Technical Advisory Committee
Meeting No. 2
14 CFR Part 150 Airport Noise and Land Use Compatibility Study
Lantana Airport (LNA)

DATE: Monday, June 1, 2020
TIME: 1:00 PM - 3:00 PM
LOCATION: Virtual

The meeting was recorded and is available on the project website: www.lnapart150.com/lnapart150

Meeting Summary

Agenda:

1. Introduction/Opening Remarks
2. Part 150 Study Progress Updates
3. Noise Measurements
4. Noise Model Inputs
5. Land Use
6. Introduction to Noise Compatibility Planning
7. Schedule and Topics for TAC Meetings 3 – 6
8. TAC Questions and Discussion
9. Public Comment
10. Adjourn

Meeting materials will be posted to the Study website: www.lnapart150.com/lnapart150

Please email comments about the LNA Part 150 Study to LNAPart150@hmmh.com

Meeting Summary:

A Technical Advisory Committee (TAC) Meeting took place on Monday, June 1, 2020 from 1 p.m. to 3:30 p.m. through a virtual meeting format open to the public. Attendees were asked to identify themselves as they entered the virtual Zoom meeting to help document meeting attendees and identify committee members in attendance. The meeting included

TAC members, representatives from the Palm Beach County Department of Airports, representatives from the Federal Aviation Administration (FAA), and members of the public from surrounding local communities.

The team provided extra time for attendees to sign in virtually. HMMH Assistant Project Manager Katherine Preston went over the format and expectations for the meeting. She advised the group that the meeting was being recorded. The TAC Members and Project Team introduced themselves prior to the kick-off of the meeting.

Laura Beebe, Palm Beach County Director of Airports kicked off the call and thanked everyone for participating. Mary Ellen Eagan, HMMH provided the history of noise abatement at the Lantana Airport and the timeline of activities by the FAA, Congress, local municipalities, and the airport, dating back as far as the 1970s.

Mary Ellen discussed how the TAC and CAC are important forums for discussion. The meetings are open to the public and engagement is encouraged. The team asked that comments, questions and concerns be discussed at the meeting as a group and not between one or two participants in between meetings.

Katherine Preston, HMMH talked about the Part 150 Process and where we are in the process. She also talked about noise measurements and the noise modeling inputs.

Robert Mentzer, HMMH presented on aircraft operations forecast; airport layout; runway use and operations; noise modeling flight track development; helicopter arrival tracks; AEDT data including meteorological and terrain data; and land use mapping. Details on the data to be input into the noise model will be provided in a forthcoming technical memo. Katherine Preston, HMMH provided a review of the FAA's Noise Compatibility Program which will be the next phase of this study. The project schedule was discussed. Katherine talked about the presentation and project website. The presentation can be found on the project website at https://www.lnapart150.com/lnapart150.

Several questions and comments were raised and answered during the meeting. The main discussion topics from the meeting are outlined below:

- *Review the data and history of complaints from residents.*
    - *Study team stated this review is ongoing.*
    - *Study team will continue to compile and provide complaints to the committees to review and help fill in any missing information.*
- *Request to show examples of flight tracks over the communities.*
- *The west end of runway 10 serves as a maintenance area.*
    - *Most planes taxi there for ground runs.*
- *Runway use was discussed.*

- *Discussion regarding why runways 10 and 16 are popular runways.*
  - *Designated noise abatement runway (Runway 4-22) is not used as often as other runways due to prevailing winds. Prevailing winds 80 percent of the time come from the east, so Runway 4-22 is a cross-wind runway. When prevailing winds come from the east runways 4 and 22 are not used for safety reasons.*
  - *Aircraft takeoff and land into the wind, they can't land with a tailwind. Taking off and landing on a cross-wind runway is much more difficult.*
  - *Because LNA is mainly a training airport (as opposed to commercial), runway use is mainly based on winds.*
  - *The voluntary noise abatement runway is used when conditions permit.*
- *Why was wind not factored in when designating runways for noise abatement?*
  - *Runway 4-22 was designated as a noise abatement runway for "no wind" or calm conditions.*
  - *Runways were identified in previous master plan.*
  - *May have been driven by the interlocal agreement.*
  - *DOA to verify history of runway decision for project record.*

- *Would like to include experience of helicopter circuit in what was captured for the study.*
- *Lantana Airport falls into a Class E airspace. Aircraft are not required to have ADS-B equipment traveling in and out of Lantana Airport.*
  - *The FAA website has good information when ADS-B is required. http://www.faa.gov/nextgen/equipadsb*
- *Study Team to verify radar data from ANOMS with radar data from FAA.*
  - *How does the FAA database differ from ANOMS info?*
    - *The DOA data is collected by the NOMS vendor from FAA and then provided through the ANOMS system.*
    - *The FAA data comes directly from FAA in a raw format.*
    - *FAA stated the data should be identical based on operational systems latency requirements. The only difference will be the way the data is presented.*
- *Discussion regarding the next steps with the measurements and ability to monitor specific aircraft.*

- *Most Airports utilize systems similar to ANOMS which is a recognized system worldwide.*
- *ANOMS data includes aircraft type, tail numbers, position, altitude, and flight details.*
- *The committee is interested in what software and technologies are available?*
- *Committee member would like to see appropriate software and hardware accepted by all parties and available for use by the public.*
  - *Questions posed regarding whether a monitoring system will have enough information to identify specific pilots and planes causing excessive noise, and what can be done about planes and pilots causing excessive noise.*
  - *Generally, any system will provide aircraft types and registrations similar to Webtrak if available, but pilots are not identified.*

- *Air Traffic Control Towers*
  - *Discussion about whether the addition of a tower at LNA to direct traffic away from noise sensitive areas when possible is a potential measure for consideration during the development of the noise compatibility program document.*
  - *Discussion regarding whether such measures have ever been a recommendation from other airport Part 150 Noise Studies.*
    - *Study team to look into how many non-towered airports have participated in Part 150 studies to help compare where Lantana Airport fits with a tower request.*
  - *A tower was included as a potential project on the recent LNA Master Plan.*
- *The Study team will review and comment on the Master Plan Improvements. The two documents will work together, and recommendations will be consistent.*
  - *Master Plan Meeting likely to be a virtual meeting towards the end of the month.*
- *Noise Measurements*
  - *JFK Hospital is considered a noise sensitive site.*
  - *March 2020 measurement trip was interrupted due to COVID, make-up dates will be scheduled.*
  - *Impacts to air traffic as part of COVID-19 should be considered in future measurement trips, as well as locations and timing for future measurements.*

  - *Understanding the noise levels in decibels, acceptable noise range and how that is averaged for the noise models was discussed.*

- *Land Use Map discussion*
  - *The draft land use map shows portions of Atlantis as recreational, but these areas are surrounded by residential homes. Team to review land use map with local jurisdictions to adjust as needed.*

The team updated the attendees about the postcard that was mailed to over 17,000 residents to inform them of the Part 150 Noise Study, how to get involved and where they can find project information.

Information regarding the evening virtual Citizen Advisory Committee Meeting was announced.

Laura Beebe, Palm Beach County Director of Airports thanked everyone for attending. She surveyed the group on how they felt the virtual meeting went and thoughts for future meeting formats. She explained the DOA and Study Team wanted to keep the study moving forward but that the preference is to hold in-person meetings when possible. Attendees stated the meeting went well but preferred for future meetings to take place in person when feasible.

The team reminded the committee and public that the meeting was recorded and would be available on the project website. Please share the information with anyone who may have missed the meeting.

Brian Moree offered facilities in Atlantis for the team if needed for future meetings.

The team will be sending the land use map and detailed noise modeling for the committee to review and provide comments. The final versions will be available to the public on the project website.

The meeting was adjourned.

Community Advisory Committee
Meeting No. 2
14 CFR Part 150 Airport Noise and Land Use Compatibility Study
Lantana Airport (LNA)

DATE: Monday, June 1, 2020
TIME: 6:00 PM - 8:00 PM
LOCATION: Virtual

The meeting was recorded and is available on the project website: www.lnapart150.com/lnapart150

Meeting Summary

Agenda:

1. Introduction/Opening Remarks
2. Part 150 Study Progress Updates
3. Noise Measurements
4. Noise Model Inputs
5. Land Use
6. Introduction to Noise Compatibility Planning
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Please email comments about the LNA Part 150 Study to LNAPart150@hmmh.com

Meeting Summary:

A Community Advisory Committee (CAC) Meeting took place on Monday, June 1, 2020 from 6:00 p.m. to 8:13 p.m. through a virtual meeting format open to the public. Attendees were asked to identify themselves as they entered the virtual Zoom meeting to help document meeting attendees and identify committee members in attendance. The

meeting included CAC members, representatives from the Palm Beach County Department of Airports, and members of the public from surrounding local communities.

The team provided extra time for attendees to sign in virtually. HMMH Assistant Project Manager Katherine Preston went over the format and expectations for the meeting. She advised the group that the meeting was being recorded. The CAC Members and Project Team introduced themselves prior to the kick-off of the meeting.

Laura Beebe, Palm Beach County Director of Airports kicked off the call and thanked everyone for participating. She explained why the meeting was being held virtually and the success of the study depends on participation in the process and engagement.

Mary Ellen Eagan, HMMH provided the history of noise abatement at the Lantana Airport and the timeline of activities by the FAA, Congress, local municipalities, and the airport, dating back as far as the 1970s.

Mary Ellen discussed how the TAC and CAC are important forums for discussion. The meetings are open to the public and engagement is encouraged. The team asked that comments, questions, and concerns be discussed at the meeting as a group and not between one or two participants in between meetings.

Katherine talked about the Part 150 Process and where we are in the process. She also talked about noise measurements and the noise modeling inputs.

Robert Mentzer, HMMH presented on aircraft operations forecast; airport layout; runway use and operations; noise modeling flight track development; helicopter arrival tracks; AEDT data including meteorological and terrain data; and land use mapping. Details on the data to be input into the noise model will be provided in a forthcoming technical memo. Katherine Preston, HMMH provided a review of the FAA's Noise Compatibility Program which will be the next phase of this study. The project schedule was discussed. Katherine talked about the presentation and project website. The presentation can be found on the project website at https://www.lnapart150.com/lnapart150.

Several questions and comments were raised and answered during the meeting. The main discussion topics from the meeting are outlined below:

- *Low flying aircraft over residential properties*
    - *Ceiling height is the altitude restriction on flight operations. Typical training pattern altitude for aircraft is 900-1000 ft. Aircraft are lower upon arrival and departure.*
    - *Original voluntary procedures for helicopters had a recommended altitude of 500 ft, but was raised to 1000 ft in 2012.*
    - *The lower level of air space for PBIA was 1200 ft in the area near LNA. The DOA made a request to FAA in 2011 to raise the lower level to 1700 ft and were able to get 1600 ft around LNA for more operating room.*

  - *Planes are not limited to 1600 ft but have to contact FAA ATCT PBI at this altitude or higher.*
  - *Discussed FAA airspace chart over LNA which identifies area and altitudes where planes are permitted to operate without control of FAA ATCT PBI.*

- *Residents' complaints*
  - *Study team will continue to compile and provide complaints. The committees will review and assist in providing any additional information.*
  - *Group will have the opportunity to review the complaints received to date and provide any additional information.*
  - *Complaints regarding altitude and safety concerns are not within the scope of the Part 150 Study. Safety concerns are addressed by FAA.*
- *Discussion about number of total annual operations to be modeled compared to number of operations in the sample used for model flight track development*
  - *The difference is due to the number of flights using Visual Flight Rules (VFR), which could not be categorized by aircraft type. However, the Study team checked the model tracks against visual flights, and they followed the same patterns as the sample set operations.*
  - *Some tracks are hard to count at training airports, due to aircraft performing training pattern flights i.e. aircraft may depart the airport and perform six rotations. This would be counted as 12 operations but only one track is shown. The rotations are factored into the evaluation.*
  - *The sample radar dataset was used to establish usage of runway and percentage of types of operations.*
  - *The study will model average conditions. Random operations near the airport may not be evaluated.*
- *A committee member stated helicopters hovering over residential homes generate significant noise.*
  - *Each profile includes a nominal time for hovering at the airport.*
  - *Study Team will review data and if this activity is present, this flight behavior can be incorporated in the model.*
- *Recommendation for integrated software system to track activity.*
  - *Discussion as to whether individual pilots can be identified and held accountable or penalized for violations (not following) voluntary procedures.*
  - *Database everyone can agree on and use and is accepted by FAA.*
  - *Residents do not have access to this information now.*
  - *Would like it to be user friendly.*

  - *A tool to monitor and report as part of the overall program was requested, including a database to track noise complaints.*

- *Discussion of practical measures that will come out of the study.*
  - *The study will help the community and operators establish potential achievable measures to help provide relief to the community. The development of measures will come in the next phase of study and could include potential changes to voluntary procedures.*
  - *The next meeting will include discussion of ideas that can be implemented.*
    - *Includes what has been reviewed and approved at other airports.*
    - *Measures that should be modified.*
    - *Other possibilities and ideas that are achievable and operational.*
    - *Set of guidelines will help guide discussions.*
- *Concern with voluntary vs enforced measures in place.*
- *Noise Modeling Input memorandum will be completed in two weeks and shared with the committee. Committee members will have the opportunity to review and comment (approximately two weeks).*
- *Noise measurement trips.*
  - *March measurement trip was interrupted due to COVID, will be rescheduled. Impacts due to COVID-19 will be considered.*
  - *Discussed schedule and location.*

The team updated the attendees about the postcard that was mailed to over 17,000 residents to inform them of the Part 150 Noise Study, how to get involved and where they can find project information.

Laura Beebe, Palm Beach County Director of Airports thanked everyone for attending. She surveyed the group on how they felt the virtual meeting went and thoughts for future meetings. She explained the DOA and Study Team wanted to keep the study moving forward. Attendees stated the meeting went well but preferred for future meetings to take place in person, if possible.

The Study Team reminded the committee and public that the meeting was recorded and would be available on the project website. Please share the information with anyone who may have missed the meeting.

The team will be sending the land use map and detailed noise modeling for the committee to review and provide comments. The final versions will be available to the public on the project website.

The meeting was adjourned.

Lantana Airport Part 150 Study

Palm Beach County Department of Airports

Advisory Committee Meeting #2

June 1, 2020

Agenda

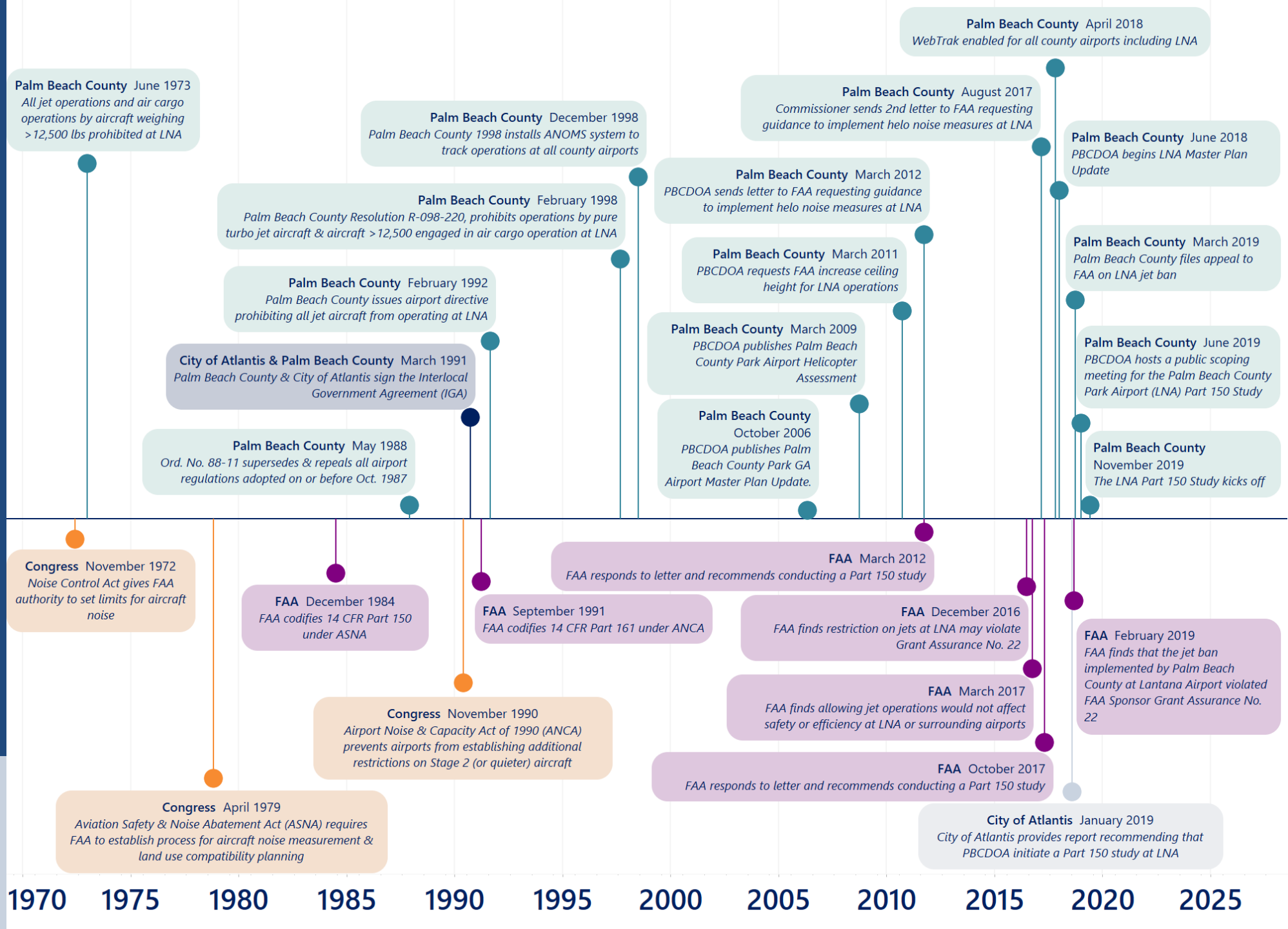
- Intro/Opening Remarks
- History of Noise Management at LNA
- Study Progress Updates
- Noise Measurements
- Noise Model Inputs
- Land Use Mapping
- Intro to Noise Compatibility Planning
- Schedule
- Wrap-up and Committee Member Questions
- Public Comment

Lantana Airport LNA PART 150 STUDY

Introductions

- Department of Airports
- Study Team
- Committee Members

History of Noise at LNA



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LNA
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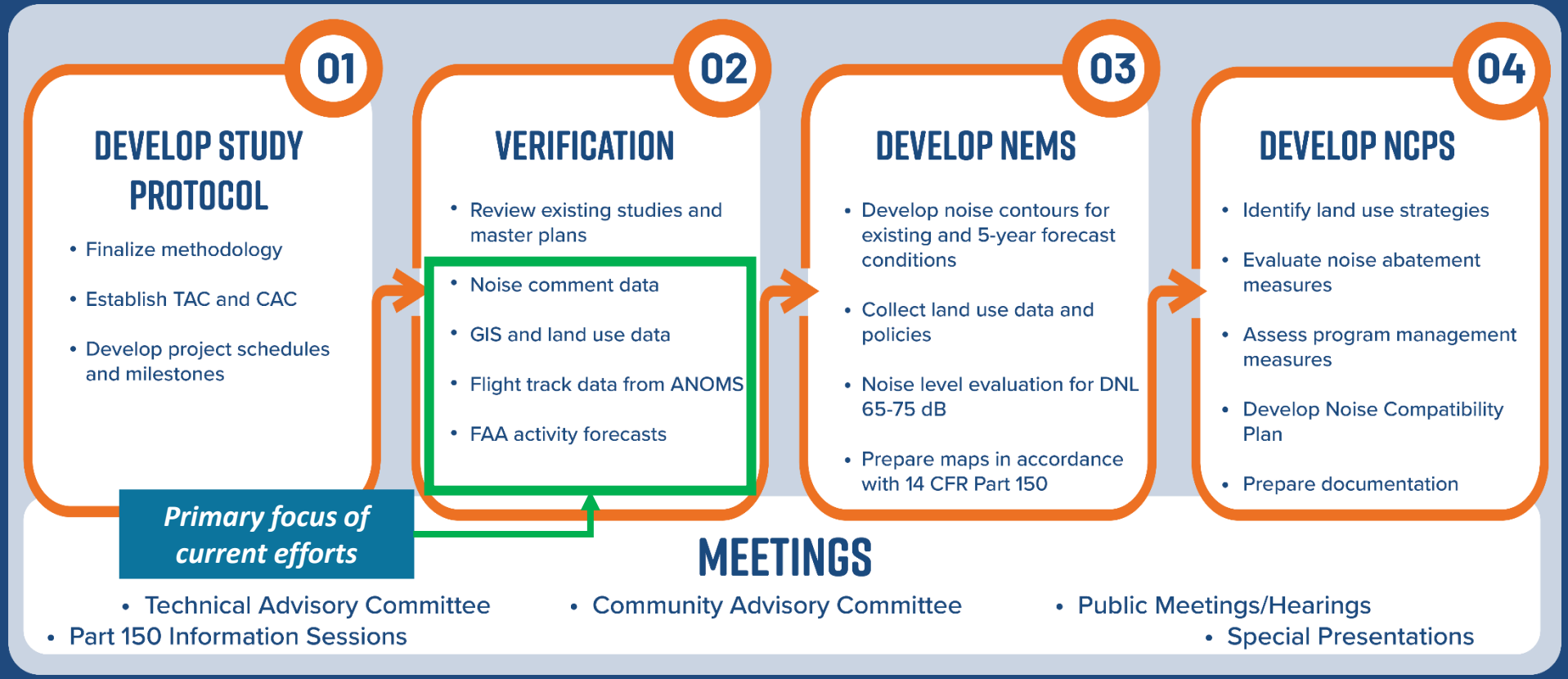
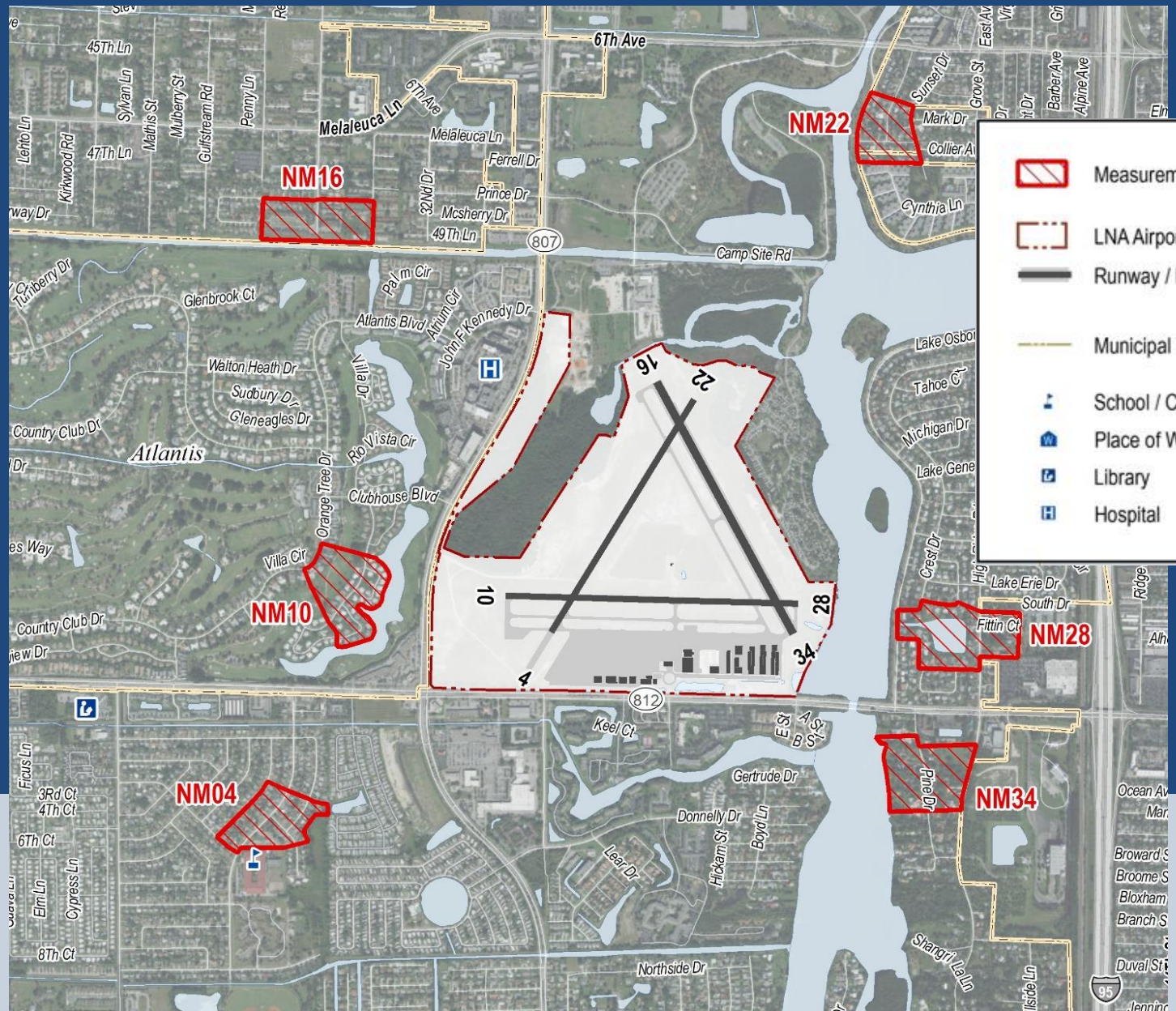
Generalized Part 150 Study Process



Lantana Airport LNA PART 150 STUDY

Noise Measurements

- Six sites selected by study team
- One site near each runway end within the general noise measurement area



Note: Per FAA, measured noise levels are NOT used to calibrate the model used to generate the contours

Lantana Airport LNA PART 150 STUDY

Noise Measurements

First period: March 13-17

- Intended March 13-23, but cut short due to coronavirus restrictions on travel/activities
- Plan to finish measurements in August/September

Second period: Week in February/March 2021

Measurements of individual aircraft noise events will be correlated with radar data

Hourly noise levels (Leq) and daily (DNL) values will be calculated for each of the locations

Two HMMH staff spent time at each location, observing and logging aircraft noise events

Note: Per FAA, measured noise levels are NOT used to calibrate the model used to generate the contours

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Noise Modeling Inputs

- Aircraft operations forecast
- Airfield layout
- Runway use
- Model flight tracks
- AEDT database
- Weather and terrain data

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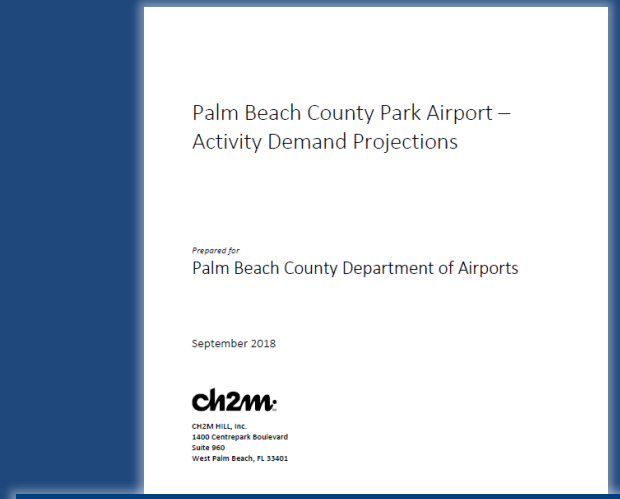
Aircraft Operations Forecast

Forecast Data collection:

- Two years of operational data collected by the PBCDOA Airport Noise and Operations Monitoring System (ANOMS)
- LNA Master Plan Forecast (Basis of Forecast)
  - The FBO and Airport personnel contributed to the Master Plan forecast
- FAA Traffic Flow Management System Counts data (TFMSC)
- FAA's 2019 Terminal Area Forecast (TAF), published in January 2020 is used for comparison

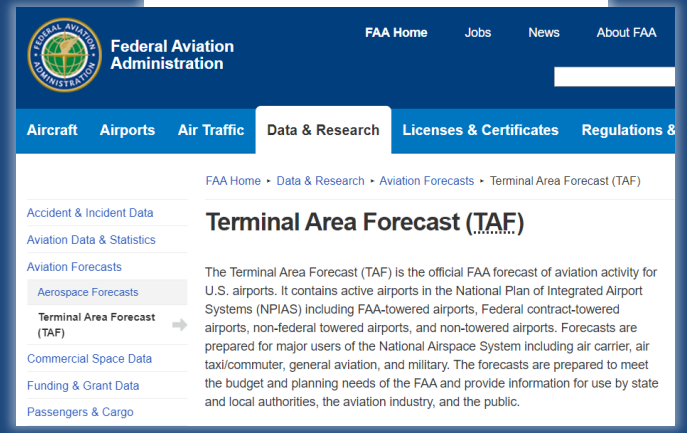

Palm Beach County Park Airport –
Activity Demand Projections

Prepared for
Palm Beach County Department of Airports

September 2018

ch2m

CH2M HILL, Inc.
1400 Centrepark Boulevard
Suite 960
West Palm Beach, FL 33401



Lantana Airport
LNA
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Detailed Forecast Data

- Base fleet mix developed from 2018-2019 ANOMS data
- Noise Modeling Groups
  - Single- Engine
  - Multi-Engine
  - Helicopter
- Fleet mix then assigned to Air Taxi, General Aviation and Military
- Base fleet mix then scaled to the 2021 and 2026 Forecast levels for each category.

Operation Category	Aircraft Category	AEDT Type
Air Taxi	Multi-Engine	BEC58P
		DHC6
		PA30
	Single-Engine	CNA172
		CNA182
		CNA208
		COMSEP
		GASEPF
		GASEPV
		PA28

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Aircraft Operations Forecast

The FAA approves all aviation forecasts for use in any planning study

- 2021 NEM Forecast is 5.8% less than the FAA TAF
- 2026 NEM Forecast is 5.3% less than the FAA TAF
- The draft forecast has been submitted to the FAA for approval and is still under review

Forecast Element	2017 Master Plan	2021 NEM	2022 Master Plan	2026 NEM	2027 Master Plan
Local	90,000	**96,877**	98,596	**106,007**	107,860
Air Taxi	2,000	**2,409**	2,511	**2,704**	2,752
General Aviation	25,000	**26,512**	26,890	**28,911**	29,416
Military	50	**50**	50	**50**	50
Total Operations	117,050	**125,848**	128,047	**137,672**	140,077
Average Annual Day	320.7	**344.8**	350.8	**377.2**	383.8

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COVID-19 has resulted in a dramatic reduction in traffic levels at commercial airports and some reduction at general aviation airports such as LNA, however flight training has continued, and the airport remains open.

Noise Model Inputs

We must use FAA-approved model

- FAA's Aviation Environmental Design Tool (AEDT)

Required noise modeling inputs

- Airport layout
- Aircraft operations by day/night for existing year 2021 and forecast 2026
- Runway utilization rates by aircraft categories
- Flight track geometry and use by aircraft categories
- Annual average meteorological data
- Terrain

Lantana Airport LNA PART 150 STUDY

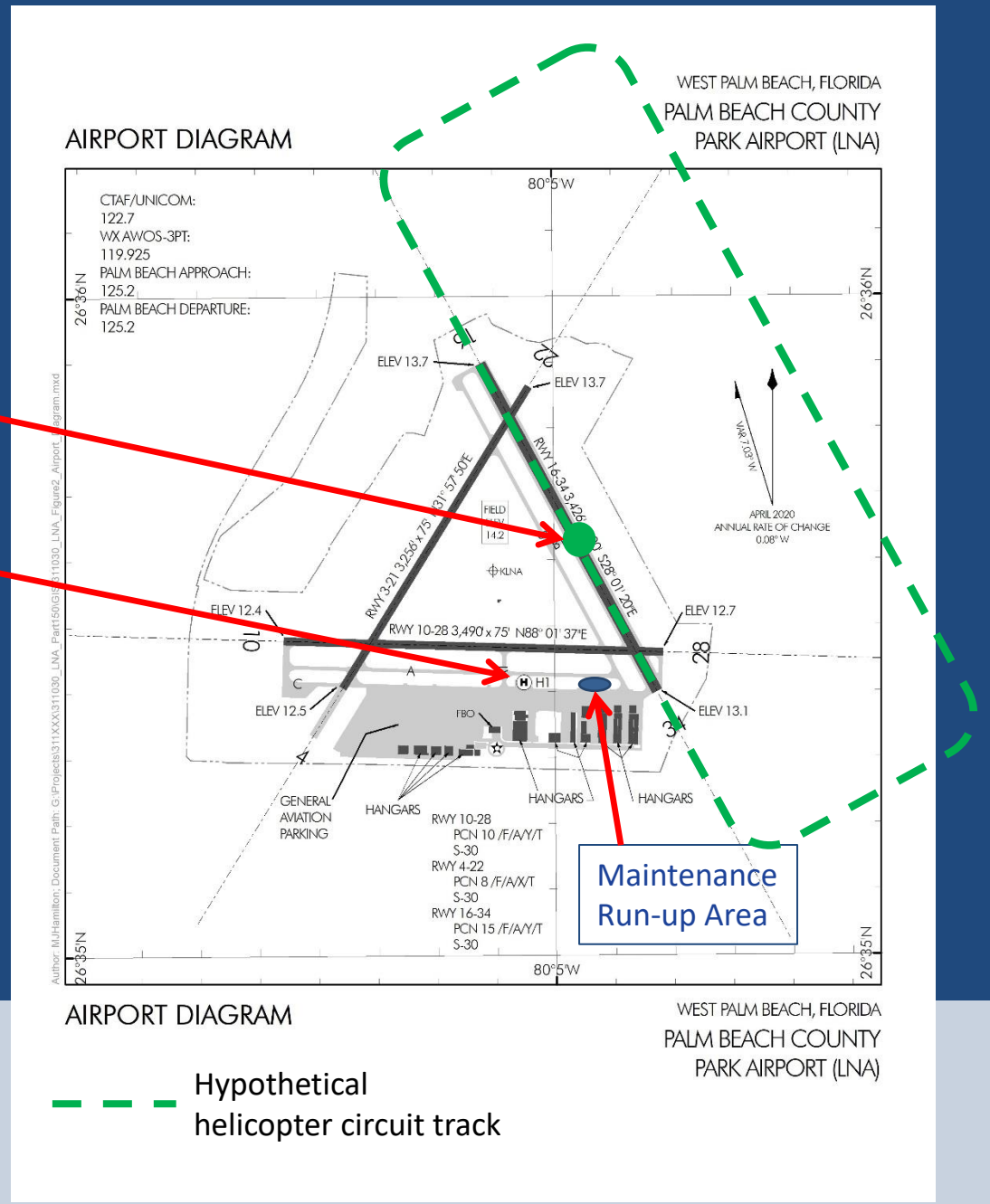
Airport Layout

Helicopter Operations

- For modeling in AEDT – a helipad must be defined
- Helicopter circuit operations for modeling will start and stop at runway center
- Helicopter arrivals and departures will start and stop at the helicopter parking position

Runups

- Pre-flight run-ups at the end of each taxiway before departure
- Maintenance run-ups will be modeled just north of hangars
- Three Types: Cessna 172, Cessna 182, Piper 34 Seneca



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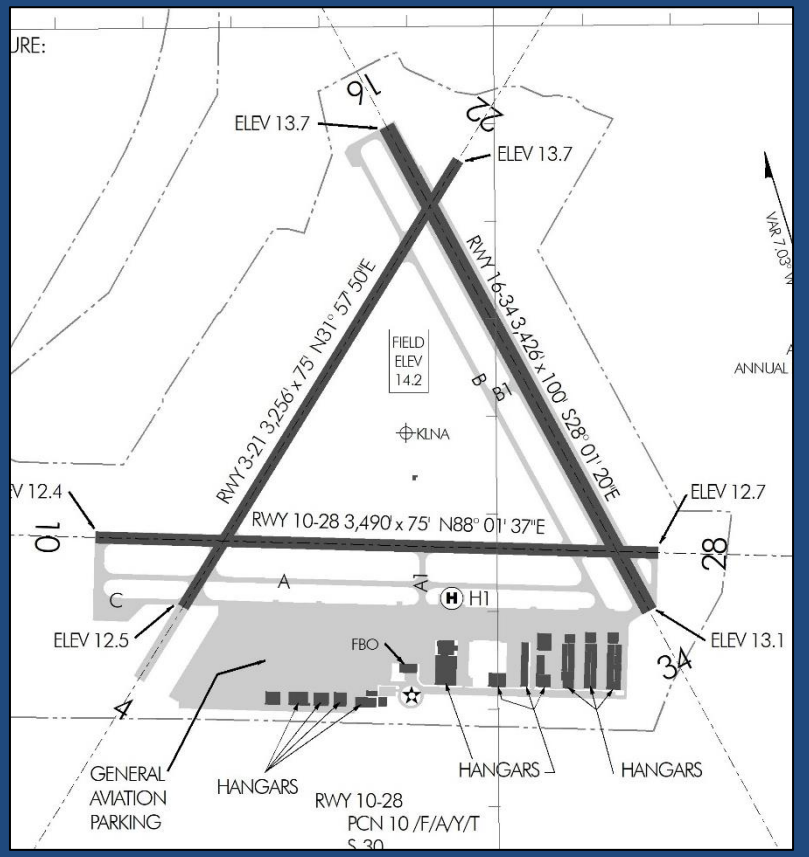
Graphical Runway Use Summaries

Graphical summaries in the form of "pie charts" depicting percentage runway use on each of the six runway ends

- Pie charts are used to provide a clear visual basis for comparison of relative runway use

Developed from 2018 -2019 ANOMS data



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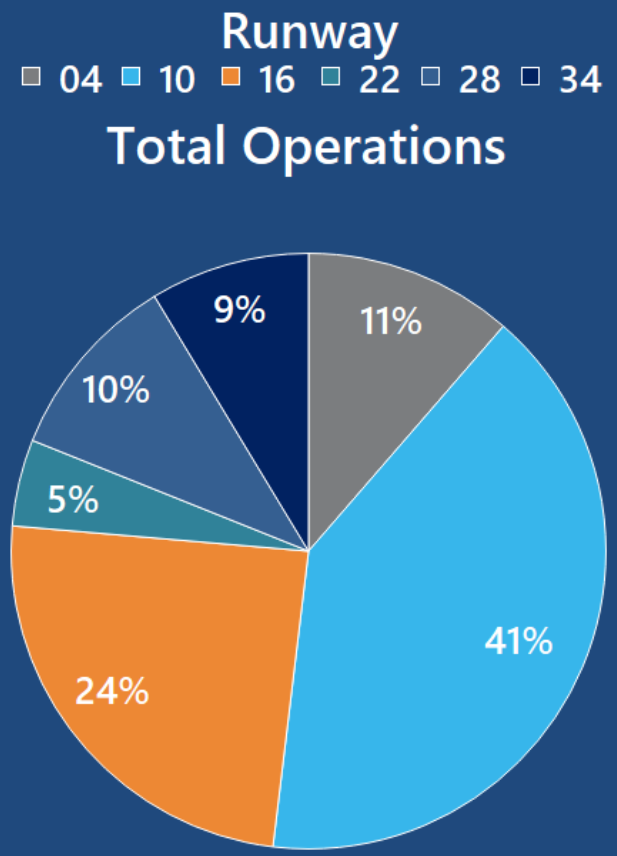
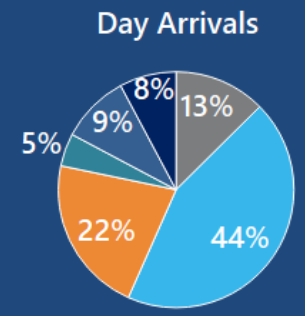
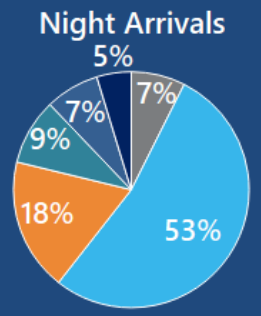
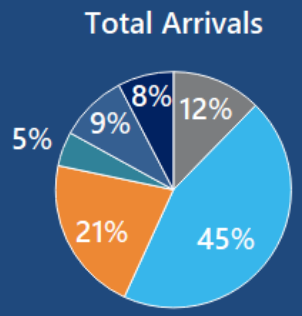
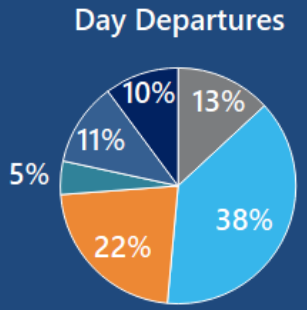
2018-2019 Total Fixed Wing Runway Use

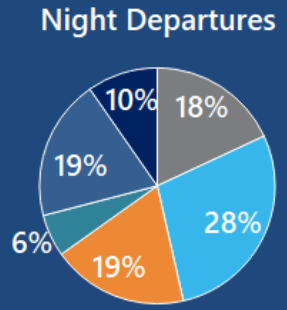


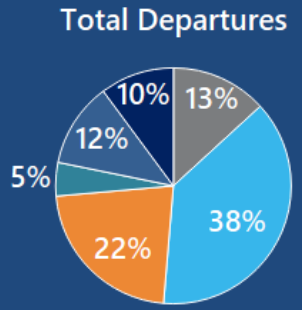


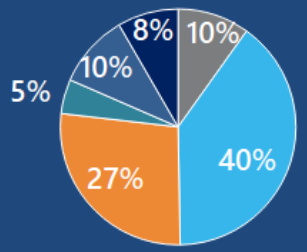


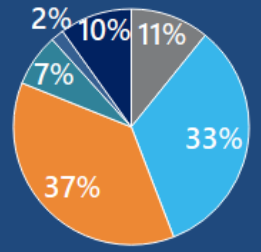


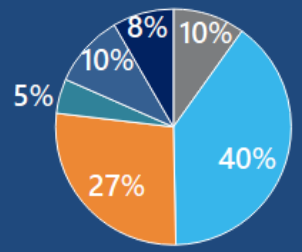












Usage based on 24,576 flights that could be assigned to operational categories..

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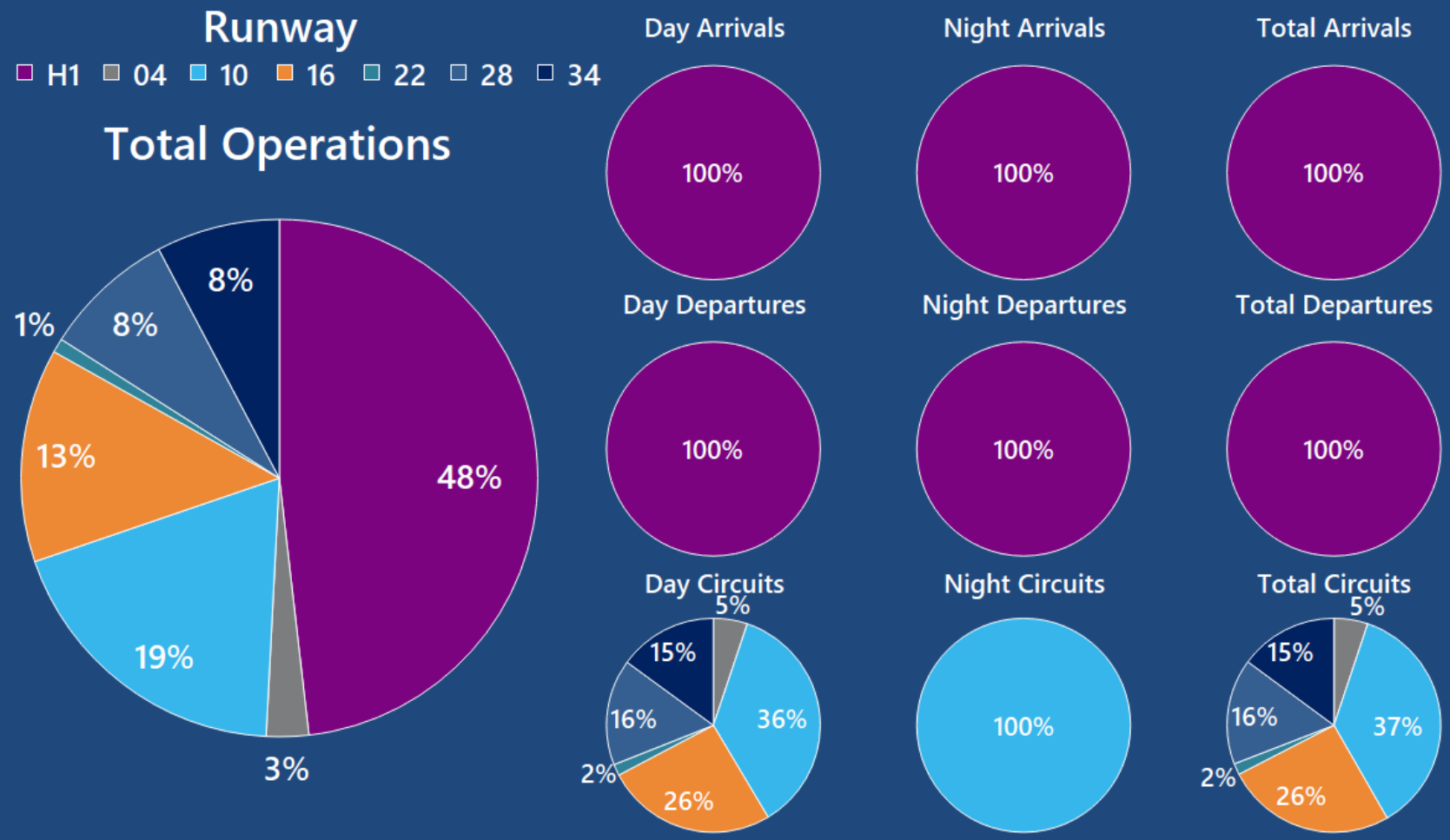
Circuit = A departure to pattern altitude, flight around the pattern and landing to the same runway.

2018-2019 Helicopter Runway Use



Lantana Airport LNA PART 150 STUDY

Circuit = A departure to pattern altitude, flight around the pattern and landing to the same runway.

Noise Modeling Flight Track Development

- Tracks have been developed for arrivals and departures
- “Backbone” tracks are developed for major origin/destination directions
- Next slides illustrate how we develop modeling tracks
- Subsequent slides present overall arrival and departure flight track figures for each aircraft group

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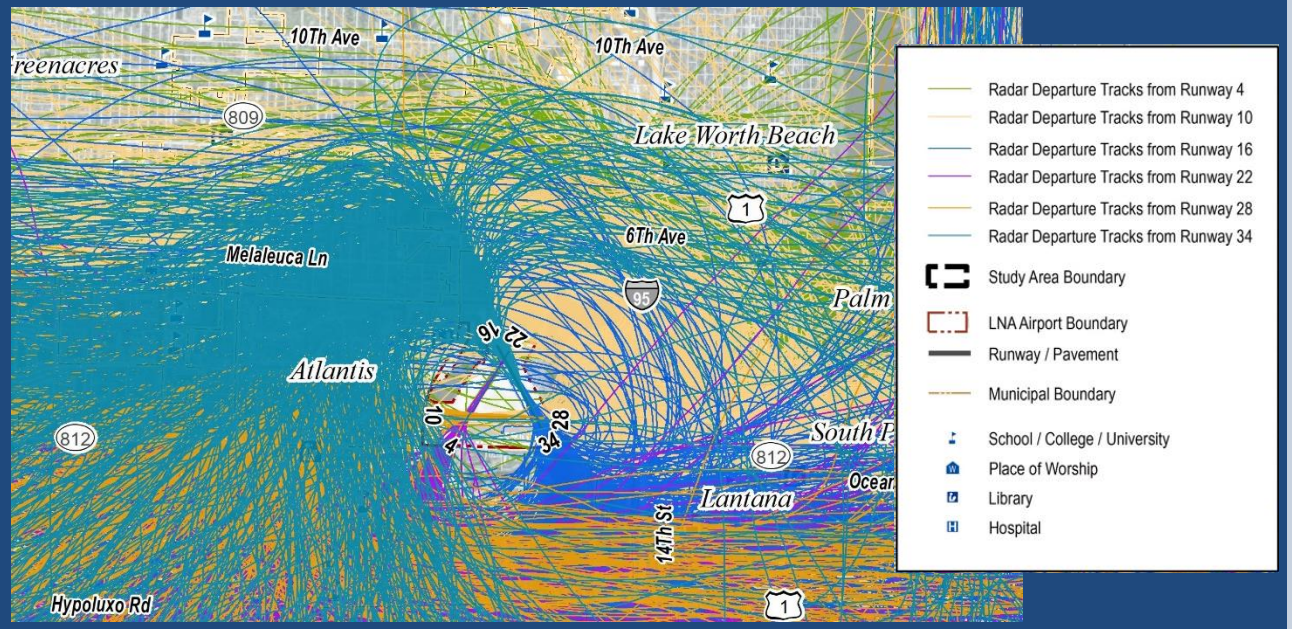
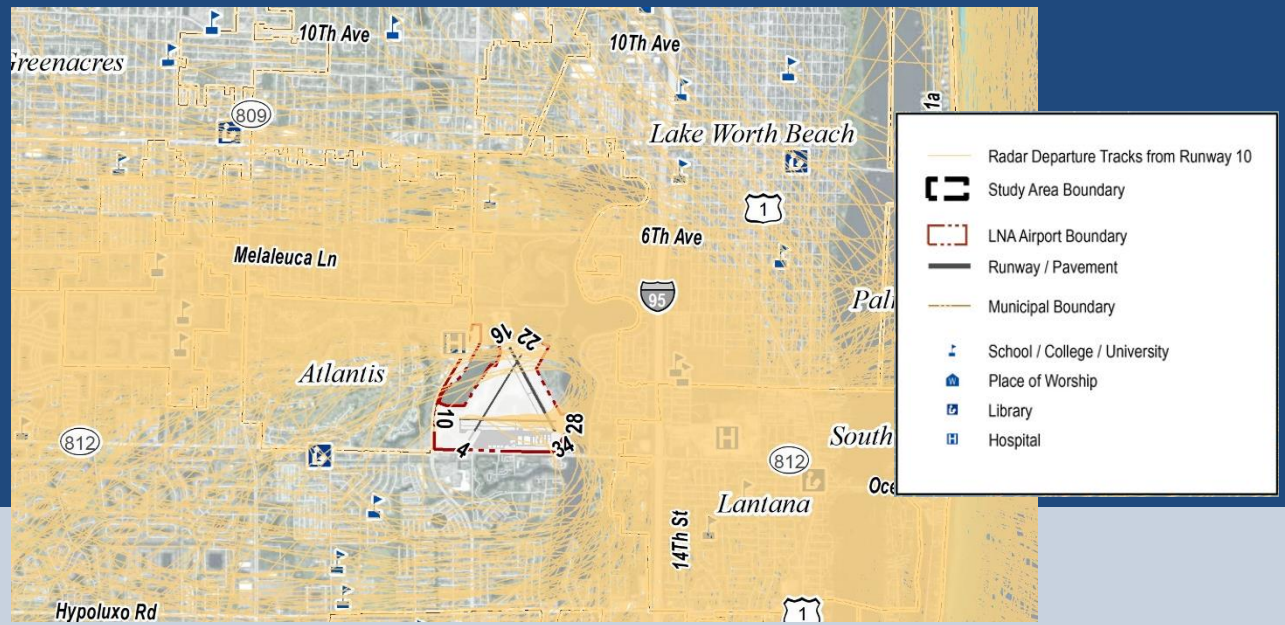
Departure Track Example

Plot of all departures separated by assigned runway

All Runway 10 departures





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Departure Track Example

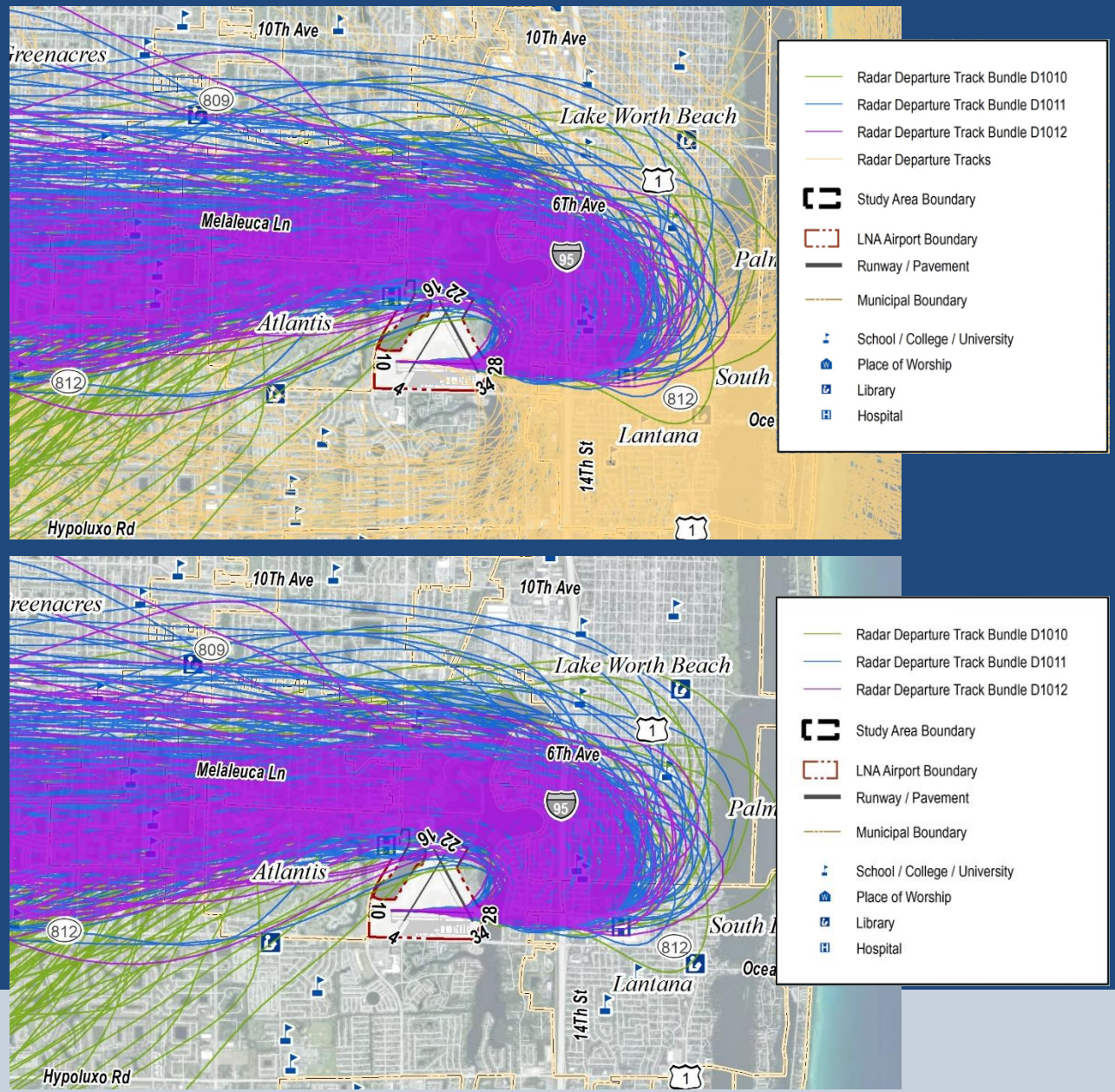
Runway 10 departures by track "bundle" with initial turn to the north

Runway 10 departure track bundle assignments:

- D1010 in forest green
- D1011 in blue
- D1012 in purple

Nomenclature of bundles

- D1010
  - Operation type [Arrival, Departure, Circuit]
    - Departure
  - Runway number
    - 10
  - Bundle #
    - 10



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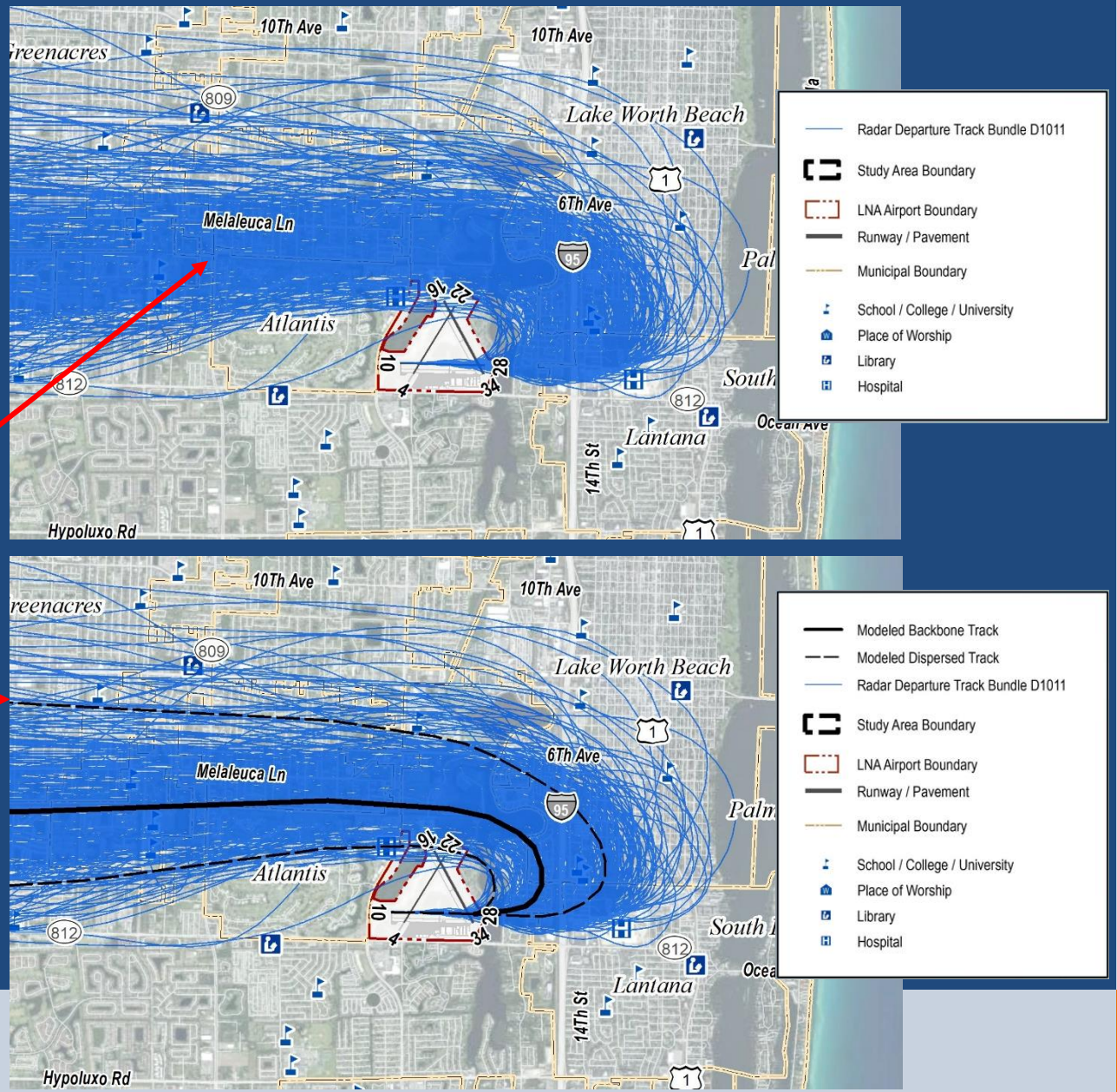
Departure Track Example

Runway 10 departures western bundles

- D1011- radar track bundle with the largest number of departures from Runway 10
- The dashed lines are the dispersed tracks
- Solid line is the backbone model track



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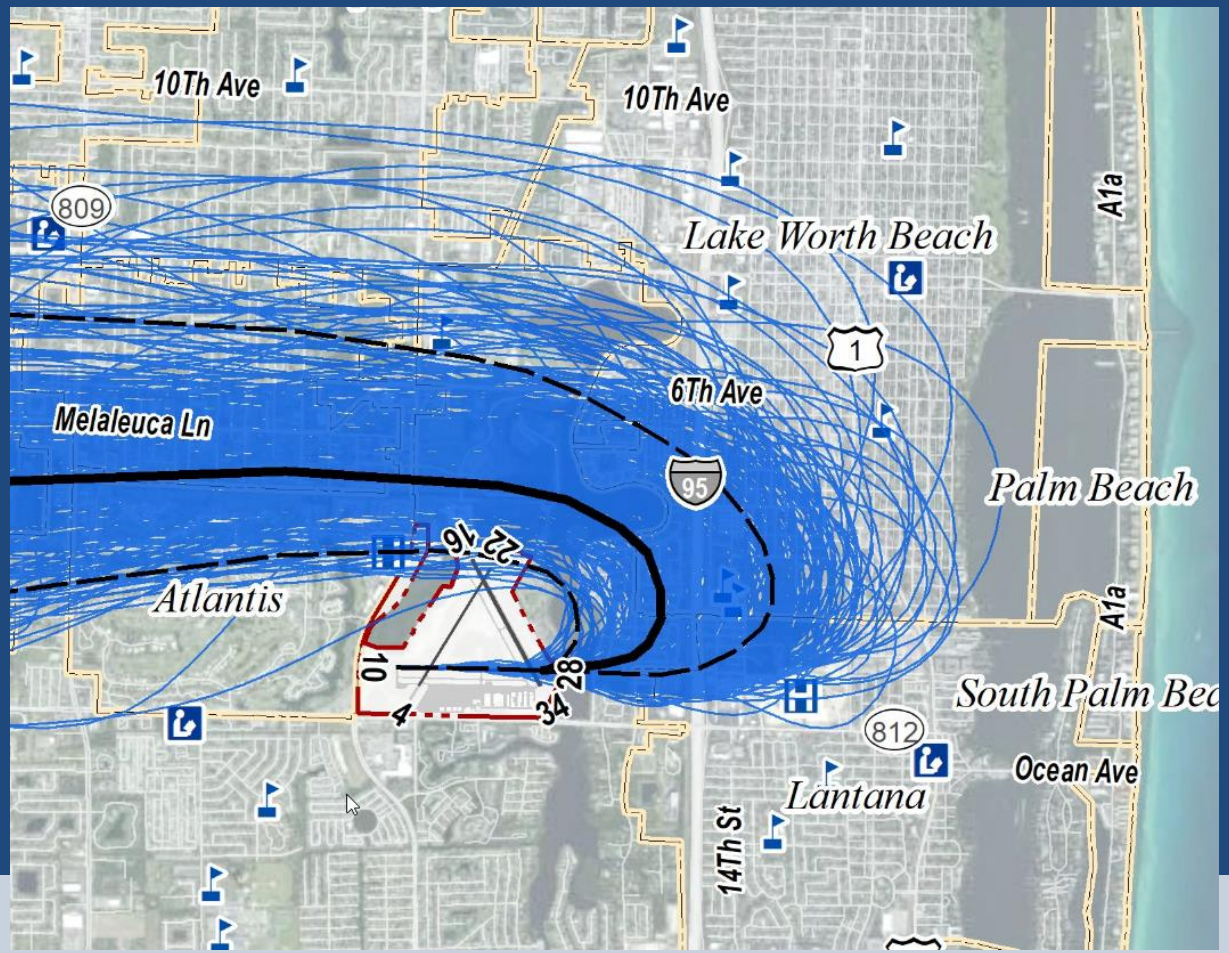
Departure Track Example

- AEDT average model tracks
- Highest usage on backbone (solid line)
- Lower usage on sub-tracks (dashed lines)



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Model Track Development Summary

Process is repeated for arrivals and departures for each runway, aircraft type, direction, and track group

⇨ 507 tracks have been developed: 177 backbone and 330 sub-tracks

Runway	Arrival Tracks		Departure Tracks		Circuit Tracks	
	Back-bone	Sub-tracks	Back-bone	Sub-tracks	Back-bone	Sub-tracks
04	11	22	15	30	1	2
10	15	32	17	34	3	6
16	12	24	15	30	2	4
22	8	16	7	14	1	2
28	10	20	9	18	1	2
34	9	18	11	22	1	2
H1	19	12	4	8	6	12
Total	84	144	78	156	15	30

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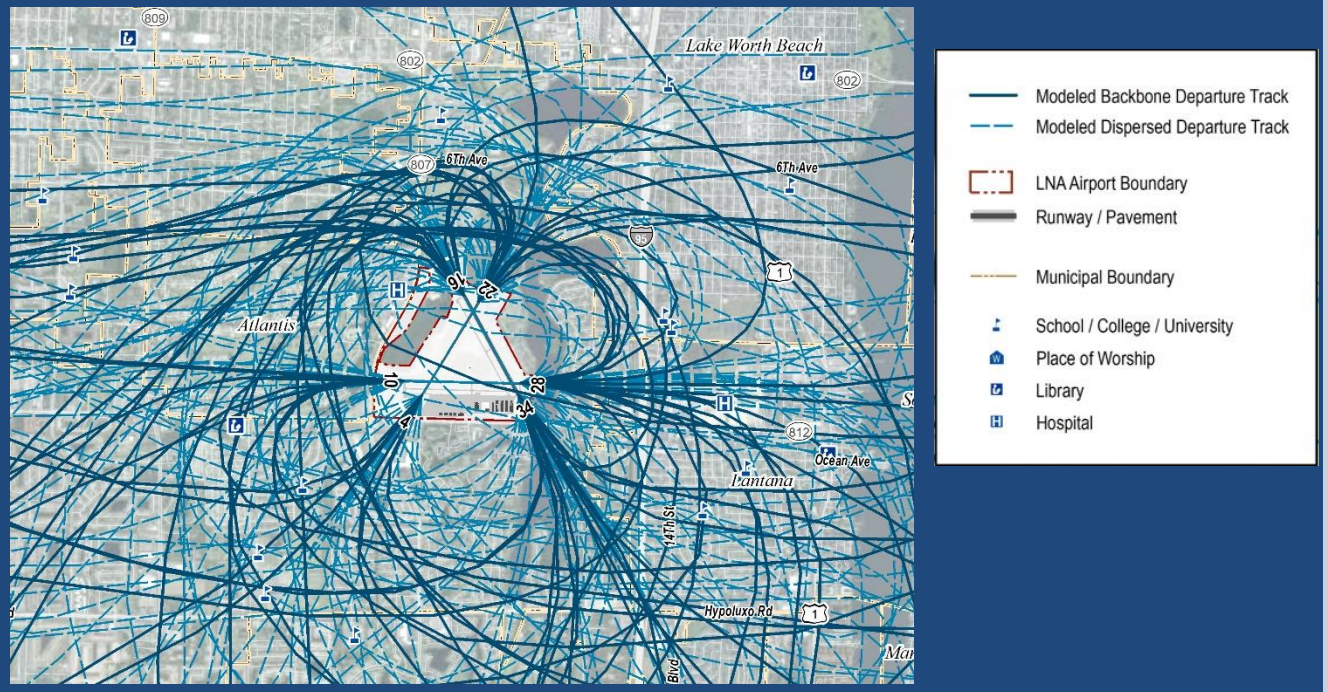
All Fixed Wing Model Tracks

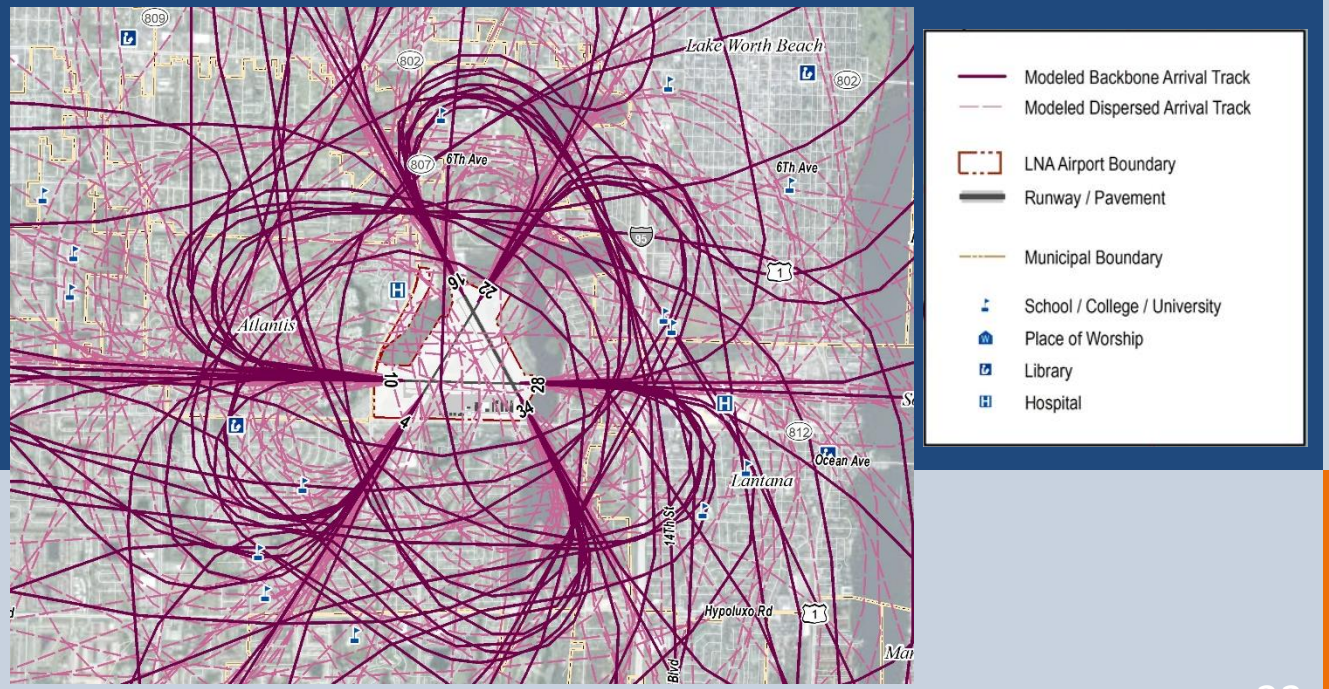
Departure model tracks

- Backbone tracks (74)
- Sub-tracks (148)
- Total model tracks (222)

Arrival model tracks

- Backbone tracks (65)
- Sub-tracks (132)
- Total model tracks (197)





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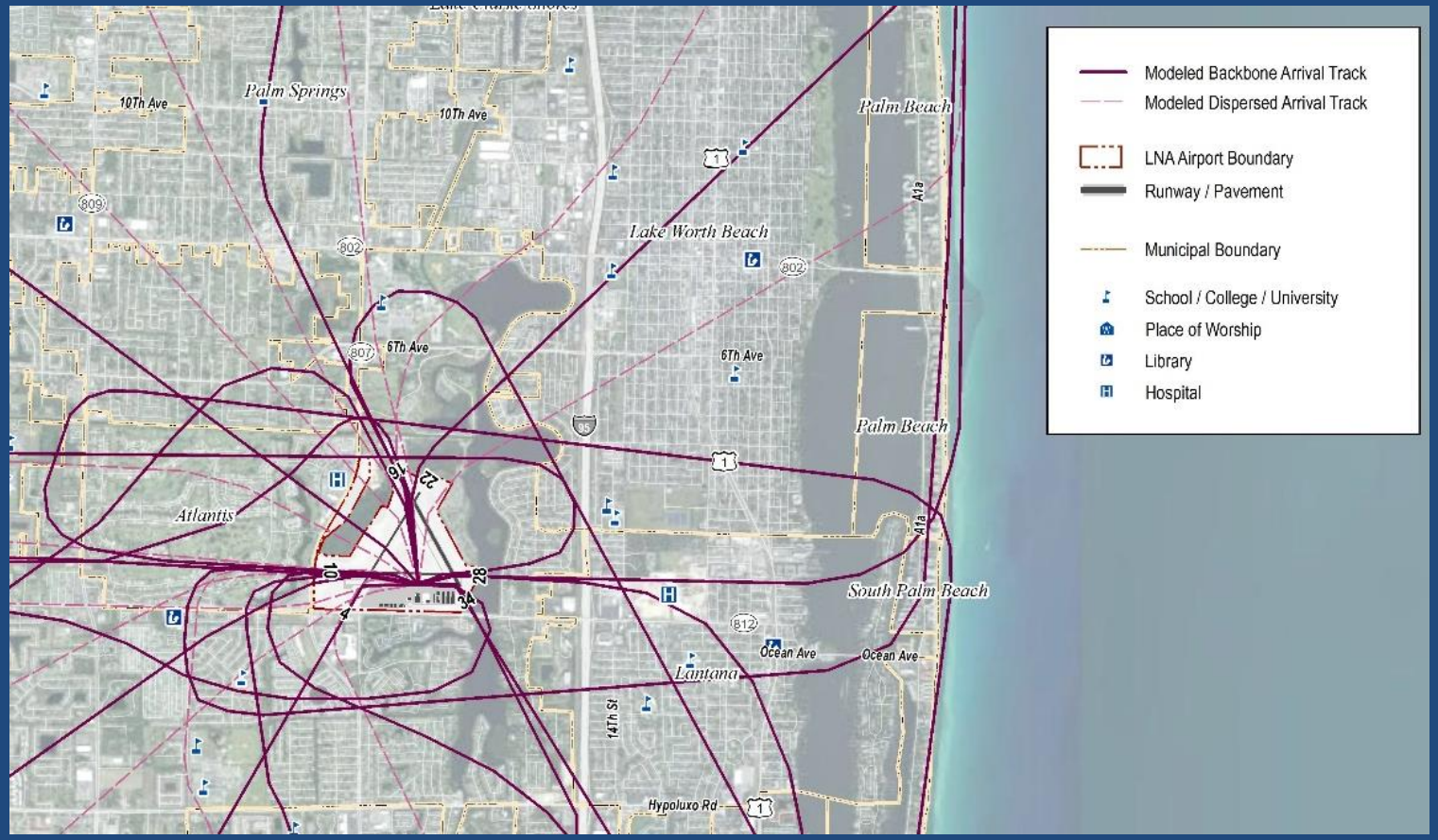
All Helicopter Arrival Tracks

All helicopter arrival tracks

AEDT modeling tracks

- Backbone tracks (19)
- Sub-tracks (12)
- Total model tracks (31)



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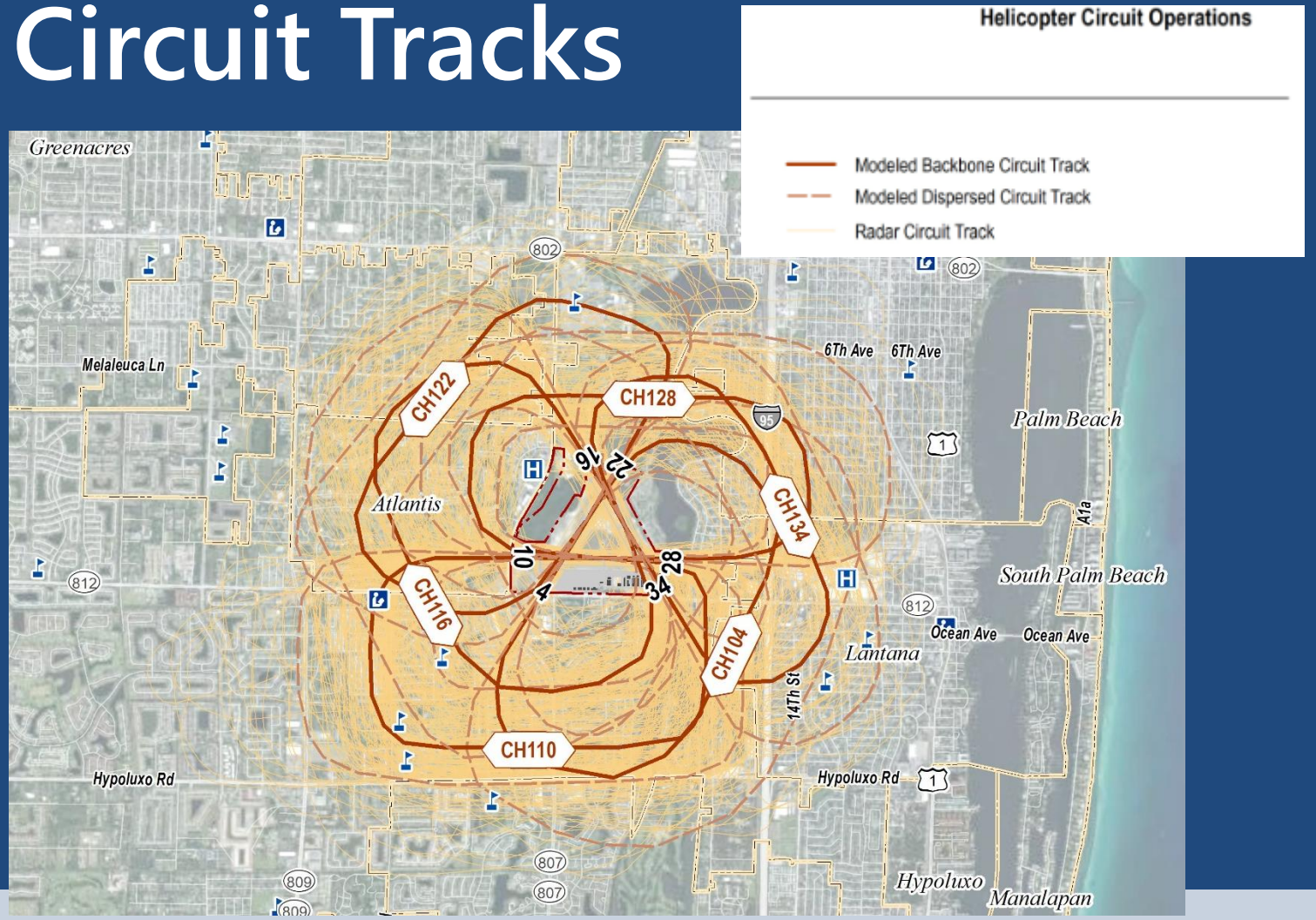
All Helicopter Circuit Tracks

All helicopter circuit tracks

AEDT modeling tracks

- Backbone tracks (6)
- Sub-tracks (12)
- Total model tracks (18)



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AEDT Data

Arrivals

- 3-degree approach profile (will modify for LNA operations)

Departures

- AEDT noise and performance database has departure profiles by stage length; all small aircraft are assumed to fly less than 500 nm

Fixed wing touch & go pattern profiles

Engine Run-ups

- Location, duration, power setting, heading, time of day

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Meteorological and Terrain Data

The AEDT database includes 30-year average weather for each airport. These data for LNA are:

- Temperature: 75° F
- Station Pressure: 1017.60 mbar
- Sea Level Pressure: 1017.48 mbar
- Dew point: 66.15° F
- Relative humidity: 71.71%
- Wind speed 11.22 knots

Terrain data were obtained from the United States Geological Survey National Elevation Dataset with 1/3 arc second (approximately 33 ft.) resolution covering the Study Area.

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Land Use Mapping

Primary data collection steps include:

- Assemble and review land use, zoning, and population data
- Identify any local land use policies that address airport operations
- Create existing land use maps

Locations of noise-sensitive sites (churches and schools) are noted

Local jurisdictions to review maps and advise of necessary corrections

- Assess any deficiencies of land use data and corrective approaches

After DNL contours have been generated, the Study Team will survey and confirm land use within the 60 DNL contours

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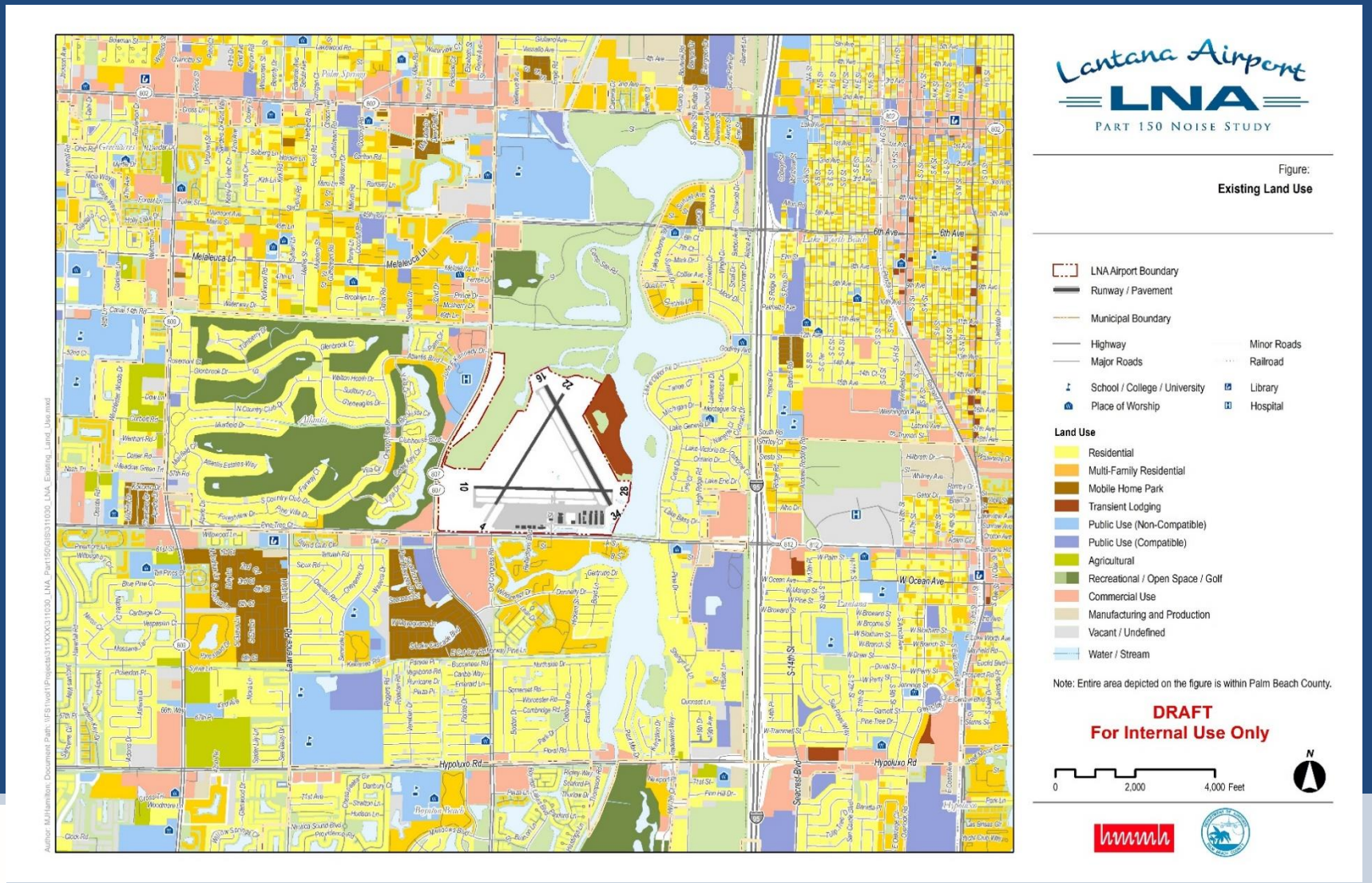
Draft Land Use Base Map



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Part 150 Components

Part 1: Noise Exposure Map (NEM)

- Modeling data (e.g. operations, runway use)
- Flight tracks
- Land use information
- This data is all used to develop the Noise Exposure Map and Report
- Define a baseline and forecast NEM and scope of noncompatible land use

Part 2: Noise Compatibility Program (NCP)

- The NEM is used to develop a program to address noncompatible land use

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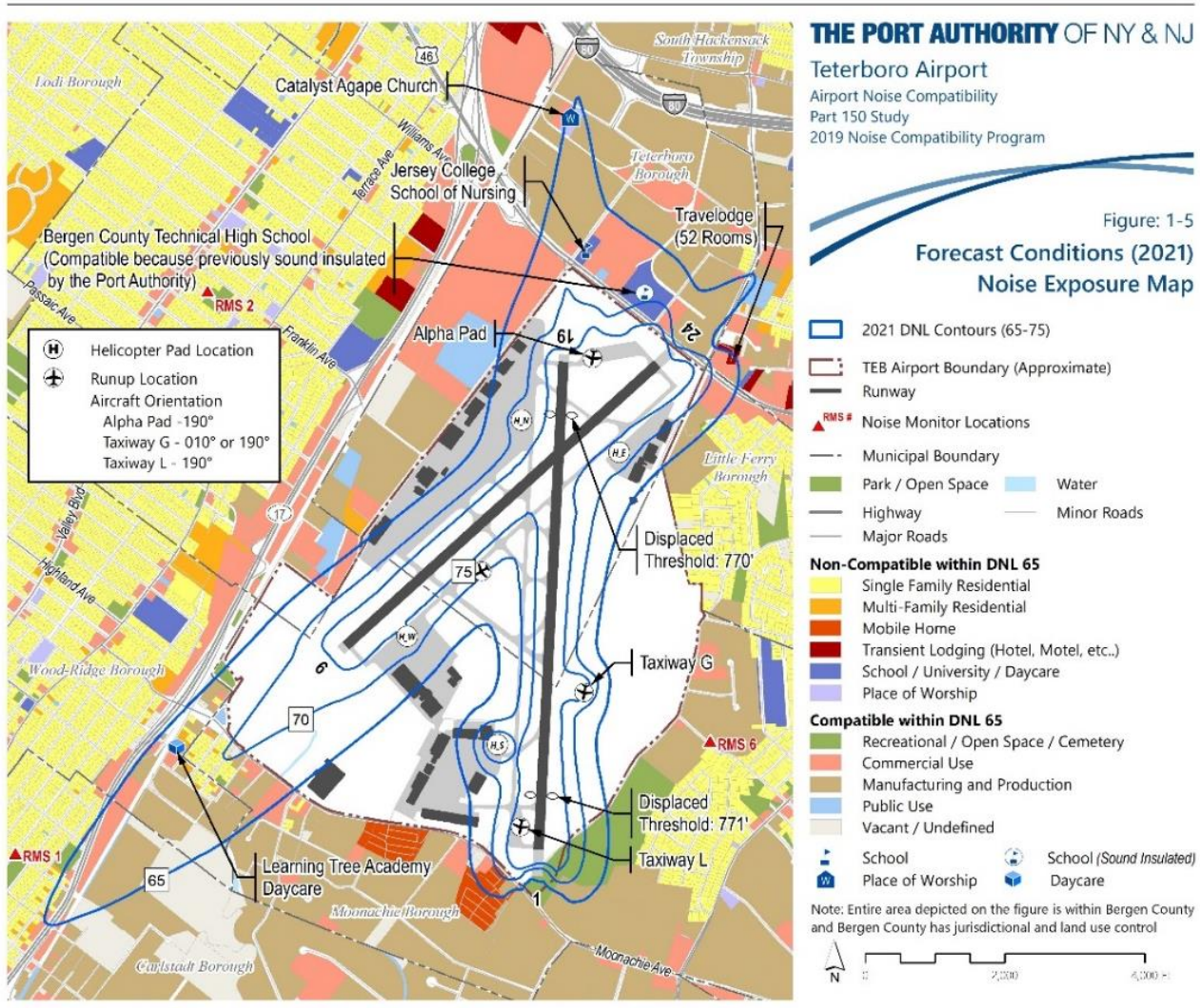
Example NEM (Teterboro, NJ)

- **Major components include:**
  - ⇨ DNL 65, 70,and 75 dB contours
  - ⇨ Land use categories
  - ⇨ Historic properties, schools, and places of worship identified
  - ⇨ Jurisdictions responsible for land use/zoning controls
  - ⇨ Noncompatible land uses within the DNL 65+ dB contours



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Noise Compatibility Program

NCP documentation must describe:

- Development of the program
- Each measure that the sponsor considered
- Reasons the sponsor elected to *include* or *exclude* individual measures
- Entities responsible for implementing each measure
- Implementation and funding mechanisms
- The predicted effectiveness of *individual measures* and *the overall program*.

FAA first *accepts* the NCP as compliant with Part 150 standards

FAA then reviews and *approves* or *disapproves* individual proposals

- Approval does not eliminate requirements for formal environmental assessment of any proposal pursuant to the National Environmental Policy Act (NEPA).
- FAA approval of individual measures is a prerequisite to application for federal funding

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Noise Compatibility Program

The NCP's process and requirements are set forth in 14 CFR Part 150 and FAA guidance. Industry and Airports have developed and refined a study process that:

- Meets statutory requirements
- Addresses concerns of industry, government, and community stakeholders
- Follows a logical progression
- Is reasonably time-and cost-efficient
- Provides appropriate outreach, consultation, and "transparency"

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Noise Compatibility Program

FAA has published clear "checklists" to assist with their review of each submittal

The NCP analyses will be consistent with 14 CFR Part 150 and address three primary categories of measures (noise abatement, land use, and programmatic)

⇨ All required categories are addressed in a comprehensive and logical fashion

The next two slides summarize this more evolved process

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Noise Compatibility Program

Step 1: Identify Noncompatible Land Uses
Existing conditions Noise Exposure Map
Forecast conditions Noise Exposure Map

Step 2: Consider Noise Abatement Strategies
Reduce exposure over noncompatible uses
Limit growth in exposure over noncompatible uses

Step 3: Consider Land Use Strategies
Mitigate residual noncompatible uses
Prevent introduction of new noncompatible uses

Step 4: Consider Programmatic Strategies
Implement and ***promote*** measures
Monitor and ***report*** on effectiveness
Update NEMs and ***revise*** NCP as appropriate

Analysis and Selection Process Applied in Steps 2 - 4

- Evaluate effectiveness of each measure in addressing ***objectives***
- Evaluate feasibility (operational, safety, economic, etc.)
- Select preferred "package" of measures
- Identify implementation schedule, responsibilities, budget, funding sources, etc.
- If not recommended, document reasons

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Noise Compatibility Program

Noise Abatement Strategies

- Noise abatement flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Noise barriers
- Runup enclosures
- Use restrictions
- Other actions proposed by stakeholders

Land Use Strategies

- Mitigation
  - Land acquisition
  - Sound insulation
  - Avigation easements
- Prevention
  - Land use controls
  - Zoning
  - Building codes
  - Comprehensive plans
  - Real estate disclosures
- Other actions proposed by stakeholders

Programmatic Strategies

- Implementation tools (rules, regulations, ordinances, etc.)
- Promotion, education, signage, etc.
- Monitoring
- Reporting
- NEM updating
- NCP revision
- Other actions proposed by stakeholders

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Noise Compatibility Program

- **Evaluation/approval of measures is limited to the noncompatible areas within the approved NEM contours**
- **Examples of possible measures**
  - Acquisition of land and interests, including at least air rights, easements, and development rights
  - Barriers and acoustical shielding, including soundproofing of public buildings
  - Implementation of a preferential runway system
  - Use of flight procedures (including modification of flight tracks)
  - Restriction on the use of aircraft based on their noise characteristics

    [*Note: Part 161 has added further notice, review, and approval requirements for proposals to restrict many categories of aircraft operations.*]
  - Other actions or combinations of actions which would have a beneficial noise impact
  - Other actions recommended for analysis by the FAA for the specific airport

Schedule

Meeting / Activity	Anticipated Purpose	Anticipated Time Frame
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	Presentation of the existing and five-year condition Noise Exposure Maps (NEMs) and brainstorming of NCP measures (followed by the NEM workshop)	October/November 2020
NEM Public Comment Period and Public Workshop	NEM thirty-day public comment period and Public Workshop	October/November 2020
4th Advisory Committee Meeting	Review of public comments obtained with the NEM and preliminary analyses of NCP measures	February 2021
NEM Document submission to FAA	PBCDOA submits the Final NEM document to FAA for acceptance.	March/April 2021
5th Advisory Committee Meeting	Final review of NCP measures	June 2021
6th Advisory Committee Meeting	Presentation of the NCP (followed by the NCP public workshop and hearing)	August 2021
NCP Public Comment Period, Workshop and Hearing	NCP thirty-day public comment period. Public Workshop and Hearing	September 2021
Submit Final NCP to FAA	PBCDOA submits final revised NCP for approval by FAA. Respond to FAA questions as needed.	October 2021

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Note: Schedule is subject to change

PBCDOA Project Contacts and Websites

Bob Mentzer, Project Manager - LNA Part 150 Study Team

Casandra Davis – Manager, Noise Office

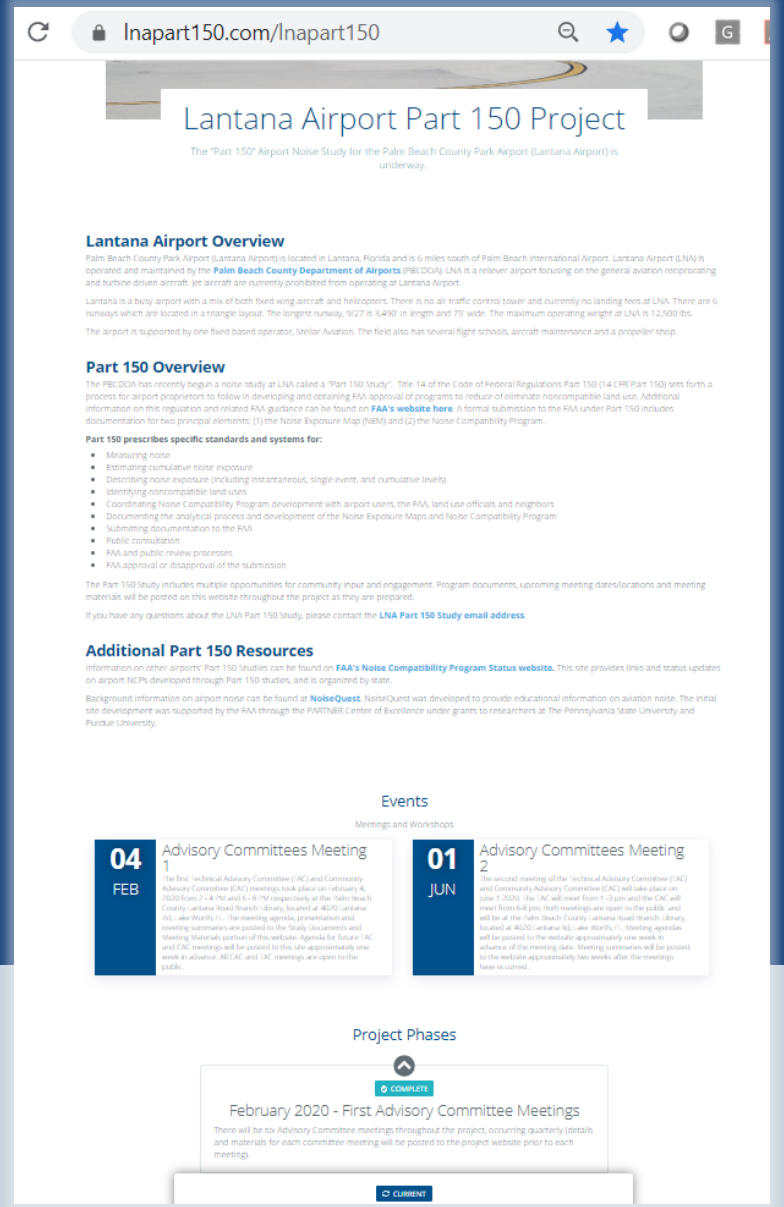
Address emails to: LNAPart150@hmmh.com

LNA Part 150 Website provides project information

- Will be updated regularly for public outreach purposes
- TAC/CAC members will receive direct notices
- https://www.lnapart150.com/lnapart150

PCBDOA LNA website provides general airport information

- http://www.pbia.org/about/general-aviation/park-airport/



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Next Steps

- Finalize noise model inputs after FAA forecast approval
- Generate noise contours with AEDT
- Assess land use and population within contours
- Conduct noise measurements and analyze data
- Develop draft Noise Exposure Maps and report
- Review existing noise measures
- Consider new abatement measures

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Wrap Up

Next TAC/CAC meetings:

- October/November 2020
- Same location
- Primary topic – Presentation of the existing and five-year condition Noise Exposure Maps (NEMs) and brainstorming of NCP measures (followed by the NEM workshop)

Committee questions, comments, and discussion

Public Comments

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Thanks for attending!

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Additional Slides

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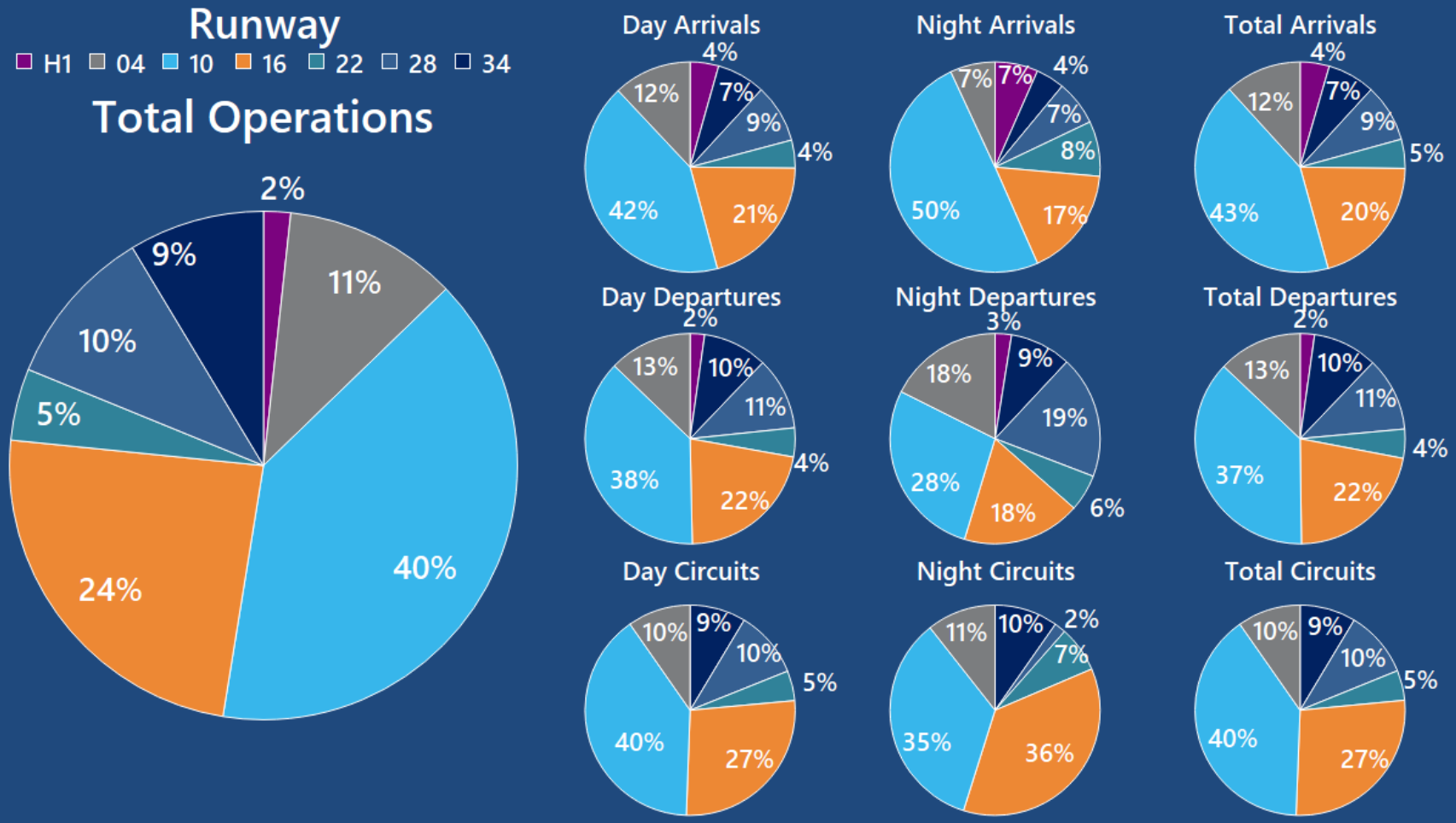
2018-19 Total Runway Use



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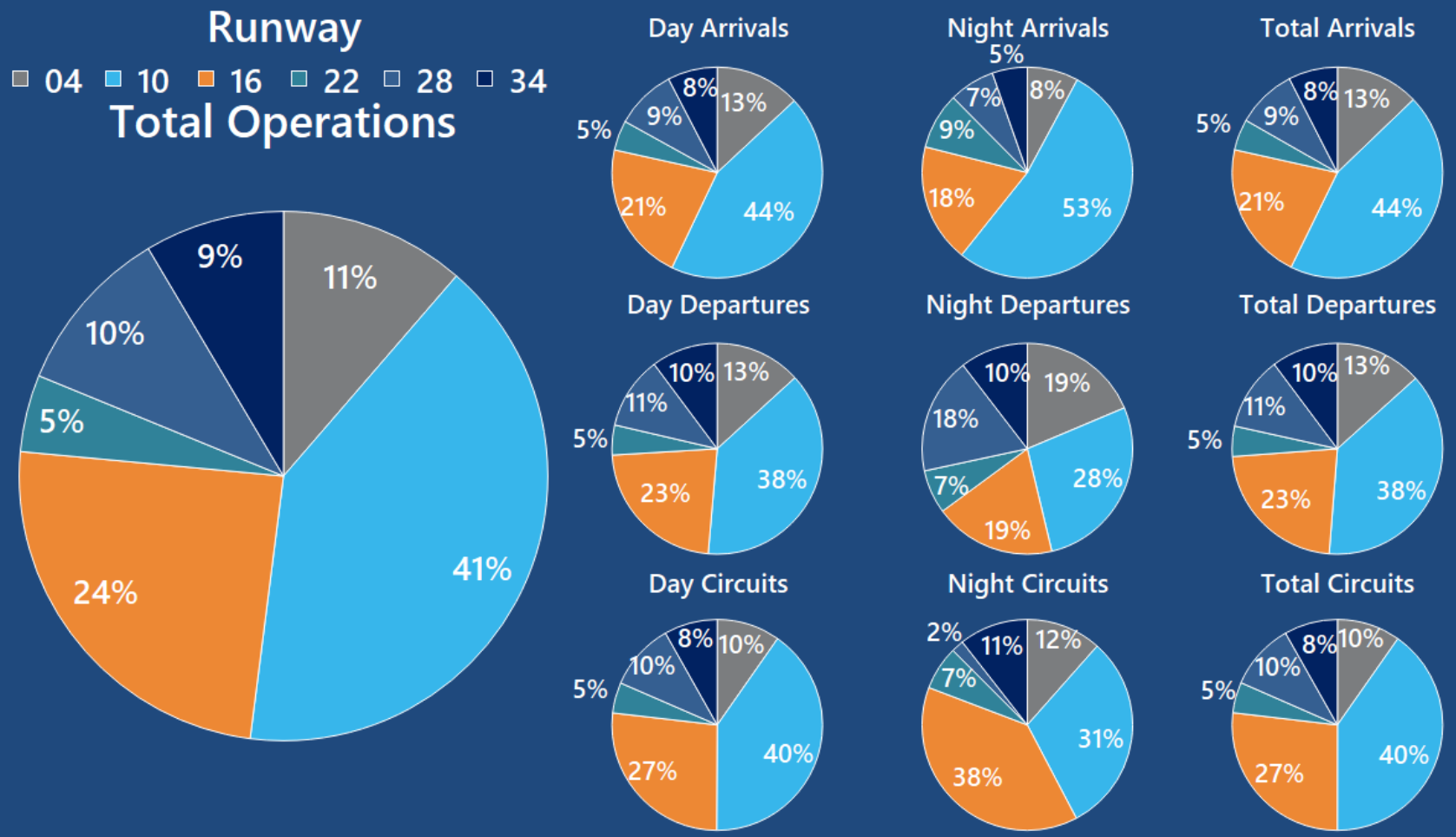
2018-2019 Single Engine Runway Use



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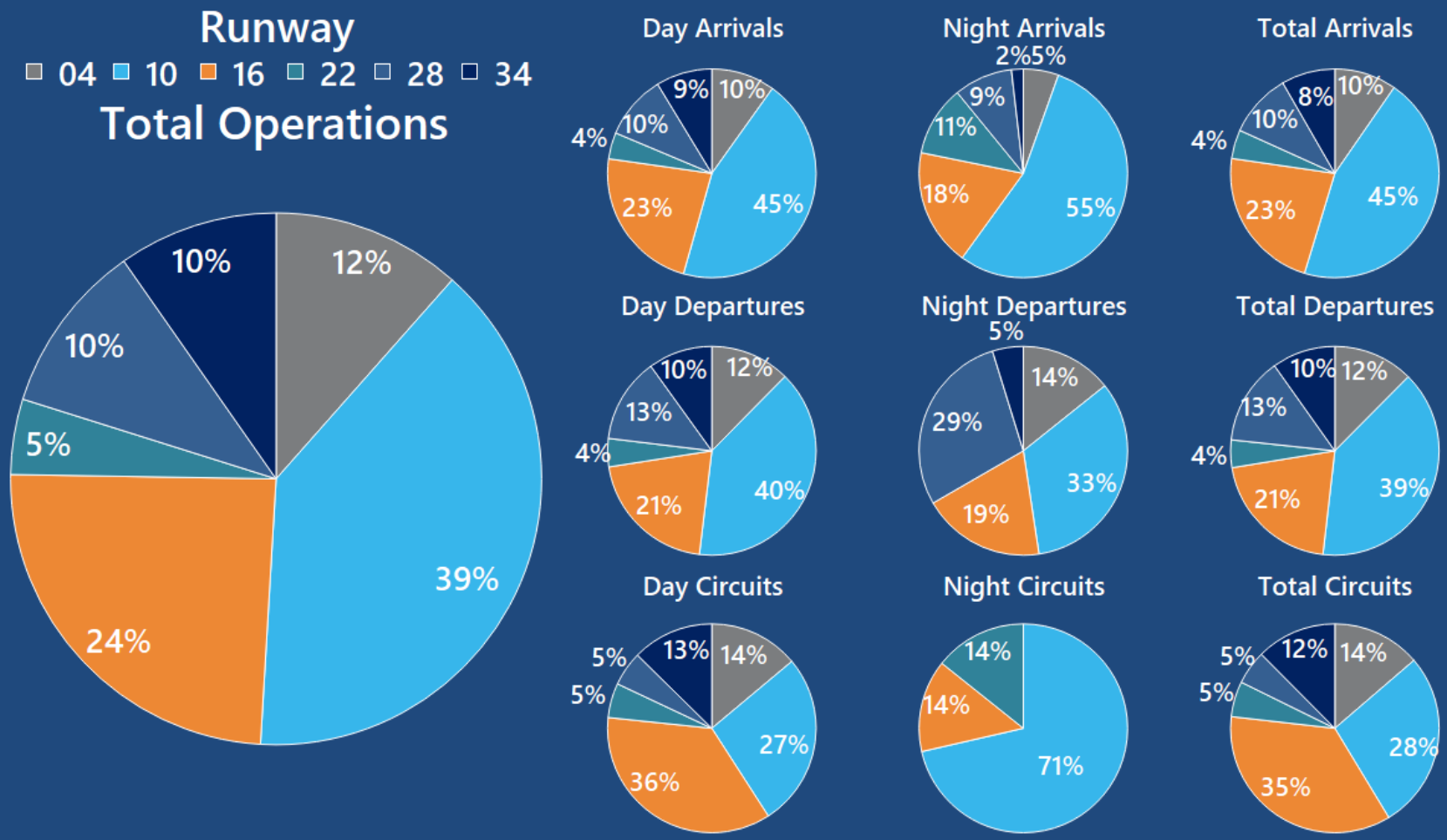
2018-2019 Multi-Engine Runway Use



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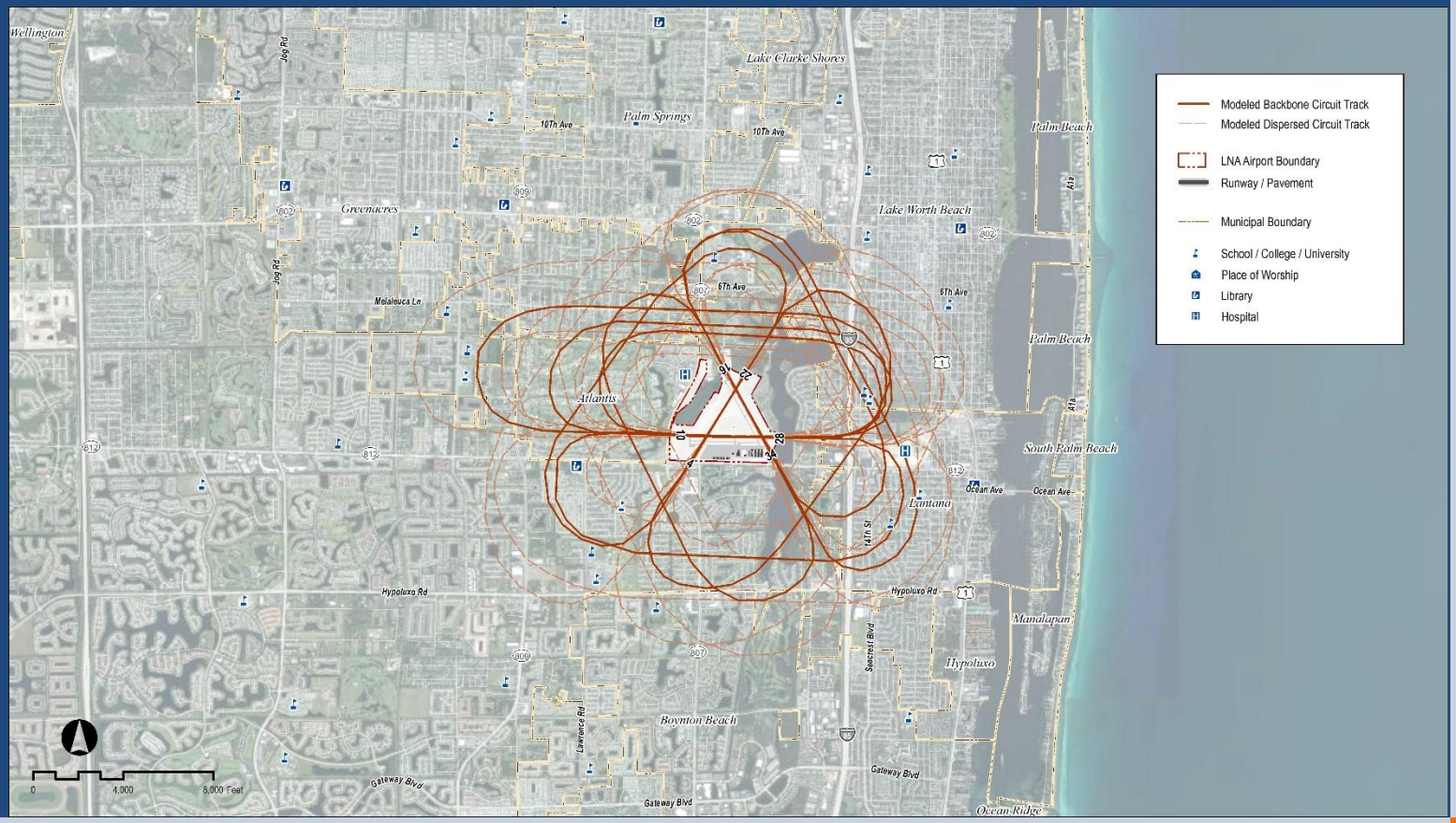
All Fixed Wing Circuit Tracks

All fixed wing circuit tracks from all runways

AEDT modeling tracks

- Backbone tracks (9)
- Sub-tracks (18)
- Total model tracks (27)



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