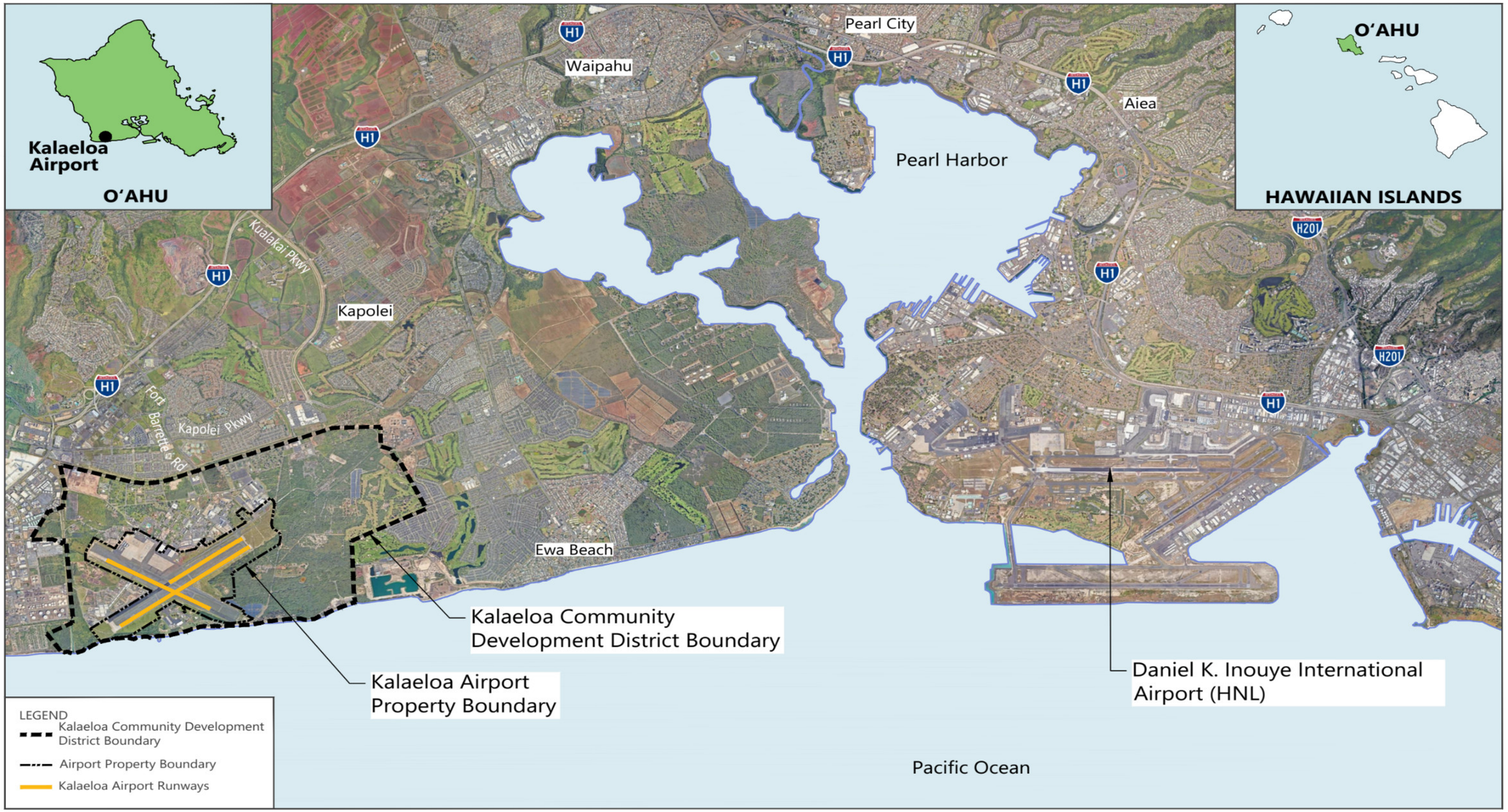
Kalaeloa Airport (JRF) Master Plan and Noise Exposure Map Update

Public Meeting #1 – Honouliuli Middle School – September 8, 2025

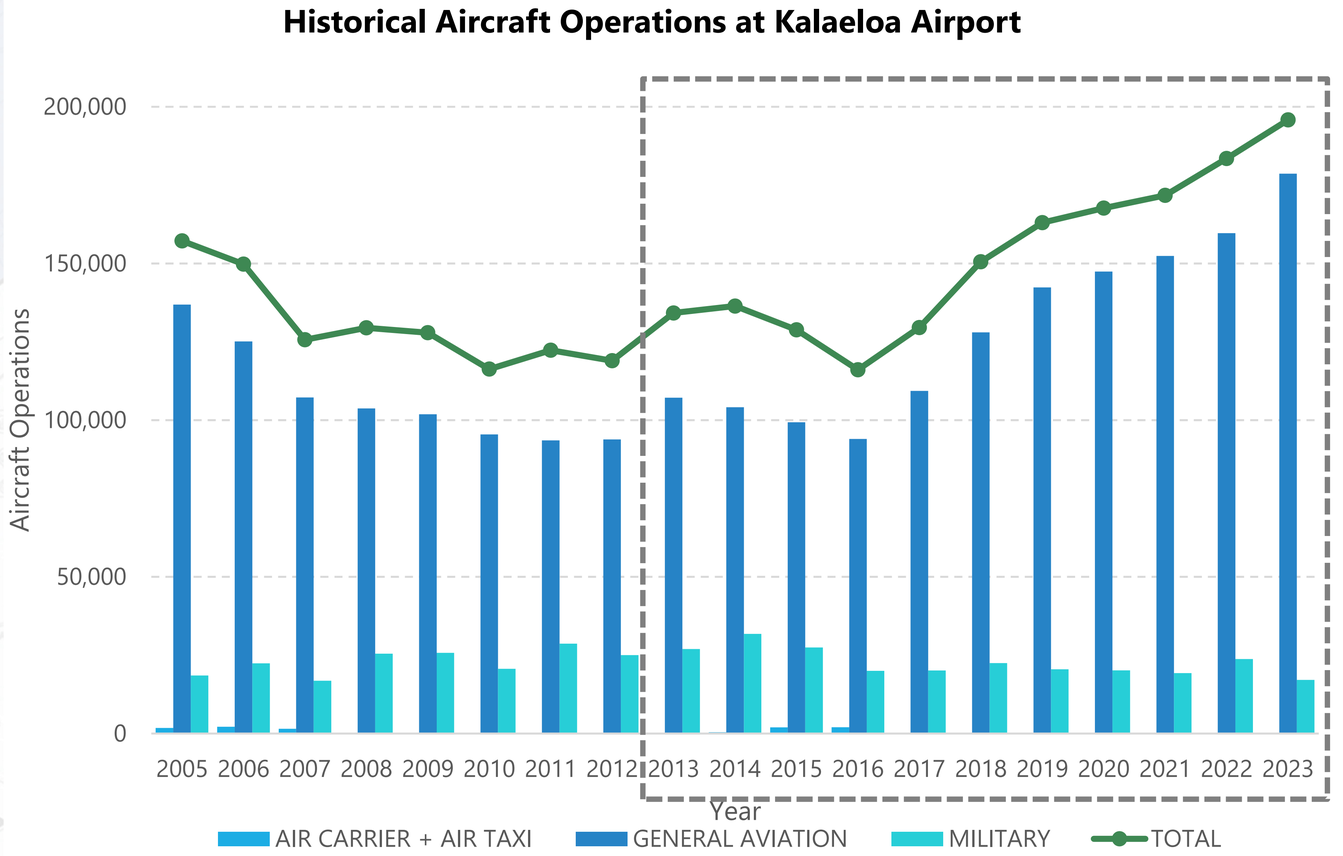
Vicinity of Kalaeloa Airport



Kalaeloa Airport

Project Background – Task 1: New Master Plan

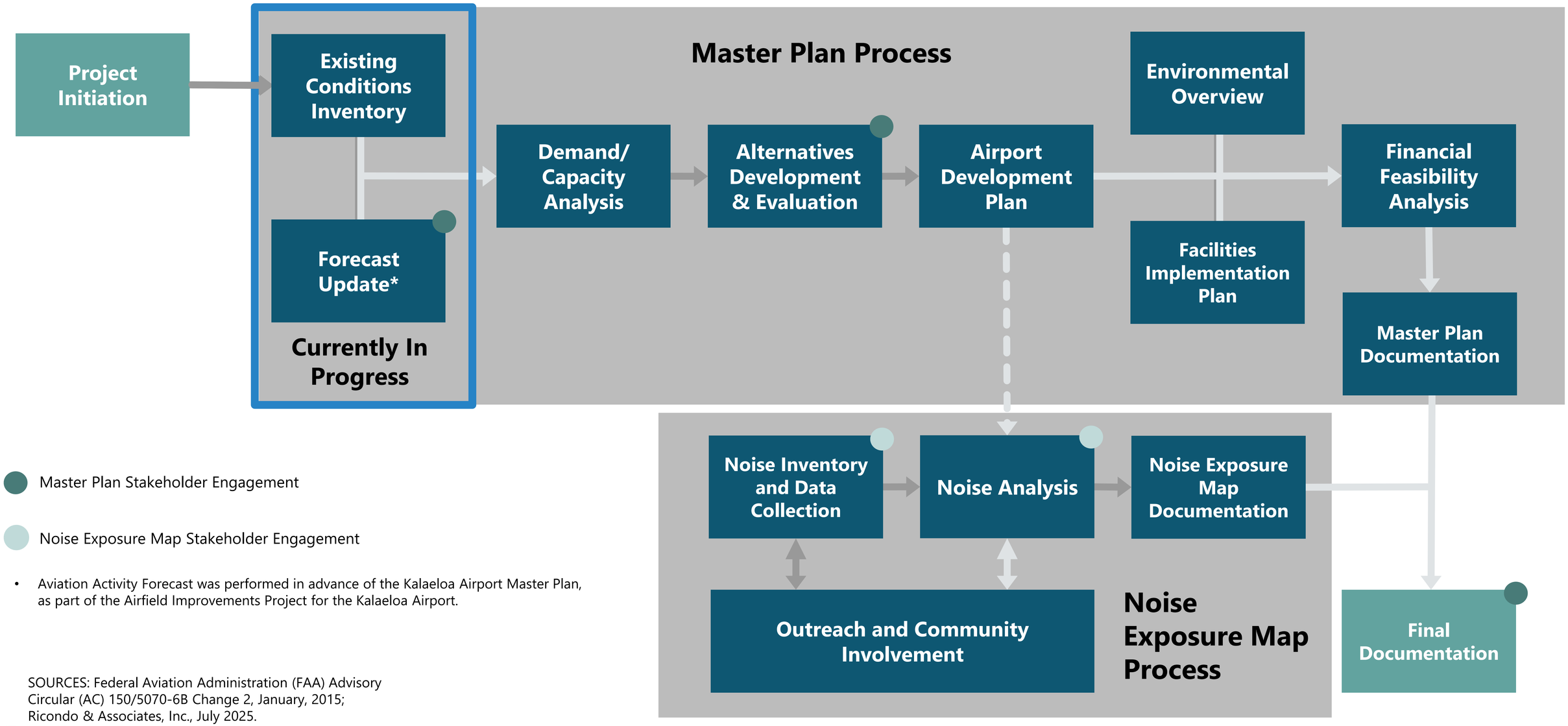
- Last Master Plan for Kalaeloa was completed in 1998
- An updated Master Plan and Airport Layout Plan are required to continue receiving federal funds through the Airport Improvement Program
- Conditions at the Airport have changed:
  - Aircraft Operations
    - Total Operations - Compound Annual Growth Rate (CAGR)
      - 4.9% CAGR 2014-2024
      - 2.8% CAGR 2020-2024



Project Background – Task 2: Noise Exposure Map Update

- A study that follows FAA approved requirements for determining noise levels generated at or near the Airport
- Includes the establishment of Noise Exposure Maps (NEMs) that identify the levels of noise in and around airports
- Last NEM for JRF was in 1998 as part of the Master Plan
- Objectives
  - Collection of baseline information required to undertake the NEM Update
  - Preparation of noise exposure contour maps for the current year and the five-year forecast
  - Understand land uses within current and forecast noise exposure areas
  - This helps us understand how noise affects nearby neighborhoods

Master Plan and Noise Exposure Map Update Process



- Aviation Activity Forecast was performed in advance of the Kalaeloa Airport Master Plan, as part of the Airfield Improvements Project for the Kalaeloa Airport.

SOURCES: Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B Change 2, January, 2015; Ricondo & Associates, Inc., July 2025.

Draft Aviation Activity Forecasts

Base Year Fleet Mix Characteristics and Critical Aircraft

- RDC C-IV aircraft represent the most demanding aircraft grouping with similar characteristics regularly operating at JRF (>500 operations)
- Lockheed C-130J Super Hercules aircraft are the current representative critical aircraft
- Piston and RDC A-I aircraft represent the majority of activity at JRF

Powerplant Type	Aircraft Operations	Share of Aircraft Operations
Jet	811	0.4%
Piston	182,640	82.8%
Turboprop	5,170	2.3%
Helicopter	27,926	12.7%
Other	509	0.2%
Unknown[1]	3,624	1.6%
Total[2]	**220,681**	**100.0%**

Most flights at Kalaeloa Airport are small single-engine planes (training flights)

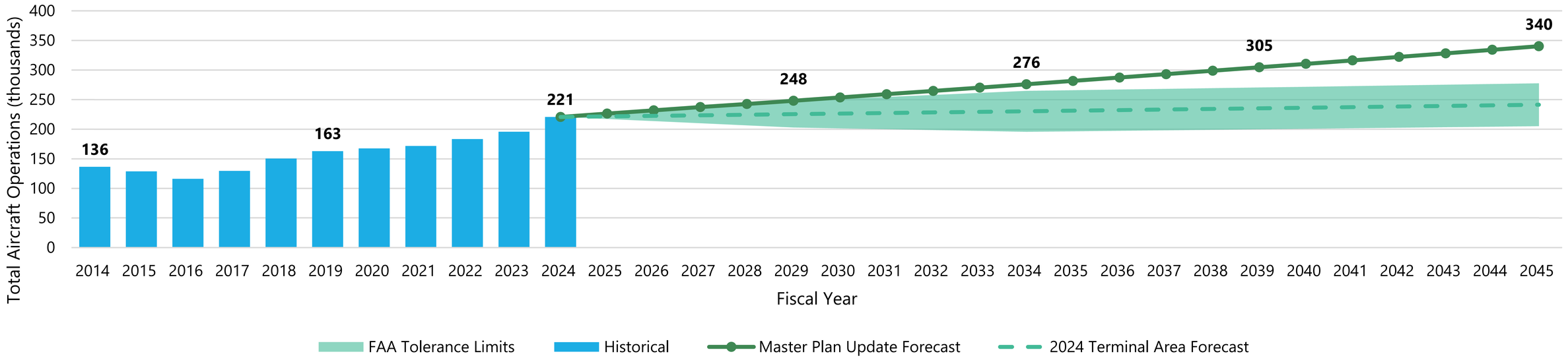
Airplane Design Group	Aircraft Approach Category						
	A	B	C	D	Helicopter	Unknown[1]	Total
I	182,270	113	11	0	*NA*	*NA*	**182,394**
II	1,047	453	39	17	*NA*	*NA*	**1,556**
III	0	5	160	70	*NA*	*NA*	**235**
IV	0	896	3,921	11	*NA*	*NA*	**4,828**
V	0	0	7	0	*NA*	*NA*	**7**
Helicopter	*NA*	*NA*	*NA*	*NA*	27,926	*NA*	**27,926**
Unknown[1]	*NA*	*NA*	*NA*	*NA*	*NA*	3,735	**3,735**
Total[2]	**183,317**	**1,466**	**4,138**	**98**	**27,926**	**3,735**	**220,681**

NOTES:
NA – Not Applicable
1 Includes operations with unknown powerplant types based on base year operations data.
2 Total may not add due to rounding.
SOURCES: US Department of Transportation, Federal Aviation Administration, Operations Network (OPSNET), December 2024; ATAC Corporation, November 2024 (radar data); Ricondo & Associates, Inc., December 2024 (analysis).

Draft Aviation Activity Forecasts

Results – Comparison to FAA Terminal Area Forecast (TAF)

- The FAA TAF is the FAA's official forecast for airports
- GA aircraft operations are forecast to grow at a 2.2% CAGR based on regression analysis; military operations are forecast at constant FY 2024 levels
- Total aircraft operations are higher than the 2024 TAF; 340,318 operations are forecast in 2045, representing a 2.1% CAGR
- Total operations are equal to FAA tolerance limits at the 5-year forecast interval (10.0%), but exceed the 10-year forecast interval tolerance (19.8% versus 15.0%)



SOURCES: US Department of Transportation, Federal Aviation Administration, Operations Network (OPSNET), December 2024 (historical operations data); Woods & Poole Economics, Inc., February 2025 (socioeconomic indicator growth rates); State of Hawaii, Department of Business, Economic Development & Tourism, February 2025 (socioeconomic indicator growth rates); US Department of Commerce, US Census Bureau, Current versus Constant (or Real) Dollars, February 2025 (inflation indices); Ricondo & Associates, Inc., February 2025 (general aviation operations forecast); US Department of Transportation, Federal Aviation Administration, *2024 Terminal Area Forecast*, January 2025 (total operations forecast, military operations forecast growth rate).

Draft Aviation Activity Forecasts

Forecast Fleet Mix Characteristics and Critical Aircraft

- RDC C-IV aircraft are forecast to continue to represent the most demanding aircraft grouping regularly operating at JRF
- Lockheed C-130J Super Hercules aircraft are forecast to remain the representative critical aircraft
- Piston and RDC A-I aircraft are forecast to continue represent most activity

Powerplant Type	Aircraft Operations	Share of Aircraft Operations
Jet	1,629	0.5%
Piston	272,661	80.1%
Turboprop	6,261	1.8%
Helicopter	51,866	15.2%
Other or Unknown[1]	7,901	2.3%
Total[2]	**340,318**	**100.0%**

Airplane Design Group	Aircraft Approach Category						
	A	B	C	D	Helicopter	Unknown[1]	Total
I	272,172	206	32	0	NA	NA	**272,410**
II	1,784	1,073	106	50	NA	NA	**3,014**
III	0	7	444	101	NA	NA	**552**
IV	0	908	3,997	32	NA	NA	**4,937**
V	0	0	22	0	NA	NA	**22**
Helicopter	NA	NA	NA	NA	51,866	NA	**51,866**
Unknown[1]	NA	NA	NA	NA	NA	7,517	**22**
Total[2]	**273,956**	**2,194**	**4,602**	**184**	**51,866**	**7,516**	**340,318**

NOTES:
1 Includes operations with unknown powerplant types based on base year operations data.
2 Total may not add due to rounding.
SOURCES: US Department of Transportation, Federal Aviation Administration, Operations Network (OPSNET), December 2024 (historical operations data); Woods & Poole Economics, Inc., February 2025 (socioeconomic indicator growth rates); State of Hawaii, Department of Business, Economic Development & Tourism, February 2025 (socioeconomic indicator growth rates); US Department of Commerce, US Census Bureau, Current versus Constant (or Real) Dollars, February 2025 (inflation indices); Ricondo & Associates, Inc., February 2025 (general aviation operations forecast); US Department of Transportation, Federal Aviation Administration, 2024 Terminal Area Forecast, January 2025 (military operations forecast growth rate); US Department of Transportation, Federal Aviation Administration, FAA Aerospace Forecasts: Fiscal Years 2024–2044, February 2025 (general aviation fleet mix trends).

Runway Design Code Aircraft Types

A-I

Cesnna 172P

A-II

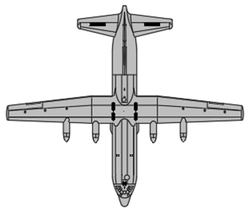
Cessna 208B

B-II

Beechcraft Super King Air 200

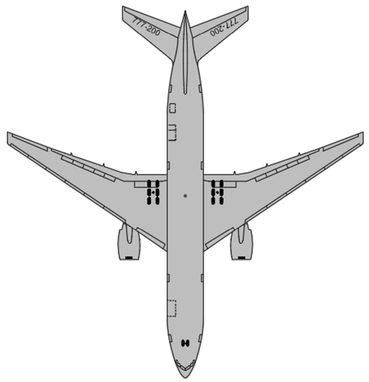
C-III

Boeing 737-700



C-IV

C-130 Super Hercules



C-V

Boeing 777-200

- Aircraft Approach Category represents a grouping of aircraft based on their approach speed (operational characteristic).
- Airplane Design Group number designations are based off the most restrictive approximate tail height or wingspan (physical characteristic).

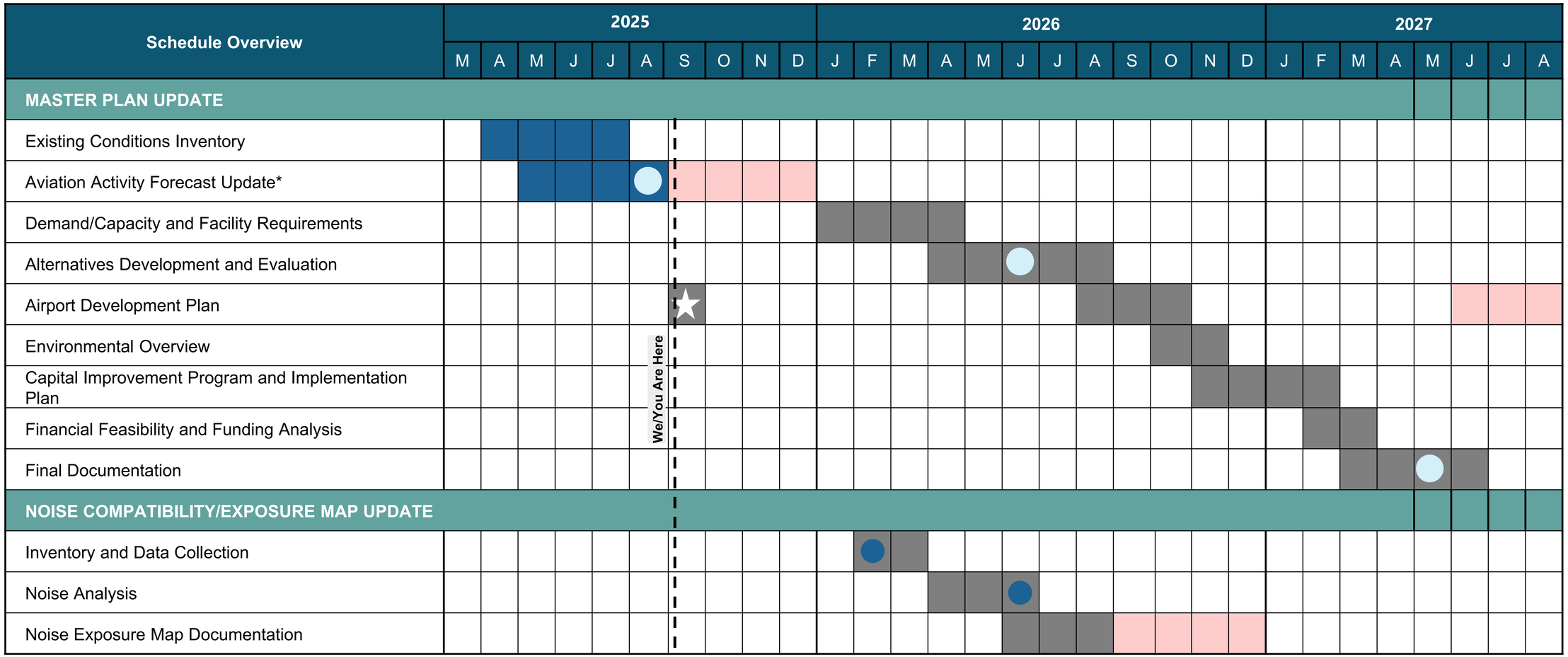
Aircraft Approach Category	
Group #	**Approach Speed**
A	> 91 knots
B	91 knots to < 121 knots
C	121 knots to < 141 knots
D	141 knots to < 166 knots
E	166 knots <

SOURCE: US Department of Transportation, Federal Aviation, Advisory Circular 150/5300-13B, Change 1, *Airport Design,* August 16, 2024.

Aircraft Design Group		
Group #	**Tail Height**	**Wingspan**
I	< 20 feet	< 49 feet
II	20 feet to < 30 feet	49 feet to <79 feet
III	30 feet to < 45 feet	79 feet to < 118 feet
IV	45 feet to < 60 feet	118 feet to < 171 feet
V	60 feet to < 66 feet	171 feet to <214 feet
VI	66 feet to < 80 feet	214 feet to < 262 feet

SOURCE: US Department of Transportation, Federal Aviation, Advisory Circular 150/5300-13B, Change 1, *Airport Design,* August 16, 2024.

Project Schedule, Technical Advisory Committee, and Public Meetings



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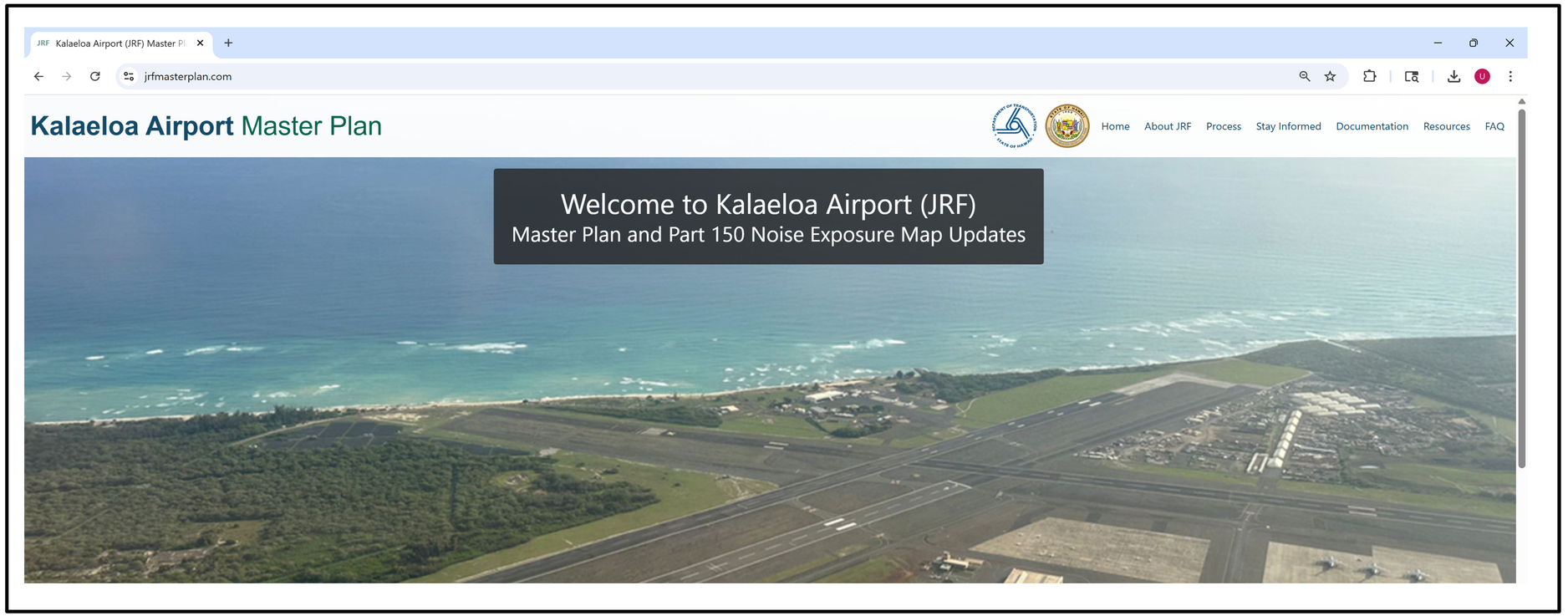
LEGEND:

- Task in progress
- Planned task
- FAA Review and Approval
- Master Plan Technical Advisory Committee (TAC) & Public Meeting Outreach
- Noise Exposure Map TAC/Public Meeting
- Aeronautical Surveys per FAA AC150/5300-16B-17C-18B

Project Website

- Website address is: https://www.jrfmasterplan.com



Please Scan to Access Project Website

- Stay Informed by providing your contact information on project website.
- Meetings and project deliverables will be posted on project website.

Key Elements for Consideration in the Airport Master Plan and Noise Exposure Map Update

Airport Master Plan:

- Ongoing projects at JRF:
  - Airfield Improvements Project
  - Repave Runway 4R-22L
  - ALP Interim Update
  - Clearing and Grubbing
  - Utility Improvements Project
- General aviation (GA) aircraft operations
- GA Aircraft operations at HNL and potential for relocation at JRF
- Request for Installation of a Barrier Cable Arresting System (BAK-14)
- Reactivation of Taxiway P providing access to the Hawaii Army National Guard (HIARNG)
- Military aircraft operations
- Landside improvements

Noise Exposure Map Update:

- Runway end/length changes
- Military aircraft operations
- Land use compatibility around vicinity of airport

Next Steps

- Submit Draft Aviation Activity Forecast to FAA's review and approval
- Send surveys to all tenants at JRF in preparation for the Demand/Capacity Analyses and Facility Requirements
- Conduct Aeronautical Surveys at JRF per FAA AC 150/5300-16B/17C/18B (September 15-20, 2025)

- Requests for project information should be sent to:
  - Traci Lum, HDOT Project Manager
    400 Rodgers Blvd, suite 700
    Honolulu, Hawaii 96819-1880
    email: traci.h.lum@hawaii.gov
  - Ura Yvan, Ricondo Project Manager
    135 Nakolo Place
    Honolulu, Hawaii 96819
    email: uyvan@ricondo.com