FAA/Industry Collaborative Weather Rerouting Workshop

TFM Focus Area Discussion Summaries
April 10 - 11, 2001
Topic 1: Information Dissemination to Achieve Common Situational Awareness

TFM Team

• Must have option for all to see exactly the same thing
  – Information elements (demand lists, weather displays, FCA boundaries)
  – Update rates (Monitor Alert refresh, data in from centers)

• Need to define better (or different) measures of system capacity and demand complexity
  – MAP values do not always reflect available capacity
  – Sector throughput may be useful way to aggregate demand

• Same information to all airspace users may cause congestion problems if they all choose the same reroute
Topic 1: Information Dissemination to Achieve Common Situational Awareness
TFM Team (concluded)

• Ability to be proactive, and achieve consensus, is limited by current weather and en route demand forecast capabilities
  – Identifying flow problem areas (initial and ripple responses)
  – Capturing flights contributing to problem or that will be affected by proposed mitigation strategies
  – Defining acceptable congestion mitigation strategies (reroutes and associated metering)

• Achieving consensus on future situation difficult
  – Different forecast capabilities amongst participants
  – Training of personnel involved in consensus process
Topic 2: Automation and Procedures Development
TFM Team

• Need to improve quality and timeliness of data
  – Speed at which data is made available within the system
  – Update rate of data driving alerting function is not timely

• Need to be able to better define resource (airport, fix, sector, etc.) throughput and capacity (e.g., MAP values, AARs)

• Automation system predictions need to be more responsive to real-time, flight related changes
  – Altitude changes
  – Deviations from filed routes
Topic 2: Automation and Procedures Development
TFM Team (cont’d)

• Need to reduce MITs to minimum that is effective
  – Tools needed to help analyze impact of proposed and active MITs, including interactions with other initiatives
  – En route metering could be an alternative to MITs
• FAA collaborate more with airlines at hubs to find give and take in schedules
  – Jointly assess impact of current airport scheduling
• Need to be able to manage GDP based on what individual arrival fixes can handle
  – MIT and GDPs currently go hand in hand to manage airport and fix volume constraints
Topic 2: Automation and Procedures Development
TFM Team (concluded)

• Have more involvement of FAA and industry in tool development and testing
  – Prioritize tools and their deployment sites
  – Expedite completion, stability, and deployment of tools
  – Facilitate standardization of use

• Clarify “Equitable Access to the NAS”
  – FAA orders say “first come, first serve”
  – How will “first come, first serve” fit in equitable access?
  – How do airborne and pre-departure flights fit in this concept?
  – How are airline priorities accommodated?
Topic 3: Practical Application in Real-Time

TFM Team

- TFM functions in reroute planning
  - Identify the areas that will be constrained
  - Define structure for use when needed to efficiently define actions (to reduce complexity)
  - Implement initiatives in response to changes in problem scope or user actions
  - Notify all NAS users when conditions change for flights that have already filed
  - Collaborate strategically, through SPT

- Airspace user functions
  - Provide accurate and timely flight information
  - Abide by the initiatives for circumnavigating constrained areas
Priorities
TFM Team

1. Data integrity
   - Updating FSM (cancellations, ETAs, substitution)
   - Accurate and timely Time En Route

2. Early intent, as soon as possible, with full route

3. Staffing

4. En route metering tool

5. Tactical information about current TFM plan from each facility
   - Recorded voice messages, updated regularly
   - Real-time distribution via phone, web and datalink, so all users could access the information (like ATIS)

6. DSP with flight strip bar coding