

Noise Compatibility Study Technical Advisory Committee Meeting #2 March 27, 2025 

### Agenda

- 1 Introductions
- 2 Roles and Responsibilities
- 3 Part 150 Overview
- 4 Aviation Forecast
- 5 Land Use
- 6 Noise Model Input Overview
- 7 Next Steps and Schedule
- 8 Project Contacts and Website
- 9 Discussion









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Part 150 STUDY

AIRPORT

**PROJECT TEAM** 



# INTRODUCTIONS Technical Advisory Committee Members







# ROLES AND RESPONSIBILITIES Technical Advisory Committee



Technical Advisory Committee <u>Advisory</u> to BUR solely for purposes of the BUR Part 150

<u>*Reviews*</u> study inputs, assumptions, analysis, documentation, etc.

**<u>Provides</u>** input, advice, and guidance related to NEM and NCP development

<u>Communicates</u> to and from the committee and their respective organizations/constituents

*Recognizes that the FAA is responsible for accepting the NEM/NCP and for approving Airport-recommended NCP measures* 

BUR shall respect and consider TAC input but must retain overall responsibility for the Part 150 Study and NCP recommendations.





### Part 150 Overview



### Regulation

Title 14 of the Code of Federal Regulations Part 150 (14 CFR Part 150 or "Part 150"), "Airport Noise Compatibility Planning"

- Voluntary FAA-defined process for airport noise studies
  - Over 250 airports have participated
- Sets national standards for analysis
- Provides access to FAA funding of some approved measures

### **Technical Elements**

Part 150 has two technical elements:

- Noise Exposure Map (NEM) FAA Accepts the document as being completed per 14 CFR Part 150
- 2. Noise Compatibility Program (NCP) FAA Accepts the document as being completed per 14 CFR Part 150 FAA approves/disapproved each Airport-recommended measure in a Record of Approval (ROA)





### Part 150 Overview Noise Exposure Map (NEM)



#### The NEM document describes:



Airport layout and operation

Aircraft-related noise exposure

Land uses in the airport environs

Noise/land use compatibility

- An NEM must provide information for two timeframes:
  - Year of submission (2025)
  - Five-year forecast (2030)
- An FAA checklist identifies NEM requirements and documentation
- Annual average community noise equivalent level (CNEL) is depicted using contour lines on a map







### **Aviation Forecast**



# FAA Terminal Area Forecast (TAF)



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#### **Terminal Area Forecast (TAF)**

- Official FAA forecast of aviation activity for U.S. airports
- Prepared for major users of the National Airspace System including
  - Air carrier
  - Air taxi/commuter
  - General aviation
  - Military
- Meets the budget and planning needs of the FAA
- Provides information for use by state and local authorities, the aviation industry, and the public

#### **BUR Part 150**

- The 2024 FAA TAF (published Feb 2025) is being used as the basis for the forecast aircraft operations at BUR.
  - Confirmed through independent forecasts

https://www.faa.gov/data research/aviation/taf



# **Comparison of Forecasts**



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Year	M&H Forecast	2024 TAF	Variance
Enplanements			
2023	3,005,380	3,075,619	+2.3%
2025	3,295,722	3,764,361	+12.4%
2030	3,780,347	4,412,330	+14.3%
Commercial Ope	rations		
2023	89,282	88,767	-0.6%
2025	92,866	97,700	+4.9%
2030	105,458	113,741	+7.3%
Total Operations			
2023	141,678	139,760	-1.4%
2025	145,760	159,671	+8.7%
2030	159,626	178,515	+10.6%

Source: Mead & Hunt analysis, FAA 2024 TAF, and FAA OPSNET



# **Aircraft Summary by Category**

#### **2025 Operations**





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### Land Use



# Land Use Data Collection & Review

### Primary data collection steps include:

- Assemble and review land use, zoning, and population data
- Identify noise-sensitive sites, e.g., schools and places of worship
- Identify any local land use policies that address airport operations
- Create draft land use maps
- Verify land uses through windshield survey (in area of expected 65 dB CNEL contour)
- Local jurisdictions to review maps and advise of necessary corrections
- Assess any deficiencies of land use data and corrective approaches









### Part 150 STUDY



### **Noise Model Input Overview**



## **Noise Model Overview**

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runup operations

Runway utilization

and utilization

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Flight track geometry



- FAA requires use of their Aviation Environmental Design Tool (AEDT) for civilian aircraft operations
  - Version 3g is the most current version (at study's commencement)
  - <u>https://aedt.faa.gov</u>

![](_page_15_Picture_6.jpeg)

### **Noise Modeling Process**

![](_page_16_Picture_1.jpeg)

#### Base Year 2/1/2023 through 1/31/2024

- Obtained, processed and analyzed 12 months of flight track and aircraft identification data
- Determined day-night split of aircraft operations, and fleet mix

### Existing & Forecast Conditions 2025 and 2030

- Confirmation of FAA's Terminal Area Forecast (TAF)
- Scaled base year operations with updated fleet to 2025 existing operations and 2030 forecast operations

![](_page_16_Picture_8.jpeg)

![](_page_16_Picture_9.jpeg)

# **Physical Conditions**

### AIRFIELD LAYOUT

### Runways

- Runway 15/33
- Runway 8/26
- Helipads (designated as red dots on diagram)
  - Differentiated by north (HP-N) and south (HP-S)

### **New Terminal**

- Projected to open in 2026
- No changes to the Runways or Helipads

![](_page_17_Figure_10.jpeg)

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![](_page_17_Picture_11.jpeg)

### Weather and Terrain

![](_page_18_Picture_1.jpeg)

#### **METEOROLOGICAL CONDITIONS**

 AEDT database includes recent 10-year (2013-2022) averages:

Temperature	65.28° F
Station Pressure	988.38 mbar
Sea Level Pressure	1013.92 mbar
<b>Relative Humidity</b>	50.03 %
Dew Point	46.1° F
Wind Speed	4.48 knots

#### **TERRAIN DATA**

- Describes elevation of ground surrounding the airport and airport property
- Data obtained from the U.S. Geological Survey National Elevation Dataset

![](_page_18_Picture_8.jpeg)

![](_page_18_Picture_9.jpeg)

# **Aircraft Operations**

![](_page_19_Picture_1.jpeg)

Annual Average Day Operations	Existing Year 2025 Forecast Year 2030	
Aircraft Type	Jet Turboprop Helicopter Piston	Matched to specific AEDT Aircraft Types
Day-Evening-Night Split	Day: 7 AM – 7 PM Evening: 7 PM – 10 PM Night: 10 PM – 7 AM	
Runway Use, Flight Tracks, Track Use	Represents where the flight operations occur	
Stage Length	Surrogate for aircraft weight; determined by distance from departure to destination airport	

#### **AIRCRAFT OPERATIONS**

Year	Commercial	General Aviation	Military	Total
2025	92,866	52,494	400	145,967
2030	105,458	53,767	400	159,626

Note 1: Forecast Pending FAA Approval.

Note 2: Operations sums may appear to be off due to rounding. Source: M&H Forecast, FAA 2023 TAF

![](_page_19_Picture_7.jpeg)

![](_page_19_Picture_8.jpeg)

### **Runway Use**

![](_page_20_Figure_1.jpeg)

Jet Arrival Runway Use Percentages

![](_page_20_Figure_3.jpeg)

Jet Departure Runway Use Percentages

![](_page_20_Picture_5.jpeg)

![](_page_20_Picture_6.jpeg)

### **Runway Use**

![](_page_21_Figure_1.jpeg)

Non-Jet Arrival Runway Use Percentages

![](_page_21_Figure_3.jpeg)

Non-Jet Departure Runway Use Percentages

![](_page_21_Picture_5.jpeg)

![](_page_21_Picture_6.jpeg)

# **Aircraft Flight Tracks**

- Model flight tracks have been developed for arrivals and departures based on analysis of radar data
- Model "Backbone" tracks are developed for major origin/destination directions; backbones have subtracks, to increase fidelity of modeling

#### Model Track Development Process

- Actual flight tracks are grouped into bundles (by aircraft type, runway, operation type, and destination)
- Track groups are represented by a "backbone" track and sub-tracks on either side to represent the dispersion of the bundle
- Representative tracks are developed to the extent of the study area
- Separate track use percentages are developed for each track bundle and type of operation

![](_page_22_Picture_8.jpeg)

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![](_page_22_Picture_9.jpeg)

# **Aircraft Flight Tracks**

- Process is the same for arrivals and departures for each runway, aircraft type, direction, and track group
- Prepared 385 tracks: 103 backbone and 282 sub-tracks

#### Subsequent slides

- Illustrate the results of HMMH development of model tracks
- Present overall arrival and departure flight track figures for each aircraft group

Runway	Arrival Tracks		Departure Tracks	
	Backbone	Sub-Track	Backbone	Sub-Track
15	8	20	16	68
33	10	22	11	28
8	17	60	6	14
26	3	0	6	18
HS	6	13	7	13
HN	6	11	7	15
Total	50	126	53	156

![](_page_23_Picture_7.jpeg)

![](_page_23_Picture_8.jpeg)

![](_page_23_Picture_9.jpeg)

### **Flight Tracks – Jet Arrivals**

![](_page_24_Picture_1.jpeg)

![](_page_24_Figure_2.jpeg)

2023 Flight Track Density

![](_page_24_Picture_5.jpeg)

![](_page_24_Picture_6.jpeg)

### **Flight Tracks – Jet Departures**

![](_page_25_Picture_1.jpeg)

![](_page_25_Figure_2.jpeg)

2023 Flight Track Density

![](_page_25_Picture_5.jpeg)

![](_page_25_Picture_6.jpeg)

### **Flight Tracks – Non-Jet Arrivals**

![](_page_26_Picture_1.jpeg)

![](_page_26_Figure_2.jpeg)

2023 Flight Track Density

![](_page_26_Picture_5.jpeg)

![](_page_26_Picture_6.jpeg)

### **Flight Tracks – Non-Jet Departures**

![](_page_27_Picture_1.jpeg)

![](_page_27_Figure_2.jpeg)

2023 Flight Track Density

![](_page_27_Picture_5.jpeg)

![](_page_27_Picture_6.jpeg)

### **Flight Tracks – Helicopter Arrivals**

![](_page_28_Picture_1.jpeg)

![](_page_28_Figure_2.jpeg)

2023 Flight Track Density

![](_page_28_Picture_5.jpeg)

![](_page_28_Picture_6.jpeg)

### **Flight Tracks – Helicopter Departures**

![](_page_29_Picture_1.jpeg)

![](_page_29_Figure_2.jpeg)

2023 Flight Track Density

![](_page_29_Picture_5.jpeg)

![](_page_29_Picture_6.jpeg)

![](_page_30_Picture_0.jpeg)

![](_page_30_Picture_1.jpeg)

Part 150 NOISE STUDY

- Generate noise contours with AEDT
- Assess land use compatibility
- Develop draft Noise Exposure Maps and report
- Present draft NEM to the public
- Submit the NEM to the FAA for review and acceptance
- Evaluate:
  - Potential **noise abatement measures** to reduce the number of people exposed to 65 dB CNEL and higher aircraft noise levels
  - Potential **land use measures** to mitigate uses not compatible with aircraft noise and prohibit introduction of future non-compatible land uses
  - Potential **programmatic measures** to implement, monitor and report on the Authority-recommended noise abatement and land use measures
- Update the Noise Compatibility Program

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### **Tentative Schedule**

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January 2024	Project Kick Off
February 2024	Data Collection and Study Protocol Development
January 30, 2025	TAC/CAC Meeting #1, Open House #1 (Study Introduction)
March 27, 2025	TAC/CAC Meeting #2 (Review of Noise Modeling Inputs)
Spring 2025	Publish Draft NEM Document, 30-Day Review Period
<u>May 22, 2025</u>	<b>TAC/CAC Meeting #3</b> (Noise Modeling Results & Existing NCP Review) Open House Meeting #2 (NEM Draft Document)
Summer 2025	Submit NEM to FAA, NCP Phase Begins
Fall 2025	TAC/CAC Meeting #4 (Noise Abatement Measures)
Winter 2026	TAC/CAC Meeting #5 (Land Use & Programmatic Measures)
Spring 2026	TAC/CAC Meeting #6, Open House #3 (Draft NCP Recommendations)
Fall 2026	Open House #4 and Public Hearing (Draft NCP document)
November 2026	Submit NCP to FAA

\*Please hold dates underlined above for upcoming TAC meetings.

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![](_page_31_Picture_5.jpeg)

![](_page_32_Picture_0.jpeg)

### **Project Contacts**

![](_page_32_Picture_2.jpeg)

Project Website	www.hollywoodburbankairport.com/noise/ part-150-study-update
Project email address	BURPart150Study@arellanoassociates.com
Project Manager	Timothy Middleton, C.M. tmiddleton@hmmh.com

![](_page_32_Picture_4.jpeg)

![](_page_33_Picture_0.jpeg)

### Discussion

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