RTCA PROGRAM MANAGEMENT COMMITTEE
MEETING SUMMARY
September 10, 2020

The RTCA Program Management Committee (PMC) convened virtually at 8:30 a.m. on September 10, 2020. The attendance list and action items are attached.

AGENDA ITEM 1
Welcome and Introductions

A. PMC Chairman Dr. Chris Hegarty welcomed the group, asked attendees to introduce themselves and to note their organization of affiliation. Chairman Hegarty welcomed new PMC members Murray Huling (Aircraft Owners and Pilots Association) and Andrew Roy (Aviation Spectrum Resources, Inc.).

B. Al Secen (RTCA Vice President, Aviation Technology and Standards) reviewed virtual meeting procedures, the anti-trust statement, proprietary policy, and membership policy.

C. Terry McVenes (RTCA President) recognized two retiring long-time RTCA contributors - Captain Chuck Stewart (United) and Mr. Billy Martin (NIAR). Among their many achievements and recognition to the flying community, both have served as Chairmen of Special Committees and many other leading-edge groups. Their support will continue to advance the safety of the aviation industry for many years to come. Chairman Hegarty extended the thank you from the PMC.

AGENDA ITEM 2
Review / Approve

A. The summary of the June 11, 2020 meeting was approved (RTCA Paper No. 179-20/PMC-2040).

B. The following administrative Special Committee (SC) Terms of Reference (TOR) Revision was presented:

- SC-236 – Standards for Wireless Avionics Intra-Communication System (WAIC) within 4200-4400 MHz – New Secretary Dr. Dave Redman (from Aerospace Vehicle Systems Institute (AVSI)) (RTCA Paper No. 250-20/PMC-2070)

AGENDA ITEM 3
Publication Consideration/Approval

A. DO-382 (New Document) - *Minimum Aviation System Performance Standards for the Interoperability of CAS***, presented by SC-147, Traffic Alert & Collision Avoidance System (TCAS)**

- Garfield Dean, WG-75 Task Lead, presented.

This document presents high level requirements (i.e. Minimum Aviation System Performance Standards (MASPS)) for the interoperability of airborne Collision Avoidance Systems (CAS). Its main objective is to ensure that new CAS do not degrade the operation of existing CAS. It specifies system characteristics that should be useful to designers, manufacturers, installers and users of the equipment. When some requirements cannot be fully defined, explanatory text is included to describe the basis on which requirements are to be developed.

Compliance with these MASPS does not ensure that the equipment will be approved for operation. These MASPS do not address the functionality or performance of CAS beyond the requirement of interoperability between CAS. Minimum Operational Performance Standards (MOPS) address safety and operational suitability performance criteria. Any MOPS that are developed for a future CAS should use these MASPS as guidance for its interoperability with existing CAS. Regulatory application of this document is the sole responsibility of the appropriate regulatory authority,

This document went through two Final Review and Comment (FRAC) / Open Consultation (OC) cycles which the group believed helped improve the clarify the document.

- The PMC approved the document. It will be published as DO-382 concurrently with EUROCAE ED-264 (approved by the EUROCAE Council September 8th).

B. DO-374 Change 1 – *Safety, Performance and Interoperability Requirements Document Defining Takeoff Minima by Use of Enhanced Flight Vision Systems***, presented by SC-213 Enhanced Flight Vision Systems/Synthetic Vision Systems**

- Patrick Krohn, SC-213 Co-Chairman, presented.

This change page provides a replacement table for Table 1-1. There is no change to the content of the table. The table is modified to present the information in a more straightforward manner

- The PMC approved the document. It will be published as DO-374 Change 1.

C. DO-383 (New Document) – *Guidance on VDL Mode 2 Air/Ground Interoperability.* **presented by SC-214 Standards for Air Traffic Data Communication Services**

- Claire Robinson, SC-214 Chairman, presented.

In the VDLM2 environment where the protocol and infrastructure are a challenge in terms of interoperability, it is important to provide recommendations about how the ground systems are expected to behave and what is the expected avionics answer.

This joint document aims at defining a coordinated understanding of the ground behaviors in addition to the MOPS which are more related to avionics systems. In particular some out of sync cases have been identified in operations, showing a need for interoperability improvement.

This document supplements DO-224 MASPS applicable to ground systems, and the requirements in MASPS still apply. For airworthiness and TSO/E-TSO approval the MASPS have precedence over this document and avionics requirements are defined in the MASPS.

The main focus of the document is VDLM2, but it also addresses specific issues above VDLM2 when they are related to the VDLM2 operations.

- The PMC approved the document. It will be published as DO-383 concurrently with EUROCAE ED-276 (approved by the EUROCAE Council September 10th).

D. DO-355A – *Information Security Guidance for Continuing Airworthiness,* **presented by SC-216 Aeronautical Information Systems Security**

- Dave Pierce, SC-216 Chairman, presented.

The guidance provided by this joint document is intended to constitute an Acceptable Means of Compliance for approving information security aspects of Continuing Airworthiness activities performed by Design Approval Holders and Operators.

This document provides guidance for the operation and maintenance of aircraft and for organizations and personnel involved in these tasks. It is intended to support the responsibilities of the Design Approval Holder (DAH) to obtain a valid airworthiness certificate and aircraft operators to maintain their aircraft to demonstrate that the effects on the safety of the aircraft of information security threats are confined within acceptable levels. As all information security threats may have an intentional origin, this document also covers Intentional Unauthorized Electronic Interaction (IUEI).

- The PMC approved the document. It will be published as DO-355A concurrently with EUROCAE ED-204A (approved by the EUROCAE Council September 10th).

E. DO-366A - *Minimum Operational Performance Standards (MOPS) for Air-to-Air Radar for Traffic Surveillance,* **presented by SC-228 Minimum Performance Standards for Unmanned Aircraft System**

- John Moore and Brandon Suarez, SC-228 Co-Chairmen, presented.

This document contains the first update to the Minimum Operational Performance Standards (MOPS) for the air-to-air radar for traffic surveillance. The intended application is supporting Detect and Avoid (DAA) operations including collision avoidance to detect intruders below 10,000' Mean Sea Level (MSL). These standards specify the radar system characteristics that should be useful for designers, manufacturers, installers and users of the equipment.

The intended function of the radar is to detect and generate tracks for all airborne traffic within the radar detection volume. The onboard radar complements other airborne surveillance sensors by providing detection of non-cooperative traffic. The track should be established at sufficient range and with sufficient accuracy to enable the system to plan and execute a maneuver to keep the Unmanned Aircraft (UA) well clear of other traffic and avoid collisions.

This document has the detailed performance and environmental requirements of the radar along with their verification methods. Verification includes bench tests, flight tests and environmental tests. Recommendations and flight tests for installed performance are also provided.

- The PMC approved the document. It will be published as DO-366A.

An additional topic was brought up concerning a need for update to DO-346, Minimum Operational Performance Standards (MOPS) for the Aeronautical Mobile Airport Communication System (AeroMACS), developed by SC-223 and EUROCAE WG-82.

SC-228 WG2 is in the process of developing Compatibility Requirements to allow deployment of UAS C2 & Non-Payload Communications (CNPC) Terrestrial Systems operating in 5030-5091 MHz Band. AeroMACS systems operating in the 5000-5030 MHz and 5091-5150 MHz bands are also deployed. AeroMACS systems are protected from out-of-band spurious emissions from CNPC systems. However, the spurious emissions requirements in the DO-346 MOPS and FCC spurious emissions limits in NPRM FCC 19-53 for Part §87.606 are not adequate to protect DO-362A systems.

DO-228 requested to initiate a project to update DO-346 spurious emissions limits in close coordination with SC-223, WG-82 and all equipment OEMs that have fielded or proposed equipment under development. They stressed this update needs to occur quickly.

After discussion, PMC members recommended RTCA staff work coordination between SC-228 and SC-223 for possible work on DO-246 (action) by SC-223 and WG-82 of EUROCAE. This coordination should include Clay Barber (ICC Chairman) and Anna von Groote (EUROCAE Director Technical Programme). Once work begins on the document update, the FCC should be notified of the activity.

F. Report - Assessment of 5G Telecommunications Interference Impact on LRRA Operations, presented by SC-239 Low Range Radar Altimeter

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

In response to the March FCC 3.7-4.2 GHz band final Report and Order (R&O), the ICC Ad Hoc on Aviation Spectrum recommended tasking SC-239 to produce a report assessing 5G telecom potential interference impact on radar altimeter operations. The original delivery was set for late July, but testing complications and slow coordination with the communications industry multi-stakeholder group delayed completion of the report. The group provided an update and requested approval of their aggressive path forward. Highlights of this timeline:

- Complete full draft report – 14 Sep
- SC-239 Complete Quick Turn Review – 17 Sep
- Open Commenting Period – 18 Sep to 25 Sep
- Complete Comment Resolution – 25 Sep to 4 Oct
- SC-239 Plenary to approve Report – 8 Oct
- PMC Approval of Report – 6 Oct to 7 Oct
- "Deadline" to Submit Report to FCC – 8 Oct

Although aggressive and everything would have to go perfectly to meet this new suspense, most members verbalized support. There was a question about the deadline – and it was clarified that the FCC hasn't given an actual due date for inputs, but there is a definite need to get the report to the FCC as soon as possible so that the input could be used for the upcoming auction of spectrum to the 5G community. It was recommended to have a FRAC training session for the communication industry participants, as they are not familiar with the process.

Members recognized the hard work by the team. It was recommended that the executive summary be written at a sufficiently high level so that the 5G community and the general public would understand the impact of the report findings, as the importance of radar altimeters is not well understood outside of the aviation community. It was also pointed out there is a lot of interest internationally in this spectrum issue.

Chairman Hegarty asked that PMC members be included in Open comment and the SC-239 Plenary notice. It was noted that a special PMC meeting might be needed following the electronic ballot. Additional notice should be included in the FCC ex parte.

Additionally, members recommended a possible discussion with FCC representatives to help explain the report once posted to the FCC in an ex parte.

- The presentation with approved activities and timeline is posted in workspace (RTCA Paper No. 240-20/PMC-2064).

AGENDA ITEM 4
Integration and Coordination Committee (ICC)

A. MASPS Mitigation Wording Clarification

- Clay Barber (ICC Chairman) and Rebecca Morrison (RTCA Program Director) presented.

As the RTCA staff continues updating the MASPS Drafting Guide, clarification on meaning is needed for the term "mitigation". ICC Chairman Mr. Barber agreed to review and assist as needed.

The following updates to the MASPS Drafting Guide were proposed:

- Consideration 1: The drafting guide should indicate that Section 2.3.3 Mitigation Means is meant to be included when a MASPS is being developed using the DO-264 guidelines. Otherwise, the section could be optional.

- Consideration 2: Some of the excerpts from DO-364 and DO-323 could provide insights into what is intended for external and internal mitigation means that could then be used to improve the drafting guide description.

The RTCA Program Directors agree with this guidance and will present the MASPS drafting guide to the PMC in December. Action closed.

AGENDA ITEM 5
Action Item Review

A.   Investigate Pulling Requirements from Documents and Making Available in Separate format - Discussion

- Karan Hofmann, RTCA Program Director, presented.

Work continues and progress is being made, things are a little slower with the current situation. Action still open.

B. Ad Hoc to investigate possible SMOPS Concept

- Al Secen (RTCA Vice President, Aviation Technology and Standards) presented.

Mr. Secen reported RTCA is working an experimentation possibly with SC-241. Action still open.

C. Document Configuration Management Procedure/Process

- Al Secen (RTCA Vice President, Aviation Technology and Standards) presented.

Mr. Secen reported work continues on a document review process similar to the EUROCAE 5-year review by their TAC. RTCA is assembling a listing of documents to review (those referenced in TSO's over 5 years old). The tentative plan is to then have the PMC and originating SC (if still active or in active monitor mode) review. The FAA acknowledges RTCA's thinking and planning on this concept. Action still open.

D. SC-240 (Topics on Software Advancement) TOR Word Refinement

- Dr. Stephen Cook, SC-240 Chairman, presented.

SC-240 formation was approved at the March PMC meeting and their TOR was provisionally approved as coordinated with EUROCAE WG-117 at the June PMC meeting. However, there were two items of interest (addressing security and category scope) by PMC members and there was action for further discussion.

Dr. Cook reported back that at this time, SC-240 is not recommending that security be included in scope of its activities. However, the topic remains under discussion in both subgroups.

Additionally, he reported:
- SG-2 COTS/Open Source/Service History guidance applies to SG-1 Lower Risk guidance and the existing DO-178C/DO-278A suite of documents
- There is a desire to attract more stakeholders in the non-traditional aviation community
- The format of deliverables under discussion
- Plenary #3 will be held Sept 22-23

PMC members agreed sufficient investigation had been accomplished to satisfy the concerns. Action considered closed.

E. Ad Hoc for Spectrum Strategy Follow Up

- Terry McVenes, RTCA President, presented.

Mr. McVenes provided a report on the activities of the Ad Hoc for Spectrum Policy. The group met every other week. Among other topics, the Ad Hoc discussed who RTCA should engage with (e.g., Ligado, CTIA (with Max Fenkell as good liaison), and engineering teams and government affairs offices). The group agrees RTCA should hold to technical truths from a safety perspective. It was agreed that this Ad Hoc will continue at least through the next PMC meeting to be available as needed through the filing of the SC-239 report to the FCC in an ex parte.

F. Review ISRA Process and Ensure Definition of Closure Procedure

- Rebecca Morrison, RTCA Program Director, presented.

RTCA Staff proposed a procedure to ensure closure of ISRA's (of which most are associated with document publication). PMC members agreed on the process. Action closed.

- The presentation is posted on Workspace (RTCA Paper No. 234-20/PMC-2059).

G. Solicit Support for Clean Cockpit and Aircraft SC

- Al Secen, RTCA Vice President, Aviation Technology and Standards, presented.

A message was sent out June 26th and RTCA received letters of support from 6 organizations. Action closed.

H. Follow Up Package for Clean Cockpit and Aircraft SC

- Al Secen, RTCA Vice President, Aviation Technology and Standards, presented.

TOR was drafted for creation of SC-241 and a PMC electronic ballot was conducted July 22nd – 28th. It was approved with all comments resolved on July 30th. The new SC held its first Plenary August 20th with 26 organizations represented. Action closed.

AGENDA ITEM 6
Discussion.

A. SC-214 – Standards for Air Traffic Data Communication Services– Revised TOR

- Claire Robinson (SC-214 Chairman) and Thomas Mustache (SC-214 Government Authorized Representative) presented.

The group requested a delay in delivery for DO-224D (MASPS) and DO-281C/ED-92C (MOPS) from Dec 2020 to Dec 2022. This delay is caused by dependency on IPS (e.g. requirements associated with performance, security, etc.). There is also a new SC-214 Chairman, Claire Robinson from Spectralux replacing retiring Captain Chuck Stewart from United Airlines.

- The revised TOR was approved (RTCA Paper No. 248-20/PMC-2068).

B. SC-217 – Aeronautical Databases – Revised TOR

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

In their Active Monitor Status, the group worked jointly with EUROCAE WG-44 and had several meetings to gather proposals and information on potential work topics. They presented a revised TOR that included a new document to address industry needs for clarification around data alteration (which will be a joint effort) as well as revisions to DO-220B and DO-201B.

- The revised TOR was approved (RTCA Paper No. 249-20/PMC-2069).

C. FAS Errata – Presentation

- Rebecca Morrison, RTCA Program Manager, presented.

The FAS has reviewed all RTCA and EUROCAE software-related documents and have proposed errata items. The actual inputs need to be made available to PMC members for their review (action) and then conduct electronic ballot for release (action).

D. FAA Actions Taken on Previously Published Documents – Update

- Robert Bouza (FAA) 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. Original document is posted in Workspace (RTCA Paper No. 215-20/PMC-2053).

FAA Published Guidance (Since Previous PMC)

RTCA Document	Developed By	FAA Guidance	Approval Date	Comment
DO-358A – MOPS FIS-B	SC-206	TSO-C157c	June 30, 2020	Published 06/30/2020

RTCA Published Documents - FAA Pending Guidance

RTCA Document	Developed By	FAA Guidance	Planned Release Date	Comment
DO-380 – Environmental Conditions and Test Procedures for Ground Equipment	SC-135	AC 21-NN	December 2021	AC-21-NN is the ground equipment environmental qualification counterpart of AC 21-16G for DO-160G. DO-380 is also recognized by UAS RTCA DO-362A C2, DO-365A DAA, draft TSO-C211a DAA, draft TSO-C213a C2, draft AC 20-187A C2, and draft AC 20-DAA.
DO-385 MOPS for ACAS Xa System and ACAS Xa/o Functionality (Class 1 ACAS X & Class 2 ACAS X)	SC-147	AC 20-XXX	December 2021	AC not yet started; TSO-C219 issued in February 2020 invokes DO-385. Comment: Performance standard and installation guidance for Class 1 ACAS X (basic collision avoidance functionality) and Class 2 ACAS X (closely spaced runway operations and do not alert).

DO-373, MOPS for GNSS Active Antenna in the L1/E1 and L5/E5A Bands	SC-159	TSO-C215	February 2022	TSO in development and dependent upon the publication of DO-292A. (Publication of DO-292A is expected 2021).
DO-229F - Minimum Operational Performance Standards for Global Positioning System/Satellite-Based Augmentation System Airborne Equipment	SC-159	None	N/A (Policy not intended)	DO-229F is technically equivalent baseline to DO-229E. Version F added requirements tags to establish means of document comparison.
DO-317C - MOPS for Aircraft Surveillance Applications (ASA) System	SC-186	TSO-C195c	June 2021	Adds Flight Interval Management (FIM) as a new ASA. DO-361A, Flight Interval Management (FIM) was approved by PMC Mar 2020. DO-317C, ADS-B ASA MOPS, was approved by PMC Jun 2020. TSO-C195c will invoke DO-317C and DO-361A, but a change to DO-361A is necessary. DO-361A Change 1 currently in FRAC process.
DO-361A – MOPS for FIM	SC-186	*TSO-C195c	June 2021	*The FAA will not issue a stand-alone TSO for DO-316A. TSO-C195c will add FIM as a new ASA and will invoke DO-361A as the MPS for the new FIM application.
DO-328B – Safety, Performance and Interoperability Requirements Document For Airborne Spacing – Flight Deck Interval Management (ASPA-FIM)	SC-186	N/A	N/A	DO-328B is for operational requirements and is not directly invoked in a TSO.

DO-370, Guidelines for the In Situ Eddy Dissipation Rate (EDR) Algorithm Performance	SC-206	TBD	December 2021	FAA/Stakeholders discussion on need for FAA EDR guidance to be held at Turbulence workshop previously scheduled October 2020, rescheduled to August 2021 due to COVID.
DO-315A, DO-359, MASPS for SVGS, DO-371 MASPS for ASA-SVS	SC-213	AC 20-185A	December 2020	Consolidates synthetic vision (SVS), synthetic vision guidance system (SVGS), and airplane state awareness guidance. AGC Received Date: 10/07/19; Returned to AIR-6B1 07/06/20; Submitted for AIR-1 final signature.
DO-315A, MASPS for EVS, SVS, CVS, EFVS	SC-213	AC 20-167B	6 months after AGC approval	Consolidates enhanced and combined vision system airworthiness criteria. No new criteria. In AGC review. AGC Received Date: 10/7/19 & resent to for 2nd review 3/9/20. AGC-210 completed review. With Lorelei since mid-March.
Multiple RTCA Data Comm references from AC 20-140C	SC-214	AC 20-140D	January 2021	Adds support for future ATN/IPS network and other miscellaneous changes. AGC Received Date 10/2018; AIR-6B2 pulled back for revision 05/2020; Will resubmit to AGC once revision is complete.
DO-281C, MOPS for aircraft VDL Mode 2 Physical Link and Network Layer	SC-214	N/A	N/A	SC-214/WG-92/AEEC DLK recommends TSO/ETSO-C160a not be revised until publication of DO-281D/ED-92D planned for Dec 2022. TSO-C160a will not be revised because DO-281C/ED-92C that was published on September 20, 2018 had no changes

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				to the MPS of the avionics article that were substantial enough to warrant a revision to the TSO.
DO-356A, Airworthiness Security Methods and Considerations	SC-216	AC -25.XX	6 months after AGC approval	AC-25.XX internal comment is complete, currently with AIR Technical writers. The planned AC for DO 356A, 326A and 355A will invoke the RTCA documents as an official means of compliance. It is already an accepted MOC for meeting the SC's.
DO-355A, Information Security Guidance for Continuing Airworthiness	SC-216	AC 119-1 and AC 43-216	6 months after AGC approval	DO-355A is in draft version, PMC approval in September 2020. To-be-updated for existing AFS AC 119-1 and AC 43-216
DO-201B – User Requirements for Navigation Data	SC-217	AC 20-153B Change 1	On Hold	Updates navigation user data quality requirements (DQRs). This AC is on hold, AIR-6B1 is looking for AGC required regulatory reference to incorporate. LOA specification is based on an operational requirement, and AGC stated a regulatory reference for that requirement is needed. DO-201B is being used as the current reference document, DO-201A is listed in the AC, but it has been superseded by 201B, so update can be made in due course.

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DO-210D Change 5 – MOPS for AMISS, Aeronautical Mobile Satellite (Route) Services AMS(R)S	SC-222	TSO-C132b	September 2020	New TSO for system with new DLNA (diplexer-low noise amplifier) with new EMI filters DO-210D Change 5 approved by PMC Mar 2020. TSO currently in internal comment disposition
DO-262E MOPS for NGSS, Aeronautical Mobile Satellite (Route) Services AMS(R)S	SC-222	TSO-C159e	October 2020	MOPS changes to INMARSAT specific appendix complete. DO-262E approved by PMC March 2020. TSO currently in process for internal comment.
DO-343C – MASPS for AMS(R)S and RCP	SC-222	N/A	N/A	Minor change to SATVOICE dialing operation, which is not part of AC 20-150B. In AGC for review. AIR is not producing guidance related to this MASPS.
DO-311A, MOPS for Rechargeable Lithium Batteries and Battery Systems	SC-225	AC 20-184A	December 2021	Installation standard for rechargeable lithium batteries. AC in disposition of public comments. DO-311A is already utilized in TSO-C179b (published 3/23/18).
DO-365A – MOPS for Detect and Avoid (DAA) Systems	SC-228	TSO-C211a	January 2021	DAA Supports GBSS and Terminal Operations. Revised MOPS completed. DO-365A published March 26, 2020; DO-365B required to complete terminal and en route and publish TSO
DO-381 (New Document) – MOPS for Ground-based Surveillance System (GBSS) for Traffic Surveillance	SC-228	TSO-CXXX	June 2021	Adds GBSS Sensor to DAA Systems. This new TSO is currently under development.
DO-204B Change 1 – Minimum Operational Performance Stand for Aircraft Emergency Locator	SC-229	Note to Manufacturers	The note to manufacturers was signed on June 30, 2020 and is posted on	The decision was to not revise the TSO to recognize the change because we would not be aligned with EASA

			RGL next to TSO-C126c	because it has yet to publish its harmonized ETSO-C126c and because the change 1 did not include modifications to already published requirements. The change only provided clarifications to requirements. The RTCA/SC-229 committee was informed of the note to manufacturers posting to RGL early July 2020.
Transmitters 406 MHz				
DO-220A, Change 1, MOPS for Airborne Weather Radar Systems	SC-230	AC 20-182B	6 months after AGC approval	Airworthiness Approval for Aircraft Weather Radar Systems. Ac 20-182B describe additional considerations and guidance needed for compliance that are not explicitly addressed in the standard. Submitted to AGC 11/14/18. AC in AGC review.
DO-227A, MOPS for Non-Rechargeable Lithium Batteries	SC-235	AC 20-192	6 months after AGC approval	Airworthiness installation criteria for non-rechargeable lithium batteries. AC Under revision based on public comments received. DO-227A is already utilized in TSO-C142b (published 3/26/18). Submitted to AGC 10/29/2018

RTCA Documents Pending PMC Approval

RTCA Document	Developed By	Planned FAA Guidance	Planned Release Date	Comment
DO-382 (New Document) - Minimum Aviation System Performance Standards CAS Interoperability	SC-147	N/A	2021	Supports DO-385, which is invoked in TSO-C219.
DO-374 Change 1 – Safety, Performance	SC-213	Possibly reflected in a future AC	TBD	The SPR is more of a safety case than a

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and Interoperability Requirements Document Defining Takeoff Minima by Use of Enhanced Flight Vision Systems		20-167C but more likely in a 90 series AC or OpsSpec		technical standard. It assumes equipment that already has a standard and proposes a new capability beyond the original intended function. There is no current plan to incorporate into a current draft certification AC. Possibility it goes into an Ops document or another vehicle to incorporate proposed operation with existing material. If so, the document is for industry to help justify an operation vs something that needs to be in an FAA doc. If incorporated into a Cert AC it would most likely be incorporated into a future AC 20-167C designed to incorporate the standards that RTCA SC 213 is currently working on.
DO-383 (New Document) – Guidance on Air to Ground VDL Mode 2 Interoperability.	SC-214			DO-383 applies to the CSP ground implementation. FAA does not issue policy or guidance to the CSP, only for aircraft avionics.
DO-355A – Information Security Guidance for Continuing Airworthiness	SC-216			Guidance for 355A will be updated if needed after Sept PMC. AC34-216, AC 119-1 and 8900.1, V3 C61 S1.
DO-366A - Minimum Operational Performance Standards (MOPS) for Air-to- Air Radar for Traffic Surveillance	SC-228	TSO-212a	May 2021	

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E. Special Committees - Chairmen's Reports, Active Inter-Special Committee Requirements Agreements (ISRA) – Review

- Rebecca Morrison, RTCA Program Director, presented overall information.

Reports were received from SC-238, SC-236, SC-235, SC-230, SC-227, SC-224, SC-223, SC-222, and SC-206.

SC-240 – Presented today on their TOR (agenda item 5D).

SC-239 – Presented today on status and way forward on their report (agenda item 3F).

SC-228 – Presented today on completed revised document (agenda items 3E).

SC-217 – Presented today on revised TOR (agenda item 6B).

SC-216 – Presented today on completed revised document (agenda item 3D).

SC-214 – Presented today on completed new document (agenda item 3C) and revised TOR (agenda item 6B).

SC-213 – Presented today on completed document change (agenda item 3B).

SC-147 – Presented today on completed new document (agenda item 3A).

The complete matrix and individual committee reports are posted on Workspace (RTCA Paper No. 216-20/PMC-2054). ISRA spreadsheet is posted in Workspace.

F. European/EUROCAE Coordination – Status Update.

- Rebecca Morrison (RTCA Program Director) and Anna von Groote (EUROCAE Director Technical Programme) presented.

New Documents Released by EUROCAE since last PMC:
- ED-194B - *Minimum Operational Performance Standards (MOPS) for Aircraft Surveillance Applications (ASA) System* – WG-51, July 2020
- ED-272 - *Minimum Aviation Systems Performance Standard for Remote Pilot Stations supporting IFR operations into non-segregated airspace* – WG-105, August 2020
- ED-274 – *OSED for Aerodrome Foreign Object Debris Detection Systems* – WG-83, August 2020
- ED-267 – *OSED for Detect and Avoid in Very Low Level Operations* – WG-105, August 2020

- ER-021 – *Report and Outcome of Round Robin Camera Detection Process Verification and Validation*, WG-31, August 2020

New committee will be proposed at EUROCAE:
- WG-120 was approved by the TAC and holds its first plenary September 9th for Technical Means for Identifying Potential COVID-19 Carriers among Passengers
- Terry McVenes commented there would be a call with A4A, RAA, ACI and AEEE later today to discuss potential joint effort on this and other projects. WG-121/SC-241 is a separate effort from SC-241 (Cockpit and Cabin Cleaning Committee) – timeline and focus totally different.

An additional committee is in the process of being approved on Virtual Centres
- New WG Virtual Centre – new topic out of SESAR Program
  o Council approval ongoing
  o Call for participation to be issued
  o Kick off meeting: October 2020
- Initial deliverable: Internal Report
  o Review of context
  o Proposed work programme
  o Timeframe: 6 months
- Main items to be covered in report
  o Context
    ▪ Status of R&D activities
    ▪ Status of industrialisation
    ▪ Regulatory context
    ▪ Political context
  o Work programme
    ▪ What is in scope, what is outside
    ▪ Proposed standardisation activities – deliverables
    ▪ Priorities
    ▪ Timeframes
    ▪ Consider a phased, incremental approach
  o Cooperation with other EUROCAE WGs, organisations

Ms. von Groote indicated this effort is more of an exercise and not necessarily a joint effort – presented more for information. Doug Arbuckle took action to follow up further from FAA perspective (action). Ed Wright also indicated the Air Force is interested in remote tower activity. This is a separate group that Ms. von Groote will send information to him after receiving contact info (action).

EUROCAE Upcoming Meetings:
- TAC#84   3 November 2020
- TAC#85   12-13 January 2021

PMC member asked about potential of working jointly with other groups, such as WG-114 (Artificial Intelligence). The topic of working with other standards organization is a topic of

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meeting for next day between FAA and other organizations. On this particular topic, RTCA did a call out for AI participation, but SAE had already formed a formal committee and we didn't want to duplicate.

AGENDA ITEM 7
Other Business.

A. Review of PMC Membership – Annual Review.

- Terry McVenes, RTCA President, presented.

Per the RTCA Bylaws, PMC membership is reviewed annually to ensure proper representation of the aviation community for current issues and account for possible moves/adjustments of personnel. Reviewing of the current roster lead to discussion on replacement for Randy Kenagy from ALPA (who is now a member of the RTCA Advisory Board) with Ed Hahn (action). Also, the FAA position filled by Joe Post should be changed due to his 2-year academic sabbatical (action). Additional inputs are welcome by PMC members (action). It was noted the EASA member was not listed on the current roster – updated on the spot.

- Presentation is posted on Workspace (RTCA Paper No. 241-20/PMC-2065).

B. Criteria for Changing Delivery Dates

- Terry McVenes (RTCA President) and Di Reimold (PMC GAR) presented.

It appears most TOR revisions that come to the PMC are for delivery delays – some several times. There are usually good reasons, we are a volunteer organization and our members expect us to be efficient. Discussion revolved on possible criteria needed and possible allowance for a certain grace period without submitting a TOR revision. Current practice is one PMC cycle slip (i.e. 3 months) a revision is not presented – but is this enough? The EUROCAE threshold is six months. As the PMC is program management of the SCs, could PMC members assist with keeping committees on time? PMC asked RTCA staff to outline a proposal for next PMC meeting, conferring with EUROCAE (action).

C. RTCA President Remarks

- Terry McVenes (RTCA President) presented.

Mr. McVenes wanted to send out a thank you to everyone. Special shout out to his staff for their juggling and keeping things running. Recognition to all committee members – there is a lot of incredible work on going despite the current situation. And a thank you to PMC members for their guidance.

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Announced (in case you hadn't noticed), RTCA has launched a new website – worked very hard to make things more user friendly and a means to add valuable information to the aviation community.

AGENDA ITEM 8
Schedule for Committee Deliverables and Next Meeting Date

Documents expected for the December 17, 2020 meeting:

- SC-147, Traffic Alert & Collision Avoidance System (TCAS)
  - New Document – *Minimum Operational Performance Standards (MOPS) for ACAS Xu Functionality*

- SC-159, Navigation Equipment Using the Global Navigation Satellite System (GNSS)
  - *New Document – Minimum Operational Performance Standards (MOPS) for GNSS-Aided Inertial System*s

- SC-186, Automatic Dependent Surveillance Broadcast (ADS-B)
  - DO-361A Change 1 – *MOPS for Flight-deck Interval Management (FIM)*
  - DO-260C - *Minimum Operational Performance Standards (MOPS) for 1090 MHz Extended Squitter Automatic Dependent Surveillance - Broadcast (ADS-B) and Traffic Information Services - Broadcast (TIS-B)*

- SC-209, Minimum Operational Performance Standards for ATCRBS/Mode S Transponder
  - DO-181F, *Minimum Operational Performance Standards for Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Airborne Equipment*

- SC-216, Aeronautical Information Systems Security (will be delayed)
  - New Document - *Aeronautical Information System Security (AISS) Framework Guidance*
  - New Document - *Aeronautical Information System Security Glossary*

- SC-228, Minimum Performance Standards for Unmanned Aircraft Systems
  - DO-365B - *MOPS for Detect and Avoid (DAA) Systems*

The dates for the next four PMC meetings were confirmed: Thursday, December 17, 2020; March 18, 2021; Thursday, June 17, 2021; and Thursday September 16, 2021.

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, Chairman
RTCA Program Management Committee

Program Management Committee – September 10, 2020 ATTENDANCE LIST		
PMC MEMBERS:		
Christopher	Hegarty	The MITRE Corporation Chairman
Doug	Arbuckle	Federal Aviation Administration
Jonathan	Archer	General Aviation Manufacturers Association
Clay	Barber	Garmin, Ltd
John	Craig	Aviation Information Sharing and Analysis Center
Ed	Hahn	Air Line Pilots Association
Jeffrey	Hausmann	Gulfstream Aerospace Corporation
Hette	Hoekema	EASA
Mark	Huling	Aircraft Owners and Pilots Association
Donald	Kauffman	Honeywell International, Inc.
Bob	Lee	Collings Aerospace
Terry	McVenes	RTCA, Inc.
Di	Reimold	Federal Aviation Administration Government Authorized Representative
Andrew	Roy	Aviation Spectrum Resources, Inc.
Al	Secen	RTCA, Inc.
Jessie	Turner	The Boeing Company
Heidi	Williams	National Business Aviation Association

OTHER ATTENDEES:		
Robert	Bouza	Federal Aviation Administration
Steve	Cook	Northrop Grumman
Garfield	Dean	EUROCONTROL
Bruce	Eckstein	FirebirdSE LLC
Alex	Engel	EUROCAE
Seth	Frick	Honeywell International, Inc.
Brian	Gilbert	The Boeing Company
Charisse	Green	Federal Aviation Administration
Jens	Hennig	General Aviation Manufacturers Association
Karan	Hofmann	RTCA, Inc.
Sai	Kalyanaraman	Collins Aerospace
Patrick	Krohn	Universal Avionics Systems Corporation
Jim	McClay	Aircraft Owners and Pilots Association
John	Moore	Collins Aerospace
Rebecca	Morrison	RTCA, Inc.

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Thomas	Mustach	Federal Aviation Administration
Dave	Pierce	GE Aviation
Trent	Prange	Federal Aviation Administration
Jean Luc	Robin	Airbus
Claire	Robinson	Spectralux
Stuart	Searight	Federal Aviation Administration
Brandon	Suarez	General Atomics Aeronautical Systems, Inc.
Michelle	Swearingen	Federal Aviation Administration
Anna	von Groote	EUROCAE
Dongsong	Zeng	The MITRE Corporation

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	PMC ACTION ITEM TABLE			
TRACKING NUMBER (Meeting Date and agenda item from which original action resulted)	**ACTION**	**ACTION ASSIGNED TO**	**DUE DATE**	**STATUS**
06/21/2018 Agenda Item 8C	06/21/2018 – Investigate feasibility of providing redlined versions of completed documents 09/20/2018 – Update provided, but further questions 12/13/2018 – Redirect to pulling reqs from documents and making available separate format 03/21/2019 – More structure format needed for requirements in MOPS and MASPS – prototype forthcoming 12/19/2019 – Research project has reached phase 2 funding – work continues 03/26/2020 – some delays with COVID-19	Al Secen	Sep 2020	Open
06/27/2019 Agenda Item 8D	06/27/2019 – Ad Hoc to investigate possible SMOPS concept	Terry McVenes, Al Secen, Jens Hennig, Bob Lee, and Dan Elgas	Sep 2020	Open
12/19/2019 Agenda Item 6O	12/19/2019 – Document Configuration Management Procedure/Process 03/26/2020 – still in progress	RTCA Staff	Sep 2020	Open
03/26/2020 Agenda Item 6H	03/26/2020 – Rework SC-240 TOR 06/11/2020 – TOR provisionally approved, with further refinement required	SC-240	Sep 2020	Closed
06/11/2020 Agenda Item 4A	06/11/2020 – Ad Hoc for Spectrum Strategy Follow Up	Terry McVenes, Di Remold, Clay Barber, Bob Lee, Chris Hegarty	Sep 2020	Open
06/11/2020 Agenda Item 4B	06/11/2020 – Definition for "Mitigation" to include in Drafting Guides	ICC	Sep 2020	Closed
06/11/2020 Agenda Item 6G	06/11/2020 – Review ISRA Process and ensure definition of closure procedure	RTCA Staff	Sep 2020	Closed

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06/11/2020 Agenda Item 7C	06/11/2020 – Solicit support for Clean Cockpit and Aircraft SC and follow up with package for electronic ballot approval	Terry McVenes, Al Secen	Jul 2020	Closed
09/10/2020 Agenda Item 3E	09/10/2020 – Determine course of action to include which SC to task to address DO-346 issue	RTCA Staff	Dec 2020	Open
09/10/2020 Agenda Item 6C	09/10/2020 – Provide FAS Errata to PMC Members	RTCA Staff	Dec 2020	Open
09/10/2020 Agenda Item 6C	09/10/2020 – Conduct Electronic ballot to release FAS Errata	Karan Hofmann	Dec 2020	Open
09/10/2020 Agenda Item 6F	09/10/2020 – Follow Up investigation on possible interest of supporting Virtual Centre	Doug Arbuckle	Dec 2020	Open
09/10/2020 Agenda Item 6F	09/10/2020 – Provide Mr. Wright contact info to EUROCAE for follow up on remote tower group	Karan Hofmann	Dec 2020	Open
09/10/2020 Agenda Item 7A	09/10/2020 – ALPA Replacement Representative For Randy Kenagy as PMC member	ALPA	Dec 2020	Open
09/10/2020 Agenda Item 7A	09/10/2020 – FAA Replacement for Joe Post as PMC member	Di Reimold	Dec 2020	Open
09/10/2020 Agenda Item 7A	09/10/2020 –Provide input on possible areas that should have representation on the PMC	PMC Members	Dec 2020	Open
09/10/2020 Agenda Item 7B	09/10/2020 – Outline proposed guidelines for TOR revisions	RTCA Staff	Dec 2020	Open

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