

**RTCA PROGRAM MANAGEMENT COMMITTEE
MEETING SUMMARY
June 27, 2024**

The RTCA Program Management Committee (PMC) convened in a hybrid format at 8:30 a.m. EDT on June 27, 2024, 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. Chair Hegarty welcomed the group, asked attendees to introduce themselves and to note their organization of affiliation
- B. Acting Secretary Morrison reviewed the anti-trust statement, proprietary policy, and membership policy.

AGENDA ITEM 2: WELCOME AND INTRODUCTIONS

A. Meeting Summary March 14, 2024

With a motion from GAR DeCleene and seconded by Member Madden, the March 14, 2024 meeting summary was approved with edits.

B. Administrative Terms of Reference Changes

With a motion by Member McDowell and a second from Member Hahn, the following administrative Terms of References (ToR) changes were approved:

- SC-223, Internet Protocol Suite (IPS) and AeroMACS – Leadership Change
Jonathan Graefe of Collins Aerospace was approved to replace Dongsong Zeng, formerly of MITRE, as Chair of SC-223.

Chair Hegarty thanked Dr. Zeng for his years of service on many RTCA activities.

- SC-230, Airborne Weather Detection Systems – Co-Chair Change
Venkata Sishtla of Collins Aerospace has been selected to replace Jeff Finley (retiring) of Collins Aerospace as co-chair of SC-230 and the phone number corrected as directed.

Chair Hegarty thanked Jeff Finley for his years of service and sent best wishes on Mr. Finley's retirement.

- SC-240, Aviation Software Standards – Secretary Change
Eric Lieberman of Boeing has been selected to replace Andrew Hoag of Aireon as Secretary of SC-240 with a request to update the ToR to include Mr. Hoag's name as the previous secretary.

AGENDA ITEM 3: PUBLICATION CONSIDERATION / APPROVAL

A. DO-292A – Assessment of Radio Frequency Interference Relevant to the GNSS L5/E5A Frequency Band – Presented by SC-159, Navigation Equipment Using the Global Navigation Satellite System (GNSS)

No presentation was presented for this publication at the June 27, 2024, PMC meeting. It is expected to be presented at the September 26, 2024, PMC meeting.

B. DO-317C Change 1, MOPS for Aircraft Surveillance Applications (ASA) System–presented by SC-186, Automatic Dependent Surveillance – Broadcast

Dr. Lesley Weitz, SG-4 Task Lead of SC-186, presented.

Dr. Weitz presented that the scope in Change 1 of the ASA MOPS was to incorporate the CDTI Assisted Visual Separation (CAVS) requirements for departure operations which added a new class of equipment called Class 9. The change also incorporated minor editorial changes and updated the ASSAP Surveillance Processing Test data.

SC-186 received one comment on a section that was not in scope for this change, and it was captured as an action for a future document revision.

Lesson Learned: It is important to coordinate proposed timelines earlier with manufacturers for verification of data that was included. FAA resources were unclear for the future, so we wanted to get it done.

Only one non-concur was received and it was resolved. The effect across the document is limited. Aligns with content of the MOPS.

Member Barber said that Garmin reviewed the change document and found editorial issues. These have been incorporated.

Chair Hegarty asked for a motion to publish the document. Member Madden moved and Member Hahn seconded. The motion passed. Publication was delayed in order to coordinate with EUROCAE. RTCA will publish when EUROCAE has completed their work to publish the technically equivalent document.

C. DO-200C – Standards for Processing Aeronautical Data – presented by SC-217, Aeronautical Databases

Stephane Dubet, SC-217 Co-Chair, presented

This revision to DO-200B/ED-76A considers suggested changes from industry and authorities' experience and feedback, as well as the related regulation and technical standards. Several requirements that were reported as confusing or open to conflicting interpretations were clarified. A new Data Process Assurance Level (DPAL), 2B (Basic), was added between DPALs 2 and 3. A requirements identifier scheme was applied to the requirements in Section 2 of the document, along with

rules for how identifiers will be managed in future revisions, and the revision harmonized how requirements are defined in the body of the document with how they are used in the Appendix F objective tables. Additional adaptations to DO-330/ED-215 Tool Qualification objectives were defined in Appendix D, including a new set of adaptations related to external components. Terminology was clarified and harmonized across the document.

Note: Minor formatting updates have been submitted by Member Barber and the EUROCAE Secretariat. These updates have been incorporated in the version to provide to the store.

Co-Chair Dubet presented the details of the comments received and dispositioned by the joint committee.

GAR DeCleene moved and Member Barber seconded a motion to publish the document with the identified edits. The motion passed.

Co-Chair Dubet then raised an issue on a potential change to the work on DO-201C. He indicated that the requests were made by SC-227 SG-3 for digital charts. He let the PMC know that they will work with the leadership but may request help from the PMC in resolving the issue of the scope of the requirements.

PMC Chair Hegarty thanked Co-Chair Dubet and expressed the hope that SC-217 and SC-227 would be able to find a compromise.

D. DO-402 – *MOPS for Wireless Avionics Intra-Communication within 4200-4400 MHz* – presented by SC-236, Standards for Wireless Avionics Intra-Communication within 4200-4400 MHz

Ms. Morrison, SC-236 Program Director, said SC-236 is currently working with EUROCAE WG-96 to find areas of discussion to support continued comment resolution with the commenters from CTIA, GSA, and GMSA. An update is expected at the September 26, 2024, PMC Meeting.

AGENDA ITEM 4: INTEGRATION and COORDINATION COMMITTEE (ICC)

A. Review Process for Document Review

Clay Barber, ICC Chair, presented.

Process for document review was presented to the PMC March 14, 2024, and comments were solicited from PMC Members. Minor modifications were suggested by Member Barber. The updated process is posted on AerOpus.

PMC Chair Hegarty did bring up that we would need to consider a succession plan for leadership of the ICC as Member Barber's last PMC meeting will be in September 2024.

PMC Chair Hegarty thanked Member Barber for his leadership of the ICC over many PMC meetings.

Please see Agenda Item 7-F for discussion related to this agenda item.

AGENDA ITEM 5: PAST ACTION ITEM REVIEW

A. Update RTCA ToR Template to include Report Handling – Assigned to RTCA Secretariat – Assigned 12/2023

Karan Hofmann, PMC Secretary, presented.

Modifications to the Special Committee ToR template were presented to the PMC March 14, 2024, and comments were solicited from PMC Members. The received comments were incorporated into the Special Committee ToR Template and the updated template is posted on AerOpus.

Member Turner asked about when the ToR includes a change to an existing document. He commented that separate change pages was not optimal. He asked if in the future would consider publishing only integrated changes as the Change X of an RTCA DO.

Ms. Morrison noted that currently we need to publish separate pages to have a technically equivalent publication with EUROCAE on joint documents. However, RTCA will support both change pages and integrated changes if that is how the work is identified in the ToR.

Ms. Morrison indicated ToR updates will use the new ToR template starting in September 2024. She also encouraged PMC members to please send further updates to RTCA.

Action Closed.

B. Investigate Possible Export Control Restrictions with respect to RTCA Products– Assigned to RTCA Secretariat – Assigned 12/2023

Carol Huegel, RTCA President and CEO, presented as part of Agenda Item 7-A.

New Action Item: Distribute the new Export Compliance Policy at RTCA.

C. Post proposed published document review process for PMC members to review and provide comments – Assigned 03/2024

This document was posted on AerOpus on March 13, 2024, for PMC Member Review. Results of PMC Member review are captured in item 4-A.

Action Closed.

D. Add FRAC process (including dissenting process) to RTCA Web Site – Assigned 03/2024

This process was already posted on the RTCA website, however not in an intuitive location. It can now be found at <https://www.rtca.org/rtca-special-committee-process>.

Action Closed.

Action Item (not captured previously in the minutes) for PMC Members to review the information posted on the public website.

E. Report back to PMC on implementation of Ops Inputs to SC's – Assigned 03/2024 (Due 12/2024)

This action is not due until the December 12, 2024 PMC meeting.

AGENDA ITEM 6: OUT of CYCLE ACTIONS SINCE MARCH 2024 PMC MEETING

A. SC-244 Approval to Meet Pre-Terms of Reference Approval

Rebecca Morrison, RTCA Senior Director, Standards and Technologies, presented.

SC-244 was discussed at the March 14, 2024, PMC meeting, however RTCA was requested by EUROCAE to pause standing up the new Special Committee. Once EUROCAE was ready to move forward with WG-129, RTCA resumed the process of establishing a new Special Committee. A ballot was opened on March 28, 2024, for PMC members to vote on proceeding with holding the first meeting of SC-244 before the ToR was approved. The ballot closed on April 11, 2024 and 12 members voted to approve the commencement of the work and 6 comments were received. No votes were received to not approve the work.

This item is related to Agenda Item 7-O where further TOR updates for this PMC were approved.

AGENDA ITEM 7: DISCUSSION AND STANDING REPORTS

A. RTCA President's Report

Carol Huegel, RTCA President and CEO, presented the following information to the Program Management Committee:

RTCA President and CEO Huegel thanked the PMC members for their participation in the room and virtually. She provided a summary to the PMC of the RTCA activities that have been accomplished and what RTCA is working on between June and December.

RTCA has finalized its Inclement weather policy which will be shared in the updated Special Committee Guidance. In summary, in the event of inclement weather, RTCA reserves the right to revert an in-person meeting to a virtual meeting in the interest of safety. The in-person meetings will not transition to an alternative venue.

Next, President and CEO Huegel addressed the action to investigate whether Export Control/ITAR markings are needed on RTCA technical products. RTCA met with its General Counsel on June 25, 2025, and learned that no actions are required by RTCA. Rather, member organizations are required to properly indicate Export Control/ITAR information on their property. RTCA will work with its General Counsel to craft clear policy language on the point and will ensure alignment with EUROCAE's policy on the subject. President and CEO Huegel thanked Member Kauffman for raising the question.

Member Kauffman asked if there was need to mark information for export compliance before bringing it to RTCA, would the export classification be preserved.

President and CEO Huegel confirmed that it is appropriate for member organizations to mark information for export compliance before bringing it to RTCA.

Since the PMC in March, President and CEO Huegel continued meeting with members on her Listen and Learn Tour and values the learnings gained during each engagement. The tour included A4A, ALPA, ASTM and Flight Safety Foundation.

President and CEO Huegel indicated she is continuing to schedule visits to personally thank our members. She concluded with, "You are the reason we are here. As we look to the future – what might we do differently? What are the areas of improvement?"

President and CEO Huegel also mentioned highlights from the RTCA Board Meeting in February including the importance of the RTCA Advisory Board and how we might refresh that construct. The next Advisory Board meeting will be held at the end of July. RTCA is taking a look at the composition of the Advisory Board with an eye towards the stakeholders in the evolving aviation industry.

As part of RTCA's Strategic Plan, President and CEO Huegel mentioned a future Artificial Intelligence/Machine Learning workshop, essentially a follow up to the November 2023 workshop.

RTCA attended and/or sponsored several industry events since the March PMC with President and CEO Huegel attending the EUROCAE Symposium in April and the FAA/EASA Safety Conference in June. Additionally, Senior Program Director

Morrison attended ICNS, and Program Director Teel attended AUVSI XPONENTIAL.

RTCA participated in the AIA's Roadmap to 2028 in May which is now called the Spectrum Initiative of 2028 where our special committee related to the Radar Altimeter is of particular interest.

President and CEO Huegel turned to RTCA's plans for the remainder of 2024 which include continuing industry engagement at the ICAO AAM Symposium and the ALPA safety conference in September. She will moderate a panel at ICAO focused on the infrastructure and advanced technologies needed to implement AAM operations.

Ms. Huegel wrapped up her remarks with an invitation for all to attend the RTCA Annual Awards ceremony immediately following the PMC and noted that the William E. Jackson Award was being presented to a woman for only the 7th time in the history of the award.

B. FAA Actions Taken on Previously Published Documents – Report

Rob Bouza, FAA Representative, presented.

Mr. Bouza began by discussing the FAA Reauthorization Bill and said Section 224 was in alignment with the FAA Order 8000.376 on the creation and use of consensus standards. Section 225 of the Bill includes language about voluntary consensus standards.

Mr. Bouza then communicated the FAA's plan for future use of RTCA technical products.

He let the PMC know that the FAA was encouraging applications to request a deviation to meet DO-260 Change 2 as published by RTCA.

He highlighted that the decision had been made to update the TSOs that call out documents produced by SC-228 on uncrewed systems. In addition, the use of the ACAS documents is one means of compliance. Finally, in the area of cyber security, the delay is not related to work being done by the AIR division of the FAA but is related to other work on the report.

Member Barber asked about AC 20-165C. The date had been 12/31/2024 and is now listed as 12/31/2025. Mr. Bouza indicated there had been delays and the new date is the current projected date.

PMC Chair Hegarty thanked Mr. Bouza for his report.

C. EASA Action Status Summary – Report

Hette Hoekema, EASA Representative, presented.

Mr. Hoekema apologized for the late delivery of the slides. RTCA confirmed the slides would be posted on AerOpus for PMC members.

Mr. Hoekema discussed updates to CS 25, CS-ETSO and CS-ACNS.

He indicated there would be a new ETSO-C219A for the Airborne Collision Avoidance System (ACAS) Xa/Xo. He provided a table indicating changes to CS-ETSO with changes including alignment with the FAA TSOs

Finally, he indicated that CS-ACNS Issue 6 was published in May 2024 related to ADS-C.

PMC Chair Hegarty thanked Mr. Hoekema for the information.

D. Special Committees - Chair's Reports – Review

Rebecca Morrison, RTCA Senior Director, Standards and Technologies, presented.

The Chair Reports were received from SC-135, SC-147, SC-159, SC-206, SC-213, SC-217, SC-222, SC-223, SC-227, SC-228, SC-230, SC-235, SC-240, SC-243, and SC-244.

Member Hahn asked about a lack of a Chair Report for SC-238 when you have a lack of a chair and the plan to identify a Chair.

Ms. Morrison said the search for a Chair for SC-238 was underway and hope to update at the September PMC.

E. International Coordination – Status Update

Alain Vallee (EUROCAE) and Rebecca Morrison (RTCA) presented.

Mr. Vallee discussed the publications from EUROCAE since the last PMC and the scheduled dates of the EUROCAE TAC and Council.

Ms. Morrison presented the activities RTCA is undertaking at ICAO including participation in the Frequency Spectrum Management Panel, the Remotely Piloted Autonomous Systems Panel, and President and CEO Huegel's panel at the ICAO AAM Symposium.

PMC Chair Hegarty thanked Mr. Vallee and Ms. Morrison for the updates.

F. Possible Documents for Review – Status Update

Rebecca Morrison led the presentation with support from Clay Barber addressing Agenda Items 4-A and 7-F.

The new process with comments was provided to PMC members.

Ms. Morrison presented all the documents currently ready for review to determine if updates are needed when the committee has been sunset. She highlighted that DO-311A (Rechargeable Lithium Batteries) and DO-372 (Considerations for Human Factors) were two examples. She asked if reaching out to the previous leadership was acceptable.

PMC Chair Hegarty noted that the GAR should also be included in the communication.

Mr. Bouza requested that for DO-311A, it might be better to wait until after the AC comments are received by the FAA. The FAA requested to include GAR DeCleene, Mr. Bouza, and Ms. Cecelia Shaw on any communication sent out.

PMC Chair Hegarty thanked Member Barber and Senior Director Morrison for the presentation.

G. SC-186 - Automatic Dependent Surveillance-Broadcast- Revised ToR

Jessie Turner, Chair of SC-186, presented.

The FAA GAR asked SC-186 if they could draft a change document, which would be Change 2 of DO-260C, focused on test procedures in DO-260C. This will include updates to Section 2.4. The change document is targeted to be complete by the end of the year.

Chair Hegarty called for a motion to approve the ToR change. Member McDowell moved and Member Kauffman second.

The ToR update was approved.

H. SC-214 – Standards for Air Traffic Data Communication Services – Revised ToR

Claire Robinson, Chair of SC-214, presented.

Chair Robinson presented that SC-214 is seeking to add a document: DO-353B Change 1 to close FRAC September 2024. Updates to the scope that is joint with EUROCAE WG-92 are expected this year.

Member Barber noted that the slides presented have a conflict with the date in the ToR as provided to the PMC.

Chair Robinson indicated the plenary to complete the document will take place in October of 2024.

Ms. Morrison indicated that RTCA will work with the committee to be prepared for the December PMC.

Chair Hegarty asked if the FRAC will be completed in October of 2024.

Chair Robinson said yes.

Member Kauffman moved to approve the ToR with the October 2024 FRAC completion date. Member Madden seconded. The motion passed.

I. SC-216 – Aeronautical Information Systems Security - Revised ToR

Patrick Morrissey and Siobvan Nyikos, Co-Chairs of SC-216, presented.

Co-Chair Nyikos and Co-Chair Morrissey presented that the group is seeking adjusted dates for all deliveries. They are also requesting to add two new documents, one of which is an RTCA Report, and Reports do not require a FRAC. The other is DO-356A Change 1. All work is joint with EUROCAE WG-72.

Member Madden asked why the update to DO-355 is so far in the future.

Co-Chair Morrissey answered that there are some resource issues, and some new guidance will be issued with Datalink Security (DSEC) elements.

Member Madden asked if more operators were needed to support the work.

Co-Chair Morrissey and Co-Chair Nyikos said yes.

Member Madden asked if more operator support was provided, would that decrease the timeline.

Co-Chair Morrissey indicated they needed participants who would be willing to take on writing assignments.

Member Kauffman asked for more information on the scope of all networks on the aircraft or just part of them. He noted that coordination with other SCs is not mentioned.

Co-Chair Nyikos answered that there is coordination with other EUROCAE and RTCA groups including the IPS SC and there is a formal liaison with S-18.

Mr. Hoekema asked if the group was fully joint with EUROCAE WG-72.

Program Director Hofmann said yes.

Mr. Hoekema asked why the FAQ for DO-356A was going to be a Report and not an appendix to DO-356A so that a user wouldn't have to look at two documents.

Co-Chair Nyikos answered that SC-216 is trying to meet an immediate need. Only a handful of aircraft have gone through the DO-356A process. We do not want to iterate the document too quickly while members are focusing on the implementation of DO-356A.

Mr. Hoekema thanked the chairs for the information.

Member Hahn moved to approve the ToR as presented and it was seconded by Member McDowell. The motion passed.

J. SC-228 – Minimum Performance Standards for Uncrewed Aircraft Systems - Revised ToR

Jim Williams, Co-Chair of SC-228, presented.

Co-Chair Williams opened by saying that SC-228 is seeking to change the dates of DO-366B, the Detect and Avoid Radar MOPS and DO-YYY, C2Link MOPS using Cellular Networks. A second version of the ToR was provided to the PMC to be sure the changes from Rev 17 approved in February 2024 were correctly identified.

SC-228 is currently working in three working groups as WG-3 completed work on Lost Link Procedures. The SC remains in need of secretaries for its two working groups and invited interested members to join committee leadership.

Co-Chair Williams noted that coordination still hasn't occurred with EUROCAE, and SC-228 does not have a plan for making the standard a joint document. He said that DO-366B will need to be aligned with the ACAS Xr MOPS.

The Cellular MOPS is unusual for a MOPS. Working on this as a joint document with EUROCAE has been challenging. Currently, there is no specific plan for how to validate the MOPS. Amazon Prime Air is a driving force for this document, and SC-228 has requested that they perform the validation. They will need extra time to get it squared away.

Member Kauffman asked what the FAA position is on using commercial cellular networks for this purpose.

Co-Chair Williams responded that yes, it has been broached and there is some policy that deals with this. The FAA dealt with this some time ago and their position is to bring us a C2 Link position and a safety case that justifies it. The FAA has approved multiple delivery organizations with waivers where the link is based on cellular and a safety case related to it. No unified policy from the FAA to indicate

how to proceed. The FAA and Canada both want this MOPS and are providing guidance on what is needed from this document.

DO-377B is not adopted by the FAA. Some companies use it, and some don't. The approval mechanism for C2 datalinks is still evolving. There will be new regulations for "medium" aircraft (Part 108) which will contain more precise language around this and will hopefully shrink the trade space.

Member Kauffman then asked if SC-228 will need to update DO-377() when the guidance comes out as the FAA solidifies on what is acceptable.

Co-Chair Williams answered that yes, an update will be needed. Once it is used there will be things that need to be corrected. Here is how you would apply the concepts in DO-377B. Until we have more experience, it is currently too soon for a revision. Stability is needed in the way things are being designed and approved.

GAR DeCleene then added that the spectrum regulations are separate and distinct from safety regulations. The FAA proposes no requirement, and the applicant comes forward for evaluation on what is proposed. The products of SC-228 are not invoked as requirements anywhere. They are recognized as means of compliance.

Member Roy then asked if there was any participation from the industry. He noted that the ICAO FSMP is readdressing the Spectrum Handbook, and one question to address is whether ICAO can devise a policy on this.

Co-Chair Williams answered that the cellular carriers are not participating directly. He noted it was difficult bridging the two industries. Michael Neel, a contractor for the FAA, is deeply engaged in the creation of this document and helps FAA on the FSMP. Bridging should be taking place through him.

Member Roy highlighted, as always, that there are safety and non-safety uses and coordinating that with the ITU.

Co-Chair Williams closed by expressing that SC-228 hopes to go into Active Monitor Mode at the end of 2025.

Chair Hegarty called for a motion to approve the ToR.

Member Hahn moved, and Member Turner seconded the approval of the ToR as presented for the change in dates.

Chair Hegarty said the ToR change was approved, but the PMC would not approve of Co-Chair Williams ever retiring. Chair Hegarty thanked Co-Chair Williams for his work.

K. SC-231 – TAWS – Revised ToR

Yasuo Ishihara, Co-Chair of SC-231, presented.

Co-Chair Ishihara presented the ToR asking the PMC to change the status of the group to Active. The new technical product will be an RTCA Report.

Member Kauffman asked if the low energy approach is related to the work of SC-244.

Co-Chair Ishihara answered that it is completely separate and there is a CAST issue related to the low energy approaches.

GAR DeCleene asked that his name be taken out of the ToR as requestor, but acknowledge this effort is at the request of the FAA.

Mr. Hoekema noted that the report is not from EASA, but rather the BEA in France which is addressing an incident that occurred at the Charles de Gaulle Airport.

GAR DeCleene moved to approve the ToR as written. Member Kauffman seconded the motion. The ToR was approved.

L. SC-239 – Low Range Radar Altimeter – Update

Seth Frick and Jean-Luc Robin, Co-chairs of SC-239, presented.

Co-Chair Robin initiated the presentation and highlighted that there is no update on the status of DO-399/ED-310 and the group looks to the PMC to give them direction on what to do next.

He maintained that the progress on the Low Range Radar Altimeter MOPS continues. He believes there is sufficient content to enter a review and comment (RAC) on many of the requirements, but there are still technical risks to entering a RAC on the full draft document. For example, there is a challenge to capturing the requirements for the antenna. He said that this week, the group received excellent input from the antenna manufacturers, and noted that there has been better engagement with antenna manufacturers than has been in a long time and the input now received is based on specific details.

Co-Chair Frick then described the efforts of the group to update the ToR. Comments on the proposed ToR were of a more substantial nature than could be addressed in advance of the PMC. There was discussion about limiting the scope of the update to only modifying the date to complete Final Review and Comment (FRAC) on the MOPS, however no consensus was reached on the approach. The feedback received so far is concerned with the schedule and the extent of validation needed to publish a MOPS and how long that effort will take. It is possible the group may need to execute in a different manner depending on the outcome with the ToR.

Member Turner asked if the committee made the decision that both the transceiver and antenna must be updated to meet the intent of what you are trying to do.

Co-Chair Frick answered that yes, when it comes to RF Interference Tolerance, there is only usefulness if it is defined at a whole system level with both the transceiver and the antenna and he believes there is agreement on that. He continued that to what extent we need to pursue potential improvements, that is a little bit up in the air. The Chairs are trying to complete due diligence and explore what can be done with the antenna as the group believes they are at the limit on what can be accomplished at transceiver, but there is still some room for improvement in antenna requirements. Publishing interference for the transceiver alone would be detrimental to the goals of spectrum compatibility, and it is important to have the antenna considered.

Co-Chair Robin concurred with Co-Chair Frick on the need for a global system interference tolerance mask (ITM).

Mr. Hoekema of EASA asked the co-chairs three questions:

1. Are you still working on a single MOPS?
2. Can you confirm you are working within the scope of the Terms of Reference?
3. What is the plan if there is no consensus?

Co-Chair Frick answered that yes, the scope defined in the current ToR except for the dates is being worked. He said that the feedback includes adding deliverables, but there is no consensus yet. A new deliverable was proposed as a mitigation plan, but he didn't know whether it would be an outcome or not. Co-Chair Frick said the understanding of the joint group is that the ToRs are aligned.

Ms. Morrison and Mr. Watson confirmed the ToRs are aligned.

Mr. Hoekema added from a European regulatory perspective we have no interest in adding additional deliverables. We would like to see one MOPS delivered.

Co-Chair Frick asked if Mauro Pagliarini of EASA would be communicating that in the committee and Mr. Hoekema said yes.

Co-Chair Frick continued that the MOPS development scope would be the same regardless of the ToR changes. There is no plan to include a validation baseline, but validation efforts may delay the commencement of FRAC.

Chair Hegarty thanked Chair Frick and Chair Robin for their updates and work and remarked that RTCA has some slides to present.

President and CEO Huegel also thanked the Co-Chairs and the entire committee for their herculean efforts and then stated that RTCA would like to recommend that the PMC establish an ad hoc to support SC-239 and their effort to reach consensus on

the ToR change(s). She then asked Ms. Morrison to present a slide RTCA prepared for the discussion.

Ms. Morrison observed that SC-239 has been unable to reach consensus over several months and appears stuck. She shared that:

- The members no longer agree on the appropriate scope and technical products for RTCA to create to integrate Radar Altimeters into the global airspace
- While SC-239 and WG-119 are making progress defining technical requirements and test procedures, TWO contentious issues have been identified
 - level of validation needed on requirements and test cases
 - whether the ITM can be finalized prior to finalizing performance requirements

She further stated that RTCA is asking the PMC to help SC-239 capture the right technical products and obtainable dates for their work. Specifically, RTCA asked to engage the PMC and the TAC to identify (1) at strategic level, the desired technical products, (2) the level of requirements validation needed, and (3) expected delivery dates

Member Hahn requested the floor and said that he was a participant in the work of SC-239 and echoed the amount of effort that is occurring. The question of validation level is critical for this case. The world, including the wireless industry, is looking at the MOPS, ITM and everything else. This puts the SC in a position that it needs to get it correct the first time and not wait until a second revision of the MOPS that has that validation.

Chair Hegarty suggested more time was needed to discuss the issue.

Member Kauffman requested the Ad Hoc receive input on what has already been discussed among the SC members.

Chair Hegarty agreed with RTCA's suggestion for the PMC to create an Ad Hoc to address these issues in detail. He suggested that the Ad Hoc could meet with the committee leadership and asked which PMC members were interested in participating.

Chair Hegarty stated that it was critical for the aviation regulators to be involved as well. He asked if the FAA and EASA representatives would participate, and GAR DeCleene and Mr. Hoekema responded affirmatively.

Chair Hegarty asked for volunteers to join him on the Ad Hoc. Members McDowell, Barber, Hahn, Kauffman, Maden, and Turner said yes.

Chair Hegarty asked RTCA to schedule working sessions.

Member Roy asked if the Ad Hoc should meet with the EUROCAE TAC at the same time. There was a discussion about how to invite the TAC to join the Ad Hoc.

Mr. Watson indicated there may need to be an Ad Hoc TAC meeting to agree on the plan.

Ms. Morrison and Mr. Watson agreed to coordinate.

M. SC-239 – Low Range Radar Altimeter - Revised ToR

No presentation was made to revise the ToR. See Agenda 7-L for discussion.

N. SC-243 – Airborne Electronic Hardware (AEH) Development Assurance – Initial ToR

Rebecca Morrison, RTCA Senior Director, Standards and Technologies, presented.

The ToR, as presented at the March 14, 2024, is amended to reflect the leadership selected by RTCA:

Chair Karen Brack, Boeing
Secretary Kelly Kinnard, Joby Aviation

This group works jointly with EUROCAE WG-128.

Member Barber had provided an update to the secretary's email address in the ToR.

GAR DeCleene moved to accept the ToR with the corrections and Member Barber seconded. The ToR update was approved.

O. SC-244 – Take-off Performance Monitoring System Strategy – Initial ToR

Karan Hofmann (SC-244 Program Director) and Thomas Landers (SC-244 Chair Elect) presented.

The group requested approval of an initial ToR which addresses comments from PMC Members as well as improvements made by the members of SC-244 during the plenary session. This group works jointly with EUROCAE WG-129.

Chair Hegarty asked if Mr. Landers had a preview to give the PMC for what the internal report would say.

Mr. Landers replied that he thinks that the group will request to develop a standard for this technology.

GAR DeCleene moved to approve the ToR and Member Turner seconded. The ToR was approved.

Chair Hegarty thanked Ms. Hofmann and Mr. Landers for the presentation.

AGENDA ITEM 8: OTHER BUSINESS

A. DO-220B with Errata - Minimum Operational Performance Standards (MOPS) For Airborne Weather Radar Systems with Errata – Presented by SC-230, Airborne Weather Detection Systems

Jeff Finley (retiring Co-Chair SC-230), Dawn Gilder (Co-Chair SC-230), and Venkata Sishtla (Co-Chair SC-230 Elect), presented.

Mr. Finley presented slides on the details of the errata. After publication, it was discovered there were errors in electronic cross-referencing in the initial release of DO-220B. It is necessary to publish DO-220B with errata. The errata includes information detailing the changed cross references.

Mr. Bouza inquired if the document was in the RTCA store yet, and Ms. Hofmann clarified it will be in the store after approval.

Member Hahn moved to approve the publication and Member Wright seconded. The motion passed unanimously.

Chair Hegarty thanked Mr. Finley, Mr. Sishtla, and Ms. Gilder. He wished Mr. Finley well in his retirement.

B. Report on the World Radio Conference 2023 (WRC-2023)

Andy Roy, PMC Member, presented.

World Radio Conference 23 (WRC-23) took place in Dubai in 2023. The slides presented provided a link to the final acts that were published by the WRC-23. Several topics that are of interest to aviation were discussed, including:

- Space Planes – No agreement on the border to space. No agreement between terrestrial and space domains. May come back, but no intent to continue it.
- VHF Aero SATCOM allocation benefit. Approved SATCOM allocation. This is being worked at SARPS level and ICAO and there is no action for RTCA and EUROCAE at this time, but long term the minor modifications to Appendix 27 may lead to updated standards
- UAS C2 SATCOM. Use existing Ku and Ka SATCOM without a safety allocation.

With respect to the UAS C2 SATCOM, Member Roy elaborated saying there is political opposition. Some countries see this as military not commercial. We should see if there is any aeronautical safety spectrum that could be used for this. May be a sharing study. Resolution 155 allowed some interim process. Perhaps that resolution is suppressed given this outcome.

Member Roy highlighted the GPS Resolution which may deny access to GPS Regional conflict that is not happening at the moment.

Member Roy then highlighted topics that will be considered WRC-27 that are of interest to aviation including.

- 6G in the 4 400-4 480 MHz except in the US.
- 7125-8400
- Shared band 4.2-4.4 GHz – satellite
- Review HF
- SATCOM cell phone 695-2700 MHz

Member Turner asked about Agenda Item 1.7 – Except the Americas What drove that? US and other concerns have exceptions for Region 2 (Americas). Still going to be treated as global consideration.

Member Kauffman asked if Member Roy was planning to present this to relevant committees like SC-238 and SC-242.

Member Roy answered that SC-239 already know about it. SC-242 may benefit from the high-level situational awareness of this presentation.

Member Roy highlighted that SC-230, Airborne Weather Detection Systems, would be affected by the discussions regarding 8.4 GHz. SC-230 is having problems getting validation tests done as the timeline is challenging to complete.

Chair Hegarty thanked Member Roy for his report.

Chair Hegarty called for any new business for the Program Management Committee. No new business was received.

AGENDA ITEM 9: SCHEDULE for COMMITTEE DELIVERABLES and NEXT MEETING DATE

The following documents are scheduled to be presented at the September 26, 2024 PMC meeting for publication.

SC #	Committee Name	Document
SC-159	Navigation Equipment Using the Global Navigation Satellite System (GNSS)	DO-292A (Updated L5 interference environment report)
SC-213	Enhanced Flight Vision Systems/Synthetic Vision Systems, (EFVS/SVS)	DO-407 MASPS for SVS/SVGS/CVS
SC-213	Enhanced Flight Vision Systems/Synthetic Vision Systems, (EFVS/SVS)	DO-408 MASPS for EVS/CVS/EFVS

SC #	Committee Name	Document
SC-214	Standards for Air Traffic Data Communication Services	DO-280B: INTEROP for Aeronautical Telecommunication Network Baseline 1 (ATN B1 Interop Standard) Change 2
SC-214	Standards for Air Traffic Data Communication Services	DO-351B, Interoperability Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 Interop Standard) Change 1
SC-216	Aeronautical Systems Security	DO-326B, Airworthiness Security Process Specification
SC-223	Internet Protocol Suite (IPS) and Aeronautical Mobile Airport Communication System (AeroMACS)	DO-379A Technical Standard of Aviation Profiles for Internet Protocol Suite Update
SC-235	Non-Rechargeable Lithium Batteries	DO-227B - MOPS For Non-Rechargeable Lithium Batteries
SC-236	Wireless Avionics Intra-Communication System	DO-402 MOPS for Wireless Avionics Intra-Communication within 4200-4400 MHz

Scheduled PMC Meetings:

- September 26, 2024
- December 12, 2024
- March 13, 2025
- June 26, 2024

AGENDA ITEM 10: SUMMARY of ACTION ITEMS TAKEN DURING MEETING

New Action Item: RTCA to Coordinate with EUROACE on a doodle pole for scheduling an entirely virtual Ad Hoc meeting.

Follow on Action: RTCA to provide the wording for the export compliance policy at RTCA.

In a review of the draft minutes, Member Barber noted a missed Action Item to review the information on www.rtca.org for the Special Committee process and the comment resolution process during Final Review and Comment. This action item is added to the September 26, 2024 minutes of meeting for the Program Management Committee.

The PMC meeting was adjourned at 1:30 p.m. EDT.

Program Management Committee – June 27 ,2024

ATTENDANCE LIST

PMC MEMBERS: (ATTENDEES IN BOLD)

Dr. Christopher	Hegarty	The MITRE Corporation
Carleen	Adams	Federal Aviation Administration
Clay	Barber	Garmin, Ltd.
Bruce	DeCleene	Federal Aviation Administration Government Authorized Representative
Edward	Hahn	Air Line Pilots Association
Jens	Hennig	General Aviation Manufacturers Association
Karan	Hofmann	RTCA, Inc. Secretary
Carol	Huegel	RTCA, Inc. President and CEO
Donald	Kauffman	Honeywell International, Inc.
Matt	Langridge	Gulfstream Aerospace Corporation
Justin	Madden	Airlines For America
Jim	McClay	Aircraft Owners and Pilots Association
Mike	McDowell	Collins Aerospace
Nancy	Mendonca	National Aeronautics and Space Administration
Andrew	Roy	Aviation Spectrum Resources, Inc.
Greg	Schwab	Federal Aviation Administration
Jeff	Troy	Aviation Information Sharing and Analysis Center
Jessie	Turner	The Boeing Company
Heidi	Williams	National Business Aviation Association
Edgar	Wright	U.S. Air Force

OTHER ATTENDEES:

Jason	Brez	FAA
Robert	Bouza	FAA
Barbara	Clark	FAA
Ben	Cluff	CASA (Australia)
Stephane	Dubet	DGAC
Jeff	Finley	Collins Aerospace
Seth	Frick	Honeywell International, Inc
Stephen	George	FAA
Dawn	Gidner	Oliver Wyman LLC
Hette	Hoekema	EASA
Steve	Horvath	Garmin, Ltd
Yasuo	Ishihara	Honeywell International, Inc

Program Management Committee – June 27 ,2024

ATTENDANCE LIST

Dr. Sai	Kalyanaraman	Collins Aerospace
Gregory	Kendrick	Air Line Pilots Association
Tom	Landers	Gulfstream Aerospace Corporation
Rose	Merchant-Bernard	MB Consulting
Rebecca	Morrison	RTCA, Inc
Patrick	Morrissey	Collins Aerospace
Siobvan	Nyikos	The Boeing Company
Jean-Luc	Robin	Airbus
Claire	Robinson	Universal Avionics
Cecelia	Shaw	FAA
Paul	Siegmund	FAA
Alain	Vallee	EUROCAE
Stephen	Van Trees	FAA
James	Venslauskas	RTCA, Inc
Mark	Watson	EUROCAE
Lesley	Weitz	The MITRE Corporation
Christer	Wilkinson	AECOM
Jim	Williams	JHW Unmanned Solutions