



**Summary of the 15th Meeting  
Special Committee 227  
Standards of Navigation Performance**

The 15th Plenary Meeting of RTCA Special Committee 227 (SC-227) was held on September 14-18, 2015. This meeting was held at RTCA. Attendees, at meeting and via webex, included:

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| Dave Nakamura (Chairman SC-227)            | Advanced PBN Solutions / SAIC          |
| Barry Miller (Designated Federal Official) | Federal Aviation Administration        |
| Mike Cramer (WG1 Chairman)                 | The MITRE Corporation                  |
| Michael Gordon-Smith (WG2 Co-Chair)        | Esterline CMC Electronics              |
| Christopher Shehi (WG2 Co-Chair)           | Honeywell International, Inc.          |
| Mike Jackson (Secretary)                   | Honeywell International, Inc           |
| Sophie Bousquet (Program Director)         | RTCA                                   |
| Trent Bigler (on phone)                    | Federal Aviation Administration        |
| Alexandre Capodicasa                       | Esterline CMC Electronics              |
| Guy Deker                                  | Thales Avionics                        |
| Bob Gaul                                   | Garmin                                 |
| Tim Geels                                  | Rockwell Collins, Inc.                 |
| Justin Grzib                               | Air Force CNS/ATM office               |
| Kendal Hershberger (on phone)              | Garmin                                 |
| Dick Hess                                  | Universal Avionics Systems Corp.       |
| Hette Hoekema (on phone)                   | European Aviation Safety Agency        |
| Waldemar Krolak                            | Transport Canada                       |
| Jeff Meyers                                | Federal Aviation Administration        |
| Sam Miller (WG3 Co-Chair)                  | MITRE                                  |
| Hal Moses                                  | RTCA                                   |
| Tom Nichols (on phone)                     | Federal Aviation Administration        |
| Russ Ramaker (on phone)                    | GE Aviation                            |
| Jim Savage                                 | Federal Aviation Administration        |
| Lou Selk (on phone)                        | Consultant - Esterline CMC Electronics |
| Marissa Singleton (on phone)               | Boeing                                 |
| Yauwu Tang (Thursday only)                 | The MITRE Corporation                  |
| Tom Yochum (on phone)                      | The Boeing Company                     |

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In accordance with the Federal Aviation Advisory Committee Act, Barry Miller, Federal Aviation Administration, was the Designated Federal Official for this meeting.

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**RTCA SC-227, Standards of Navigation**

- The 15th Plenary meeting of SC-227 was convened at 9:00 a.m. EST by Chair Dave Nakamura (Advanced PBN Solutions / SAIC) and the meeting was opened officially by the FAA DFO Barry Miller.
- Each person in attendance was invited to introduce themselves.
- No changes or objections to the meeting #14 minutes.
- Dave reviewed the agenda (copied below). He noted that the bulk of the weeks work would be FRAC of the MOPS. The goal is to conclude with no outstanding showstoppers and resolution of all comment. The meeting agenda was approved.

**Summary Agenda:**

1. Welcome and Administrative Remarks
2. Introductions
3. Approval of Meeting #14 Minutes
4. Overview of Planned Work Program for the Week
  - a. FRAC Resolution for DO-283A Update. Plenary will address substantive comments i.e. non-concur, followed by high, medium, low. Editorial will be addressed post-meeting as part of document preparation.
  - b. Comment worksheet will be posted at end of meeting, as record of the meeting & document changes, substantive and editorial.
5. Plenary Review/Discussion
  - a. Planned Work Schedule - 9:00 AM to 4:30 PM each day (start and end times may be adjusted after opening plenary session). AM/PM Breaks
  - b. Review of FRAC comments/worksheet, and committee resolution of comments
  - c. Approval of the document to go to the PMC
6. Next Steps and Other Business
7. Adjourn

During these initial discussions Dave pointed out that there were a large number of comments, exceeding those of the MASPS. Based upon this and past time challenges, the meeting schedule for this week was modified to 8:30am to 5:00pm, and could be expanded further depending on the pace and progress.



## **Membership Policy**

Andy Cebula, RTCA VP, presented the new membership policy. Andy stated that companies participating in RTCA committees must be members of RTCA starting January 1, 2016. Consultants to the FAA are considered to be members if they have an FAA email address, and similarly for consultants for other companies.

## **MOPS Final Review and Comment (FRAC)**

The committee followed the RTCA FRAC process as briefed in the last meeting.

The committee stepped through the comment matrix in document order, first those with non-concur priority, then high/med/low priority, and recorded comment resolution agreements in the comment matrix. It was pointed out that the document would not be edited real time, instead text changes documented in the comment resolution would be incorporated into the document after the meeting. The updated document is what will be submitted to the PMC December.

Dave stated that the prep team had developed proposed resolutions that would be the starting point of any discussion of each comment. This information was distributed to the committee prior to the meeting to help facilitate resolution. During the pre-meeting review, Dave noted that some editorial comments were recategorized as substantive because there was an impact to requirements. It was also noted that some comments were recategorized as editorial because there was no change to requirements. All the recategorized comments were coordinated with their originators in the event there a disagreement with the change. No objections were made. It was requested that anyone with input on editorial comments to provide the input in email to Dave and Michael Gordon-Smith.

The comment review resulted in closure of all substantive comments based upon consensus achieved by the committee. All resolutions were documented in the FRAC comment matrix that was on screen throughout the meeting and was posted to the committee workspace daily. The final comment matrix with agreed resolutions documented was also distributed via email to the committee immediately after the meeting was adjourned. The final comment matrix retains the proposed comment resolutions column because many of the final documented resolutions make reference to them.

## **Closing Plenary**

Dave stated again that post-meeting the MOPS will be updated to incorporate the consensus changes as documented in the comment matrix, as well as the editorial ones. Once the update effort has been completed the MOPS will be submitted to RTCA for PMC approval.

It was pointed out that based upon the FRAC conclusion and the updates for the MOPS, WG2 has completed their assigned terms of reference and will not meet again.

The new working group, WG3, will be convened December 2-4, 2015, to start work on an update to DO-257A, MOPS for Depiction of Navigational Information on Electronic Maps. Sam Miller will be a co-



chairman. Topics are expected to include ToRs, discussion of areas where changes should be considered, and issue identification, similar to how we started the MASPS update in 2012.

**Next meeting**

Next meeting is December 2-4, 2015 at RTCA.

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CERTIFIED as a true and accurate summary of the meeting.

Mike Jackson, Secretary

Dave Nakamura, Chairman