

# NEWS

*And Current Events*



**CDM**  
Collaborative  
Decision Making

December 2017

## *Improving Air Traffic Flow Management Together*

We all have a  
piece of the  
puzzle



### **A Message From CDM Leadership: Commercial Space and the NAS — by Greg Byus**

On November 8 and 9, the Office of Commercial Space hosted In-Days with companies in the commercial space industry. Over the of the two days, there were several agenda items aimed at develop-“Concept of Operations for Commercial Space Integration into the tional Airspace System.” Several companies presented information on their operations and the type of information that the operators have available to share in a Collaborative Decision Making process. On day 2, I had the opportunity to present information on CDM and describe how the flight operators today share information with the FAA and the broader CDM community. The key element of CDM is the data exchange between industry and the FAA. The data elements for flight operators have been clearly defined and understood for years. As we look forward to new entrants in CDM, the historical data elements may not capture all the information that is available and we need to be

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To remove your name from our mailing list, please [click here](#).

Questions or comments? Email me at [jadyne.m.seitz@faa.gov](mailto:jadyne.m.seitz@faa.gov) or call 540-422-4553



**Spotlight! From the  
Editor: Recognizing the  
work of a CDM  
subteam:**

### **2008: A Not So Merry Christmas Eve in Newark**

On Christmas Eve 2008, the traffic management unit at ZNY witnessed what was no present from Santa Claus. That day, delays overwhelmed the air traffic control system due to compression at

EWR. It was a real eye opener for Kevin



Johnston, the FAA System Operations chief meteorologist. What made that day worse, said Johnston, was that these wind conditions experienced in the northeast were totally predictable for that time of year. “The rest of the weather was visual flight rules,” he recalled. “Airlines were wondering, ‘Why are we having these problems?’ That’s when I realized as

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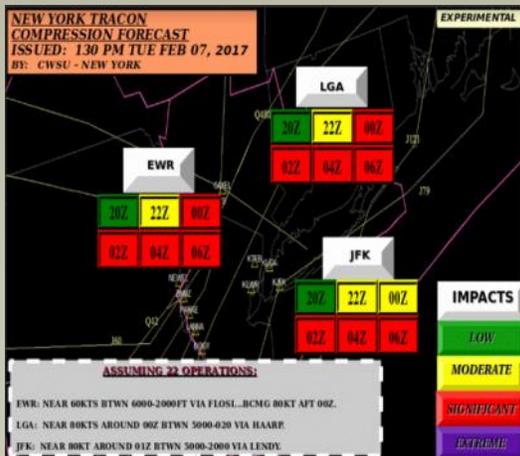


2008... (Continued from page 1)

a weather guy this weather impact should have been well known and communicated to the operations community. This was not a surprise from the forecast standpoint, and yet, look what it did to the traffic.” FAA management learned a lesson that day and from several other weather-compression incidents. They tasked the Collaborative Decision Making Weather Evaluation Team (that Johnston co-leads for the agency) to look at what could be done to communicate this type of weather information from the weather community to the operations community. One of the immediate actions that the team took was to develop “a really simple quick graphic that conveyed not so much pure compression, but that the setup was right for compression,” said Johnston. That graphic would then be factored into the air traffic manager’s plan for the day.

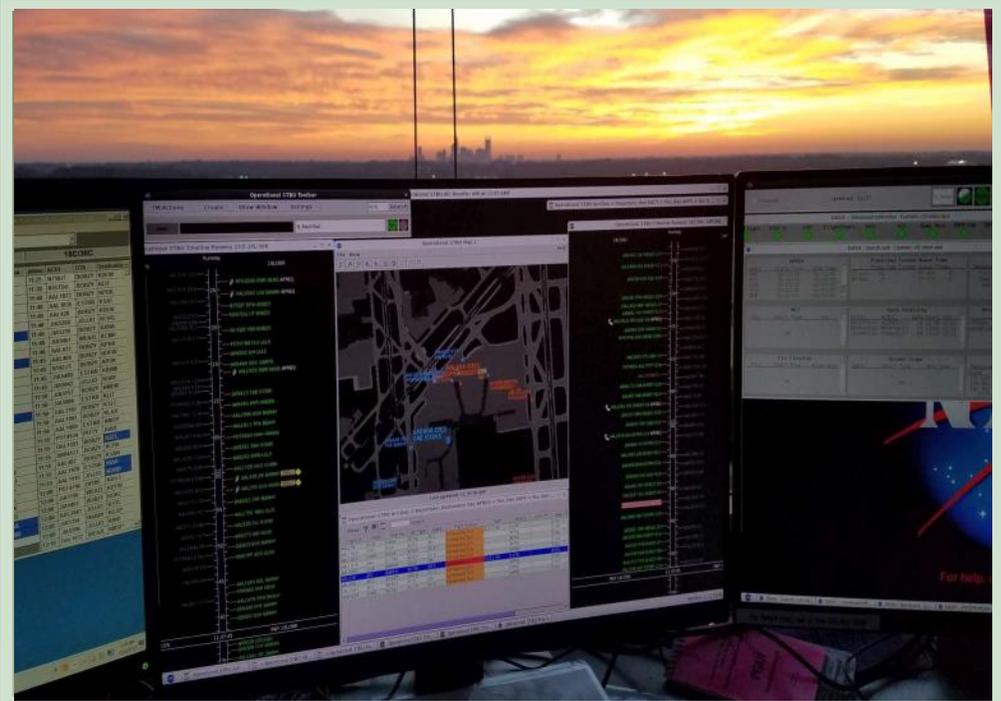
editor’s note: (This excerpt is from a myfaa.gov, Focus FAA article published last month...)

To read the full article and learn more about compression [click here.](#)



Screen shot of the N90 compression decision aid.

## ATD-2 Field Demonstration Commences Tower/Center Electronic Negotiation



On November 1, 2017, the Airspace Technology Demonstration 2 (ATD-2) Integrated Arrival/Departure/Surface (IADS) field demonstration at Charlotte Douglas International Airport (CLT) began Phase 1B operations. In this “micro-phase,” Federal Aviation Administration (FAA) Traffic Management Coordinators (TMCs) at the CLT Air Traffic Control Tower (ATCT) and Washington Air Route Traffic Control Center (ARTCC) will use the ATD-2 system to electronically negotiate takeoff times for Call for Release (a.k.a. Approval Request or APREQ) departures being scheduled into busy northeast corridor overhead traffic flows. The ATD-2 electronic negotiation feature builds on the Integrated Departure Arrival Capability (IDAC) in the FAA’s Time Based Flow Management (TBFM) system. In the ATD-2 implementation, the standard IDAC tower user interface is replaced by the ATD-2 IADS Surface Trajectory Based Operations (STBO) component, enabling Tower TMCs to perform IDAC-style scheduling for APREQ flights with their primary surface tool. Additionally, the ATD-2 implementation automatically delivers predicted takeoff times from the STBO surface tool to the Center tool, thereby improving CLT departure demand predictions used by the TBFM scheduling system. The ATD-2 IADS system also includes user interfaces at the CLT ramp tower providing ramp managers and controllers with information on negotiated APREQ release times and pushback advisories to meet APREQ times. This achievement represented 17 months of collaboration between the NASA ATD-2 team, multiple FAA organizations, and the TBFM contractor, to implement a secure and reliable network interface between the NASA ATD-2 IADS system at CLT and the opera-

(Continued on page 3)



### ATD-2 Field Demonstration

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tional FAA TBFM system at Washington ARTCC. The collaboration produced a new interface without requiring any code changes to the TBFM system, which will serve as a model for future FAA efforts to integrate TBFM with other decision support systems. The Phase 1B field demo

plan calls for CLT ATCT and Washington ARTCC to initially use the ATD-2 electronic APREQ scheduling in a semi-automatic mode (i.e., requiring the ARTCC TMC to acknowledge a negotiated release time)

supplemented with a phone call (i.e., same as manual APREQ scheduling). After an initial confidence-building period, the supplemental phone call will be dropped and the ATD-2 system will be routinely operated in semi-automatic

mode.

The eventual goal is to demonstrate sufficient APREQ compliance performance for the ATD-2 system to be operated in fully-automatic mode for APREQ scheduling. (Editor: This article was republished from the NASA ATD2 Newsletter, November 2017)



**Shifting some of the departure wait time from the taxiway to the gate saves fuel, reduces emissions, and gives airlines and passengers more options prior to pushback. The surface departure metering capability being demonstrated at CLT is consistent with the FAA- and Industry-developed **Surface Collaborative Decision Making (CDM)** concept. NASA combined Surface CDM principles with advanced trajectory-based scheduling technology to create the ATD-2 IADS system.**

NASA Aeronautics Web Feature/Video Posted on ATD-2

On Wednesday (Nov 1st), a NASA Aeronautics web feature and video on ATD-2 was published. The web feature and video is available here: <https://www.nasa.gov/aero/nasa-air-traffic-management-demo-goes-live>



### Ongoing CLT Field Demonstration of Surface System

### Consistent with the S-CDM Concept

Submitted by: *Al Capps – NASA  
ATD-2 Chief Engineer*



Editor's note: What makes Sys Ops cool? This.



The Surface CDM Team (SCT) and CDM Automation Team (CAT) have held combined meetings since Sept 2017 to further identify needs from FAA and Operator automation and procedures in support of the FAA's Terminal Flight Data Management (TFDM) system. The current tasking is focused on determining the benefits gained by improved predictability from items such as Earliest Off Block Times (EOBTs) from the Operators. The combined SCT/CAT team has leveraged lessons learned from the NASA Airspace Technology Demonstration 2 (ATD-2) field demonstration that is currently underway at CLT airport and ZDC Center. The operational evaluation began on Sept 29<sup>th</sup> and users of the ATD-2 system have completed checkout of all three major capabilities envisioned for the first year of the three-year of demonstration.



**Al Capps from NASA.**

ing information, as well as local traffic management procedures that previously were not electronically shared with industry. Operators in the ramp have access to flight specific Call For Release (CFR/APREQ) information, Miles in Trail information (MIT), Ground Stops (GS) and all other restrictions. Local Operators in CLT ramp provide ramp clearance inputs

that allow highly instrumented data collection and real-time input into the current operation.

At the Dec 6<sup>th</sup> SCT/CAT meeting, NASA presented

initial data from the CLT field demon-

stration that indicate considerable surface metering benefits in the form of fuel and emissions reduction with no reduction in operational efficiency. In addition, CLT's operational use of the system indicates benefits from greater information sharing, more efficient use of overhead stream resources, and increased ability to analyze traffic flow strategies using the instrumented output and daily reports.



**Ramp Manager Using ATD-2 for Ramp Planning, Awareness of TMIs and Surface Metering**



**ATCT TMC Using ATD-2 for Surface Traffic Flow Management Planning and Execution**

The FAA's SWIM infrastructure provides the backbone of flight data required to drive the ATD-2 system. This includes SWIM feeds from TFM, TBFM, ERAM and Surface SWIM feeds. The FAA TFM SWIM also provides the EOBTs and LGTDs that are produced by CDM Operators. Local FAA ATC at CLT provide time configuration and runway balanc-



# Subteam Updates

### CTT (CDM Training Team):

Joe Dotterer (FAA) & Gary Dockan (Industry) co-leads.

Joe Dotterer, FAA Team Lead advised the CSG that the 50113 classes are underway. One class a month will be offered through May. Industry is invited to participate in these classes; however, due to space limitations, airlines are requested to limit attendance to two participants per class. CDM subteams are reminded to keep the CTT in mind for any potential training material to add to the Spring 2018 Training package.

Joe and Gary look forward to supporting your CDM training efforts.

[gary.dockan@aa.com](mailto:gary.dockan@aa.com)

[joe.dotterer@faa.gov](mailto:joe.dotterer@faa.gov)



**Joe Dotterer (pictured) and Gary Dockan head up the training team.**



Save the date .... Spring CDM  
April 30 – May 3

### CAT (CDM Automation Team):

Jill Sparrow (FAA) & Charlie Mead (Industry) co-leads.

The CDM Automation Team (CAT) and the Surface CDM Team held joint meetings on November 15 and December 6. The teams are jointly working on Task #78 and Task #79.

Task #78 “Flight Operators: Surface Data Sharing to Support TFM and TFD M Strategies” was previously Task #74 and was revised by the CSG in June, 2017. This task focuses on the provision Earliest Off Block Time (EOBT) and other surface data elements for flight operators that are not CDM participants. The teams are exploring the possibility of providing airport authorities the capability to submit EOBTs for international and general aviation operators that do not submit CDM messages. The population of surface data in TFMS is a key element in improving schedule predictability and operational efficiency for traffic management initiatives (TMI) within the Traffic Flow Management System (TFMS), Time Based Flow Management (TBFM) and Terminal Flight Data Manager (TFDM).

For Task #79 “Data Element Provisions by Airport Authorities”, the teams are exploring avenues for airport authorities to provide airport surface related data such as diversion information, deicing through-put, gate availability, and tactical runway/taxi-way closures. It is anticipated that data supplied by airports will improve predictability for surface operations and allow stakeholders to respond more effectively to

changing surface conditions. This task involves identifying and defining essential data elements for inclusion in the Airport CDM MOA.

Participating with the teams are representatives from Airport Council In-



**Jill Sparrow (pictured) and Charlie Mead head up the CAT**

ternational North America (ACI-NA) and the four pilot CDM airports: New York/New Jersey Port Authority, Dallas-Fort. Worth International Airport, Las Vegas McCarran International Airport, and Ft. Lauderdale International Airport. The CAT and SCT will meet together again in January and February.

For further information:

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[charlie.mead@aa.com](mailto:charlie.mead@aa.com)



# Subteam Updates *(Continued)*

## PET *(PERTI Engagement Team):*

Kevin Bannwolf (FAA) & Mike Sterenchuk (Industry) co-leads.

The PERTI Engagement Team (PET) has met a few times now and is in the process of working through their tasking. They are defining the processes that the PET Team could use, moving forward, as to how it pertains to the Plan, Execute, Train and Improvement modules.

Some of the recommendations from the PET team are in the process of being implemented; i.e. the use of one planning team to help provide continuity from the planning process into the execution phase. The teams' initial meeting identified the need for continuity between the PERTI telcon held the day before, and the OPS planning held the day of operations on the ATCSCC floor. Too often constraints were removed from the operational plan on the day of execution (by morning ops planner) even though the constraints were expected to occur later in the day. This created a hardship for flight operators who were already planning for the remainder of the day. We feel it is imperative to create a "planning unit" that conducts the PERTI telcon one day and also the operational planning the next day on the operational floor to help execute that plan, maintain continuity and resolve many issues.

Other recommendations are currently being addressed. The PET team plans to meet each of the next four months to continue our work through the tasking and to define parameters. You can expect



**Members of the PET team during a break from a meeting at the ATCSCC**



to receive quarterly updates from the PET and they DO welcome your comments and inquiries.

The co-leads would value your correspondence:

[kevin.j.bannwolf@faa.gov](mailto:kevin.j.bannwolf@faa.gov)

[mike.sterenchuk@aa.com](mailto:mike.sterenchuk@aa.com)



**Bill Tuck, Dwight MacConnell and Mike Sterenchuk of the PERTI Engagement Team**

## SCT *(Surface CDM Team):*

Brian Gault (FAA) & Robert Goldman (Industry) co-leads.

The Surface CDM team has been working jointly with the CAT team in recent months on tasks 78 and 79.



**Rob Goldman (SCT)**

**TASK 78:** In mid 2017, it was decided by the CSG, that such a joint approach would be more effective in the evaluation of the provision of data elements in support of Terminal Flight Data Management (TFDM) and Traffic Flow Management (TFM) activities.

**TASK 79:** The timely sharing of airport related CDM Data will further expand NAS stakeholders' ability to better pre-

*(Continued on page 7)*



# Subteam Updates *(Continued)*

*(Continued from page 6)*

*(SCT cont.)*

dict and manage demand on an airport surface operation. The U.S. Airport Surface Concept of Operations (ConOps) in the Near Term establishes airport managing authorities as a stakeholder in such an operation, by having the ability to share key informational data applica-



**Eric Cole briefs the CAT/SCT about the Collaborative Site Implementation Team (CSIT) timeline plans for airport integration in CDM. Eric is also a recent added member to the SCT.**

ble to airport operations. Information that airports could be responsible to provide include (but are not limited to): unscheduled operations data, diversion information, surface conditions, construction, winter operational information including deicing through-put rates, tactical runway and taxiway closures.

For further information on the SCT:

[brian.gault@faa.gov](mailto:brian.gault@faa.gov)

[robert.s.goldman@delta.com](mailto:robert.s.goldman@delta.com)



**Members of the CAT/SCT team—Fall 2017**



**The SCT took the opportunity to say goodbye to BOS ATCT's Maureen Szczygielski on Sept 27th 2017. Her support of CDM throughout the years has been greatly appreciated. Brian Gault from DTW ATCT has taken over as co-lead of the SCT.**

## **FET** *(Flow Evaluation*

*Team):*

Al Mahilo (FAA) & Ernie Stellings (Industry) co-leads.

The Flow Evaluation Team had a telcon on December 6, 2017, to update the members of our taskings and plans going into the new year. The team discussed the status of the Integrated Demand Management (IDM) tasking with NASA Ames. We are planning on having a joint telcon with the NASA Ames team in January to discuss the planned human-in-the-loop (HITL)'s set for early 2018. Under the IDM concept, traffic is preconditioned using the

*(Continued on page 8)*



# Subteam Updates

(Continued)

(Continued from page 7)

### FET (cont.)

Collaborative Trajectory Options Program (CTOP) as a strategic traffic management initiative, and further conditioned by applying required times of arrival (RTA) to airborne flights outside the TBFM scheduling freeze horizon, *thus* reserving space for departures closer to the arrival airport and promoting more delay equity.

The FET also discussed ABRR/PDRR items as FAA facilities begin to turn the functionality of the tool on at various dates across the NAS.

For further information about IDM or ABRR/PDRR deployment contact the Flow Evaluation Team :

[estellings@nbaa.org](mailto:estellings@nbaa.org)

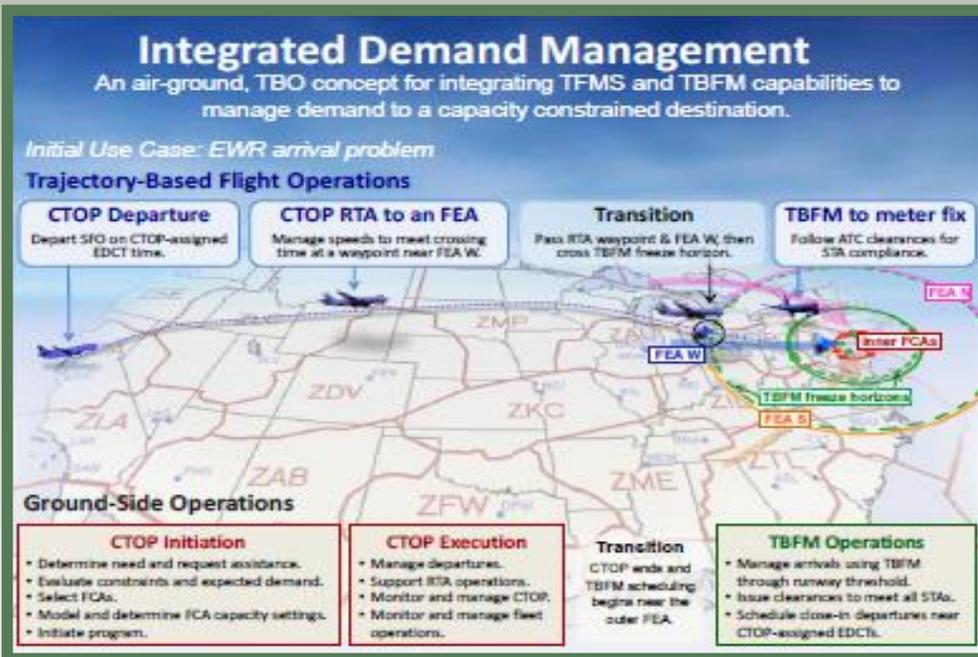
[al.mahilo@faa.gov](mailto:al.mahilo@faa.gov)

### FCT (Future Concepts Team):

Jennifer Ross (FAA) & Frank Oley (Industry) co-leads.

The FCT had a one hour meeting on Wednesday, December 6, 2017. Phil Santos and I got together with Frank Oley (The industry co-lead) to “pass the torch” from Phil to Frank. We discussed past tasking’s and what tasking’s we may be looking at toward the future. We went over co-lead responsibilities concerning agenda’s, coordination, and communication. We discussed the importance of dissemination throughout the team as well as reporting upward to the CSG on project progression.

Frank and I both look forward to the next tasking assignment for the FCT team.



Jennifer Ross is an NTMO at the ATCSCC and the new FAA co-lead on the FCT.

Under the IDM concept, traffic is preconditioned using CTOP as a strategic TMI while RTA is applied to airborne arrivals. Using this method, space is reserved for departures closer to the arrival airport, promoting more delay equity.

(Continued on page 9)



# Subteam Updates *(Continued)*

*(Continued from page 8) FCT (cont.)*



**Frank Oley of A4A is the new industry co-lead for FCT.**

A little about Frank: Frank has been at A4A for a little over 6 years now in the Command Center at the Air Traffic Management desk. Prior to A4A he had 25 years with US Airways, in numerous operational support positions; for 12 years he was manager of the PHL Ramp Tower. And, prior to joining the airline, he served 7 years active duty in the USAF as an air transportation specialist.

Watch for future FCT news in March 2018:

[jennifer.a.ross@faa.gov](mailto:jennifer.a.ross@faa.gov)

[foley@airlines.org](mailto:foley@airlines.org)

## WET *(Weather Evaluation*

*Team):*

Kevin Johnston (FAA) & Jeff McLaren (Industry) co-leads.

The WET had its Fall meeting in the District of Columbia December 6-7 to begin work on a new task (81) which is to provide recommendations of the weather ConOps and weather information re-



**Kevin of the Weather Evaluation Team.**

quirements to the FAA Weather Program Office which is developing Work Package Two (WP2) for Common Support Services -Weather (CSS-Wx) and NextGen Weather Processor (NWP). CSS-Wx provides a single source for FAA weather information and establishes enterprise level common support services using SWIM and broadly adapted data access and format standards. NWP produces advanced

aviation specific weather products. During the meeting the WET received briefings on CSS-Wx and NWP. As we move into the future, WET will work with AJM-33, AJR, ANG-C6, as needed, to support engagement between Industry and FAA throughout the development and deployment of CSS-Wx and NWP.

On November 2, 2017, some members of the WET and other CDM stakeholders participated in technical exchange meeting led by the National Weather Service (NWS) Aviation Weather Center (AWC) in Kansas City, MO. The meeting was to help design the user interface of the Extended TFM Convective Forecast on the AWC web-site. The meeting was considered a success and the new design and functionality of the web-site should be available for the start of the 2018 convective season.

For further WET information please contact:

[kevin.l.johnston@faa.gov](mailto:kevin.l.johnston@faa.gov)

[jeff.mclaren@aa.com](mailto:jeff.mclaren@aa.com)



# Making

# NEWS *And Current Events*

## From CDM Leadership :

*(Continued from page 1)*

able to identify and define what information is needed from new entrants to CDM and how that information is shared with the rest of the community. The CAT and SCT are currently going through this process with their tasks around defining airport specific information and bringing airport operators into the CDM arena. The work we have been doing on rewriting the CDM governance document allows us the flexibility to include new, non-traditional participants into CDM with the goal being a better understanding of all aspects of operations that impact the NAS. Airport operators are our first new entrant to CDM and the Commercial Space operators will be following shortly behind. This is an exciting opportunity for all of us to continue the tradition of transparency, information sharing, collaboration, communication and shared responsibility that is CDM. I look forward to continuing to engage with the commercial space operators and taking the lessons learned from our pilot program with airport operators and applying them to establishing CDM with whoever may be that next entrant into operations in the NAS. We have developed a framework for the future and it is exciting to see what opportunities await us. I'll keep you posted... *G. Byus*

## Upcoming Subteam Meeting Information

CAT	Jan 23-24	Feb 13-14	
FCT			
FET	Jan 16-19	Feb 5-9	Mar 5-8
WET	Jan 31- Feb 2		
PET	Mid Jan		
SCT	Jan 23-24	Feb 13-14	
CTT			



Greg Byus, speaking at the Office of Commercial Space's Industry Days, is the manager of CDM and International Operations at the Command Center and serves as the FAA CDM Lead on the CSG (CDM Stakeholders Group).

# Collaborative Decision Making

December 2017



## NEWS *And Current Events*

### More From CDM Leadership: CDM Membership and Participation and Reform

— by *John Martin*

I have for some time, been thinking about CDM and how to get new participants to *want* to participate in the CDM process. This is, and has been a long standing issue for both the FAA and the Industry. CDM history shows us that many of the founding members who were there in the “early days” are still the leaders today who are guiding and shaping the future of CDM. This has both a positive and negative impact on what the new organization might be like in the future.

Negative impact: From the Industry side, new people who find it interesting and maybe something they would like to participate in, sometimes find it intimidating. I know I certainly did when I went to my first meeting. The younger people who are just starting their aviation careers, are doing everything in their power to learn about the tools of their business, aircraft equipage, companies (or agencies) and career progression and don’t have the time, or want to put forth the effort to get involved in something as “big” as CDM.

Later, after being involved in their companies’ (or organizations’) activities and their comfort level has increased, people want to take on more responsibilities and this is where CDM Leadership should be directing some efforts to recruit new participants for work groups.

Positive impacts: Knowing that you will make a difference in having a voice for your agency, airline, airport or flight department, and also the knowledge that you, yourself made a difference in how people across the country and the world see the US aviation system progressing along and remaining the safest and best aviation system in the world. Not only is this a motivational push for CDM, but also for the new participant to want to move ahead and become future leaders of CDM. These future leaders believe in the process and believe they can be the catalyst for some change.

As “fresh eyes” look in, new ideas tend to surface. New ideas lead to better tools, and better ways to operate in the NAS. Many of the tools that are utilized today were ideas that the work groups had floated around or “spit-balled” in sub-group meetings. Some examples are the CCFP, and now the Mexican routes (which are in negotiation and development). The ideas of the OIS, and the 2 hour planning telcons had come out of CDM discussions. There are numerous initiatives that CDM had a hand in getting started in some form or another, and its participants were all new at one time.

Attending the annual general meeting to see what is involved can, and should be something that every employee of an aviation entity should be able to do in plishing. Meeting the the CDM Initiatives, the safest and most



order to see what this little “grass root” movement has done, and is capable of accomplishing. Meeting the people who had a hand in influencing where CDM is today, could influence the future of shape the National Airspace System and set an example of how the rest of the world views efficient airspace in the world.

~John Martin

John is the Manager of Air Traffic Services for JetBlue Airways and recently served as the Industry CDM lead.. This article is republished from the September CDM Newsletter. Thank you John for serving the CSG. Phil Santos has been selected as the new Industry CDM lead.

## NEWS

**The CSG Subteam Facebook Page: Have you joined?**

Care to?

This Facebook page is for the sole purpose of creating and sharing info to all CSG subteam members and to your newsletter editor!

AGENDAS, ANNOUNCEMENTS, PHOTOS, MEETING DATES AND CONTACTS CAN BE SHARED HERE.

**FIND IT HERE :**

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<https://www.facebook.com/groups/1351965931517707>

✎ Write Post

📷 Add Photo/Video

📺 Live Video

⋮ More

ADD

**BRACE YOURSELVES**



*Happy Holidays*

*See you in March!*



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