CDM Road Show

Friends & Partners in Aviation Weather Vision Forum

NBAA/NCAR
Welcome: NBAA/NCAR
CDM Road Show
Friends & Partners in Aviation Weather / Washington, D.C.

Collaborative Decision Making

Mark Libby, ATCSCC
Bob Lamond, NBAA
CDM Road Show

TFM Briefing
CDM “The Movie”
CDM Overview
CDM Sub Team Briefings
CDM Road Show

TFM Briefing
CDM “The Movie”
State of the Aviation Community
How Have Commercial Airlines Fared in the 2009 Economic Downturn?

Jet A Fuel Price                      Down 40%
Industry Revenue                     UP 3–4%
Industry Profit                      A Glimmer of Hope!

* 30,000 jobs lost in the airline business
How Did Business Aviation Do In 2009?

<table>
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<tr>
<th>Total Ops 2008</th>
<th>Total Ops 2009</th>
<th>% Change</th>
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<tbody>
<tr>
<td>4,300,000</td>
<td>3,600,000</td>
<td>-11%</td>
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- Inventory of used A/C for sale at an all-time high (20%+)
- Used A/C prices dropped 30% to 50% depending on model
- Jobs losses at GA manufacturing companies climbed over 19,000 as companies like Cessna, Hawker Beechcraft and Gulfstream companies laid off 25% - 50% of their workforce
- Job losses in flight departments, fractional companies, charter companies, and FBO’s numbered in the tens of thousands

The downturn had a significant economic impact on our national air transportation industry, but we “appear” to have at a minimum bottomed out, maybe started a slow climb back

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<tr>
<th>Total Ops Feb 09</th>
<th>Total Ops Feb 10</th>
<th>% Change</th>
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<tr>
<td>535,985</td>
<td>571,016</td>
<td>+6.5%</td>
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What is CDM?

- Hosted by the Airline Transport Association (ATA)

- Guidance: Collaborative Decision Making Stakeholders Group (CSG)

- Collaborative Decision Making (CDM) is a joint government/industry initiative to improve the Air Traffic Management (ATM) system through increased information exchange among all National Airspace System (NAS) stakeholders

- The success of CDM is directly related to the participation and commitment of all participating NAS stakeholders, including the FAA
Why was CDM Created?

- To facilitate increased information exchange between all ATM stakeholders for more effective decision making

- To establish a goal-oriented forum between government and industry for the development of solutions to problems within Air Traffic Management (ATM)

- To establish an effective communications path among all ATM stakeholders for increased system safety and efficiency
CDM Membership Requirements

- Must sign a Memorandum of Understanding (MOU)
- Must be able to provide flight plan data
- Must pass a data quality check

All flight plan data is unfiltered and available for all to members to see since 2008
CDM MOU (Membership) Benefits

- Access to the CDM “network” (Sub Teams)
  - Flight Schedule Monitor (FSM)
  - Flight Schedule Analyzer (FSA)
  - Operational Post Evaluation Tools (IRIS)
  - Route Management Tool (RMT and ROG)
  - Access to the Reroute Monitor
  - Common Constraint Situation Display (CCSD)
  - Collaborative Convective Forecast Product (CCFP)
  - Access to the Diversion Recovery Tool
  - Access to the TCA Webpage
CDM Recent Achievements

• Integrated Collaborative Rerouting (ICR)
• FSM flight plan data is unfiltered
• CCFP/LAMP Prototype
• CDM Roadshow Training
• Integrated Program Modeling (IPM)
• Re Route Impact Assessment Tool (RRIA)
• Improvements to the Data Report Card
• FAA CDM Office Business Plan
CDM General Session

Held bi-annually; Next session September 22-23, 2010
Hosted by Mitre, Mclean, VA
CDM Around The World

[Image of a group of people posing for a photo]
FAA Business Plan; CDM Activities

Develop a process to share airport surface data with stakeholders.

Target 1: Select a model Airport to share surface data-Completed

Target 2: Identify additional airports for data sharing - Ongoing

Utilize the Integrated Collaborative Rerouting (ICR) process during weather events.

Target 1: Develop and complete ICR Training – Completed

Target 2: Expand the use of ICR through the severe weather season - Ongoing
CDM Working Group Structure

A CDM Stakeholder’s Group (‘CSG’) composed of 7 members, 3 FAA and 3 industry plus an ATA designated leader, the CSG provides guidance, oversight, and tasking for the CDM work groups. Presently there are 6 work groups, each with an FAA and Industry co-lead.

- Weather Evaluation Team (WET) FAA/DAL
- Flow Evaluation Team (FET) FAA/NBAA
- Future Concept Team (FCT) FAA/DAL
- Release 7 Deployment Team (R7DT) FAA/UAL
- Surface CDM Team (SCT) FAA/FDX
- CDM Training Team (CTT) FAA/AWE
CDM Sub Teams

- Flow Evaluation Team (FET) FAA/NBAA
- Surface CDM Team (SCT) FAA/FDX
- Future Concepts Team (FCT) FAA/DAL
- Weather Evaluation Team (WET) FAA/DAL
- CDM Training Team (CTT) FAA/AWE
Flow Evaluation Team

Expand and Improve the Integrated Collaborative Rerouting (ICR) Process

Develop new Collaborative NAS Planning concepts

Develop new uses for AFPs; AFP Overlays

Development of Route Segment Coded Departure Routes (CDR)

FCA Estimated Capacity Development

Future Applications of RTA/CTA in TFM
Collaborative Planning Time Line

As time progresses, certainty increases
Scenario possibilities become definable

Certainty Increases With Time

05/1800 Initial Look Plan for Next Day
06/0000 Upper Winds
06/0100 Telcon on next days plan
06/1200-1215 Upper winds Morning Telcon
06/1515 Telcon with New Forecast

Transition to Tactical with 8-10 hours lead of event start

Impacting event managed through the NSST at DCC
- Hotlines
- Event Specific Telcons
- Online Chat through ISC
- Special Telcons

Strategic Planning

Tactical Planning
Day Ahead Process Example

FORECAST IMPACT CONDITION

GOES INTO PLAN (PRIOR TO 18Z)

CHAT WINDOW WX DISCUSSION

CHAT WINDOW TFM DISCUSSION

- CWSU
- CUSTOMER WX PRODUCTS
- AIRPORT OPS
- DCC WX
(COLLECTION & MODERATING)

PLANNER DISCUSSION AOC/ TMU

PUBLISHED BY 0100Z (TELCON) FOR NEXT DAY

DAY +1 - 18Z-00Z
Surface CDM Team

- Developed Requirements Document for sharing airport surface data (Draft under review)

- Developing a Concept for use for a Surface CDM environment

- Collaborating with EuroControl Airport-CDM Team to harmonize (where possible) Surface CDM Procedures

- Other Surface Projects as assigned
Future Concept Team

- Developed System Enhancements for Versatile Electronic Negotiation (SEVEN, foundational step to CTOP)

- Phase I of Collaborative Airspace Constraint Resolution Subset (CACR) in Response to TF5

Future Mid-Term, NextGen Projects
CDM Training Team

- Joint Training for all new CDM Tools and Procedures

- The 2010 spring training is now available on TFM Learning Center: [http://TFMLEARNING.FLY.FAA.GOV](http://TFMLEARNING.FLY.FAA.GOV)

- CDM Website- [www.cdm.fly.faa.gov](http://www.cdm.fly.faa.gov)

- Developing Joint CDM Training for FAA field facilities and Industry AOCs/FOCs

- Plan and coordinate CDM Roadshows
Weather Evaluation Team

• Tactical use of the Weather Impacted Traffic Index (WITI)

• WET/ATO-W/ATO-P testing Collaborative Storm Prediction for Aviation (CoSPA)

• Improvements to the current CCFP (LAMP/CCFP Hybrid)

• Exploring ways to share Terminal upper level wind impacts (e.g. Compression)
CDM Overview - Friends & Partners in Aviation Weather / Washington, D.C.

Traffic Flow Management (TFM)

By: Patrick Somersall
ATC SCC

Link to “Traffic Flow Management”