Title 14 Code of Federal Regulation Part 150 Noise Exposure Map Update

Noise Technical Advisory Committee Meeting #2

August 22, 2025

BOCA RATON AIRPORT

Meeting Agenda

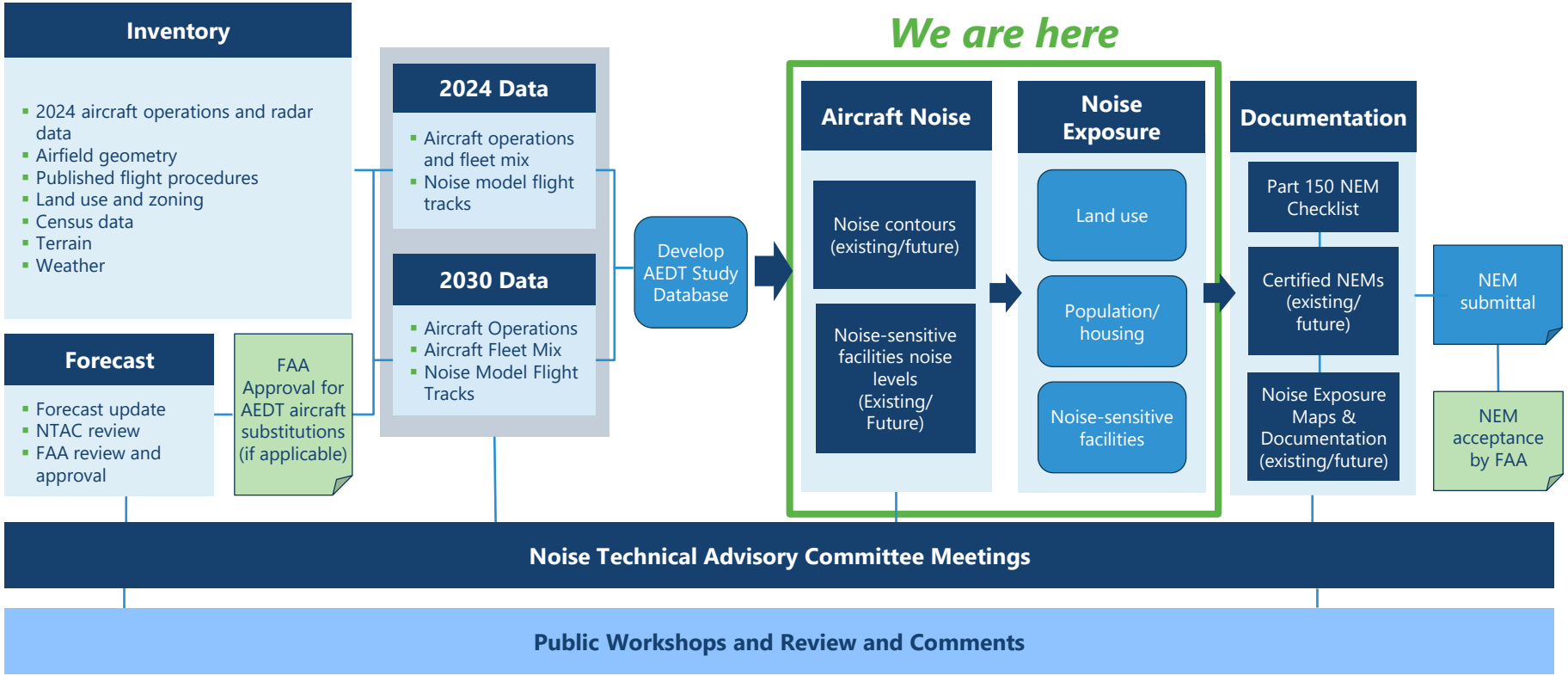
- June Meetings Summary and Status Update
- Operational Analysis
- Flight Track Development
- Land Use Compatibility
- Overview of Noise Modeling
- Draft Noise Exposure Maps
- Next Steps

NTAC and Public Meeting #1 Summary

- NTAC Meeting #1 covered the following:
  - Title 14 Part 150 Noise Exposure Map (NEM) Update Process
  - BCT's Title 14 Part 150 history
  - Existing operations by time of day
  - Runway use
  - Forecast approach and results
  - Existing land use and zoning

- Public Meeting #1
  - BRAA held a public meeting on June 18, 2025, to collect feedback from the community
  - Meeting notifications were included in local newspapers and social media

NEM Update Process Refresh



Operational Analysis

Operational Inputs – Overview

- Operational inputs necessary for performing noise modeling include:
  - Existing and future operations by **time of day**
  - Existing and future operations by **aircraft type**
  - **Runway use**
  - **Departure stage length** (surrogate for aircraft weight based on fuel onboard required)
- At the NTAC Meeting #1, we presented:
  - Existing operations by time of day
  - Runway use

Airport Operations by Time of Day – Existing Conditions

	ARRIVALS			DEPARTURES			TOUCH-AND-GO[1]			AAD[2]
AIRCRAFT CATEGORY	DAY[3]	NIGHT[4]	TOTAL[5]	DAY[3]	NIGHT[4]	TOTAL[5]	DAY[3]	NIGHT[4]	TOTAL[5]	TOTAL[5]
Piston	27.57	2.19	29.76	28.02	1.75	29.76	67.32	2.94	70.25	129.78
Jet	42.27	2.88	45.15	43.32	1.82	45.15	0.94	0.13	1.07	91.36
Turboprop	4.71	0.32	5.03	4.78	0.26	5.03	0.55	0.35	0.90	10.97
Helicopter	1.06	0.08	1.15	1.09	0.06	1.15	--	--	--	2.29
Total[5]	**75.61**	**5.47**	**81.09**	**77.20**	**3.88**	**81.09**	**68.81**	**3.42**	**72.23**	**234.40**

NOTES:

1 Touch-and-go operations include one landing and one takeoff (LTO).

2 AAD – Average Annual Day Operations.

3 Day – 7:00 a.m. to 9:59 p.m.

4 Night – 10:00 p.m. to 6:59 a.m.

5 Totals may not add due to rounding.

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024; BCT Airport Traffic Control Tower Operations Log, Federal Aviation Administration, Air Traffic Activity Data System data and Traffic Flow Management System Counts (TFMSC), http://aspm.faa.gov/ (accessed January 14, 2025); Ricondo & Associates, Inc., August 2025.

Airport Operations by Time of Day – 2030 Future Conditions

	ARRIVALS			DEPARTURES			TOUCH-AND-GO[1]			AAD[2]
AIRCRAFT CATEGORY	DAY[3]	NIGHT[4]	TOTAL[5]	DAY[3]	NIGHT[4]	TOTAL[5]	DAY[3]	NIGHT[4]	TOTAL[5]	TOTAL[5]
Piston	30.48	2.42	32.90	30.97	1.94	32.90	78.09	3.41	81.50	147.31
Jet	48.35	3.27	51.62	49.56	2.06	51.62	1.09	0.14	1.23	104.47
Turboprop	5.27	0.35	5.62	5.35	0.28	5.62	0.59	0.35	0.94	12.19
Helicopter	1.18	0.09	1.27	1.20	0.06	1.27	--	--	--	2.54
Total[5]	**85.28**	**6.14**	**91.42**	**87.08**	**4.34**	**91.42**	**79.76**	**3.90**	**83.67**	**266.50**

NOTES:

1 Touch-and-go operations include one landing and one takeoff (LTO).

2 AAD – Average Annual Day Operations.

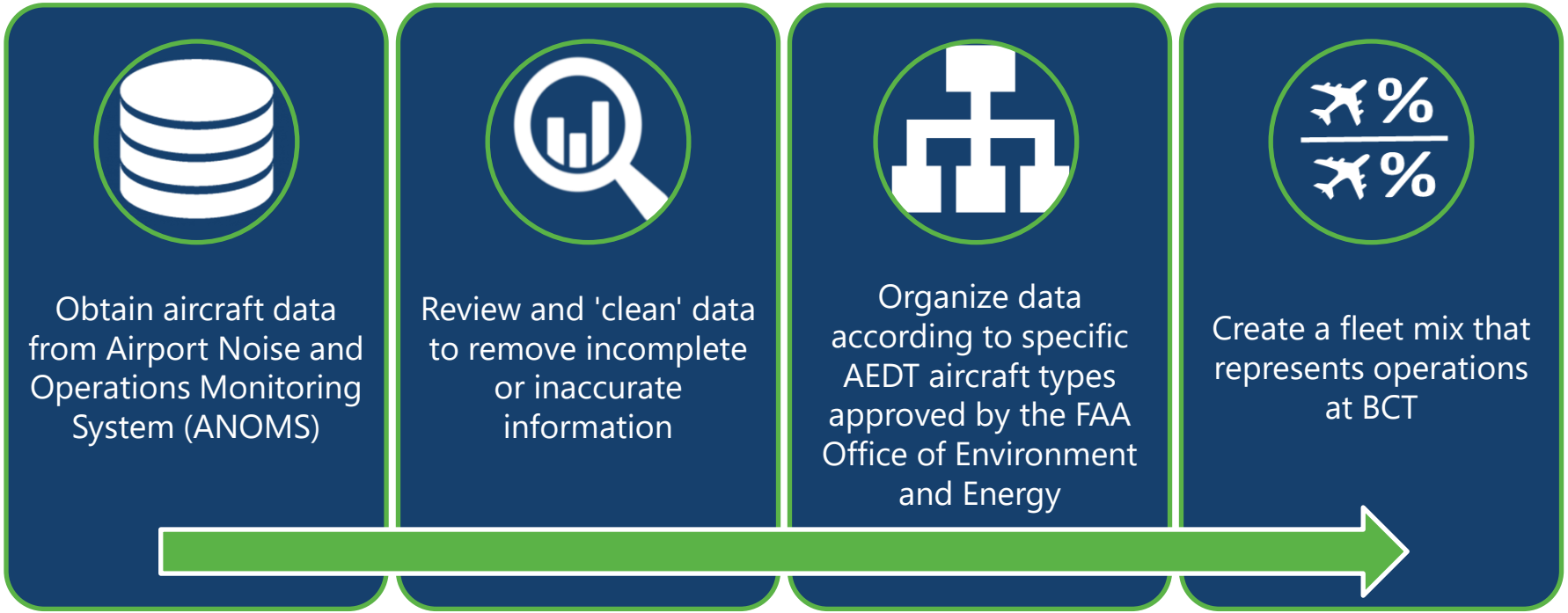
3 Day – 7:00 a.m. to 9:59 p.m.

4 Night – 10:00 p.m. to 6:59 a.m.

5 Totals may not add due to rounding.

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024; BCT Airport Traffic Control Tower Operations Log, Federal Aviation Administration, Air Traffic Activity Data System data and Traffic Flow Management System Counts (TFMSC), http://aspm.faa.gov/ (accessed January 14, 2025); Ricondo & Associates, Inc., August 2025.

Aircraft Fleet Mix



Aircraft Fleet Mix – Existing and Future

- A total of 177 different aircraft types operated at BCT in 2024
- 56 different AEDT aircraft types used in noise modeling

AEDT AIRCRAFT FLEET MIX – 2025 EXISTING CONDITION AND 2030 FUTURE CONDITION

AIRCRAFT CATEGORY	2025 SHARE OF FLEET (%)	2030 SHARE OF FLEET (%)	NUMBER AEDT AIRCRAFT TYPES	REPRESENTATIVE EXAMPLES
Piston	55.4%	55.3%	9	American Champion Scout, Piper PA-28 Cherokee Series, Cirrus SR22 , Piper PA-24 Comanche, Raytheon Beech Baron 58, Cessna 172
Jet	39.0%	39.2%	26	Bombardier Challenger 300, Cessna 550 Citation II, Hawker HS-125 Series 700, Cessna 750 Citation X, Cessna 680 Citation Sovereign
Turboprop	4.7%	4.6%	7	Raytheon Super King Air 300, Cessna 208 Caravan, Cessna 441 Conquest, Beech Mentor (BE45), CASA CN-235
Helicopter	1.0%	1.0%	14	Bell 407, Robinson R44 Raven, Sikorsky S-76 Spirit, Bell 429, Agusta A-109
Total	100%	100%	56	

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024; Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, AEDT Aircraft Types; Ricondo & Associates, Inc., August 2025.

Aircraft Fleet Mix – AEDT Aircraft Assignment Examples

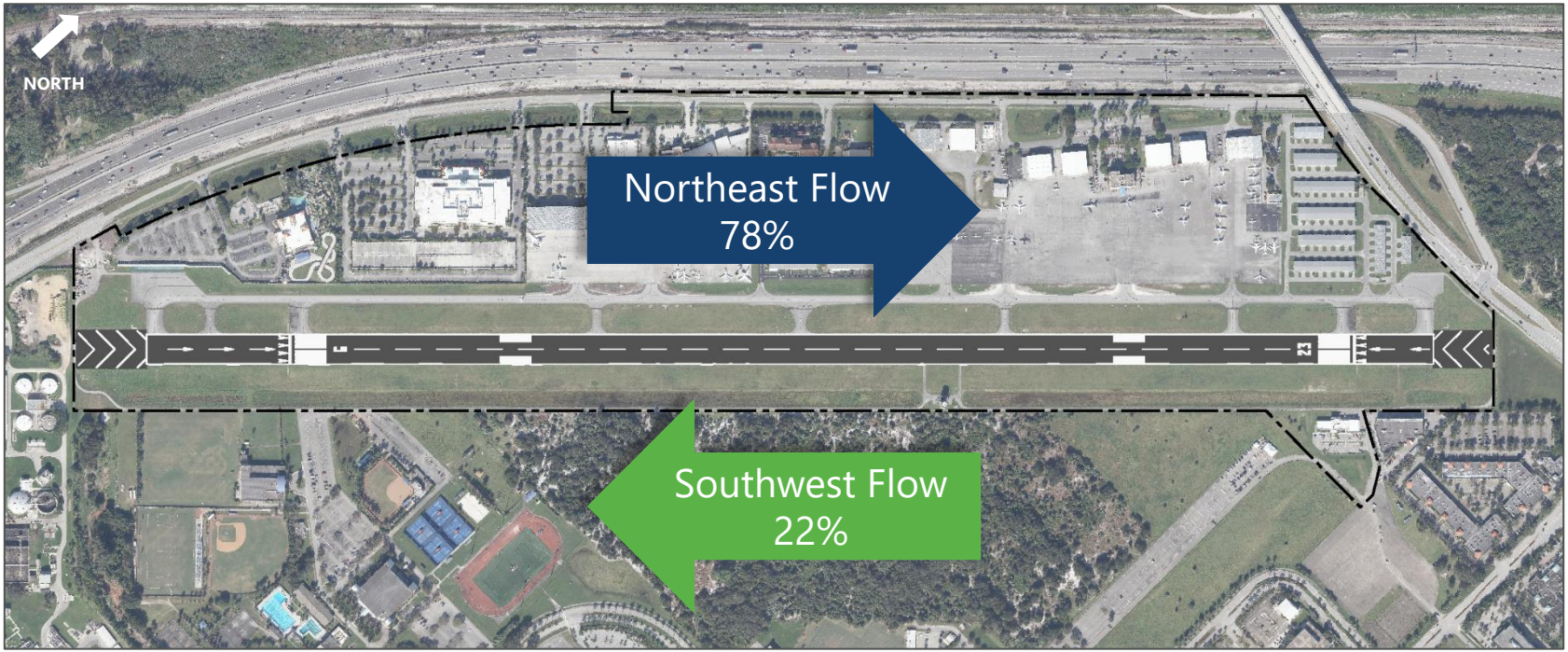
- Aircraft are organized in AEDT according to Aircraft Noise and Performance (ANP) Profile
- ANP represents an aircraft noise "signature"
- Full list of aircraft according to AEDT ANP will be included in NEM documentation

SAMPLE OF FLEET MIX BY AEDT AIRCRAFT NOISE AND PERFORMANCE ID

ENGINE TYPE	ANP ID	REPRESENTATIVE AIRCRAFT TYPES AT BCT
Jet	CNA525C	Cessna 525A, 525B, 525C; Cessna Citation Jet CJ/CJ1
Jet	CNA55B	Cessna 550 Citation II and Bravo; Cessna 551 Citation IISP; Embraer Legacy 500; Embraer Phenom 300; Pilatus PC-24; Raytheon Premier I
Piston	BEC58P	Rockwell Twin Commander 500; Aerostar PA-60; Beechcraft Twin Bonanza; Raytheon Beech 55 Baron; Raytheon Beech Baron 58; Cessna 310, 340, 402, 414, and 421; Piper PA-23 Apache/Aztec; Piper PA-31 Navajo; Piper PA-34 Seneca
Piston	CNA172	American Champion Scout; Cessna 172 Skyhawk; Cessna 175 and 177; Lancair 320
Turboprop	CNA441	Cessna 425 Conquest I; Cessna 441 Conquest II; Piaggio Aerospace P-180 Avanti; Neiva NE-821 Caraja; Piper PA-31T Cheyenne
Turboprop	DHC6	Raytheon Super King Air 300; Raytheon King Air 100; Raytheon Beech 18; Raytheon Super King Air 200 and 300; Raytheon King Air 100; Mitsubishi MU-2; Fairchild Metro

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

Runway Use – Existing and Future Conditions



NOTE:
Runway use includes daytime (7:00 a.m. to 9:59 p.m.) and nighttime 10:00 p.m. to 6:59 a.m.) operations.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024; Ricondo & Associates, Inc., January 2025.

Stage Length

- Stage length is the distance an airplane flies directly from one airport to another
- The stage length determines the gross takeoff weight assigned to each aircraft type
- AEDT defaults to a stage length of 1 for most general aviation airports

STAGE LENGTH CATEGORIES	
CATEGORY	STAGE LENGTH (NAUTICAL MILES)
1	0 – 500
2	500 – 1,000
3	1,000 – 1,500
4	1,500 – 2,500
5	2,500 – 3,500
6	3,500 – 4,500
7	4,500 – 5,500
8	5,500 – 6,500
9	6,500 – 7,500
10	7,500 – 8,500
11	8,500 +

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g Technical Manual, August 2024.

Meteorological Data and Local Terrain

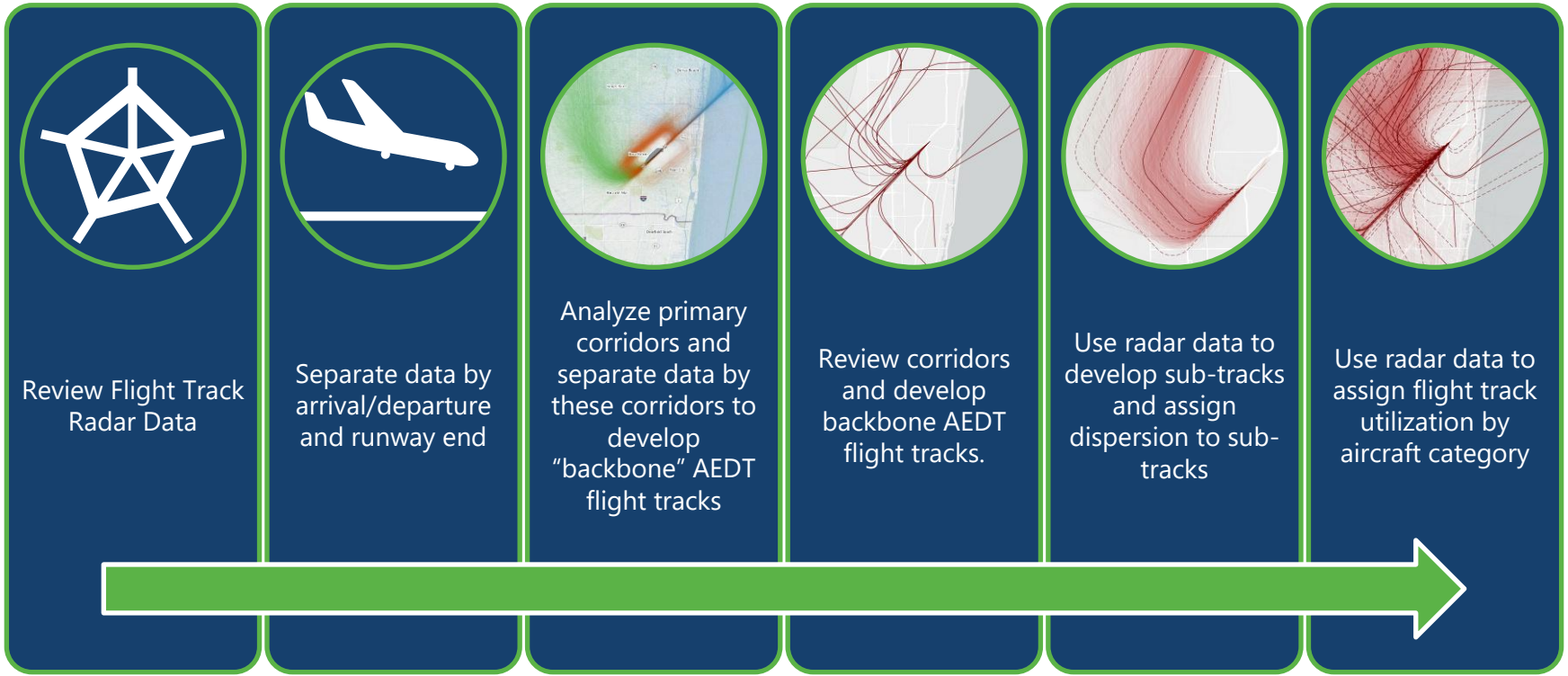
- AEDT accounts for the influences of meteorological conditions on aircraft performance and atmospheric sound absorption
- Default metrological data in AEDT was used for BCT
- Meteorological data is based on a ten-year average
- Local terrain is also considered

AEDT METEOROLOGICAL INPUTS FOR BCT	
CATEGORY	INPUT
Temperature (ºF)	79.06
Pressure (millibars)	1,016.85
Relative humidity (%)	69.72
Dew point (ºF)	68.29
Wind speed (knots)	8.44

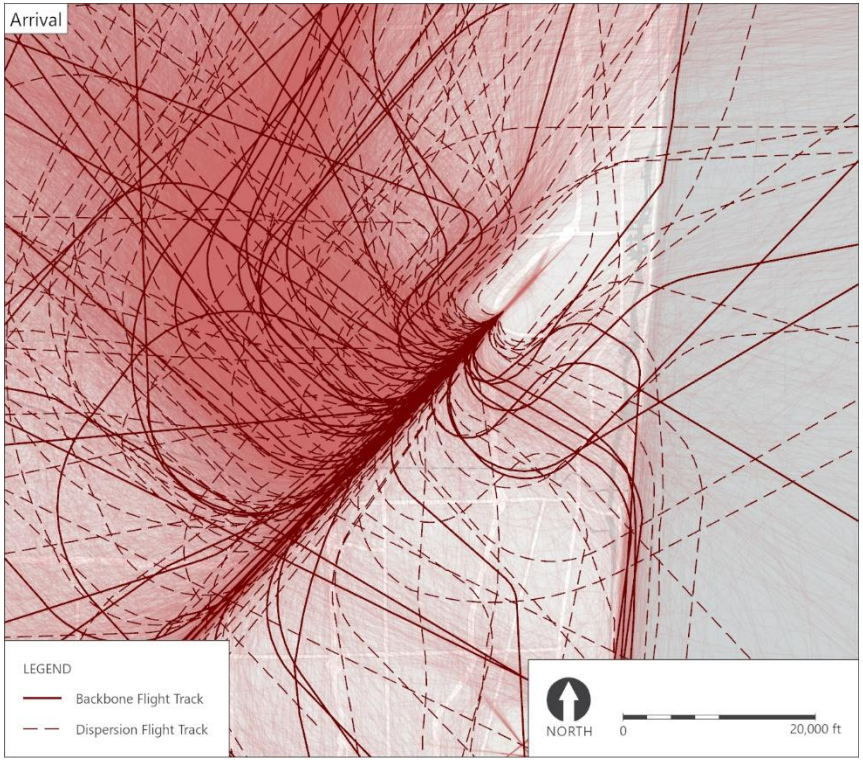
SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g Technical Manual, August 2024.

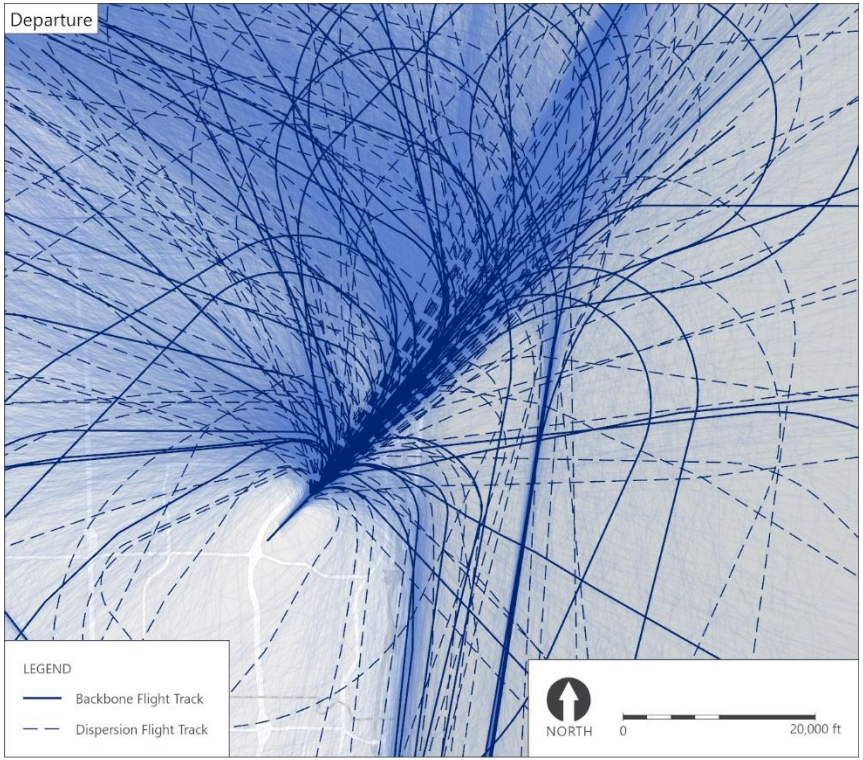
Flight Track Development

Flight Track Development Process



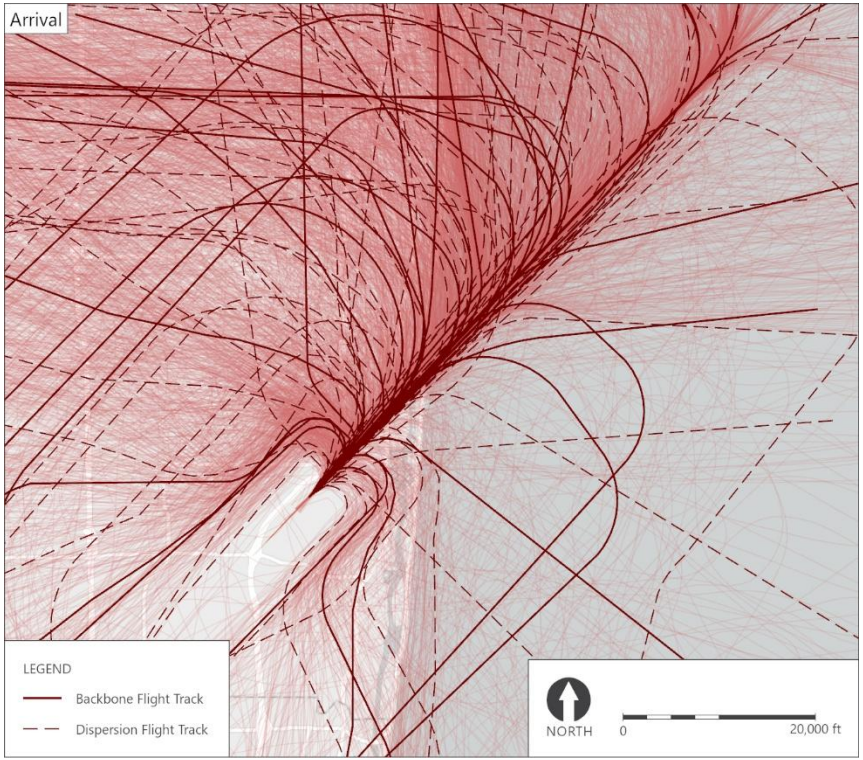
AEDT Flight Tracks – Runway End 5

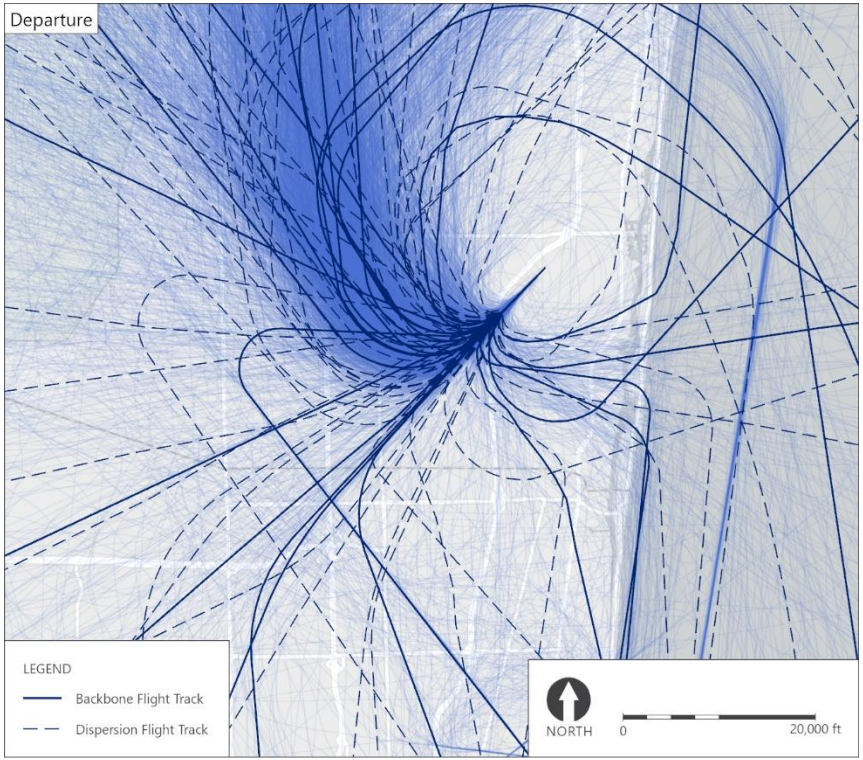




SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

AEDT Flight Tracks – Runway End 23



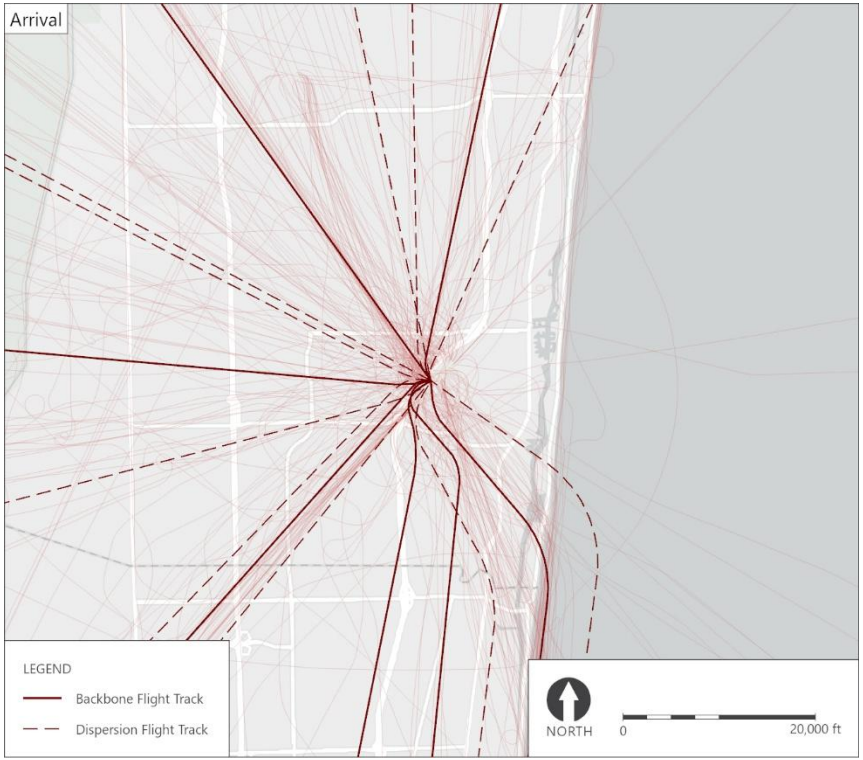


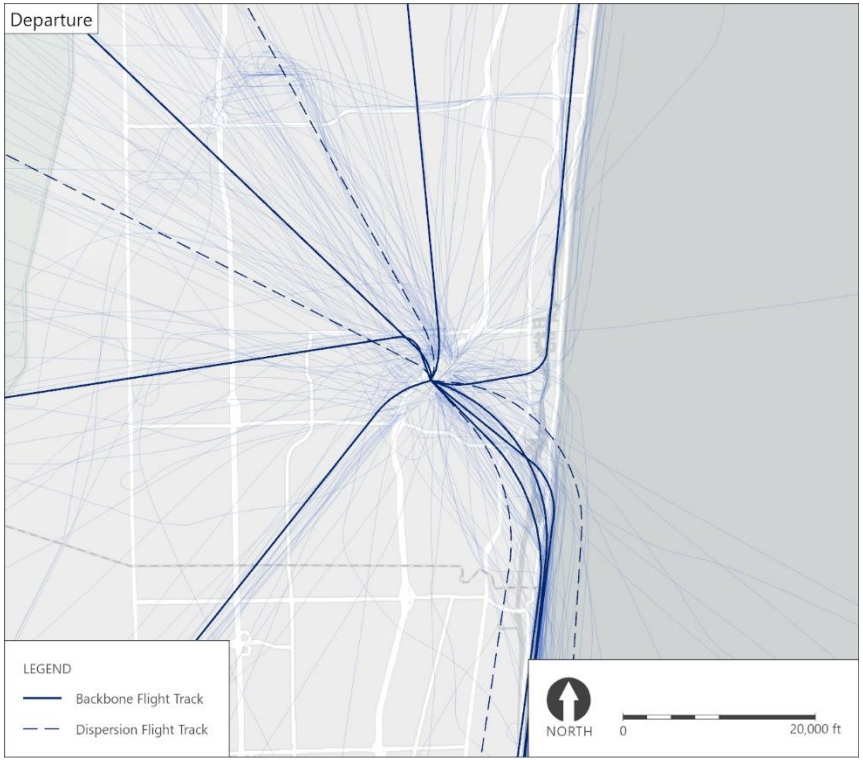
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

AEDT Flight Tracks – Touch-and-Go

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

AEDT Flight Tracks – Helicopter





SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

Land Use Compatibility

Land Use Compatibility – FAA

- **FAA Compatibility Threshold:** DNL 65 dBA
- **Residential:** Can be conditionally compatible if sound attenuated to meet the required indoor levels
- **Other Noise Sensitive Uses** : Can be conditionally compatible if sound attenuated to meet the required indoor levels (e.g., schools, hospitals, nursing homes, places of worship)
- **All Uses:** Majority are incompatible at levels higher than DNL 75 without any conditions allowed
- **Compatibility Details:** 14 CFR Part 150, Appendix A, Table 1

Land Use Compatibility - Local

- The City of Boca Raton (the City) holds land use regulatory authority in areas directly surrounding BCT
- The City has established three airport noise zones to ensure land use compatibility with the Airport:
  - Zone A (within DNL 75 dBA noise contour)
  - Zone B (DNL 70–75 dBA noise contour)
  - Zone C (DNL 65–70 dBA noise contour)
- The Authority has adopted the DNL 60 dBA noise contour as the boundary for determining land use compatibility, as outlined in the FAA's Record of Approval for the 1990 BCT Part 150 Study (dated August 19, 1991)

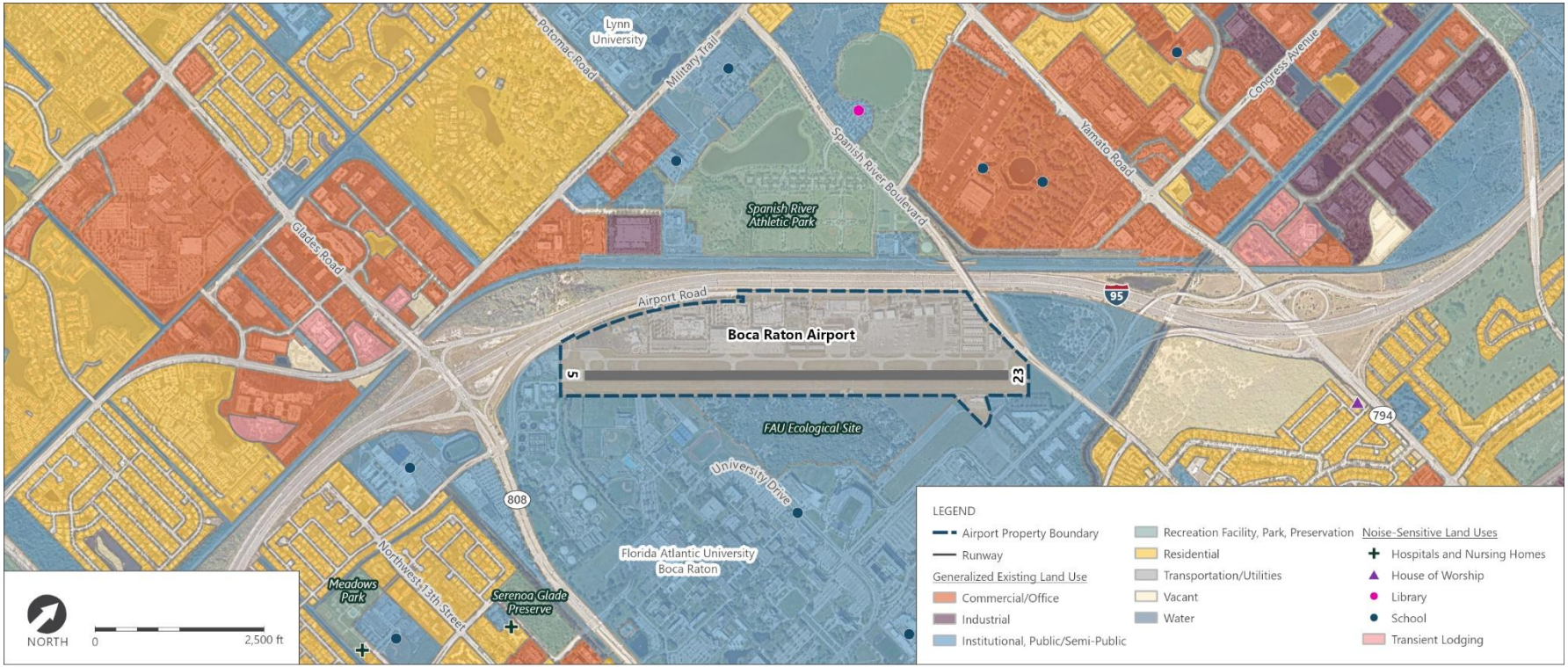
SOURCE: City of Boca Raton, Code of Ordinances, Chapter 3, *Article III, Compatible Land Uses and Noise Zones,* April 28, 2025.

City of Boca Raton 2020 Comprehensive Plan

- **Transportation Element Policy 4.2.4**
  - BRAA review required for development proposed within the 55 through 70 DNL noise contour
- **Future Land Use Element Policy 2.3.3**
  - An avigation easement is required for future residential or mixed use future land use within 60 through 70 DNL noise contours

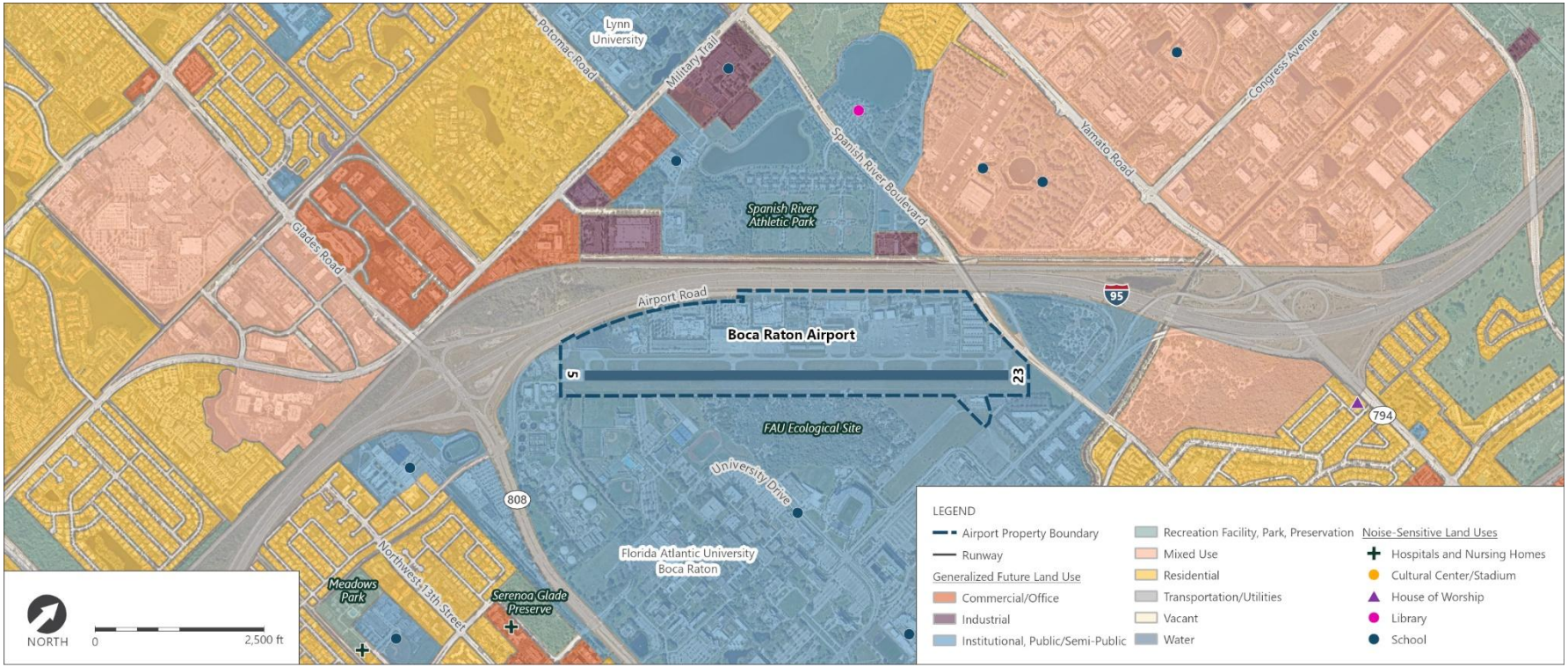
SOURCE: City of Boca Raton, *2020 Boca Raton Comprehensive Plan*, July 2020.

Draft Existing Land Use



SOURCES: Nearmap, December 2024 (aerial photography – for visual reference only, may not be to scale); Boca Raton Airport Authority, 2017 (Airport property, runway); Florida Department of Environmental Protection, 2025 (land use); Florida Geographic Data Library, 2025 (historic features); Florida Geographic Data Library, 2024 (libraries); Florida Geographic Data Library, 2023 (schools); Florida Geographic Data Library, 2022 (houses of worship); Florida Geographic Data Library, 2018 (group care facilities); Ricondo & Associates, Inc., 2025 (lodging).

Draft Future Land Use



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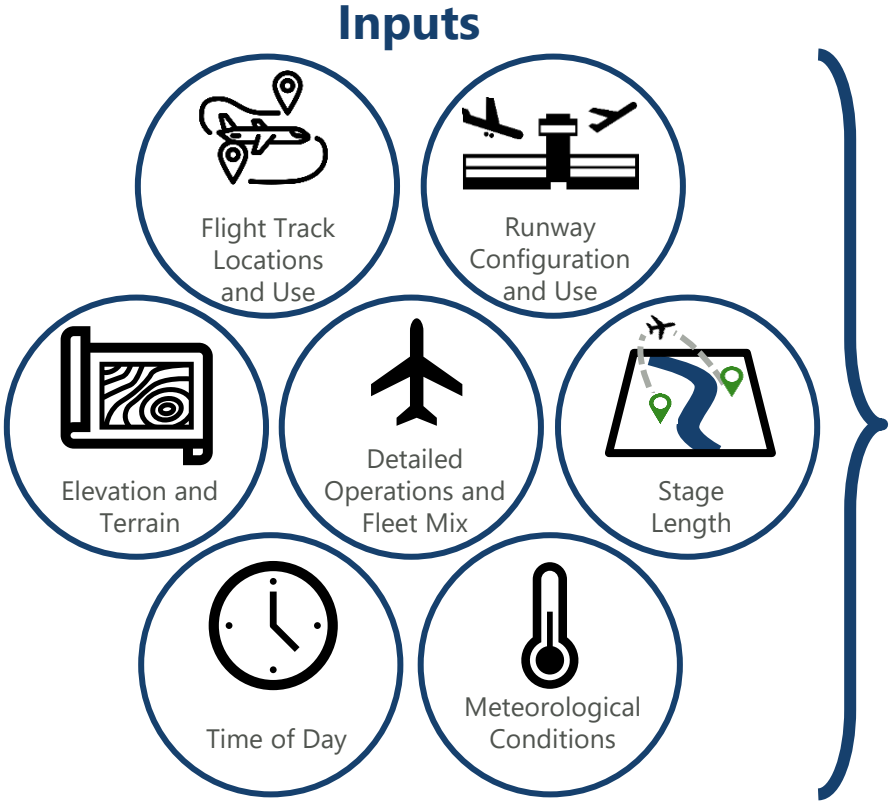
Overview of Noise Modeling

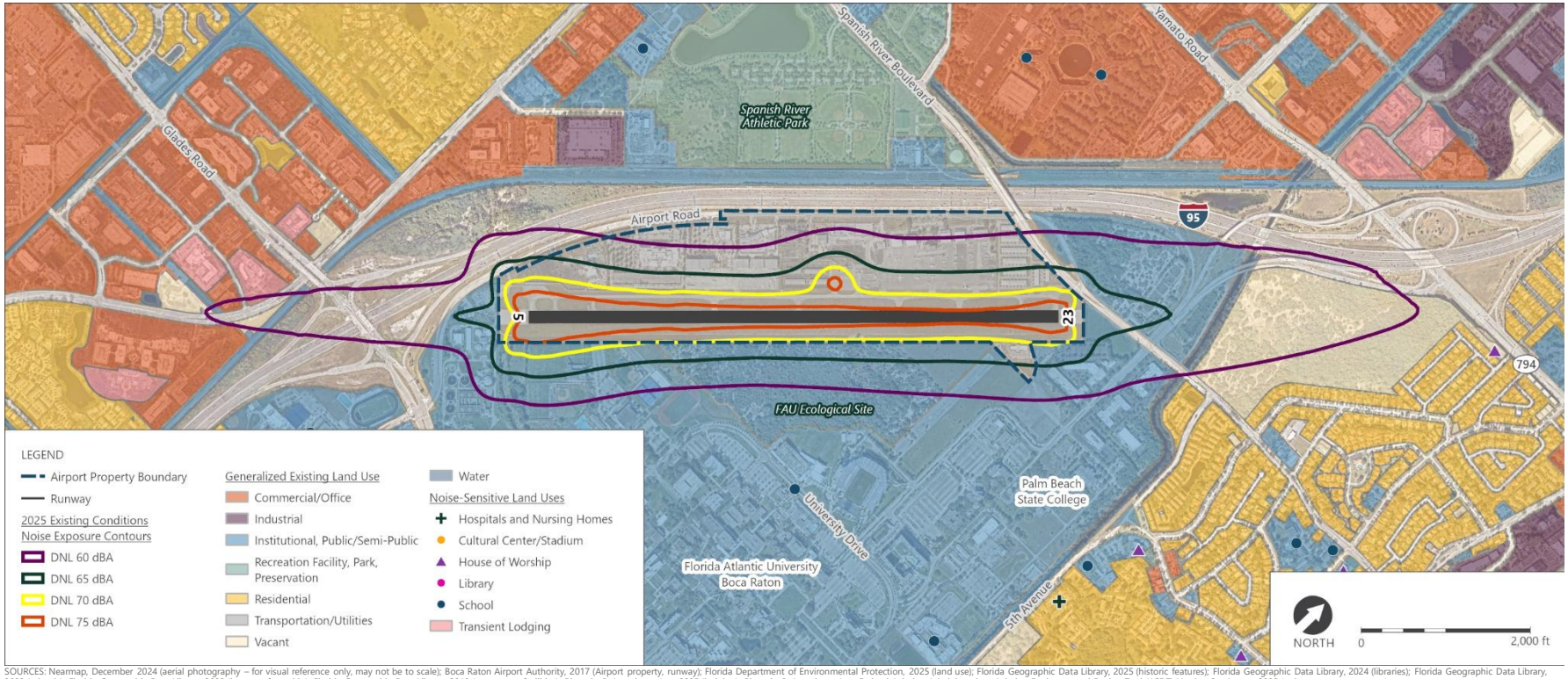
Noise Modeling Methodology

- The Aviation Environmental Design Tool (AEDT) Version 3g will be used for this NEM Update
- Noise modeling is performed to generate noise contours which are overlaid on a land use map to identify noncompatible land uses



Draft Noise Exposure Maps

Draft Noise Exposure Map – Existing Conditions (2025)



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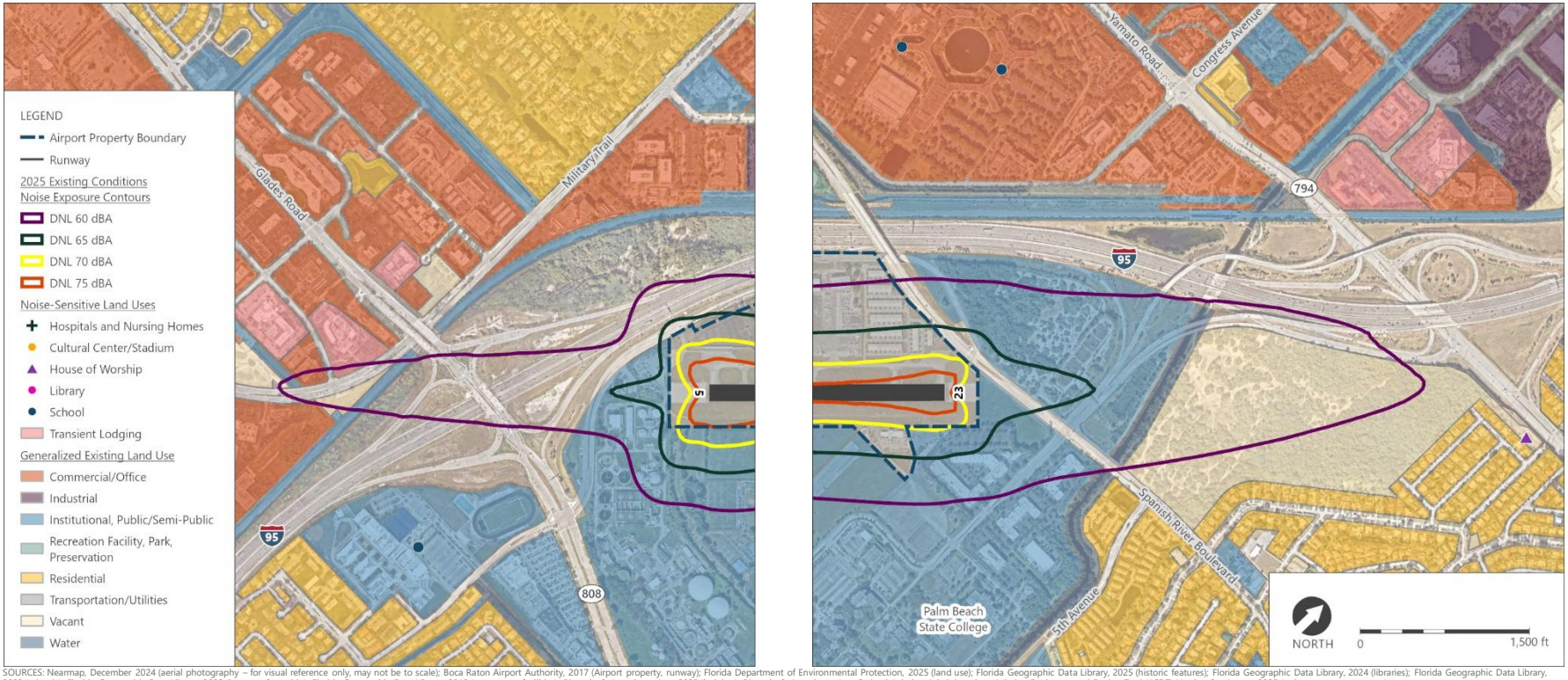
Draft Noise Exposure Map – Existing Conditions (2025)



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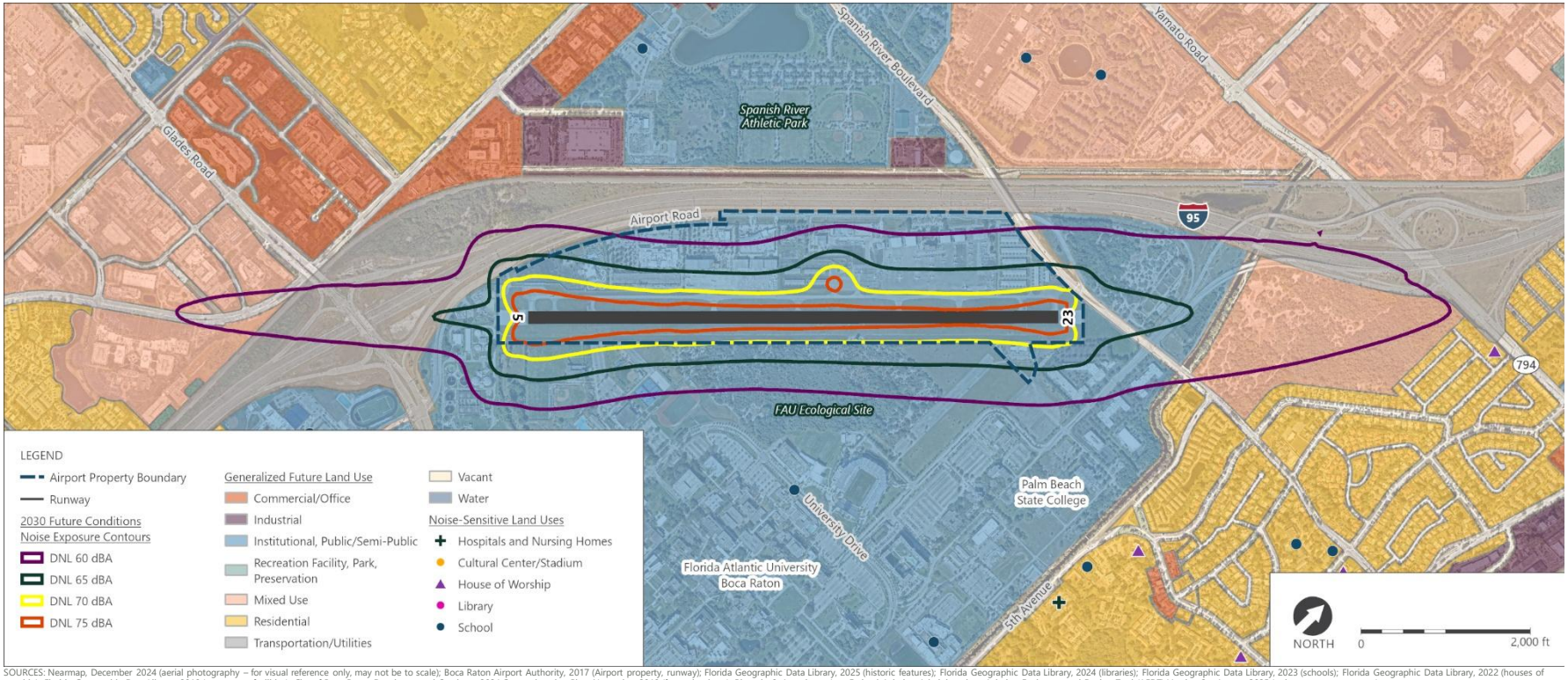
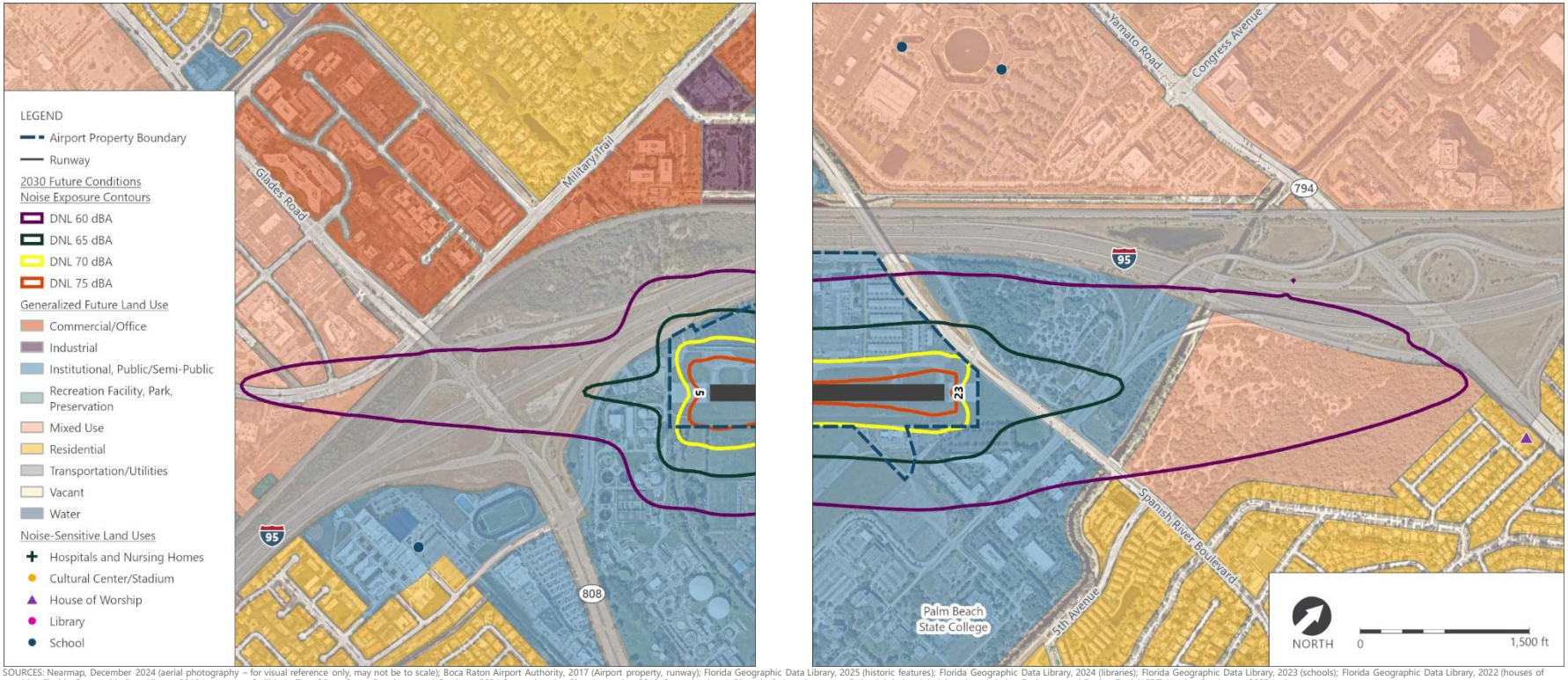
Draft Noise Exposure Map – Future Conditions (2030)



SOURCES: Nearmap, December 2024 (aerial photography – for visual reference only, may not be to scale); Boca Raton Airport Authority, 2017 (Airport property, runway); Florida Geographic Data Library, 2025 (historic features); Florida Geographic Data Library, 2024 (libraries); Florida Geographic Data Library, 2023 (schools); Florida Geographic Data Library, 2022 (houses of worship); Florida Geographic Data Library, 2018 (group care facilities); City of Boca Raton Developmental Services, 2024 Comprehensive Plan, November 2019 (future land use); Ricondo & Associates, Inc., Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2025 (noise exposure contours).

Draft Noise Exposure Map – Future Conditions (2030)



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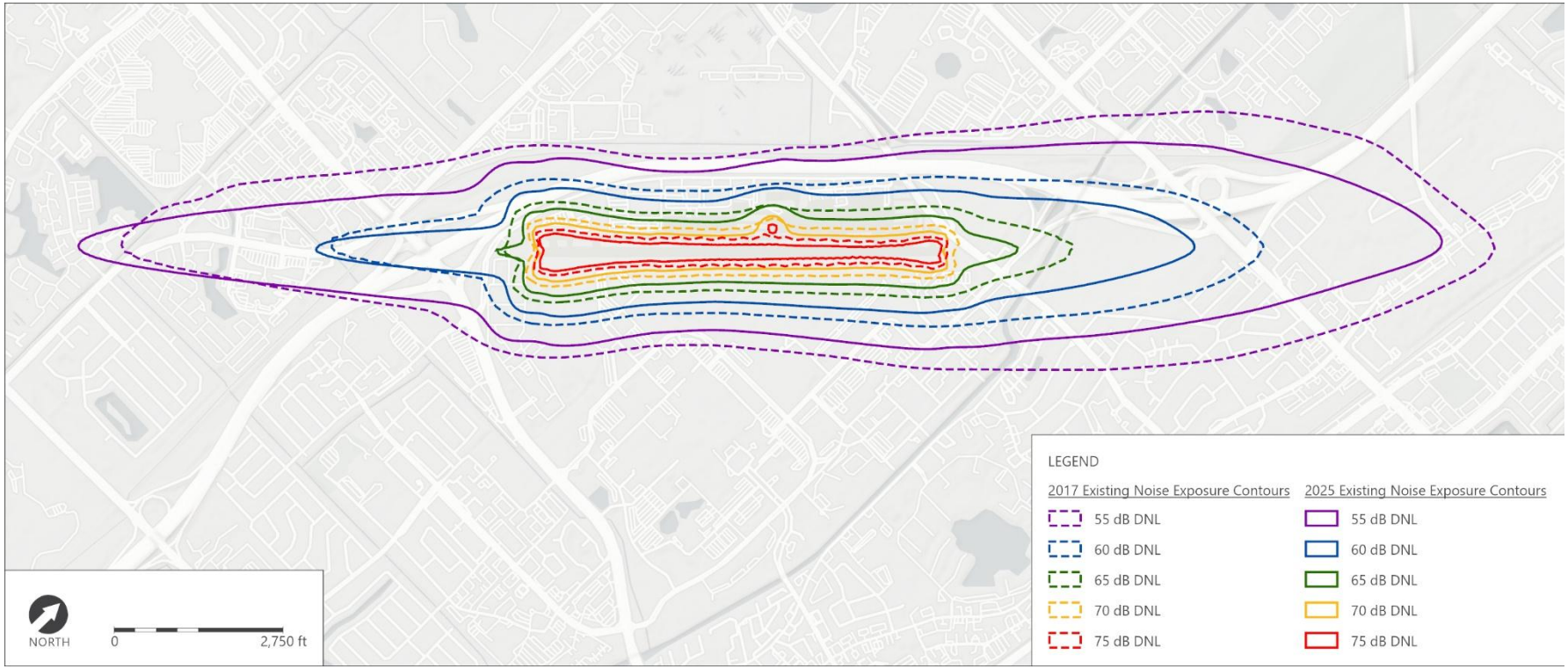
Noise Impact Analysis – 2025 and 2030

NOISE-SENSITIVE SITES AND LAND AREA EXPOSED TO DNL 60 dBA AND HIGHER										
NOISE LEVEL	TOTAL AREA (ACRES)	RESIDENTIAL HOUSING UNITS	POPULATION	PLACE OF WORSHIP	SCHOOLS	HOSPITALS/ ASSISTED LIVING	HISTORIC RESOURCES	PUBLIC LIBRARIES	TRANSIENT LODGING	OUTDOOR VENUES/ ARENAS[1]
2025 EXISTING CONDITIONS										
DNL 60-65 dBA	271.6	0	0	0	1	0	0	0	1	0
DNL 65-70 dBA	96.4	0	0	0	1	0	0	0	0	0
DNL 70-75 dBA	54.4	0	0	0	1	0	0	0	0	0
DNL 75+ dBA	43.2	0	0	0	0	0	0	0	0	0
Total	**465.9**	**0**	**0**	**0**	**1†**	**0**	**0**	**0**	**1***	**0**
2030 FUTURE CONDITIONS										
DNL 60-65 dBA	300.3	0	0	0	1	0	0	0	1	0
DNL 65-70 dBA	106.2	0	0	0	1	0	0	0	0	0
DNL 70-75 dBA	56.9	0	0	0	1	0	0	0	0	0
DNL 75+ dBA	47.7	0	0	0	0	0	0	0	0	0
Total	**511.1**	**0**	**0**	**0**	**1†**	**0**	**0**	**0**	**1***	**0**
Difference	**45.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

NOTES:
dBA – A-weighted decibels
DNL – Day-Night Average Sound Level
SOURCE: Ricondo & Associates, Inc., August 2025.

1 Includes outdoor sports arenas and music amphitheaters.
* Does not include buildings or structures.
† Includes Florida Atlanta University (FAU).

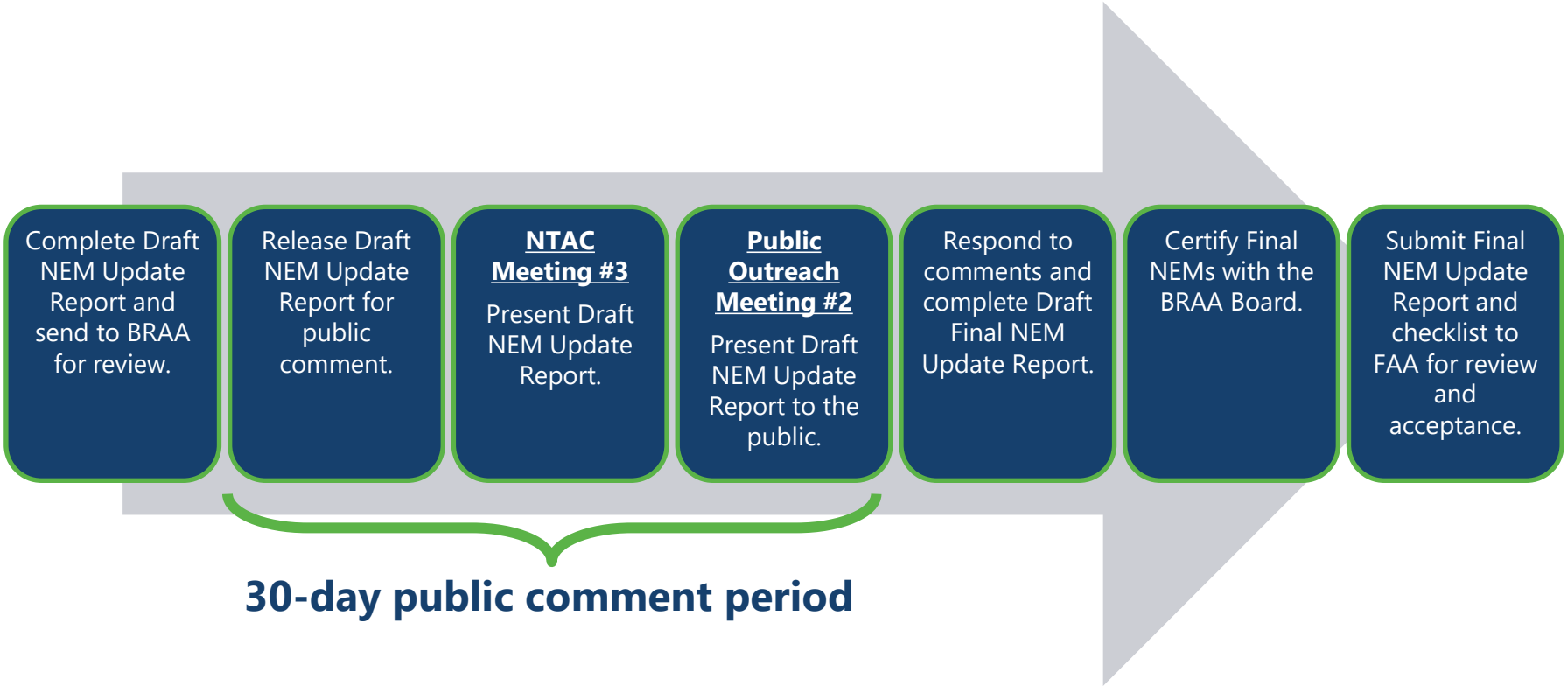
2017 and 2025 Noise Contour Comparison



SOURCES; Ricondo & Associates, Inc., Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3e, 2023 (2017 noise exposure contours).; Ricondo & Associates, Inc., Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2025 (2025 noise exposure contours).

Next Steps

Next Steps


Complete Draft NEM Update Report and send to BRAA for review.
Release Draft NEM Update Report for public comment.
NTAC Meeting #3
Present Draft NEM Update Report.
Public Outreach Meeting #2
Present Draft NEM Update Report to the public.
Respond to comments and complete Draft Final NEM Update Report.
Certify Final NEMs with the BRAA Board.
Submit Final NEM Update Report and checklist to FAA for review and acceptance.
30-day public comment period

Supplemental

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
ASTR	Jet	IA1125	Israel IAI-1125 Astra	C551	Jet	CNA55B	Cessna 551 Citation IISP
B737	Jet	737700	Boeing 737-700	C55B	Jet	CNA55B	Cessna 550 Citation Bravo
BE40	Jet	MU3001	Raytheon Beechjet 400	C560	Jet	CNA560U	Cessna 560 Citation V
C25A	Jet	CNA525C	Cessna Citation Jet CJ2 (Cessna 525A)	C56X	Jet	CNA560XL	Cessna 560 Citation Excel
C25B	Jet	CNA525C	Cessna Citation Jet CJ3 (Cessna 525B)	C650	Jet	CIT3	Cessna 650 Citation III
C25C	Jet	CNA525C	Cessna Citation Jet CJ4 (Cessna 525C)	C680	Jet	CNA680	Cessna 680 Citation Sovereign
C25M	Jet	CNA525C	Cessna Citation Jet CJ/CJ1 (Cessna 525)	C68A	Jet	CNA680	Cessna 680-A Citation Latitude
C500	Jet	CNA500	Cessna 500 Citation I	C750	Jet	CNA750	Cessna 750 Citation
C501	Jet	CNA500	Cessna 501 Citation ISP	CL30	Jet	CL600	Bombardier Challenger 300
C510	Jet	CNA510	Cessna Citation 510	CL35	Jet	CL600	Bombardier Challenger 350
C525	Jet	CNA525C	Cessna Citation Jet CJ/CJ1 (Cessna 525)	CL60	Jet	CL600	Bombardier Challenger 600
C550	Jet	CNA55B	Cessna 550 Citation II	CRJ2	Jet	CL600	Bombardier CRJ-200

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
CRJ7	Jet	CRJ9-ER	Bombardier CRJ-700	FA8X	Jet	GIV	Dassault Falcon 8X
E145	Jet	EMB145	Embraer ERJ145	G150	Jet	IA1125	Gulfstream G150
E35L	Jet	EMB145	Embraer ERJ135 Legacy Business	G280	Jet	CL601	Gulfstream G280
E50P	Jet	CNA510	Embraer Phenom 100 (EMB-500)	GA5C	Jet	GV	Gulfstream Aerospace Gulfstream G500 (G-7)
E545	Jet	CNA750	Embraer Praetor 500	GA6C	Jet	GV	Gulfstream G600
E550	Jet	CNA55B	Embraer Legacy 500 (EMB-550)	GALX	Jet	IA1125	Israel IAI-1126 Galaxy
E55P	Jet	CNA55B	Embraer Phenom 300 (EMB-505)	GL5T	Jet	BD-700-1A11	Bombardier Global 5500
EA50	Jet	ECLIPSE500	Eclipse 500	GL7T	Jet	BD-700-1A10	Bombardier Global 7500
F2TH	Jet	CNA750	Dassault Falcon 2000-EX	GLEX	Jet	BD-700-1A10	Bombardier Global Express
F900	Jet	FAL900EX	Dassault Falcon 900	GLF4	Jet	GIV	Gulfstream G450
FA50	Jet	FAL900EX	Dassault Falcon 50	GLF5	Jet	GV	Gulfstream G-5 Gulfstream 5 / G-5SP Gulfstream G500
FA7X	Jet	GIV	Falcon 7X	GLF6	Jet	G650ER	Gulfstream G650ER

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
H25B	Jet	LEAR35	Hawker HS-125 Series 700	PC24	Jet	CNA55B	Pilatus PC-24
H25C	Jet	LEAR35	Raytheon Hawker 1000	PRM1	Jet	CNA55B	Raytheon Premier I
HA4T	Jet	CNA750	Raytheon Hawker 4000 Horizon	SBR1	Jet	LEAR35	Rockwell Sabreliner 65
L39	Jet	T-38A	T-38 Talon	SF50	Jet	CNA510	Cirrus Vision SF50
LJ31	Jet	LEAR35	Bombardier Learjet 31	T38	Jet	T-38A	Northrop T-38 Talon
LJ35	Jet	LEAR35	Bombardier Learjet 35	AA5	Piston	GASEPF	Grumman AA-5A/B
LJ40	Jet	LEAR35	Bombardier Learjet 40	AC11	Piston	GASEPV	Commander 114/115
LJ45	Jet	LEAR35	Bombardier Learjet 45	AC50	Piston	BEC58P	Rockwell Twin Commander 500
LJ55	Jet	LEAR35	Bombardier Learjet 55	AEST	Piston	BEC58P	Aerostar PA-60
LJ60	Jet	LEAR35	Bombardier Learjet 60	BE23	Piston	GASEPF	Beech 23 Musketeer Sundowner
LJ70	Jet	LEAR35	Bombardier Learjet 70	BE24	Piston	GASEPF	Beech 24 Musketeer Super Sierra
LJ75	Jet	LEAR35	Bombardier Learjet 35	BE33	Piston	GASEPV	Raytheon Beech Bonanza 36

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
BE35	Piston	GASEPV	Beechcraft Bonanza 35	C150	Piston	GASEPF	Cessna 150 Series
BE36	Piston	GASEPV	Raytheon Beech Bonanza 36	C152	Piston	GASEPF	Cessna 152
BE50	Piston	BEC58P	Beechcraft Twin Bonanza	C162	Piston	GASEPF	Cessna 162
BE55	Piston	BEC58P	Raytheon Beech 55 Baron	C172	Piston	CNA172	Cessna 172 Skyhawk
BE58	Piston	BEC58P	Raytheon Beech Baron 58	C175	Piston	CNA172	Cessna 175
BE60	Piston	BEC58P	Raytheon Beech 60 Duke	C177	Piston	CNA172	Cessna 177
BE76	Piston	BEC58P	Beechcraft 76 Duchess	C180	Piston	CNA182	Cessna 180
BL17	Piston	GASEPV	Bellanca Viking	C182	Piston	CNA182	Cessna 182
BL8	Piston	CNA172	American Champion Scout	C185	Piston	CNA182	Cessna 185 Skywagon
BN2P	Piston	BEC58P	Britten-Norman BN-2 Islander	C206	Piston	CNA206	Cessna 206
BT36	Piston	GASEPV	Raytheon Beech Bonanza 36	C207	Piston	GASEPV	Cessna 207 Stationair
C140	Piston	GASEPF	Cessna 140	C210	Piston	GASEPV	Cessna 210 Centurion

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
C240	Piston	CNA206	Cessna 206	E300	Piston	GASEPV	EXTRA EA-300
C303	Piston	BEC58P	Cessna T303 Crusader	GLAS	Piston	GASEPV	Glasair
C310	Piston	BEC58P	Cessna 310	LNC2	Piston	CNA172	Lancair 320
C340	Piston	BEC58P	Cessna 340	LNC4	Piston	GASEPV	Lancair 3/4
C402	Piston	BEC58P	Cessna 402	M20P	Piston	GASEPV	Mooney M-20C Ranger
C414	Piston	BEC58P	Cessna 414	M20T	Piston	GASEPV	Turbo Mooney M20K
C421	Piston	BEC58P	Cessna 421 Piston	P06T	Piston	PA30	Tecnam P2006T
C77R	Piston	GASEPV	Cessna 177 Cardinal	P28A	Piston	GASEPF	Piper PA-28 Cherokee Series
COL4	Piston	GASEPV	Columbia Aircraft Lancair (COL3/4)	P28B	Piston	GASEPF	Piper PA-28 Cherokee Series
DA40	Piston	GASEPV	Diamond DA40	P28R	Piston	GASEPF	Piper PA-28 Cherokee Series
DA42	Piston	PA30	Diamond DA42 Twin Star L360	P32R	Piston	GASEPV	Piper PA-32 Cherokee Six
DA62	Piston	PA30	Diamond DA62	P68	Piston	PA30	Vulcanair P.68

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
PA18	Piston	GASEPF	Piper PA-18-150	RV12	Piston	GASEPF	Vans RV12
PA23	Piston	BEC58P	Piper PA-23 Apache/Aztec	RV14	Piston	GASEPV	Vans RV14
PA24	Piston	GASEPV	Piper PA-24 Comanche	RV6	Piston	GASEPV	Vans RV6
PA27	Piston	BEC58P	Piper PA-27 Aztec	RV7	Piston	GASEPV	Vans RV-7
PA30	Piston	PA30	Piper PA-30 Twin Comanche	RV8	Piston	GASEPV	Vans RV8
PA31	Piston	BEC58P	Piper PA-31 Navajo	RV9	Piston	GASEPV	Vans RV9
PA32	Piston	GASEPV	Piper PA-32 Cherokee Six	S22T	Piston	COMSEP	Cirrus SR22 Turbo
PA34	Piston	BEC58P	Piper PA-34 Seneca	SR20	Piston	COMSEP	Cirrus SR20
PA38	Piston	GASEPF	Piper PA-38 Tomahawk	SR22	Piston	COMSEP	Cirrus SR22
PA44	Piston	PA30	Piper PA44	ST75	Piston	GASEPV	Boeing Stearman PT-17
PA46	Piston	GASEPV	Piper Malibu PA46 (Piston)	T206	Piston	CNA20T	Cessna 206
RV10	Piston	GASEPV	Vans RV10	T210	Piston	GASEPV	Cessna 210

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
T34P	Piston	T34	Beech Mentor (Be45)	DH8C	Turboprop	DHC830	Bombardier de Havilland Dash 8 Q300
VELO	Piston	GASEPF	Velocity	DH8D	Turboprop	DHC8	DeHavilland DHC-8-200
B350	Turboprop	DHC6	Raytheon Super King Air 300	EPIC	Turboprop	CNA208	EPIC LT/Dynasty
BE10	Turboprop	DHC6	Raytheon King Air 100	MU2	Turboprop	DHC6	Mitsubishi MU-2
BE18	Turboprop	DHC6	Raytheon Beech 18	P180	Turboprop	CNA441	Piaggio Aerospace P-180 Avanti
BE20	Turboprop	DHC6	Raytheon Super King Air 200	P46T	Turboprop	CNA208	Piper PA46-TP Meridian
BE30	Turboprop	DHC6	Raytheon Super King Air 300	P750	Turboprop	CNA208	Pacific Aerospace P-750 XSTOL
BE9L	Turboprop	DHC6	Raytheon King Air 100	PAY1	Turboprop	CNA441	Neiva NE-821 Caraja
C208	Turboprop	CNA208	Cessna 208 Caravan	PAY2	Turboprop	CNA441	Piper PA-31T Cheyenne
C425	Turboprop	CNA441	Cessna 425 Conquest I	PC12	Turboprop	CNA208	Pilatus PC-12
C441	Turboprop	CNA441	Cessna 441 Conquest II	CN35	Turboprop	SF340	CASA CN-235-300/HC144 Sentry
CVLP	Turboprop	DHC8	Convair CV-240/T-29	SW4	Turboprop	DHC6	Fairchild Metro

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

BCT Fleet by AEDT ANP Profile

BCT FLEET MIX ACCORDING TO AEDT ANP (CONT.)							
AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL	AIRCRAFT ID	ENGINE TYPE	ANP ID	AIRFRAME MODEL
TBM7	Turboprop	CNA208	EADS Socata TBM-700	EC35	Helicopter	EC130	Eurocopter EC-T2 (CPDS)
TBM8	Turboprop	CNA208	SOCATA TBM 850	H500	Helicopter	H500D	Hughes OH-6 Cayuse
TBM9	Turboprop	CNA208	Socata TBM-9 series	H60	Helicopter	S70	Sikorsky S-70 Blackhawk (UH-60A)
A109	Helicopter	A109	Agusta A-109	R22	Helicopter	R22	Robinson R22
AS50	Helicopter	SA350D	Aerospatiale SA-350D Astar (AS-350)	R44	Helicopter	R44	Robinson R44 Raven
AS55	Helicopter	SA355F	Aerospatiale SA-355F Twin Star (AS-355)	S76	Helicopter	S76	Sikorsky S-76
AS65	Helicopter	SA365N	Aerospatiale SA-365N Dauphin (AS-365N)				
B06	Helicopter	B206L	Bell 206 JetRanger				
B407	Helicopter	B407	Bell 407 / Rolls-Royce 250-C47B				
B429	Helicopter	B429	Bell 429				
EC20	Helicopter	SA341G	Eurocopter EC 120				
EC30	Helicopter	EC130	Eurocopter EC-130				

SOURCE: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024.

FAA Land Use Compatibility

Land use	Yearly day-night average sound level (Ldn) [DNL] in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail -- building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade – general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps.	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation.	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

LEGEND

Y	Compatible without restrictions
Y or ##	Generally compatible with Noise Level Reduction (NLR) measures
N (#)	Not compatible, but if allowed NLR measures required
N	Not compatible and should be prohibited

*The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Notes for Table 1

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.

(5) Land use compatible provided special sound reinforcement systems are installed.

(6) Residential buildings require an NLR of 25.

(7) Residential buildings require an NLR of 30.

(8) Residential buildings not permitted.

Source: 14 CFR Part 150, Appendix A, Table 1. [Bracketed material and color added by Ricondo & Associates, Inc.]