

**RTCA PROGRAM MANAGEMENT COMMITTEE
MEETING SUMMARY
September 23, 2014**

The RTCA Program Management Committee (PMC) convened at 8:30 a.m. on September 23, 2014 at RTCA. The attendance list and action items are attached.

AGENDA ITEM 1

Welcome and Introductions.

PMC Chairman Chris Hegarty welcomed the group, asked attendees to introduce themselves and to note their organization of affiliation. Rich Jennings, PMC Member - FAA and the Designated Federal Officer (DFO) for the meeting added his welcome. Mr. Jennings read the Public Meeting Announcement that includes the date the Federal Register meeting notice was published, declares the meeting is Open to the Public and provides details for persons wishing to present or obtain information pertaining to the meeting.

AGENDA ITEM 2

Review / Approve Summary of the June 17, 2014 Meeting.

The summary of the June 17th meeting was approved as written.

[Note – Due to the presenter availability and “time block” requests, this Summary reflects the ‘order” in which the Agenda Items were presented.]

AGENDA ITEM 3

Publication Consideration/Approval.

- A. Final Draft, Revised Document, DO-252 - *Minimum Interoperability Standards (MIS) for Automated Meteorological Transmission (AUTOMET)*, RTCA Paper No. 150-14/PMC-1228, prepared by SC-206.**
- Tammy Farrar, SC-206/WG-4 – Co-Chair presented. (Briefing – RTCA Paper No. 172-14/PMC-)

Ms. Farrar reviewed the development of the document by SC-206/SG-4. She noted the variety of contributors including international weather services (i.e. NOAA and UKMO), airlines, the FAA, airframers, avionics manufacturers, sensor developers, data link service providers and scientists. The effort began in June 2012 and was complete after comment resolution in June 2014. DO-252 was originally published in January 2000.

The document update includes support for aircraft meteorological sensor status reports (Metadata messages); options for multiple ground command-and-control systems; and recommendations for reporting turbulence. Other changes were made to include new meteorological parameters, as well as improve the use by implementers. An outline of the five Sections and six Appendices were reviewed.

Ninety-one comments were received during the Final Review and Comment (FRAC) process. They included: nine non-concurs, seven majors, thirty-three others and forty-two editorials. The SG co-chairs had encouraged the use of “non-concur” to better differentiate the priorities. Thus, an above average # of non-concurs were received. All non-concurs & majors were resolved fairly easily. Some were related to the use of “flags” in reporting of certain meteorological parameters. These have been generalized and are now more clearly indicated as optional. Wording to clarify differences in turbulence (eddy dissipation rate) performance capabilities amongst various implementations and for wake turbulence applications and use of crosslink was added.

Ms. Farrar recommended the PMC approve the document for publication.

The PMC approved the document. It is published as DO-252A.

The committee presented an additional slide on upcoming work. Currently the committee is developing Minimum Operational Performance Standards (MOPS) for Flight Information Services – Broadcast (FIS-B) with the Universal Access Transceiver (UAT). The draft document was reviewed and approved for FRAC release at the committee’s September meeting. FRAC comments are scheduled to be resolved at the December meeting of SC-206 and the document submitted to the PMC in March 2015.

The committee’s development of a Minimum Aviation System Performance Standards (MASPS) for AIS and MET Datalink Services will slip by one year due to the need to review the following reports: Eddy Dissipation Rate (EDR) (September 2014); ATC Winds (September 2014); Advanced IM ConOps (April 2015); EUROCAE WG-76 Report/Scope (November 2014) and the Wake Vortex Tiger Team (November 2014). These reports may lead to a need to add other standards to the SC-206 TORs. A TOR update is expected in December.

B. Final Draft, Change 1 to DO-236C, *Minimum Aviation System Performance Standards: Required Navigation Performance for Area Navigation*, RTCA Paper No. 149-14/PMC-1227, prepared by SC-227.

- Dave Nakamura, SC-227 Chairman presented. (Briefing – RTCA Paper No. 177-14/PMC-1235)

SC-227 was tasked to create a Change 1 to DO-236C - *Minimum Aviation System performance Standards: Required Navigation Performance for Area Navigation* for deferred items, Time of Arrival Control (TOAC) and Runway Position Monitoring (RPM). They reached consensus for RPM minimum requirements. TOAC requirements intended for DO-236C were revised

significantly, up-leveled and made more generic, with the objective to enable alternatives on implementation that not infringe on Airbus patent.

The FRAC review addressed 435 comments of which 122 were technically substantive, the rest were editorial. The FRAC for Change 1 resulted in a committee majority to also include requirements on environmental uncertainty and demonstration that made MASPS compliance likely to infringe Airbus patent. Majority view was predicated on free licensing letter from Airbus. A dissenting view was among the FRAC comments based upon unacceptable terms in the licensing letter. A contingency action was taken by committee to develop and agree with a White Paper providing rationale for the Change 1 content, in the event licensing terms could not be resolved. Post meeting coordination by interested/affected parties revised licensing terms, with agreement to set limitations on IP reciprocal rights to what already exists relative to Change 1. A revised letter was coordinated with committee with determination that the revised language does not undo support for it. The committee accepted the revised letter.

To proceed, the committee recommends RTCA retain the committee White Paper and licensing letter in the event needs arise by those using and implementing to the standard. A Change 1 disclaimer statement is added:

“This publication makes no direct reference to written material or systems that are protected by copyrights and/or patents. RTCA, however, is aware of a patent that contains claims that are considered a means of compliance to the Time of Arrival Control capability specified this standard. RTCA offers no opinion on the validity of the proprietary claims of the specified holder(s) of copyrights and/or patents. Neither does RTCA endorse or warrant the product of specific manufacturers or holders of copyrights and/or patents. RTCA has no economic stake in the use of any proprietary product. For further information, please contact RTCA.”

PMC discussion focused on the licensing letter and the likelihood of meeting the standard without using the patent. There was agreement that while there are other ways of meeting the standard there is thought to be a high likelihood of running into the patent at some point. The PMC agreed that the licensing letter and disclaimer be included in the document.

The PMC approved the document. It is published as Change 1 to DO-236C.

[Note – Agenda Item 6F – SC-227 TOR was addressed next.]

AGENDA ITEM 6

Discussion.

F. SC-227 – Standards of Navigation Performance – Discussion – Revised Terms of Reference

- Dave Nakamura, SC-227 Chairman presented. (Proposed TOR – RTCA Paper No. 151-14/PMC-1229)

Mr. Nakamura reported that the complexity of the MASPS work and Change 1, along with the difficulties in developing technical standards while addressing related intellectual property issues, significantly reduced the committee’s ability to support the previous MOPS schedule. The committee requested a TOR revision from March 2015 to September 2015. It was noted that the

MOPS is not a joint activity with EUROCAE WG-85. Joint committee efforts ended with Change 1 to MASPS.

The PMC approved the revised TOR dates.

[The meeting returned to Agenda Item 3C – New Document – SC-216]

AGENDA ITEM 3

Publication Consideration/Approval.

C. Final Draft, New Document, *Airworthiness Security Methods and Considerations*, RTCA Paper No. 181-14/PMC-1239, prepared by SC-216.

- Daniel Johnson and Chuck Royalty, SC-216 Co-Chairs presented. (Briefing – RTCA Paper No. 199-14/PMC-1249)

Two SC-216 documents DO-326A and DO-355 were published in July 2014. As noted in June, SC-216 and EUROCAE WG-72 proposed schedules diverged significantly. Development of the new “Methods” document being presented for publication continued in SC-216 per the TOR. Development in WG-72 targets publication of the EUROCAE equivalent Quarter 1, 2015.

The SC-216 FRAC was conducted from June 30th to July 30th, 2014. 607 comments were received and dispositioned. All comments were dispositioned / resolved for commenter response and those comments that addressed material expected in future updates and were not incorporated. The resulting document was approved in Plenary on August 22nd, 2014. Two non-concurs were received by e-mail from SC-216/WG72 European members, both citing the same issues that led to the original decision to pursue publication independently from WG-72.

SC-216 recommended the PMC approve the document for publication.

The PMC approved the document. It is published as DO-356.

[Note – Agenda Item 6B – SC-216 TOR was addressed next.]

AGENDA ITEM 6 - Discussion.

B. SC-216 – Aeronautical Systems Security – Discussion – Revised Terms of Reference

- Daniel Johnson and Chuck Royalty, SC-216 Co-Chairs presented. (Proposed TOR – RTCA Paper No. 189-14/PMC-1242)

The document approved as DO-356 in Agenda Item 3C (above) was the final deliverable in SC-216’s current TOR. As briefed previously, EUROCAE WG-72 requested additional time to develop EUROCAE ED-203, their “Methods” document for EUROCAE ED-204, the document equivalent to RTCA DO-326A. With a time horizon of up to a year, there was an agreement to

keep SC-216; complete the SC-216 deliverables and keep the committee “active” pending the new EUROCAE guidance. The proposed revised TOR reflects the agreement and adds three new deliverables. The new deliverables reflect the views of the SC-216 leadership based on the feedback received during the development of DO-326A, presentations to the PMC, and other issues highlighted in other developing security Plans.

The PMC discussion reviewed the progress of SC-216 to date, the level of guidance developed and whether to approve new committee work. While there was general agreement that there should be a standard to point to for consistency, there was concern that the current guidance was “high-end” and not easily applied to all categories of aircraft. There was insufficient support for the deliverables proposed.

The FAA indicated that they are considering the establishment of an ARC in the December timeframe. An open issue is that the threat is not well defined. Also the FAA needs to coordinate with EASA.

The result was agreement to keep SC-216 active to coordinate with EUROCAE WG-72 while alternatives to the proposed TOR are evaluated. The FAA will coordinate with SC-216 leadership and report at the December meeting.

Action Item - Open

[Note – Agenda Item 6J – Forum on Aeronautical Software was addressed next.]

AGENDA ITEM 6

Discussion.

J. Forum on Aeronautical Software (FAS) - Discussion – Status Update

- Jim Krodel, former SC-205 Chairman and Forum “lead” presented. (Activity Report – RTCA Paper No. 201-14/PMC-1251)

The report to the PMC covered the FAS Scope, Goals & Products; the FAS Organization and FAS Status.

The Forum was created on a trial basis to provide a forum to discuss the DO-178C Document Suite and to aid RTCA’s continued understanding of industry technology needs. The FAS monitors and exchanges information on the effectiveness of the DO-178C Document Suite, discusses practices on the software aspects of certification issues, document clarity and user experiences. The Forum provides Information Papers regarding the DO-178C Document Suite (including document suite errata). The Forum operates mostly in virtual space with Video Conferencing.

The Form products do not constitute official policy or position from RTCA / EUROCAE or any regulatory agency or authority. Documents are made available for educational and informational purposes only. Documents are the exclusive intellectual property of RTCA/EUROCAE.

Document material may be used without prior written permission in an unaltered form with proper acknowledgement by the document source.

The Forum provides a technology watch with the intention of when FAS identifies the need for significant changes to the “software document suite” or for a new technology supplement the FAS Executive Management Committee will identify to RTCA/EUROCAE and FAA/EASA, as appropriate, the need to create a new Special Committee/Working Group. If a new Special Committee/Working Group were formed by RTCA/EUROCAE, documentation from FAS would be made available to the SC/WG leadership consideration for the work of the new SC/WG.

The FAS has held 11 virtual meetings (2 in 2012, 3 in 2013 and 6 in 2014) with an average of 20 attendees. One “physical” meeting was held in May 2013. The next “physical” meeting is on Friday, September 26th adjacent to the FAA’s Software & Complex Hardware Conference in Los Angeles.

Mr. Krodel concluded with a review of a sample information paper and its review process within the forum. Forum access and guidance is supported via the RTCA public web site www.rtca.org on the “Committees” dropdown screen.

The PMC expressed satisfaction with the forum noting it’s a “new ground” operation, sensitive to not over-stepping its bounds and not changing published guidance. The PMC encouraged the forum to report back on a periodic basis especially if significant software issues arise.

[Note – Agenda Item 7 – Other Business – SC-186 TOR was addressed next.]

Agenda Item 7 Other Business.

A. SC-186 – Automatic Dependent Surveillance Broadcast – Discussion – Revised Terms of Reference

- Rocky Stone, SC-186 Co-Chair presented.

SC-186 requested this topic be added for discussion as a “heads-up” and not for “formal” PMC approval. Key points – ensures the PMC knows that SC-186 will not meet the completion dates for current TOR deliverables and opens discussion on proposed deliverables in the 2018/2019 timeframe. It adds 2018 target dates for Advanced FIM documents that are not in the current TOR and a 2019 date for the next version of DO-260B, *MOPS for 1090 MHz ADS-B* and DO-282B, *MOPS for Universal Access Transceiver (UAT) ADS-B*.

The PMC discussion pointed to inputs important to MOPS development for ADS-B and FIM; a Spectrum Study – need more data on the link and spectrum efficiency, the ATC Wind Study – knowing the winds is beneficial, Eddy Dissipation Rate (EDR) – been studied for a long time and still in need of a standard definition. The PMC stressed the need to “socialize” the proposed TOR revision, make the case for why to re-open DO-260B, and be clear in intent. For example, a DO-260”C” is not needed to meet the ADS-B Rule, it is optional.

SC-186 will include the PMC recommendations in the next draft of the TOR expected in December.

[The meeting returned to Agenda Item 4 - ICC]

AGENDA ITEM 4

Integration and Coordination Committee (ICC) – Report.

- George Ligler, PMC-ICC Chairman presented. (Activity Report – RTCA Paper No. 133-14/PMC-1221)

Background: At the March 17, 2014 meeting, the PMC asked the ICC to work with SC-206, SC-214, and other Special Committees as appropriate to determine what work related to ATC winds is appropriate for each Special Committee, consistent with their Terms of References and considering—when it is available—the results of the FAA’s ATC Wind Study. The ICC held a teleconference on June 12, 2014 to review, with the assistance of SC-206, SC-214, and SC-186 leadership, the status of the FAA Wind Study and ATC winds preparatory activities of these RTCA Special Committees. A further teleconference was held on August 18 after receipt from the FAA of the Phase 3 Interim Report on Wind Information Requirements for NextGen Applications, dated August 8th, 2014. The ICC held a third teleconference on September 2, 2014 to finalize its recommendations to the PMC.

The MIT Lincoln Study considers 4-dimensional Trajectory Based Operations (including Required Time of Arrival (RTA) and Interval Management (IM)). It defines Trade Spaces for these applications with regard to required accuracy of wind data, accuracy of meeting RTA or the assigned spacing goal, communications bandwidth required for uplinking of wind information and needed update intervals, and choice of wind forecast models. A final report is expected later this month.

Dr. Ligler summarized the ICC’s recommendations –

- SC-186 and SC-227 should leverage the trade spaces in the MIT LL Wind Study to finalize winds requirements (model to be used and update rates) for IM and 4D TBO/RTA, respectively. Existing wind forecast models (for example, the three models in the MIT LL Report) are likely sufficient for variants of these applications currently under consideration. He noted that support from MIT LL is available upon request through ANG-C61, the FAA Weather Research Branch
- The wind requirements should be taken by SC-206 and SC-214 to specify data link services for winds (SC-206) and message formats for in-flight communications of wind forecast information (SC-214).

The PMC approved the recommendations as presented and asked that the four Special Committees report back at the December meeting.

Action Item - Open

A last slide captured what the ICC learned is coming soon with regard to weather data. A SC-206 request to include, in its TOR, the quality of service associated with the source and processing of weather data; Eddy Dissipation Rate (EDR) Study Completion; Wake Tiger Team results potentially coming back into the RTCA's FACA efforts; potential use of cross-link for real-time wind reports (SC-206/SC-186 ISRA) and that a Phase 4 of ATC Wind Study may be needed to deal with applications beyond current RTA & IM efforts.

[Note – Agenda Item 5 – Action Items were addressed next.]

AGENDA ITEM 5

Action Item Review.

A. PMC Ad Hoc -Standards Overlap and Alignment – Discussion - Status.

- Margaret Jenny, PMC Member – RTCA presented.

The planning is complete and the Workshop will take place tomorrow. The goal is to lay out the issues and determine if the process is sufficient. Walk through an example – bottom-up/top-down, process and product and plan for going forward. Over 30 Special Committee Chairs/Co-chairs/DFOs, FAA NextGen Program Office and RTCA Program Management Committee are registered.

Action Item – Open

[Note – Agenda Item 6H – SC-217 TOR was addressed next.]

AGENDA ITEM 6

Discussion.

H. SC-217- Aeronautical Data Bases - Discussion – DO-200B potential 3 month delay and new task on D-TAXI

- John Kasten, SC-217 Co-Chair will present.

Mr. Kasten requested a three-month slip in the delivery of the revised DO-200A due to issues the committee is addressing to ensure the Tool Qualification Appendix reflects changes made to the main body of the document. The Appendix provides actual examples of tool qualification to be applied for the various assurance levels.

The PMC approved the date extension as requested.

A second issue concerned a new task – D-TAXI. SC-214 is working the data link portions of D-TAXI to support NextGen and SESAR. SC-217 is working the Aerodrome Mapping Data Base (AMDB) feature and attribute requirements to support SC-214. The 214/217 coordination is being done by a Tiger Team with members from both committees. To support the SESAR D-TAXI datalink activities a “mapping” between the selected ASN.1 protocol formatting scheme

and the AMDB feature and attribute naming is required. The SESAR choice is not aligned and therefore the question is as to whether this “mapping” should be included in a RTCA document prepared by either Special Committee. The SC-217 recommendation is “No”. The rationale is that D-TAXI as an application is not within the scope of RTCA at this time. Therefore, both SCs concluded that neither would add a mapping of ASN.1 to AMDB in their RTCA standards and if would be left to SESAR to decide how and when to do this. He reported that EUROCAE WG-44 and WG-78 are in agreement.

The PMC concurred with the committee’s recommendation not to move forward with a name mapping activity to support D-TAXI.

[Note – Agenda Item 6E – SC-229 TOR was addressed next.]

E. SC-229 – Emergency Locator Transmitters (ELTs) - Discussion – Revised Terms of Reference

- Tom Pack, SC-229 Chair and Charisse Green, SC-229 Designated Federal Official reported. (Briefing – RTCA Paper No. 179-14/PMC-1237)

Ms. Charisse reviewed the June PMC meeting discussion of revised Terms of Reference (TOR) that included a MASPS for Triggered In-Flight Data as a deliverable. The TOR was not approved and questions arose over whether triggered in-flight work should be a part of SC-229. In July, a meeting with RTCA PMC members (Ad-Hoc) was held to discuss the FAA’s position on the triggered in-flight data topic, actions to take in order to have an updated TOR approved by the PMC and possible return link capabilities. It was decided to keep the triggered in-flight data as a Working Group of SC-229 with Chris Parfitt, FAA, as Co-chair along with Philippe Plantin De Hugues, BEA.

Revisions to Terms of Reference recommended by PMC Ad-Hoc included the removal of the MASPS for in-flight activation criteria as a SC-229 deliverable. The deliverable due date was delayed for 1 year to December 2016. The return link service specification was added to the TOR as a task for SC-229 to complete for the MOPS. It was noted that Cospas-Sarsat has ongoing studies and documents to be completed and approved into 2016. Additionally, NASA will be performing crash tests late 2015. For the studies and tests, time will be needed to analyze all data and provide that information to be included as appropriate into the MOPS.

The committee recommended approval of the PMC Ad-Hoc version of the terms of reference.

Following a lengthy discussion, the PMC approved the TOR.

[Note – Agenda Item 5B was addressed next.]

B. PMC Ad Hoc – Part 23 ARC Report – Areas/Recommendations for RTCA Support – Discussion - Status.

- Margaret Jenny, PMC Member – RTCA presented.

RTCA continues to monitor Part 23 developments. To close this action item, the PMC concurred that a statement be included in the Terms of Reference template that the inclusion of Part 23 guidance be considered in development of the committee's deliverable(s).

Action Item – Closed.

C. RTCA Policy on Proprietary Information - Discussion.

- Hal Moses, PMC Secretary reviewed.

RTCA is considering several items/steps to provide more visibility to RTCA's Policy on Proprietary Information.

Actions taken since the June PMC include: RTCA's current Proprietary Reference Policy posted on the PMC page of the RTCA public website...www.rtca.org; the Special Committee Membership Application Form includes an applicant requirement and link to RTCA's Proprietary Reference Policy; the Proprietary References Policy will be reviewed at the beginning of each Special Committee plenary meeting and a statement in the meeting Summary will document that review.

Concern remains that the current policy does not go far enough in providing guidance for licensing, cross-licensing, reciprocal agreements etc. RTCA staff will work with FAA to develop applicable guidance and report at the December meeting.

Action Item – Open

D. FAA Letter – GPS - Discussion.

- Hal Moses, PMC Secretary reviewed

At the March 18th meeting, the PMC reviewed a letter from the FAA requesting RTCA assistance to review scenarios, analysis assumptions, methodologies and results of an effort by the FAA and DOT to provide a framework for definition of the processes and assumptions that will form the basis for development of the GPS adjacent-band compatibility for GPS civil applications. To date RTCA had not received further details.

The PMC agreed not to maintain an open - on-going action but to include any response requiring PMC review/approval as a meeting agenda item when applicable.

Action Item – Closed

AGENDA ITEM 6

Discussion.

A. Human Factor Considerations in the Design and Evaluation of Flight Deck Displays – Discussion – Possible New Special Committee.

- Michelle Yeh, FAA – AIR 134 presented. (RTCA Paper No. 202-14/PMC-1252)

The new Special Committee would be tasked to identify recommended practices related to human factors/pilot interface aspects of the display system hardware, software, and control devices. The envisioned deliverable would be a new document - DO-XXX, *Human Factors Considerations in Equipment Design and Installation*. The guidance would be applicable for all types of aircraft (14 CFR parts 23, 25, 27, and 29). However, the Special Committee should not be developing new regulatory or guidance material. It's not intended to approve new designs.

The committee would be expected to establish key human factors topics to include background on the topic, relevant human factors reference documents, regulatory and guidance material; and examples/design concepts. Ms. Yeh note several document resources pertinent to the task.

The initial deliverable would be a document “outline” in 2015 with the completed document expected by January 2017. The envisioned use is to facilitate design of flight deck displays and controls by avionics and airframe manufacturers as an information reference only, i.e. not be developing new regulatory or guidance material.

The PMC noted that there is a lot of guidance and bodies of work available developed by SAE and other organizations. The guidance envisioned would be for “best practices” versus a Technical Standard Order or Advisory Circular. Suggestions were offered during the review of the proposed Terms of Reference for the “scope” and “intended use” paragraphs. Rather than correct the TOR in “real time” it was agreed to convene an Ad Hoc to finalize the wording. The goal would be to mature the TOR and report at the next PMC meeting.

Action Item - Open

[Note – Agenda Item 6C was addressed next.]

C. SC-213 - Enhanced Flight Vision Systems & Synthetic Vision Systems – Discussion – Revised Terms of Reference.

- Trent Prange, SC-213 DFO presented. (RTCA Paper No. 134-14/PMC-1222)

Mr. Prange noted that as the committee works for lower than standard minima for SVS and EFVS systems, the complexity of the work has required adjustment of dates from the original estimates. To enhance the presentation of the guidance being develop, the committee requests a new document number for Synthetic Vision Guidance System and to further slip the date to December 2014. The document is currently in final review with intention to FRAC in July.

DO-341A delivery would slip from June 2015 to December 2015. SMGCS requirements are currently a moving target. The OSED would be eliminated as a separate document and would be attached as an annex in accordance with the new format guide.

DO-315C was originally intended to incorporate approach requirements for lower than standard minima for LVP. This work was changed from FAA guidance to SVGS. DO-315C will be used for intended function of attitude awareness.

The committee's future work would include a MASPS on Synthetic Vision Guidance System, a MASPS on EFVS for taxi as low as 300 feet RVR and a MASPS for Synthetic Vision System with the intended function of attitude awareness.

The committee recommended that the Program Management Committee approve the modified Terms of Reference - Version 7 as submitted.

The PMC suggested several editorial changes and approved the Terms of Reference.

[Note – Agenda Item 6D was addressed next.]

D. SC-224 - Airport Security Access Control Systems - Discussion – Revised Terms of Reference

Secretary Note - Subsequent to the publication of the Agenda, the presentation expected from SC-224 was not ready. It is expected that SC-224 will brief at the December meeting.

[Note – Agenda Item 6G was addressed next.]

G. SC-214 – Standards for Air Traffic Data Communication Services – Discussion – Revised Terms of Reference

- Chuck Stewart, SC-214 Co-Chair presented. (Briefing – RTCA Paper No. 176-14/PMC-1234)

The SC-214 Terms of Reference were revised to add the new Designated Federal Official – Thomas Mustach, FAA – AIR-132.

The status of SC-214's activities was reviewed. The committee received the Dynamic RNP ConOps on 31 March 2014. Upon review it was noted that it did not provide enough lower level description to complete data set development. The committee created a Tiger Team to develop a service level description. The Tiger team is meeting weekly and expects to have an End-To-End operational service description by early November and expects to start message development in December 2014.

For Advanced-Interval Management (A-IM) a mature ConOps is expected to be available by 31 March 2015 and provides approximately 9 months for SC-214 to prepare new Baseline 2 standards. To minimize development risk SC-186 experts will be involved in the Advanced-IM

detailed concept development and will consult with SC-214 as needed. SC-186 has agreed to include operational service description as part of the ConOps delivery. A Tiger Team SC-214/SC-186 will be established to provide additional description requirements if required.

ATC wind requirements will be included in the A-IM ConOps submittal. The MIT LL study will provide the reference for ATC wind requirements and it is expected that CPDLC will be the delivery media of choice. It was noted that the SESAR Concept of Operation identifies the AOC as the provider of accurate wind data. There is no specific objection to CPDLC at this time.

In summary, SC-214 has put into place risk mitigations for March 2016 standards approval however it is difficult to assess total current risk without the A-IM ConOps

The PMC approved the Terms Of Reference and requested SC-214 to keep the PMC advised as appropriate going forward if the risk assessment changes.

[Note – Agenda Item 6I was addressed next.]

I. Design Assurance for Airborne Electronic Hardware - Discussion – Possible Update to DO-254

- Jessie Turner, PMC Member – The Boeing Company lead the discussion. (TOR - RTCA Paper No. 120-14/PMC-1213)

Mr. Turner noted on-going discussions in industry focus group that express in an update of DO-254 - *Design Assurance for Airborne Electronic Hardware*, issued in April 2000. There was concern expressed that once open for review it may be difficult to close and by some regulators the document has been misapplied. The discussion was a “heads-up” with more likely to follow in December.

[Note – Agenda Item 6K was addressed next.]

K. NextGen Advisory Committee (NAC) - Status Update

- Margaret Jenny, Andy Cebula and RTCA staff reported.

A brief report highlighted the NAC meeting held October 8, 2014 at RTCA. The meeting focused on the PBN Blueprint Tasking from the FAA and the activities of the NextGen Integration Working Group (NIWG). A full briefing will be given in December.

The next NAC meeting will be held in February 2015.

L. FAA Actions Taken on Previously Published Documents – Report

- Rich Jennings - PMC Member – FAA presented. (FAA Guidance based on RTCA Documents – RTCA Paper No. 184-14/PMC-1240)

Mr. Jennings reviewed FAA Published Documents that reference published RTCA Documents:

FAA Published Guidance (Since Previous PMC)

RTCA Document	Developed By	FAA Guidance	Approval Date	Comment
DO-336	SC-220	Add MG-23 to AC 27-1B Chg 5 and 29-2C Chg 5 to address AFGCS	July 25, 2014	Pending posting on FAA Regulatory Guidance Library (RGL)
DO-262B	SC-222	TSO-C159b	Planned to go final by 9/30	Next generation satellite system (NGSS). Must fix reference to DO-326 in TSO
DO-217B	SC-186	TSO-C195b	Planned to go final by 9/30	Adds TSSA (A-TAS) and CAVS to ADS-B In applications

Mr. Jennings reviewed FAA Pending Documents for RTCA Documents Published:

RTCA Published Documents - FAA Pending Guidance (yellow denotes date slips)

RTCA Document	Developed By	FAA Guidance	Planned Release Date	Comment
DO-329	SC-221	AC 121- Secondary cockpit barrier	November 2014	Added some maintenance (MEL) guidance, so in final review with AFS-300. Document now expected to go final by November.
DO-315A	SC-213	Draft AC 20-167A	May 2015 (revised)	Plan to release AC 20-167A and AC 90-106A after rule is published (target date now 4/05/15)
DO-335	SC-220	AC 23-17C to address AFGCS	September 2015 (revised)	Plan to reference document in the Part 23 Systems AC (planned release date move from 2014 as a result of Part 23 rewrite and other priorities)
DO-347	SC-225	AC 20-Li Ion	May 2015	Certification Test Guidance for Small and Medium Sized Rechargeable Lithium Batteries
Chg 1 to DO-281C	SC-214	TSO C160b	2015	Chg 1 will be invoke in revised TSO-C160b after the DO-281C is revised again (Chg 2 or Rev D) to address provider abort (PA) criteria.

Chg 1 to DO-280B	SC-214	AC 20-140C	2016	Interoperability Requirements Standard for Aeronautical Telecommunication Network Baseline 1. Plan to invoke with the B2 (final) standards in AC 20-140C
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RTCA Documents Pending PMC Approval

RTCA Document	Developed By	Planned FAA Guidance	Planned Release Date	Comment
Final Draft, Revised Document, DO-252 – Minimum Interoperability Standards (MIS) for Automated Meteorological Transmission (AUTOMET), RTCA Paper No. 150-14/PMC-1228,	SC-206	N/A	N/A	Not directly invoked by the FAA.
Final Draft, Change 1 to DO-236C, Minimum Aviation System Performance Standards (MASPS): Required Navigation Performance for Area Navigation, RTCA Paper No. 149-14/PMC-1227.	SC-227	AC 20-TOPS,	August 2016	AC release also tied to SC-214 completion of ATN-B2 final. May also be referenced in a later revision to AC 20-138
Final Draft, New Document, Information Security Guidance for Continuing Airworthiness, RTCA Paper No.181-14/PMC-1239	SC-216	AC 25 series	TBD	Plan to reference in a Part 25 AC, along with DO-326A document. AC to provide a means to comply with Special Conditions when applicable.

M. Special Committees – Chairmen’s Reports and Active Inter-Special Committee Requirements Agreements (ISRA) - Review

- Jennifer Iversen, RTCA staff reported.

Highlights from the Chair Reports for several selected Special Committees were reviewed. Reports were received from SCs 206, 213, 216, 217, 224, 225, 227, 228, 230 and 232. The complete matrix was posted on Workspace.

N. European/EUROCAE Coordination – Status Update.

- Jennifer Iversen, RTCA staff reported.

Ms. Iversen coordinates regularly with EUROCAE and provided updates of ongoing RTCA / EUROCAE cooperation.

SC-223/WG-82 New Air-Ground Datalink Technologies

- New TOR to integrate satcom activities. Interested in cooperation with SC-222 or SC-223. Now to be submitted to EUROCAE Council for approval.

SC-216/WG-72 Aeronautical Systems Security

- Discussion on revised TOR and cooperation with RTCA (ED-203/Do-yy3 situation and future work). The important thing is to ensure that the discussion on future activities is conducted jointly in order to stay aligned. TOR now to be submitted to Council for approval.

SC-213/Reactivation of WG-79 EVS/SVS

- Proposed TOR for reactivation of WG-79 reviewed and agreed (with small modifications). Now to be submitted to council for approval.

Other topics being discussed are Wake Vortex Safety Systems – the TAC asked whether they could have a copy of the final report of the Tiger Team (when available). EUROCAE SWIM Task Force – the TF noted RTCA interest in potential activities and agree to stay aligned. DO-254/ED-80 - noted RTCA interest in alignment with potential update.

Key dates for future coordination: There will be a RTCA/EUROCAE organization Coordination meeting at RTCA on October 14-15, 2014. The EUROCAE General Assembly and High Level Meeting will be held November 21, 2014 in Brussels. The Next TAC Meeting is set for December 10, 2014.

The RTCA staff will keep the PMC apprised of developments.

AGENDA ITEM 7

Other Business –

- A. Discussion – The question of meeting length was raised. It was noted that recent PMC

meetings have continued to run beyond the scheduled time and the committee should take time to discuss alternative schedule possibilities. For example possibly going til 3 or 4 o'clock; or maybe a day and a half with an evening event; or some combination. Following a brief discussion, the PMC agreed to a survey to capture member thinking. RTCA staff will develop and send out the survey with results to be discussed at the December meeting.

Action Item - Open

AGENDA ITEM 8

Schedule for Committee Deliverables and Next Meeting Date

Three documents are possible for the December 16, 2014 meeting:

- SC-213 – one document – new document – *SPR for Enhanced Vision*
- SC-135 – one document – new document – *Users Guide – Supplement to DO-160G*
- SC-135 - Change 1 to DO-160G – *Environmental Conditions and Test Procedures for Airborne Equipment*

The dates for the next three PMC meetings were confirmed: Tuesday, December 16, 2014; Tuesday, March 24, 2015; and Thursday, June 18, 2015.

/Signed/

Harold Moses, Secretary
RTCA Program Management Committee

CERTIFIED to be a true and
accurate report of the meeting.

/Signed/

Christopher Hegarty, Chair
RTCA Program Management Committee

**Program Management Committee – September 23, 2014
ATTENDANCE LIST**

PMC MEMBERS:		
Christopher	Hegarty	The MITRE Corporation Chairman
Doug	Arbuckle	Federal Aviation Administration
Chris	Baum	Air Line Pilots Association
Steve	Brown	National Business Aviation Association
Robert	Grove	Garmin Ltd.
Richard	Heinrich	Rockwell Collins, Inc.
Jens	Hennig	General Aviation Manufacturers Association
Robert	Ireland	Airlines for America
Richard	Jennings	Federal Aviation Administration (Designated Federal Representative)
Margaret	Jenny	RTCA, Inc.
George	Ligler	Project Management Enterprises Inc.
Michele	Merkle	Federal Aviation Administration
Col. Juan	Narvid	DoD Policy Board on Federal Aviation
Jessie	Turner	The Boeing Company

OTHER ATTENDEES:		
Sophie	Bousquet	RTCA, Inc.
Andy	Cebula	RTCA, Inc.
Tammy	Farrar	Federal Aviation Administration
Eldridge	Frazier	Federal Aviation Administration
Charisse	Green	Federal Aviation Administration
Jennifer	Iversen	RTCA, Inc.
Daniel	Johnson	Honeywell International, Inc.
Jarrett	Larrow	Federal Aviation Administration
Kathryn	Martin	Access Partnership
Harold	Moses	RTCA, Inc. PMC Secretary
Dave	Nakamura	Advance PBN Solutions, LLC
Chris	Parfitt	Federal Aviation Administration
Chuck	Royalty	The Boeing Company
Charles	Stewart	United Airlines, Inc.
Rocky	Stone	United Airlines, Inc.
Cathy	Swider	Federal Aviation Administration
Don	Walker	Federal Aviation Administration
Michelle	Yeh	Federal Aviation Administration

PMC ACTION ITEM TABLE – 2014

TRACKING NUMBER <small>Indicates the meeting Date and agenda item From which the action resulted.</small>	ACTION	ACTION ASSIGNED TO	DUE DATE	STATUS
06/19/2013 Agenda Item 4A 12/18/2013 Agenda Item 5B 03/18/2014 Agenda Item 5B 06/17/2014 Agenda Item 5A 09/23/2014	06/19/2013 – Ad Hoc to review committee “standards delivery” with respect to implementation “time lines” 12/18/2013 – PMC discussion - suggest for possible Workshop in conjunction with RTCA Symposium 03/18/2014 – More detail next meeting 06/17/2014 – Planning for a Workshop for Sept. 24 th ...the day after the next PMC meeting 09/23/2014 – Workshop will take place on Sept. 24 th .	Ad Hoc	October 2013 March 2014 June 2014 Sept. 2014	Closed
06/19/2013 Agenda Item 4A 12/18/2013 Agenda Item 5B 03/18/2014 Agenda Item 5C 06/17/2014 Agenda item 5B 09/23/2014	06/19/2013 – Part 23 12/18/2014 – PMC discussion - Part 23 03/18/2014 – Part 23 – continue to monitor 06/17/2014 - Part 23 – continue to monitor 09/23/2014 – Part 23 – continue to monitor...add statement to TOR template to consider Part 23 applicability for future new Special Committees.	Ad Hoc	October 2013 March 2014 June 2014	Closed
12/18/2013 Agenda Item 5B 03/18/2014 Agenda Item 5D 06/17/2014 Agenda Item 5C 09/23/2-14 Agenda Item 5C	12/18/2013 – IP Policy to be reviewed 03/18/2104 – Initial recommendations reviewed 06/17/2014 – More detail next meeting 09/23/2014 – Further staff review in progress	RTCA	March 2014 June 2014 Sept 2014 TBD - ASAP	Open
03/18/2014 Agenda Item 4 06/17/2014 Agenda Item 4 09/23/2014 Agenda Item 4	03/18/2014 – ICC tasked to determine what work related to ATC winds is appropriate for each SC, consistent with their TOR. 04/17/ 2014 – Initial meeting with SCs held. Wind Study not yet received. 09/23/2014 – ICC task complete...SCs to report status in Dec.	ICC	When ATC Wind Study is Avail.	Open for SC status
03/18/2014 Agenda Item 7B	03/18/2014 – Tiger Team reports back to PMC upon completion	Wake Tiger Team	Dec 2014	Open

03/18/2014 Agenda Item 7C 09/23/2014 Agenda Item 5D	03/18/2014 – Assist with review of new GPS spectrum standards 09/23/2014 – PMC will review as details become available and review becomes necessary.	SC-159 & other committee as required	Upon receipt of material to review	Closed
09/23/2014 Agenda Item 6B	09/23/2014 – Further TOR review pending new FAA security activities.	SC-216	Dec. 2014	Open
09/23/2014 Agenda Item 6A	09/23/2014 – TOR to be revised for scope and intended use.	PMC Ad Hoc	Dec 2014	Open
09/23/2014 Agenda Item 6I	09/23/2014 – Further discussion planned for Dec. meeting	PMC Member Jessie Turner	Dec 2014	Open
09/23/2014 Agenda Item 7	09/23/2014 – Meeting alternatives...survey planned.	RTCA Staff	Dec 2014	Open