert Mentzer	Principal Cons	HMMH	281-852-3156		rmentzer@hmmh.com	
Alex Michaels	Airport Planner	McFarland Johnson			amichaels@mjiaa.com	
Ken Costan Jr	Airport Planner	BCAD	x1599	954 248 6447	Kcostan@broward.org	
Necia Montgomery	Resident			954 249-6060		
ERIC RAY	ANAC	ANAC				

Technical Committee

Meeting #3

Materials Presented at Meeting



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

Meeting Agenda
Technical Committee Meeting No. 3
14 CFR Part 150 Study
Fort Lauderdale-Hollywood International Airport
March 7, 2018 – 10AM to 12PM EDT

1. Introductions
2. Review of the Role of the TC Meeting Facilitator
3. Review of Prior TC Meetings
4. Public Workshop Summary
5. Land Use Data Collection
6. Aircraft Activity
7. Runway Use
8. Flight Track Analysis
9. Future TC Meetings
10. Questions from TC Members
11. Adjourn



14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY

Technical Committee Meeting #3
March 7, 2018



1

Agenda

- Introductions
- Review of the Role of the TC Meeting Facilitator
- Review of Prior TC Meetings
- Public Workshop Summary
- Land Use Data Collection
- Aircraft Activity
- Runway Use
- Flight Track Analysis
- Future TC Meetings
- Questions from TC Members
- Adjourn



2

Welcome and Introductions



3

TC Objectives and Role of the Facilitator



4

Purpose and Objectives of the TC

- TC members represent the interests of their organization and/or constituents
- The TC's role is to support the FLL Part 150 Study
 - Review study assumptions
 - Provide technical feedback within the context of the Part 150 Study (noise exposure maps and noise compatibility program)
 - TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members
- TC members are also expected to advise their organization and/or constituents of the TC's discussions
- BCAD will respect and consider the TC's technical input, but retains responsibility for, and decision making authority on, the FLL Part 150 Study



5

TC Members

- | | |
|---|--|
| • BCAD | • Broward Workshop |
| • ANAC | • City of Dania Beach |
| • Southwest Airlines | • City of Fort Lauderdale |
| • Delta Airlines | • City of Hollywood |
| • JetBlue | • Town of Davie |
| • Spirit Airlines | • City of Plantation |
| • UPS | • City of Cooper City |
| • NBAA | • Town of Southwest Ranches |
| • Greater Fort Lauderdale Chamber of Commerce | • City of Weston |
| • Greater Hollywood Chamber of Commerce | • Broward County School Board |
| • Greater Dania Beach Chamber of Commerce | • FAA - Orlando Airports District Office |
| • Greater Fort Lauderdale Alliance | • Miami Air Traffic Management/TRACON |
| • Economic Development Agency | • FLL Airport Traffic Control Tower |
| | • South Florida Flight Standards Division (FSDO) |



6

Role of the TC Meeting Facilitator

- To ensure that the TC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item at his or her sole discretion
- The meeting facilitator, or BCAD, may cancel or suspend a TC meeting due to disrespectful or disruptive behavior
- TC meetings will be open to the public, subject to space availability



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Prior Technical Committee Meetings

TC #1 – May 26, 2017

- Purpose and Objectives of the Technical Committee
- Airport Overview
- Part 150 Study Overview
- Introduction to Aircraft Noise, Modeling, and Compatibility
- Initial Data Collection
- Project Schedule

TC #2 – August 23, 2017

- Data collection process and status
- AEDT Model inputs
- Aircraft Activity Forecast
- Runway Use
- Flight Track Methodology



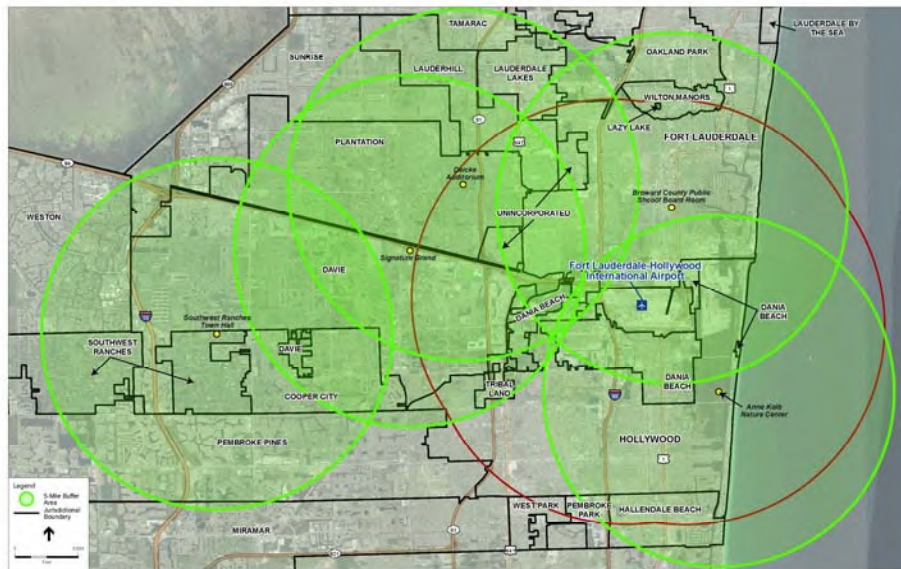
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Public Workshop Summary



9

Public Workshop Locations



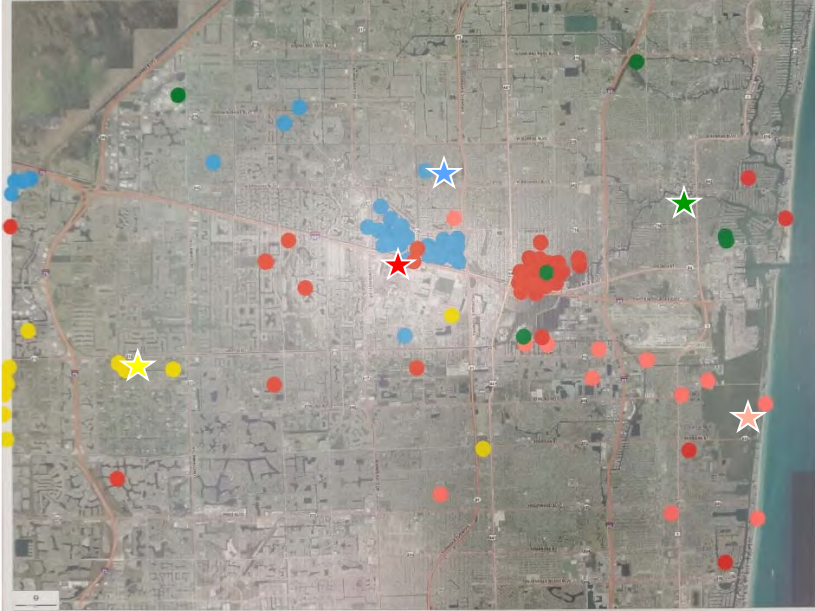
10

Public Workshop Attendees

- ★ Southwest Ranches Town Hall (15 attendees)
- ★ Anne Kolb Nature Center (15 attendees)
- ★ Deicke Auditorium (48 attendees)
- ★ Signature Grand (54 attendees)
- ★ Broward County Public School Board Room (8 attendees)

In total, approximately 140 members of the community attended the public workshops.

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Public Workshop Summary

Newspaper Advertisements

- Save the Date Notices (Sun Sentinel—Sunday 10/22, and Wednesday through Saturday 10/25 – 10/28)
- Full Announcement English (Sun Sentinel—Sunday 10/29, Sunday 11/5 and Sunday 11/12)
- Full Announcement Spanish (El Sentinel—Thursday 11/2 and Thursday 11/9)

Other Media

- FLL BCAD Website (Meetings Tab)
- Broward County Electronic Bulletin Board
- Broward County October 27th Newsletter
- FLL BCAD Twitter Site
- FLL BCAD Facebook Site
- Project Website (www.flpart150.com)
- Various Jurisdiction Websites

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Public Workshop Summary

Locations

- **Monday, November 13, 2017 – Southwest Ranches Town Hall** - Selected for its proximity to Weston, Southwest Ranches and Cooper City.
 - 8 comment letters and 2 verbal comments were received.
- **Tuesday, November 14, 2017 – Anne Kolb Nature Center** - Selected for its proximity to Dania Beach and Hollywood.
 - 4 comment letters and 4 verbal comments were received.
- **Wednesday, November 15, 2017 – Deicke Auditorium** - Selected for its proximity to Plantation.
 - 16 comment letters and 5 verbal comments were received.
- **Thursday, November 16, 2017 – Signature Grand** - Selected for its easy access from greater Fort Lauderdale including Dania Beach, Davie, Plantation Fort Lauderdale and Weston.
 - 50 comment letters and 6 verbal comments were received.
- **Friday, November 17, 2017 – Broward County Public School Board Room** - Selected for its easy access from Fort Lauderdale.
 - 4 comment letters and no verbal comments were received.



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Public Workshop Summary

Comments

- 82 written and 17 verbal comments received at the public workshops.
- 25 comments were received via the website between the start of the public workshops through the end of the comment period.
- Two comment letters received via mail.

Concerns

- Early morning and late night flights
- Changes in aircraft flight paths occurring after opening of the new runway
- Nighttime use of south runway
- Low altitude of overflights
- High frequency of overflights
- Overflight impacts on horses



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Land Use Data Collection

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Initial Data Collection – Land Use Compatibility

- Coordination Meetings:
 - City of Fort Lauderdale
 - Town of Davie
 - City of Plantation
 - City of Cooper City
 - Town of Southwest Ranches
 - City of Weston
- Follow-up Meetings:
 - City of Dania Beach
 - City of Hollywood
 - Broward County School Board

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Existing Land Use

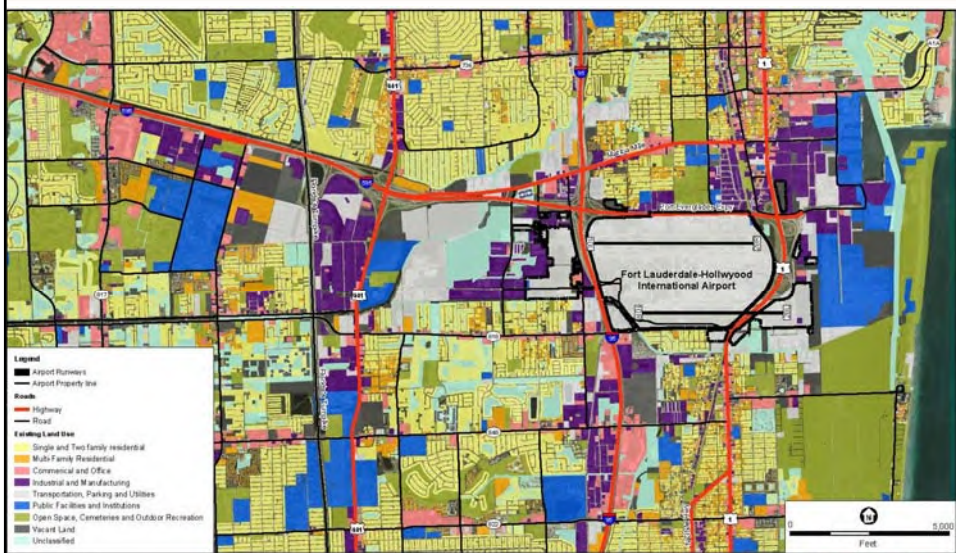


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Existing Land Use (30,000')

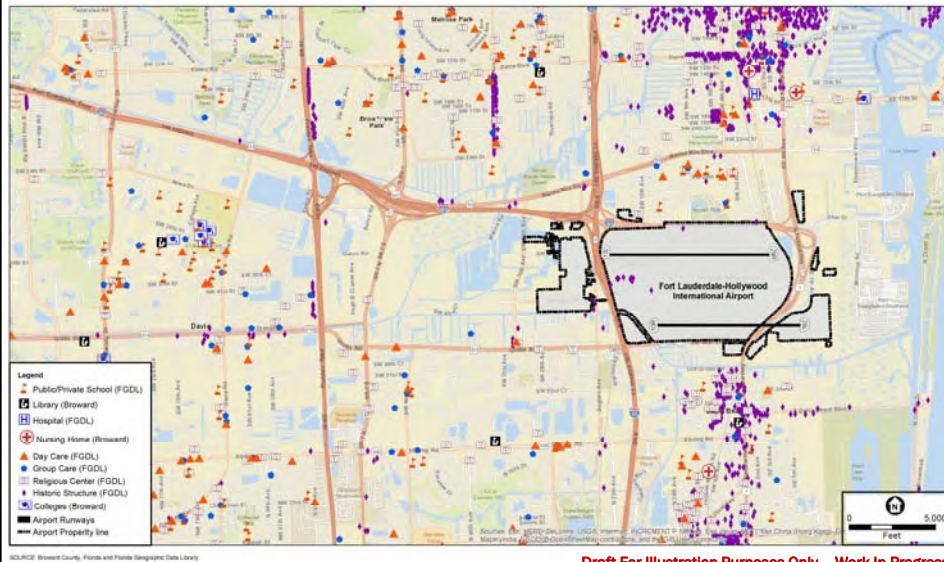


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Noise Sensitive Sites

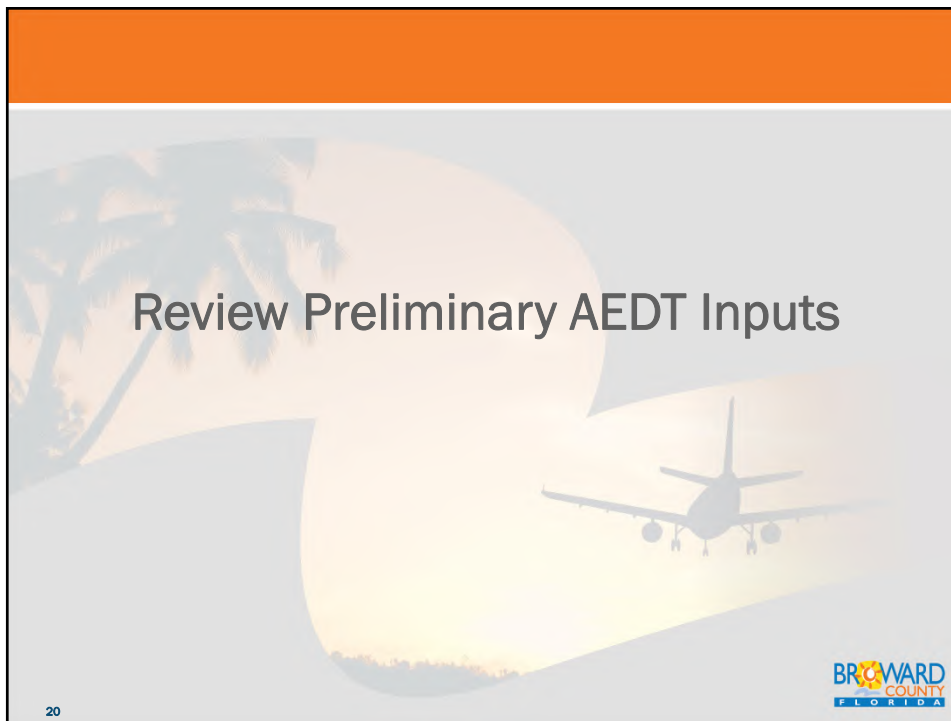


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Draft For Deliberative Purposes Only

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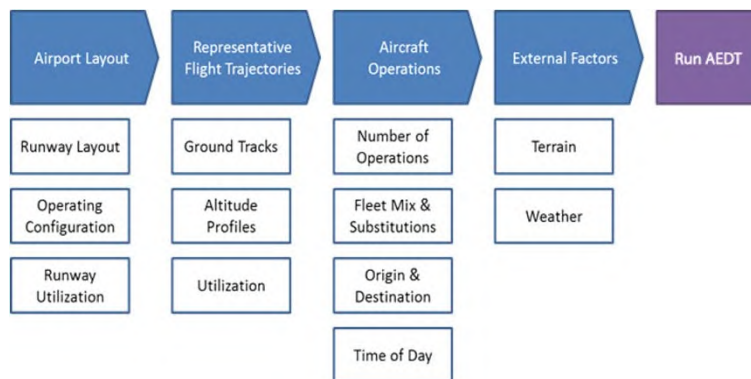
Review Preliminary AEDT Inputs



20

AEDT Model Inputs

AEDT Inputs



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General Data

- 10-Year Average Meteorological Data (AEDT, NOAA NCDC)
 - Temperature – 75 F
 - Relative Humidity – 73.3%
 - Mean Sea Level Atmospheric Pressure (millibars) – 1,017.1
 - Dew Point (F) - 67.79
 - Wind Speed (Knots) – 7.94 (AEDT default is an 8-knot headwind)
- National Elevation Dataset (NED) terrain data (USGS)

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Aircraft Activity



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Baseline Condition Aircraft Operations (2018)

Aircraft Operations by Category and Time of Day

Category	Arrivals			Departures		
	Day	Night	Total	Day	Night	Total
Wide-Body Aircraft	72.38%	27.62%	100.00%	80.83%	19.17%	100.00%
Narrow-Body Aircraft	82.47%	17.53%	100.00%	88.38%	11.62%	100.00%
Turboprop Aircraft	97.87%	2.13%	100.00%	97.15%	2.85%	100.00%
Propeller Aircraft	96.74%	3.26%	100.00%	94.58%	5.42%	100.00%
GA Jet	86.54%	13.46%	100.00%	91.91%	8.09%	100.00%
Helicopter	92.45%	7.55%	100.00%	96.30%	3.70%	100.00%
All Aircraft	84.50%	15.50%	100.00%	89.52%	10.48%	100.00%

Source: Airport Noise Monitoring and Management System (ANOMS), 2016.

2018 Aircraft Operations by Category

Category	Total Operations
Wide-Body Aircraft	6,295
Narrow-Body Aircraft	262,449
Turboprop Aircraft	34,120
Propeller Aircraft	7,454
GA Jet	24,520
Helicopter	162
Grand Total	335,000

Source: ANOMS, 2016 and Ricondo & Associates, 2017.

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2018 Baseline Condition Aircraft Fleet Mix

Aircraft	Total Ops	Aircraft	Total Ops	Aircraft	Total Ops	Aircraft	Total Ops
A320-232	71,448.9	757RR	1,453.9	CNA560E	196.7	B430	13.3
737800	37,955.4	EMB145	1,334.5	GIIB	168.9	B206L	12.1
737700	35,317.8	GV	1,282.6	DC1030	154.4	DHC8	10.9
A321-232	29,233.0	757300	1,043.7	767JT9	136.3	777200	10.9
A319-131	20,690.5	7878R	966.5	ECLIPSE500	125.5	B407	9.7
EMB190	20,320.0	CRJ9-ER	925.4	CNA20T	124.3	R22	9.7
SF340	18,045.6	A300-622R	923.0	MD11PW	120.7	737N17	8.4
A320-211	13,359.3	COMSEP	860.3	FAL20	107.4	CL601	8.4
CNA208	8,000.8	DC1010	841.0	PA30	96.5	DC93LW	8.4
LEAR35	7,694.4	MU3001	789.1	737400	92.9	SA350D	8.4
757PW	6,980.1	CNA560U	756.5	MD82	91.7	SA355F	8.4
737300	6,382.8	CNA680	703.4	A310-304	65.2	747400	7.2
MD83	4,706.9	IA1125	701.0	1900D	55.5	767CF6	7.2
DHC6	4,040.8	BD-700-1A11	629.8	777300	39.8	EMB120	7.2
CL600	3,985.3	GASEPV	623.8	727EM1	38.6	7773ER	6.0
BEC58P	3,844.2	CNA172	617.8	A300B4-203	36.2	PA28	6.0
CNA750	2,568.8	GASEPF	576.7	PA31	27.8	B212	6.0
737500	2,338.4	A330-343	547.8	767400	25.3	B206B3	3.6
GIV	2,332.3	EMB14L	486.3	A109	25.3	H500D	3.6
717200	2,206.8	EMB170	471.8	SD330	22.9	7478	2.4
CNA55B	2,179.1	CNA206	435.6	EC130	22.9	CNA182FLT	2.4
767300	2,153.7	BD-700-1A10	419.9	R44	20.5	DHC-2FLT	2.4
PA42	1,877.4	CNA510	395.8	727EM2	19.3	EMB175	2.4
DHC830	1,710.9	CNA441	348.7	LEAR25	16.9	T-38A	2.4
CNA500	1,592.7	CIT3	279.9	S76	16.9		
CNA560XL	1,578.2	MD11GE	249.8	DC3	15.7		
MD9028	1,523.9	CNA182	220.8	MD81	14.5		

Source: ANOMS, 2016 and Ricondo & Associates, 2017.

25 Numbers may not add up to 335,000 due to rounding.

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Aircraft Activity Forecast

FAA Forecast Approval:

- FAA approved use of Master Plan Update (MPU) Accelerated Baseline Forecast for the FLL 14 CFR Part 150 Study

Fiscal Year	FAA TAF	MPU Accelerated Baseline Forecasts
2017	304,590	329,300
2018	311,559	335,000
2023	343,194	364,765

Sources: FAA, Terminal Area Forecasts, 2017, Ricondo & Associates, Inc., 2016



ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Drive
Suite 400
Orlando, FL 32822
Phone: (407) 812-6331 Fax: (407) 812-6978

April 10, 2017

Mr. William Castillo
Airport Planning Manager
Broward County Aviation Department
2200 SW 45th Street, Suite 101
Dania Beach, Florida 33312

Dear Mr. Castillo:

RE: Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, FL
Approval of Forecast for use in the 14 CFR Part 150 Study

This letter responds to your request for approval to use the Accelerated Baseline Forecasts for the purposes of the 14 Code of Federal Regulations (CFR) Part 150 Study for the Fort Lauderdale-Hollywood International Airport (FLL).

On January 13, 2017, the Federal Aviation Administration (FAA) approved the Baseline Forecast for FLL and accepted the Accelerated Baseline Forecast prepared in the Master Plan Update for sensitivity purposes and for the purpose of establishing facility requirements.

The FAA notes that the Accelerated Baseline Forecast varies less than 10 percent in the 5 year period and 15 percent in the 10 year period from the FAA's 2016 Terminal Area Forecast (TAF) published in January, 2017.

The FAA has determined that the Accelerated Baseline Forecast is consistent with the FAA's most recent TAF for FLL, and therefore, we approve the use of the Accelerated Baseline Forecast for the ongoing FLL Part 150 Study.

If you have any questions, please feel free to contact me at (407) 812-6331, ext. 130.

Sincerely,

Alan M. Nagy
FAA Orlando ADO Environmental Program Specialist



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Runway Use



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Baseline Condition Arrival Runway Use

Daytime Arrivals

Aircraft Category	10L	10R	28L	28R	Total
Wide-Body Aircraft	74.63%	4.18%	1.27%	19.93%	100.00%
Narrow-Body Aircraft	55.21%	25.43%	6.32%	13.03%	100.00%
GA Jet	50.23%	29.82%	8.59%	11.37%	100.00%
Turboprop Aircraft	40.56%	40.31%	8.94%	10.18%	100.00%
Propeller Aircraft	21.66%	59.68%	13.28%	5.39%	100.00%
Helicopter	35.42%	18.75%	29.17%	16.67%	100.00%

Nighttime Arrivals

Aircraft Category	10L	10R	28L	28R	Total
Wide-Body Aircraft	81.16%	3.05%	0.28%	15.51%	100.00%
Narrow-Body Aircraft	73.75%	7.38%	1.24%	17.64%	100.00%
GA Jet	71.19%	8.20%	1.96%	18.65%	100.00%
Turboprop Aircraft	71.38%	8.88%	0.99%	18.75%	100.00%
Propeller Aircraft	59.26%	21.30%	3.70%	15.74%	100.00%
Helicopter	25.00%	50.00%	0.00%	25.00%	100.00%

Source: ANOMS, 2016.

28

Baseline Condition Departure Runway Use

Daytime Departures

Aircraft Category	10L	10R	28L	28R	Total
Wide-Body Aircraft	77.85%	1.52%	0.14%	20.48%	100.00%
Narrow-Body Aircraft	47.82%	32.96%	7.10%	12.13%	100.00%
GA Jet	56.98%	23.55%	5.87%	13.60%	100.00%
Turboprop Aircraft	53.13%	28.06%	5.00%	13.80%	100.00%
Propeller Aircraft	34.57%	46.95%	10.06%	8.43%	100.00%
Helicopter	40.79%	42.11%	10.53%	6.58%	100.00%

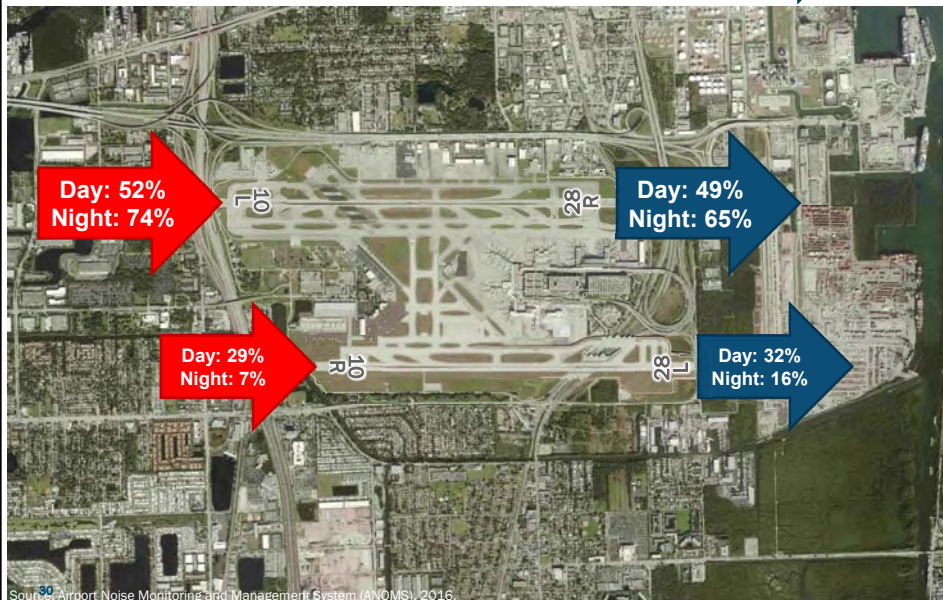
Nighttime Departures

Aircraft Category	10L	10R	28L	28R	Total
Wide-Body Aircraft	78.16%	2.00%	0.00%	19.84%	100.00%
Narrow-Body Aircraft	63.67%	16.37%	3.72%	16.23%	100.00%
GA Jet	66.54%	14.34%	2.33%	16.79%	100.00%
Turboprop Aircraft	61.90%	15.29%	2.51%	20.30%	100.00%
Propeller Aircraft	69.03%	18.06%	2.58%	10.32%	100.00%
Helicopter	100.00%	0.00%	0.00%	0.00%	100.00%

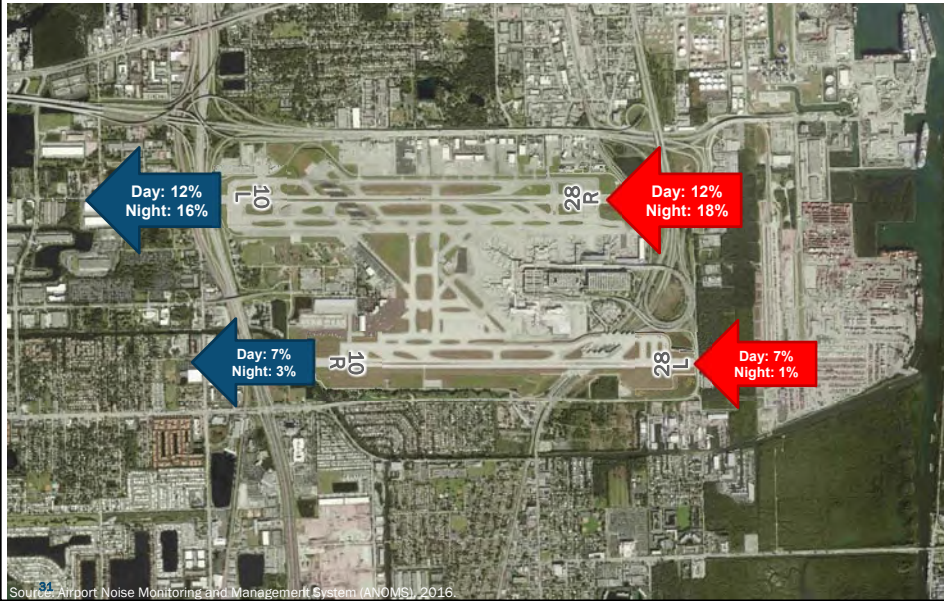
Source: ANOMS, 2016.

29

Runway Use – East Flow



Runway Use – West Flow



Baseline Condition Runway Use

Runway Usage

Operation Type	Runway	Day	Night	Grand Total
Arrivals	North Runway			
	10L	52%	74%	55%
	28R	12%	18%	13%
	Total	64%	92%	68%
	South Runway			
	10R	29%	7%	26%
Departures	28L	7%	1%	6%
	Total	36%	8%	32%
	North Runway			
	10L	49%	65%	51%
	28R	12%	16%	13%
	Total	61%	81%	64%
	South Runway			
	10R	32%	16%	30%
	28L	7%	3%	6%
	Total	39%	19%	36%

Source: Airport Noise Monitoring and Management System (ANOMS), 2016.

Future Condition Runway Use Methodology

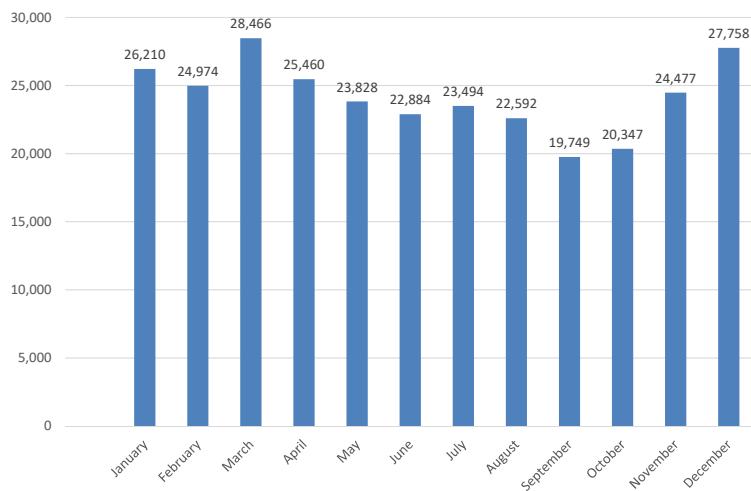
- Coordinating with MPU team to identify anticipated use for Runway 10L/28R (at capacity during peaks) and 10R/28L



33

Data Collection - 2016 Operational Profile

Total Monthly Aircraft Operations



Source: FAA Air Traffic Activity Data System (ATADS), 2016.

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Flight Track Analysis



35

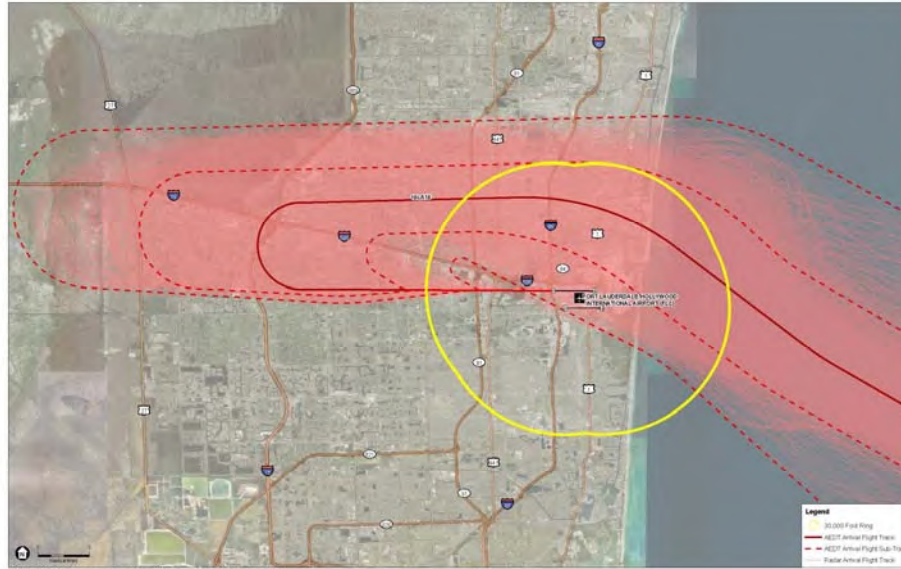
Flight Track Development Methodology

- Reviewed radar data from ANOMS
- Separated data by arrival/departure and runway end
- Analyzed primary corridors and separated data by these corridors to develop “backbone” AEDT flight tracks
- Reviewed the corridors and backbone flight tracks and developed up to 8 sub-tracks for each backbone flight track
- Utilized radar data to assign dispersion for sub-tracks
- Utilized radar data to assign flight track utilization by aircraft category (commercial jet, GA jet, turboprop, and piston/prop, and helicopters)



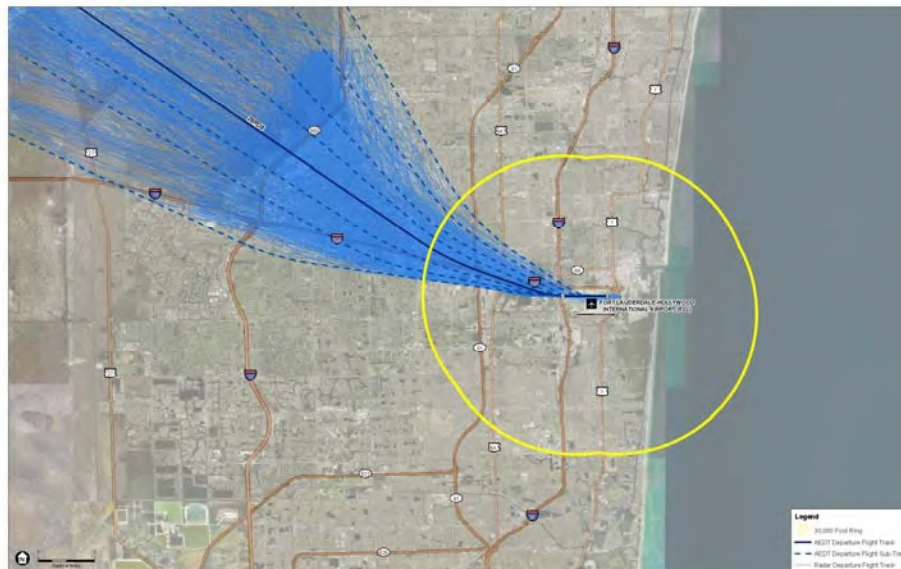
36

Example Arrival Flight Track



Draft For Deliberative Purposes Only

Example Departure Flight Track



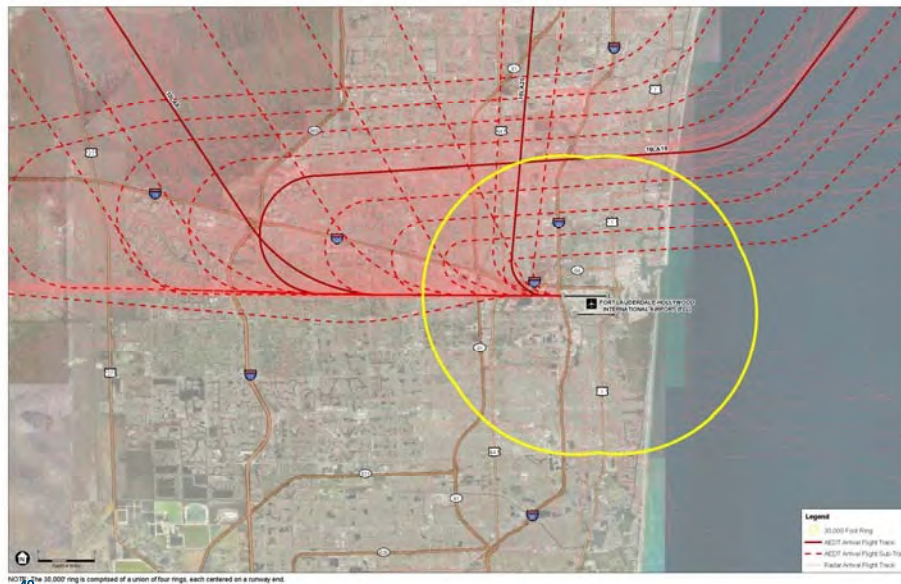
Draft For Deliberative Purposes Only

Example Helicopter 10L Arrival Flight Tracks



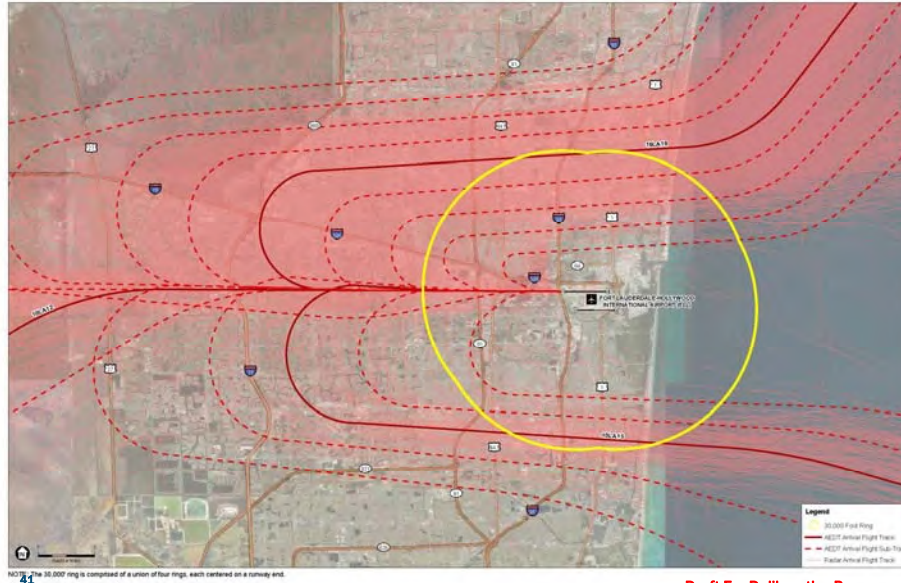
Draft For Deliberative Purposes Only

Example Piston/Prop 10L Arrival Flight Tracks

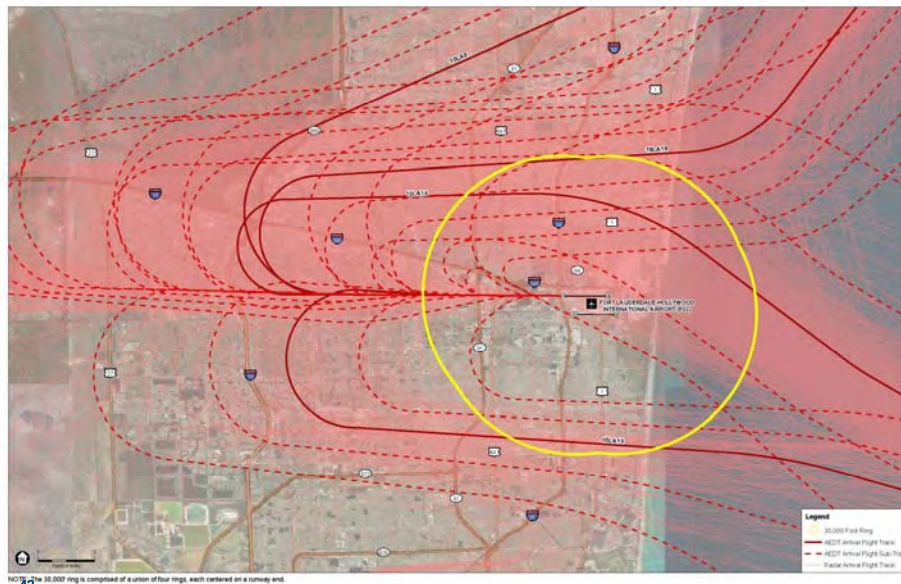


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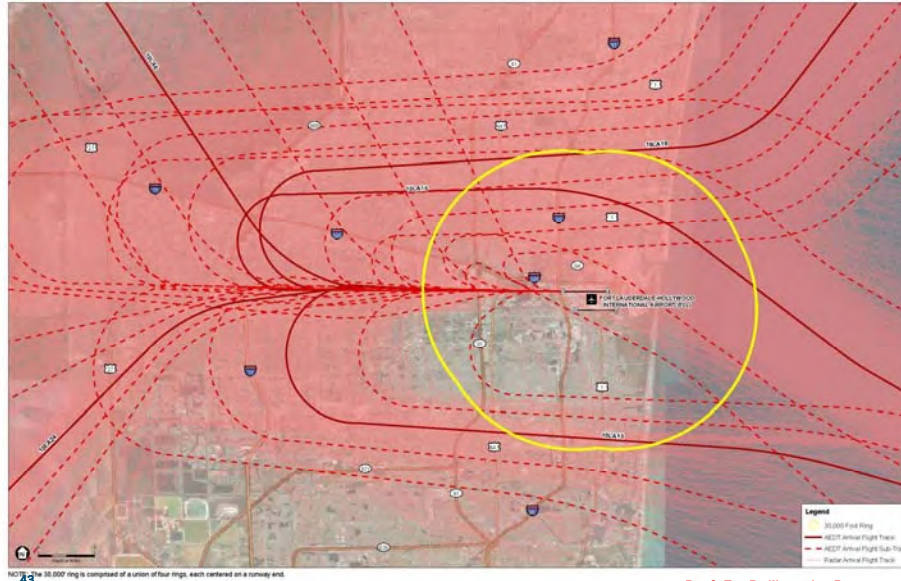
Example Turboprop 10L Arrival Flight Tracks



Example Business Jet 10L Arrival Flight Tracks



Example Commercial Jet 10L Arrival Flight Tracks



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Flight Tracks

Arrival Tracks

Runway	Backbone Tracks	Sub-Tracks	Total
10L	25	102	127
10R	29	103	132
28L	15	50	65
28R	10	41	51
Total	79	296	375

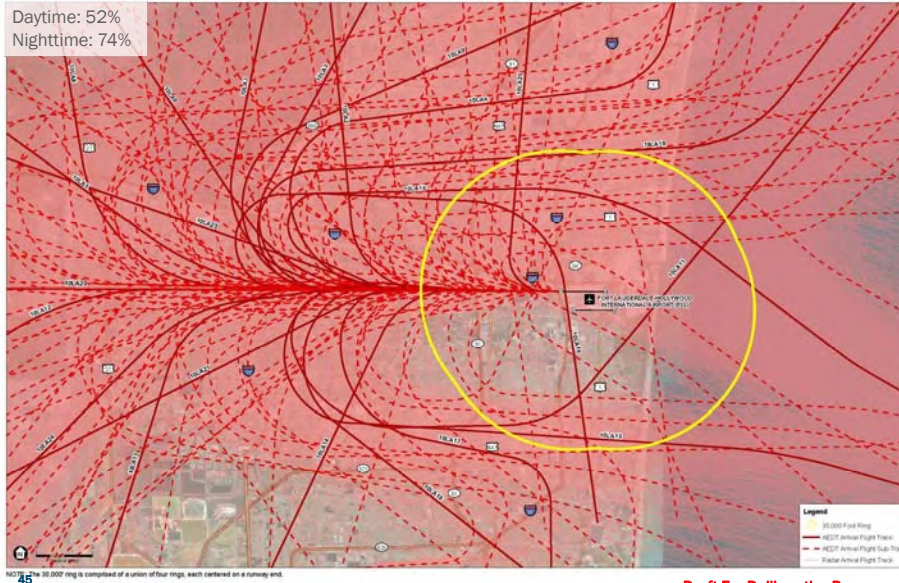
Departure Tracks

Runway	Backbone Tracks	Sub-Tracks	Total
10L	31	128	159
10R	24	95	119
28L	25	87	112
28R	23	81	104
Total	103	391	494

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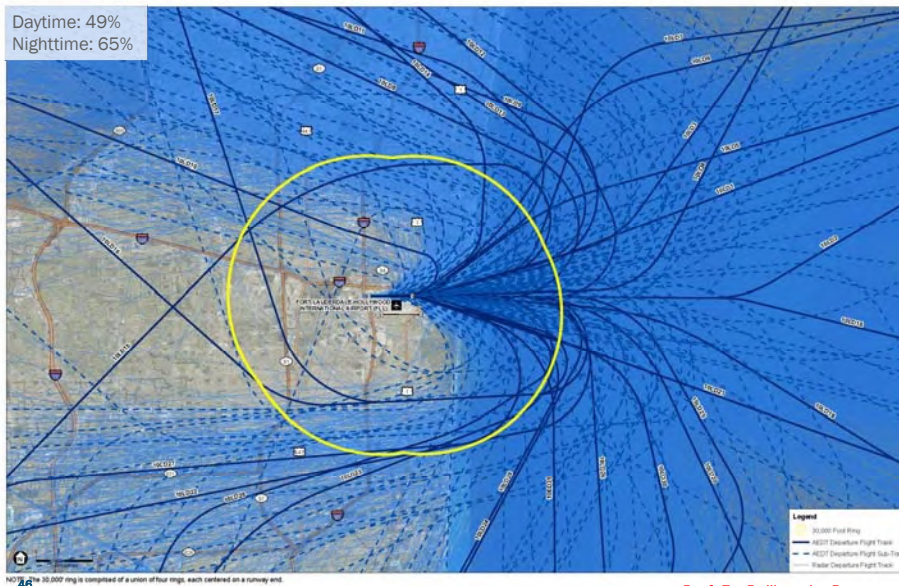
Draft For Deliberative Purposes Only

10L Arrival Flight Tracks: 55% of All Arrivals



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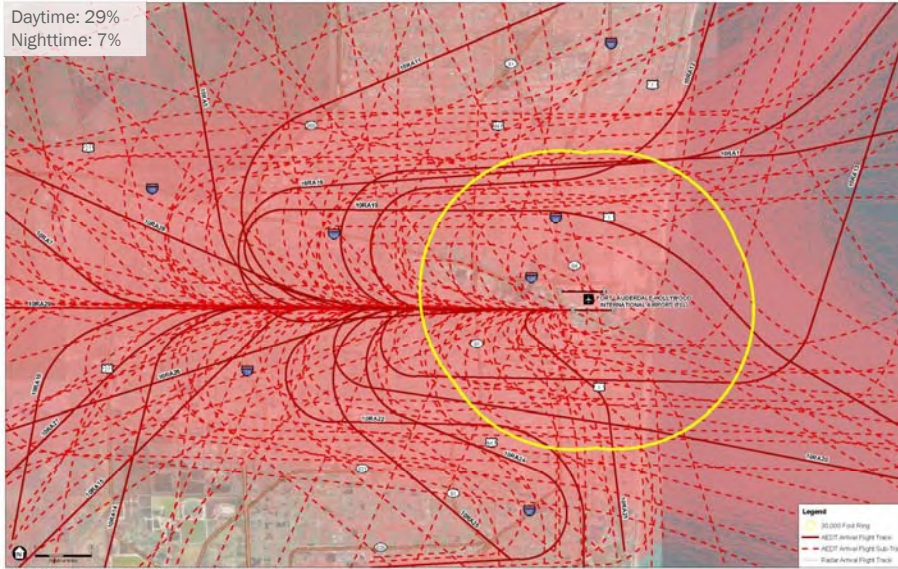
10L Departure Flight Tracks: 51% of All Departures



Draft For Deliberative Purposes Only

10R Arrival Flight Tracks: 26% of All Arrivals

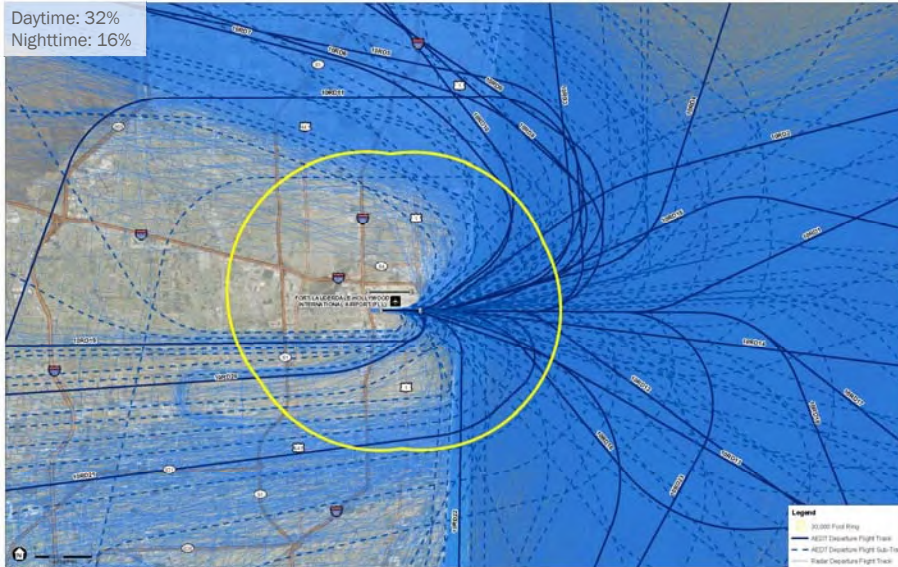
Daytime: 29%
Nighttime: 7%



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10R Departure Flight Tracks: 30% of All Departures

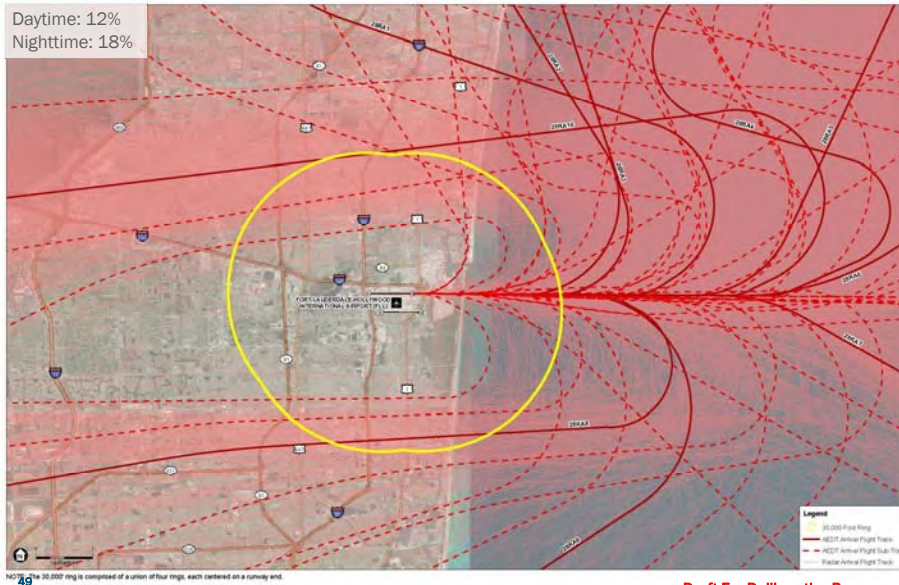
Daytime: 32%
Nighttime: 16%



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28R Arrival Flight Tracks: 13% of All Arrivals

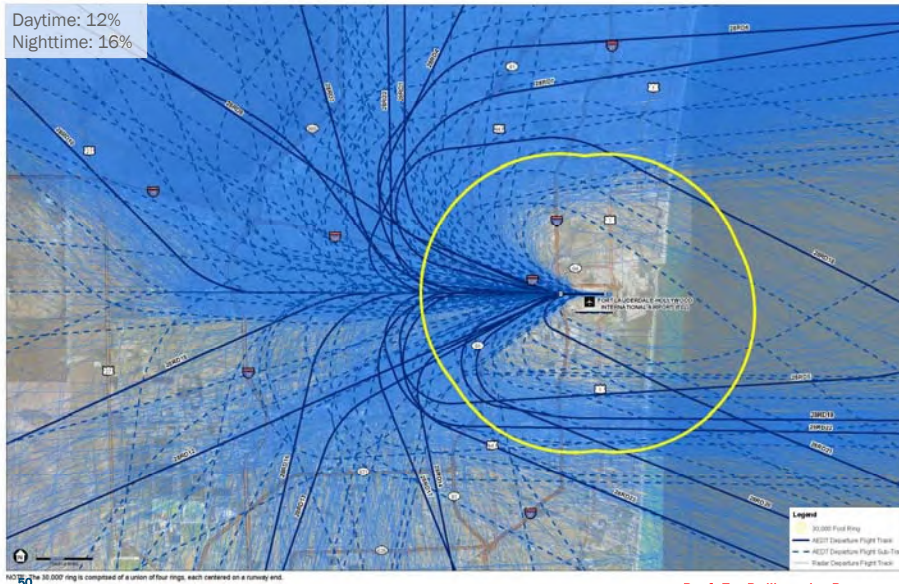
Daytime: 12%
Nighttime: 18%



Draft For Deliberative Purposes Only

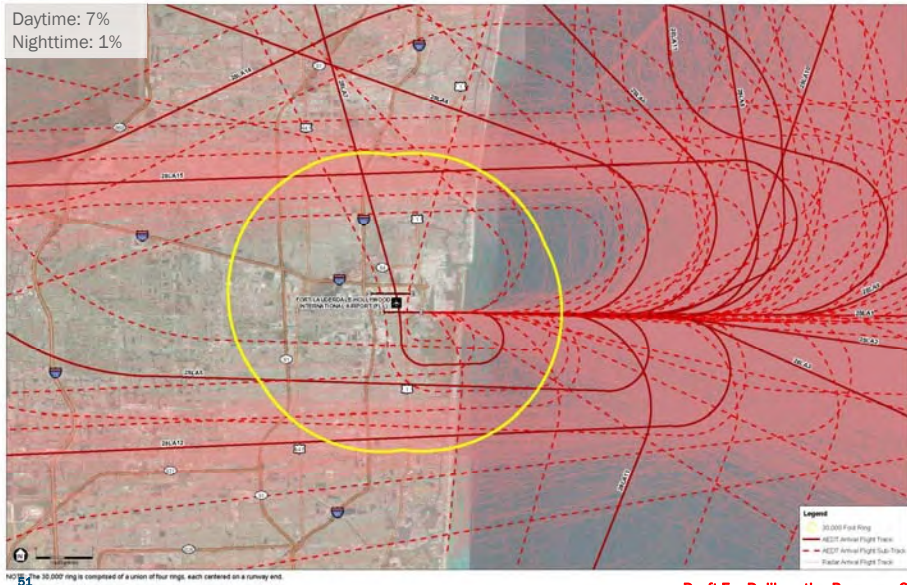
28R Departure Flight Tracks: 13% of All Departures

Daytime: 12%
Nighttime: 16%

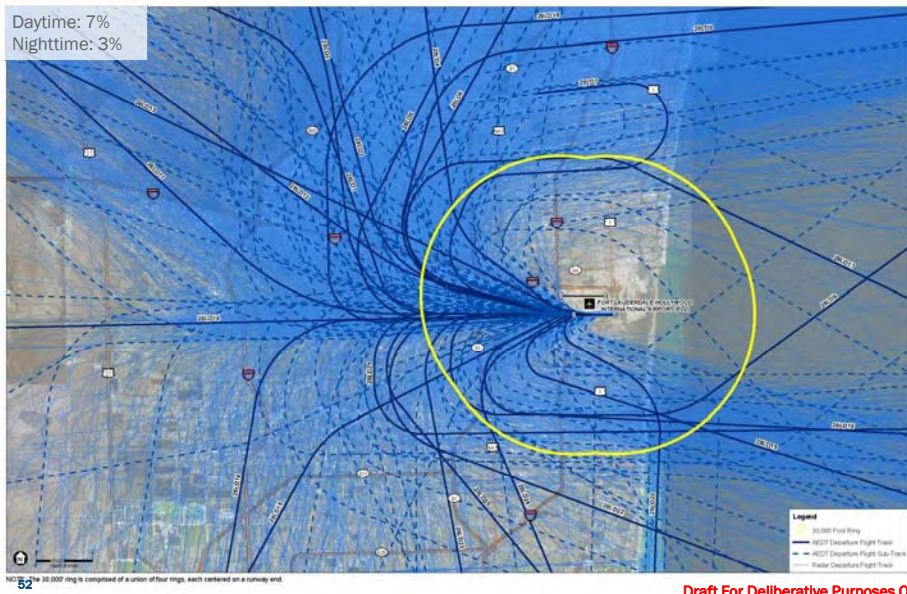


Draft For Deliberative Purposes Only

28L Arrival Flight Tracks: 6% of All Arrivals



28L Departure Flight Tracks: 6% of All Departures



Future TC Meetings



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Future Meetings

Technical Committee

- TC Meeting #4 (Tentative)

May 2018

Public Workshop

- NEM Report Public Workshop

Fall 2018

TC and Public Workshop materials will be available on the project website immediately following each meeting
www.flipart150.com



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Questions from TC Members



Adjourn

Technical Committee

Meeting #3

Meeting Summary

Fort Lauderdale-Hollywood International Airport
14 CFR Part 150 Noise and Land Use Compatibility Study
Technical Committee Meeting #3
March 7, 2018

Meeting Notes

Committee Members in Attendance

Chris Akagbosu – Broward County Public Schools (BCPS)	Gary Luedtke – Airport Noise Advisory Committee (ANAC)
Mitch Anton – Hollywood Chamber of Commerce	Julia Lundrigan – Delta Airlines
TJ DelNegri – FLL Air Traffic Control Tower	Lorie Mertens-Black – City of Hollywood
Peter Dokuchitz – City of Plantation	Geoff Rames – City of Fort Lauderdale
John Eastman – Town of Southwest Ranches	Edward Rebholz – City of Fort Lauderdale
John R. Flint – City of Weston	Edwin Solley – Southwest Airlines
Rebecca Henry – Federal Aviation Administration	Charles Taylor – Town of Davie
Marc LaFerrier – City of Dania Beach	

Other Members in Attendance

Winston Cannicle – BCAD	Ryan Goldman – BCAD
Will Castillo – BCAD	Gregory Meyer – BCAD
Ken Coutain, Jr. – BCAD	Brad Ostendorf – BCAD
Karen Friedman – BCAD	Mike Pacitto – BCAD
Kallie Glover – Delta Airlines	

Agenda and Key Topics:

- Welcome
- Review of the Role of the Technical Committee (TC) Meeting Facilitator
- Review of Prior TC Meetings
- Public Workshop Summary
- Land Use Data Collection
- Aircraft Activity
- Runway Use
- Flight Track Analysis
- Future TC Meetings

Meeting Summary:

- The Technical Committee convened for its third meeting shortly after 10:00 AM on March 7, 2018 at the Secret Woods Nature Center in the Julia Hall.
- The meeting began with re-introductions of participants.
- Ground rules for the TC members were reviewed by the facilitator. TC members were encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members. TC members were also expected to advise their organization and/or constituents of the TC's discussions.
- Attending members of the public were advised of ways in which they could submit comments including the project website (www.flpart150.com) and at future public meeting (dates TBD).
- A presentation of key topics was given by Michael Arnold, Part 150 Project Director representing the ESA consulting team. The presentation included the following information:
 - A review of the material presented in the prior TC meetings.
 - A summary of the five public workshops held in November 2017.
 - Overview of the land use data collection process, including presentation of draft existing land use graphics.
 - A review of FAA's noise model, AEDT, and modeling inputs:
 - 2018 and 2023 aircraft activity levels and forecast, including the 2018 aircraft fleet mix.
 - Individual runway use in CY 2016 and flows including the heavily weighted east flow operation, which will be used for 2018.
 - Daytime/Nighttime operations (10:00 pm – 7:00am) usage by individual runways, operation type (arrival or departure), and aircraft type. Potential for greater annoyance and 10 dB weighting of nighttime activities (each nighttime operation is equal to 10 daytime operations) to account for the increased annoyance.
 - A review of the flight track analysis process and presentation of radar and flight track graphics for all aircraft operations.
 - Future meetings

Questions & Comments from Technical Committee (TC) members:

Q: *Gary Luedtke (ANAC):* The City of Dania Beach receives about 90% of the Airport noise. No meeting was held in Dania Beach, however there are facilities available to use; in general, residents chose not go to alternative locations.

A: *Mike Arnold (ESA):* Locations in Dania Beach were not available at that time; however, four of the five meeting locations were within 5 miles of Dania Beach. We will consider Dania Beach locations for future meetings.

Q: *Gary Luedtke (ANAC):* What are the designated nighttime hours?

A: *Mike Arnold (ESA):* Nighttime operations are from 10pm to 7am.

Q: *Gary Luedtke (ANAC):* In 2013, there was only one runway in operation (the North runway) which had capacity for 255,000 annual operations.

A: *Mike Arnold (ESA):* Aircraft may be able to operate, but they are at risk for higher delay.

Q: *Julie Lundrigan (Delta Airlines):* How many aircraft/number of operations could use the runways (with/without penalty)? And which aircraft need the North runway/how many could move to the South runway?

A: *Mike Arnold (ESA):* The next step in the Part 150 evaluation will determine estimated future runway use based on the factors mentioned.

Q: *Edward Rebholz (City of Fort Lauderdale):* Can you clarify the backbone track and dispersed/sub tracks? Are the sub tracks standard deviations?

A: *Mike Arnold (ESA):* The solid lines are the backbone, and dotted lines are sub tracks.

A: *Autumn Ward (ESA):* It is not weighted the same as standard deviation, each track may be weighted differently

Q: *Edward Rebholz (City of Fort Lauderdale):* How do you get more departure tracks than arrival tracks? Are arrivals more constrained?

A: *Mike Arnold (ESA):* It is based on distributions, more tracks, not operations

Q: *Edward Rebholz (City of Fort Lauderdale):* Do the tracks also consider altitude of aircraft/elevation?

A: *Mike Arnold (ESA):* ANOMS data provides x, y, and z coordinates (flight track location and elevation).

Q: *Chris Akagbosu (BCPS):* The Nova school system is concerned about direct overflights of schools; can you tell what the aircraft altitudes and noise levels are/would be at Nova schools? Will you need feedback from the school administration to determine potential noise impacts/mitigation measures?

Which of the aircraft fly over Nova schools, do you know the height and sound levels at these schools? My daughter attends the Nova School and I'm concerned about the noise levels.

A: *Winston Cannicle:* approximately 3 miles due west about 900-1000 ft. in altitude

Q: *Chris Akagbosu (BCPS):* Are you looking to modify noise levels as part of study?

A: *Mike Arnold (ESA):* Yes.

Q: *Chris Akagbosu (BCPS):* You may need feedback from principals to understand their concerns during next meeting.

A: *Mike Arnold (ESA):* Okay, this may be important once we know the impacts as we transition to the next phase of the study.

Q: *Lorie Mertens-Black (City of Hollywood):* As part of Part 150, will you identify the need for different noise monitors, and agreements with the public. What specific operational measures are being considered? What happens in the future when the airport cannot accommodate any more operations?

A: *Mike Arnold (ESA):* The next phase of the study will identify and evaluate a range of operational noise mitigation and noise abatement measures as well as (1) Noise monitors will be evaluated, and they could be eligible for federal funding; (2) jurisdictional land use agreements will be evaluated in the next phase of study; the NCP phase will be discussed at the next TC meeting.

Q: *Lorie Mertens-Black (City of Hollywood):* At what level does the airport say they cannot accommodate anymore aircraft or operations?

C: *Gary Luedtke (ANAC):* There is a possibility for another parallel runway.

A: *Mike Arnold (ESA):* The airport does not have a set limit of aircraft operations. When the delay becomes too long, which is subjective to airlines and operators, these carriers would likely reduce their operations at FLL.

Q: *Geoff Rames (City of Fort Lauderdale):* What about right turn departures off the South runway in west flow? It does not look safe? What happened to 15 degrees of separation (for the 28L departure track)?

A: *Mike Arnold (ESA):* This is a question for air traffic; however, the Study will look at flight tracks / procedures that could reduce the noise impacts for non-compatible land uses.

Q: *John Eastman (Southwest Ranches):* We are getting notice of these meetings too late (9 days' notice for this meeting). The Team needs to determine the May timeframe now.

A: *Mike Arnold (ESA):* The meeting announcement was sent one month ahead of this meeting (February 9th), and reminders were sent one week before (February 28th) and one day before (March 6th) this meeting. We will continue to send Save the Date emails a month prior to the scheduled meetings.¹

Q: *Edward Rebholz (City of Fort Lauderdale):* When are recommendations coming out?

A: *Mike Arnold (ESA):* It will be part of the Noise Compatibility Plan (NCP) coming out in 2019.

Q: *Gary Luedtke (ANAC):* Last meeting, someone asked if the largest 4-engine aircraft could come into FLL; there is proof (Gary handed out image of 4-engine Russian cargo aircraft)

A: *Mike Arnold (ESA):* At the last meeting, the question was specifically about the A380, which cannot be accommodated at FLL. As stated previously, other 4-engine aircraft do occasionally operate at FLL, such as the Boeing 747.

Q: *Gary Luedtke (ANAC):* I've seen recreational drones being used within 5 miles of the airport.

A: *Rebecca Henry (FAA):* If you see drones being operated within 5 miles of the airport, please call the Sheriff's department.

¹ Save the dates and reminders are sent from RSVP@garthsolutions.com; please make sure this email address is marked as a safe sender to avoid notifications going to your spam folder.

Q: *Gary Luedtke (ANAC):* Operational data from 2017 reflects there were 137,000 flights, which is less than what was previously forecasted. The FAA's Terminal Area Forecast reflects that the airport can accommodate a lot more.

A: *Mike Arnold (ESA):* The forecast Gary is referencing was from 2006. The FAA updates the Terminal Area Forecast each year and the 2006 forecast is not being used in the Master Plan Update or the Part 150 Study. The Part 150 Study is using the Accelerated Baseline Forecast from the Master Plan Update.

Actionable Next Steps:

The next meeting will be held at the Secret Woods Nature Center - Julia Hall, likely in May 2018.

Meeting Adjourned at 11:30 AM

Appendix H-4
Technical Committee
Meeting #4
October 25, 2018

Technical Committee
Meeting #4

Meeting Notice and
Attendance Roster



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

**Subject: Fort Lauderdale-Hollywood International Airport
14 CFR Part 150 Study - Technical Committee Meeting #4**

Please save the date for the next Technical Committee meeting to support the Fort Lauderdale-Hollywood International Airport Part 150 Study.

Date: Thursday, October 25, 2018

Time: 10:00AM - 12:00PM

Location: Secret Woods Nature Center | Julia Hall; 2701 W. SR 84; Dania Beach, FL 33312

Please arrive 10 minutes early to allow time to check in prior to the start of the meeting.

Broward County Board of County Commissioners
Mark D. Bogen • Beam Furr • Steve Geller • Dale V.C. Holness • Chip LaMarca • Nan H. Rich • Tim Ryan • Barbara Sharief • Michael Udine
www.broward.org/www.fli.net



Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #4

Date / Time: Wednesday, November 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Akagbosu	Chris	Director, Facility of Planning & Real Estate Dept.	Broward County School Board	754-321-2162		chris.akagbosu@browardschools.com	
Annunziata	Jason	Station Manager	JetBlue	954 233-4722	646-942-2775	Jason.Annunziata@jetblue.com	
Anton	Mitch	Leadership Hollywood XLI	Hollywood Chamber of Commerce	954-646-3639		scpanther3@aol.com	
Boutros	Kareen	Executive Director	Broward Workshop	954-462-9112		kareen@browardworkshop.com	
Cannicle	Winston	Noise & Environmental Officer	Broward County Aviation Department - Airport Noise Office	954-359-6181		WCANNICLE@broward.org	
Castillo (A)	Will	Airport Planning Manager	Broward County Aviation Department - Airport Noise Office	954-359-2291		wcastillo@broward.org	
Barbara	Blake Boy		Study Coordination Committee			BBLAKEBOY@broward.org	
Cooley (A)	Sid		FLL Airport Traffic Control Tower	954-921-9200		sidney.cooley-jr@faa.gov	
Coutain, Jr.	Ken	Airport Planner	Broward County Aviation Department - P/D	954-359-1599		kcoutain@broward.org	
DelNegri	Theodore (TJ)	Tower Manager	FLL Airport Traffic Control Tower	954-921-9201		theodore.delnegri@faa.gov	
Dokuchitz	Peter	Principal Planner / City of Plantation	City of Plantation	954-797-2265		pdokuchitz@plantation.org	
Eastman	John	John Eastman	Town of Southwest Ranches	954-465-8383		john426@bellsouth.net	
Flint	John R.	City Manager / CEO	City of Weston	954-385-2000		jflint@westonfl.org	
Gaenicke	Sierra		VHB			sgaenicke@vhb.com	
Gale	Mark	Director of Aviation	Broward County Aviation Department			mgale@broward.org	
Gertsen (A)	Alex	Director of Airports and Ground Infrastructure	NBAA	202-737-4477		Agertsen@nbaa.org	
Glover	Kalena		Delta Airlines			kalena.glover@delta.com	
Govin	Yasmin		Broward County Aviation Department - Airport Business	954-359-6145		ygovin@broward.org	
Grandolfo	Joe		FEDEX			jgrandolfo@fedex.com	
Hemmerle	Mark	Front Line Manager	South Florida Flight Standards Division (FSDO)	954-641-6015		Mark.W.Hemmerle@faa.gov	
Henry	Rebecca	Assistant Manager	Federal Aviation Administration Orlando Airports District Office			Rebecca.Henry@faa.gov	







Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #4

Date / Time: Wednesday, November 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Hildebidle	Bob	Air Traffic Manager A	Miami Air Traffic Management/TRACON	305-869-5402	954-292-6515	Bob.Hildebidle@faa.gov	
Holste (A)	Phillip	Assistant Town Administration	Town of Davie	954-797-1034		Phillip_Holste@davie-fl.gov	
Hotte	Anne	CEO/Executive Director	Greater Hollywood Chamber of Commerce	954-923-4000		anne@hollywoodchamber.org	
Kaine (A)	Brad	Director of Public Services	City of Dania Beach	954-924-6808		bkaine@daniabeachfl.gov	
LaFerrier	Marc	Director, Community Development	City of Dania Beach	954-924-6805 x3643		mferrier@ci.dania-beach.fl.us	
Lemack	Richard	Town Administrator	Town of Davie	954-797-1034		Richard_Lemack@davie-fl.gov	
Lindblade, CAE	Dan	CAE - President and CEO	Greater Fort Lauderdale Chamber of Commerce	954-462-4911		dan@ftlchamber.com	
Luedtke	Gary		ANAC	954-966-8013		gluedtke@gmail.com	
Lundrigan	Julia	Delta Flight Ops	Delta Airlines	404-773-2882	678-427-1350	Julia.lundrigan@delta.com	
Matz	Jeff	Corporate Contact	UPS	502-329-3913		jmatz@ups.com	
Mertens-Black	Lorie	Chief Civic Affairs Officer	City of Hollywood	954-921-3599		lmertens-black@hollywoodfl.org	
Meyer	Gregory	Public Information Officer	Broward County Aviation Department - PIO	954-359-6116		GMeyer@broward.org	
Modrich (A)	Mark	AA Pilot/Resident	Town of Southwest Ranches	954-540-4854	954-252-5040	mmodrich@aol.com	
Morrissey	Mary	Senior Manager	FedEx	954-359-7432		mmmorrissey@fedex.com	
Nazzaro	Tom	Airport Manager, Aviation	Broward County Aviation Department - Airport Business	954-359-6821		tnazzaro@broward.org	
Nonnemacher (A)	Michael	Acting Assistant Executive Director	Broward County Aviation Department - Airport Operations			mnonnemacher@broward.org	
Ostendorf	Brad	Environmental Compliance Manager	Broward County Aviation Department	954-359-2395	954-829-0867	bostendorf@broward.org	
Pacitto (A)	Mike	Director of Planning	Broward County Aviation Department - Airport Manager's Office	954-560-0766		MPPACITTO@broward.org	
James	Rufus	Airport Manager	City of Fort Lauderdale			RJames@fortlauderdale.gov	
Pokryfke	John	Asst. Director of Operations, Aviation	Broward County Aviation Department - Airport Operations	954-359-6475		jpokryfke@broward.org	
Rames (A)	Geoff	Lauderdale Isles Water Management District	City of Fort Lauderdale	954-327-9095		grames.lucia@gmail.com	






Broward County Aviation Department - Airport Development

Meeting: Fort Lauderdale - Hollywood International Airport --- Part 150 Study - Technical Committee Meeting #4

Date / Time: Wednesday, November 7, 2018 10:00 AM - 12:00 PM

Location: Secret Woods Nature Center

Last Name	First Name	Title	Organization Name	Work Phone #	Cell Phone #	E-Mail Address	Signature
Rebholz	Edward		City of Fort Lauderdale	973-476-5609		ed@edrebholz.com	
Robbin	Sam	CEO	National Jets/Broward Workshop	954-868-2166		samrobbin@nationaljets.com	
Shiver	Michael	General Manager	Spirit Airlines	954-359-0933		michael.shiver@spirit.com	
Siegel (A)	Allan	Public Informations Officer	Broward County Aviation Department	954-359-6978		Asiegel@broward.org	
Siwinski	Ben		VBH			BSiwinski@VHB.com	
Solley	Edwin	Manager ATC Systems	Southwest Airlines	407-850-1563		Edwin.solley@wnco.com	
Swindell	Bob	President and CEO	Greater Fort Lauderdale Alliance Economic Development Agency	954-524-3113		bswindell@gflalliance.org	
Taylor	Charles	Intergovernmental Affairs Manager	Town of Davie	954-797-1034		Charles_Taylor@davie-fl.gov	
Van Valkenburgh (A)	Debra		ANAC			perhelion@hotmail.com	
Voos	Gregory	South Regional Representative	NBAA	202-737-4475		gvoos@nbaa.org	
Wood	Matt	Growth Management Director	City of Cooper City	954-434-4300		MWood@coopercityfl.org	
Wu	Kevin	Airport Manager	Broward County Aviation Department - OPS	954-359-1216	954-279-4740	kwu@broward.org	

Technical Committee

Meeting #4

Materials Presented at Meeting



AVIATION DEPARTMENT - Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101 • Dania Beach, Florida 33312 • 954-359-6100

Meeting Agenda
Technical Committee Meeting No. 4
14 CFR Part 150 Study
Fort Lauderdale-Hollywood International Airport
November 7, 2018 – 10AM to 12PM EDT

1. Introductions
2. Review of the Role of the TC Meeting Facilitator
3. Review of Prior TC Meetings
4. 2018 Noise Exposure Assumptions and Contours
5. 2023 Noise Exposure Assumptions and Contours
6. Noncompatible Land Use Analysis
7. Noise Compatibility Program Overview
8. Future TC Meetings
9. Questions from TC Members
10. Adjourn



14 CFR PART 150 NOISE AND LAND USE COMPATIBILITY STUDY


Technical Committee Meeting #4
November 7, 2018



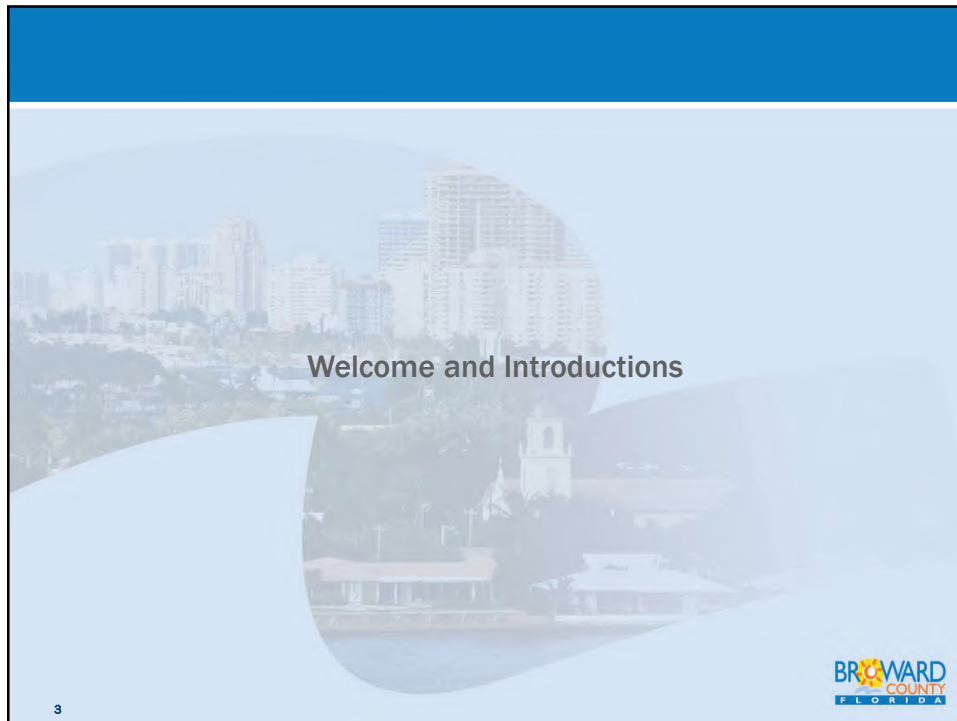
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Agenda

- Introductions
- Review of the Role of the TC Meeting Facilitator
- Review of Prior TC Meetings
- 2018 Noise Exposure Assumptions and Contours
- 2023 Noise Exposure Assumptions and Contours
- Noncompatible Land Use Analysis
- Noise Compatibility Program Overview
- Future TC Meetings
- Questions from TC Members



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Purpose and Objectives of the TC

- TC members represent the interests of their organization and/or constituents
- The TC's role is to support the FLL Part 150 Study
 - Review study assumptions
 - Provide technical feedback within the context of the Part 150 Study (noise exposure maps and noise compatibility program)
 - TC members are encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members
- TC members are also expected to advise their organization and/or constituents of the TC's discussions
- BCAD will respect and consider the TC's technical input, but retains responsibility for, and decision making authority on, the FLL Part 150 Study

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BROWARD COUNTY FLORIDA

This slide has an orange header bar with the title 'Purpose and Objectives of the TC'. The background is light gray with a faint image of an airplane. The content is a bulleted list. The number '4' is in the bottom left corner, and the Broward County Florida logo is in the bottom right corner.

TC Members

- BCAD
- ANAC
- Southwest Airlines
- Delta Airlines
- JetBlue
- Spirit Airlines
- UPS
- NBAA
- Greater Fort Lauderdale Chamber of Commerce
- Greater Hollywood Chamber of Commerce
- Greater Fort Lauderdale Alliance
- Broward Workshop
- City of Dania Beach
- City of Fort Lauderdale
- City of Hollywood
- Town of Davie
- City of Plantation
- City of Cooper City
- Town of Southwest Ranches
- City of Weston
- Broward County School Board
- FAA - Orlando Airports District Office
- Miami Air Traffic Management/TRACON
- FLL Airport Traffic Control Tower
- South Florida Flight Standards Division (FSDO)

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Role of the Meeting Facilitator

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Role of the TC Meeting Facilitator

- To ensure that the TC meetings are effective they will be facilitated by a professional meeting facilitator
- The meeting facilitator is responsible for ensuring that the TC meetings adhere to the published meeting agenda
- The meeting facilitator may extend or shorten the length of a discussion related to an agenda item at his or her sole discretion
- The meeting facilitator, or BCAD, may cancel or suspend a TC meeting due to disrespectful or disruptive behavior
- TC meetings will be open to the public, subject to space availability



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Prior Technical Committee Meetings

TC #1 – May 26, 2017

- Purpose and Objectives of the Technical Committee
- Airport Overview
- Part 150 Study Overview
- Introduction to Aircraft Noise, Modeling, and Compatibility
- Initial Data Collection
- Project Schedule

TC #2 – August 23, 2017

- Data collection process and status
- AEDT Model inputs
- Aircraft Activity Forecast
- Runway Use
- Flight Track Methodology



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Prior Technical Committee Meetings

TC #3 – March 7, 2018

- Public Workshop Summary
- Land Use Data Collection
- Aircraft Activity
- Runway Use
- Flight Track Analysis
- Modeling Assumptions

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2018 ASSUMPTIONS AND RESULTS

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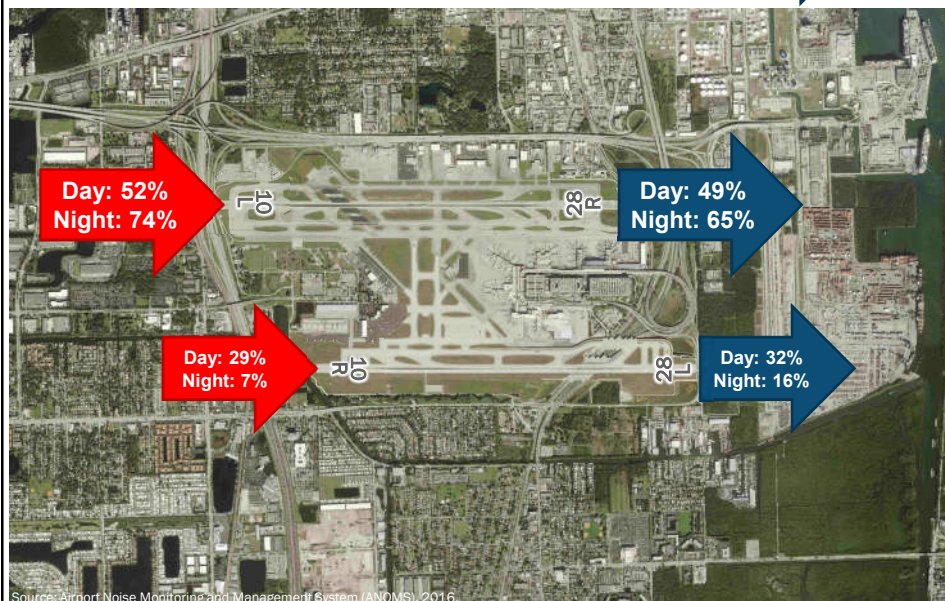
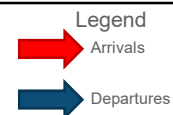
2018 Baseline Contour Assumptions

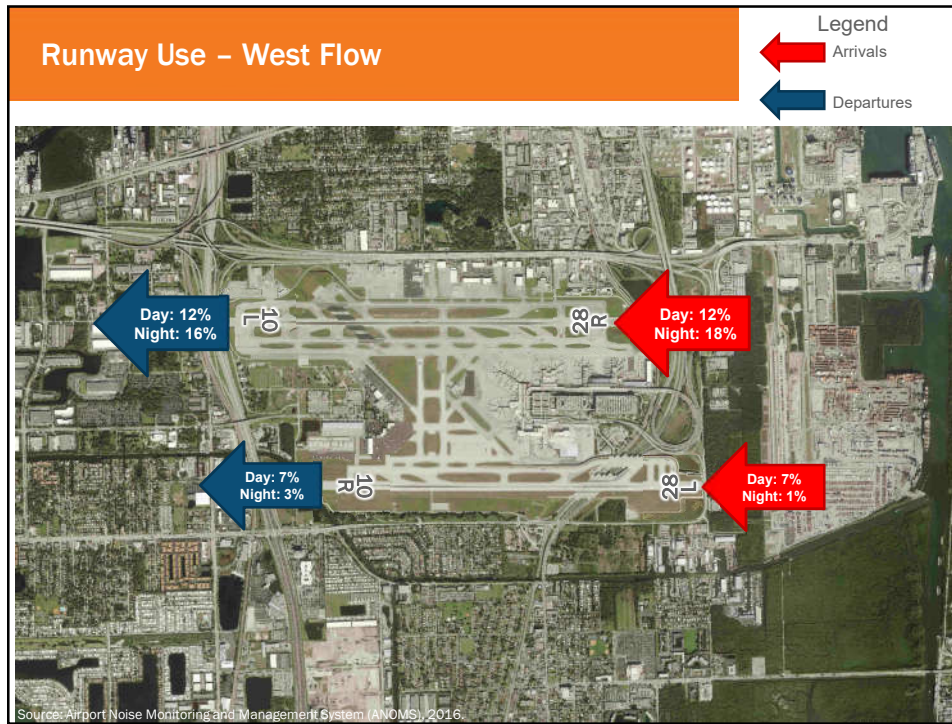
- 2018 Total Aircraft Operations: 335,000 (Master Plan Update)
- 2016 Airport Noise and Operations Monitoring System (ANOMS) data for fleet mix, runway utilization, and day / night
- 2016 ANOMS Radar data used to develop flight tracks and assign flight track utilization by aircraft category
- 10-Year Average Meteorological Data (AEDT, NOAA NCDC)
- National Elevation Dataset (NED) terrain data (USGS)

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Runway Use – East Flow



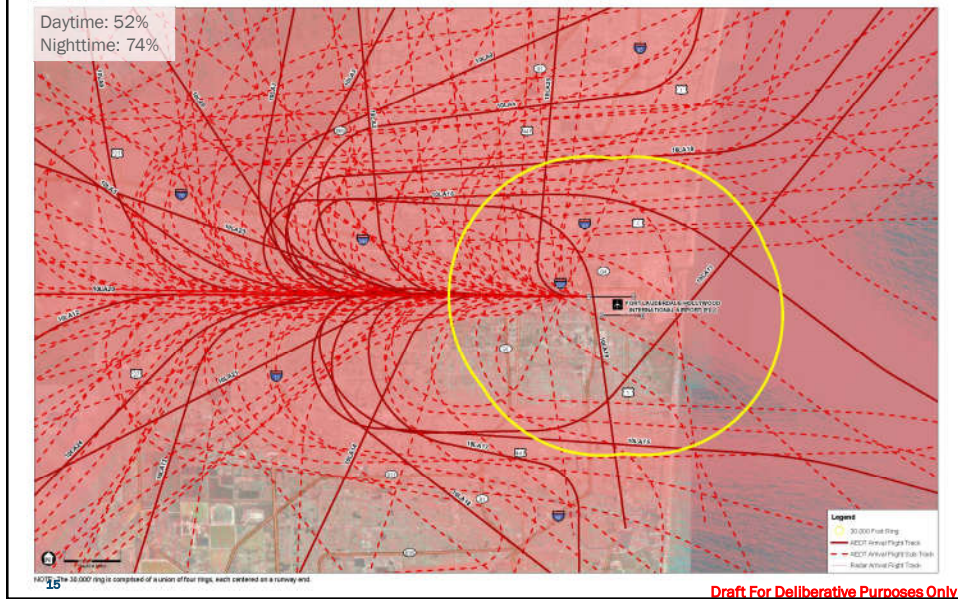


Baseline Condition Runway Use

Runway Usage				
Operation Type	Runway	Day	Night	Grand Total
Arrivals	North Runway			
	10L	52%	74%	55%
	28R	12%	18%	13%
	Total	64%	92%	68%
	South Runway			
	10R	29%	7%	26%
Departures	28L	7%	1%	6%
	Total	36%	8%	32%
	North Runway			
	10L	49%	65%	51%
	28R	12%	16%	13%
	Total	61%	81%	64%
	South Runway			
	10R	32%	16%	30%
	28L	7%	3%	6%
	Total	39%	19%	36%

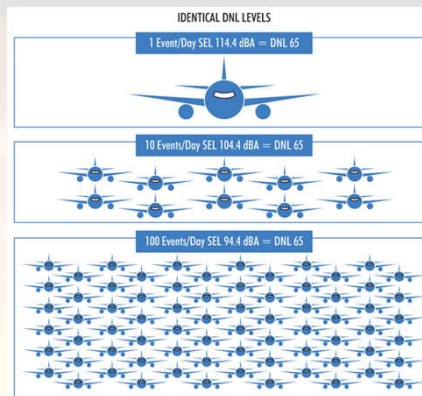
Source: Airport Noise Monitoring and Management System (ANOMS), 2016.

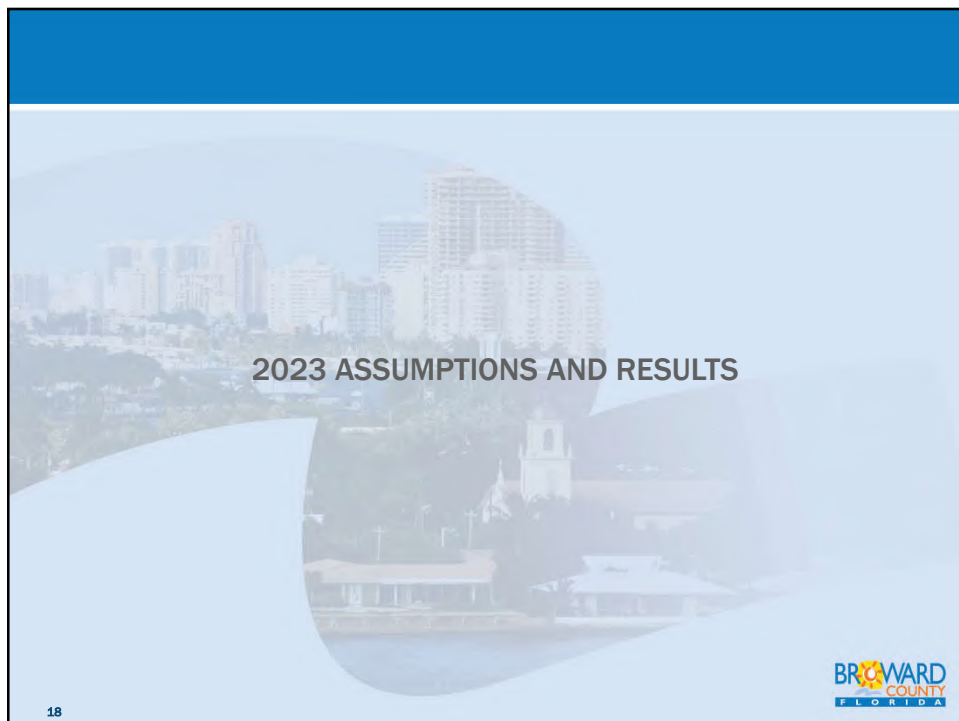
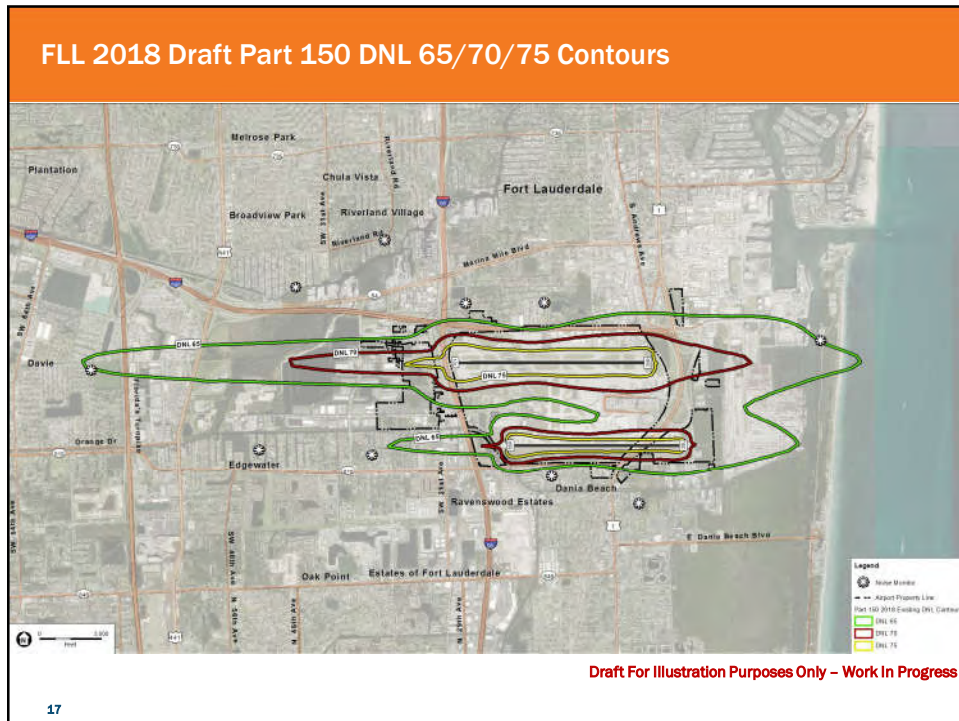
10L Arrival Flight Tracks: 55% of All Arrivals (SAMPLE)



Aircraft Noise - Day-Night Average Sound Level (DNL)

- 24-hour time weighted energy average noise level based on A-weighted decibels (dBA)
- Noise occurring between 10 p.m. to 7 a.m. is penalized by 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





2023 Future Condition Contour Assumptions

- 2023 Total Aircraft Operations: 364,765 (Master Plan Update)
- 2016 ANOMS Radar data used to develop flight tracks and assign flight track utilization by aircraft category and day/night utilization
- Master Plan Update used for fleet mix and operations
- Runway utilization used information from the Master Plan Update, Air Traffic Control Tower meetings, future airline/gate assignments, and internal analysis
- 10-Year Average Meteorological Data (AEDT, NOAA NCDC)
- National Elevation Dataset (NED) terrain data (USGS)



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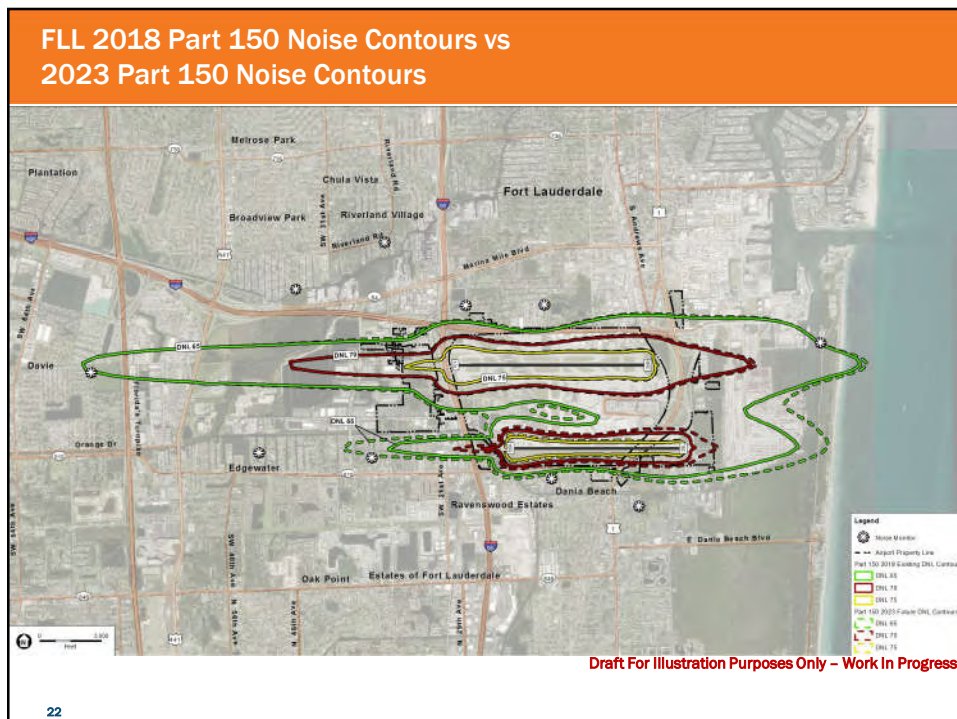
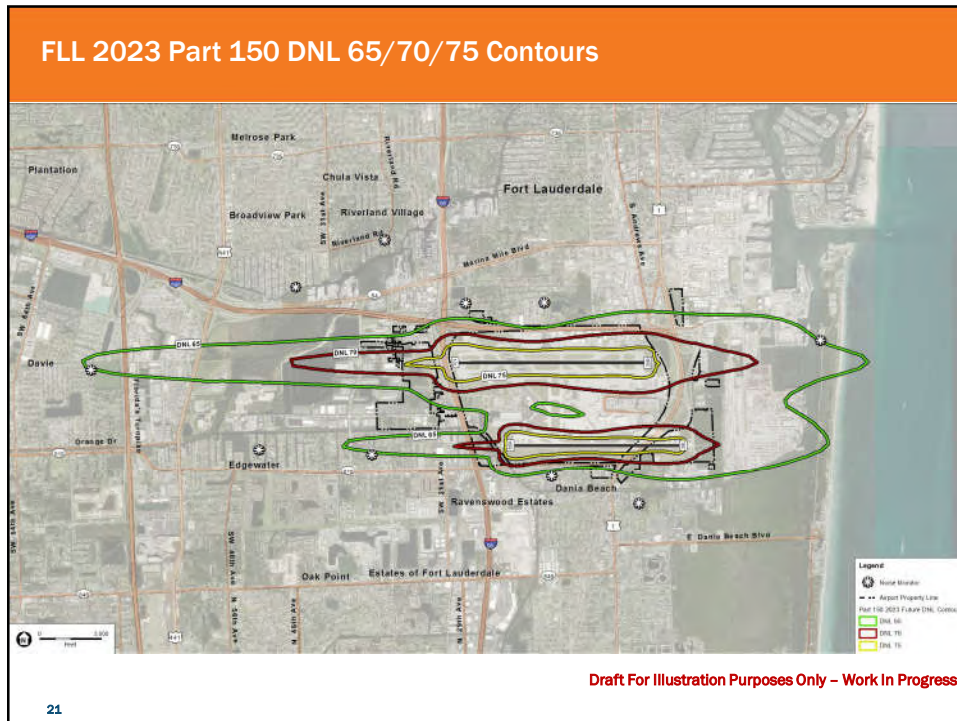
2023 Part 150 Runway Use

Runway Usage

Operation Type	Runway	Day	Night	Grand Total
Arrivals	North Runway			
	10L	49%	66%	52%
	28R	12%	12%	13%
	Total	62%	84%	65%
	South Runway			
	10R	31%	15%	29%
	28L	7%	1%	6%
	Total	38%	16%	35%
Departures	North Runway			
	10L	44%	59%	46%
	28R	14%	18%	14%
	Total	58%	77%	60%
	South Runway			
	10R	37%	21%	35%
	28L	5%	3%	5%
	Total	42%	23%	40%

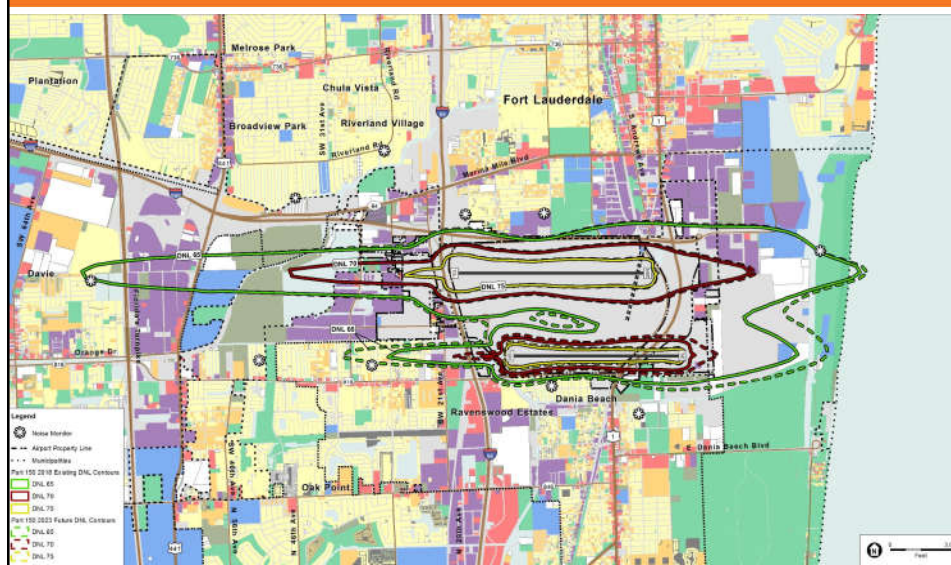
Draft Analysis For Internal Review Only – Work In Progress

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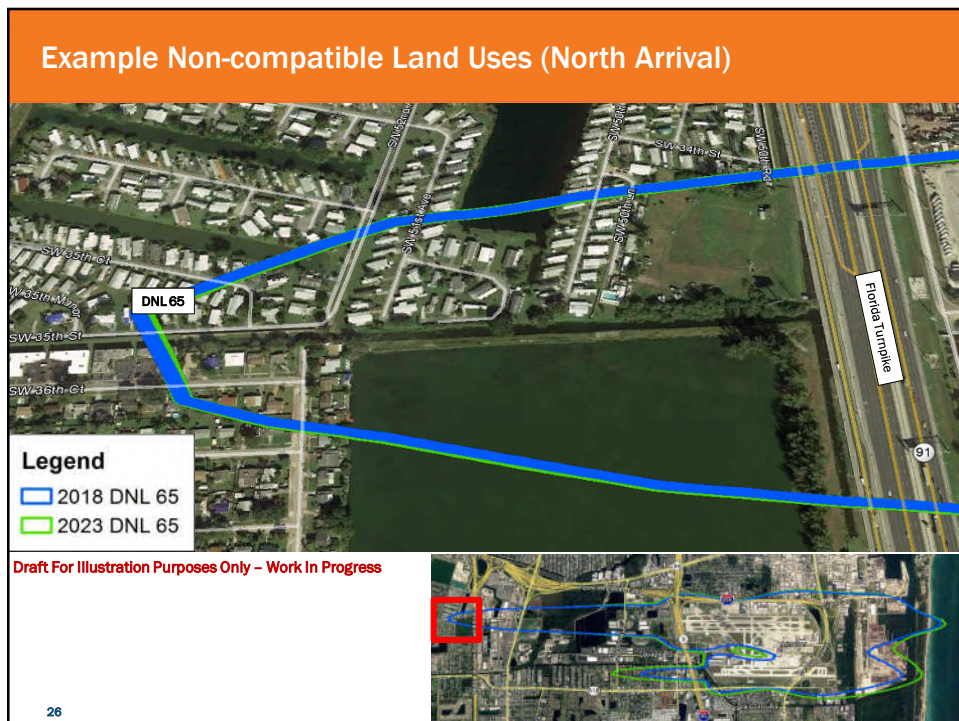
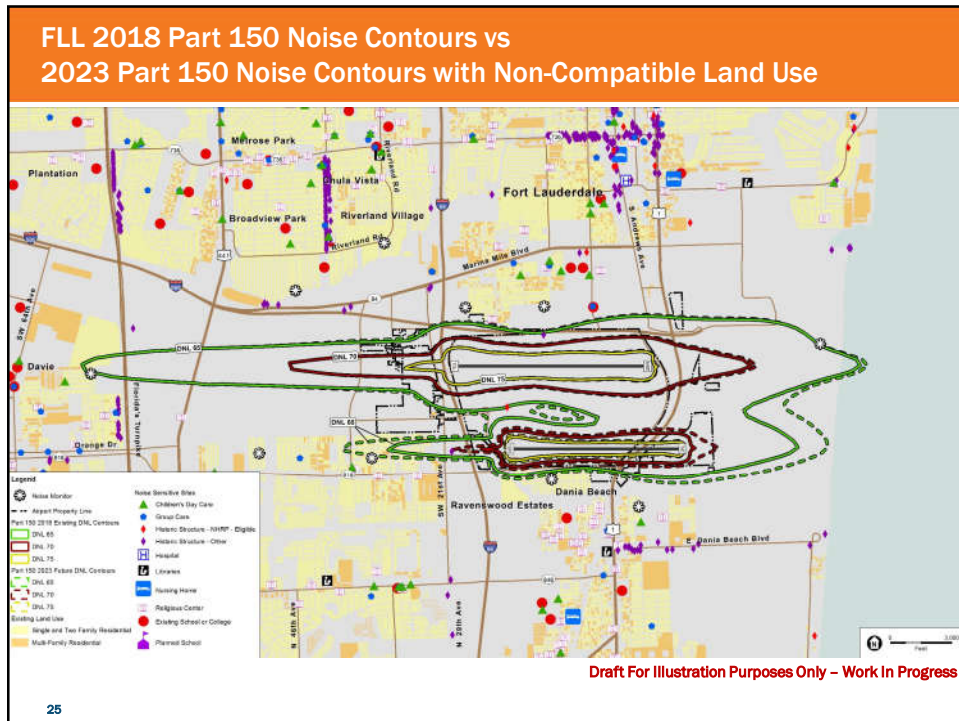


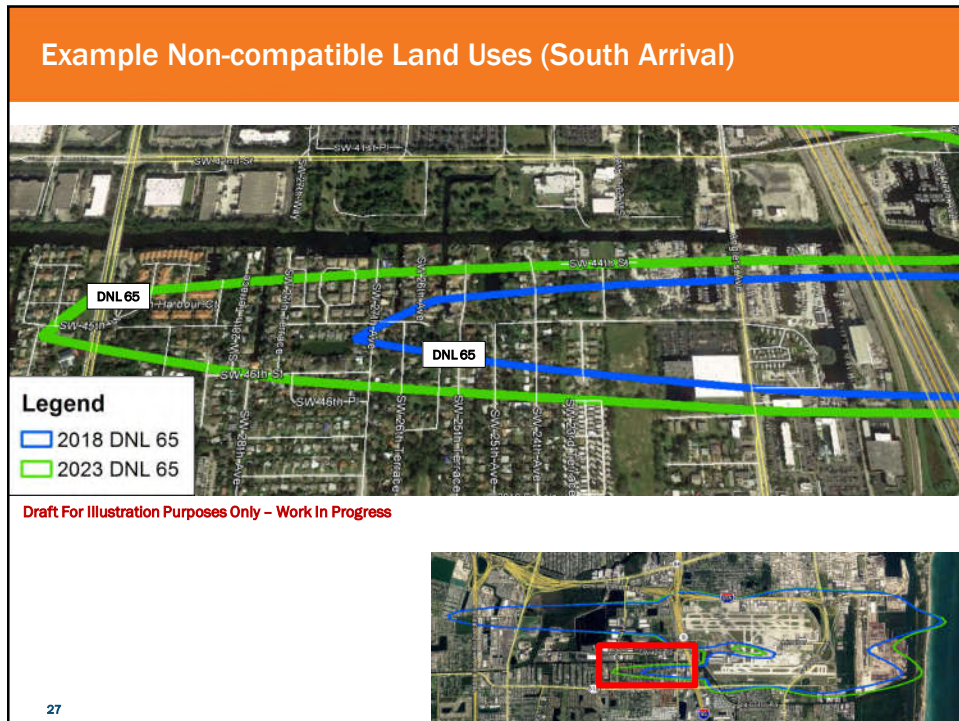
Noncompatible Land Use Analysis

FLL 2018 Part 150 Noise Contours vs 2023 Part 150 Noise Contours with Existing Land Use



Draft For Illustration Purposes Only – Work In Progress





2018 and 2023 Summary of Noise Sensitive Uses

Noise Sensitive Sites Exposed to DNL 65 and Higher				
Noise Level ¹	Total Area (Acres)	Housing Units ²	Population ²	Historic Resources
2018				
DNL 65-70	2,276.00	203	430	3
DNL 70-75	710.1	0	0	0
DNL 75+	459.6	0	0	0
Total	3,445.70	203	430	3
2023				
DNL 65-70	2,579.00	492	1,073	3
DNL 70-75	805.7	0	0	0
DNL 75+	503.3	0	0	0
Total	3,888.00	492	1,073	3

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).

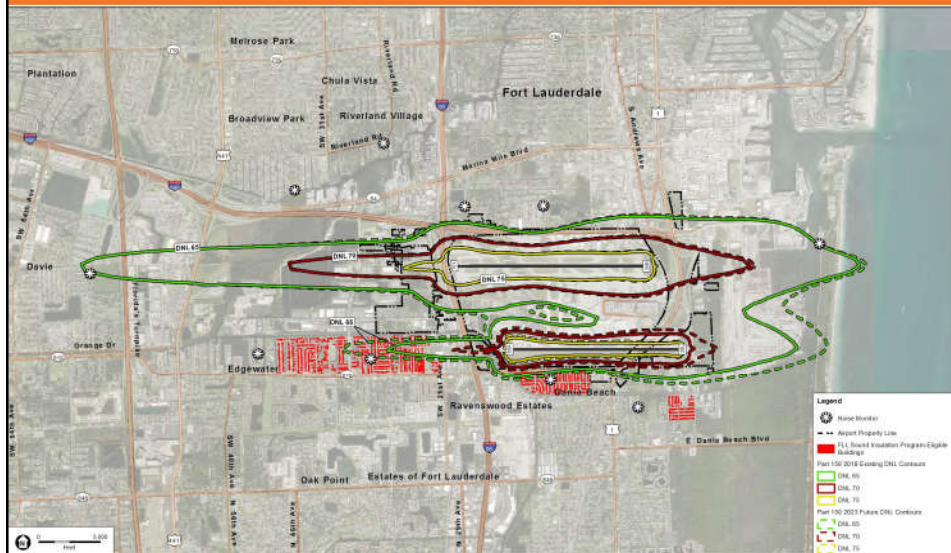
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No Other Noise Sensitive Sites within DNL 65:

- Schools
- Hospitals
- Religious Facilities
- Day Cares
- Nursing Homes/ Group Care
- Libraries

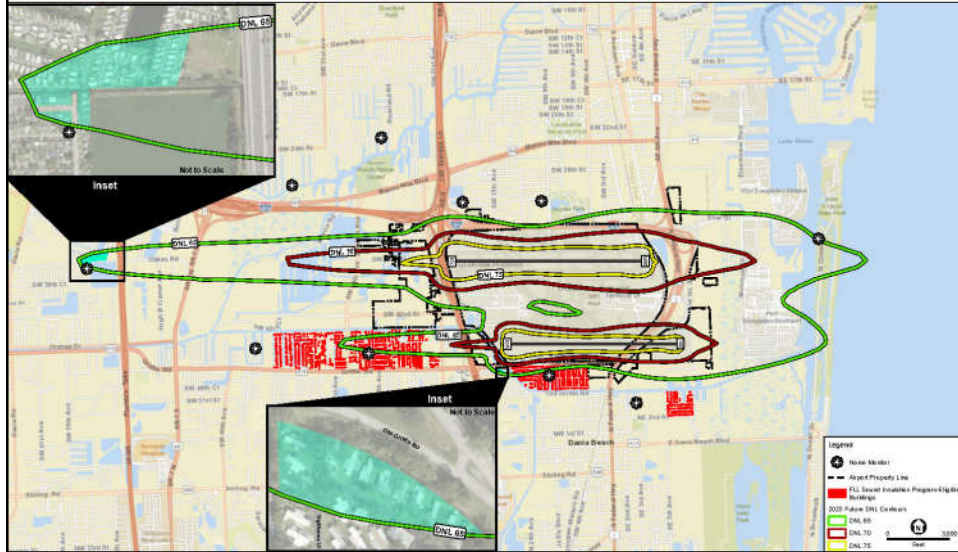


FLL 2018 & 2023 Part 150 Noise Contours with Sound Insulation Program



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FLL 2018 & 2023 Part 150 Noise Contours with Sound Insulation Program



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2018 and 2023 Non-Mitigated Residential Land Uses

HOUSING UNITS NOT IN CURRENT FLL SOUND INSULATION PROGRAM ¹		
Noise Level ²	Housing Units Outside SIP ³	Housing Units within SIP ¹
2018		
DNL 65-70	89	114
DNL 70+	0	0
TOTAL:	89	114
2023		
DNL 65-70	105	387
DNL 70+	0	0
TOTAL:	105	387

SOURCES:

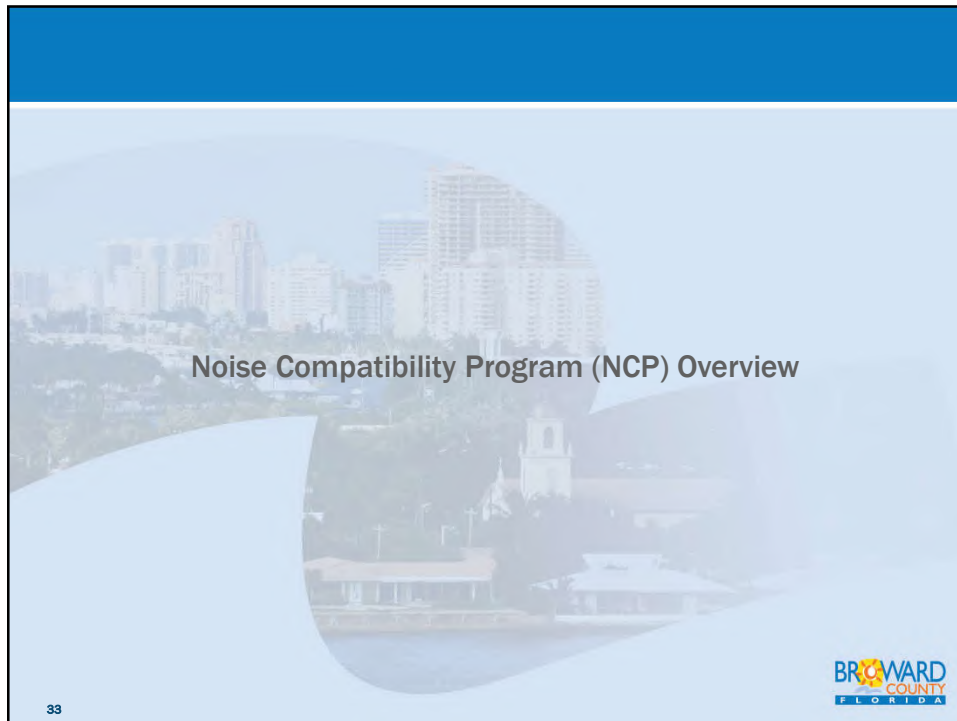
¹ FLL Sound Insulation Program housing unit data from Broward County Aviation Department

² Noise contours from Environmental Science Associates (ESA)

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

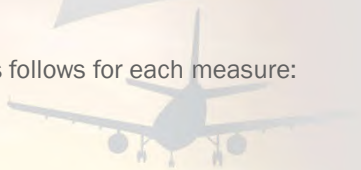
Draft Analysis For Internal Review Only – Work In Progress

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Required Elements of an 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)



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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

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Distinction Between Noise Abatement and Noise Mitigation

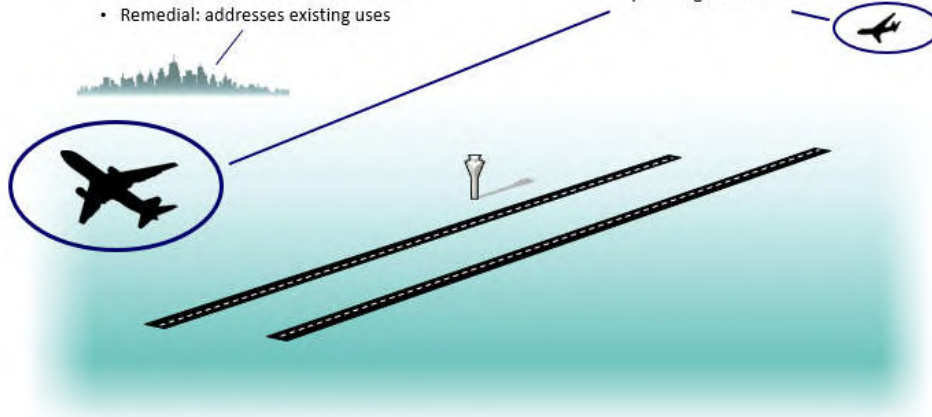
Noise Mitigation

Addresses non-compatible land uses

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

Noise Abatement

Reduces noise exposure by moving the source



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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

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Importance of TC Involvement During the NCP Phase

- TC members represent the interests of their organization and/or constituents
- TC involvement in the NCP phase is key for a successful NCP
 - Identify potential NCP measures
 - Provide subject matter expertise
 - Advise organization and/or constituents of NCP discussions
 - Solicit feedback from organization and/or constituents
- 14 CFR Part 150 requires consultation with the following stakeholders, and most are members of the TC:
 - FAA regional officials
 - Officials of the state and of any public agencies and planning agencies that have any area of jurisdiction within the DNL 65
 - Other Federal officials having local responsibility of land uses in an NEM
 - Aircraft operators using the airport
 - General Public

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Future Meetings

Technical Committee

- TC Meeting #5 (Tentative) January 2019

Public Workshop

- NEM Report Public Workshop January 2019

TC and Public Workshop materials will be available on the project website following each meeting
www.flpart150.com

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BROWARD COUNTY FLORIDA

Next Steps

- Study Coordination Committee Meeting (11-7-18)
- Publish Draft NEM Report
- NEM Public Workshop (January 2019)
- Incorporate NEM Comments and Submit to FAA for Acceptance
- Solicit Alternatives to be Evaluated in Noise Compatibility Program (NCP)

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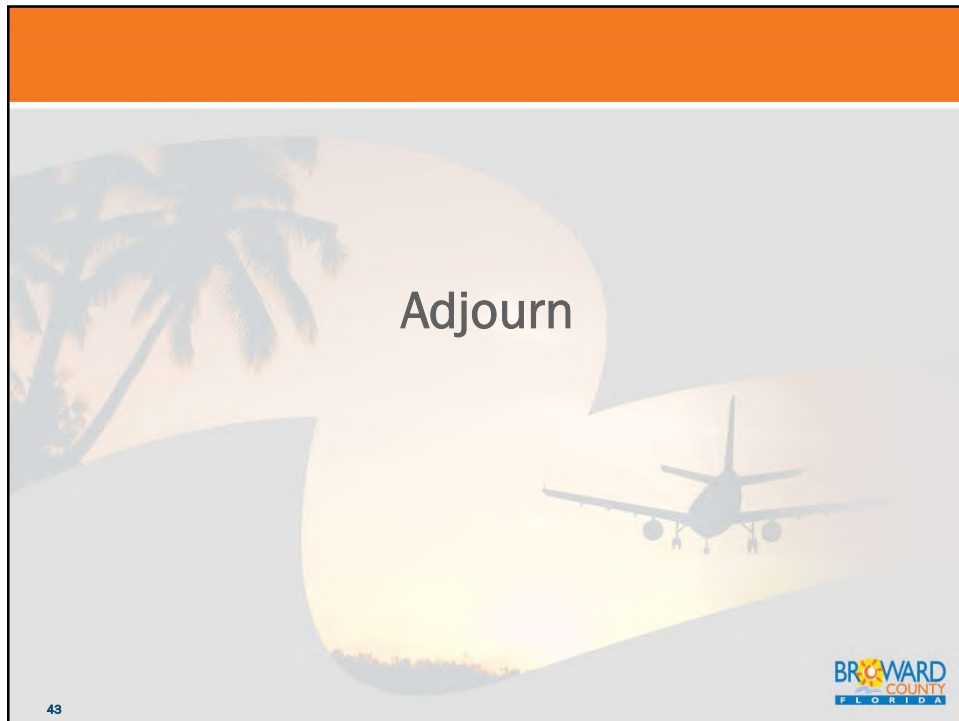


Questions from TC Members



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Technical Committee

Meeting #4

Meeting Summary

DRAFT MEETING NOTES
PENDING TECHNICAL COMMITTEE REVIEW AND APPROVAL

14 CFR Part 150 Noise and Land Use Compatibility Study
Technical Committee Meeting #4
November 7, 2018
Meeting Minutes

Location: Secret Woods Nature Center, Julia Hall
2701 W State Rd 84
Fort Lauderdale, FL 33312

Committee Members in Attendance

BCPS Alternate	Richard Lemack – Town of Davie
Peter Dokuchitz – City of Plantation	Bob Swindell – GFL Alliance
John Eastman – Town of Southwest Ranches	Charles Taylor – Town of Davie
Gary Luedtke – ANAC	Blake Boy Barbara – Study Coordination Committee
Lorie Mertens-Black – City of Hollywood	Joe Grandolfo – FedEx
Geoff Rames – City of Fort Lauderdale	Barbara Blake Boy – Broward County Planning Council
Edwin Solley – Southwest Airlines	

Others Present

Eric Ram – ANAC	Peter Green – FAA
Winston Cannicle – BCAD	Jill Capelli – Kimley-Horn
Will Castillo – BCAD	Sierra LePore – VHB
Ken Coutain, Jr. – BCAD	Barbara Magill – LHIA
Karen Friedman – BCAD	Richard Cahoon – Resident
Ryan Goldman – BCAD	Robert Franks – Resident
Mike Pacitto – BCAD	Joanna Norris – Resident
Arlene Satchell – BCAD	Richard Pfenniger – Resident
Ryan Goldman - BCAD	Paula Riveros – Resident
Marc Gambrill – BCAD	

Agenda and Key Topics:

- Review of the Role of the TC Meeting Facilitator
- Review of Prior TC Meetings
- 2018 Noise Exposure Assumptions and Contours
- 2023 Noise Exposure Assumptions and Contours
- Noncompatibility Land Use Analysis
- Noise Compatibility Program Overview
- Future TC Meetings

Meeting Summary:

- The Technical Committee convened for its fourth meeting at 10:00 AM on November 7, 2018 at the Secret Woods Nature Center in the Julia Hall.
- The meeting began with re-introductions of participants.
- Ground rules for the TC members were established by the facilitator. TC members were encouraged to express their opinions and expected to respect the range of opinions expressed by their fellow TC members. TC members were also expected to advise their organization and/or constituents of the TC's discussion.
- Attending members of the public were advised of ways in which they could submit comments including through the project website (www.flpart150.com) and at future public meetings (dates TBD).
- A presentation of key topics was presented by Michael Arnold, Part 150 Project Director representing the ESA consulting team. The presentation included the following information:
 - A review of the material presented in the prior TC meetings
 - 2018 Noise Exposure Assumptions and Contours
 - 2023 Noise Exposure Assumptions and Contours
 - Noncompatible Land Use Analysis
 - Noise Compatibility Program Overview

Questions & comments from TC members:

Q: *Richard Lemack (Town of Davie)* – What kind of sound insulation is the Team considering for mobile homes?

A: The next phase of the study will get into evaluating noise abatement and mitigation strategies.

Q: *Geoff Rames (City of Fort Lauderdale)* – Why are there more attendees at the public workshops in Lauderdale Isles, but the 65DNL contour is not shown over this area?

A: The DNL contour is an average day noise exposure relative to an entire year. This measure is used to determine overall compatibility of a use, not annoyance related to an individual or series of overflights that may occur on a relatively infrequent basis.

Q: *Geoff Rames (City of Fort Lauderdale)* – Can you confirm if the modeling does not model short term but rather models long term noise? Is the metric changing from 65DNL?

A: The model determines noise exposure based on an annual average day. The FAA is evaluating and has gone through litigation related to use of the DNL 65 dB contour and it has withstood a number of legal challenges over the past 30 plus years. When the metric was adopted there were an estimated seven million people within the contour nationally and now there are just a few hundred thousand. The FAA is evaluating whether the DNL 65 dB contour should remain the level or metric used for

determining significance for noise sensitive uses, but it will likely be a number of years before we see the results of that effort.

Q: *Charles Taylor (Town of Davie)* – How high are the aircraft in the 65DNL contour by Florida Turnpike?

A: The aircraft are at about 900-feet to 1,000-feet at this location on arrivals.

Q: *John Eastman (Southwest Ranches)* – Since the contours are cumulative, could the Team specify and look at only a specific aircraft (i.e. Airbus)? The sound of the engine blades goes right through people's homes.

A: There are actually modification that can be done to certain aircraft types to reduce the noise generated. An example is the vortex generators that can be installed on Airbus A320 to reduce the noise created by wind passing over the fuel ports on the wings. A number of airlines have retrofitted their aircraft and new aircraft typically have these when they come off the assembly line. This is an example of the measures that could be considered in the next phase of the study.

Q: *Geoff Rames (City of Fort Lauderdale)* – Is the information from remote monitors used in developing the contours?

A: The noise monitors are not used to develop the contours, but they are looked at when evaluating the results of the contour. There are only 11 locations around the airport, which does not provide a complete calculation of the noise surrounding the airport.

Q: *Geoff Rames (City of Fort Lauderdale)* – Are the noise monitors used to verify calculations?

A: We look at the levels that the monitors take in on a relative basis, but the noise monitors record a single event, while the contours account for an average annual day of noise exposure. The noise model uses a combination of real world assumptions applied to projected operational levels to predict noise. This does not allow for an apples-to-apples comparison of noise during a past period.

Q: *Lorie Mertens-Black (City of Hollywood)* – When will issues be addressed and measures created? It was also noted that the contours are great if the aircraft stay within contours. People outside of the contours have experienced issues, even if it is only 1 or 2 flights in the morning or night

A: The next slide discusses the next phase (mitigation and abatement). The study also looks at why certain overflights have occurred.

Q: *Lorie Mertens-Black (City of Hollywood)* – Can you confirm that the FAA will not approve formal restrictions, but could approve a voluntary program?

A: Voluntary measures could be approved as a programmatic approach, but not a formal noise abatement approach. It is a matter of description and type of submission to FAA.

Q: *Geoff Rames (City of Fort Lauderdale)* – Are noise mitigation measures for land use only for those within the 65 DNL?

A: Yes, mitigation measures (except for administrative measures) are for those within the 65 DNL, however local governments can go beyond the 65 DNL in establishing land use measure such as notification areas.

Q: *Gary Luedtke (ANAC)* – When the airport closes the south runway at night, was that a local order (tower order)? Is that the type of local regulation that may occur?

A: Any type of runway closures of that nature must be approved by FAA.

Q: *Geoff Rames (City of Fort Lauderdale)* – Will the local government ever come to fruition? If a city went to the FAA, could they make a recommendation on a restriction for something outside of 65DNL? Can you provide an example of a place that has done this successfully?

A: A number of noise abatement programs have gone through some type of collaborative process with air traffic control (ATC) and FAA where everyone is on board with measures that could not necessarily be otherwise approved under a Part 150 program. There are a number of airports with voluntary noise abatement measures and fly friendly programs that have never conducted a Part 150.

Q: *John Eastman (Southwest Ranches)* – Can you include Miami TRACON in the next Technical Committee meeting?

A: The Team will send an invitation to Miami TRACON.

Q: *Lorie Mertens-Black (City of Hollywood)* – Is the Part 150 study is conducted in coordination with Metroplex and if not, how can it be?

A: One of the challenges with Metroplex is that it has many starts and stops, so it is not clear what is happening with the Metroplex. The Team and BCAD had determined to keep the Part 150 project moving rather than wait for Metroplex, although the Team tries to consider as much as possible. Additionally, there may be outcomes from Metroplex that can be used in the future after the Part 150 study.

Q: *Geoff Rames (City of Fort Lauderdale)* – Can we get an update on the Master Plan? What is the coordination between the Master Plan and the Part 150 study?

A: Key coordination areas are land use and fleet mix projections/flight tracks related to airfield changes. The Team needed to ensure that the Master Plan schedule was far enough r along, so the Part 150 study uses the correct values (operations, etc.).

Q: *Geoff Rames (City of Fort Lauderdale)* – Will the Team provide an update on the Master Plan at the Technical Committee meeting in January 2019?

A: Yes, the Team will provide an update on the Master Plan process.

Actionable Next Steps:

Schedule Technical Committee Meeting #5

Meeting Adjourned at 11:30 AM