



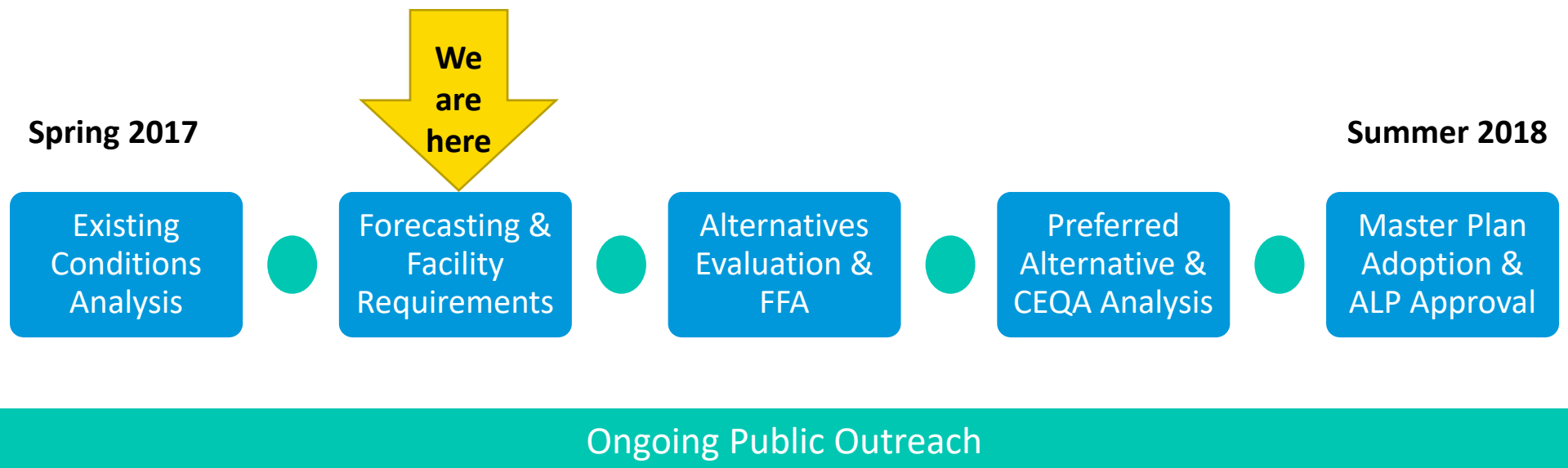
Airport Master Plan for  
**Brown Field  
Municipal Airport**  
PAC Meeting #2



# Agenda

- > Introductions
- > Master Plan Process
- > Working Paper #1
- > Aviation Demand Forecast
- > Public Comment
- > Next Steps
- > Adjourn

# Master Plan Process



ALP – Airport Layout Plan

CEQA – California Environmental Quality Act

FFA – Financial Feasibility Analysis

# Inventory Working Paper #1

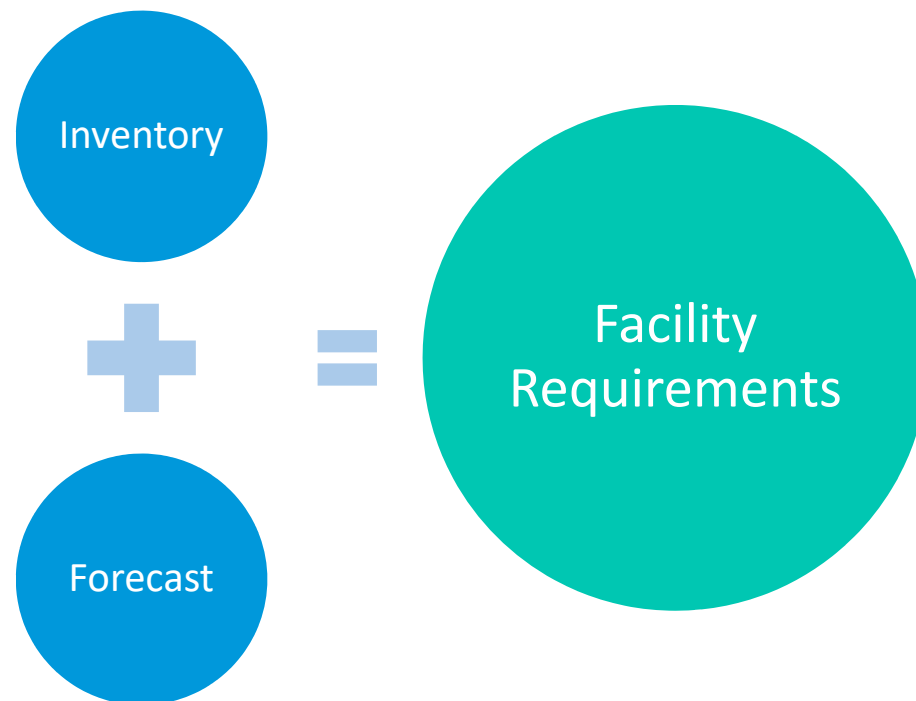
- > Variety of activity types
- > Runway characteristics
- > Facility conditions ranging
- > Environmental constraints
- > Economic development opportunities



Feedback

# What is an Aviation Demand Forecast?

- > Future aviation activity
- > Future based aircraft
- > Short-term (5 years) – operational planning
- > Intermediate/Long-term (10 years) – major capital development



# FAA Requirements

## Development

### Guidance

FAA AC 150/5300-13A  
FAA Order 5090.3C  
FAA AC 150/5070-6B  
ACRP Synthesis #2

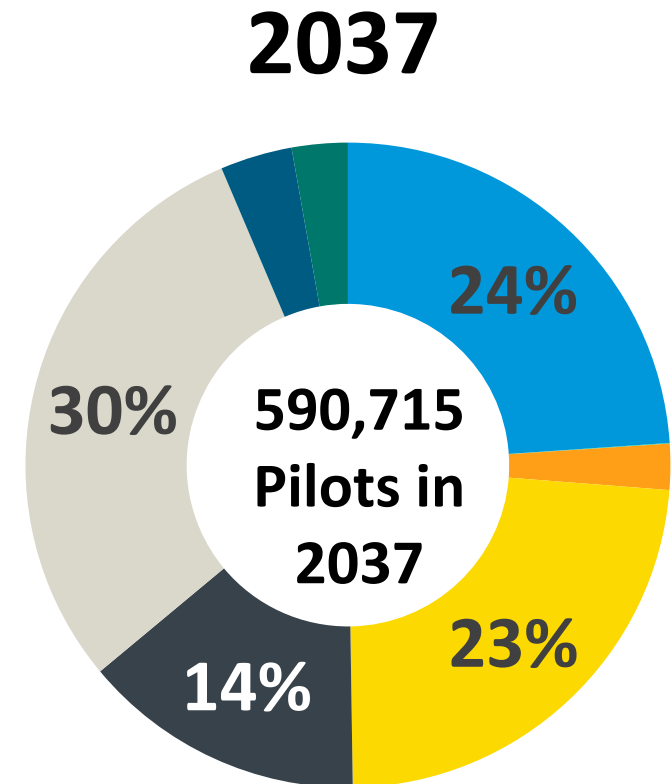
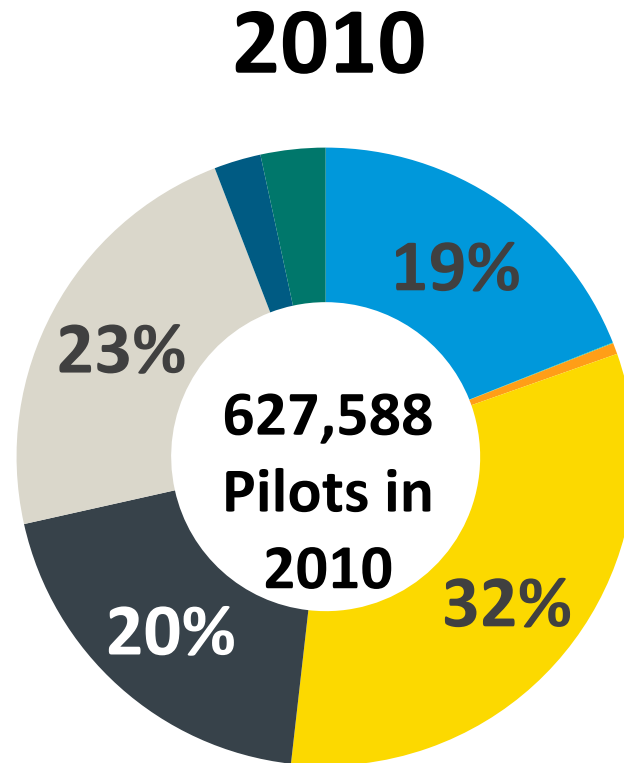
## FAA Approval

### TAF Consistency

<10% in the 5-year forecast?  
<15% in the 10-year forecast?  
If not → FAA HQ Review

# National Trends – Historic and Forecast Pilots

- Students
- Recreational
- Sport Pilot
- Private
- Commercial
- Airline Transport
- Rotorcraft only
- Glider only





# National Trends – GA and Air Taxi Hours Flown

■ Single Engine Piston

■ Multi-engine Piston

■ Turboprop

■ Turbojet

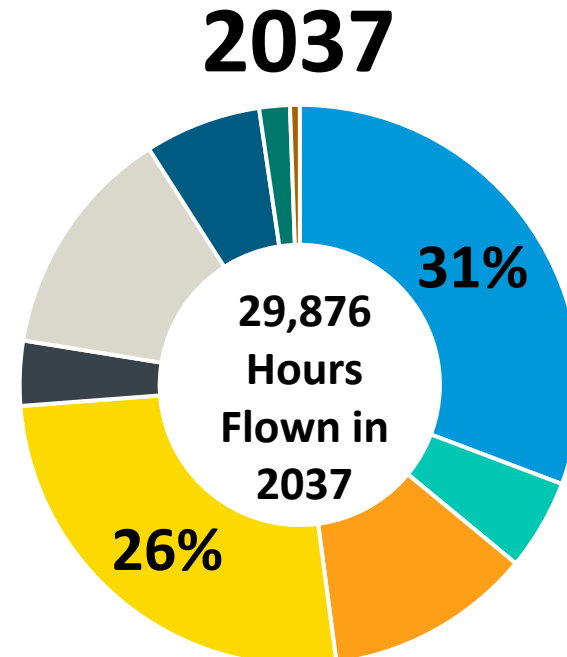
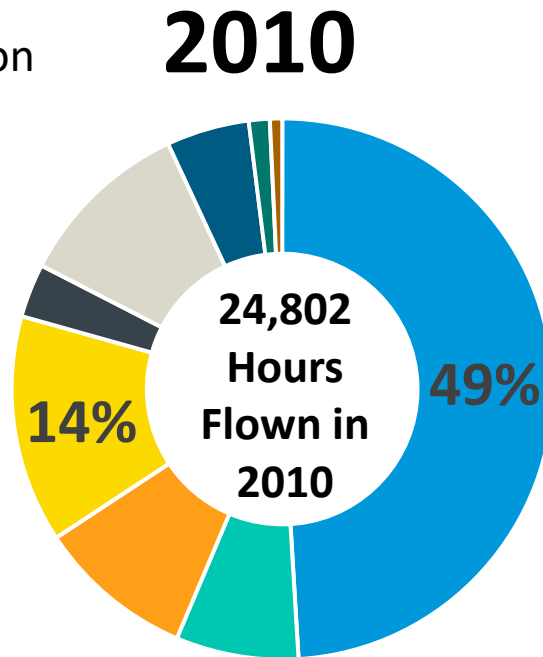
■ Rotor-piston

■ Rotor-turbine

■ Experimental

■ Sport

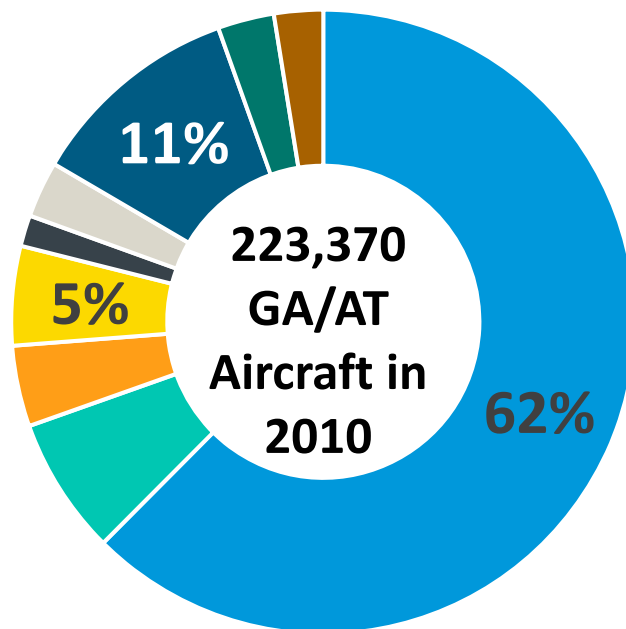
■ Other



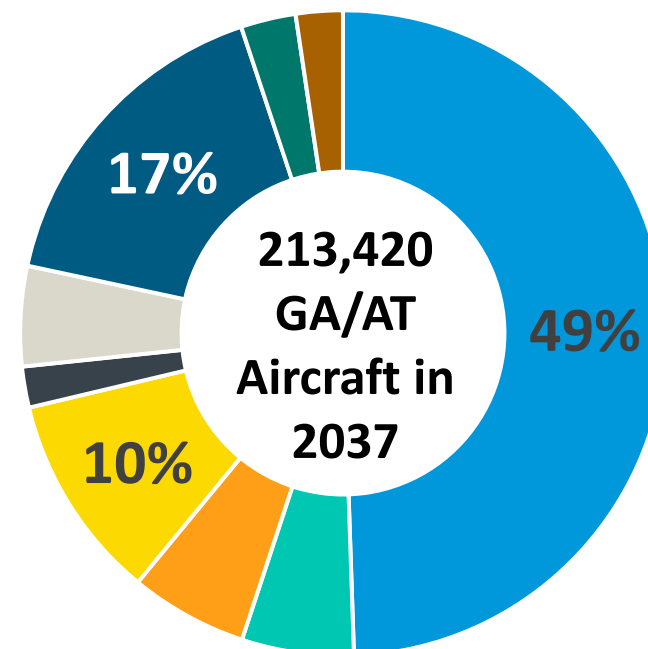
# National Trends – GA and Air Taxi Fleet

- Single Engine
- Multi-Engine
- Turboprop
- Turbojet
- Piston Rotorcraft
- Turbine Rotorcraft
- Experimental
- Light Sport\*
- Other

**2010**



**2037**



Single Engine Piston	139,519
Multi-Engine Piston	<u>15,900</u>
Total	155,419

Single Engine Piston	105,550
Multi-Engine Piston	<u>11,970</u>
Total	117,520

Source: FAA Aerospace Forecasts

# Forecast Process

- > Identify Demand Elements
- > Collection of Data
- > Historical and Existing Aviation Activity
- > Review of Aviation Forecasts
- > Development of the Forecast Framework
- > Development of the Forecast
- > Demand Forecast Summary
- > Comparison with TAF

# Data Sources

FAA Terminal Area  
Forecast (TAF)

- Official FAA aviation forecast

FAA Air Traffic Activity  
Data System (ATADS)

- Historical air traffic operations data

FAA Traffic Flow  
Management System  
Count (TFMSC)

- Traffic counts on aircraft with flight plans

City of San Diego

- Previous Master Plans
- Noise monitoring system

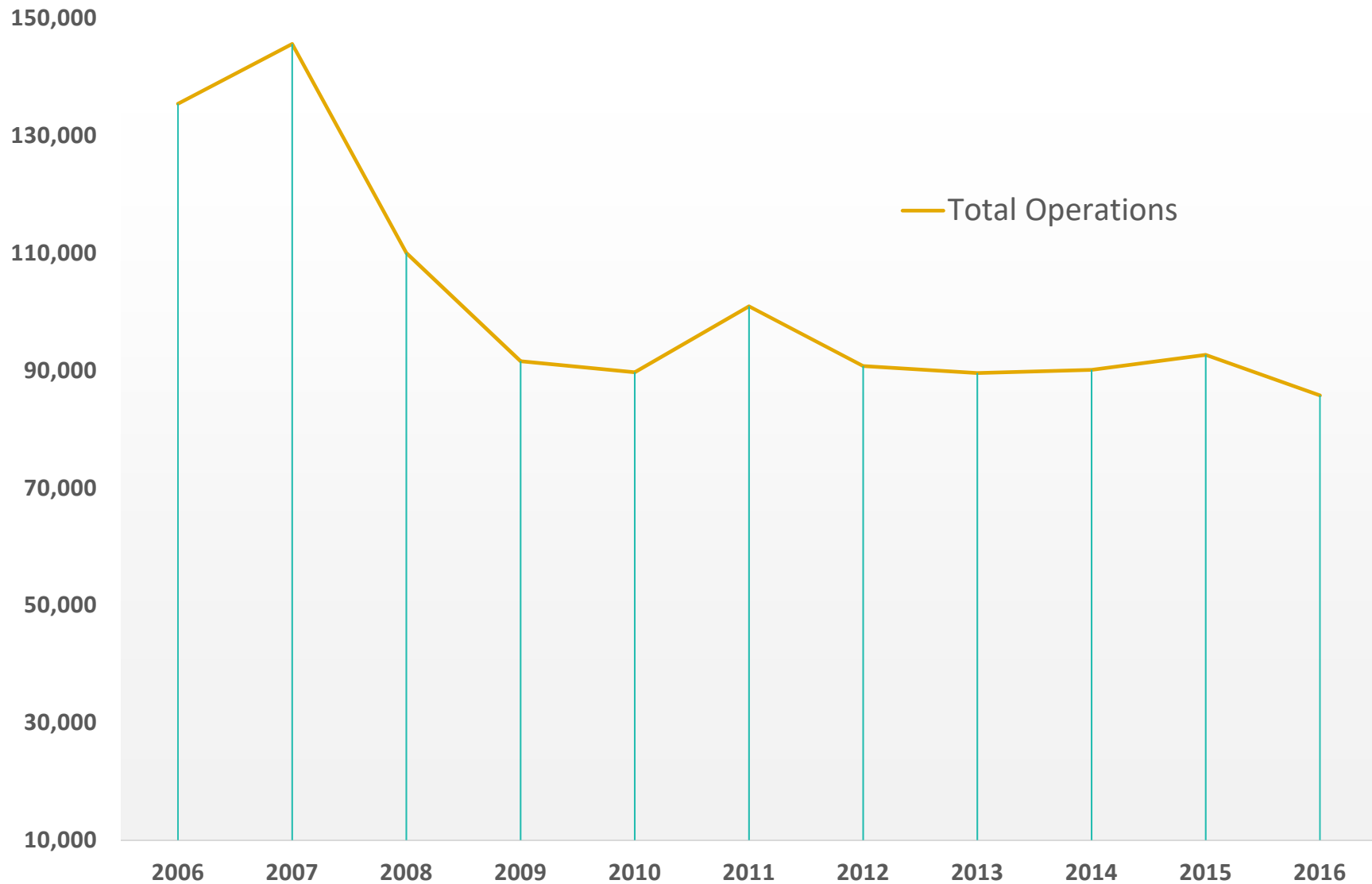
Woods & Poole  
Economics, Inc.

- Demographic information

Regional Aviation  
Strategic Plan (RASP)

- Projected aviation activity in the San Diego region

# Historical Aviation Trends

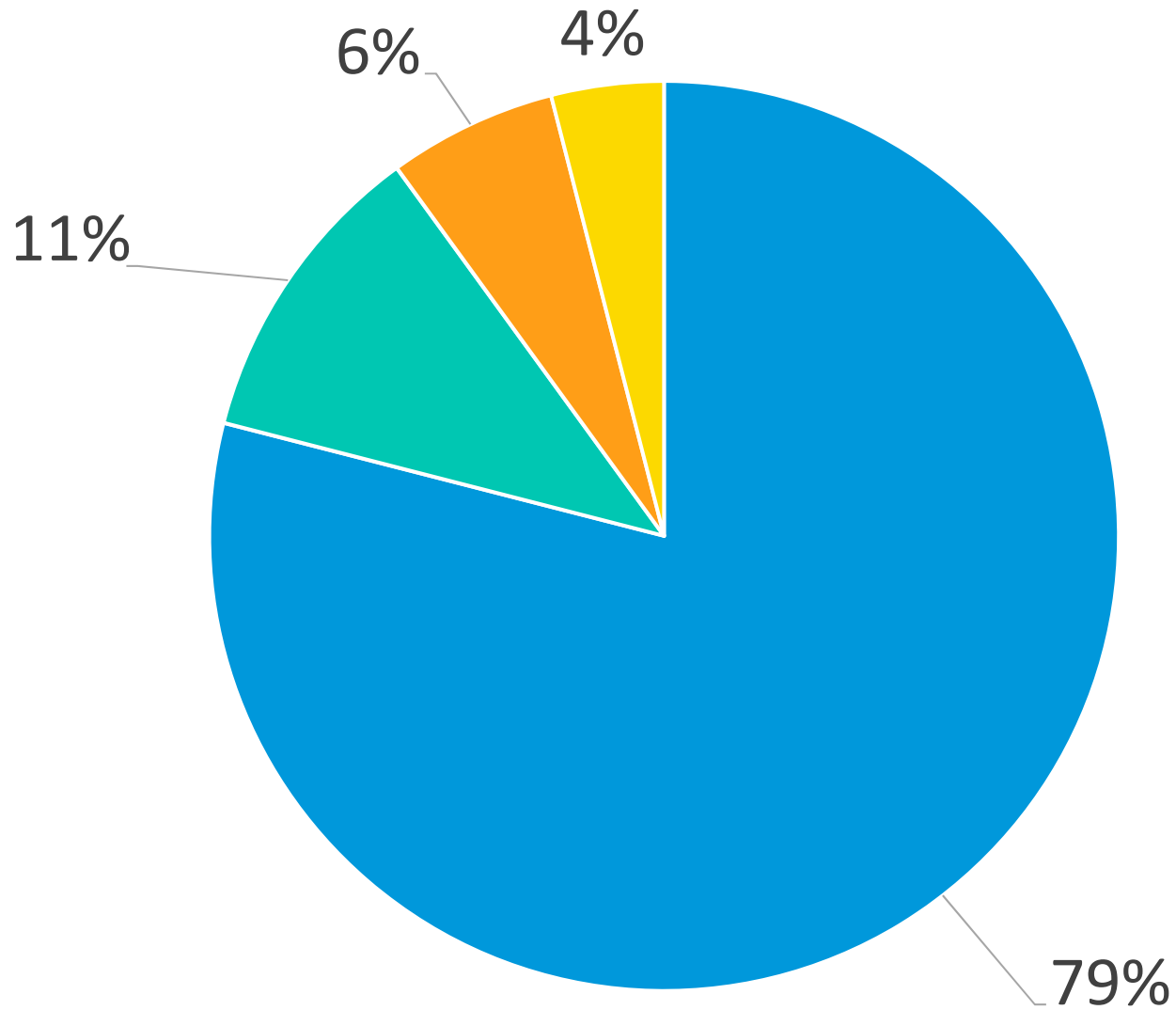


Source: 2017 FAA ATADS

AAGR (5 year trend): -3.08%

AAGR (10 year trend): -3.86%

# Based Aircraft

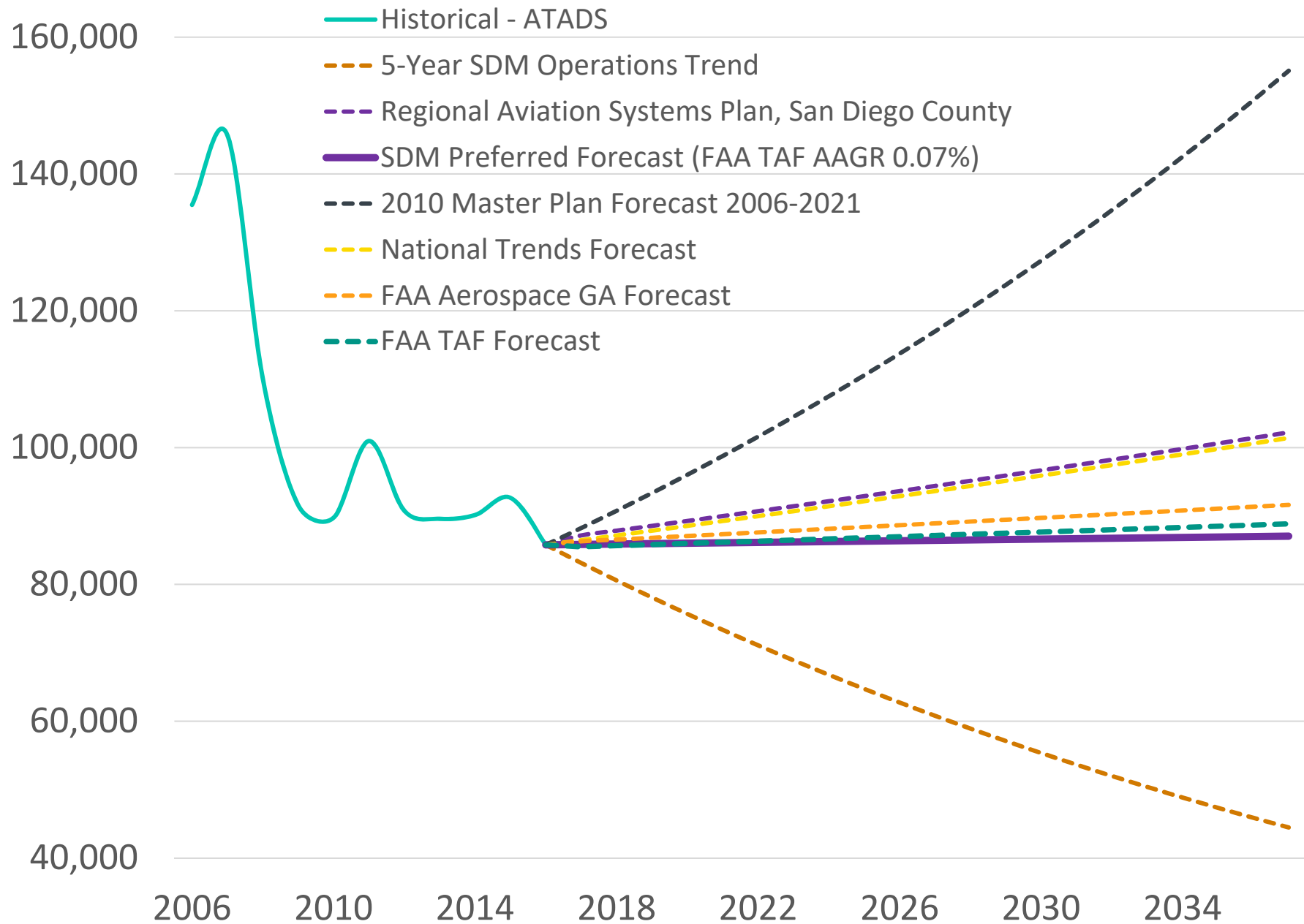


■ Single Engine ■ Multi Engine ■ Jet ■ Helicopter

# Forecast Framework

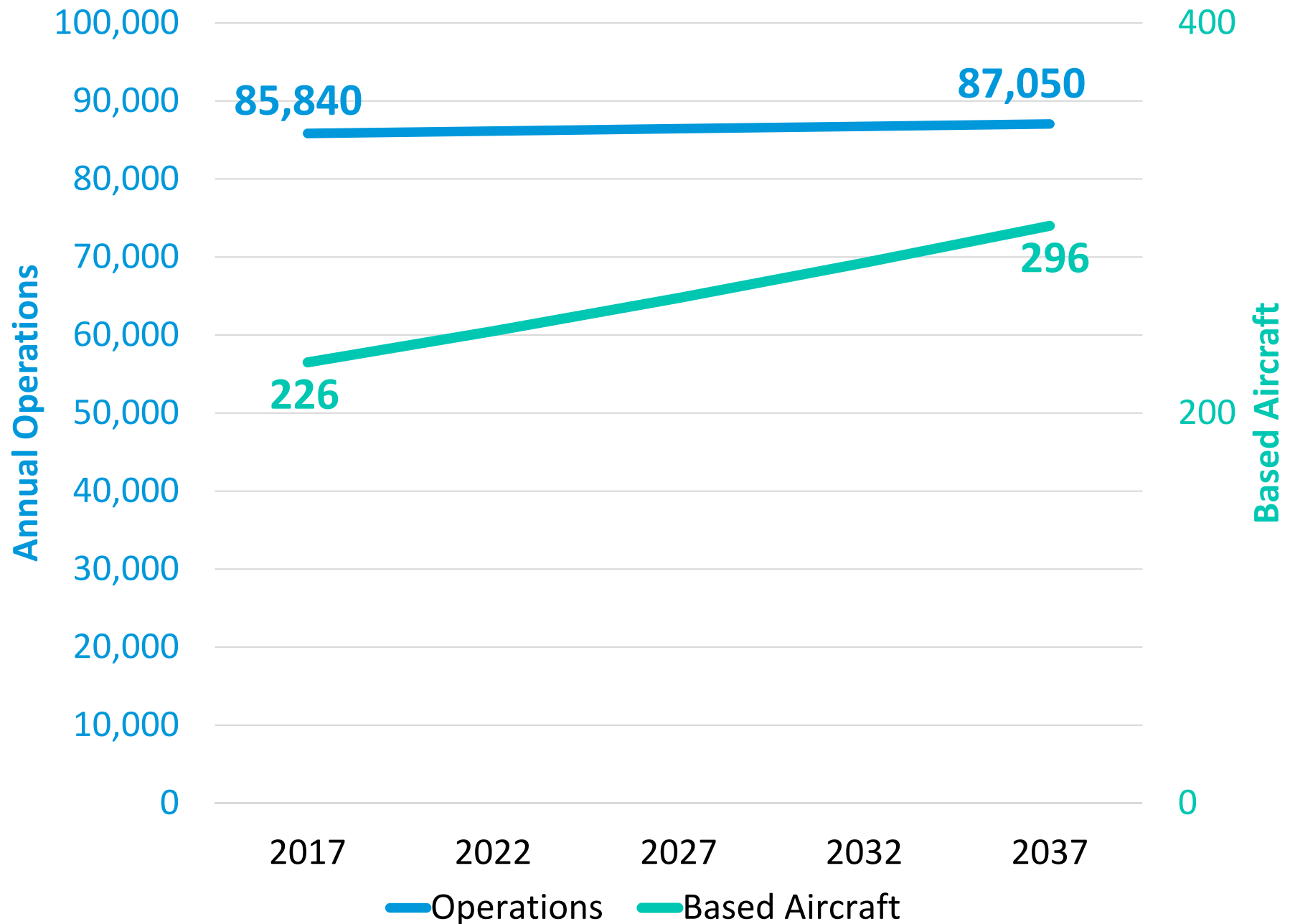
1. Selection of methodology
  - a. Market share
  - b. Regression analysis
  - c. Trend analysis
  - d. **Application of growth rates**

# Development of SDM Forecast

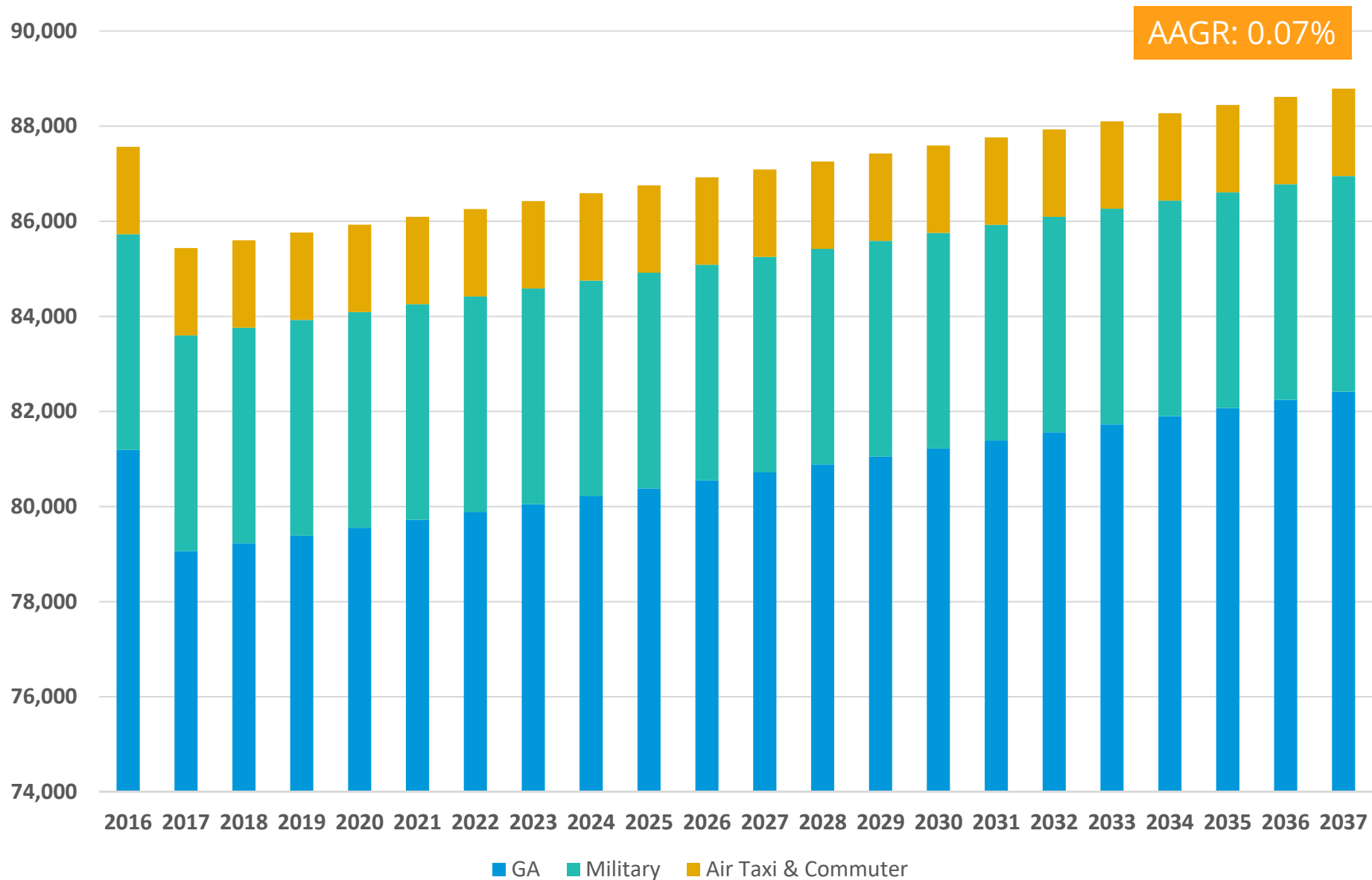




# Demand Forecast



# Aviation Forecast (TAF)



Source: 2017 FAA TAF

# TAF Comparison

Forecast Year	Airport Forecast	FAA TAF	% Difference from TAF
2017	85,840	85,499	0.40%
2022	86,141	86,320	-0.21%
2027	86,443	87,152	-0.81%
2032	86,746	87,995	-1.42%
2037	87,050	88,851	-2.03%

# Fleet Mix Forecast

Fleet Mix Aircraft Type	Annual Growth Rate
Single Engine	-0.9%
Multi-Engine	-0.5%
Turboprop	1.4%
Jet	2.3%
Military	-
Rotorcraft	1.6%

# Critical Aircraft



Gulfstream 550

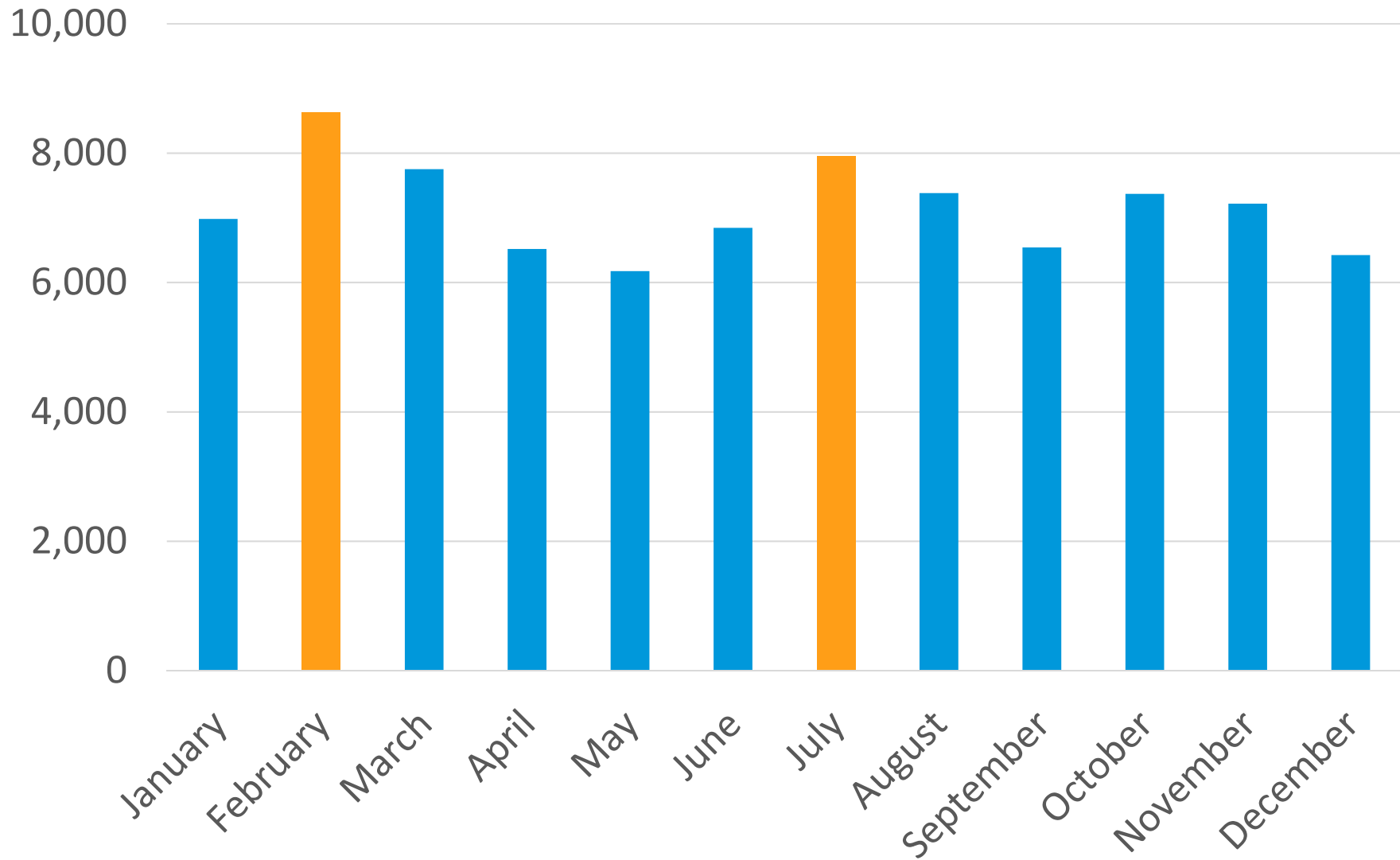


Lockheed C-130

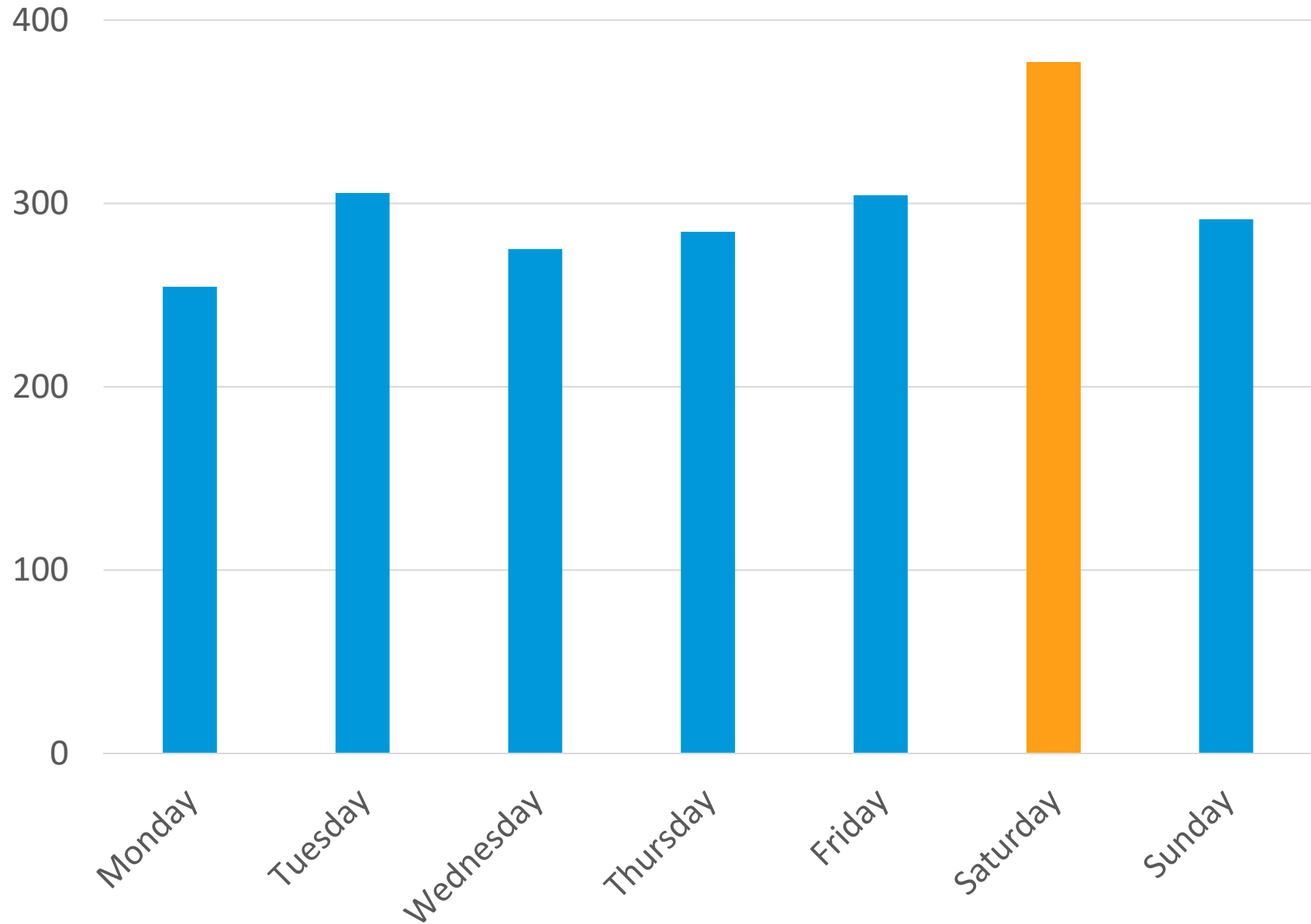


Beechcraft Baron 58

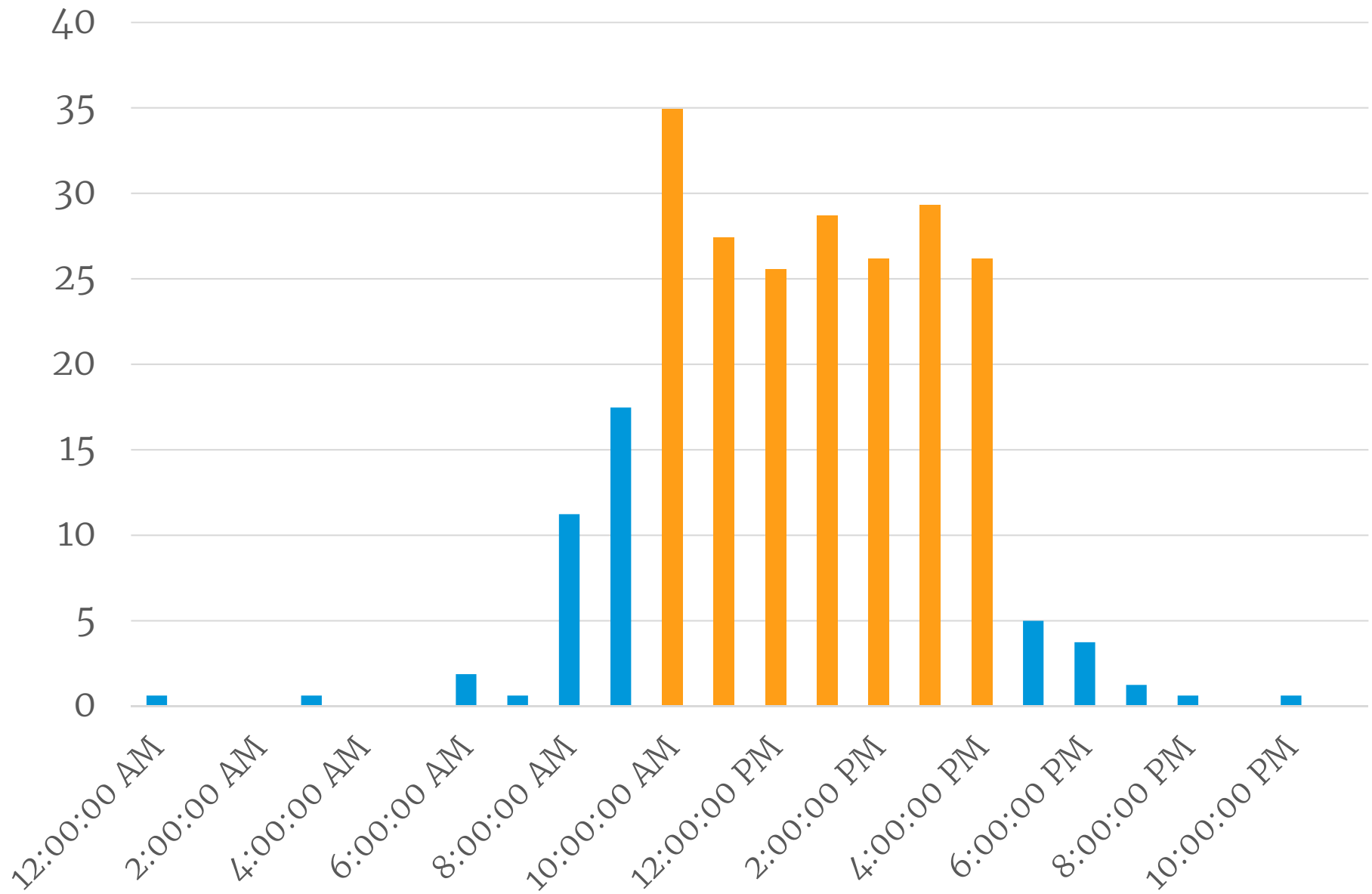
# Peaking



# Peaking (cont.)



# Peaking (cont.)





# Metropolitan Airport Forecast

## Scenario 1B

Forecast Year	2013 Airport Forecast
2013	92,995
2018	104,988
2023	117,691
2028	125,947



Feedback



# Public Comment

# Next Steps

- > Incorporate Feedback
- > Submit Forecast for FAA Approval
- > Hold Public Meeting
- > Progress to Facility Requirements