

Enhanced Future Air Traffic Timetable Estimator

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FAA MOIE

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Program**

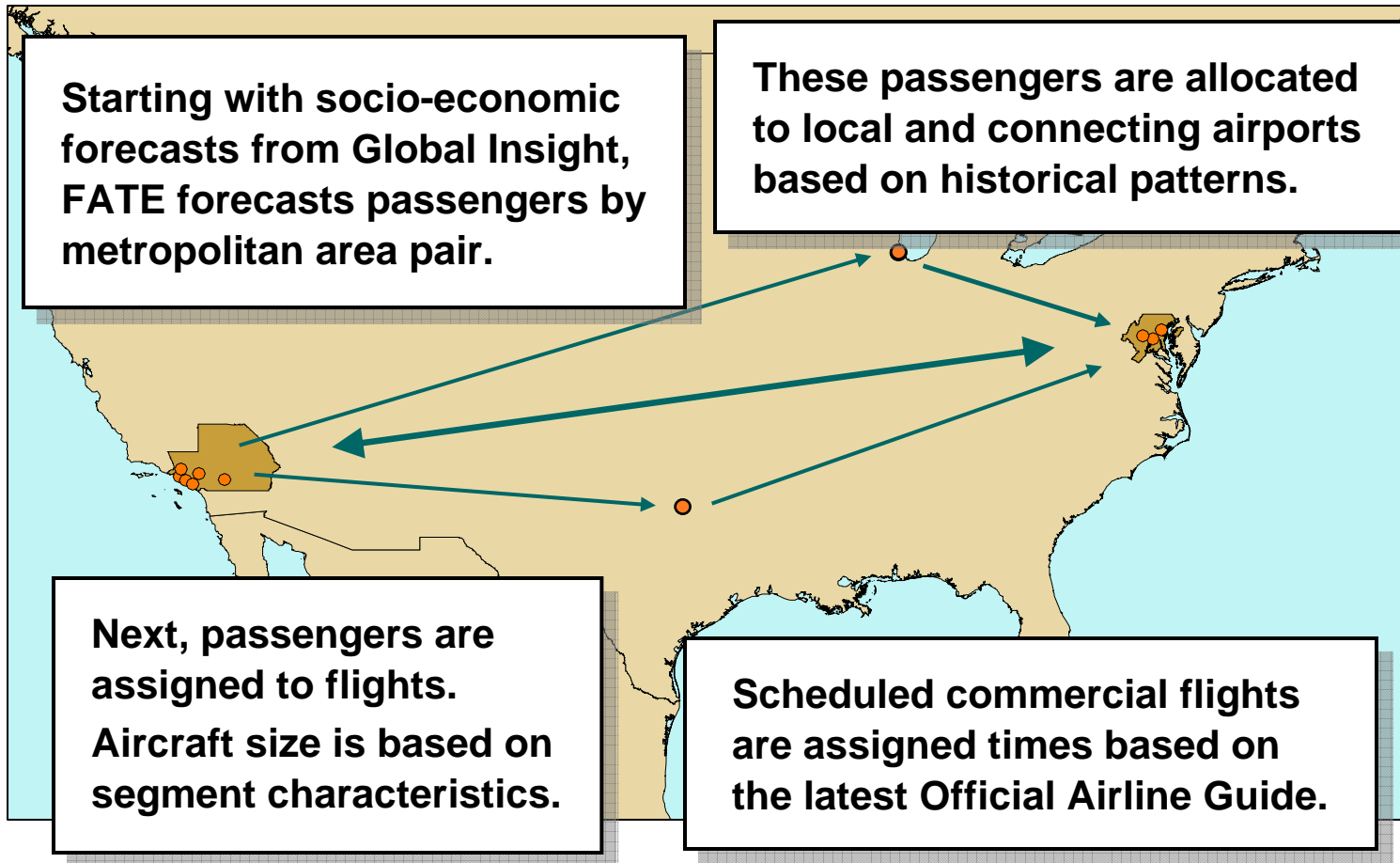
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Problem

Understand how forecasts will vary with differing assumptions about

- **Local economic growth**
- **Changes in demographics**
- **Airframe technology**
- **Changing air carrier networks**

Background



Objectives

- Evaluate the impact of differing assumptions on the forecasts
- Continue improving the quality of the underlying models
- Validation of models and results

Activities

- **Implement enhancements to**
 - **Origin and destination passenger forecasting model**
 - **Aircraft assignment model**
- **Continue “streamlining” software to incorporate functionality for changing the the model parameters**
- **Compare forecasts against historical data and other forecasts**

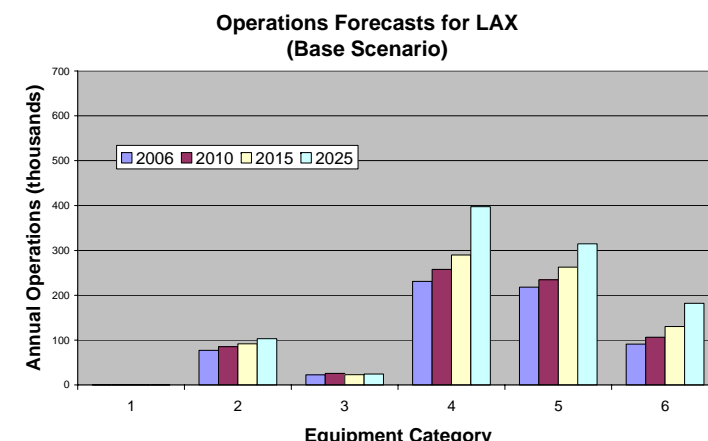
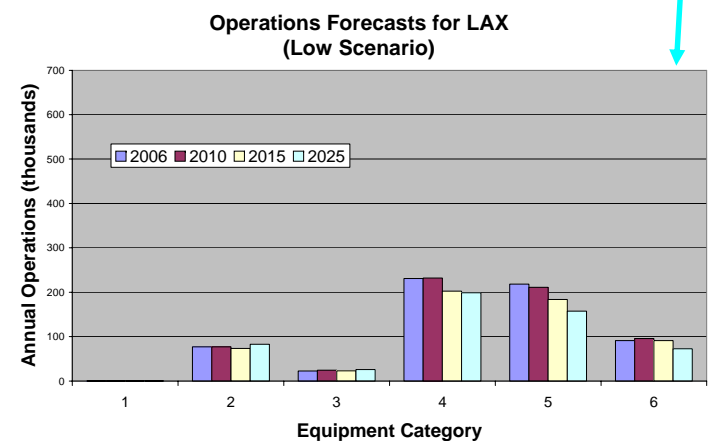
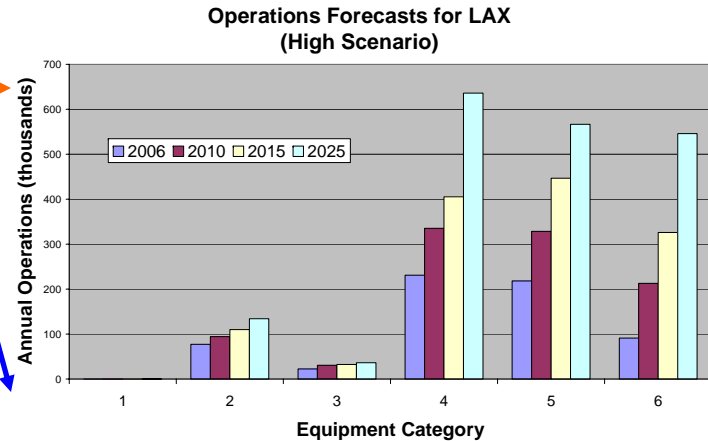
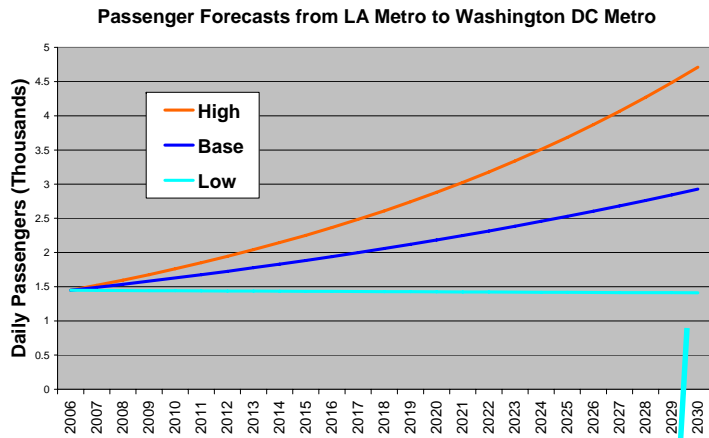
Highlight

The screenshot displays the FATE 2006 software interface. At the top, there is a menu bar with 'File' and 'Tools'. Below the menu bar is a navigation bar with tabs: 'Model Run', 'Review Metros', 'Review Segments', 'Review Totals', 'Review Schedules', 'Review ARTCCs', and 'Mapping'. The main workspace is divided into several panels:

- Passenger and Operations Forecasts Parameters:** Contains sub-sections for 'Passenger Forecasts' (with radio buttons for 'All Markets' and 'Select Markets'), 'Airport Choice Model' (with radio buttons for 'Historical' and 'Other'), 'Route Choice Model' (with radio buttons for 'Historical' and 'Other'), and 'Aircraft Assignment Model' (with radio buttons for 'All Segments' and 'Select Segments').
- Passenger and Operations Forecasts Select Years to Run:** A table with two columns: 'Year' and 'Completed'. The 'Completed' column contains the word 'True' for every year from 2005 to 2025.
- Scheduling Parameters:** Includes a note about forecast years and a table for 'Select Years to Run' (identical to the one in the previous panel). It also features input fields for 'Start Baseline Year' (2003), 'Start Baseline Quarter' (1), 'Baseline Proportion' (0.5), and 'Arrival Proportion' (0.6).
- Schedules Select Years to Run:** A table with two columns: 'Year' and 'Completed'. The 'Completed' column contains the word 'True' for every year from 2005 to 2025.

At the bottom of the main workspace, there are two buttons: 'Create Passenger and Operations Forecasts' and 'Create Schedules'. A globe icon is positioned between these two buttons.

Highlight

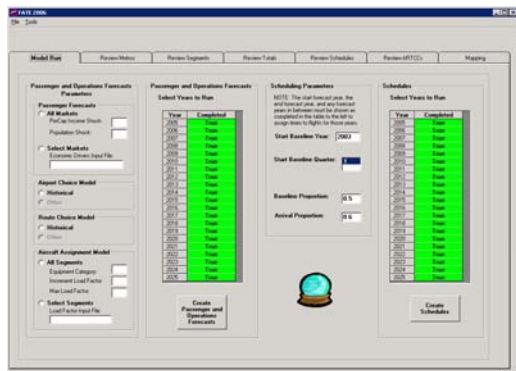


*Notional Forecasts – These do not represent actual model results

Impacts

- **FATE forecasts have been used in the FAA's *Capacity Needs in the National Airspace System Report* (also called *FACT*) and are being considered for other FAA analyses**
 - Research on the definition of metro areas has been used to support the FACT, flight plan, and OEP metro area alignment
- **Within CAASD, FATE will be used to provide forecasts for the following projects**
 - NE Airspace Analysis
 - All-Weather Super Density Trajectory-Based Operations MOIE

Future Plans



Origin and Destination Passenger Forecasts

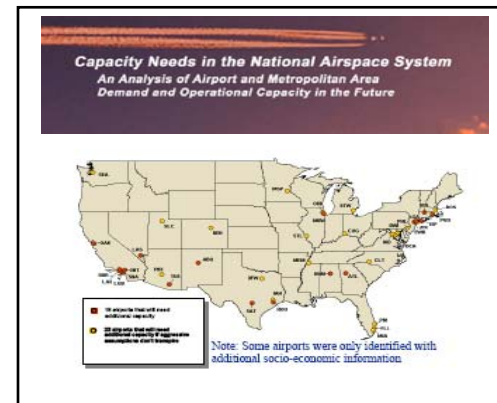
Analysis Using Passenger Forecasts



Flight Schedules

Flight Operations Forecasts

Analysis Using Future Schedules



Future Airport Capacity (FACT)

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