

**Meeting Summary, November 20, 2014**  
**Tactical Operations Committee (TOC)**

The seventh meeting of the Tactical Operations Committee (TOC), held virtually on November 20, 2014, convened at 9:00 a.m. The meeting discussions are summarized below. The following attachments are referenced:

Attachment 1 – List of Attendees

Attachment 2 – Presentations for the Committee (containing detailed content of the meeting)

Attachment 3 – Summary of the September 3, 2014 TOC Meeting

Attachment 4 – Eastern Regional Task Group Caribbean Tasking Letter

Attachment 5 – Eastern Regional Task Group Appendix to Terms of Reference

Attachment 6 – Class B Tasking Letter

Attachment 7 – Airport Construction Tasking Letter

Attachment 8 – NPA Initiative Draft Tasking Letter

Attachment 9 – FAA Article on NOTAM Search

**Welcome and Introductions**

Committee Co-Chairs, Mr. Jim Bowman, Vice President of Flight Operations at FedEx Express, and Mr. Dale Wright, Director of Safety and Technology at NATCA, called the meeting to order and welcomed the TOC members and others in attendance. All TOC members and attendees from the public were asked to introduce themselves (TOC members and General Public Attendees are identified in Attachment 1).

Mr. Bowman and Mr. Wright reviewed the agenda and began the proceedings of the meeting.

**Designated Federal Official Statement**

Ms. Elizabeth “Lynn” Ray, Vice President of Mission Support for the Air Traffic Organization (ATO), and the Designated Federal Official of the TOC, read the Federal Advisory Committee Act notice governing the open meeting.

**Approval of September 3, 2014 Meeting Summary**

The Chairs asked for and received approval of the written Summary for the September 3, 2014 meeting (Attachment 3).

### **Introduction of New TOC Tasks**

Mr. Trin Mitra, RTCA, introduced four new tasks that the FAA is in process of requesting of the TOC. For each task, Ms. Ray provided an overview and the TOC provided input on leadership and participation, where appropriate. The summary of each task discussion is below:

#### *Operations in the Caribbean*

Mr. Joe Bertapelle, JetBlue, began the discussion on this task by providing a review of the operational issues in the region. Mr. Bertapelle noted the airspace challenges in South Florida, in San Juan, as well as in the region between Florida and San Juan. He also discussed various infrastructure needs in the region, such as frequencies, data exchange with foreign Air Navigation Service Providers (ANSPs) and ADS-B coverage.

Ms. Ray then provided an overview of the task from the FAA perspective. This task (included as Attachment 4) requests the Eastern Regional Task Group (ERTG) to provide recommendations to the FAA on how to prioritize resolutions to the efficiency, delay and safety concerns resulting from growth of operations in the Caribbean. The task asks the Eastern RTG to submit a report to the TOC with recommendations in June 2015. This task has an existing Task Group (ERTG) with Terms of Reference and Leadership in place.

Ms. Ray emphasized the FAA's interest and excitement for this task but also communicated the reality that the people who do the airspace and infrastructure work to resolve such issues are in high demand. She stated that any prioritization from the Eastern RTG would be valuable in guiding the FAA on how to sequence the solutions in Caribbean region. She also noted that the FAA would provide a list of Subject Matter Experts to the Eastern RTG.

Mr. Bertapelle then discussed the ERTG's plan to conduct the work on this task. The Task Group would be meeting in early January and anticipated a monthly meeting in either Miami or San Juan through April. The group planned to submit its recommendations at the June TOC meeting.

Finally, an Amendment to the RTG Terms of Reference, focusing on the Caribbean Operations tasking (included as Attachment 5), was presented to the TOC for consideration. The TOR Amendment establishing the ERTG Caribbean task was approved by consensus by the TOC.

#### *Class B Airspace*

Ms. Ray next gave an overview of a tasking related to Class B airspace. She stated that the FAA was interested in strengthening the process and procedures for both adding Class B and removing Class B airspace that no longer fit the criteria. The task (included as Attachment 6) requests recommendations regarding the evaluation requirements and process for Class B airspace design or elimination. The task asks for recommendations by June 2015. This group has Leadership identified;

however, terms of reference are still to be developed along with establishing the members of the group.

A TOC member inquired if the task request was specific to a part of the country or focused on a particular airspace. Ms. Ray answered that the task was not designed to focus on a specific airspace. However, she also noted that examining specific case studies may be appropriate in informing how Class B evaluation could or should evolve in the future.

Mr. Mitra then introduced the leadership of this Task Group: Ms. Melissa McCaffrey of the Aircraft Owners and Pilots Association and Mr. Phil Santos of FedEx Express.

Finally, TOC members voiced input on participation on the Task Group itself. Multiple members communicated the sentiment that having General Aviation involved and in a leadership role was a strong fit for this activity. Additionally, representation from the military, a pilot organization, business aviation, airports and MITRE all expressed an interest in having representation from their organization on the Task Group.

#### Airport Construction

Ms. Ray next introduced a new task (included as Attachment 7) related to airport construction. She described the task as both complicated and “action-packed.” Ms. Ray noted that this task crossed multiple lines of business within the FAA, notably the Air Traffic and Airports Organizations. The task requests TOC recommendations on a series of issues related to airport construction, with emphasis on both the operational efficiency and safety impacts from construction. The task requests understanding best practices from historical construction projects, review of tools and agency processes, recommendations on stakeholder outreach and management of safety risk introduced by construction. TOC Leadership is in process of identifying leadership for this task as well as required participants, and recommendations are requested by March 2016.

Ms. Ray noted that there may not be one single answer from this effort as there may not be a “one-size-fits-all” resolution to the issues around airport construction.

A TOC member from an airports perspective mentioned that airports today already have substantial guidance and requirements during airport construction. The airports community saw this task as an opportunity to integrate a “patchwork” of existing processes and guidance to make it work more effectively. Hence, identification of gaps and inconsistencies in current processes would be important to this task. The TOC member also noted that communication between different stakeholders has traditionally been a stage in which collaborative processes break down.

A TOC member from an airports perspective advocated that an individual with airport operational experience would be required for a lead role. The individual also stressed that involvement of a large airline in the other lead role would be required. Another TOC member stressed that this task required a multi-faceted approach and any leadership, particularly from an airline, would require a breadth of knowledge across airport operations, surface operations, flow management, etc.

TOC members from both airport and airline organizations expressed an interest to begin identifying candidates for Task Group leadership during the rest of the calendar year 2014.

### National Procedure Assessment (NPA) Initiative

Finally, Ms. Ray introduced a draft tasking on the National Procedure Assessment (NPA) Initiative. The tasking letter (included as Attachment 8) requests TOC recommendations on the FAA's assumptions and criteria developed to date in the NPA Initiative. This initiative seeks to establish a repeatable process and plan to cancel redundant or excess procedures in the National Airspace System (NAS). The TOC expects a final tasking letter early in calendar year 2015 and to review a Terms of Reference on the NPA initiative at its next meeting in February 2015.

One TOC member noted that knowledge of approach operations would be important to this activity. Another TOC member stated that ultimately the count of the number of times an approach is used would not be the only criteria; instead the criticality of the approach to access an airport in or out would be most important to consider.

### **Status of Existing Tasks**

Mr. Mitra provided a brief update to the TOC members about existing tasks:

#### NOTAM Task Group

Mr. Mitra informed the TOC that the FAA launched the NOTAM Search website on November 13, 2014. The site, available to the public at <http://notams.aim.faa.gov/notamSearch/>, is designed to address the requirements of the Pilot's Bill of Rights legislation which calls for making NOTAMs easier to access, search and filter. During 2014, the Tactical Operations Committee (TOC), in its role as the NOTAM Improvement Panel, delivered a series of recommendations to the FAA. The recommendation "NOTAM Search and Filter Options" provided prioritization of new functionality in NOTAM Search. From these recommendations, the FAA developed a four phase implementation plan to deploy NOTAM Search with Phase 1 launching on November 13th. The FAA provided an article it was using to communicate the launch of the NOTAM Search website for any interested parties to share within their organizations (included as Attachment 9).

Mr. Mitra noted that the NOTAM Task Group is currently in process of evaluating NOTAM Search and compiling its feedback. The group will convene in December to prioritize feedback on the Phase 1 implementation and provide recommendations on the matter to the TOC in February 2015. Some TOC members expressed an interest to provide feedback in this process and Mr. Mitra committed to send the template for feedback to the TOC.

#### VOR Minimum Operating Network (MON)

Mr. Mitra briefed the TOC on proposed changes to the Terms of Reference for the VOR MON Task Group (included in the presentation materials of Attachment 2). The task group has one additional task remaining (Task 3) which centers on the Performance Based Navigation (PBN) Route Strategy. The wording changes in the VOR MON Terms of Reference focus on understanding the Task Group's input on criteria surrounding developing and evaluation of the route strategy. The proposed TOR change was presented to the TOC and approved by consensus.

### **Briefing on Time Based Flow Management (TBFM)**

Ms. Sherrie Callon, FAA, briefed the TOC on TBFM. The briefing materials are included in the presentation materials in Attachment 2. Ms. Callon explained to the TOC that the Air Traffic Procedures Directorate had been established to execute the vision of TBFM. Ms. Callon reviewed a number of topics including the history of TBFM, a recent study group and its findings, policies and procedures for TBFM, training, new capabilities, etc.

The briefing generated a number of questions from TOC members. One inquired whether the FAA had a standard definition of metering that would guide when the FAA would utilize metering. Ms. Callon responded that only “time on the glass” for an air traffic controller was considered metering. She stressed the need for common language and understanding across all stakeholders and facilities and that this was a priority item for TBFM.

Another TOC member inquired if the FAA’s software support team is robust enough to do all of the adaptation work required to implement TBFM across the NAS. Ms. Callon discussed how the TBFM team is working to deploy “adapters” across the country and that they understand that adaptation is key to getting the best result.

A TOC member inquired what the status was of sharing and integrating data from the non-movement area at departure to the non-movement area at arrival. Ms. Callon responded that there is a well understood need to connect surface-level data to TBFM such that planning can be done with both surface and TBFM in mind. However, this is not yet implemented.

During the briefing, Ms. Callon mentioned that the FAA planned to deploy Integrated Departure Arrival Capability (IDAC) to 68 terminals over the next 4 years. A TOC member inquired whether there would be transparency on what those additional 68 sites would be. Ms. Callon responded that she would inquire with the Program Management Office to determine if the list of locations could be shared.

Finally, a TOC member re-emphasized the need for robust information sharing. The member noted that TBFM was an application that had far reaching impacts outside of the FAA and currently operators have a lack of visibility on those impacts. The individual applauded the FAA’s expected deployment of an aircraft’s release time in Flight Schedule Monitor but that this was only a start. Also, data related to benefits – reduced delay and holding – was currently anecdotal and for the industry to make business cases to its internal financial leadership, it needs data and metrics. The TOC member made a request that the TOC Leadership consider a tasking on TBFM related to increased collaboration between industry and the FAA.

### **Briefing on National Special Activity Airspace Program (NSAAP)**

Mr. Rob Hunt, FAA, briefed the TOC on NSAAP. The briefing materials are included in the presentation materials in Attachment 2. Mr. Hunt spoke about the NSAAP program, its history, plans and its current status. He stressed the ongoing budget challenges in the FAA and noted that funding for the NSAAP program was difficult to maintain. A TOC member responded by expressing his

appreciation to Mr. Hunt and the team at the FAA for moving forward on NSAAP after the program had stalled a few years back. The member noted that NSAAP was a “win-win” for all parties involved and it was confusing why the FAA struggled to fund the program.

The TOC member continued, noting that operational use of NSAAP would begin to become more critical in the future. As an example, he mentioned that when airspace is recalled, NSAAP would need to determine certain cutoff times such that operators planning to use the airspace would have ample notice of any changes. Such specific details on how to manage engagement with Special Activity Airspace (SAA) will need clarity, and the member recommended beginning to do some of this coordination now. Mr. Hunt echoed that there may be a rationale for the TOC and the NSAAP program to engage in the future.

Finally, a TOC member inquired if there were any required interfaces to access the data from NSAAP. Mr. Jim Perkins, FAA, responded by informing the members that the data was available via SWIM Services.

#### **Discussion on UAS and Commercial Space IPTs**

Ms. Ray briefly discussed IPTs that were forming in the ATO for Commercial Space and UAS. For Commercial Space, she noted that the Mission Support organization was in process of evaluating strategic questions around how launches are handled today and what issues needed consideration. There were potential policy implications, particularly around airspace access, inherent in establishing space ports. The IPT would continue to understand these significant strategic issues.

Ms. Ray also spoke about an IPT forming for UAS. She noted that the Air Traffic Organization (ATO) was organizing itself to best support the Flight Standards Organization (AFS), which was the FAA’s single voice on unmanned aircraft. The intent of the IPT was to support AFS and provide additional support to activities such as RTCA Special Committee 228. The IPT is expected to be in place by January 2015.

#### **RTCA / IATA Partnership**

Ms. Jennifer Iverson, RTCA, provided a briefing (included in briefing materials in Attachment 2) to the TOC regarding RTCA’s partnership with IATA to build consensus outside of the United States on implementation of the ICAO Aviation System Block Upgrades.

#### **Anticipated issues for TOC consideration and action at the next meeting**

At the next meeting, the Committee will further discuss the potential of a new TOC tasking focused on Time Based Flow Management (TBFM).

#### **Other business**

No other business was raised.

**Adjourn**

Chairmen Bowman and Wright ended the meeting of the Committee at 12:00 p.m.

**Next Meeting**

The next meeting of the TOC is February 5, 2015 in Washington, DC.

DRAFT

**Attendees:**  
**November 20, 2014 Meeting of the Tactical Operations Committee**  
**Washington, DC**

<b>Name<sup>1</sup></b>	<b>Company</b>
<i>Baum, Chris</i>	Air Line Pilots Association
<i>Bechdolt, Stacey</i>	Regional Airline Association
Bertapelle, Joe	JetBlue Airways
<i>Bowman, Jim</i>	FedEx Express
Callon, Sherrie	Federal Aviation Administration
Casoni, Scott	Federal Aviation Administration
Cebula, Andy	RTCA, Inc.
Courtney, Dale	Federal Aviation Administration
<i>Hopkins, Mark</i>	Delta Air Lines, Inc.
Hunt, Rob	Federal Aviation Administration
Iversen, Jennifer	RTCA, Inc.
<i>Kalinowski, Nancy</i>	Federal Aviation Administration
<i>Kast, Christian</i>	United Parcel Service
<i>Lamond Jr, Bob</i>	National Business Aviation Association
McCaffrey, Melissa	AOPA
Mitra, Trin	RTCA, Inc.
<i>Molin, Doug</i>	The MITRE Corporation
Murphy, Bill	IATA
<i>Narvid, Colonel Juan</i>	DoD Policy Board on Federal Aviation
<i>Newton, David</i>	Southwest Airlines
O'Brien, Michael	American Airlines, Inc.
<i>Oswald, Chris</i>	Airports Council International (ACI North ...
Pennington, Darrell	Air Line Pilots Association
<i>Ray, Lynn</i>	Federal Aviation Administration
<i>Rudinger, Melissa</i>	Aircraft Owners and Pilots Association
Solley, Edwin	Southwest Airlines
Teel, Brandi	RTCA, Inc.
<i>Wright, Dale</i>	National Air Traffic Controllers Association

<sup>1</sup>Committee member names appear in italics.






## **RTCA Tactical Operations Committee**

Seventh Meeting  
November 20, 2014  
Virtual



## **Welcome and Introduction**


Co-Chairs:  
Jim Bowman, FedEx Express  
Dale Wright, NATCA



## Topical Agenda

- Discussion of new tasks
- Status of existing TOC tasks
- Briefings on TBFM and NSAAP
- Discussion on UAS/Commercial Space
- Overview of RTCA/IATA Partnership

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### PUBLIC MEETING ANNOUNCEMENT

**Read by: Designated Federal Official Elizabeth Ray  
Tactical Operations Committee (TOC)  
November 20, 2014**

In accordance with the Federal Advisory Committee Act, this Advisory Committee meeting is OPEN TO THE PUBLIC.

Notice of the meeting was published in the Federal Register on:

**November 5, 2014**

Members of the public may address the committee with PRIOR APPROVAL of the chairman. This should be arranged in advance.

Only appointed members of the Advisory Committee may vote on any matter brought to a vote by the Chairman.

The public may present written material to the Advisory Committee at any time.

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THE GOLD STANDARD FOR AVIATION SINCE 1935

**Review and Approval of:  
September 3, 2014 Meeting  
Summary**



THE GOLD STANDARD FOR AVIATION SINCE 1935

**Discuss New TOC Tasks**




## Four New TOC Tasks

1. S. Florida and Caribbean Operations (Eastern RTG)
2. Class B Airspace Criteria
3. Airport Construction
4. National Procedure Assessment Initiative (draft only)

Review background, tasking, workplan, TORs

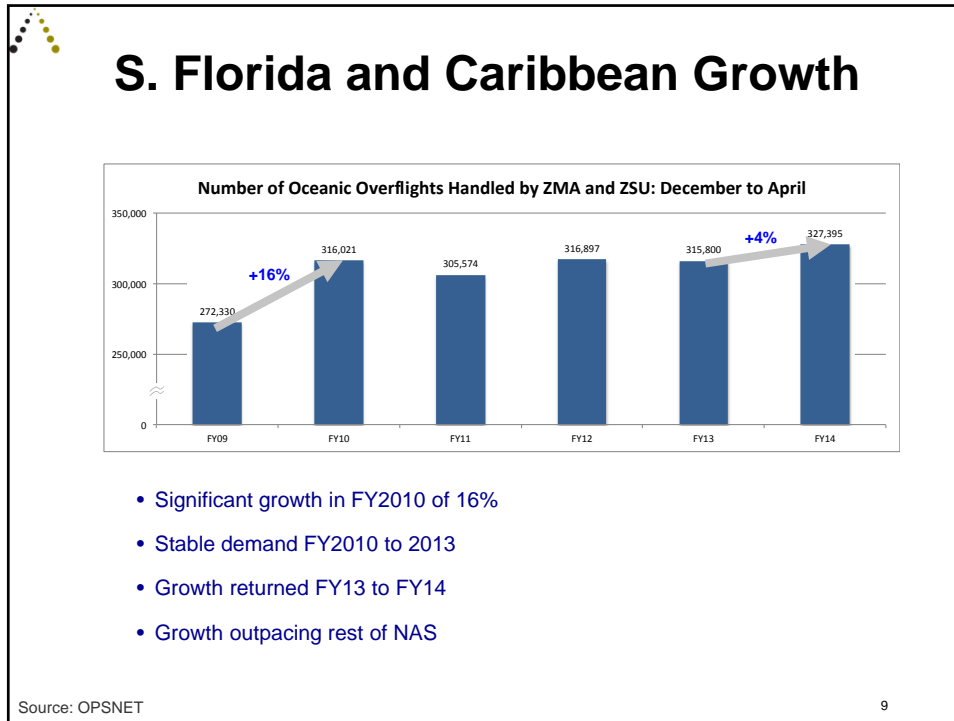
Review task, discuss Leadership and who should participate in Task Group

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## Background on South Florida and Caribbean RTG Tasking

Joe Bertapelle (JetBlue)



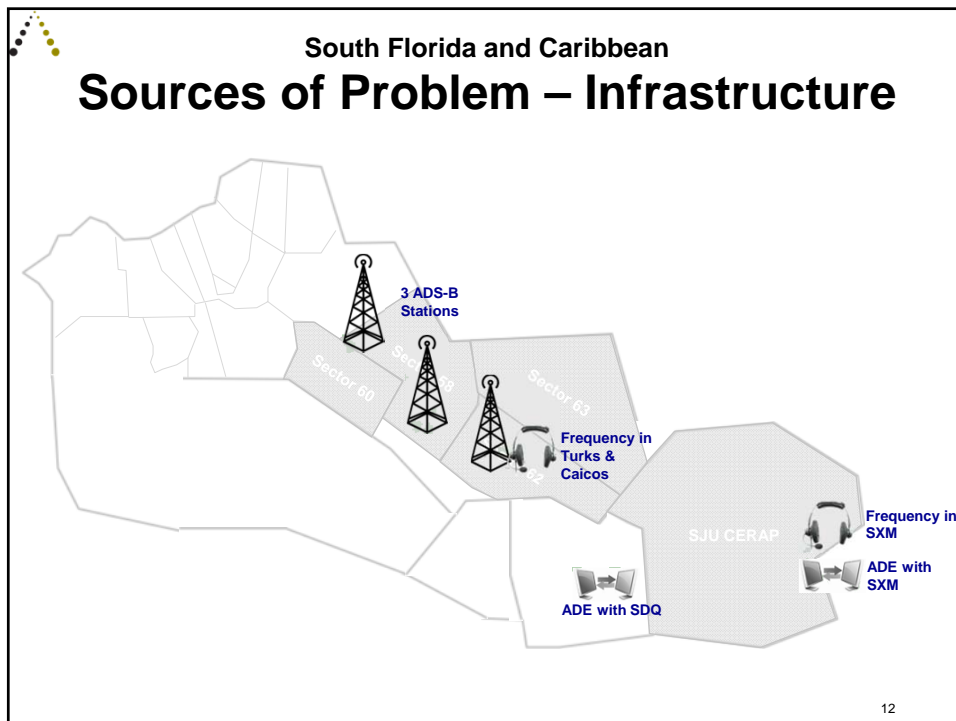
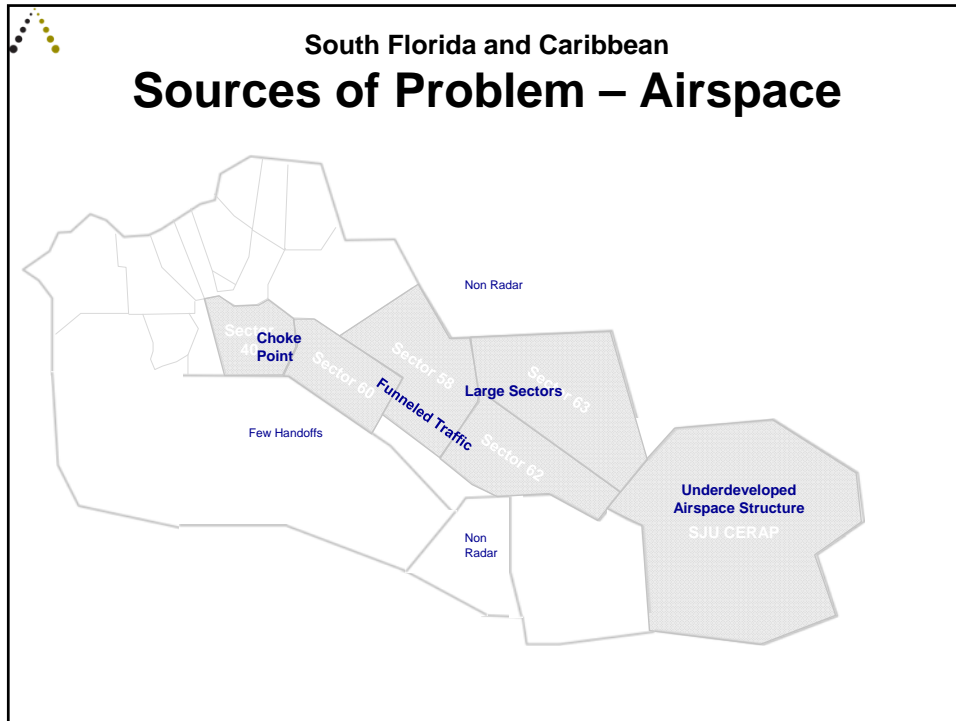
## South Florida and Caribbean Demand / Capacity Imbalance


### MAP Numbers for Some ZMA Sectors

March 15, 2014 – typical peak Saturday in March, busiest month for ZMA Oceanic/Caribbean

ZMA Sectors	MAP	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00
40	18	3	4	3	5	3	8	6	8	13	16	22	17	20	18	19	18	21	19	15	7	8	7	5	2
58	21	4	1	2	3	1	4	3	6	12	19	19	24	27	25	21	25	20	19	12	8	9	5	4	3
59	18	1	1	3	3	3	1	1	5	10	11	16	17	15	17	14	10	7	12	9	6	6	3	3	3
60	20	3	3	5	6	6	9	9	10	14	20	20	21	20	27	26	19	21	23	19	6	7	9	4	3
61	15	0	0	0	0	1	4	4	6	12	14	13	16	13	16	13	11	12	6	6	4	2	1	1	1
62	21	10	2	6	5	3	5	9	10	14	20	24	24	29	32	29	26	26	19	9	11	8	5	6	6
63	21	8	6	3	6	2	3	2	8	10	15	17	19	18	25	24	21	21	20	12	6	4	2	3	6

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## South Florida and Caribbean In Summary

- The South Florida / Caribbean problem is complex and compelling...
  - Infrastructure and airspace needs
  - Solutions are identified and not overly expensive
  - Opportunity to utilize NextGen technology
  - Meaningful safety impacts
  - Benefits opportunity for operators
  - Critical timing with Florida OAPM effort
  - Enthusiasm of industry to participate
- A **comprehensive** approach to this situation is NOT being worked anywhere else
  - Some singular projects underway – a matrix approach would be more effective

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## South Florida / Caribbean Task

- Tasking requests recommendations on the following:
  - The use of data to clearly define the problem(s), causes, and solutions to the safety, efficiency, and capacity issues in the region.
  - Prioritized solutions for any infrastructure components identified as most critical to improving /enhancing operations in the region.
  - Prioritized solutions for any airspace improvements or enhancements needed.
  - A review of existing or planned domestic or international activities in the region and a recommended method or mechanism to insure all the work is harmonized into a comprehensive and coherent master plan.
- Timing: 3rd Quarter FY 2015 TOC meeting
- Leadership: Eastern Regional Task Group
  - Joe Bertapelle (JetBlue)
  - Glenn Morse (United)

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## South Florida / Caribbean Task Execution Plan

- Telecon with key participants (MTO, ZMA, SJU, Co Chairs, RTCA) in early December to request data
- Jan 6: all day meeting (ZMA or SJU) to focus on data to further break down problem
- Monthly meetings in February, March and possibly April to continue work on the task
- Submit recommendation in June TOC meeting

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## TOC Action

### Consider Terms of Reference: Eastern RTG Tasking



RTCA, INC.  
1101 19<sup>th</sup> Street, Suite 310  
Washington, DC 20036  
Phone: (202) 833-8331  
Fax: (202) 833-8344  
www.RTCA.org

November 18, 2014

**APPENDIX TO RTG TERMS OF REFERENCE**  
Eastern Regional Task Group  
Tactical Operations Committee

**Committee Leadership:**

Position	Name	Organization	Telephone	Email
Co-Chair	Debbie de Benavente	JetBlue	(877) 733-2333	<a href="mailto:Debbie.deBenavente@jetblue.com">Debbie.deBenavente@jetblue.com</a>
	Oliver Marie	United Airlines	(344) 767-5000	<a href="mailto:olmarie@ua.com">olmarie@ua.com</a>
FAC	Mike Ariss	FAA MTO	(371) 288-8862	<a href="mailto:Mike.Ariss@faa.gov">Mike.Ariss@faa.gov</a>
Secretary	Tom Mirra	RTCA	(202) 447-3400	<a href="mailto:tom@rtca.org">tom@rtca.org</a>

**Background:**  
FAA is committed to collaboratively identifying and addressing efficiency impacts to the National Airspace System (NAS). The Metrolinx project currently do this with focus on the airspace and PBN procedures around the G16, 30 airports in the NAS (not employing a well-defined and authorized process to address issues and make improvements. Other geographic regions have stated needs since as well but efforts to enhance the airspace and operations may be limited by national program priorities and funding. A growing area of concern is in the Caribbean. Air traffic volumes in the Caribbean and 250 have grown in recent years while the capacity of the airspace itself remains largely unchanged. Select infrastructure and procedural enhancements combined with traffic management tools like rules in trail (ART) (spacing and airspace flow programs (AFP)) have opened to reach capacity out of the existing airspace demand/capacity imbalance as possible but a demand/capacity imbalance persists. Both industry and facility personnel believe no further improvements in efficiency are possible without some level of airspace and infrastructure improvements.

The Eastern Regional Task Group (ERTG) of the TOC has recently had informational exchanges with local personnel to brainstorm the current challenges and share ideas on possible solutions. Additionally, some infrastructure improvements are already underway or planned and the Center for South Florida Metrolinx project has just started the design and implementation phase as well.

Also, FAA is supporting other activities in the Caribbean such as the ICAO's project for the implementation of PBN and improved aeronautical information exchange in the region.

FAA believes a talking to the TOC to provide recommendations on a comprehensive approach to infrastructure and airspace changes in the region would benefit the NAS as a whole. FAA requests the TOC provide recommendations on a comprehensive strategy aimed for infrastructure and airspace changes to improve safety, efficiency, and capacity in the region. We anticipate specifically, this talking would include recommendations on the following areas:

1. The use of data to clearly define the problem(s), causes, and solutions to the safety, efficiency, and capacity issues in the region.
2. Recommended prioritized solutions for any infrastructure components identified as most critical to improving enhancing operations in the region.
3. Recommended prioritized solutions for any airspace improvements or enhancements needed.
4. A review of existing or planned activities in the region and a recommended method or mechanism to insure all the work is harmonized into a comprehensive and coherent master plan.

**Deliverables:**  
A report from the Tactical Operations Committee, provided by the Eastern RTG, which addresses the four questions discussed above.

**Scope:**  
The scope of this task is the Miami Oceanic and San Juan airspace as well as those airspace and infrastructure issues that may be addressed to improve operations in the region.

**Envisioned use of Deliverables:**  
The deliverables of this task will aid the FAA in prioritization of infrastructure and airspace reconstruction decisions.

**Specific Guidance:**  
The RTG will receive this from the FAA as it relates to the Tasking.

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## Class B Airspace Task

- Tasking requests recommendations on the following:
  - Class B airspace designation requirements.
  - Appropriate considerations for Class B airspace design criteria.
  - The evaluation process for airspace biennial reviews including criteria to expeditiously reduce or eliminate Class B airspace that no longer meets designation requirements.
  - Obtaining input from affected users as early in the process as possible.
  - Identifying the best mechanism(s) to communicate updated processes to key stakeholders.
- Timing: 3rd Quarter FY 2015 TOC meeting
- Leadership Identified
  - Melissa McCaffrey (AOPA)
  - Phil Santos (Fedex)

**Who or what skillsets are required for participation in this Task Group?**

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## Airport Construction Task

- Tasking requests recommendations on the following:
  - Review select past airport construction projects and associated data and identify lessons learned and recommend best practices for future projects. This would include the review of available safety and efficiency data where construction issues were noted as a factor. Please recommend a mechanism to ensure we capture and share lessons learned from future projects.
  - Identify and evaluate current strategic planning initiatives/tools used by FAA stakeholders at the Headquarter, Service Area/Region, and Service Delivery Point levels and provide recommendations on a best approach.
  - Assess the use of agency orders, advisory circulars, and internal processes currently being used to guide airport sponsors in their management of airport operations during construction and provide recommendations on a best approach.
  - Identify all stakeholders internal and external to the FAA needed and define their roles in the coordination and implementation processes.
  - Describe needed outreach strategies associated with each stakeholder and include a recommended timeline for outreach for major, long term projects.
  - Identify a set of recommendations on how safety risk should be better managed for aircraft operations impacted by airport construction projects.
- Timing: 2<sup>nd</sup> Quarter FY 2016 TOC meeting

**Who or what skillsets are required to lead TG?**

**Who or what skillsets are required for participation in this Task Group?**

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## National Procedure Assessment Task (Draft)

- Tasking requests recommendations on the following:
  - Review and validate the current NPA Initiative assumptions and criteria developed to date for both the regulatory and non-regulatory tracks. If changes are recommended, please include the range of options/alternatives considered.
  - Review the proposed FAA implementation plans for both tracks and provide feedback and recommendations as needed.
  - Assess the effectiveness of the outreach planned and accomplished by FAA and make any needed recommendations for improvement.
  - Provide recommendations on what assumptions and criteria should be considered to advance the NPA Initiative beyond its current scope to encompass the remaining conventional and PBN routes and procedures. Please provide industry perspective on whether existing implementation plans and outreach would suffice for an expanded NPA Initiative. If there are barriers to getting to such recommendations, please describe them. Please provide recommendations on the priority of further future actions. In other words, what procedures should FAA look at next?
- Timing: 4<sup>th</sup> Quarter FY 2015 TOC meeting

**Who or what skillsets are required to lead TG?**

**Who or what skillsets are required for participation in this Task Group?**

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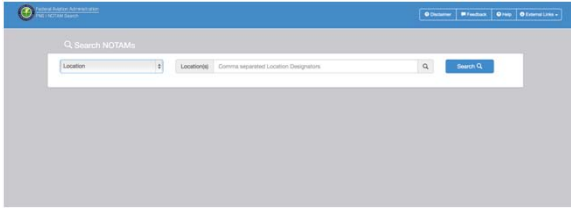


## Status of Existing Tasks

Trin Mitra (RTCA)

## NOTAM Search Phase 1

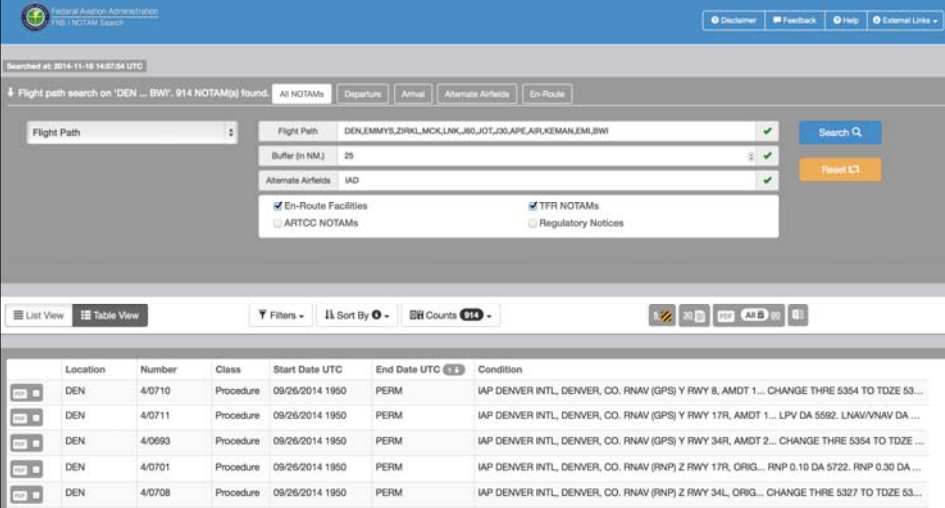
- NOTAM Search went live on November 13<sup>th</sup>
  - <http://notams.aim.faa.gov/notamSearch/>



- Key enhancements:
  - Flight Path Search
  - New Filters
  - Enhanced User Interface

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## Route of Flight Query



Searched at: 2014-11-18 14:27:54 UTC

Flight path search on 'DEN ... BWY: 914 NOTAM(s) found'. All NOTAMs | Departure | Arrival | Alternate Airfields | En-Route

Flight Path: DEN,EMMYS,ZIRKL,MCK,LNK,J60,JOT,J30,APCA,IRUKEMAN,EML,BWI

Buffer (in NM): 25

Alternate Airfields: IAD

En-Route Facilities  TFR NOTAMs

ARTCC NOTAMs  Regulatory Notices

Location	Number	Class	Start Date UTC	End Date UTC	Condition
DEN	4/0710	Procedure	09/26/2014 1950	PERM	IAP DENVER INTL, DENVER, CO. RNAV (GPS) Y RWY 8, AMDT 1... CHANGE THRE 5354 TO TDZE 53...
DEN	4/0711	Procedure	09/26/2014 1950	PERM	IAP DENVER INTL, DENVER, CO. RNAV (GPS) Y RWY 17R, AMDT 1... LPV DA 5592. LNAV/VNAV DA ...
DEN	4/0693	Procedure	09/26/2014 1950	PERM	IAP DENVER INTL, DENVER, CO. RNAV (GPS) Y RWY 34R, AMDT 2... CHANGE THRE 5354 TO TDZE ...
DEN	4/0701	Procedure	09/26/2014 1950	PERM	IAP DENVER INTL, DENVER, CO. RNAV (RNP) Z RWY 17R, ORIG... RNP 0.10 DA 5722. RNP 0.30 DA ...
DEN	4/0708	Procedure	09/26/2014 1950	PERM	IAP DENVER INTL, DENVER, CO. RNAV (RNP) Z RWY 34L, ORIG... CHANGE THRE 5327 TO TDZE 53...

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## Filtering

The screenshot displays the FAA NOTAM search interface. A 'Filtering' dialog box is open, allowing users to refine search results. The dialog includes a 'Quick text filter' field, a 'Keyword(s)' section with checkboxes for 'Aerodrome-AD', 'Aerodrome-APRON', 'Aerodrome-CONST', and 'Aerodrome-RWY', and date/time selection fields for 'Start' and 'End'. The background shows a table of NOTAMs with columns for Location, Number, Class, and Condition. The table lists various NOTAMs for DENVER (DEN) with different numbers and classes, such as 'Proc' and 'Procedure'.

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## NOTAM Task Group Next Steps

- NOTAM Task Group to provide feedback to FAA on Phase 1 Implementation
- Planned Schedule
  - Gather TG feedback until Dec 5<sup>th</sup>
  - TG Leadership process/organize feedback Dec 5-10
  - Meet in person Dec 11 to evaluate and prioritize feedback
  - Write report and submit at Feb 5, 2015 TOC meeting

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## VOR MON Task Group

- Revised TORs focus on gathering TG input on criteria for decision making and adjust dates:

Task 3 – Review implementation planning to date and make recommendations to the preliminary waterfall schedule developed by FAA.	Provide a report documenting the following actions: <ol style="list-style-type: none"> <li>1. Examine and analyze the PBN Route Strategy in light of the VOR MON Program. <u>Provide recommendations on what criteria the FAA should consider in developing and recommend up to three possible implementation/waterfall scenarios. Advise the FAA of the pros and cons of each. For example, how should the FAA think about which geographies to implement earlier and which later? What are the operators' needs and concerns? Should the FAA proceed in depth in one geographical area or start in multiple areas at the same time? What is most important to take into account – routes? SIDs/STARs? Which conventional SIDs/STARs need to be retained? If incremental actions are needed in any of the scenarios, please identify those with specificity. Please include the range of options and/or alternatives discussed in the documentation.</u> FAA will provide the TOC with a draft copy of the PBN Route Strategy.</li> <li>2. Provide recommendations on <u>which the criteria for which</u> victor and jet routes should be retained in the 2013-2020 timeframe and why. Please include the range of options and/or alternatives discussed in the documentation.</li> <li>3. Provide high level industry perspective on the feasibility and actions needed to <u>implement the National Route CONOPs completely retire the legacy route structure after 2020.</u></li> </ol>	Interim Report April February 2014-2015 Final Report July-June 2014-2015
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## TOC Action

- Consider revised TORs for VOR MON Task Group

Task 3 – Review implementation planning to date and make recommendations to the preliminary waterfall schedule developed by FAA.	Provide a report documenting the following actions: <ol style="list-style-type: none"> <li>1. Examine and analyze the PBN Route Strategy in light of the VOR MON Program. <u>Provide recommendations on what criteria the FAA should consider in developing and recommend up to three possible implementation/waterfall scenarios. Advise the FAA of the pros and cons of each. For example, how should the FAA think about which geographies to implement earlier and which later? What are the operators' needs and concerns? Should the FAA proceed in depth in one geographical area or start in multiple areas at the same time? What is most important to take into account – routes? SIDs/STARs? Which conventional SIDs/STARs need to be retained? If incremental actions are needed in any of the scenarios, please identify those with specificity. Please include the range of options and/or alternatives discussed in the documentation.</u> FAA will provide the TOC with a draft copy of the PBN Route Strategy.</li> <li>2. Provide recommendations on <u>which the criteria for which</u> victor and jet routes should be retained in the 2013-2020 timeframe and why. Please include the range of options and/or alternatives discussed in the documentation.</li> <li>3. Provide high level industry perspective on the feasibility and actions needed to <u>implement the National Route CONOPs completely retire the legacy route structure after 2020.</u></li> </ol>	Interim Report April February 2014-2015 Final Report July-June 2014-2015
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**RTCA**  
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**Briefing on Time Based Flow Management (TBFM)**

Sherrie Callon (FAA)

**TBFM Update**  
Briefing for RTCA TOC



Federal Aviation Administration



Presented by: AJV-85

Date: November 20, 2014

## Background

- **New Air Traffic Procedures Directorate, established, responsible for TBFM policies/procedures**
- **TBFM Study Team commissioned: 3 Phase Approach**
  - 1) Initial Assessment - completed 4/15/14
  - 2) Develop Recommendations – completed 5/30/14
  - 3) Develop and Implement action plan – In progress to be completed by 6/2015.
- **Goal is increased use and ensure a strong foundation for Nextgen time-based capabilities**



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## History of TBFM

- **TBFM is built on the legacy TMA system**
- **Early 2000's: Initial deployment of TMA under the Free Flight program.**
- **August 2007: TMA completed its deployment to all en route centers**
- **2013: TMA transitioned to TBFM**



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## Purpose – TBFM Study Group

- **Assess current status of TBFM in the NAS**
  - Current use: situational awareness, departure scheduling, airborne metering, en route departure capability (EDC)
  - Examine the tool as a building block for NextGen Initiatives
  - Holistic view across facilities and Service Units
- **Timeframe: 8 weeks for study and report**



## What's Working Well

- **Improved Situational Awareness**
- **Departure Scheduling and EDC functions are widely used**
- **Broad perception that metering has benefits**
  - Reduced airborne holding
  - Reduced vectoring
  - Improved delivery to the runway
  - Reduces reliance on MIT





## Findings: Operational Challenges

- **Vision**
- **Unified Direction**
- **Policy and Procedures**
- **Training**
- **Culture and Communication**
- **System Management**
- **Outcome Analysis**



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## Where are we now?

- **45 Recommendations documented to address gaps**
- **Action Plan (300+ items) developed and in progress with the following objectives:**
  - more closely align TBFM with other facility processes
  - Consistent application a across the NAS
  - Improve communication to our customers
  - Ensure a firm foundation to support PBN and Nextgen needs



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## Vision Statement

**The vision for TBFM is the expanded use of time based metering to enable gate-to-gate improvements in both fuel and throughput efficiencies by: applying spacing only where needed, allowing for the routine use of Performance Based Operations (PBO) to capitalize on advanced aircraft Flight Management System (FMS) capabilities, and adding more predictability to the ATC system.**



## Unified Direction

**AJV-8, Air Traffic Procedures, is the focal point for TBFM oversight, defining priorities and coordinating implementation of the Vision across Service Units.**

- AJV-85 Future Standards and Procedures
- TBFM National Ops team
- Coordinating with Metroplex and SBS for oversight of TBFM related activities



## Policies and Procedures

- **Policy and Procedures have been updated are in process for publication. Changes include:**
  - Definitions
  - Roles and Responsibilities
  - Use policy
  - Facility direction for support and maintenance
- **Proposed Use Policy – *TBFM must be used to the maximum extent feasible in preference to miles-in-trail initiatives***



## Training

- **Available to all controllers and FLM's via web based training.**
- **TMC/STMC training development in progress.**
- **Conceptual briefing for facility management and staff under development.**
- **Customer information packages are under development.**



## New capabilities/enhancements

### Funded – In progress

- GIM-spacing – speed advisories, extended metering
- IDAC – 5 sites ZBW, ZLA, ZDC, ZOB, ZID
- Information Sharing – Industry Lead - Delta
- Convective weather
- RNAV Routes/Data

### Planned FY15 and Later

- Additional IDAC sites (68 sites)
- Terminal Sequencing and Spacing (TSS)



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## GIM-S Extended Metering Capability

### Description of Capability

- **Allows meter points to be created in en route airspace over extended distances with speed advisories provided to controllers to meet STAs at a meter point**
- **Increases opportunities for Optimized Profile Descents (OPDs) by pre-conditioning the spacing and sequencing of the arrival stream**
  - Key site – ZAB for PHX arrivals – IOC 9/22/14 on EAGUL Arr.
- **Initial Deployment: ZAB-PHX, ZDV-DEN, ZLC-SLC, ZLA-LAX**



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## Integrated Departure Arrival Capability (IDAC)

### Description of Capability

- **IDAC provides displays in towers/terminals to allow TMCs or controllers to schedule departures**
  - Reduces need for APREQ phone calls to Center TMCs
  - Tower schedules directly, but Center TMU display allows TMCs to review schedule and coordinate changes if needed
  - IDAC display shows tower's available departure slots
- **Additional IDAC site deployment – 68 additional terminals in the next 4 years..**



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## Information Sharing

### Description of Enhancement

- **Provides additional information on metering operations to NAS users**
- **SWIM-compliant approach to TBFM data sharing for AOCs, other external users**
- **Includes current TBFM and TBFM enhancements data**
- **Currently testing with Delta, expecting a SW update spring 2015 to correct issues.**
  - Requires an interface to view data



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## RNAV Routes/Data added to TBFM

**OLD**

Automates the use of RNAV/RNP routes for better trajectory predictions – instead of manually updating.

**NEW**

222° to ISCON, then on track 222° to DIRTY, then on final course transition.  
 HAART on track 216° to KLRB, then on track 225° to DWD, then on track 225° to REAR, then on track 225° to VE, then on track 225° to expect radar vectors to final approach course.  
 Landing East Run RWY 10: Expect radar vectors to final approach course after SHUNR.  
 Landing West Run RWY 28: Expect radar vectors to final approach course after DOODS.  
 Landing East Run RWY 10: Expect radar vectors to final approach course after SHUNR.  
 Landing West Run RWY 28: Expect radar vectors to final approach course after DOODS.

WALCR 4000 (3.9) (IAF) TRAPE Max 210K (RF REQD)  
 DOZZR 4000 (IAF) SHULR (RADAR REQD)  
 BAZAR (IF) (4.4)  
 SCHEL (FAF) (5.7)  
 RWY 10 (11.78) (11.72) (11.33) (11.48)

2049 ±  
 163/FA  
 1134 ±  
 1304 ±  
 1178 ±  
 1128 ±  
 1219 ±  
 1125 ±  
 1059 ±  
 1172 ±

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## Terminal Sequencing and Spacing

### Description of Capability

- **Scheduled deployment late 2018 for 5 sites.**
  - Extension of TBFM automation and schedule into the terminal:
  - Create a time-based schedule for all arrival aircraft to merge points and the runway
  - Communicate this schedule to TRACON controllers via a set of display tools including slot markers, speed advisories, timelines, RNP indicators, etc.
- **Operational Integration Assessment of the NASA product – May 2015**

## TBFM Tool Umbrella (To Support Metering)

Function	Availability	Description
TBFM – Time-Based Flow Management	Now	A NAS automation DST that enables the use of time-based metering (TBM) to optimize the flow of aircraft into congested terminal airspace and airports. 200-250 NM radius
ACM – Adjacent Center Metering	Now	Provides TBM capabilities to neighboring centers to better manage arrival operations. Extends up to 300NM+ radius
EDC – Enroute Departure Capability	Now	Scheduling departures to pre-defined points in enroute airspace
Extended Metering	IOC 9/22/2014/ ZAB/PHX	Allows the extension of the scheduling capabilities that will reduce the build-up of error that occurs when ETAs are predicted over long distances. Adjacent facilities will pre-condition the flows by metering to points further out.
GIM – Ground-based Interval Management	IOC 9/22/2014 ZAB/PHX	Minimize the use of vectoring for problem resolutions. Improve trajectory modeler performance with ADS-B data. Provide speed advisories to assist in the delivery of aircraft to a Meter Point/Meter fix. Increase opportunities for OPDs.
IDAC – Integrated Departure/Arrival Capability	IOC ZLA 11/3/2014	Automation of the coordination and management of departures to meet the en route slots
TSS – Terminal Sequencing and Spacing	2018 FID 12/2014	Continues TBFM plan into the TRACON. Enables a more routine use of advanced PBN procedures by providing spacing and sequence information to the terminal controller via STARS.



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## TOC Feedback

- Evaluate and work towards consistent application of TBFM and sharing of TBFM data.



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## Questions & Discussion



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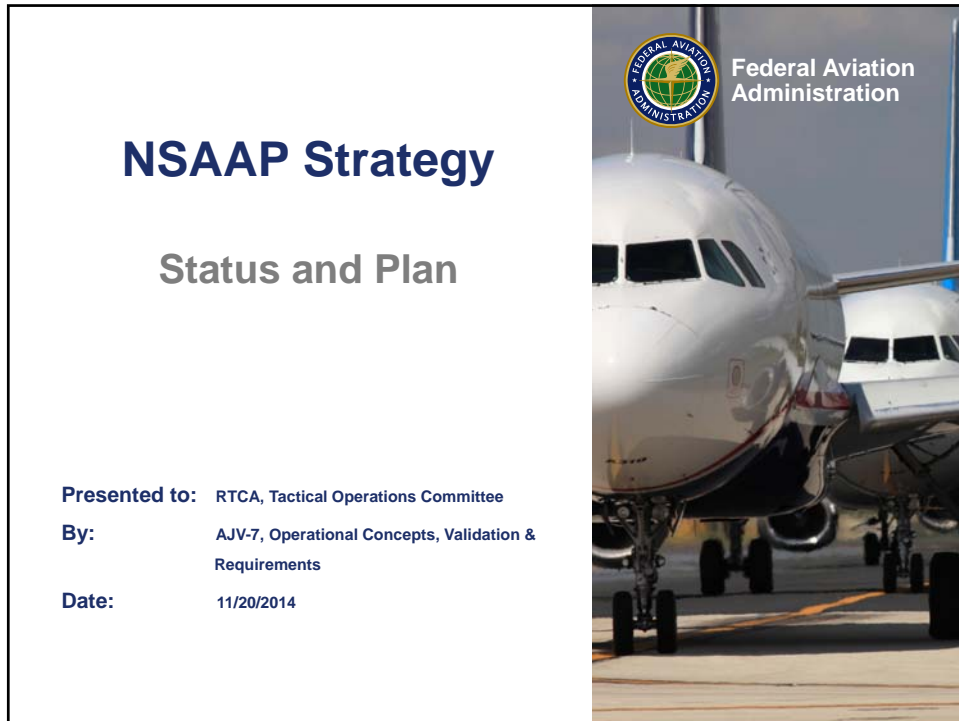
# RTCA

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## Briefing on National Special Activity Airspace Program (NSAAP)

Rob Hunt (FAA)





# NSAAP Strategy

## Status and Plan

**Presented to:** RTCA, Tactical Operations Committee

**By:** AJV-7, Operational Concepts, Validation & Requirements

**Date:** 11/20/2014

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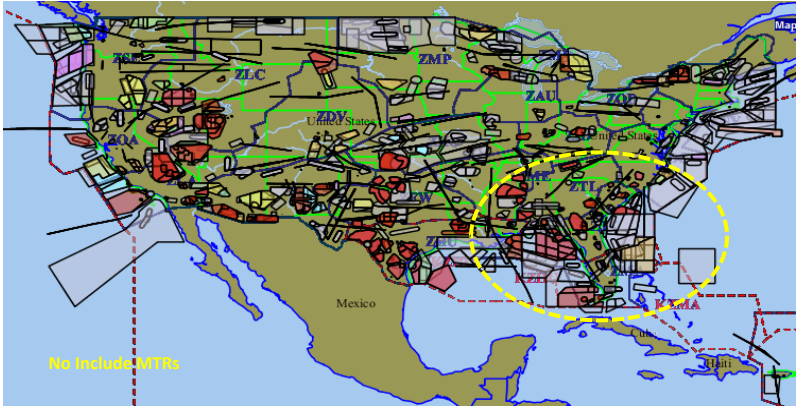
## Outline

- NSAAP Background
- NSAAP Concept Overview
- NSAAP Phased Approach
- NSAAP Status
- Going Forward

NSAAP RTCA TOC Brief  
Nov, 20 2014

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## NSAAP Background

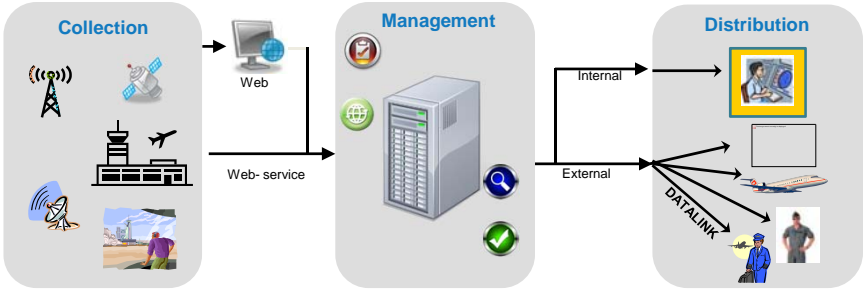


- **Background:**
  - More than 2000 SAAs
  - RTCA Task Force 5 on NextGen #35: "...More efficient management and use of SAA identified as a unique capability area..."
  - NSAAP CONOPs v1 Released
  - RTCA Airspace Working Group: "...Improved information sharing, real-time management, dynamic use of SUA..."
  - In April 2013, AJV-7 took over NSAAP project and created the forward strategy

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## Concept Overview/Information Flow

- Standardize SAA definition and SAA scheduling formats
- Enable electronic scheduling and approval of SAA
- Standardize SAA scheduling submission and process
- Automatically disseminate SAA to all NAS stakeholders
- Automatically provide notification for SAA schedule updates
- SAA activation/deactivation/amendment made by controllers, and make it available to all NAS stakeholders
- Integrates SAA into ATM automation systems (e.g., ERAM, ATOP, TFMS, IDS-R, etc.)
- Establish a robust SAA metrics and analysis reporting system



**Collection**

Originate at the Source  
Digitally Capture Information


**Management**

Integrate Information  
Apply Business Rules, Validate Data, Translate, and Publish

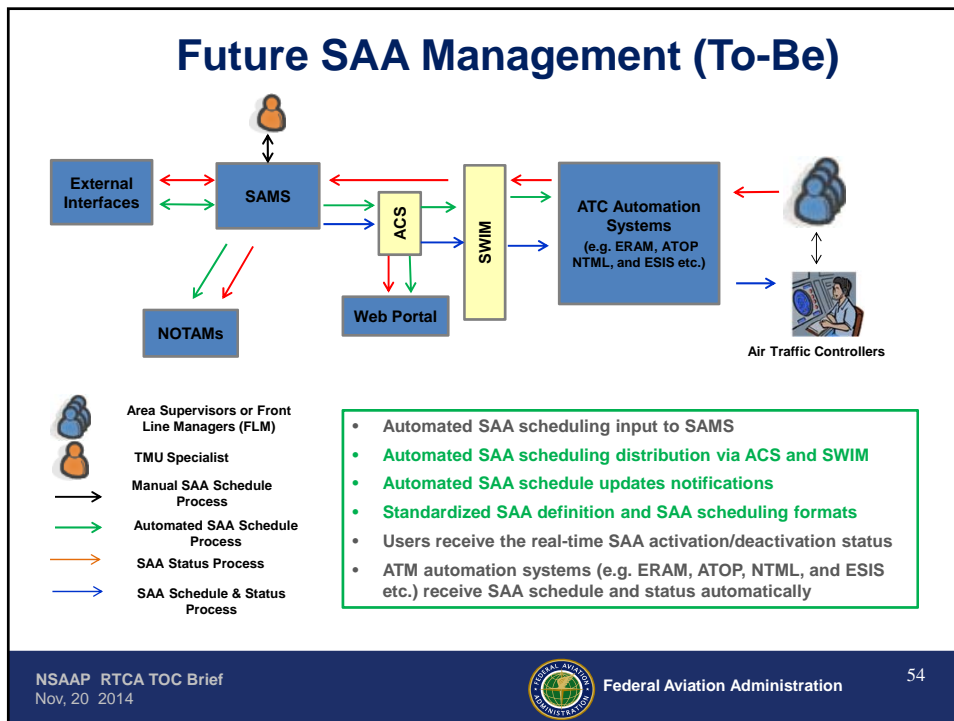
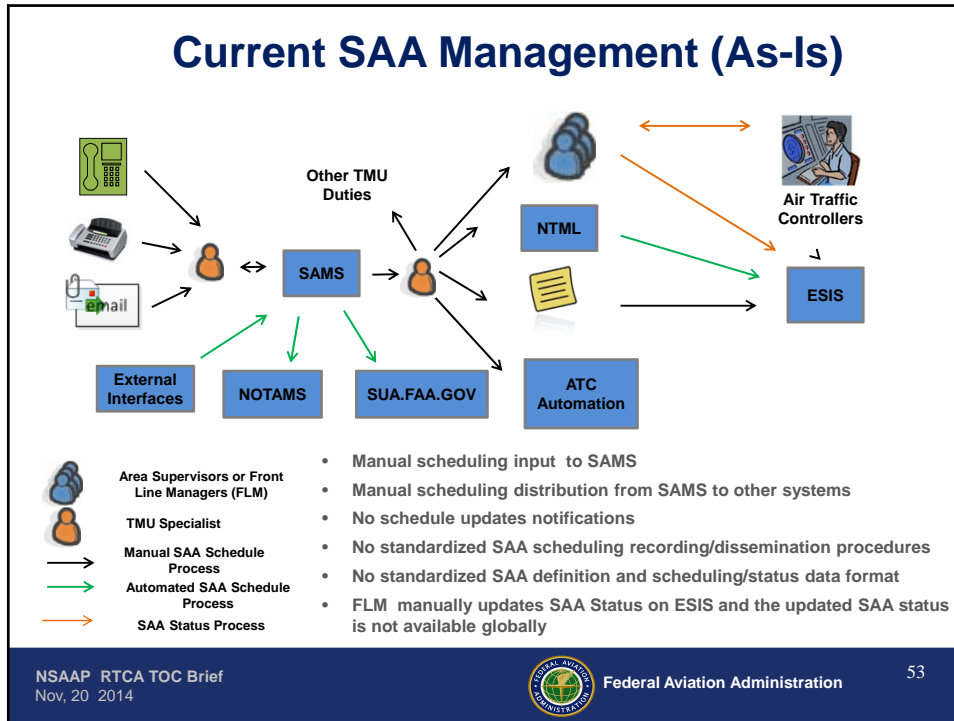
**Distribution**

Distribute to the Users  
Electronic Distribution to customers

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## SAA Management: Phase I

**Scheduling**

- CSE System (USAF) - 25 Scheduling Units
- RFMSS (U.S. Army & Marine Corps)
- MADE System (DoD)

**Approving**

**SAMS**

**Disseminating**

- ARTCC / TRACON
- OASIS/CFS-FS21 FSS/CFS
- sua.faa.gov
- FAA Organizations & External Users
- TFMS

**Key points:**

- Establish SAMS and SWIM interface
- Agreements between FAA and other Agencies need to be updated to support the automated SAA scheduling.
- SAMS detects SAA schedule conflicts
- The flexibility, expandability, and response time improvement on SAMS.

**Legend:**  
 → Current Data Flow  
 - - - Data Flow in Development

**Legend:**  
 CSE - Center Scheduling Enterprise  
 MADE - Military Airspace Data Entry  
 NASR - National Airspace System Resource  
 NACO - FAA National Aeronautical Charting Office  
 NFDC - FAA National Flight Data Center  
 NSA - National Geospatial-Intelligence Agency  
 DAFIF - Digital Aeronautical Flight Information File  
 AVDAFIF - AC/View DAFIF  
 RFMSS - Range Facility Management Support System  
 SAMS - Special Use Airspace Management System  
 AFSS - Automated Flight Service Station  
 CFS - Contract Flight Service

- DOD and other agencies use CSE, RFMSS and MADE system to provide automated SAA scheduling to SAMS
- SAMS approved SAA schedules and send SAA schedule and schedule states to SWIM S1

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## SAA Management: Phase II

**Aeronautical Data Sources**

- TFR Builder
- CARF
- FNS
- SAMS/MADE
- Operational Repository
- Static Repository

**Processing & Disseminating**

**ACS**

**Aeronautical Info Users**

- Web Portal
- External Users
- NAS Users

**Key Capabilities:**

- ACS will establish the interface with SAMS via SWIM as service consumer
- ACS will establish the interface with ATM systems via SWIM as service provider
- ACS, a common AI data exchange platform, will standardize and filter SAA data.
- ACS will allow the internal/external consumers to access and discover SAA data via SWIM

**Legend:**  
 → Current Data Flow  
 - - - Data Flow in Development

**Legend:**  
 ACS - Aeronautical Common Service  
 MADE - Military Airspace Data Entry  
 CARS - Central Airspace Reservation System  
 AGIS - Airport Geographic Information System  
 SAMS - Special Use Airspace Management System  
 AIRMMS - Aeronautical Information Management Modernization Step 2  
 FNS - Federal NOTAM System

- SAMS/MADE will continue to manage SUA, MTRs, ATCAAs, ARs and OAs schedules
- TFR Builder will provide TFR and CARF will provide ALTRVs scheduling data via FNS to ACS
- ACS will consolidate all SAA inputs and merge it with other AI as required, and publish AI to SWIM.
- ACS is capable of sorting or filtering the information based on the request of end-users or customer systems
- ACS Web Portal will consolidate sua.gov, TFR builder website, and NOTAM's Pilotweb to a single portal.

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## SAA Management : Phase III

The diagram illustrates the SAA Management Systems architecture. At the top, 'SAA Integration Tasks' include 'Policy and Procedures', 'Schedule Process', 'ATM Integration', and 'Metrics and Displays'. Below this, 'SAA Management Systems' are divided into three main functional areas: 'SAA Scheduling' (including TFR, CARF, SAMS/MADE, and FNS), 'SAA Translation' (including ACS and SWIM), and 'SAA Impacts/Decision Made' (including ERAM, TFMS, and Other ATM Systems). These systems interact with 'SAA Users' through 'Displays' and 'AIMM's Web Portal'.

**Goals:**

- Real-Time SAA status available
- Integrated SAA status, schedule and definition information.
- Completed and accurate SAA Info (Status/Schedule/Def.)
- Fully automated SAA Info submission, process, and publish
- Expand SAA Usability to FAA internal/external users
- Robust metric and analysis capabilities to improve airspace management and future airspace planning and design

- ATM automation system will send SAA Status info to SAMS via SWIM and ACS.
- SAMS will integrate SAA status with SAA schedule, schedule states, and definition, and publish the integrated SAA info to ACS via SWIM
- Support dynamic SAA schedules, status, and Definition changes
- Automatic process airspace constraints defined in FAA SOPs/LOAs

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## NSAAP Phased Approach - Status

Phase 1
Phase 2
Phase 3

	FY14	FY15	FY16-FY18	FY18-FY20
<i>SAA Policy/Procedures</i>		ID Policy/ Proc. Chgs	Execute Policy/Proc Chgs Standardize Use of Existing SAMS	Update Policy/Proc as necessary
<i>SAA Schedule/Status Processing + Dissemination</i>	SAMS Trng avail on eLMS	Conduct SAMS Gapa Analysis AIMM S2 FID (ACS)	Develop SAMS Reqs	Enhance SAMS Deploy ACS
<i>SAA-ATM Integration</i>		SAAs Displayed on TFMS	SAAs Displayed on IDSS (tent)	Develop/Validate CONUSEs for integration into other ATM Systems AIMM S3 Concept Engineering and Investment Activities Deploy ATM Changes
<i>SAA Use Metrics + Reporting</i>		Develop/Validate Metrics and Reports Reqs		Execute Metrics and Reporting

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## Going Forward...

- **Collaboration** with all stakeholders is the key to success; will continue to engage stakeholders to exchange information, coordinate activities, etc
- FAA funding constraints may delay investments and projected benefits in the improved management of SAAs



## Questions?



# Backup



## NSAAP Strategy – Phased Approach

Legacy	Phase I	Phase 2	Phase 3
SAMS	SAMS ENHA.	AIMM S2	AIMM S3
<b>Better Data</b>			
<ul style="list-style-type: none"> <li>• Manual Entering SAA Schedules</li> <li>• Not All Facilities Use SAMS</li> <li>• Not All SAA Schedule Entered Into SAMS</li> </ul>	<ul style="list-style-type: none"> <li>• Automated SAA Schedule Ingestion</li> <li>• Detect SAA Schedule Conflicts</li> <li>• Enhance SAA Service Capabilities</li> <li>• Expand Facility Usage</li> </ul>	<ul style="list-style-type: none"> <li>• Single Standardized SAA Source</li> <li>• Consolidated SAMS's SAA with TFR &amp; ALTRV</li> <li>• Global and Controlled Access</li> <li>• User Specified SAA</li> </ul>	<ul style="list-style-type: none"> <li>• SAA Status Int.</li> <li>• SAA Schedule/Schedule States Int.</li> <li>• SAA Definition Int.</li> <li>• Dynamic SAA</li> </ul>
<b>Better Use of the Data</b>			
<ul style="list-style-type: none"> <li>• Manual Dissemination</li> <li>• SUA.gov</li> </ul>	<ul style="list-style-type: none"> <li>• TFMS-SUA Int.</li> </ul>	<ul style="list-style-type: none"> <li>• Automated Dissemination</li> <li>• AI Notifications</li> <li>• Consolidated Web Portal</li> </ul>	<ul style="list-style-type: none"> <li>• TMFS-SAA Transition</li> <li>• SAA –ATM Integration</li> <li>• NOTAM-SAA Integration</li> </ul>
<b>System Architecture, Interfaces, and Performance</b>			
<ul style="list-style-type: none"> <li>• Point-to-point Interface</li> <li>• No Response Time Requirement</li> </ul>	<ul style="list-style-type: none"> <li>• Updated Interfaces</li> <li>• Response Time Reduced</li> </ul>	<ul style="list-style-type: none"> <li>• ACS Platform</li> <li>• SOA Shared Services</li> <li>• SWIM Connectivity</li> </ul>	<ul style="list-style-type: none"> <li>• SAA Metrics</li> <li>• Quality of Service</li> <li>• Enhanced ACS Services</li> </ul>

## NSAAP Status & Plan

- **SAMS**
  - SAA Schedule Conflicts Detection in Mar. 2015
  - Web Service Enhancement in Mar. 2015
  - Receive SAA schedule from RFMS in 2015
  - Capability enhancement to meet the needs of each facility in 2017
  
- **AIMMS2**
  - IARD on 2/13/2013
  - IID on 11/20/2013
  - FID on 8/20/2014
  - Contract Awarded on 10/29/2014
  - Achieve IOC in Dec. 2015
  - Achieve FOC in Jul. 2017
  
- **AIMMS3**
  - Developed Preliminary Shortfall Analysis Initial Draft in Aug. 2014
  - Complete the SOPs/LOAs airspace constraint digitization CMTD in Q4. 2015
  - Achieve CRDRD in Q1. 2016
  - Achieve IARD in Q1. 2017
  - Achieve FID in Q1. 2019
  - Achieve IOC in Q3. 2020

Green – Completed   
 Blue – In-progress   
 Black– In Plan


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## NSAAP Status & Plan - Continue

- **SAA-ATM Integration Support**
  - Completed ERAM Sector Enhancement Assessment in March, 2014
  - Support Terminal WP1 (IARD Dec. 2015)
  - Support ATOP WP1 (IARD March. 2015)
  - Support EIDS (IARD March 2016)
  - Support TMFS-SUA to TFMS-SAA Transition
  - Support ERAM Post-Bravo Releases
  - Support SFMA, UFPF, Mini-Global, and other programs
  
- **Policy & Training**
  - Coordinated with AJV-8 and made SAMS Training available through eLMS in Dec. 2013
  - Collected operational data at each service center reference the use of SAMS in June. 2014
  - Coordinated with AJV-8, AJT and AJV-2 to update JO 7610.4 (In-progress)
  - Identify changes needed in other FAA orders (on-going)
  - Identify changes needed in the local LOAs between agencies
  - Propose and process the policy and LOA changes
  
- **Coordinate with Internal and External Stakeholders**

Green – Completed   
 Blue – In-progress   
 Black– In Plan

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## **Overview of RTCA / IATA Partnership**

Jennifer Iverson (RTCA)

## ***A Partnership for Progress in South America***





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## International Harmonization Effort

- IATA & RTCA have signed a Partnership
  - Promote a seamless air transportation system for operators
  - Expand marketplace for suppliers of products & Services
- First Project will be a Task Force in Latin America
  - Modeled after RTCA Task Force 5 Approach; Industry Participation
  - Facilitated by ICAO South America Regional Office, Lima Peru
    - Kick off for ANSPs – November 2014 @ ICAO SAM IG
    - Kick off for Industry – April 2015 @ ICAO SAM IG
- Challenges
  - Harmonizing among countries of varying needs & capabilities
  - Regional politics
  - New way of Doing Business

## South America Modernization and Harmonization Task Force



- Building on Work Already Done
  - Starts from SAM PBIP & Bogota Declaration
  - Based on ICAO ASBUs
- What's New:
  - Leverage RTCA Consensus Process
  - Operator and Industry Participation
  - Operational Capability-driven
    - Beyond technology to all components required



## Task Force Approach ♦ Tailored Solutions

- Input Needed to Tailor Solution to Local Needs
- Tools & Information Intended to Aid Experts
- Dashboard & Tools Capture and Display
- Enable Sensitivity Analysis
- Dashboard & Tools do not Provide Answers
- RTCA Known for Signature Consensus Process
- Starting Point to Help South America Prioritize and Make Sound Investments to Meet Goals

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## Involvement

- Interested?
- Contact Jennifer Iversen
  - [Jiversen@rtca.org](mailto:Jiversen@rtca.org)
  - 202-330-0662
- Informational Session for Industry Mid-January 2015

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- Review of meeting actions
- Anticipated Issues for TOC Consideration and Action at Next Meeting
- Other business

## **Closing Comments**

### **Co-Chairs**

- Jim Bowman, FedEx Express
  - Dale Wright, NATCA

### **Designated Federal Official**

- Lynn Ray, Federal Aviation Administration



**Next Meeting**  
February 5, 2015  
Washington, DC



**Adjourn**



**Meeting Summary, September 3, 2014**  
**Tactical Operations Committee (TOC)**

The sixth meeting of the Tactical Operations Committee (TOC), was held September 3, 2014 at RTCA Headquarters in Washington, DC and convened at 10:00 a.m. The meeting discussions are summarized below. The following attachments are referenced:

Attachment 1 – List of Attendees

Attachment 2 – Presentations for the Committee (containing much of the detail about the content of the material covered)

Attachment 3 – Summary of the May 16, 2014 TOC Meeting

Attachment 4 - VOR MON Recommendations on Outreach and Modification

**Welcome and Introductions**

Committee Co-Chairs, Mr. Jim Bowman, Vice President of Flight Operations at FedEx Express, and Mr. Dale Wright, Director of Safety and Technology at NATCA, called the meeting to order and welcomed the TOC members and others in attendance. All TOC members and attendees from the public were asked to introduce themselves (TOC members and General Public Attendees are identified in Attachment 1).

Mr. Bowman and Mr. Wright reviewed the agenda and began the proceedings of the meeting.

**Designated Federal Official Statement**

Ms. Elizabeth “Lynn” Ray, Vice President of Mission Support for the Air Traffic Organization (ATO), and the Designated Federal Official of the TOC, read the Federal Advisory Committee Act notice governing the open meeting.

**Approval of May 16, 2014 Meeting Summary**

The Chairs asked for and received approval of the written Summary for the May 16, 2014 meeting (Attachment 3).

**FAA Report**

Ms. Ray provided the FAA report. She began by informing the TOC the FAA expects to begin the new fiscal year in a Continuing Resolution and that work is underway for an FAA Reauthorization in 2015. She said that the work of the TOC and its help in prioritization were critical in the face of ongoing budget pressures. She noted that of the over \$7 Billion budget of the FAA's Air Traffic Organization, only about 8% was marked for flexibility on the operations side. Ms. Ray also discussed the controller workforce noting that the FAA is planning to hire approximately 1,700 new controllers in fiscal year 2015.

Ms. Ray also discussed Metroplex activities, informing the TOC that there were numerous important activities coming in the next 2 to 3 months. These include the September 18<sup>th</sup> implementation of the North Texas Metroplex, 4 new procedures upcoming in the DC Metroplex, kickoff of work in Denver, work by the Cleveland Design Team and work coming soon in Phoenix.

### **Implementation Roadmap for NOTAM Search**

Mr. Scott Jerdan, Acting Manager of the AIM Operations Group and AIM Systems Group, briefed the TOC regarding the Implementation Plan for the NOTAM Search website. Mr. Jerdan discussed the recommendations delivered by the TOC in its role as the NOTAM Improvement Panel (NIP), an industry advisory body required in the Pilot's Bill of Rights legislation. He discussed how the previous recommendations of the NIP were used by the FAA to develop the NOTAM Search implementation plan. The Implementation approach is a four phase effort in which all of the functionality that will be developed into NOTAM Search addresses all of the NIP recommendations.

The discussion raised a number of questions and discussion points amongst the Committee members. One member asked specifically about a parameter that will limit the number of searchable waypoints in NOTAM Search to 20. The member asked whether this was enough. Unmanned missions, for example, operate with up to 100 waypoints. Mr. Jerdan pointed out to the member that the scope of NOTAM Search was domestic flights only. One Committee member also noted that integration of Unmanned Aerial Systems (UAS) in the National Airspace System (NAS) in 2015 would make this concern more relevant. Mr. Mark Cardwell, of FedEx Express and Co-Chair of the NOTAM Task Group of the TOC, noted that including an airway as part of the flight plan search for NOTAMs lowered the concern about the maximum number of searchable points in NOTAM Search. The Committee as well as the AIM office recognized that NOTAM Search will start with a maximum of 20 points and the limit may be revisited in the future.

Another question from a Committee member focused on whether NOTAM Search was more focused on General Aviation or whether this implementation plan also included external flight planning systems tapping into the NOTAM data. Mr. Jerdan talked about the NOTAM Distribution System (NDS) which is also in development in parallel to NOTAM Search. The NDS will provide raw data to external parties for integration into third party systems.

One Committee member inquired about what publicity was underway for NOTAM Search. Mr. Jerdan mentioned that work was ongoing on a communications plan. The Committee pointed out



that this was a great story of industry/government collaboration that the AIM office should work hard to communicate externally.

A Committee member inquired about how NOTAM Search will receive feedback on its new functionality. Mr. Jerdan discussed that the next phase of effort for the NOTAM Improvement Panel was to act as an industry body to provide feedback. Mr. Cardwell spoke about the plans of the NOTAM Task Group going forward. He mentioned that Task Group members would provide direct communication to their constituents and solicit direct feedback from them. He stated that the group was committed to remaining in-tact through Phase 4 of the NOTAM Search Implementation Effort. Mr. Cardwell also stated that the Task Group was excited to see its recommendations implemented in such an inclusive fashion and on a compressed timetable.

#### **Update from NextGen Integration Working Groups**

Mr. Andy Cebula of RTCA next provided briefings on the NextGen Advisory Committee (NAC), the NextGen Integration Working Groups (NIWGs) and the Performance Based Navigation (PBN) Blueprint task of the NAC.

#### **Future of the Regional Task Groups (RTGs)**

Mr. Joe Bertapelle, of JetBlue and Co-Chair of the Eastern Regional Task Group, and Mr. Mark Hopkins, of Delta Airlines and member of the TOC, next lead a discussion on the RTGs. Mr. Bertapelle provided some background on the RTGs noting that historically the RTGs and their predecessor groups have been forums for information flow from FAA to industry as well as forums to work solutions to airspace and procedural issues in the NAS. The RTG leaders noted that information flow was important but not enough to sustain the RTGs. Activity for the RTGs was currently dormant but there was interest to restart the work.

Ms. Ray communicated some of the concerns regarding the work of the RTGs. She did not wish to duplicate efforts recognizing that the National Customer Forums (NCF) were also forums in which industry and the FAA had opportunity to engage on regional operational issues. Mr. Hopkins pointed out that not all issues were given appropriate attention or resolution in the NCF environment. For example, a significant upcoming Los Angeles Airport construction effort was raised in a previous RTG forum, and coming out of that RTG meeting, an ad hoc group came together to plan for the construction.

Ms. Ray also raised a concern about bandwidth, emphasizing that any efforts by the RTGs needed to focus on the most important issues and respect the limited available time for all parties involved. Ms. Ray mentioned that she was cognizant of wanting to be sure when she requested work for the RTGs that the FAA knew where the results of the recommendations would go. Questions about any potential RTG task that needed to be answered included: What should the output be? Who should get it and what should they do with it?

The TOC discussed that continuing information exchange at a regular cadence between the industry and the FAA was important. The RTGs would have the most productive interactions with the Managers of Tactical Operations (MTOs) and the Operational Support Groups (OSGs) in the Service Centers. Once a topic in information exchange begins to require resources to further understand, study or model an issue, it would be a candidate to turn into a tasking.

The Committee discussed Special Activity Airspace (SAA) in context of the RTGs. One Committee member noted that the availability and use of real time SAA information was improving and that the National Special Activity Airspace Program (NSAAP) was progressing. The Committee recognized that it would be valuable to re-engage with NSAAP in the next Committee meeting to learn more about the Concept of Operations and implementation plan.

A Committee member inquired about the subject of Commercial Space, specifically in South Texas. Ms. Ray mentioned that there are needs to establish policy around space ports. The Mission Support organization in the FAA has been asking strategic questions on how to think through space ports and these issues may ultimately be more policy level questions for the NextGen Advisory Committee.

For next steps, the Committee advised the RTGs to continue restarting the dialogue with the MTOs and OSGs to continue the information flow between the FAA and the RTGs.

### **Review Potential New Tasks for the TOC**

The TOC next reviewed three potential new tasks for the Committee:

1. *South Florida / Caribbean Operations for the Eastern Regional Task Group*

In context of the preceding Regional Task Group discussion, Mr. Bertapelle discussed the opportunity for the Eastern RTG to work on addressing operational issues in South Florida and the Caribbean. He spoke about the growth in traffic in the region and the degradation of operational performance from inefficiency and delays from Airspace Flow Programs (AFPs). Mr. Bertapelle stated that the next step on this potential task was for the Eastern RTG to meet in the third week of September to provide additional detail on the issue and what the ERTG could do to address the problem.

2. *“Review, Revise, Remove (Three Rs)” for Right Sizing Procedures in the NAS*

Ms. Ray next presented the concept of a task to gather industry input into the process of right sizing procedures in the NAS. She noted that it takes approximately \$3,000 per year to maintain each of the 14,000 Instrument Flight Procedure in the NAS and the FAA was looking to remove procedures that are not necessary. The FAA was working through a task to request the TOC for industry input into the criteria for evaluating which procedures to remove from the NAS. Ms. Ray spoke about the difference between regulatory and non-regulatory processes for procedure removal and that the criteria request would be for both approaches. She said the tasking would come to the TOC in 2-3 months’ time and require about 3-5 months to complete.

3. *Airport Construction and Safety Risk*

Mr. Dan Allen, FedEx Express, presented a concept for a tasking around airport construction. Mr. Allen's primary interest was about the safety risks introduced into an operation through the construction process. He noted historical examples in which construction programs removed vertical guidance on approaches in certain airports that resulted in safety events. He provided examples such as recent construction in Oakland (OAK) in which some carriers became involved in the process and developed temporary RNAV procedures to a displaced threshold at the airport, mitigating the safety hazard. Mr. Allen recommended the TOC initiate a task to examine historical experience in airport construction to learn what went well and what did not in an effort to develop a template of best practices.

Ms. Ray noted that a procedure can be developed in three months but there were many other procedures in the NAS and much maintenance required on the existing set. She mentioned that when one procedure is expedited in the short term, the impact on the balance of the outstanding procedure work is significant.

A Committee member mentioned that this task concept fit well into the FAA's Safety organization which has been working with airports to decrease any situation in which there is no vertical guidance to the airport. The member mentioned that it is important to start early in the process with the airport to have the time to mitigate the issues. Another committee member echoed the desire for the NAS to generally maximize the number of runway ends with vertical guidance. He stated this was a big "safety bang for the buck."

### **Industry Ideas for Future TOC Work**

Prior to the September 3<sup>rd</sup> TOC meeting, the Committee was polled for its ideas for future TOC work. The ideas were consolidated and presented for consideration. The ideas are:

*1. Transition prioritized policy decisions out of the NAC and into the TOC for implementation*

Some possibilities in this idea were to use the TOC for development of PBN procedures based on the work of the PBN Blueprint and the PBN NIWG, use the TOC for implementation of recommendations from the other three teams of the NIWGs or mixed operational capability (RNP vs conventional) core airports. The Committee discussed that many of these ideas may ultimately remain in the NAC context; however, Ms. Ray pointed out that implementation based on the PBN Blueprint may have the most opportunity for future involvement of the TOC.

*2. Review waivers in the system and determine direction for transitioning them to procedures*

The Committee suggested that Equivalent Lateral Spacing Operation (ELSO) in DFW and ATL would be an interesting candidate. Ms. Ray noted that ELSO was to be signed out September 30<sup>th</sup> with publication in March.

*3. Collaborate with ATO to evaluate use and data sharing around automation*

The Committee discussed that Time Based Flow Management (TBFM) lacked visibility into its planned timing and this created challenges for operators. There was recognition that this topic may be better

suited for the Collaborative Decision Making (CDM) environment. Ms. Ray noted that earlier in the year, her team begun considering how to go about conducting industry engagement for TBFM. She offered to have her team provide an update to the TOC on where TBFM stands in its plans as well as its use policy and approach to data sharing.

*4. Monitor activity and/or create work groups that support the rollout of new operational initiatives in the NAS*

The first tangible idea in this category was monitoring the anticipated deployment of a SAAB-Sensis remote tower system at Leesburg (JYO). Historical experience with remote towers has been outside of the U.S. only and the Committee raised a concern that all development on standards for remote towers was happening in Europe.

Ms. Ray pointed out that Leesburg specifically was not an FAA project but a State of Virginia project which would make a tasking to the TOC challenging.

*5. ATC coordination and procedures that enable UAS integration into the NAS*

This concept focused on developing ATC handbook information on UAS performance/capabilities and beginning to consider how to go about integrating UAS operations in the NAS. The Committee noted there are many efforts underway on UAS's which the Committee does not want to duplicate.

**VOR MON Recommendations on Outreach and Modifications**

Mr. Don Dillman, FedEx Express, Co-Chair of the VHF Omni-directional Range (VOR) Minimum Operating Network (MON) Task Group, briefed the Committee on its recommendations on outreach and modifications.

Mr. Dillman explained that the VOR MON Task Group developed and delivered three broad areas of recommendations. The three areas focus on:

- Process for decommissioning VORs to achieve the MON
- Community outreach and education before and during implementation of the MON
- Required modifications and mitigations to successfully implement the MON

Regarding the process for decommissioning, Mr. Dillman stated that the current process of decommissioning VORs is not scalable to the approximately 500 VORs targeted to reach MON objectives. Additionally, the process needs to balance multiple needs, namely for stakeholders to be informed and provide feedback while allowing the FAA to review and adjudicate the comments in a reasonable amount of time with a reasonable level of resources.

Mr. Dillman presented a series of guiding principles regarding the process of decommissioning:

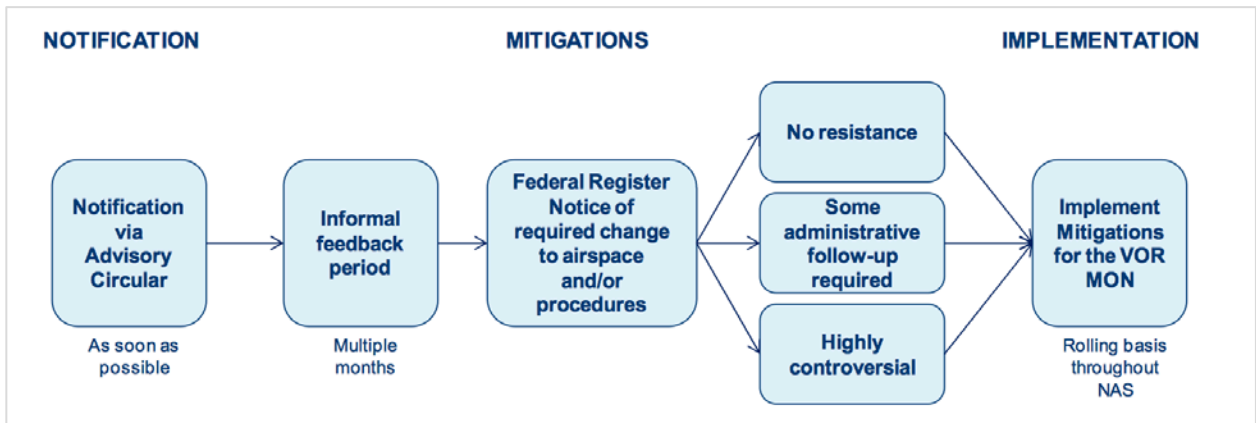
- Given the scale of decommissioning involved with the VOR MON, batch notification announcing all of the VORs planned for decommissioning to the public is preferable to individual notification (i.e., announce one VOR at a time).

- The process for providing notification, gathering public comment and addressing public comment should not be so onerous to stall or delay the MON process.
- The public comment and feedback process for one VOR should not delay the decommissioning process for other VORs.
- Notification of the VORs planned for decommissioning should be transparent to the public and the process for making final determinations of individual VORs (the mitigations to be considered) should be included in the initial notification.
- The work of determining the mitigations required by the VOR decommissioning must occur upfront to understand the network impacts of a large-scale VOR shutdown.

Next, Mr. Dillman presented three recommendations on the process of decommissioning:

- 1) At the beginning of the process, the FAA should notify the public concerning the full list of VORs to be planned for decommissioning. This may be done via non-rulemaking action such as an Advisory Circular (AC). If the FAA chooses to use ACs, publication of ACs could include one for the entire MON Program or one for each Service Center. In either case, the list(s) should be broken down by State.
- 2) Process for decommissioning should separate the notification (non-rulemaking) component from the rulemaking components to not stall the process unnecessarily.
- 3) The process for collecting, evaluating and adjudicating public comment should be communicated clearly in the notification of the VOR MON.

Mr. Dillman also presented a recommended process flow for decommissioning in the VOR MON:



Mr. Dillman next discussed three levels of outreach on the VOR MON:

- 1) Level one: Notification
  - One-way flow of information from the FAA to the Public
  - Include information about the VOR MON Program as a whole, the rationale, the value to the Public and the list of VORs and sequence for shut down
  - Standard template of information about each of the VORs scheduled for shutdown as part of the MON

- Tools for this phase of communication may include (but are not limited to) public notices, magazine articles, press releases, flyers, mailers, etc.
- 2) Level two: Interaction
- Stakeholders expected to request information at a more local and detailed level
  - Do not expect all VORs scheduled for shutdown will require extensive interaction; some will
  - May involve community town hall meetings and/or individual meetings with key local stakeholders.
- 3) Level three: Exception
- FAA may take some action to evaluate exceptions and even modify the plan(s) based on new inputs unavailable until the VOR MON list is released to the public.

Next, he reviewed Guiding Principles for outreach:

- FAA should focus on providing complete information early in the process.
- Communication about VOR MON should include messages that the process is not ad hoc and not just a random selection of VORs. Include fact that there were criteria, criteria were weighted and selection was based on a structured approach.
- Messaging about the VOR MON should be focused on the flying public and why the VOR MON Program is beneficial for the flying public. While they can and should be mentioned, the messaging should not focus on benefits to the FAA.
- VOR MON requires participation of three main groups: the FAA, VOR MON Task group (and industry they represent) and Public, each with a responsibility in the process:
  - FAA responsibility to create plan and respond to industry stakeholders in modifying that plan
  - VOR MON Task Group responsibility to represent broad constituencies and provide recommendations / feedback to FAA on the creation of criteria and implementation plans.
  - Public responsibility to provide feedback with legitimate concerns on individual VORs.

Next, Mr. Dillman reviewed Recommendations on Outreach:

- 1) The overarching theme about the VOR MON should relate to the transition to Performance-Based Navigation (PBN) and NextGen.
- 2) To ensure transparency, the FAA should provide a published VOR MON plan, including plans for decommissioning VORs, as soon as possible.
- 3) FAA should accept the support of industry organizations to help communicate the message about the VOR MON.
- 4) Utilize the internet and social media to communicate about the VOR MON.
- 5) The FAA should actively reach out to Legislative Staff to ensure they understand the Program and the approach and rationale for decision-making.

Finally, Mr. Dillman offered a series of recommendation on modifications required for the VOR MON regarding procedures, publications, notifications and training and operations.

**Committee Action:** The Committee agreed by consensus to approve the VOR MON Recommendations on Outreach and Modification (Attachment 4).

**FAA Update on PBN Route Strategy**

Mr. Robert Novia provided an update on the FAA's PBN Route Strategy which is a required input for the VOR MON Task Group to complete its remaining task. Mr. Novia described the process and the current thinking on this strategy. The Committee raised questions about the impact of changing the NAS route structure on Flight Management Computers (FMCs) and their databases.

Mr. Novia discussed the efforts underway to validate the route structure via Human In the Loop Simulations (HITLs) as well as fast time simulation. One Committee member noted that the approach to route validation parsed the NAS into multiple North-South sections while many of the routes flowed East-West. The Member pointed out that Service Center boundaries or jurisdictions of the Managers of Tactical Operations may also serve as useful organizing principles for this process.

**Anticipated issues for TOC consideration and action at the next meeting**

At the next meeting, the Committee will launch new taskings and receive briefings on NSAAP and TBFM.

**Other business**

No other business was raised.

**Adjourn**

Chairman Wright ended the meeting of the Committee at 3:30 p.m.

**Next Meeting**

The next meeting of the TOC is November 20, 2014 in Washington, DC.



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

NOV 21 2014

Mission Support Services  
800 Independence Avenue, SW.  
Washington, DC 20591

Ms. Margaret Jenny  
President  
RTCA, Inc.  
1150 15<sup>th</sup> Street NW  
Washington, DC 20036

Dear Ms. Jenny:

The Federal Aviation Administration (FAA) is committed to collaboratively identifying and addressing efficiency impacts to the National Airspace System (NAS). Ongoing Metroplex projects currently accomplish this with focus on the airspace and PBN procedures around the Core 30 airports in the NAS using a well-defined and understood process to address issues and make improvements. Other geographic regions may also have unmet needs since efforts to enhance the airspace and operations may be limited by national program priorities and funding. A growing area of concern is in the Caribbean. Air traffic volumes in ZMA Oceanic and ZSU have grown in recent years while the capacity of the airspace itself remains largely unchanged. Select infrastructure and procedural enhancements combined with traffic management tools like miles in trail (MIT) spacing and Airspace Flow Programs (AFPs) have squeezed as much capacity out of the existing airspace but a demand/capacity imbalance persists. Both industry and facility personnel believe no further improvements in efficiency are possible without some level of airspace and infrastructure improvements.

The Eastern Regional Task Group (RTG) of the Tactical Operations Committee (TOC) recently engaged in informational exchanges with local personnel to brainstorm the current challenges and share ideas on possible solutions. Additionally, some infrastructure improvements are already underway or planned and the Central/South Florida Metroplex project has just started the design and implementation phase as well. Also, the FAA is supporting other activities in the Caribbean such as the ICAO's project for the implementation of PBN and improved aeronautical information exchange in the region.

We believe a tasking to the TOC to provide recommendations on a comprehensive approach to address infrastructure and airspace changes in the region would benefit the NAS as a whole. We request the TOC provide recommendations on a comprehensive strategy for infrastructure and airspace changes to improve safety, efficiency, and capacity in the region. Specifically, this tasking would include recommendations in the following sub-task areas:

- The use of data to clearly define the problems, causes, and solutions to the safety, efficiency, and capacity issues in the region.
- Prioritized solutions for any infrastructure components identified as most critical to improving /enhancing operations in the region.



- Prioritized solutions for any airspace improvements or enhancements as needed.
- A review of existing or planned domestic or international activities in the region and a recommended method or mechanism to insure all the work is harmonized into a comprehensive and coherent master plan.

The FAA will still face an uphill battle in terms of funding airspace and infrastructure projects in coming years, but we believe work done to complete this tasking will provide us with much clearer information in terms of what industry sees as most valuable. This will help inform better decision-making. We will provide Subject Matter Expertise (SME) as needed. We request this task be completed by the 3rd Quarter TOC meeting in the Summer of 2015 with an interim report in February 2015.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Elizabeth L. Ray', with a stylized flourish at the end.

Elizabeth L. Ray  
Vice President, Mission Support Services  
Air Traffic Organization



RTCA, Inc.  
 1150 18<sup>th</sup> Street, NW, Suite 910  
 Washington, DC 20036  
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[www.rtca.org](http://www.rtca.org)

November 19, 2014

## APPENDIX TO RTG TERMS OF REFERENCE

### Eastern Regional Task Group Tactical Operations Committee

#### Committee Leadership:

Position	Name	Organization	Telephone	Email
<b>Co-Chairs</b>	<b>Eastern</b> Joe Bertapelle Glenn Morse	JetBlue United Airlines	(202) 715-2558 (516) 797-5048	<a href="mailto:Joseph.Bertapelle@jetblue.com">Joseph.Bertapelle@jetblue.com</a> <a href="mailto:Glenn.morse@united.com">Glenn.morse@united.com</a>
<b>FAA Liason</b>	Mike Artist	FAA MTO	(571) 289 6682	<a href="mailto:Mike.C.Artist@faa.gov">Mike.C.Artist@faa.gov</a>
<b>Secretary</b>	Trin Mitra	RTCA	(202) 487 3650	<a href="mailto:tmitra@rtca.org">tmitra@rtca.org</a>

#### Background:

FAA is committed to collaboratively identifying and addressing efficiency impacts to the National Airspace System (NAS). The Metroplex projects currently do this with focus on the airspace and PBN procedures around the Core 30 airports in the NAS and employing a well-defined and understood process to address issues and make improvements. Other geographic regions have unmet needs since as well but efforts to enhance the airspace and operations may be limited by national program priorities and funding. A growing area of concern is in the Caribbean. Air traffic volumes in ZMA Oceanic and ZSU have grown in recent years while the capacity of the airspace itself remains largely unchanged. Select infrastructure and procedural enhancements combined with traffic management tools like miles in trail (MIT) spacing and Airspace Flow Programs (AFPs) have squeezed as much capacity out of the existing airspace as possible but a demand/capacity imbalance persists. Both industry and facility personnel believe no further improvements in efficiency are possible without some level of airspace and infrastructure improvements.

The Eastern Regional Task Group (RTG) of the TOC has recently had informational exchanges with local personnel to brainstorm the current challenges and share ideas on possible solutions. Additionally, some infrastructure improvements are already underway or planned and the Central/South Florida Metroplex project has just started the design and implementation phase as

well. Also, FAA is supporting other activities in the Caribbean such as the ICAO's project for the implementation of PBN and improved aeronautical information exchange in the region.

FAA believes a tasking to the TOC to provide recommendations on a comprehensive approach to infrastructure and airspace changes in the region would benefit the NAS as a whole. FAA requests the TOC provide recommendations on a comprehensive strategy around infrastructure and airspace changes to improve safety, efficiency, and capacity in the region. We anticipate this tasking would include recommendations on the following areas:

1. The use of data to clearly define the problem(s), causes, and solutions to the safety, efficiency, and capacity issues in the region.
2. Recommended prioritized solutions for any infrastructure components identified as most critical to improving /enhancing operations in the region.
3. Recommended prioritized solutions for any airspace improvements or enhancements needed.
4. A review of existing or planned activities in the region and a recommended method or mechanism to insure all the work is harmonized into a comprehensive and coherent master plan.

**Deliverables:**

The deliverable is a report from the Tactical Operations Committee, provided by the Eastern RTG, which addresses the four questions discussed above.

**Scope:**

The scope of this task is the Miami Oceanic and San Juan airspace as well as those airspace and infrastructure issues that may be addressed to improve operations in the region.

**Envisioned Use of Deliverables:**

The deliverables of this task will aid the FAA in prioritization of infrastructure and airspace resectorization decisions.

**Specific Guidance:**

The RTGs will receive this from the FAA as it relates to the Taskings.



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Mission Support Services  
800 Independence Avenue, SW.  
Washington, DC 20591

NOV 21 2014

Ms. Margaret T. Jenny  
President  
RTCA, Inc.  
1150 15th Street, NW, Suite 910  
Washington, DC 20036

Dear Ms. Jenny:

The Federal Aviation Administration (FAA) is responsible for establishing Class B airspace areas to reduce the risk of midair collision in the airspace surrounding airports with high density air traffic operations. Airspace standards are set under FAA JO 7400.2, Procedures for Handling Airspace Matters. FAA Service Area offices complete evaluations on existing and candidate Class B airspace areas using the information contained in Chapter 15 as a guide. When the criteria for the establishment of a Class B airspace area is met, it is merely an indication that the facility is a candidate for further study.

The evaluation and resulting determination to proceed with rulemaking is completed prior to any public announcement. To ensure the best possible outcome is reached for all stakeholders, the FAA is considering updating the evaluation requirements to better identify when further action is needed. It is the intent to provide a more thorough analysis of the available information as early in the evaluation process as possible. This necessitates a more detailed list of designation requirements used when evaluating existing and candidate Class B airspace areas.

We believe the Tactical Operations Committee (TOC) can provide valuable feedback for consideration to help the FAA ensure that any changed processes benefit the safe and efficient management of the National Airspace System. The goal is to establish a process that ensures airspace designations and design are commensurate with the risks involved with high volume mixed VFR/IFR operations while maximizing airspace efficiency and access. Committee feedback will help the FAA establish clear guidelines regarding the need to establish, as well as, verify, plan, and implement changes to Class B airspace areas. Specifically, the FAA requests comment and recommendations on the following:

- Class B airspace designation requirements.
- Appropriate considerations for Class B airspace design criteria.
- The evaluation process for airspace biennial reviews including criteria to expeditiously reduce or eliminate Class B airspace that no longer meets designation requirements.
- Obtaining input from affected users as early in the process as possible.
- Identifying the best mechanism(s) to communicate updated processes to key stakeholders.

The FAA will provide Subject Matter Experts for this task as needed. To ensure that the TOC considers all relevant issues, the Task Group should, at a minimum, include airport operators, aircraft operators (airlines, pilots, and general aviation), and state aviation officials.

We seek the TOC's recommendations on the items at the 3rd Quarter FY 2015 TOC meeting. Once the task team is established, we will work with TOC Leadership to determine if interim reporting deliverables and milestones are appropriate. Once the task is complete, the Agency will consider the committee's recommendations for potential changes to existing processes.

Sincerely,

A handwritten signature in blue ink, appearing to read 'ELR', with a long horizontal flourish extending to the right.

Elizabeth L. Ray  
Vice President, Mission Support Services  
Air Traffic Organization





U.S. Department  
of Transportation

**Federal Aviation  
Administration**

NOV 21 2014

Ms. Margaret Jenny  
President  
RTCA, Inc.  
1150 15<sup>th</sup> Street NW  
Washington, DC 20036

Mission Support Services  
800 Independence Avenue, SW.  
Washington, DC 20591

Dear Ms. Jenny:

Construction projects of various sizes are going on all the time in the National Airspace System (NAS). Construction activities can range from major, long-term projects such as adding or improving runways or taxiways to relatively minor, short-term projects such as EMAS maintenance projects. Efficiency is usually most obviously impacted as Air Traffic adjusts arrival and departure rates to accommodate reduced available capacity or taxi in/out times increase. A more subtle impact involves introducing short term safety risk when a project takes a procedure with vertical guidance out of service for a period of time or increases pilot and/or controller workload complexity.

The FAA Office of Airports, Flight Standards, Regional Administrators, and the Air Traffic Organization work together with local airport authorities and aviation stakeholders at the Service Area, regional, and local levels during airport construction. While some impacts may be unavoidable, we can minimize unnecessary disruption and safety risk if risk identification and risk mitigation through planning, design and early collaboration and coordination are done effectively. The key to minimizing the impact of airport construction activities is ensuring the following:

- The right stakeholders are involved.
- Stakeholders understand risks and mitigations.
- There is a clear understanding among stakeholders of project roles and responsibilities to maintain safe airport operations during construction.
- There is a sharing and use of best practices and lessons learned.
- There is a transparent process to coordinate, track approvals, and implementation details.

There are many examples of projects where implementation went very well. However, there are other examples where coordination and collaboration could have been improved. Airports and the FAA organizations take different approaches to manage and mitigate construction safety risks and efficiency impacts. Best practices and lessons learned for each project may not be well understood or shared across projects or with stakeholders. The roles of the various FAA entities involved may differ or may not be clear enough to all stakeholders. Local airport authorities may not engage to the extent needed or early enough in the process. Aircraft operators may also not be included early enough in the process. Finally, we may not effectively engage the surrounding community to explain temporary shifts in aircraft noise or frequency. Incomplete or untimely coordination or involvement by key stakeholders may preclude the identification and implementation of effective mitigations to reduce safety risk and efficiency impacts.

To help the FAA address the issues noted above, we request the TOC to provide recommendations in several key areas related to airport construction coordination and implementation. They include:

1. Review select past airport construction projects and associated data and identify lessons learned and recommend best practices for future projects. This would include the review of available safety and efficiency data where construction issues were noted as a factor. Please recommend a mechanism to ensure we capture and share lessons learned from future projects.
2. Identify and evaluate current strategic planning initiatives/tools used by FAA stakeholders at the Headquarter, Service Area/Region, and Service Delivery Point levels and provide recommendations on a best approach.
3. Assess the use of agency orders, advisory circulars, and internal processes currently being used to guide airport sponsors in their management of airport operations during construction and provide recommendations on a best approach.
4. Identify all stakeholders internal and external to the FAA needed and define their roles in the coordination and implementation processes.
5. Describe needed outreach strategies associated with each stakeholder and include a recommended timeline for outreach for major, long term projects.
6. Identify a set of recommendations on how safety risk should be better managed for aircraft operations impacted by airport construction projects.

We believe the above work will lead to improvements in the coordination and implementation of airport construction projects and will lead to an increased ability to mitigate impacts to efficiency and safety. Such work will benefit the full range of aviation stakeholders. We will provide the subject matter expertise, including a representation from the Airport Construction Advisory Council (ACAC), available as needed.

We look forward to the results of this important work. We will work with TOC Leadership to provide a list of past airport construction projects as discussed in Sub-Task #1 above to help the task group identify projects to review. We will also provide safety and efficiency data as requested as well as orders and other documentation. Subject Matter Experts from various FAA lines of business will be available.

The FAA requests this tasking be completed by the 2nd Quarter, FY2016 TOC meeting. Once the task group is established, we will work with TOC Leadership to determine the schedule for interim reporting deliverables and milestones.

Sincerely,



Elizabeth L. Ray  
Vice President, Mission Support Services  
Air Traffic Organization

Ms. Margaret Jenny  
President  
RTCA, Inc.  
1150 15<sup>th</sup> Street NW  
Washington, DC 20036

Dear Ms. Jenny:

The FAA seeks to ensure an effective transition from ground-based airways, routes and instrument flight procedures to greater availability and use of satellite-based routes and procedures while still maintaining safety. Building from past, smaller-scale efforts, the National Procedures Assessment (NPA) Initiative seeks to establish a repeatable process and plan to cancel redundant or excess procedures and reduce the maintenance costs associated with them.

Currently, there are two processes or tracks used for the publication of the procedures and routes in our navigation structure: (1) Regulatory, which includes airways, routes, and instrument flight procedures (IFPs) that require rulemaking action before they are effective; and (2) Non-regulatory, which includes Standard Instrument Departures and Standard Terminal Arrivals (SIDs and STARs) and don't require rulemaking. Cancellation of procedures also follows these same two track methods.

The FAA based the process in the NPA Initiative which follows the regulatory track, on initial cancellation criteria received from the Flight Safety Foundation in 2011 and additional criteria solicited through public comment in the Federal Register in 2013/14. In June 2014, final criteria were published in the Federal Register. Using these final criteria, FAA focused on NDB and VOR procedures and has identified over 700 for cancellation. This list will be posted in the Federal Register before removal.

The non-regulatory track has also developed a process to review utilization data to identify both conventional and PBN candidate SIDs and STARs. Candidate procedures are further studied in the Service Center for facility input. The process does not include publication or comment via the Federal Register for public input. Existing collaborative processes like Metroplex projects are used to engage and coordinate with industry.

FAA requests feedback and recommendations from the TOC in key areas noted below. Specifically, FAA requests the TOC:

1. Review and validate the current NPA Initiative assumptions and criteria developed to date for both the regulatory and non-regulatory tracks. If changes are recommended, please include the range of options/alternatives considered.
2. Review the proposed FAA implementation plans for both tracks and provide feedback and recommendations as needed.
3. Assess the effectiveness of the outreach planned and accomplished by FAA and make any needed recommendations for improvement.
4. Provide recommendations on what assumptions and criteria should be considered to advance the NPA Initiative beyond its current scope to encompass the remaining



conventional and PBN routes and procedures. Please provide industry perspective on whether existing implementation plans and outreach would suffice for an expanded NPA Initiative. If there are barriers to getting to such recommendations, please describe them. Please provide recommendations on the priority of further future actions. In other words, what procedures should FAA look at next?

FAA believes the timing of this work is critical. We currently have over 14,000 procedures in the inventory with hundreds of additional procedures planned this fiscal year. Removing underutilized or unneeded procedures reduces not only FAA maintenance costs but frees up personnel to work on higher priority procedures. It also reduced unnecessary controller and pilot proficiency training requirements. FAA will provide subject matter experts and needed documentation to the TOC on request and looks forward to the results of this important work.

FAA requests this work be completed by 4th Quarter FY2015 TOC meeting. Once the task group is established, FAA will work with TOC leadership to determine the schedule for interim deliverables and milestones.

Sincerely,

Elizabeth L. Ray  
Vice President, Mission Support Services  
Air Traffic Organization

## FAA Enabling Easier Search for NOTAMs with *NOTAM Search*

The Federal Aviation Administration  
November 13, 2014

Washington, DC - Pilots today are required to sort through pages of Notices to Airmen (NOTAMs), all in effort to find the most pertinent and critical notices. If you were to ask a pilot today where you can find an authoritative source of NOTAMs that can be sorted, searched, and filtered along their route of flight, they may not have an answer. The Federal Aviation Administration (FAA) has an answer, and that answer is NOTAM Search.

The screenshot displays the FAA NOTAM Search web application. At the top, it shows the search results for a flight path from KDC A to KLG A, finding 429 NOTAMs. The search criteria include a flight path of 'KDC A,PALEO,V44,AGARD,KORRY,KLG A', a 10 NM buffer, and JFK as alternate airfields. The search is filtered to include En-Route Facilities, ARTCC NOTAMs, TFR NOTAMs, and Regulatory Notices. Below the search filters, there are tabs for 'List View' and 'Table View', and a 'Filters' panel with various categories like Aerodrome-AD, APRON, RWY, TWY, AIRSPACE, CHART, COMMUNICATION, GPS, and INTERNATIONAL. A table of results is visible, showing columns for Location, Number, and Class. The table lists several NOTAMs for DCA, including Aerodrome and Chart types. A 'Condition' column on the right shows the text of the NOTAMs, such as 'RWY 19 RIVER REFERENCE LGTS DECOMMISSIONED 1404290001-PERM' and 'RWY 15/33 CLSD DLY 0144-1234 1410010144-1410101234EST'.

The Pilot’s Bill of Rights, signed into law August 3<sup>rd</sup>, 2012, outlined significant improvements to be made to the United States NOTAM System. Under the legislation, a NOTAM Improvement Panel was established representing the diverse group of stakeholders flying in the United States National Airspace System. After months of collaboration, the NOTAM Improvement Panel outlined numerous recommendations to be implemented by the FAA.

During the 2014 NOTAM Industry Day, Scott Jerdan, the FAA’s Aeronautical Information Management Group Manager, outlined a four part implementation plan to meet recommendations from the Pilot’s Bill of Rights NOTAM Improvement Panel by the end of 2015. The FAA continues to actively engage with stakeholders to further NOTAM modernization and NOTAM Search is playing a key role.

NOTAM Search, available at <http://notams.aim.faa.gov/notamSearch/>, is a resource that may be used in conjunction with other pre-flight information sources for flight planning. On November

13, 2014, the FAA released significant enhancements to the NOTAM Search pre-flight planning tool.

### **NOTAM Search Enhancements:**

- ☑ **Route of Flight Search Query**
  - Pilots now have the ability to enter their route of flight, adjust the route width, and retrieve NOTAMs relevant to their flight path
- ☑ **Enhanced Filter and Sort Options**
  - Manage NOTAMs by filtering NOTAM keywords such as runway, taxiway, or procedure
  - Sort by departure, arrival, and alternate airports
  - Search NOTAM information for critical keywords such as “**CLSD**”
- ☑ **Mobile Friendly**
  - The enhanced website will allow pilots on the go to utilize NOTAM Search on tablets and mobile devices
- ☑ **User-friendly Export to PDF/ Print**
  - Export NOTAMs to a PDF document or excel spreadsheets for printing
- ☑ **Archived NOTAMs Dating back 3 years**
  - Discover what NOTAMs were once effective in the past (*Key provision within the Pilot’s Bill of Rights*)
- ☑ **User Profiles (Coming Soon!)**
  - Enable saving of favorite routes, airports, and filter preferences

In addition to delivering NOTAM information, NOTAM Search provides pilots with applicable Letters to Airmen (LTA’s) and construction notices that correspond with a pilot’s search. Mark Cardwell, the Pilot’s Bill of Rights NOTAM Improvement Panel Co-Chair recently offered that, *“NOTAM Search is an innovative approach to managing the rising challenge of information overload and the accompanying risk of distraction. It brings us significantly closer to the ultimate goal of presenting just the right information at just the right time.”*

One of the most valuable components of NOTAM Search is that the website is taking advantage of the work the FAA has been conducting behind the scenes for years. Many of the NOTAMs displayed within NOTAM Search are “*Digital NOTAMs*.” As the FAA departs from publishing traditional teletype NOTAMs, the NextGen “machine readable” digital NOTAMs will be the key enabler for enhanced filter, sort, and display options (e.g., graphical, plain language, ICAO).

Through continued development of the Federal NOTAM System (FNS), the FAA is working hard to originate all NOTAMs digitally at the source so that all users in the aviation industry will benefit from a faster and smarter NOTAM system.

NOTAM Search is available today – before your next flight, try it out – [FAA NOTAM Search](#)