Lantana Airport Part 150 Study

Palm Beach County Department of Airports

Advisory Committee Meeting #5
Location: Palm Beach State College, Room: CBP 103
June 21, 2023

Agenda

- Intro/Opening Remarks
- Airport Update
- NOMS Update
- AOPA, HAI, NBAA
- Case Studies of Noise Compatibility Program Measures
- Noise Comments
- Review Potential Measures Discussed at May 3, 2023 Meeting
- Other Potential NCP Measures
- Schedule
- Wrap-up, Committee Member Questions
- Public comment
- Adjourn

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Meeting Guidelines

- Respectful discussion
- Committee members provide discussion during presentation
- Opportunity for public discussion at the end of the presentation
- Public questions will be called in order
- Limited time to speak – 3 minutes
- The presentation will be posted on the project website

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Introductions

- Department of Airports
- Study Team
- Committee Members

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Airport Update

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NOMS Update

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NOMS Update

The DOA is reviewing the preliminary draft technical specifications for the RFP

- Enhanced Public interface, requesting options for:
  - Online comment system and database
  - Noise and Aircraft Operations reporting dashboards
  - Online noise monitor levels
- Enhanced flight track data – additional antennas at LNA if necessary
- Option for additional noise monitors

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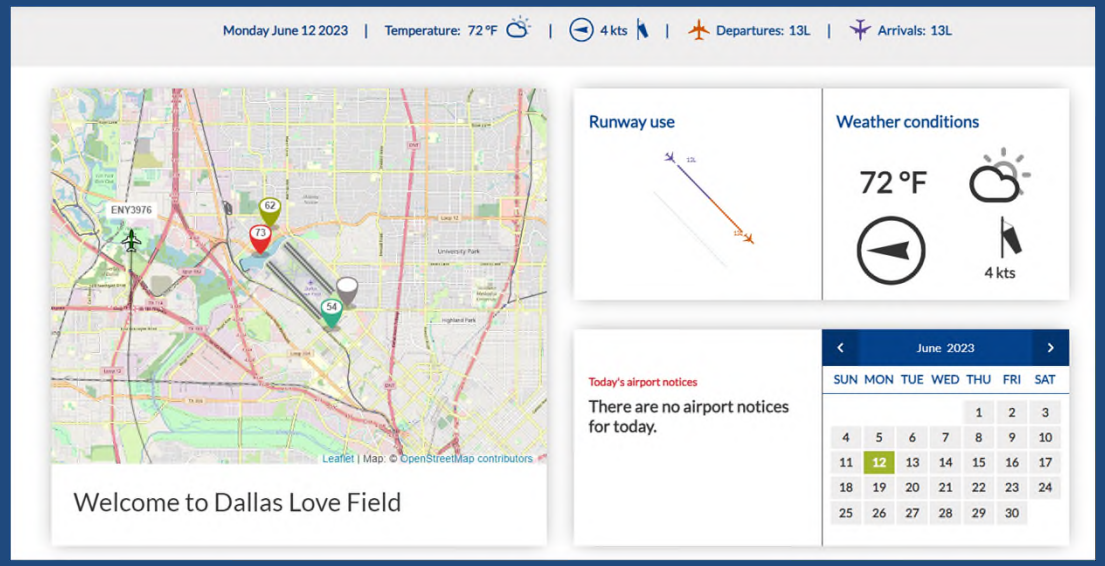
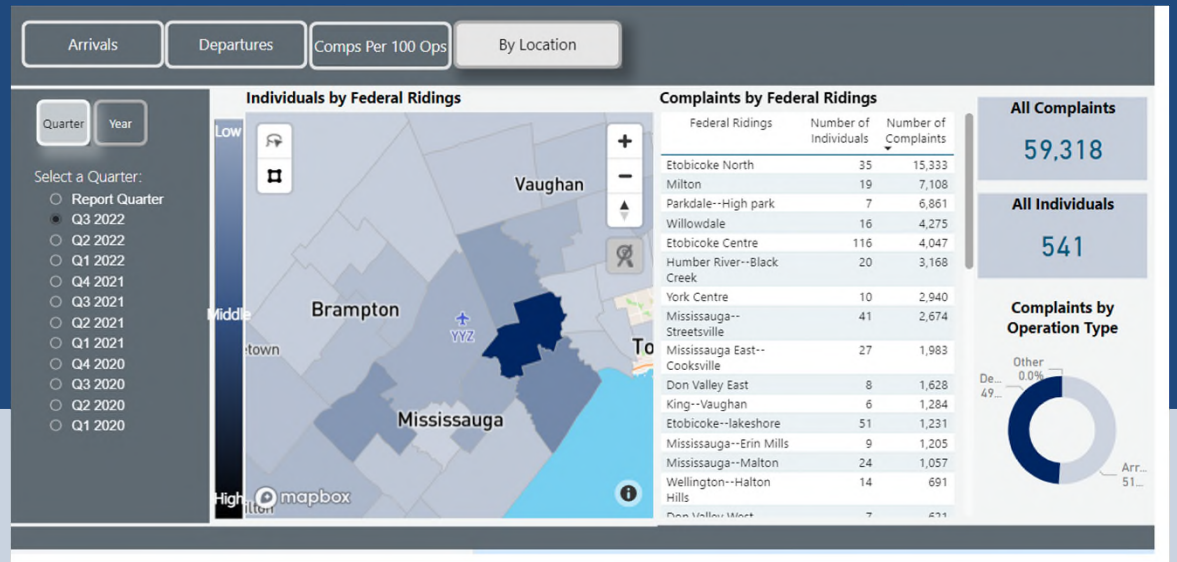
NOMS Update

Example Public Dashboards





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AOPA, HAI, NBAA Noise Abatement Programs

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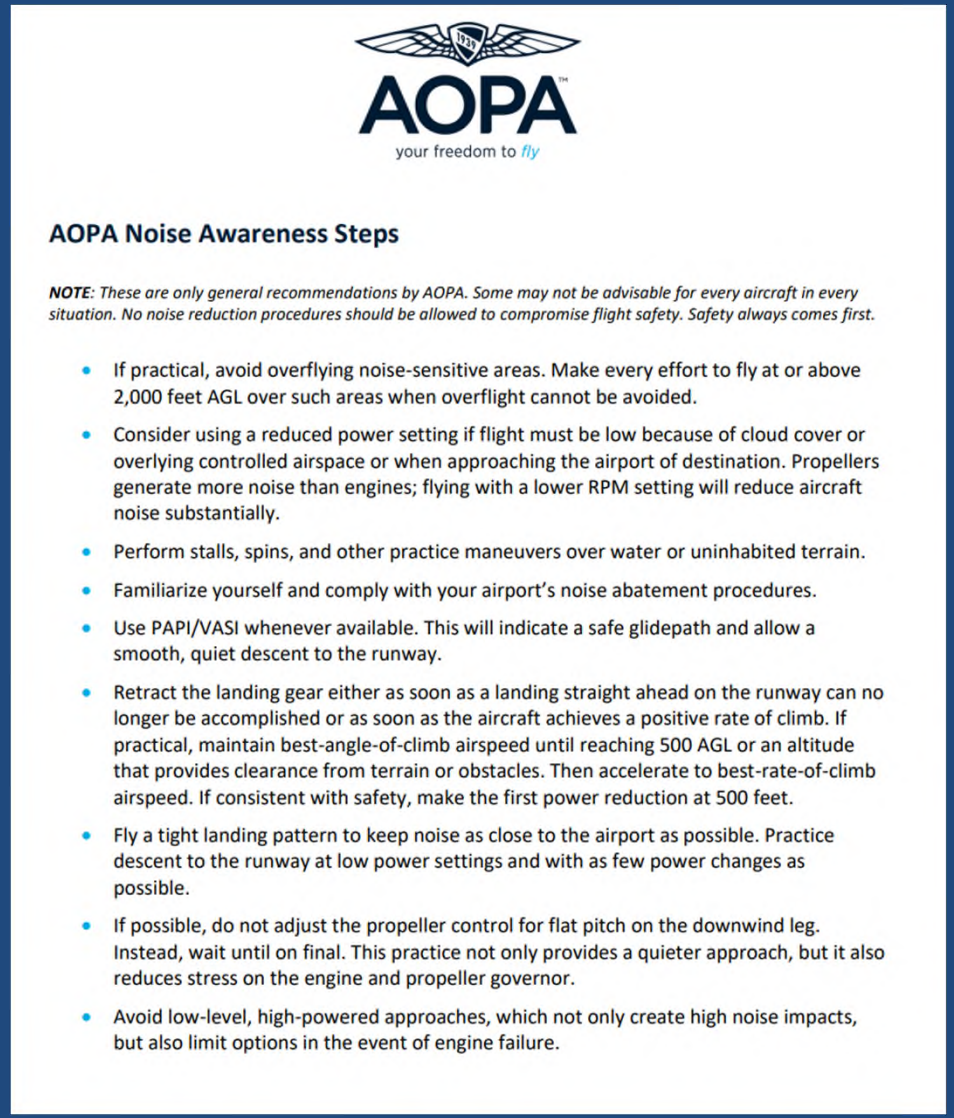
AOPA

- Provides general guidance and methods for pilots.
- Tips for arrival, departure and pattern operations.

https://www.aopa.org/-/media/Files/AOPA/Home/Advocacy/AOPANoiseSteps.pdf



AOPA
your freedom to fly

AOPA Noise Awareness Steps

***NOTE**: These are only general recommendations by AOPA. Some may not be advisable for every aircraft in every situation. No noise reduction procedures should be allowed to compromise flight safety. Safety always comes first.*

- If practical, avoid overflying noise-sensitive areas. Make every effort to fly at or above 2,000 feet AGL over such areas when overflight cannot be avoided.
- Consider using a reduced power setting if flight must be low because of cloud cover or overlying controlled airspace or when approaching the airport of destination. Propellers generate more noise than engines; flying with a lower RPM setting will reduce aircraft noise substantially.
- Perform stalls, spins, and other practice maneuvers over water or uninhabited terrain.
- Familiarize yourself and comply with your airport's noise abatement procedures.
- Use PAPI/VASI whenever available. This will indicate a safe glidepath and allow a smooth, quiet descent to the runway.
- Retract the landing gear either as soon as a landing straight ahead on the runway can no longer be accomplished or as soon as the aircraft achieves a positive rate of climb. If practical, maintain best-angle-of-climb airspeed until reaching 500 AGL or an altitude that provides clearance from terrain or obstacles. Then accelerate to best-rate-of-climb airspeed. If consistent with safety, make the first power reduction at 500 feet.
- Fly a tight landing pattern to keep noise as close to the airport as possible. Practice descent to the runway at low power settings and with as few power changes as possible.
- If possible, do not adjust the propeller control for flat pitch on the downwind leg. Instead, wait until on final. This practice not only provides a quieter approach, but it also reduces stress on the engine and propeller governor.
- Avoid low-level, high-powered approaches, which not only create high noise impacts, but also limit options in the event of engine failure.

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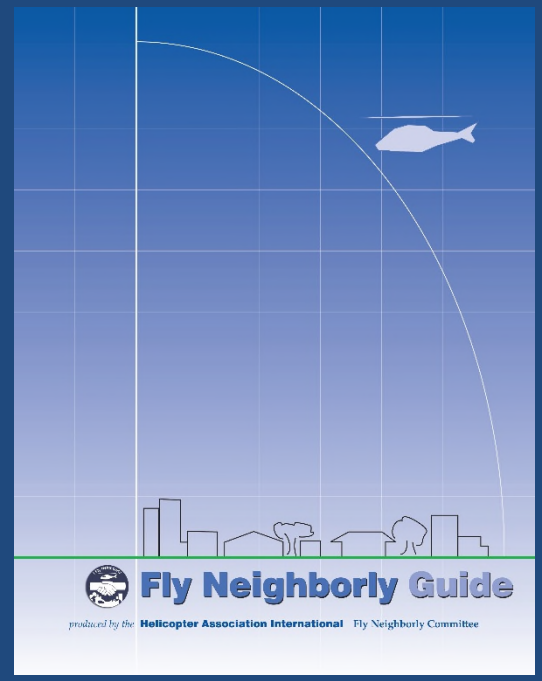
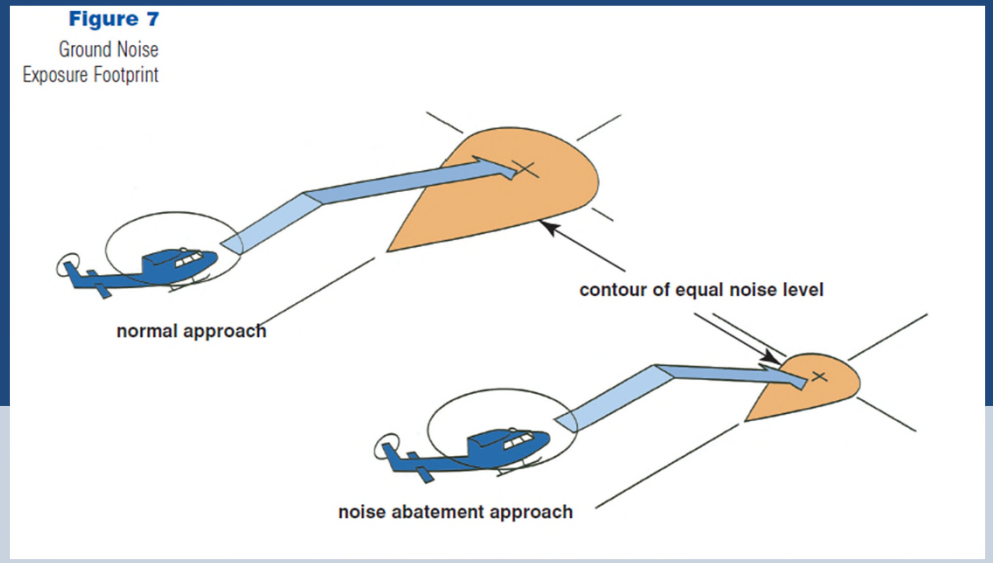
HAI

- Provides information for pilots and recommended procedures for reducing noise.
- Recommends at least 1,000’ altitude for small helicopters.
- Steeper approach path to reduce ground noise footprint

https://rotor.org/fly-neighborly/





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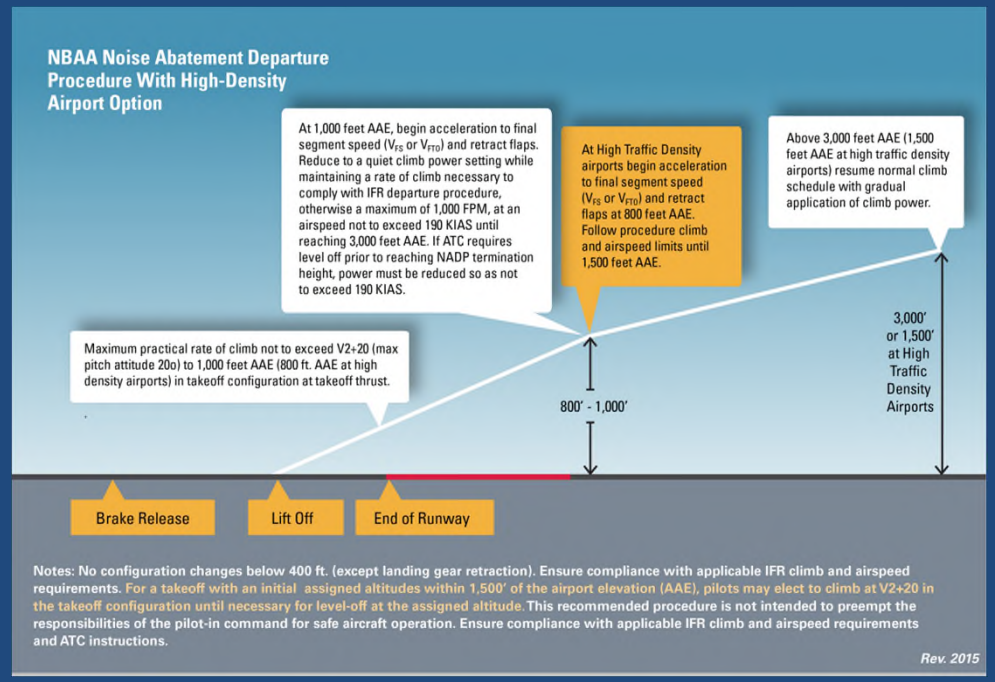
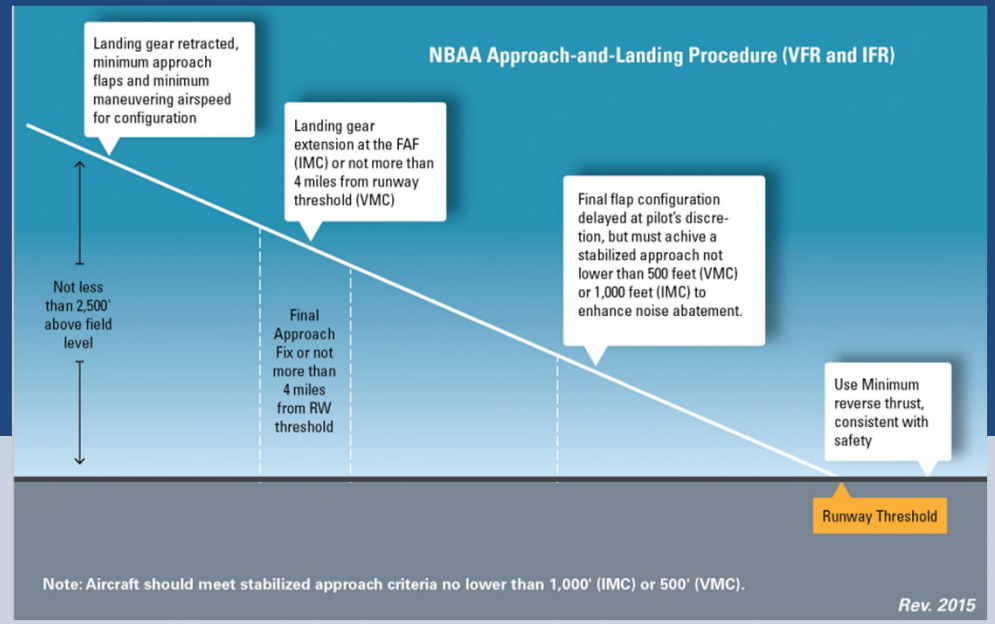
NBAA

- During the flight-planning process, flight crews should familiarize themselves with the airport's noise abatement policies.
- When available, pilots should utilize their company's recommended departure/arrival NAPs or those recommended by the aircraft manufacturer for their specific aircraft.
- NBAA provides recommended noise abatement procedures suitable for any aircraft type and airport operating environment

https://nbaa.org/aircraft-operations/environmental-sustainability/noise-abatement-program/





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Additional Case Studies of Completed Noise Compatibility Program Measures

Lantana Airport LNA PART 150 STUDY

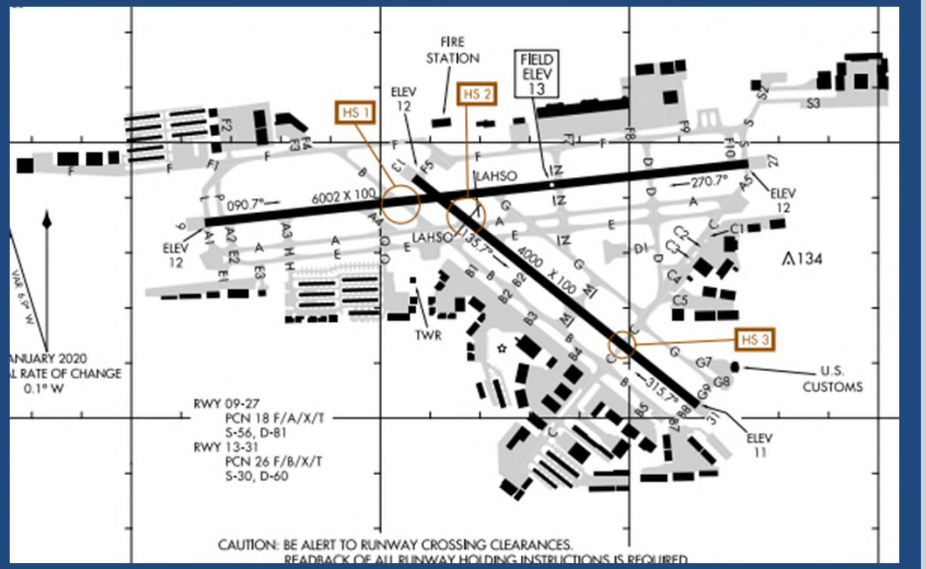
Case Study – Fort Lauderdale Executive Airport, FL (FXE)

NCP Measure – Restriction of Night, Weekend, and Holiday Touch-and-Go Operations and Practice Approaches on a Voluntary Basis:

- Expand the existing voluntary night (10 p.m. to 7 a.m.) touch-and-go restriction to encompass touch-and-go and practice-approach training operations at night, and on a 24-hour basis on weekends and City holidays.
- This measure is predicted to reduce the number of people within the 65 DNL noise contour from 730 to 700.

FAA Response – *Approved* as a voluntary measure

Fort Lauderdale Executive Airport (FXE)



Lantana Airport LNA PART 150 STUDY

FXE NCP Approved 2005

Case Study – Fort Lauderdale Executive Airport, FL (FXE)

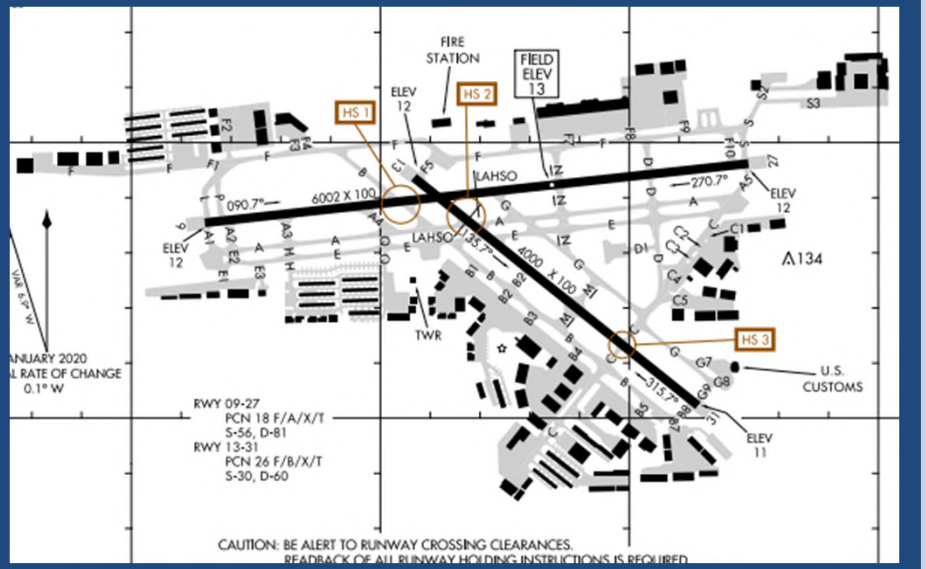
NCP Measure – Nighttime Preference for Runway 26 Departures and Runway 8 Arrivals for All Aircraft:

- Maximizes operations over less developed areas west of the airport.
- Feasible at night because winds are calmer, operations levels are lower, and ATCT is open all night.

FAA Response – *Approved in part* as a voluntary measure when wind and airspace safety and efficiency permit.

Disapproved as a mandatory formalized procedure.

Fort Lauderdale Executive Airport (FXE)



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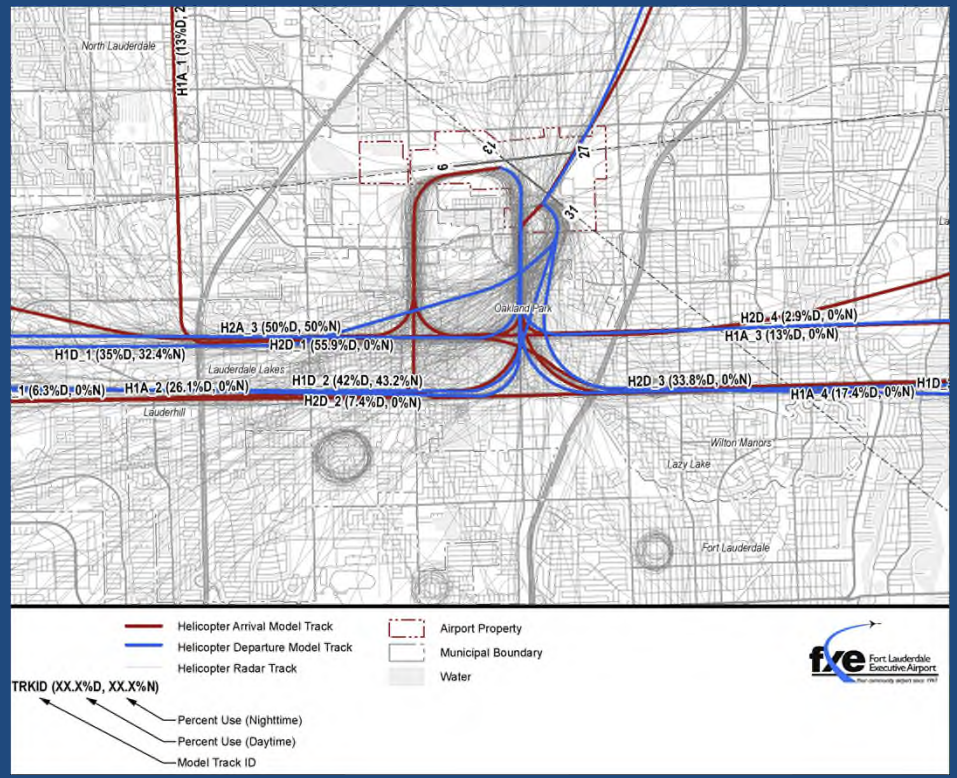
FXE NCP Approved 2005

Case Study – Fort Lauderdale Executive Airport, FL (FXE)

Defined helicopter routes – Helicopter operations to the south and west

- Developed outside of Part 150 process
- Use NW 21st Ave or NW 31st Ave to avoid noise sensitive areas
- Follow main roads, commercial areas wherever possible

Fort Lauderdale Executive Airport (FXE)



Lantana Airport LNA PART 150 STUDY

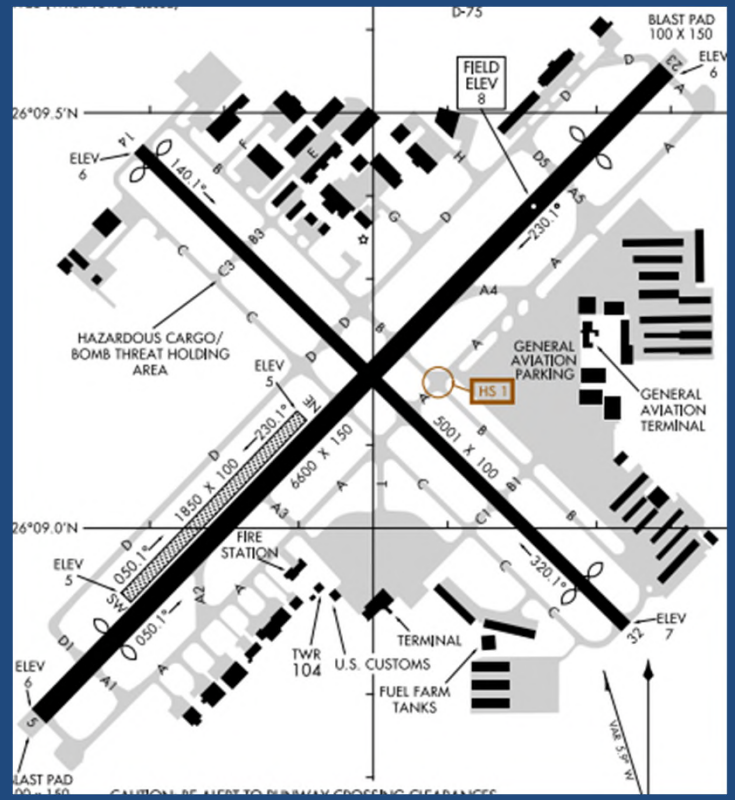
Case Study – Naples Municipal Airport, FL (APF)

NCP Measure – It is recommended that the existing noise abatement measures for helicopters be continued including modification of take-off areas to implement common centralized departure areas and education of helicopter pilots.

- Depart from midfield rather than runway ends in order to obtain as much altitude as possible before departing the airport
- Helicopters will follow the fixed wing routes on the crosswind runway, airport will remain in contact with pilots to modify these procedures if necessary

FAA Response – *Approved* as a voluntary measure

Naples Municipal Airport (APF)



APF NCP Approved 1997

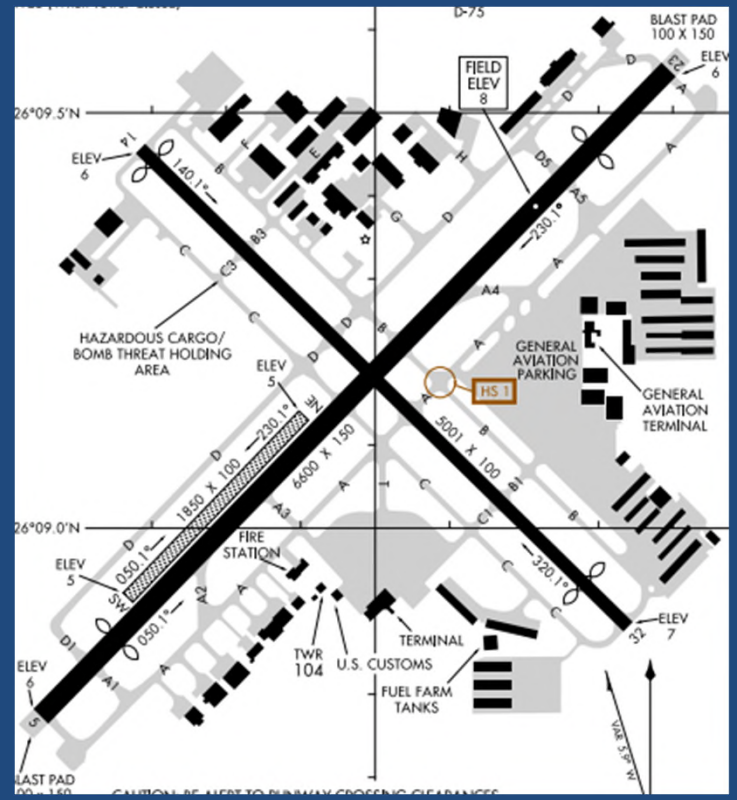
Case Study – Naples Municipal Airport, FL (APF)

NCP Measure – It is recommended that the existing preferential runway measure to maximize the use of Runway 5 for departures and Runway 23 for arrivals be continued.

- This will take advantage of compatible land uses (commercial/industrial) located northeast of the airport.

FAA Response – *Approved* as a voluntary measure

Naples Municipal Airport (APF)



APF NCP Approved 1997

Case Study – Naples Municipal Airport, FL (APF)

NCP Measure – Revised Visual Flight Rules (VFR) noise abatement departure flight paths have been proposed for each runway at the airport to reduce noise by moving traffic away from developed areas

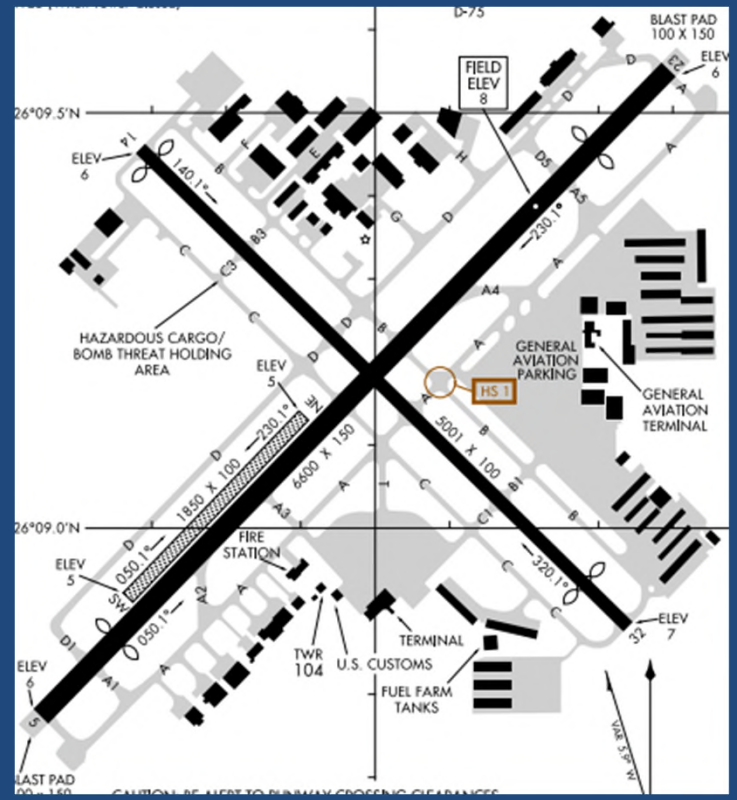
- Runway 5 – early left turn
- Runway 23 – early right turn
- Runway 14 – early left turn
- Runway 32 – the existing departure, with a right turn

FAA Response – *Approved in part* as a voluntary measure.

- The recommended noise abatement departure paths are approved as voluntary

Disapproved in part for purposes of Part 150, for that portion of the proposal which recommends use of the GPS and TLS to define complex curved approach and departure paths.

Naples Municipal Airport (APF)



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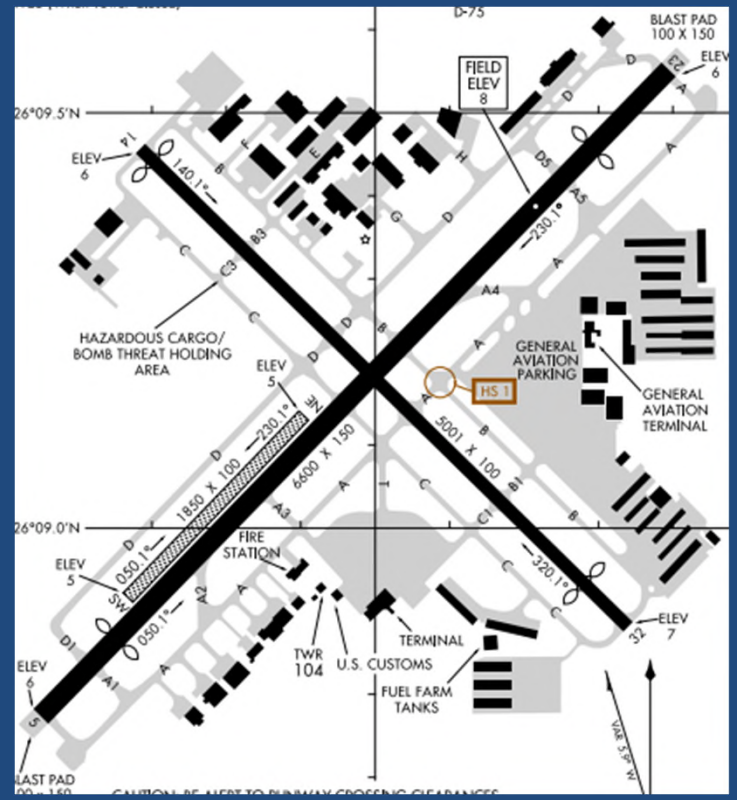
APF NCP Approved 1997

Case Study – Naples Municipal Airport, FL (APF)

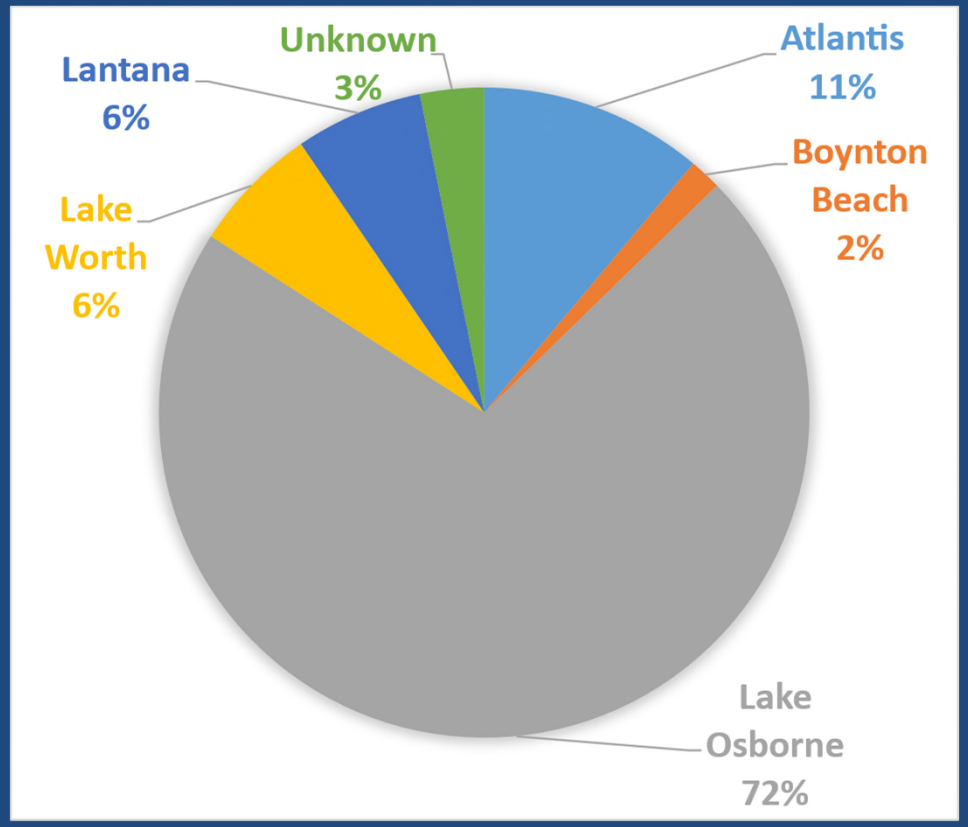
Draft 2023 NCP Update –

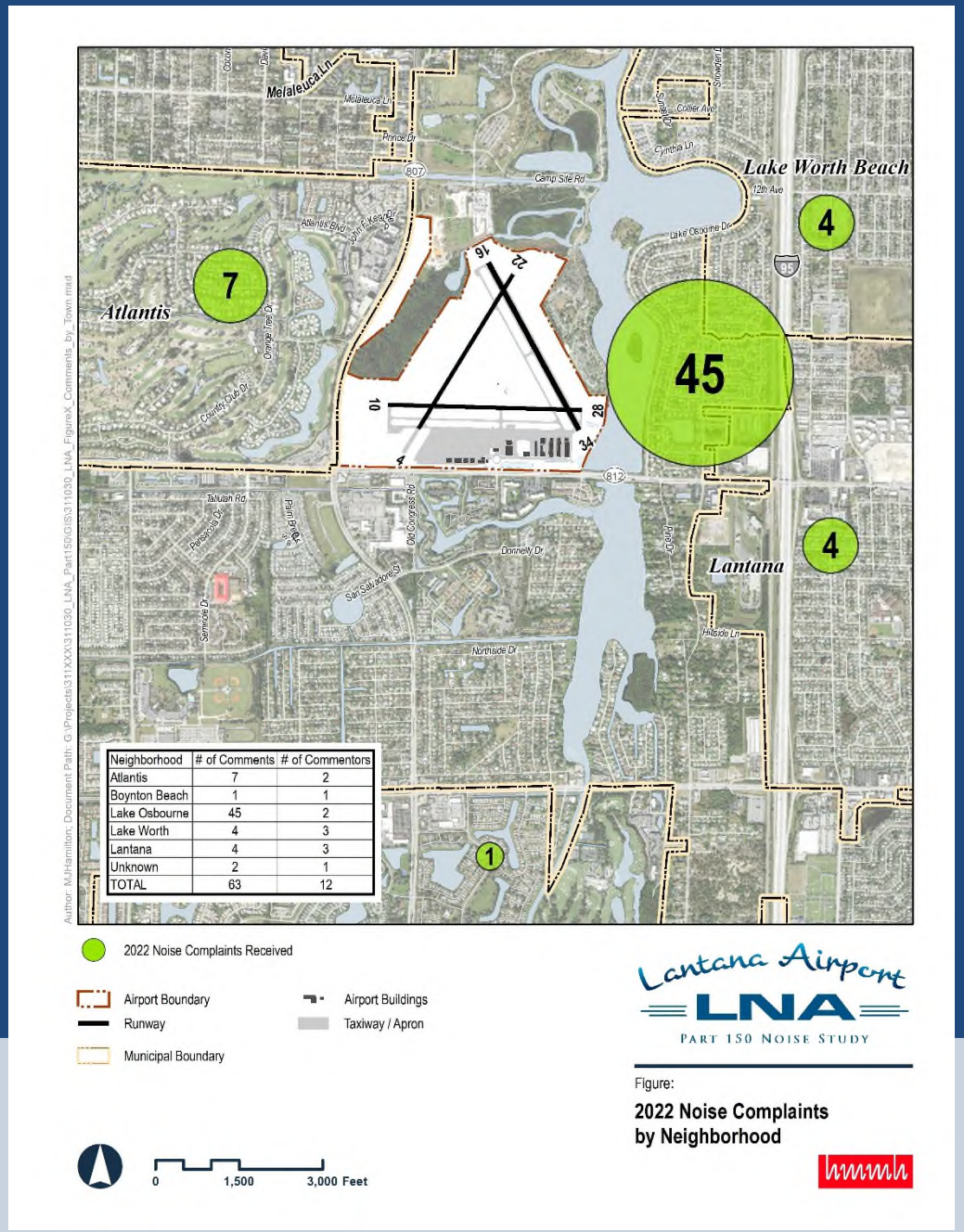
- One Noise Abatement Measure – Increase the glideslope to Runway 5
- Five Land Use Measures – including Real Estate disclosures and Local land use planning updates
- Six Program Management Measures – including a “Fly Quiet” program, NOMS, and Community Education and Outreach

Naples Municipal Airport (APF)

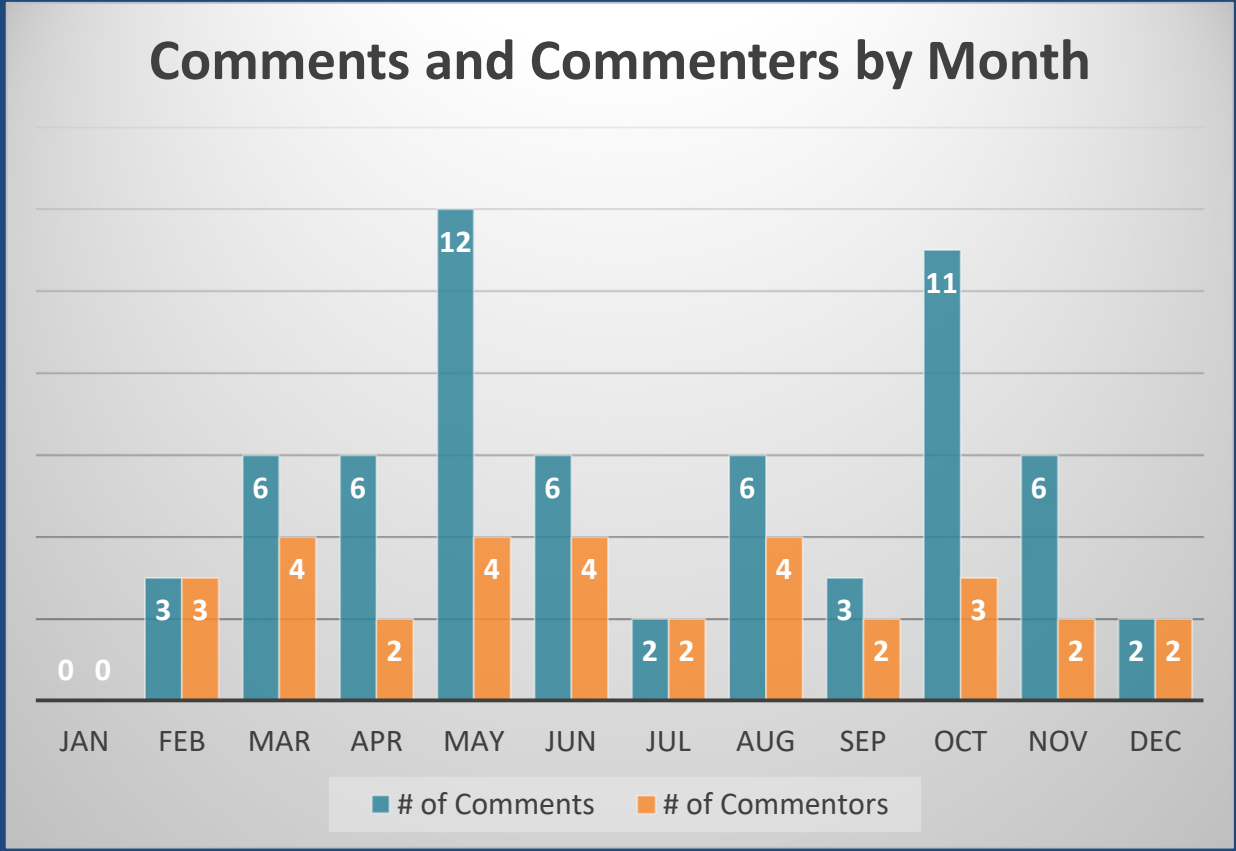


2022 LNA Noise Comments





Noise Comments



Category	# of Comments
Preferential Noise Abatement Runway	25
Multiple Operations (training)	19
Aircraft/Helo Too Low	15
Too Loud	3
Registration Inquiry	1
Total	63

Neighborhood	# of Comments		
	Fixed Wing	Helicopter	Total
Atlantis	1	6	7
Boynton Beach	0	1	1
Lake Osborne	36	9	45
Lake Worth	3	1	4
Lantana	1	3	4
Unknown	2	0	2
Total	**43**	**20**	**63**

Summary of Existing Measures

Lantana Airport (LNA)

Voluntary Noise Abatement Procedures

Pilot Info: 561-683-0472

LNA is a noise sensitive airport
Runway 4/22 preferred noise abatement runway

Issued by:
Palm Beach County Department of Airports
Noise & Community Affairs
846 PBIA
West Palm Beach, FL 33406
561-471-7468

Fixed Wing Noise Abatement Procedures

- Runway 4/22 preferred noise abatement runway
- Use UNICOM at all times when in airport area
- No intersection takeoffs
- No touch and go activity on any runway
  - Monday – Friday
    10:00 pm – 7:00 am
  - Saturday & Sunday
    10:00 pm – 8:00 am
- No touch-and-go activity 10/28 anytime
- Keep pattern within one mile
- Use best rate of climb on takeoffs
- Use FAA AC 91-36

Helicopter Noise Abatement Procedures

- Keep all pattern routes over airport – operate away from residential areas
- Helicopter traffic pattern altitude is (1,000' MSL)
- Please – no activity conducted over populated areas
- Flight training should remain north of Lantana Road, West of Lake Osbourne and East of Congress Avenue, on airport property – when possible
- Use manufactures' recommended noise abatement procedures or FAA AC 91-66

Lantana Airport LNA PART 150 STUDY

Review of Potential Voluntary NCP Measures Discussed at May 3, 2023 Meetings

- Increased Use of Runway 4/22 (No Change to Runway)
- Increased Use of Runway 4/22, with Runway 4 Extension

NOTES:

These are screening evaluations of potential measures. Detailed planning, safety evaluations, and further studies would need to be completed to implement procedures.

The Draft DNL noise contours do not identify any noncompatible land use therefore measures that address noise concerns outside of the DNL 65 contour, if not approved for purposes of Part 150, may be pursued outside of the Part 150 process.

Alternative 1: Increased Use of Runway 4/22 (with no changes to Runway)

- Wind Rose analysis indicates Runway 4 could be used 49 percent of the time and Runway 22 could be used 41 percent of the time.
- As a realistic evaluation we assumed twice the existing use of Runway 4/22
- **Voluntary Measure** – accomplished through increased pilot outreach and education

Alternatives			
Runway	Baseline/ Forecast	Alternative 1	Change
4	9%	20%	11%
10	35%	28%	-7%
16	19%	16%	-3%
22	2%	5%	3%
28	6%	5%	-1%
34	11%	9%	-2%
H1	17%	17%	0%
TOTAL	100%	100%	-

Part 150 Approved Measures/Voluntary Local Measures

LNA does not have any noncompatible land uses inside the DNL 65 dB contour, which is determined in accordance with the Part 150 requirements.

Land uses outside of the DNL 65 dB contour are considered compatible with aircraft noise based on the land use guidelines provided in Table 1 of Appendix A in 14 CFR Part 150. Local Authorities with land use control determine the acceptable land uses within the DNL contours.

The FAA considers how noise abatement measures proposed by the County in the NCP would meet the objectives of Part 150 (i.e., reduce or prevent noncompatible land use)

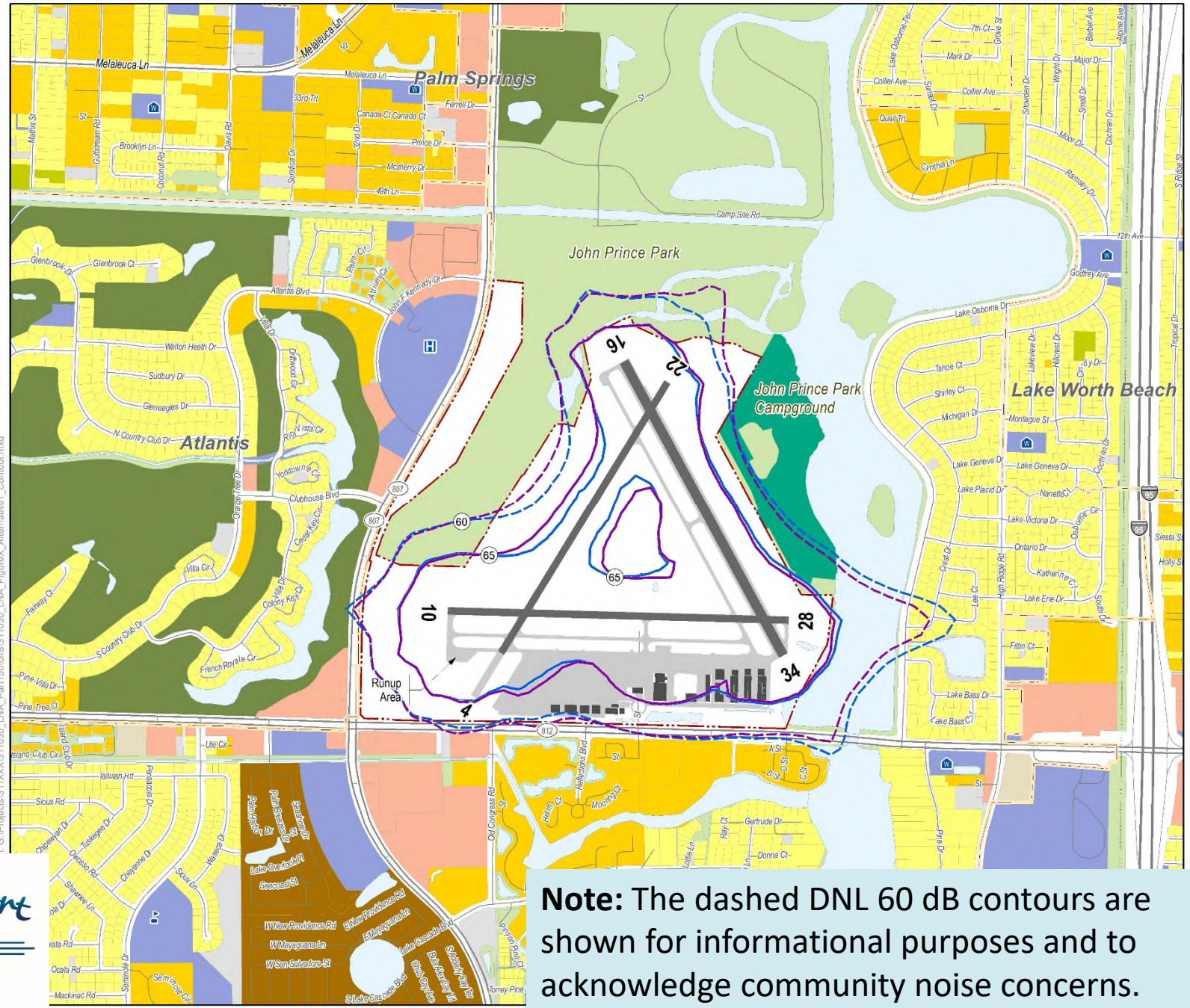


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Figure:

Hypothetical 2028 DNL with Increased use of Runway 4/22 Compared to 2028 Baseline DNL

- Hypothetical Alternative 1 DNL Contours (60-65 dB)
- Baseline (2028) DNL Contours (60-65 dB)
- LNA Airport Boundary
- Runway / Pavement
- Municipal Boundary
- Highway
- Major Roads
- Minor Roads
- Railroad
- School / College / University
- Library
- Place of Worship
- Hospital

Land Use

- Residential
- Multi-Family Residential
- Mobile Home Park
- Recreation (Amusements, Parks, Resorts and Camps)
- Transient Lodging
- Mixed Use
- Public Use
- Recreational / Open Space / Golf
- Agricultural
- Commercial Use
- Manufacturing and Production
- Vacant / Undefined
- Water / Stream

Note: Entire area depicted on the figure is within Palm Beach County.

DRAFT - For Internal Use Only

N

0 1,000 2,000 Feet

Note: The dashed DNL 60 dB contours are shown for informational purposes and to acknowledge community noise concerns.

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Alternative 2: Extension of Runway 4 and Increased Use of Runway 4/22

- Strengthen 233 feet of existing pavement on Runway 4 end, making usable Runway 4 length of 3,489’ for departures only.
- Add additional taxiway to improve access to runway
- Increase Runway use by five percent more than Alternative 1
- **Voluntary Measure** – accomplished through increased pilot outreach, education and runway improvements

Alternatives			
Runway	Baseline/ Forecast	Alternative 2	Change
4	9%	25%	16%
10	35%	24%	-12%
16	19%	13%	-6%
22	2%	10%	8%
28	6%	4%	-2%
34	11%	8%	-4%
H1	17%	17%	0%
TOTAL	100%	100%	-

Lantana Airport
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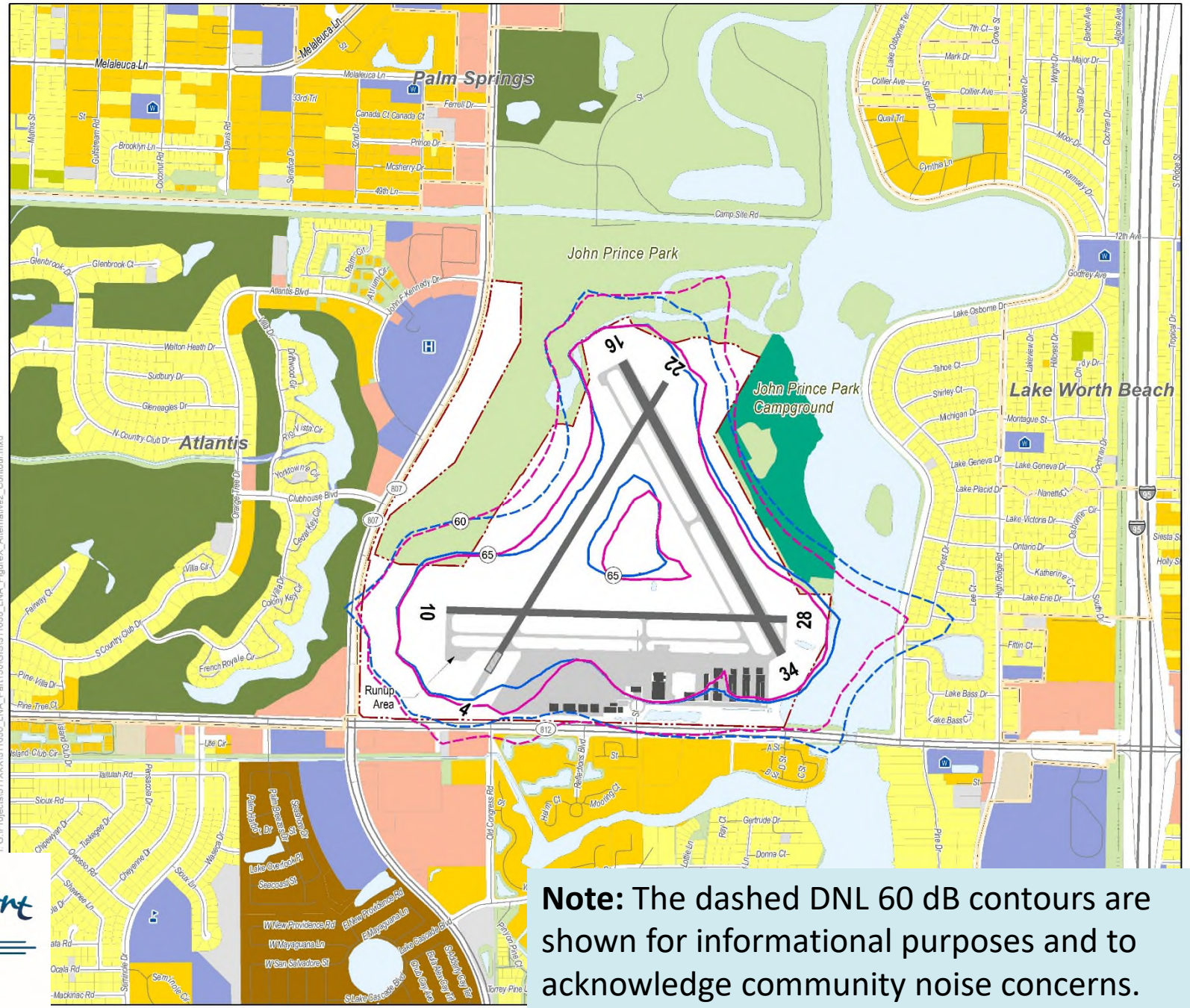

Figure:

Hypothetical 2028 DNL with Extension to Runway 4 Compared to 2028 Baseline DNL

- Hypothetical Alternative 2 DNL Contours (60-65 dB)
- Baseline (2028) DNL Contours (60-65 dB)
- LNA Airport Boundary
- Runway / Pavement
- Runway Extension
- Municipal Boundary
- Highway
- Major Roads
- Minor Roads
- Railroad
- School / College / University
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- Place of Worship
- Hospital

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- Residential
- Multi-Family Residential
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0 1,000 2,000 Feet

N

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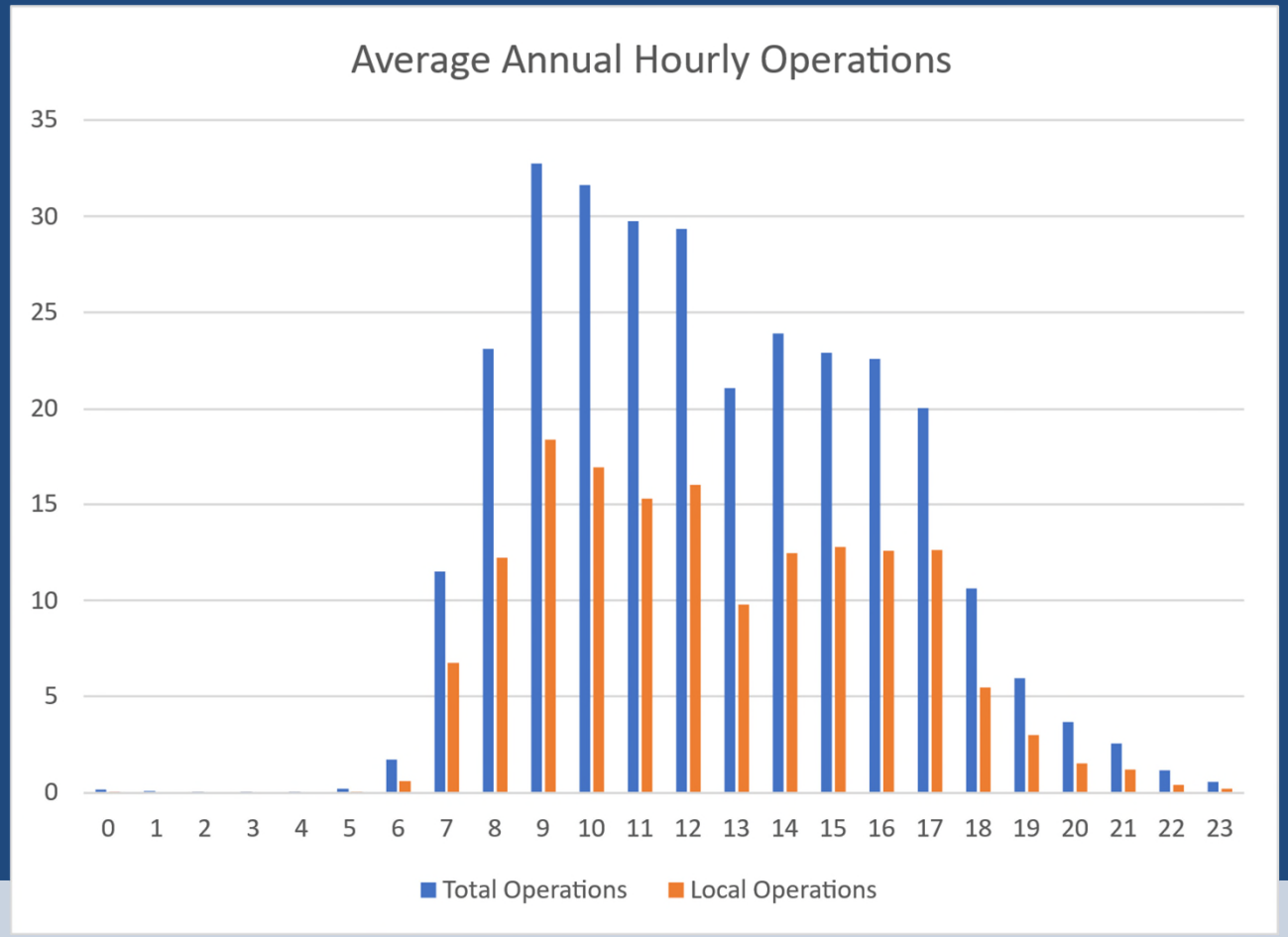
Discussion of Possible NCP Measures

- Update the Voluntary Restraint from Training Operations Times
- Currently 10pm - 7am M-F

  10pm - 8am S-S
- 99% of operations 7am-10pm
  - 1% operate between 8pm - 9pm
  - 1% operate between 9pm - 10pm
- Could consider revising the times to start at 8 or 9pm. This would remain a **Voluntary Measure**

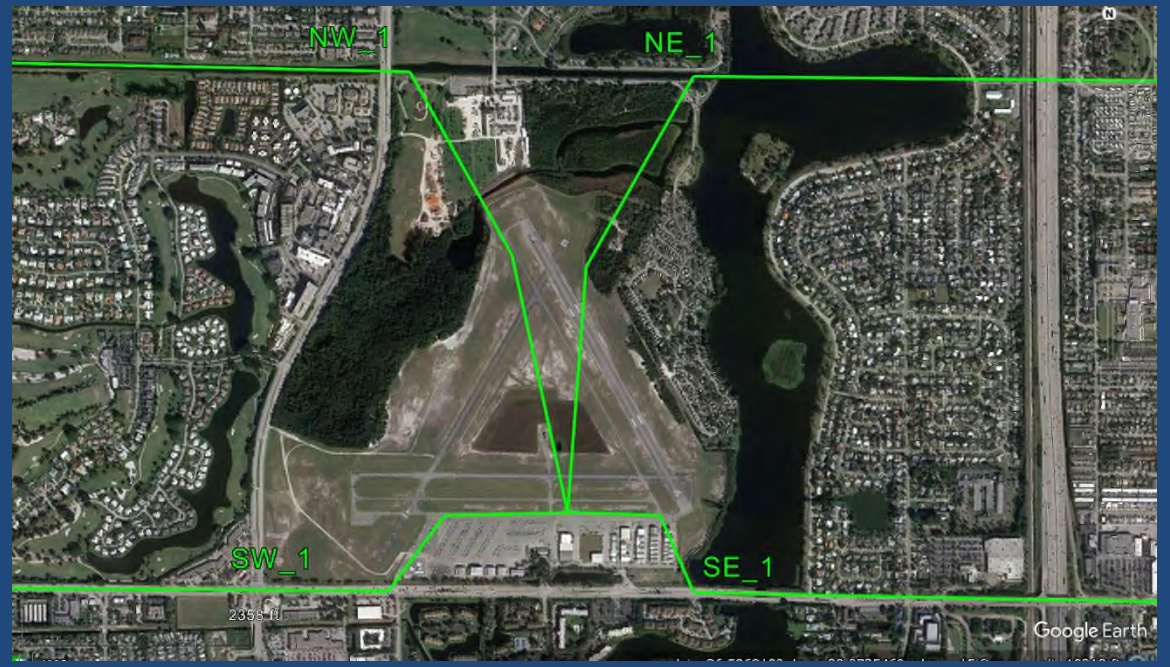


Discussion of Possible NCP Measures

- Designated Helicopter Approach and Departure Routes for Non-Pattern Operations

Runway In Use	Routes
4/22	NE_1, SE_1
10/28	SE_1, SW_1
16/34	NW_1, SW_1

- These potential routes would be a Voluntary Measure



Discussion of Possible NCP Measures

- Other ideas

Reminder: *The Draft DNL noise contours do not identify any noncompatible land use therefore measures that address noise concerns outside of the DNL 65 contour, if not approved for purposes of Part 150, may be pursued outside of the Part 150 process.*

Review of Project Schedule and Contacts

Lantana Airport LNA PART 150 STUDY

Proposed Schedule

Meeting / Activity	Anticipated Purpose	Date
Kick-Off Meeting with PBCDOA and the Part 150 Team	Define organizational and procedural matters and public outreach, review and refine scope and schedule details.	November 2019
1st Advisory Committee Meeting	Introduction to Part 150, discuss team roles, identify issues of concern, and to discuss areas for noise monitoring	February 4, 2020
2nd Advisory Committee Meeting	Noise modeling inputs, noise measurements and introduction to noise compatibility	June 1, 2020
3rd Advisory Committee Meeting	Review revisions to noise model inputs, discuss NCP purpose, review existing measures	October 28, 2020
4th Advisory Committee Meeting	Review of approved forecast, discuss NA measures and discussion on Land Use and Programmatic Measures	May 3, 2023
5th Advisory Committee Meeting	Review NA measures, discuss Land Use and Programmatic Measures.	June 21, 2023
6th Advisory Committee Meeting	Discuss remaining measures and develop draft program	August 9, 2023
NEM/NCP Public Comment Period	NEM/NCP thirty-day public comment period.	October 25 - November 24, 2023
NEM/NCP Public Workshop & Hearing	Public Workshop and Hearing	November 15, 2023
Submit Final NEM/NCP to FAA	PBCDOA submits final NEM/NCP for approval by FAA.	December 15, 2023

Lantana Airport LNA PART 150 STUDY

Note: Schedule is subject to change

Project Contacts and Information

- Bob Mentzer, Project Manager - LNA Part 150 Study Team
- Craig Delegato– Manager, Noise Office
- Address emails to: LNAPart150@hmmh.com
- LNA Part 150 Website provides project information www.lnapart150.com/lnapart150
- PCBDOA website provides general airport information www.pbia.org/about/general-aviation/park-airport/

Lantana Airport Part 150 Project

The "Part 150" Airport Noise Study for the Palm Beach County Park Airport (Lantana Airport) is underway

Lantana Airport Overview

Palm Beach County Park Airport (Lantana Airport) is located in Lantana, Florida and is 6 miles south of Palm Beach International Airport. Lantana Airport (LNA) is operated and maintained by the Palm Beach County Department of Airports (PBCDOA). LNA is a reliever airport focusing on the general aviation reciprocating and turbine driven aircraft.

Lantana is a busy airport with a mix of both fixed wing aircraft and helicopters. There is no air traffic control tower and currently no landing fees at LNA. There are 3 runways which are located in a triangle layout. The longest runway, 10/28 is 3,490' in length and 75' wide.

The airport is supported by one fixed based operator, Stellar Aviation. The field also has several flight schools, aircraft maintenance and a propeller shop.

Part 150 Overview

The PBCDOA has recently begun a noise study at LNA called a "Part 150 Study". Title 14 of the Code of Federal Regulations Part 150 (14 CFR Part 150) sets forth a process for airport proprietors to follow in developing and obtaining FAA approval of programs to reduce of eliminate noncompatible land use. Additional information on this regulation and related FAA guidance can be found on FAA's website here. A formal submission to the FAA under Part 150 includes documentation for two principal elements: (1) the Noise Exposure Map (NEM) and (2) the Noise Compatibility Program.

Part 150 prescribes specific standards and systems for:

- Measuring noise
- Estimating cumulative noise exposure
- Describing noise exposure (including instantaneous, single event, and cumulative levels)
- Identifying noncompatible land uses
- Coordinating Noise Compatibility Program development with airport users, the FAA, land use officials and neighbors
- Documenting the analytical process and development of the Noise Exposure Maps and Noise Compatibility Program
- Submitting documentation to the FAA
- Public consultation
- FAA and public review processes
- FAA approval or disapproval of the submission

The Part 150 Study includes multiple opportunities for community input and engagement. Program documents, upcoming meeting dates/locations and meeting materials will be posted on this website throughout the project as they are prepared.

Frequently asked questions and answers can be found on this website in the "Study Documents" section.

If you have any questions about the LNA Part 150 Study, please contact the **LNA Part 150 Study email address**.

Additional Part 150 Resources

Information on other airports' Part 150 Studies can be found on **FAA's Noise Compatibility Program Status website.** This site provides links and status updates on airport NCPs developed through Part 150 studies, and is organized by state.

Background information on airport noise can be found at **NoiseQuest**. NoiseQuest was developed to provide educational information on aviation noise. The initial site development was supported by the FAA through the PARTNER Center of Excellence under grants to researchers at The Pennsylvania State University and Purdue University.

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Next Steps

- Finalize Noise abatement measures
- Develop potential land use and program management measures
- Develop list of potential NCP measures
- NEM/NCP Documentation

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Wrap Up

Next TAC/CAC meetings:

- Wednesday August 9, 2023
- Primary topic – Finalizing Noise Abatement Alternatives and discussion of NCP Land Use, Program Management measures

Committee questions, comments, and discussion

Public Comments

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Thanks for attending!

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