FAA FREE FLIGHT

CDM Benefits Review

August 2003

Overview

Collaborative Decision Making (CDM) is a joint government/industry initiative aimed at improving air traffic management through increased information exchange among the various parties in the aviation community and improved decision support tools. The program is one of the core technologies in the FAA's Free Flight program and includes participants from the FAA, air carriers, other aviation stakeholders, and academia.

CDM is developing several decision support tools, including:

- Flight Schedule Monitor
- Flight Schedule Analyzer
- Collaborative Convective Forecast Product
- Access to Runway Visual Range status information
- Route Management Tool
- Common Constraint Situation Display
- Diversion Recovery Page
- Airport Demand Chart
- Post Operations Evaluation Tool

Monthly Measures

SCS Now Operational

Slot Credit Substitution (SCS), the latest enhancement to managing Ground Delay Programs (GDP), became operational on May 12, 2003. SCS allows an airline to swap an arrival slot during a GDP for another slot at a later time. Flights from other airlines are used to bridge the gap between the forfeited and requested slots. This capability gives airlines more flexibility in managing their operations during GDPs.

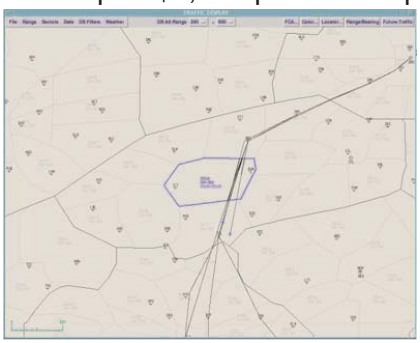
An initial analysis on the use of SCS between May 12 and July 8, 2003 showed:

- 224 flights bridged;
- 4,032 minutes of delay avoided (average 18 minutes of delay per aircraft);
- Approximately $200,000 savings (~$900 per flight).

Highlights

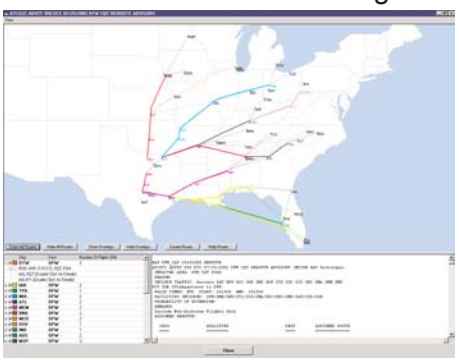
Flow Constrained Area

The Flow Constrained Area (FCA) capability, now integrated with the Enhanced Traffic Management System and the Traffic Situation Display, allows traffic managers to forecast congested airspace hours in advance, thereby supporting efficient solutions and reduced time en route. When an FCA is established, traffic managers can automatically generate a list of affected aircraft. Airlines can then be notified, and plan to avoid the area. This capability is estimated to save NAS users up to $2,000 per aircraft per event.



Reroute Advisory Tool

Phase 1 of the Reroute Advisory Tool (RAT) was also implemented on May 12, 2003. Previously, airlines had long lists of computer printouts to identify their affected flights; flights that could have been rerouted were not. RAT standardizes the format for reroute advisories and provides a list of affected flights for each reroute. RAT usage leads to improved coordination of available reroutes, which minimizes the impact of severe weather and congestion.



RAT Graphical Reroute Display