Meeting Summary, April 8, 2013
Tactical Operations Committee (TOC)

The first meeting of the Tactical Operations Committee (TOC) held on April 8, 2013 at the Headquarters of RTCA in Washington, DC, 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 - Committee Terms of Reference
Attachment 4 – White Paper - Discussion of FAA Potential Taskings

Welcome and Introductions
Committee Co-Chairs, Mr. Jim Bowman, Vice President, Flight Operations, FedEx Express, and Ms. Heidi Williams, Vice President, Air Traffic Services and Modernization, Aircraft Owners and Pilots Association (AOPA), 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 and General Public Attendees are identified in Attachment 1).

Designated Federal Official Statement
Designated Federal Official (DFO), Ms. Lynn Ray, Vice President Mission Support, Air Traffic Organization (ATO), Federal Aviation Administration (FAA), read the Federal Advisory Committee Act notice governing the open meeting.

Background on Formation of Committee
Ms. Margaret Jenny, President, RTCA, provided an overview of RTCA, and its role as a unique Public-Private Partnership that operates under the Federal Advisory Committee Act providing technical and policy recommendations to the FAA. She also gave an overview of the history of RTCA’s involvement in providing recommendations on operational issues under the Air Traffic Management Advisory Committee and later the NextGen Advisory Committee (NAC), and the formation of the TOC. The goal of the TOC is to be agile, timely, collaborative and reach a consensus, but not dilute the outcome or delay development of recommendations if a consensus cannot be achieved.

Discussion of Committee Purpose and Scope (Source: TOC Terms of Reference – Attachment 3)
TOC Secretary, Mr. Andy Cebula, Vice President, Strategy and Programs, RTCA reviewed the primary responsibility of the Committee—to provide recommendations to the FAA. To accomplish
this, the Committee will develop and manage Task Groups including structure, leadership, deliverables and schedules.

Committee Operating Norms (Source: TOC Terms of Reference – Attachment 3)
Mr. Cebula also led the Committee through a review of operating norms explaining that the group will meet in public plenary three times per year, augmented by organizational non-public meetings as necessary. Committee members are assigned two-year terms and the Committee members are expected to attend and participate in the meetings. Each Committee member may designate an alternate who can attend in place of a Subcommittee Member, but not more than twice a year.

Reports from Regional Task Groups
The TOC received reports from representatives of Regional Task Groups that served under the NAC. These groups addressed varied issues in conjunction with the FAA in specific geographic areas. To assist the Committee in considering how to incorporate this function into the TOC, representatives of the Regional Task Groups were asked to cover:
- Activities during the last 18 months
- Identify immediate future activities/issues that would be appropriate for the region
- Provide overall thoughts/comments/observations about regional groups that would maximize their effectiveness for the industry and the FAA

Western Pacific – Co-Chairs, Dan Allen, FedEx Express/Tom Kramer, AOPA
Issues covered:
- Greener Skies Over Seattle – PBN implementation initiative in partnership between FAA-controllers-airlines (aircraft operators), emphasized the importance of collaborative work and controllers decision support tools.
- Special Use Airspace (SUA) – National Special Activity Airspace project concentrating on providing scheduling information related to the status of SUA.
- Unmanned Aircraft Systems (UAS) – integration into the airspace, Certificates of Authorization for operations in the National Airspace System (NAS).
- Optimization of Airspace and Procedures in the Metroplex (OAPM) – expressed strong support for the engagement by the Regional Task Groups in the Southern California, Northern California and Phoenix study teams.

Both Mr. Allen and Kramer expressed a need for the Regional Task Groups to develop actionable recommendations and a process for delivering these recommendations to the FAA for implementation.

Southwest – Chair, Dan Allen, FedEx Express
Issues covered:
- Optimized Profile Descents (OPDs) – challenged to capture the benefits, for example, extra miles in-trail/additional track miles result in additional time that may cost more than the fuel savings achieved by an OPD.
• Gulf of Mexico Regional Airspace – goal is to ensure continued viability for civilian operations during growth in military operations. (During this portion of the discussion, a Committee member from the Department of Defense emphasized the importance of having good collaboration with the aviation community on military airspace and operations.)

Northeast – Chair, Glenn Morse, United Airlines
Issues covered:
• New York Airspace Redesign – the aviation community has a long history of involvement in working with the FAA on issues related to operations including recommendations related to facility changes and airspace design.
• Philadelphia – participating in work related to the overall NY airspace redesign that impacts PHL in the 2015-2017 time periods.
• OAPM – the NE Task Group is engaged in the Washington DC study team.
• T-Routes – participating in the design and implementation of T-Routes in the Cleveland area.

Southeast – Chair, Bill Cranor, JetBlue Airways
Issues covered:
• OAPM – the SE Task Group is engaged in the Atlanta, Charlotte and South Florida study teams.
• Caribbean Airspace (San Juan – Miami) – working to address improving the efficiency of airspace operations (i.e. eliminating dog-legs) for aircraft equipped with NextGen capabilities, while ensuring that legacy aircraft can continue operating under current procedures and routes.
• Space Launches – addressing how to accommodate space launches from Cape Canaveral without closing the airspace each time there is a launch.

Midwest – Chair, Mike O’Brien, American Airlines
Issues covered:
• Resectorization of Airspace – providing aircraft operator perspectives on resectoring of airspace in Minneapolis and Toronto.
• OAPM – addressing community concerns related to proposed PBN procedures being implemented at MSP.
• Chicago Area – engaged in the implementation of Standard Instrument Departures (SIDs) and Standard Terminal Arrivals (STARS) and associated issues related to the changes in runways at ORD planned for October. Also working on revisions related to the management of airspace controlled by Chicago and Cleveland Centers.
• Denver Area – working through issues related to aircraft specific challenges of new SIDs and STARS.

Discussion of Regional Task Groups (RTGs)
After the completion of the reports from the RTG leaders, the Committee members engaged in a conversation about the purposes, goals and structure for RTGs. Several Committee members, as well as many of the NAC RTG Chairs expressed the need for fewer groups to maximize the
participation of the industry, DoD and air traffic controller workforce. It was unanimously agreed that three groups would be the appropriate number, provided that this was acceptable with the FAA. Ms. Ray volunteered to discuss this with her colleagues to make this determination. (Subsequently it was agreed by the FAA ATO that the structure of EA/CE/WE would be acceptable in-line with the FAA service areas.)

A draft Terms of Reference defining the structure and scope for the RTGs, along with leadership, will be presented for consideration by the Committee at the next meeting.

**Discussion of FAA Taskings (Attachment 4)**

During the course of the meeting, the Committee engaged in a discussion about each of the following three potential Taskings:

**Tactical Operations Committee Pre-Tasking Discussion Paper #1**

**“VOR MON”**

Ms. Ray outlined that the FAA looking for additional recommendations on proceeding with establishing a Minimum Operating Network for VORs as a back-up navigation in the event of a GPS outage. This is distinct from an on-going effort related to TACON/DME. The target is to implement by January 2020, and the Tasking could include conducting a review of the previous work on MON selection criteria and assumptions, review and validate MON candidate list, and develop recommendations on the preliminary waterfall.

In response to questions from the Committee members, Ms. Ray explained that the FAA is currently “drawing down” VORs, but it is important that all of these actions be considered against the long term plan.

It was agreed by the Committee that a sub-group would receive a briefing by the FAA on the VOR MON issue to help shape the subsequent FAA Tasking and the associated TORs for consideration by the TOC at the next meeting.

**Tactical Operations Committee Pre-Tasking Discussion Paper #2**

**“NOTAM Improvement”**

Ms. Ray briefed the Committee on the issue of improving the Notice to Airman (NOTAM) system an aviation industry wide goal. Congress has also directed the FAA in the “Pilot Bill of Rights” legislation to create a NOTAM Improvement Panel. This Tasking would also build on the FAA ATO Safety evaluation and would include a review FAA’s NOTAM modernization efforts with the goal of developing recommendations to strengthen entire NOTAM program.

Ms. Ray and other members of the Committee suggested that the issue was important and any related work groups should include entities, such as state aviation organizations and helicopter operators that may not be represented on the TOC. The Committee members also endorsed the idea of naming the TOC as the NOTAM Improvement Panel created by law. A group of TOC members (Chris Baum, ALPA; Chris Oswald, ACI-NA; Heidi Williams, AOPA; Dale Wright, NATCA) volunteered to work with the FAA to develop a Tasking and associated TORs for the Work Group.
Tactical Operations Committee Pre-Tasking Discussion Paper #3

“PBN Outreach”
Ms. Ray explained to the Committee that challenges by communities can slow or stop publication of procedures and affect the efficiency of the routes. There is an increasing recognition of the need for outreach with impacted airports and the community. There are also issues being identified in the implementation of PBN related to the variability in Flight Management System software.

The Committee engaged in a robust conversation highlighting the importance of community engagement. However, it was pointed out that several activities currently underway by the NAC, are addressing this issue.

Following the discussion, the Committee concluded that it was not appropriate at this time to address PBN Outreach because it is currently being covered by the work of the NAC. However, it was recognized that there are certain technical issues that might be important to consider in the future.

Anticipated issues for TOC consideration and action at the next meeting
Co-Chairs Bowman and Williams thanked the members for participating in the initial meeting of the TOC. Moving forward, the Committee will address Taskings covering Regional Task Groups, VOR MON, and NOTAM Improvements.

Other business
No other business was raised.

Adjourn
Co-Chairs Bowman and Williams ended the meeting of the Committee at 3:00 p.m.

Next Meeting
The next meeting of the TOC is July 23, 2013 in Washington, DC.
# Attendees:

**February 7, 2013 Meeting of the NextGen Advisory Committee**  
**Salt Lake City, UT**

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Allen, Dan</td>
<td>FedEx Express</td>
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<td>Archut, Deb</td>
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<td>Baum, Chris</td>
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<td>Benich, Chris</td>
<td>Honeywell International, Inc.</td>
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<td>Bowman, Jim</td>
<td>FedEx Express (TOC Co-Chair)</td>
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<td>Cebula, Andy</td>
<td>RTCA, Inc.</td>
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<td>Cohen, Roger</td>
<td>Regional Airline Association</td>
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<td>Jenny, Margaret</td>
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<td>Kramer, Tom</td>
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<td>Molin, Doug</td>
<td>The MITRE Corporation</td>
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<td>Narvid, Colonel Juan</td>
<td>DoD Policy Board on Federal Aviation</td>
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<td>Newton, David</td>
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<td>Oswald, Chris</td>
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<td>Ray, Lynn</td>
<td>Federal Aviation Administration (DFO)</td>
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<td>Sears, Bill</td>
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<td>Williams, Heidi</td>
<td>Aircraft Owners and Pilots Association (TOC Co-Chair)</td>
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<td>Wright, Dale</td>
<td>National Air Traffic Controllers Association</td>
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<td>Young, Diana</td>
<td>Federal Aviation Administration</td>
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¹Committee member names appear in italics.
Welcome and Introduction

Co-chairs:
Jim Bowman, FedEx Express
Heidi Williams, AOPA
<table>
<thead>
<tr>
<th>Leadership</th>
<th>Members</th>
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<tbody>
<tr>
<td>Jim Bowman</td>
<td>Chris Baum (ALPA)</td>
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<td>Heidi Williams</td>
<td>Bruce DeCleen (FAA AVS)</td>
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<td>Lynn Ray</td>
<td>Scott Foose (RAA)</td>
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<tr>
<td>Chris Baum</td>
<td>Christian Kast (A4A (UPS))</td>
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<td>Joe Miceli</td>
<td>Margaret Jenny (RTCA)</td>
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<td>AOPA</td>
<td>Nancy Kalinowski (FAA ATO)</td>
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<td>NATCA</td>
<td>Bob Lamond (NBAA)</td>
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<td>ADF</td>
<td>Andy Cebula (ACI-NA)</td>
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<td>MITRE</td>
<td>David Newton (SW Airlines)</td>
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<td>USAF</td>
<td>Chris Oswald</td>
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<td>ACI-NA</td>
<td>Dale Wright (NATCA)</td>
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<tr>
<td>Secretary</td>
<td>Andy Cebula (Secretary)</td>
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Agenda

- Welcome and Introduction of Members
- DFO Official Statement
- Background on Formation of Committee
- Committee Purpose and Scope
- Committee Operating Norms
- Regional Task Group Reports
- Lunch
Agenda (cont’d)

- Discussion of FAA Taskings
- Establishment of FAA Task Groups
- Anticipated Issues for TOC and Actions to be taken at the next meeting
- Other Business
- Adjournment
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:

March 18, 2013

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.
RTCA: A Unique Public-Private Partnership

- Revenue Source:
  - Membership Dues
  - Document Sales
  - Training

- Over 400 Members
  - Academia
  - Airports
  - Aviation service providers, repair facilities
  - Government organizations (FAA, DOD, TSA, NASA)
  - Manufacturers (OEMs and after-market)
  - Operators – airlines, general aviation, cargo, DOD
  - Suppliers of automation, infrastructure & avionics
  - Labor – Pilots, Controllers, Dispatchers
  - R&D organizations

Founded in 1935
Incorporated in 1991
RTCA Operates
U.S. Federal Advisory Committees

- Chartered by the FAA
- Deliver consensus-based, objective & independent recommendations to FAA
- Membership balanced representation
- Promote transparency, accountability
- Minimum Performance Standards
  - Expands marketplace of solutions
  - Provides anti-trust protection
Formation of Tactical Operations Committee

- RTCA Historical Involvement in Tactical & Operational Issues
  - CDM
  - ATMAC (R&PWG; Regional TGs)
  - NAC (APWG)
- Too tactical and detailed for NAC
- Need for FACA activity
- Worked with ATO leadership to form TOC
  - Goal to be agile, timely, collaborative
  - Consensus must not extend time or dilute recs
Formation of Tactical Operations Committee (cont)

Issues/Subjects to Cover

- New and legacy airspace issues/redesigns
- Specific implementation of BCBS applications
- OAPM1
- Utilization of Special Activity Airspace
- Specific implementation of PBN
- Specific implementation unique to a region
- Others as requested by the FAA
Purpose and Scope

- Identify and resolve near-term, tactical issues affecting the efficiency of the NAS
- Recommend resolutions
- Oversee Task Groups
  - Approve charter
  - Approve establishment
  - Track their progress
- Approves final products for submittal to the FAA
Operating Norms

- Three public meetings per year
- Organizational (non-public) meetings permitted
- Members appointed for two-year terms
- **Named** alternates permitted - limited basis (2 mtgs)
- Review TOC membership annually to ensure balanced representation; participation
- Membership is based on the ability to represent the interests of an organization or constituency and commit that organization to the consensus of TOC
Operating Norms (cont’d)

Consensus

- Work toward consensus
- Meet schedule deadlines
- Avoid diluting recommendation to reach consensus
- If consensus is not reached
  - Document majority and dissenting recommendations
- Deliver final set to the FAA
Reports from Regional Task Groups: Western Pacific and Southwest
Western Pacific
APTG Brief

Dan Allen & Tom Kramer
FedEx Express       AOPA
April 8, 2013
Greener Skies

- Controller Decision Support
- Mixed Equipage
- RNP Established
• SLC was experiencing high taxi times
• In addition to local workgroup, WPAPTG was able to provide feedback on different routes and runway balance to reduced taxi time by 1.65 minutes
Special Use Airspace
Special Use Airspace
Western Pacific region
• Very Active with 71 COA as of May 2012
SWAP TG

Dan Allen
FedEx Express
MEM and PHX Optimum Profile Descent
GRASI

Ensure continued viability of regional airspace during anticipated growth in military and civilian aviation
• Added additional Routes and Capacity
• Outstanding Collaboration with the SWAPTG.
Report from Regional Task Group: Northeast

Glenn Morse
United Airlines, Inc.
Report from Regional Task Group: Southeast

Bill Cranor
JetBlue Airways
Lunch
Report from Regional Task Group: Midwest

Mike O’Brien
American Airlines
Discussion of Regional Groups

- Purpose and Needs for Regional Groups
- Constituencies/Participants
  - FAA
  - Operators (Airlines, GA, Military)
- Geographic Areas
- Determining Work Plan/Assignments
Discussion of FAA Potential Taskings
TOC Tasking Discussion #1

VOR Minimum Operating Network (MON)
- Back-up navigation for GPS outage
- Target January 2020

Potential Tasking:
  - Review and validate MON selection criteria and assumptions
  - Review and validate MON candidate list
  - Recommendations on the preliminary waterfall
DISCUSSION
TOC Tasking Discussion #2

Notice to Airman (NOTAM) Improvement

- Pilot Bill of Rights NOTAM Improvement Panel
- Build on ATO Safety evaluation

Potential Tasking:

- TOC serve as NOTAM Improvement Panel
- Review FAA NOTAM modernization efforts
- Recommendations to strengthen entire NOTAM program
DISCUSSION
TOC Tasking Discussion #3

PBN Outreach

- Challenges that slow or stop publication of procedures and impede use
- Outreach with airport and community
- Variability in Flight Management System software

Potential Tasking:

- Discuss current initiatives (PARC, NAC, etc)
- Determine potential areas for focus
DISCUSSION
Anticipated Issues for TOC
Consideration and Action at Next Meeting

Other Business
Adjourn


TERMS OF REFERENCE

Tactical Operations Committee

Committee Leadership:

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<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Organization</th>
<th>Telephone</th>
<th>Email</th>
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<tbody>
<tr>
<td>Co-Chairs</td>
<td>Jim Bowman</td>
<td>FedEx Express</td>
<td></td>
<td><a href="mailto:Jlbowman@fedex.com">Jlbowman@fedex.com</a></td>
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<tr>
<td></td>
<td>Heidi Williams</td>
<td>AOPA</td>
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<td><a href="mailto:Heidi.williams@aopa.com">Heidi.williams@aopa.com</a></td>
</tr>
<tr>
<td>Designated Federal Official</td>
<td>Lynn Ray</td>
<td>FAA, ATO</td>
<td></td>
<td><a href="mailto:elizabeth.ray@faa.gov">elizabeth.ray@faa.gov</a></td>
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<td>Andy Cebula</td>
<td>RTCA</td>
<td>(202) 330-0652</td>
<td><a href="mailto:acebula@rtca.org">acebula@rtca.org</a></td>
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Background: NextGen offers the United States the unprecedented opportunity to increase the safety, predictability and environmental performance of aviation. The FAA seeks to establish an ongoing venue and process to enable stakeholders to advise the FAA on issues related to implementation near-term, tactical capabilities of NextGen.

Purpose and Scope: The purpose of the Tactical Operations Committee (TOC) is to provide an open venue for FAA and those who operate in the NAS to work in partnership to identify and resolve near-term, tactical issues affecting the efficiency of the NAS, and to recommend resolutions to those issues and challenges. The TOC is comprised of senior leaders from key stakeholders who operate in the NAS. The TOC approves the establishment of Task Groups, tracks their progress, provides important oversight in guiding their work and approves their final products for submittal to the FAA. TOC members are appointed by the RTCA President in consultation with the FAA. The committee is structured to ensure a balance of expertise. The TOC functions as a Federal advisory committee with meetings that are open to the public.

Tasking: The TOC establishes and oversees Task Groups in the conduct of their responsibility to respond to tasks from the FAA. Requests to establish a Task Group or to modify an existing Task Group’s TOR will come from the FAA to the RTCA.
RTCA will work with the FAA to develop the terms of reference, identify leadership and membership for the Task Group and present the request, along with the TOR, to the TOC at a public meeting for TOC approval. Unless otherwise stated, Task Groups will be sunset upon completion of deliverables documented in their TOR.

The TORs for Task Groups will be documented in separate TORs, unique from the TOR establishing the TOC. These TORs will be high-level, establishing the frame work for the conduct of the Task Groups.

**Envisioned Use of Deliverables:** The deliverables of the Committee will document the consensus recommendations of the Committee informed by input from the Task Groups. The FAA will use the deliverables to inform its planning and execution of near-term tactical aspects of NextGen.

**Representation:** The TOC will include representation from the following stakeholder groups:

- Commercial Air Carriers
- Regional Air Carriers
- Business Aviation
- General Aviation
- DOD
- Airports
- NATCA
- ALPA
- Dispatchers
- FAA
- MITRE
- RTCA

Note: FAA, MITRE and RTCA are non-voting members of the committee. They will take part in the committee’s deliberations and provide input to final products; however, they do not represent affected user groups in reaching consensus.

**Committee Characteristics:** In addition to representing the aviation community segments described above, the TOC will have the following characteristics:

- Executive level membership who can speak for and commit their organizations
- Flexibility to reach out to necessary segments of the aviation community to answer specific requests from the FAA
- Leanness and efficiency, with membership not to exceed a reasonable number, to enable the Committee to have substantive dialog and reach timely consensus
- Appropriate expertise to include operations, policy, technology, labor relations, training and finance
**Task Group Scope of Activities:** The following areas will be addressed by Task Groups established by the TOC:

- New and legacy airspace issues/redesigns
- Specific implementation of Best-Capable, Best-Served applications
- Optimization of Airspace Procedures in Metroplex (OAPM1)
- Utilization and maximization of Special Activity/Special Use Airspace
- Specific implementation of Performance Based Navigation (PBN)
- Specific implementation unique to a region as identified by the FAA
- Others as requested by the FAA

**Operating Norms:** TOC members are appointed for two-year terms. Committee members may serve multiple terms. After the initial appointments, these will be made by the RTCA President in coordination with the FAA. The RTCA President, FAA Air Traffic Organization Chief Operating Officer, Associate Administrator for Aviation Safety, and Associate Administrator for Airports will review TOC membership yearly to ensure balanced representation that equitably represents, to the extent feasible, the aviation community. Membership is based on the ability to represent the interests of an organization or constituency authoritatively and effectively.

**Consensus:** Members will be expected to work toward consensus to the greatest extent possible. The committee will be expected to meet schedule deadlines, and if consensus is not reached within the timeframe dictated for each product, the TOC shall document majority and dissenting recommendation(s) and deliver final set to the FAA.

The TOC will hold at least three plenary meetings per year (open to the public), as well as preparatory one-hour telecons (not open to the public) as needed to ensure continuity and good preparation for public, decision-making meetings.

The Task Groups will meet as needed to prepare recommendations for the TOC. Meetings of the Task Groups are not open to the public.

**Standard Advisory Committee Meeting Agenda:** Proposed agenda items with approximate duration are to be submitted to the chair at least 45 days prior to the scheduled date of a meeting. The Chair, in consultation with the DFO, shall refine the scheduled duration of the meeting and promulgate the meeting agenda to the Committee members.

**Conduct of the Meeting:** TOC members will receive all information needed to prepare for the meeting (e.g., Task Group progress reports; Task Group products and recommendations for Committee action) at least fifteen (15) calendar days prior to the meeting.

With the exception of routine administrative items, discussions of agenda items shall, in general, be supported by written reports or formal briefing material as appropriate.

Products and recommendations submitted for TOC action will be accompanied by a one-page Action Paper prepared by the Task Group.
**Duration:** The term of the TOC extends from January 1, 2013 through December 31, 2013. From January 1, 2014 forward, a bi-annual review of the continuing need for the TOC shall be conducted by the FAA to determine whether to extend the charter or sunset the committee. If the decision is made to extend the term of the TOC, the FAA and RTCA Management shall review membership and adjust as necessary to meet the ongoing needs and to reflect level of participation and contributions of existing members.
Discussion of FAA Potential Taskings
Tactical Operations Committee Pre-Tasking Discussion Paper #1

“VOR MON”

FAA is proposing to transition from a legacy NAS route structure relying on ground based VOR’s to a route structure using primarily PBN. Central to this proposal is establishing a VOR Minimum Operating Network (MON) to provide back-up navigation capabilities in the event of a GPS outage. The NAS has a current network of 967 VOR’s and the MON will have roughly 500. A primary driver for the VOR MON is to reduce costs. Estimates to recapitalize the entire system are $1B-$3B and it currently costs about $110M per year to operate and maintain legacy VOR’s. These costs do not include costs for procedure maintenance and flight checks.

Internal FAA efforts established initial, draft criteria and these were published in the Federal Register for comment. Basically those criteria said the MON would: Provide En Route (77nm) coverage above 5000 AGL; allow an a/c in the CONUS to fly safely VOR to VOR or to a destination with a GPS-independent approach within 100 nm; support international arrival routes and at the Core 30 airports; not impact HIWAS or FSS voice; not impact DME or TACANs; and retain current VORs in western mountains and Alaska.

Complete transition to the VOR MON is targeted for January 1, 2020 although there is discussion on the pros and cons of acceleration. A key assumption is that by 2020, the projected widespread use of PBN and the mandate of ADS-B Out will mean most operators will have GPS or WAAS and will be flying both PBN and conventional procedures using RNAV avionics. This will result in a significant decrease in the reliance on VORs with PBN as the primary means of navigation. Based on the draft criteria and comments from the Federal Register, FAA has developed a candidate MON list and has socialized this list within the Service Area Offices to look at possible impacts. FAA has also had internal discussion to identify the resources needed to revise existing instrument flight procedures or procedure new ones as a result of the VOR MON. There is also ongoing discussion on the pros and cons of VOR discontinuance versus VOR decommissioning.

FAA is eager to engage stakeholders in the VOR MON process. We believe three task areas would provide FAA with needed and beneficial recommendations. One would be to review and validate the VOR MON selection criteria and assumptions and make additional recommendations if needed. Another would be to review and validate the VOR MON candidates list. The third would be to provide recommendations to the preliminary waterfall schedule developed by FAA. FAA intends to develop this schedule based on the validated MON list from the second task above taking into account other PBN program activities such as OAPM, IFP Cancelation Program, and Q/T Route development plans. We want to insure VOR services are discontinued safely and systematically.
Tactical Operations Committee Pre-Tasking Discussion Paper #2

“NOTAM Improvement”

The Pilot Bill of Rights (PBoR) requires, among other things, the FAA “establish a NOTAM Improvement Panel, which shall be comprised of representatives of relevant nonprofit and not-for-profit general aviation pilot groups, to advise the Administrator in carrying out the goals of the NOTAM Improvement Program.” We propose a tasking to the Tactical Operations Committee (TOC) to establish the Panel noted above. We are requesting industry help us craft specific goals and priorities that meet the new law’s intent and build on the progress already made in such areas as digital NOTAMs. We also believe a recently completed evaluation by ATO Safety into FAA NOTAM issues may provide findings needing further consideration that could become part of the tasking(s).

Our internal discussions to date have identified several possible activities. We believe a good starting point would be a detailed review of current FAA NOTAM modernization efforts. FAA has tasked the Aeronautical Information Management (AIM) Directorate to lead Agency efforts under the NOTAM Improvement Program and AIM will support the efforts of the TOC. Following the review, FAA seeks input regarding the Agency’s plan for future NOTAM improvement efforts as well as input regarding success criteria for meeting PBoR requirements.

We believe the work of the committee will yield an increasing amount of standardized, digital NOTAMs which then become machine readable. As more NOTAMs become machine readable they can then be much more easily filtered, sorted and prioritized. This result should yield significant reductions in the volume of NOTAMs pilots must currently review by allowing them to focus on the NOTAMs relevant to their flight plan/path and use the results with confidence in the accuracy and quality of the information filtered. We believe this is the ultimate goal of the PBoR but will look to industry through the TOC to help us define success. Again, the findings of the almost completed NOTAM evaluation may also provide information to this effort or may result in additional taskings as well.

FAA would also invite discussion on how the TOC views not just the technical aspects of this work but the mechanics of how best to establish and sustain the Panel required in the PBoR. Should this be a somewhat permanent standing task group or a group formed once or twice a year? We believe additional stakeholders will likely be needed on the panel and that might influence the structure needed. Our thought is broader membership for the specific NOTAM tasking would help us not only meet PBoR requirements but would help us strengthen the entire NOTAM program by giving FAA strong and focused recommendations for future improvements. We look forward to further discussion in this very important area.
Tactical Operations Committee Pre-Tasking Discussion Paper #3

“PBN Outreach”

Numerous PBN projects continue to run into difficulties at various points along the development timeline. The difficulties can range from last minute scrambling to amend a procedure or complete coordination to delays in publication to complete scraping or rework of the procedure. The result of continued difficulties are delayed benefits to stakeholders and operators; increased costs to the FAA; and political fallout from community environmental concerns. FAA proposes one or more taskings focused on identifying and incorporating needed key PBN outreach activities in our projects and processes to alleviate the difficulties noted above.

Given the importance of PBN and the potential benefits the capability can deliver, FAA recognizes the criticality of solving certain recurring problems which slow or stop publication and impede use. PBN procedures are developed using processes designed to be repeatable and consistent. These processes insure the correct order of actions needed to meet certain time frames leading to publication. These processes have been used successfully in many locations and continue to be improved. Nonetheless there are several areas that continue to be problematic. One of those areas is community outreach and the role of the local airport(s) at the very outset of the project. There is also an issue with how best to communicate with the community and airport(s) during the project and how to make sure communication is open and clear. This outreach is apart and above normal environmental outreach requirements under Environmental Assessments (EA) or Environmental Impact Statements (EIS) although we are also open to discussion on how to more effectively accomplish formal environmental review requirements as well. Another area we believe needs focus is in better defining the roles and responsibilities of the “Lead Operator” and/or “Technical Pilot Lead.” Issues caused by variability in Flight Management System software and criteria changes/variability also continue to be problematic as teams try to design flyable and usable procedures.

FAA believes an open discussion with industry will raise other potential areas of focus. We want to be certain any tasking in this area does not overlap other activities or groups. For example, the PBN ARC (PARC) has specific responsibilities in the PBN arena as does the Ops Capabilities Working Group (OCWG) of the NAC. The OCWG currently has a tasking focusing on “Obstacles to PBN” which could both inform TOC taskings or lead to future taskings. We understand the PARC will also be looking at criteria issues in order to provide more development teams with more consistent and stable design standards. We look forward to discussions leading to improvements in PBN outreach that translates in to overall improvements in FAA’s ability to deliver PBN benefits.