



RTCA Paper No. 195-22/PMC-2308
August 19, 2022

**RTCA PROGRAM MANAGEMENT COMMITTEE
MEETING SUMMARY
June 23, 2022**

The RTCA Program Management Committee (PMC) convened in a hybrid format at 8:30 a.m. on June 23, 2022, with some members present at RTCA and others participating via Webex. The attendance list and action items are attached.

AGENDA ITEM 1

Welcome and Introductions

- A. PMC Chair Dr. Chris Hegarty welcomed the group, asked attendees to introduce themselves and to note their organization of affiliation. Two proxies were announced (included in attendance list below).
- B. Ms. Rebecca Morrison (RTCA Senior Program Director) reviewed virtual meeting procedures, the anti-trust statement, proprietary policy, and membership policy.
- C. Chair Hegarty welcomed new PMC members, Bruce DeCleene from the Federal Aviation Administration (FAA) and the PMC new Government Authorized Representative (GAR), James Baird from ANG at the FAA, and Michael McDowell from Collins Aerospace.
- D. Chair Hegarty thanked outgoing PMC members Di Reimold (outgoing GAR), Rita Estrada Cavallini (from FAA), and Nazeif Habboub (from Collins Aerospace) for their time and support.
- E. Mr. Al Secen (RTCA Vice President, Aviation Technology and Standards) introduced the newest RTCA Program Director, Brandi Teel. She is taking over the SC's that have been under Mr. Secen to allow him to take on more strategic responsibilities and international matters.

AGENDA ITEM 2

Review / Approve

- A. The summary of the March 17, 2022 meeting was approved with editorial comments received from Garmin. (RTCA Paper No. 045-22/PMC-2241).

AGENDA ITEM 3

Publication Consideration/Approval

A. DO-282C - *Minimum Operational Performance Standards for Universal Access Transceiver (UAT) Automatic Dependent Surveillance – Broadcast*, presented by SC-186, Automatic Dependent Surveillance Broadcast (ADS-B)

- Jessie Turner, SC-186 Co-Chair, presented.

The document contains Minimum Operational Performance Standards for airborne equipment to support Automatic Dependent Surveillance - Broadcast utilizing the Universal Access Transceiver (UAT). UAT is a multi-purpose aeronautical data link intended to support not only ADS-B, but also Flight Information Service - Broadcast (FIS-B), and Traffic Information Service - Broadcast (TIS-B).

Both Mr. Turner and Mr. Al Secen (SC-186 PD for this document) praised Rob Strain for his leadership in completing this revision.

- Approval was moved by Doug Arbuckle, seconded by Don Kauffman. The PMC approved the document. It will be published as DO-282C.

B. DO-392 – *Guidance on Security Event Management*, presented by SC-216, Aeronautical Information Systems Security

- Dr. David Pierce, SC-216 Chair presented.

This document provides guidance on security event management for various stakeholders in the aviation environment such as manufacturers, operators, maintainers, product suppliers, service providers, etc., to develop processes and procedures for identifying, responding to and reporting information security events impacting aviation safety. The guidelines in this document were developed with the intent to provide Acceptable Means of Compliance to EASA's proposed Part IS which intends to establish a regulation requiring approved organizations to implement an Information Security Management System including (Security) Occurrence Reporting analogous to Safety Management System with (Safety) Occurrence Reporting. Other regulations may also apply. Organizations may elect to apply Information Security Event Management processes for operational or other business needs.

- Approval was moved by Jessie Turner, seconded by Ed Hahn. The PMC approved the document. It will be published as DO-392. It will be published concurrently with EUROCAE ED-206.

C. DO-393 - *Process Standard for Security Certification and Declaration of ATM ANS Ground Systems*, presented by SC-216, Aeronautical Information Systems Security

- Dr. David Pierce, SC-216 Chair presented.

This document will guide an organization that manages and operates Air Traffic Management (ATM) and Air Navigation Systems (ANS) ground-to-ground and ground-to-air systems and services in becoming approved for operations by a Civil Aviation Appropriate Authority (AA).

- Approval was moved by Jessie Turner, seconded by Ed Hahn. The PMC approved the document. It will be published as DO-393. It will be published concurrently with EUROCAE ED-205A. (Note difference in revision designation as this is a new document for RTCA, but a previously existing document for EUROCAE.)

D. DO-394 – *Considerations for Aeronautical Data Alternation*, presented by SC-217, Aeronautical Databases

- Brian Gilbert, SC-217 Co-Chair, presented.

This is a guidance document that clarifies and expounds on the criteria and processes associated with the alteration of aeronautical data in support of the requirements defined in RTCA DO-200B/EUROCAE ED-76A. It does not define any requirements, rather it provides considerations, examples, and guidelines for the disposition and processing of altered aeronautical data.

- Approval was moved by Jessie Turner, seconded by Mike McDowell. The PMC approved the document. It will be published as DO-394. It will be published concurrently with EUROCAE ED-302.

E. DO-346A – *AeroMACS MOPS*, presented by SC-223, Internet Protocol Suite (IPS) and Aeronautical Mobile Airport Communications System (AeroMACS)

- Aloke Roy, SC-223 Chair, presented.

This document is a revision to the initial release of DO-346 which contains Minimum Operational Performance Standards for both the Airborne Component and Ground Based base station of the Aeronautical Mobile Airport Communication System (AeroMACS). Compliance with these standards is recommended as one means of assuring that the equipment will perform its intended function(s) satisfactorily under all conditions normally encountered in routine aeronautical operation. Any regulatory application of this document is the sole responsibility of appropriate governmental agencies. This document considers an equipment configuration consisting of AeroMACS radio and modem from antenna interface to the network interface. This MOPS addresses both Airborne Mobile Station and Ground Base Station components of the AeroMACS system. This revision addresses some defects identified during system implementation.

- Approval was moved by Bruce DeCleene, seconded by Jessie Turner. The PMC approved the document. It will be published as DO-346A. It will be published concurrently with EUROCAE ED-223A.

F. DO-236D – *Minimum Aviation System Performance Standards: Required Navigation Performance for Area Navigation*, presented by SC-227, Standards of Navigation Performance

- Mike Cramer, SC-227 Chair, presented.

This document provides Minimum Aviation System Performance Standards (MASPS) for area navigation systems operating in an RNP environment. This standard was written as an update to DO-236C and includes DO-236C Change 1. The MASPS provides guidance to aid in the development of airspace and operational procedures needed to obtain the benefits of improved navigation capability. The requirements of this MASPS are consistent with the definitions of RNP developed by the ICAO Performance Based Navigation (PBN) Subgroup.

- Approval was moved by Mike McDowell, seconded by Bruce DeCleene. The PMC approved the document. It will be published as DO-236D. It will be published concurrently with EUROCAE ED-75E.

G. DO-307B – *Aircraft Design and Certification for Portable Electronic Device (PED) Tolerance*, presented by SC-234 Portable Electronic Devices (PEDs)

- Jamie Lutkus, SC-234 Chair, presented.

The update to DO-307B addresses particularly the spectrum expansion of the 5G technology in the U.S. The update became necessary in view of the work conducted by SC-239 / WG-119.

There are two aspects to the aircraft design recommendations in this report. One aspect defines aircraft system and equipment RF susceptibility qualification recommendations that provide tolerance to RF from intentionally transmitting PEDs. This is commonly referred to as protection from PED back door coupling. The recommendations closely follow existing practices for aircraft system high intensity radiated field (HIRF) protection. Acceptable test approaches for verifying the aircraft system RF susceptibility qualification are defined.

The second aspect defines acceptable interference path loss between aircraft radio receivers and PEDs that emit spurious RF. This is commonly referred to as protection from PED front door coupling. Extensive analysis of measured PED spurious emissions was performed so that the interference path loss targets are based on statistics of actual PED emissions rather than regulatory specifications. Interference path loss test methods are defined.

- Approval was moved by Bruce DeCleene, seconded by Ed Hahn. The PMC approved the document. It will be published as DO-307B. It will be published concurrently with EUROCAE ED-239A.

H. DO-363A – *Guidance for the Development of Portable Electronic Devices (PED) Tolerance for Civil Aircraft*, presented by SC-234 Portable Electronic Devices (PEDs)

- Jamie Lutkus, SC-234 Chair, presented.

The update to DO-363A addresses the spectrum expansion of the 5G technology and the introduction of PED transmitting in the frequency spectrum above 5.9 GHz, for example WiFi-6e. This has led to:

- A redefinition of transmitter technologies that are classified as low-power technologies and
- A requirement to address the potential for front-door interference to radio altimeters, including 5G, that is addressed in DO-307B/ED-239A.
- Approval was moved by Bruce DeCleene, seconded by Ed Hahn. The PMC approved the document. It will be published as DO-363A. It will be published concurrently with EUROCAE ED-130B.

As all deliverables from the current TOR have been completed, the group recommended to sunset the committee. Following discussion on pros and cons to Sunset vs. Active Monitor Status, to include possible support to SC-242 – Spectrum Compatibility but noting that SC leadership maintain an automatic “on call” status for any follow on inquires or needed input. Approval for Sunset was moved by Mike McDowell, seconded by Bruce DeCleene. PMC members approved.

Thank you was extended to SC-234 (and WG-99) leadership for their support to updating both DO-307B and DO-363A in such a short period of time. It was noted the GAR Brian Verna has moved to Commercial Space and the new FAA POC for any follow on inquires will be Ricky Chitwood.

I. DO-378A - *MASPS for Coexistence of Wireless Avionics Intra-Communication Systems within 4 200-4 400 MHz.* presented by SC-236, Standards for Wireless Avionics Intra-Communication (WAIC) system within 4200-4400 MHz

- Steve Rines, SC-236 Co-Chair, presented.

The revision of DO-378 was approved by the PMC in December 2019 to address comments from the ICAO FSMP to ensure WAICs. This FRAC started in February 2020 and concluded at the May 2022 plenary. It is a joint document with EUROCAE WG-96, and per the EUROCAE process we must receive an email from anyone who issues a non-concur during FRAC that states they accept the resolution as sufficient. The final email accepting the non-concur’s resolution was received on June 15, 2022. It is expected to go to the EUROCAE Council in the next few weeks and publication is expected in July 2022.

EUROCAE and RTCA have defined this Minimum Aviation System Performance Standard (MASPS) that applies to Wireless Avionics Intra-Communications (WAIC) systems utilizing the frequency band 4 200 - 4 400 MHz as allocated by the World Radiocommunication Conference (WRC) in 2015. Key criteria for allocation of the band by the WRC were (i) coexistence between WAIC systems and (ii) coexistence between WAIC systems and Radio Altimeters (RA), both on board neighboring aircraft.

This MASPS defines two Performance Requirements (PR) that ensure WAIC systems meet the above coexistence criteria. The first PR specifies the power spectral flux density allowed to be

emitted by WAIC systems on board an aircraft. The second PR specifies tolerance of WAIC systems to Radio Frequency (RF) emissions from RA and WAIC systems from neighboring aircraft. Both PRs were developed consistent with ITU-R documentation and validated by significant work by the Aerospace Vehicle Systems Institute (AVSI), EUROCAE and RTCA organizations to understand and characterize the worst-case conditions that may be experienced during the normal course of operation of the worldwide aircraft fleet.

Revision A is harmonized with the intended content of the ICAO SARPs for WAIC systems.

- Approval was moved by Bruce DeCleene, seconded by Jessie Turner. The PMC approved the document. It will be published as DO-378A. It will be published concurrently with EUROCAE ED-260A contingent upon the SARPs being published.

Additional input further in the meeting by Andy Roy indicated that the WAIC SARPs will probably not go to ICAO Council until July 2025 for approval in December 2025. After further input from SC-236 Program Director Rebecca Morrison, indicating that the wording of DO-378A does not indicate a contingency on publication of the related SARPs, Bruce DeCleene moved, seconded by Jessie Turner that the contingency be removed from the PMC approval and that the document be published as soon as possible once the EUROCAE Council approves. The PMC approved this motion.

AGENDA ITEM 4

Integration and Coordination Committee (ICC)

No report for this meeting. The ICC took on an action related to agenda item 5J and will report on progress at the next PMC meeting.

AGENDA ITEM 5

Action Item Review

A. Add ICAO Representative to PMC Invite

- Terry McVenes, RTCA President, presented.

We are still awaiting a point of contact. Andy Roy stated that he will see the suspected appointee at a meeting in August and will follow up. Action still open.

B. Reach out to Advanced Aviation Advisory Committee (AAAC) for their action on Spectrum and Surveillance Activities

- Terry McVenes, RTCA President, presented.

Mr. McVenes provided an update including new leadership and re-organization associated with the AAAC. He recommended keeping the action open to continue the dialog.

C. Presentation to ICAO Panel on RTCA activity (to include SC formation)

- Terry McVenes, RTCA President, presented.

Mr. Roy (PMC Member and Vice Chair of the ICAO Frequency Spectrum Management Panel (FSMP)) indicated the next FSMP meeting is scheduled in late August. Although this is not on the agenda specifically, Mr. Roy and Mr. Secen will work towards arranging a presentation. Action still open.

D. Regroup between RTCA and EUROCAE Secretariats on Way Forward for SC-240/WG-117

- Rebecca Morrison (RTCA Program Director) presented.

Ms. Morrison reported RTCA and EUROCAE hosted a joint workshop to gather information/inputs for way forward on this topic. Many non-members attended and provided good feedback. The group hopes to have a TOR to present at the next PMC meeting in September 2022. Mr. Hoekema expressed appreciation for a valuable workshop and the valuable input. Action still open.

Mr. McVenes also praised the success of the workshop. There are many new entrants that want to engage in the standards process but are resource-limited and not feeling they are getting value out of participation in the SC/WG. There is a possibility of using the workshop model for other topics.

- The workshop slides are posted on AerOpus (RTCA Paper No. 172-22/PMC-2297).

E. SC-159 TOR Review for Tasks/References

- Dr. Chris Hegarty, SC-159 Co Chair, presented.

During the March PMC meeting, RTCA President McVenes gave a presentation on a new temporary policy in response to Ukraine/Russia situation. Based on this new policy, it was recommended SC-159 review their TOR for tasked deliverables. Dr. Hegarty reported that although the Russian constellation GLONASS is mentioned in the TOR, there is no on-going work to update any associated standards. Action closed.

F. SC-228 TOR Rev 14 Further Refinements

- Karan Hofmann, PMC Secretary, presented.

Based on feedback from PMC members at the March 2022 meeting on their proposed TOR Rev 14, SC-228 made refinements and adjustments for further consideration. The TOR was presented to PMC members as an electronic ballot (agenda item 5I). Action closed.

G. Means for DESIDe Review by PMC Members

- Karan Hofmann, PMC Secretary, presented.

Following Securbotation's demonstration at the March 2022 PMC meeting, the company agreed to provide a means for PMC members to further review DESIDe capabilities and provide feedback to RTCA staff.

Securbotation is configuring a standalone server with RTCA DESIDe with about 25 RTCA documents loaded. Individual user accounts are being setup with a target to be up and running by early July. At that point, they are offering to do a training session for interested participants. Action still open.

H. Investigate potential RTCA Way Forward for DESIDe

- Karan Hofmann, PMC Secretary, presented.

As discussed under agenda item 5G, related activity is still ongoing, and this action remains open.

I. Conduct Electronic OOC Ballot on SC-228 Rev 14 TOR

- Karan Hofmann, PMC Secretary, presented.

The SC-228 Rev 14 TOR was forwarded to PMC members for electronic OOC ballot on March 31, 2022 and was approved April 7, 2022. Action Closed

J. Ad Hoc to Address SC-239 TOR

- Rebecca Morrison, SC-239 Program Director, presented.

Ms. Morrison provided a little background information:

- SC-239 met in Joint Plenary with WG-119 April 5-7, 2022 and agreed on a change to the TOR to include an initial deliverable
- The proposed TOR was presented to the PMC as an OOC Ballot
- One PMC Member, the FAA, provided comments to clarify the requested additional deliverable

For PMC consideration today:

- The TOR approved by SC-239 redlined with FAA suggestions for improvements (V1)
- The TOR from the FAA redlined with further SC-239 leadership comments for improvement (V2)

Further Information:

- SC-239 Leadership has worked to answer the comments provided by the FAA
- SC-239 was given a ballot to give input to the PMC on the committee opinion of V2 and the results are provided

Request of the PMC:

- Discuss the scope of the initial deliverable and approve the general idea of a guidance document as presented in the latest TOR redlines
- Request the ICC be asked to consider both TOR revisions with stakeholders to consensus on a TOR update for SC-239

There was considerable discussion after the presentation.

Mr. DeCleene provided a little more background on the FAA's view. Recommend having the group (and any document(s)) speak to aviation community not non-aviation community – focus on RAD ALT. They are driven by schedule – trying to pull short term “policy” to FAA. He indicated RTCA's part is the long-term global solution. The chats with SC-239 leadership were trying to make it clear we (the aviation community) are using our portion of the spectrum wisely and provide rationale – are we meeting the bar?

Mr. Hennig mentioned there are other forums on related matters including the Nolan letter, filters, 2023 dates – how does this issue play out together for manufacturers? Would be nice to see a vision for the next 3 to 10 years. Mr. DeCleene mentioned the proposed MOPS would not be done by December 2023 – it would more likely move to the right vs. left which doesn't meet timeline. Mr. Hennig commented that as the dust settles, a picture would be helpful.

Mr. Turner asked if we don't finish TOR by end of July, will it meet SC-239 schedule? Ms. Morrison indicated that the SC-239 schedule is aggressive while not acceptable with PMC input. Mr. Turner said that wording in alignment should not affect schedule. Mr. DeCleene said there needs to be a long-term solution with validity.

Several members indicated that the footnote mentioning “state of the art enhancements to current design” wasn't clear.

Mr. McVenes noted that we now have clear direction on what FAA and industry needs and that we need to put our energy towards addressing these. Also agree there is a need to address the aviation environment but need cross collaboration to help ensure we keep on an appropriate timeline. We need to ensure we are being good stewards of the spectrum allocated and utilize some outside resources to help the SC succeed.

Mr. Frick said that much of the original interim document and the wording of the new proposed TOR are similar, but the context is slightly different. While the ICC process would probably take until the end of July, the group needs guidance on what they should do in the meantime.

Mr. Hoekema indicated confusion on what we're trying to achieve. Mr. DeCleene wants a standard applicable for next decade or two. He is not sure the committee can deliver that in timeframe indicated. What is expected? We need a standard to update 30+ year old equipment and a means to work through the next few years. The objective should be to make altimeters as robust as possible.

Mr. DeCleene also mentioned that the FAA follows the same logic flow for managing current

situation without the SC, but rather Alternate Means of Compliance (AMOCs) – there are no dependencies on SC-239. They do not want a second investment in the short-term. If SC-239 needs more time, its TOR should address the longer time frame. Content is the driver – not the schedule. Mr. Hoekema indicated appreciation of the FAA’s work, but with the rest of the world maybe not same urgency but need to address current equipment.

Mr. McDowell expressed concern – industry doesn’t want filters to be only an interim solution and the first of two required steps to resolve the issue.

Any other comments can be forwarded to the ICC. Suggested topics:

- What is good use of spectrum?
- Caution on usage of terminology
- What is the work?
- What is the timeline?
- Be ready to educate what is happening

Mr. Barber, ICC Chair, stated an understanding for the need for an updated TOR as soon as possible. Although the end of July is targeted, the ICC will work to come to consensus sooner.

Mr. Robin stated new proposal aims for development in 2022. This should help solve global problem, and also help with the U.S. problem. Agrees with Mr. DeCleene’s new proposal that we are good steward of our band.

Chair Hegarty summarized the discussion. PMC members currently have differing views on the best way forward for SC-239. Towards achieving a consensus view, there appears to be agreement within the PMC to task the ICC (with all PMC members welcome to participate) to continue the discussion and revise the SC-239 TOR as soon as possible. The ICC is requested to complete this activity no later than by the end of July 2022.

AGENDA ITEM 6

Discussion.

A. Out of Cycle Actions since last PMC Meeting – Presentation Summary

- Karan Hofmann, PMC Secretary, presented.

As a reminder and for formal documentation, the following items were reviewed by electronic ballot since the last PMC meeting:

- SC-228 – Minimum Performance Standards for Unmanned Aircraft Systems – Revised TOR – Approved April 7, 2022
- SC-239 – Low Range Radar Altimeter - Revised TOR – Ballot Closed April 11, 2022 – Not Approved
- SC-240 - Topics on Software Advancement - Revised TOR – Approved May 5, 2022
- SC-242 – Spectrum Compatibility - Initial TOR – Approved with comments May 6, 2022

- SC-222 - Aeronautic Mobile Satellite (Route) Services (AMS(R)S) – Revised TOR – Approved May 17, 2022
- DO-376 Change 1 *Minimum Operational Performance Standard for Offshore Helicopter Terrain Awareness and Warning System (HTAWS)* – Approved May 20, 2022

B. SC-159 - Navigation Equipment Using the Global Navigation Satellite System (GNSS) – Revised TOR

- Dr. Chris Hegarty, SC-159 Co-Chair presented.

The group requested delivery date changes for four documents. PMC members asked about the confidence in these new dates. Chair Hegarty replied that there is still significant risk with the many moving parts (e.g., GNSS constellation deployment plans) out of SC-159/WG-62’s control, but the group will diligently continue to work towards document completion.

There was also a change to Co-Chair Dr. George Ligler’s association with the revision (he is now with Texas A&M). Mr. Barber also recommended adding DO-235C to the Initial Documentation list and this change was supported by SC-159 leadership.

- Approval was moved by Jens Hennig, seconded by Bruce DeCleene. The proposed revised TOR was approved (RTCA Paper No. 191-22/PMC-2307).

C. SC-216 - Aeronautical Information Systems – Revised TOR

- Dr. David Pierce, SC-216 Chair presented.

The group has completed all deliverables on current TOR, but in coordination with EUROCAE WG-72 have determined the need for two new documents and revisions for two documents:

- DO-XXX: Information Security Management System Guidance
- DO-YYY: Data Security Minimum Operational Performance Standards
- DO-326B: Airworthiness Security Process
- DO-392A: Guidance on Security Event Management

PMC Members expressed concern about making the Data Security document (DO-YYY) a MOPS, as there is a very strict drafting guide and should include testing for a MOPS. The group feels a MOPS is needed and understand the restrictions on this type of document. As this is a joint effort, there should be coordination on any change in the type of document. PMC Members agreed to approve the TOR as presented but tasked the group to further discuss/coordinate with EUROCAE WG-72 and to come back to PMC with revised TOR for appropriate type of document and title. Additionally, it was pointed out that more detail was also needed in the “Envisioned Usage” section of the TOR on these documents. (Action)

- Approval was moved by Ed Hahn, seconded by Jessie Turner. The proposed revised TOR was approved (RTCA Paper No. 190-22/PMC-2306).

Dr. Pierce also brought up an additional topic. The SC has been approached by two different SC's asking for need to address Information Security issues in their deliverables. SC-216 had suggestions on how to handle these matters:

- Add SC-216 deliverables such as directed guidance/MOPS for different specific equipment
- Revision to SC-216 documents already published
- Contributing to other groups' deliverables with specific technical controls and/or guidance on application of airworthiness security process

Discussion followed indicating some non-SC-216 documents already address some cyber security aspects for particular equipment (such as DO-377), but it was also brought up that there are broader questions – such as exception requests by individual applicants. PMC Members also mentioned that some of these additional areas are out of scope for SC-216. Chairman Hegarty thanked SC-216 for bringing this topic up and asked that they keep the PMC informed.

D. SC-FAS – Forum for Aeronautical Software – SC Activation and TOR Approval

- Rebecca Morrison (RTCA Program Director) presented.

Ms. Morrison indicated that moving forward with the FAS activity is being coordinated with SC-240 TOR updates.

E. FAA Actions Taken on Previously Published Documents – Update

- Bruce DeCleene and Robert Bouza, Federal Aviation Administration, presented.

FAA Published Documents that reference published RTCA Documents, FAA Pending Documents for RTCA Documents Published, and FAA plans for RTCA Documents pending PMC approval were reviewed. Document is posted in AerOpus (RTCA Paper No. 165-22/PMC-2294).

Mr. DeCleene commented the FAA knows that their use of RTCA documents is important information for the aviation industry. The FAA is working towards smoothing internal process to prepare the information to get to PMC members sooner. He also recognized that PMC members have asked for additional information in this report and the FAA is working to address.

Mr. Bouza reported the following items:

- DO-262F is closed – final TSO-C159c released March 25, 2022
- DO-381, DO-382, and DO304A will be removed from status report, as no FAA guidance documents planned for them

Mr. Hennig thanked the FAA for the dates – very helpful. He also asked about the Security Event document status for possible use. Mr. DeCleene said that any of these documents can be used prior to FAA reference – in fact, highly endorsed. The concern there is there is a real jeopardy “until the ink dries”. Chair Hegarty said it is good to know what is used and what is not used.

F. Special Committees - Chair's Reports – Review

- Rebecca Morrison, RTCA Program Director, presented.

Reports were received from SC-242, SC-240, SC-239, SC-237, SC-235, SC-234, SC-230, SC-227, SC-224, SC-222, SC-217, SC-216, SC-214, SC-213, SC-186, and SC-135.

SC-239 – Presented today as part of TOR status (agenda item 5J)

SC-238 – Presented today on revised TOR (agenda item 7C).

SC-236 – Presented today on a document (agenda item 3I).

SC-234 – Presented today on two documents and committee status (agenda item 3G and 3H).

SC-228 – Presented today on revised TOR (agenda item 7B).

SC-227 – Presented today on a document (agenda item 3F).

SC-223 – Presented today on a document (agenda item 3E).

SC-217 – Presented today on a document (agenda item 3D).

SC-216 – Presented today on two documents and revised TOR (agenda item 3C, 3D, and 6C).

SC-186 – Presented today on a document (agenda item 3A).

SC-159 – Presented today on a revised TOR (agenda item 6B).

There was a question about the EVTOL standards that EUROCAE is developing and why it was not being accomplished as a joint venture. It was reported that if this work does go joint, the next revision of DO-160 would be delayed. PMC members requested further details and update from SC-135. (Action)

- The individual committee reports are posted on AerOpus (RTCA Paper No. 166-22/PMC-2295).

G. International Coordination – Status Update

- Rebecca Morrison, RTCA Program Director, presented.

EUROCAE TAC Meeting Dates:

TAC#91 June 29-30, 2022 and July 6-7, 2022 – Paris EUROCAE

TAC#92 Sept 7-8, 2022 – Frankfurt

TAC#93 Nov 22, 2022 – Brussels (TBC)

TAC#94 March 2023

There were nine publications since the March 2022 PMC meeting.

RTCA and EUROCAE participated together at the FAA/EASA Safety Conference last week.

Currently, RTCA and EUROCAE are working to plan a virtual event, Global Summit on Spectrum, for November 15-16.

- The EUROCAE update (to include the publication list) is posted on AerOpus (RTCA Paper No. 167-22/PMC-2296).

AGENDA ITEM 7

Other Business

A. AerOpus Sharing Documents for FRAC Review

- Al Secen, RTCA VP, presented.

All documents that enter FRAC are shared with PMC AerOpus group. Mr. Secen provided a quick review of this access.

B. SC-228 – Minimum Performance Standards for Unmanned Aircraft Systems – Revised TOR

- James Williams and Brandon Suarez, SC-228 Co-Chairs, presented.

The group asked for changed deliverable dates on three documents for various reasons. They also brought up that some coordination is on-going for possible joint work with EUROCAE.

- Approval was moved by Jessie Turner, seconded by Mike McDowell. The proposed revised TOR was approved (RTCA Paper No. 189-22/PMC-2305).

C. SC-238 – Counter UAS – Revised TOR

- Adam Robertson, SC-238 Chair, presented.

This joint effort is re-energizing with new leadership on both sides. The two remaining deliverable dates have been adjusted and there is a chairman change from Nancy Ford (Security 101) to Adam Robertson (Fortem Technology). The secretary position will be filled by Juan Lopez Campos from Indra, the secretary from EUROCAE WG-115.

Mr. Robertson also reported he had an opportunity to meet with Ryan Berry, AXE-U00/FAA. They agree there is a need to get the right people involved with this group from such organizations as DHS, FBI, and DoD. Chairman Hegarty thanked him for stepping up and for progress towards increased federal involvement and obtaining a GAR.

- Approval was moved by Ed Hahn, seconded by Jessie Turner. The proposed revised TOR was approved (RTCA Paper No. 188-22/PMC-2304).

AGENDA ITEM 8

Schedule for Committee Deliverables and Next Meeting Date

Documents expected for the September 15, 2022, meeting:

- SC-147, Traffic Alert & Collision Avoidance System (TCAS)
 - DO-385 Change 2 – *Minimum Operational Performance Standards for Airborne Collision Avoidance System X (ACAS X) (ACAS Xa and ACAS Xo)*
 - DO-396 – MOPS for ACAS sXU Functionality
- SC-222, Aeronautical Mobile Satellite (Route) Services (AMS(R)S)
 - DO-262F Change 1– *Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite System*
- SC-228, Minimum Performance Standards for Unmanned Aircraft Systems
 - DO-397 – *Guidance Material: Navigation Gaps for Unmanned Aircraft Systems (UAS)*
 - DO-387 Change 1 – *Minimum Operational Performance Standards (MOPS) for Electro-Optical/Infrared (EO/IR) Sensor Systems for Traffic Surveillance*

The dates for the next four PMC meetings were confirmed: Thursday, September 15, 2022; Thursday, December 15, 2022; Thursday, March 16, 2023; and Thursday, June 22, 2023.

AGENDA ITEM 9

New Action Item Summary

See PMC Action Item Table.

/Signed/

Karan Hofmann, 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 – June 23, 2022
ATTENDANCE LIST

PMC MEMBERS:

Christopher	Hegarty	The MITRE Corporation Chair (proxy for Robert Ireland (A4A))
Doug	Arbuckle	Federal Aviation Administration
James	Baird	Federal Aviation Administration
Clay	Barber	Garmin, Ltd.
Bruce	DeCleene	Federal Aviation Administration Government Authorized Representative
Ed	Hahn	Air Line Pilots Association
Jens	Hennig	General Aviation Manufacturers Association
Hette	Hoekema	European Aviation Safety Agency
Karan	Hofmann	RTCA, Inc. Secretary
Donald	Kauffman	Honeywell International, Inc.
Terrance	Kirk	Aviation Information Sharing and Analysis Center
James	McClay	Aircraft Owners and Pilots Association
Mike	McDowell	Collins Aerospace
Bill	McWhirter	U.S. Air Force (proxy for Edgar Wright)
Terry	McVenes	RTCA, Inc.
Andrew	Roy	Aviation Spectrum Resources, Inc.
Al	Secen	RTCA, Inc.
Jessie	Turner	The Boeing Company
Heidi	Williams	National Business Aviation Association

OTHER ATTENDEES:

Rich	Adler	Federal Aviation Administration
Robert	Bouza	Federal Aviation Administration
Gilbert	Ceballos	Federal Aviation Administration
Mike	Cramer	The MITRE Corporation
Seth	Frick	Honeywell International
Steve	Horvath	Garmin, Ltd
Sai	Kalyanaraman	Collins Aerospace
Bob	Lee	GXA Consulting
Jamie	Lutkus	Astronautics
Sam	Masri	Honeywell International
Ellen	McGaughy	Collins Aerospace
Rebecca	Morrison	RTCA, Inc.

Dave	Nakamura	The MITRE Corporation
Siobvan	Nyikos	The Boeing Company
LtCol	Patton	U.S. Air Force
Brent	Phillips	Federal Aviation Administration
Dave	Pierce	GE
Di	Reimold	Federal Aviation Administration
Steve	Rines	Safran
Adam	Robertson	Fortem Technologies
Jean-Luc	Robin	Airbus
Aloke	Roy	Honeywell International Inc.
Paul	Siegmund	Federal Aviation Administration
Brandon	Suarez	General Atomics
Brandi	Teel	RTCA, Inc.
Alain	Vallee	EUROCAE
Steve	Van Trees	Federal Aviation Administration
Jim	Williams	Aura Network Systems
Janet	Young	Federal Communications Commission

PMC ACTION ITEM TABLE

TRACKING NUMBER (Meeting Date and agenda item from which original action resulted)	ACTION	ACTION ASSIGNED TO	DUE DATE	STATUS
03/18/2021 Agenda Item 7D	03/18/2021 – Add ICAO representative to PMC invite 06/17/2021 – Initial contact made, still coordinating 09/16/2021 – Still awaiting input 12/16/2021 – Still awaiting input 03/17/2022 – Reported closer to getting a name 06/23/2022 – More follow up needed	Terry McVenes & Andy Roy	Sep 2022	Open
09/16/2021 Agenda Item 5E	09/16/2021 – Reach out to DAC for their action on spectrum & surveillance activities 12/16/2021 – Contact with new AAAC Chair – more to follow 03/17/2022 – Still being coordinated 06/23/2022 – Ongoing monitoring	Terry McVenes	Sep 2022	Open
12/16/2021 Agenda Item 5B	12/16/2021 – Presentation to ICAO Spectrum Panel on activity, SC formation, etc. 03/17/2022 – Being coordinated 06/23/2022 – Still in coordination	Terry McVenes, Al Secen, and Andy Roy	Sep 2022	Open
12/16/2021 Agenda Item 6I	12/16/2021 – Regroup between Secretariats on way forward on SC-240/WG-117 03/17/2022 – Conditional approval of revised TOR – more work needed 06/23/2022 – Workshop held for inputs	RTCA and EUROCAE Staffs & SC-240 Leadership	Sep 2022	Open
03/17/2022 Agenda Item 3A	03/17/2022 – SC-159 Review TOR for tasks/references to Russian related work and make appropriate recommended revisions 06/23/2022 – Accomplished and no action needed	SC-159	Jun 2022	Closed
03/17/2022 Agenda Item 4A & 6D	03/17/2022 – Further refinement of SC-228 TOR Rev 14 (to include AAM White Paper) 06/23/2022 – Accomplished and sent to RTCA for action	SC-228 Leadership	Apr 2022	Closed
03/17/2022 Agenda Item 5D	03/17/2022 – Provide means for PMC members to further review DESIDE application and provide feedback to RTCA staff 06/23/2022 – Being worked	Securboratorion	Sep 2022	Open

03/17/2022 Agenda Item 5D	03/17/2022 – Investigate way forward on DESIDE program within RTCA	RTCA Staff	Sep 2022	Open
03/17/2022 Agenda Item 6D	03/17/2022 - Conduct electronic OOC ballot on SC-228 Rev 14 TOR 06/23/2022 – Completed and approved 04/07/2022	Karan Hofmann	Apr 2022	Closed
03/17/2022 Agenda Item 6E	03/17/2022 – Ad Hoc to address SC-239 TOR – realistic goals and timeline 06/23/2022 – Action moved to ICC	Terry McVenes & Di Reimold Lead	Apr 2022	Closed
06/23/2022 Agenda Item 6C	06/23/2022 – Possible SC-216 adjustments to new TOR in coordination with EUROCAE WG-72	SC-216	Sep 2022	Open
06/23/2022 Agenda Item 5J	06/23/2022 – ICC to address SC-239 TOR revision	ICC	Sep 2022	Open
06/23/2022 Agenda Item 6F	06/23/2022 – SC-135 clarify to PMC on EVTOL concern and possible change to DO-160	SC-135	Sep 2022	Open