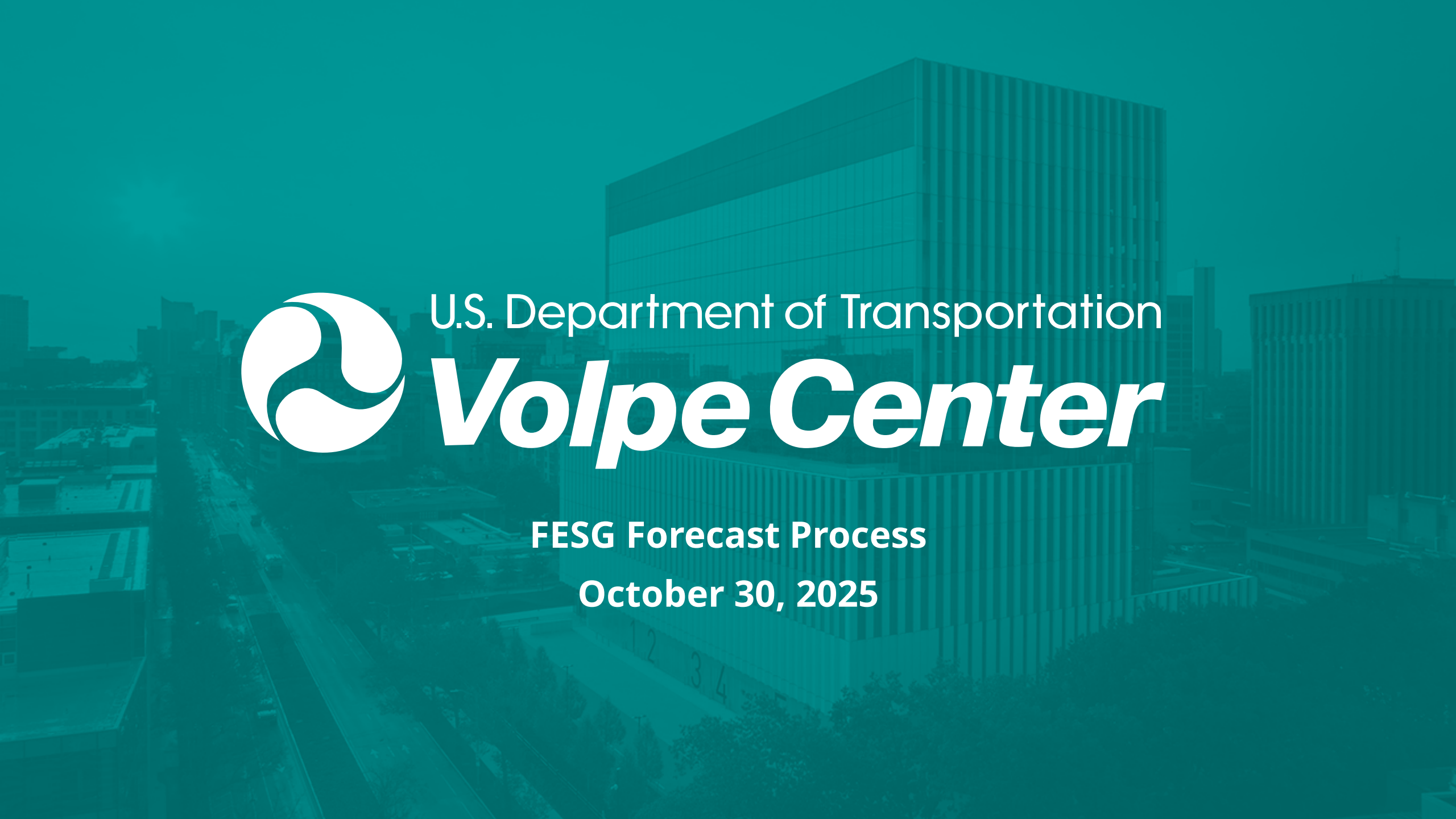

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FESG Forecast Process

October 30, 2025

Agenda

- FESG Forecast Process Overview
- ICAO LTF
- FESG Business Jet Forecast
- Generic Fleet Forecasts
- Fleet Evolution Modelling

FESG Forecast Process

- ICAO LTF: Passenger and Cargo
- FESG Business Jet Forecast

- Airbus Model: Passenger Market
- Boeing Model: Cargo Market
- FESG Model: Business Jet Market

- FESG Approved Models:
- Fleet-Builder (US)
- AAT (Eurocontrol)

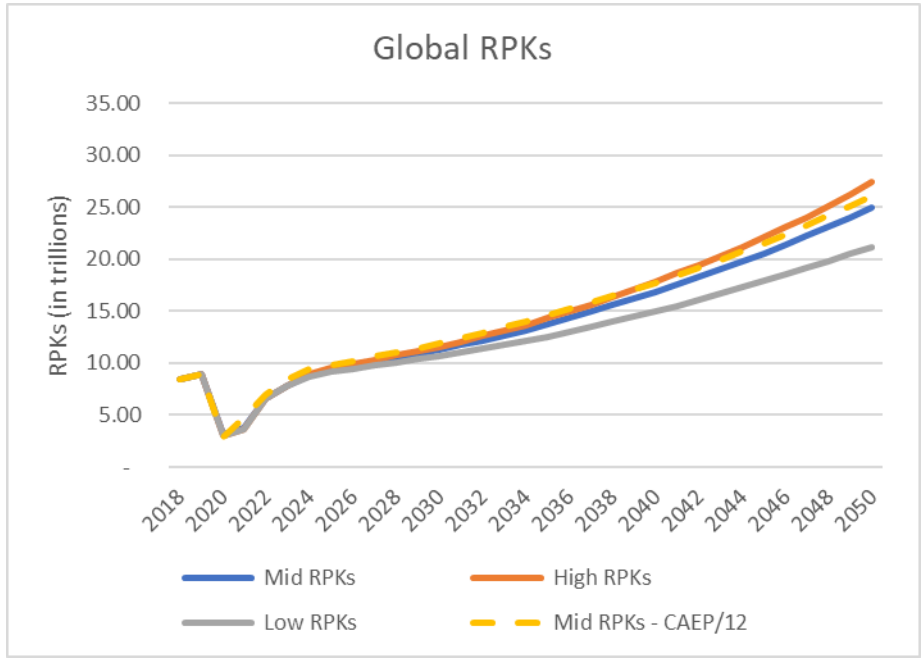
- Operations by Airport Pair and Aircraft
- Used for Environmental Modelling

ICAO LTF

Inputs

- **ICAO Historical Traffic Data**
  - Passenger Market, RPKs, ASKs, Load Factors by ICAO Route Group (50)
  - Cargo Market, RTKs, ATKs, Load Factors by ICAO Region (6)
- **Economic Data**
  - Forecast (and History)
  - 30-year forecast horizon (extension to 2070)
  - Other data (e.g., BTS airfare CPI data)

CAEP/13 Passenger Forecast



Outputs

- **Passenger Market**
  - RPKs, ASKs and load factors by Route Group
- **Cargo Market**
  - RTKs, ATKs and load factors by Region
- **Forecast horizon**
  - 30 years for stringency analysis
  - 50 years for Trends

Modelling Process

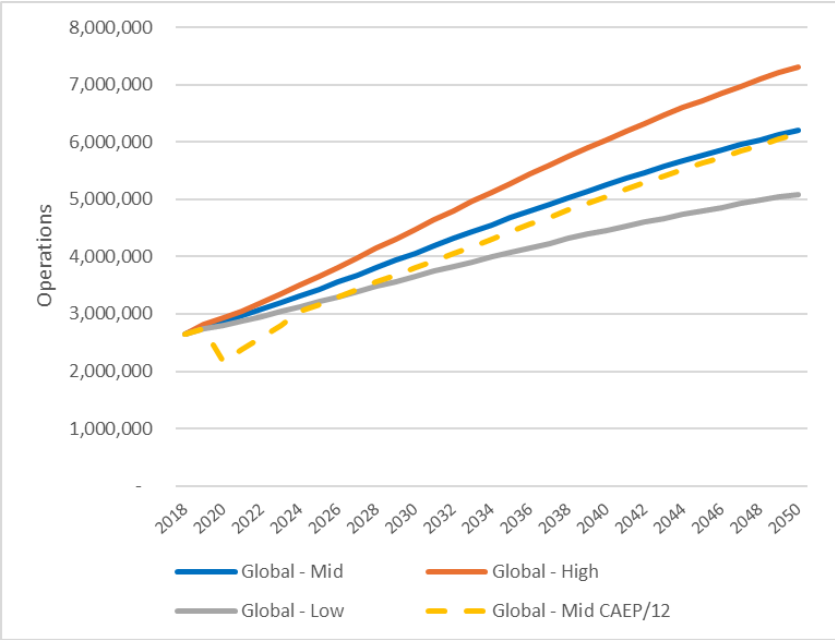
- Econometric Models
- Capture influence of income and price on traffic demand

FESG Business Jet Forecast

Inputs

- 2024 Common Operations Database
- Utilization by aircraft type and age
- International Business Aviation Council (IBAC) delivery forecast (by aircraft type and IBAC region)
- FESG BJ retirement curve

CAEP/13 Business Jet Forecast



Modelling Process

- FESG BJ forecast model
- Converts deliveries forecast to operations
- Maps IBAC regions to ICAO route groups

Outputs

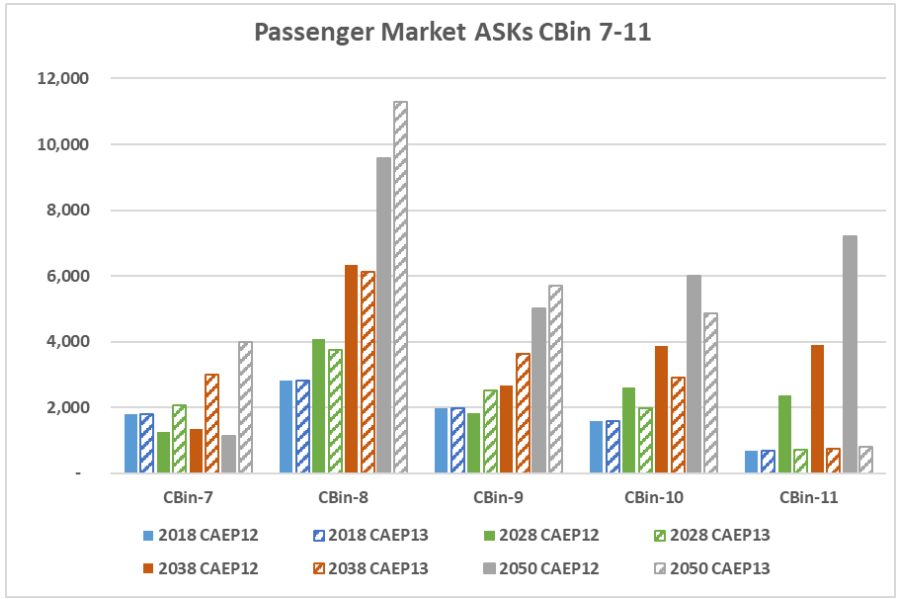
- Operations by route group, distance band and competition bin (CBin)
- Aircraft in Service

Generic Fleet Forecasts

CAEP/13 Generic Passenger Fleet Forecast Outputs by Competition Bin (CBin)

Inputs

- COD
- Passenger: RPKs, ASKs and Load Factors
- Cargo: RTKs, ATKs and Load Factors
- Forecast target years
- FESG retirement curves



Outputs

- Passenger: operations, RPKs, ASKs, aircraft in-service by RG/DB/CBin
- Cargo: operations, RTKs, ATKs, aircraft in-service by RG/DB/CBin
- Business Jet: operations and in-service fleet by RG/DB/CBin

Modelling Process

- Passenger: Airbus Model
- Cargo: Boeing Model
- Business Jets: FESG model

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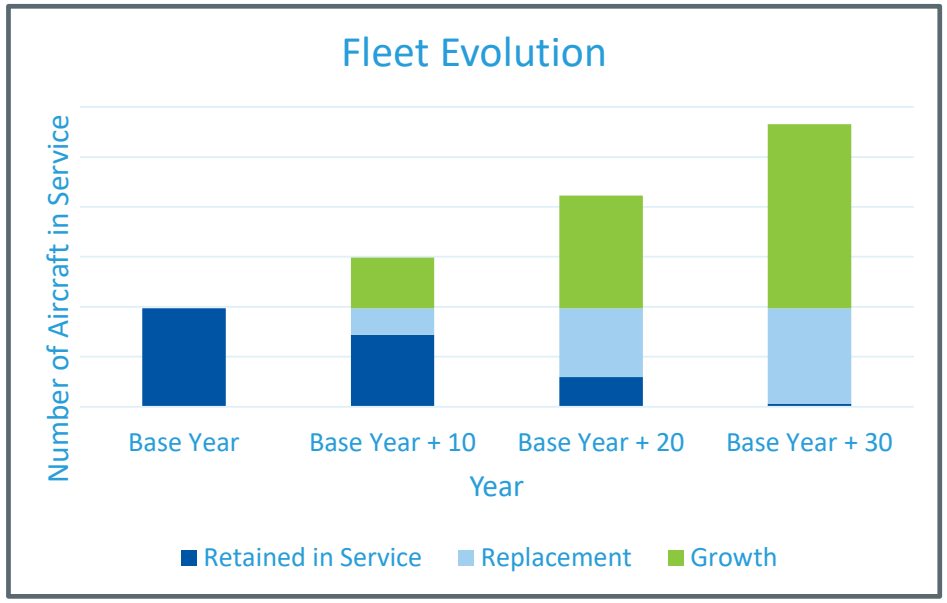
Fleet Evolution Modelling

Inputs

- Passenger Market: ASKs and In-Service Fleet by RG/DB/CBin
- Cargo Market: ATKs and In-Service Fleet by RG/DB/CBin
- Business Jet: Operations and In-service Fleet by RG/DB/CBin
- Inputs by target year (e.g., 2030, 2040)
- FESG retirement curves
- Cost Data
- Growth and Replacement database
  - Aircraft available to enter the fleet due to demand and aircraft retirements

Fleet Evolution Process



Modelling Process

- Two CAEP approved FE models: Fleet-Builder (US)
  - AAT (Eurocontrol)
- Evolve the fleet based on retirement of existing fleet and new demand growth
- Calculate direct operating costs and emissions

Outputs

- Primary FE Outputs
  - ASKs, ATKs, operations and aircraft in service by
    - Route group,
    - Distance band and
    - CBin
- Inputs for environmental modeling
  - Operations by airport pair (defined by the COD) and aircraft
- Inputs for stringency cost modelling
  - Cost data covering crew, maintenance, landing, route, finance and depreciation

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Questions?

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