

**RTCA PROGRAM MANAGEMENT COMMITTEE
MEETING SUMMARY
September 22, 2016**

The RTCA Program Management Committee (PMC) convened at 8:30 a.m. on September 22, 2016 at RTCA. The attendance list and action items are attached.

AGENDA ITEM 1

Welcome and Introductions

PMC Chairman Chris Hegarty welcomed the group, asked attendees to introduce themselves and to note their organization of affiliation. Lou Volchansky, the Designated Federal Official (DFO), read the Public Meeting Announcement that includes the date the Federal Register meeting notice was published, declares the meeting is “Open to the Public” and provides details for persons wishing to present or obtain information pertaining to the meeting.

RTCA President Margaret Jenny announced Jennifer Iverson has moved on to a new position in the Denver area to coincide with her husband’s move to United Airlines. The PMC Chairman asked that the meeting minutes reflect that Jennifer will be missed and he thanked her for her exemplary work over the years.

AGENDA ITEM 2

Review / Approve

- A. The summary of the June 21st meeting was approved with no changes (RTCA Paper No. 168-16/PMC-1508).
- B. Administrative Special Committee Terms of Reference (TOR) Revision:
 - SC-227 – Standards of Navigation Performance – New Chairman Mike Cramer and new Secretary Anup Raje. TOR approved (RTCA Paper No. 239-16/PMC-1527). The PMC also extended a special thank you to retiring Chairman Dave Nakamura (Advanced PBN Solutions) for his dedication and support.

AGENDA ITEM 3

Publication Consideration/Approval

- A. **Final Draft, New Document – Final Phase One, C2 Data Link MOPS and V&V (Terrestrial), prepared by SC-228**
 - John R. Moore, SC-228 WG-2 Chairman, presented

Document Description: The Command and Control (C2) Data Link Minimum Operating Performance Standard (MOPS) (Terrestrial) provides performance requirements for a safety-of-flight Command and Non-Payload Communication (CNPC) function that enables an Unmanned Aircraft System (UAS) pilot to safely maneuver the aircraft from the ground.

The focus of this MOPS is the technical standards describing how CNPC Data Link Systems can compatibly share the spectrum that has been allocated for their use, yet remain waveform agnostic (i.e., unspecified). There are no interoperability requirements, as these are internal UAS interfaces. Rather, this MOPS provides required electromagnetic compatibility that permits simultaneous operation of federated designs in common spectrum.

The International Telecommunication Union (ITU) has identified multiple spectrum bands as candidates for use for this C2 Data Link. These include:

- L-Band Terrestrial
- C-Band Terrestrial
- SATCOM in multiple bands

The UAS C2 Data Link MOPS establishes the performance requirements for both L-Band and C-Band terrestrial networks. It also includes recommendations for a Verification and Validation test program.

The completed MOPS contains equipment performance requirements under standard conditions for the following:

- Common characteristics
- The baseline system that was used for verification and validation efforts
- Manufacturer-specific requirements for designs that vary from the baseline system.

The environment performance section provides requirements for both airborne and ground equipment, since both are needed for the complete link.

As there was no Minimum Aviation System Performance Standard (MASPS) that preceded this MOPS, there are over a dozen appendices that provide assumptions and derived flow-down requirements that would have historically come from a MASPS.

The PMC approved the document. It is published as DO-362.

AGENDA ITEM 4

Integration and Coordination Committee (ICC)

A. Review of Minimum Operational Performance Standard (MOPS) and Minimum Aviation System Performance Standard (MASPS) Guide Documents – Update

- Dr. George Ligler, PMC Member and PMC ICC Chairman, presented

To summarize, at the March 2016 PMC meeting, the ICC was asked to look at RTCA MOPS and MASPS Drafting Guidelines, based upon helpful suggestions by Clay Barber of Garmin, about promoting “standard” meanings in future RTCA MOPS and MASPS for several terms.

The ICC formed a subgroup to develop recommended text for Section 1.8 of the MOPS Drafting Guidelines to include specific guidelines for use of “shall”, “must”, “should”, and “may” outlined in Table 1.8 – Terms for use in Performance Requirements and Test Procedures shown below.

Table 1.8 – Terms for use in Performance Requirements and Test Procedures

	Requirements	Good Industry Practice	Alternate Method
Word	<i>Shall</i>	<i>Should</i>	<i>May</i>
Meaning	Refers to a mandatory performance requirement or test procedure	Refers to a performance or test procedure recommendation that, although not mandatory, is considered good industry practice	With regard to performance requirements and test procedures, refers to an alternate approach for manufacturer consideration
Impact to Design	Could result in inability to meet intended function or interoperability with other equipment	Although not necessary to meet performance requirements, could result in a deficiency to the end user or installation problems if not followed	None. However, the alternate method should be followed in its entirety if the manufacturer chooses to use that method

The PMC approved the new wording to be included in updated MOPS Drafting Guide (RTCA

Paper No. 255-16/PMC-1530) and SPR-INTEROP MASPS Drafting Guide (RTCA Paper No. 256-16/PMC-1531). (Action closed)

Mr. Don Walker from FAA indicated he had further recommendations for MOPS and MASPS Drafting Guides changes. RTCA was tasked to review recommendations and report back to the PMC. (Action)

B. Cross Cutting Committee Process Recommendations – Update

- Dr. George Ligler, PMC Member and PMC ICC Chairman, presented

Also at the March 2016 PMC meeting, the ICC was asked to look at the Cross-Cutting Committee (CCC) concept developed by a PMC ad-hoc group in 2015 and make recommendations for both the concept and how the concept might be implemented. This action was amplified at the PMC's June 21, 2016 meeting to include looking at several "CCC test scenarios".

The ICC determined it would initially explore two of the three test scenarios tasked by the PMC – "Future" Scenario (Distress Tracking – Triggering Mechanism) and "Past" Scenario (SC-223 Request for TOR change to take on Internet Protocol Suite).

The ICC reviewed presentations on these two scenarios. This reviewed showed that members continued to have different views of the purpose of the CCC, details of how the CCC should operate, and the demonstrable benefit of the CCC.

The ICC agreed to recommend that the CCC be instituted, using a fairly high-level charter similar to that of the ICC, for an evaluation period of 1 year or as determined by the PMC. A subgroup was established to draft an initial CCC Charter.

The PMC accepted the ICC recommendation to initiate the CCC with minor changes to the draft charter presented. ICC action closed.

The PMC tasked RTCA to initiate CCC with membership recommendations and follow Charter for trial period to be determined. (Action)

The PMC extended thank you to the entire ICC for their work on this action, particularly noting contributions by Mr. Ron Stroup from FAA for leading the charge on the draft CCC Charter.

AGENDA ITEM 5

Action Item Review.

A. SC-214 Participation with SC-223 Internet Protocol Suites (IPS) Activity - Update

- Dr. George Ligler, PMC Member, presented

Dr. Ligler and Captain Stewart (SC-214 Chairman) discussion agreed the work of SC-223 is more “nuts and bolts” while SC-214 was more operational/application level. Some SC-214 folks are participating in SC-223, but there will not be a formal ISRA. It was agreed, however, that key SC-214 members will be available to conduct a pre-FRAC review of the IPS document. Action closed.

B. Ad-hoc to draft words covering Cyber Security Guidelines - Update

- Al Secen, RTCA Vice President, and Dr. George Ligler, PMC Member, presented

At the June 21, 2016 PMC meeting, it was reported Rich Jennings, AIR-100, briefed the ICC on a need for standard language in RTCA documents concerning “good practices” for cybersecurity considerations in avionics design. The PMC members tasked an ad-hoc to review and draft words or provide appropriate guidance covering cybersecurity for guidelines (MOPS, MASPS, and TORs). The members of the ad-hoc included George Ligler, Jens Hennig, Richard Jennings, and Al Secen.

The ad-hoc panel presented a new section titled, Aircraft Equipment Information Vulnerabilities, for inclusion in the MOPS and MASPS Drafting Guides. The group pointed out they had received inputs from the Aviation Rulemaking Advisory Committee (ARAC) Aircraft System Information Security/Protection (ASISP) Working Group whose report has been presented and approved by the ARAC on September 15, 2016.

The PMC approved the new wording to be included in the updated MOPS Drafting Guide (RTCA Paper No. 255-16/PMC-1530) and SPR-INTEROP MASPS Drafting Guide (RTCA Paper No. 256-16/PMC-1531). Action closed.

Members asked about the RTCA Policy Board Security ad-hoc. Al Secen highlighted that the ad-hoc formation was a chronological “hiccup” from the more generic Stephen Deakin (Eccton) presentation to the PMC before a more focused presentation to the Policy Board. We are also waiting on the release of the approved ARAC ASISP report. The Policy Board ad-hoc will be presented the information from today’s PMC meeting and will likely take a pause awaiting the outreach from the FAA to RTCA on the ARAC ASISP recommendations.

C. Global Aeronautical Distress and Safety System (GADSS) - Presentation

- Chris Parfitt, FAA, presented

Mr. Parfitt provided an FAA perspective update on GADSS. He covered data recovery requirements, location of aeroplane in distress, and provided an ICAO equipage requirements summary.

- The briefing is posted on Workspace (RTCA Paper No. 235-16/PMC-1523).

D. Updating References to RTCA Documents Recommendations - Update

- Karan Hofmann, PMC Secretary, presented

Investigation determined the current publication and notification of newly released RTCA documents and the subsequent FAA action on updates is sufficient. RTCA documents are advisory and the FAA, as the regulator, has the responsibility to adjust ACs or TSOs as needed. Any other agency referencing RTCA documents is responsible to adjust any references to updated documents. Action closed.

AGENDA ITEM 6

Discussion.

A. SC-225 – Rechargeable Lithium Batteries and Battery Systems – Discussion – Status Update on DO-311 Revision

- Richard Nguyen (SC-225 Chairman), Stephen Diehl (SC-225 Secretary), and Norman Pereira (SC-225 DFO), presented

The chairmen provided an update on working status. The group has completely revised the document to meet MOPS template and instructions from PMC Ad Hoc Committee. They have held twenty working group meetings and three Plenaries since last PMC report in June. Document was approved for FRAC release on September 8th although there is potential for dissenting opinion with respect to the battery thermal runaway containment test. There are two FRAC resolution Plenaries scheduled (November 28-December 1 and January 17-19) and SC-225 is targeting presentation to the March 2017 PMC meeting for approval.

B. SC-223 – Internal Protocol Suite (IPS) and AeroMACS – Discussion – Revised TOR

- Alope Roy (SC-223 Chairman), Brent Phillips (SC-223 DFO), and Rebecca Morrison (SC-225 RTCA Program Director), presented

EUROCAE believes the IPS work under SC-223 should be a collaborative effort but is premature prior to the release of an Airlines Electronic Engineering Committee (AEEC) Report (due 2Q2017). (Position paper (RTCA Paper No. 238-16/PMC-1526) is posted in workspace.) This coordination would delay SC-223 delivery dates. The FAA is committed to move to IP because it will be more efficient, robust and cost effective than ACARS and ATN/OSI and the FAA believes there is little risk of change with the AEEC study. There are also financial considerations in that FAA contracts have already been awarded to support this standards effort.

After PMC discussion, the consensus was to not delay SC-223 work and to respond back to EUROCAE during the upcoming RTCA/EUROCAE Secretariat Coordination Meeting. (Action)

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

- Richard Heinrich, SC-228 Co-Chairman, presented

The current SC-228 TOR identified Phase Two actions with TBD dates. At the tasking of the SC-228 Steering Committee, a TOR development team drafted more specific deliverables with assigned due dates. The Phase Two scope is for other than “very low level” operations with resulting standards to be applicable to operations in all classes of airspace. The revised TOR recommends use of the same “White Paper” approach used for Phase One, but to start after completion of Phase One to not divert current focus. Both Detect and Avoid (DAA) and Command and Control (C2) deliverables were included.

After some discussion and clarification with word changes from “Primary” to “Non-cooperative” radar, the PMC approved the revised TOR (RTCA Paper No. 239-16/PMC-1527).

D. NextGen Advisory Committee (NAC) - Status Update

- Andy Cebula, RTCA Vice President, Strategy and Programs, presented

The next NAC meeting is scheduled for October 5th, hosted by JetBlue in Orlando, FL. Deputy Administrator Mike Whittaker has moved on from the FAA and as the DFO for the NAC. Deputy Administrator Victoria Wassmer is temporarily filling the position. It will be Richard Anderson’s (CEO Delta Airlines) last meeting as Chairman. The new Chairman is David Bronczek, President and CEO of FedEx Express.

Items to be discussed include NAC Work Projects:

- Value of NextGen and NAC – Communications AdHoc Task Group
- Airline C/N/S Fleet Plans and ADS-B Update
- NIWG Status Reports and Rolling Plan
 - o DataComm
 - o Multiple Runway Operations
 - o Surface
 - o PBN
- PBN Time, Speed, Spacing Task Group – Final Report expected
- PBN Implementation – Denver Established on RNP – Southwest and United Airlines
- Joint Analysis Team – Final Report Expected:
 - o Performance Based Navigation Procedures: North Texas Metroplex, Denver Established on RNP
- Enhanced Surveillance Task Group (Oceanic Airspace) – Interim Report

PMC Members requested a presentation on the PBN Time, Speed, Spacing Task Group final report (Action).

E. Tactical Operations Committee (TOC) - Status Update

- Trin Mitra, RTCA Program Director, presented

The next TOC meeting is scheduled for October 27th at RTCA.

Items of discussion include:

- Update on Ongoing Task Groups:
 - PBN Route Structure Task Group
 - Sub Group – High Altitude
 - Sub Group – Low Altitude CONUS
 - Sub Group – Low Altitude Helicopters
 - Sub Group – Low Altitude Alaska
 - Graphical TFR Task Group
 - Picture is much better than a long chain of alphanumeric characters (Trin provided a pictorial example)
 - Industry recommendations on draft FAA CONOPS will be provided in 4Q 2016
 - Categories of Recommendations for Graphical TFRs
 - Charting long term TFRs
 - Standardized TFR Submission
 - Transmission to industry – machine-to-machine and human-to-machine
 - Availability, requirement and legality of graphic
 - Standard for electronic depiction (?)
 - Availability for FSS and ATC
 - Textual Format
 - FIS-B Uplink

A PMC member recommended ensuring articulate clear definition for “Low Altitude”, as this term has different meanings to different people.

The Graphical TFR results may come to the PMC for review/recommendations.

The TOC meetings scheduled for 2017 are OKC on March 2nd and RTCA for June 22nd and October 26th.

F. Drone Advisory Committee (DAC) – Status Update

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

The inaugural meeting of the DAC was held on September 16th with 30 of 35 members in attendance, including the FAA DFO (Deputy Administrator Wassmer), the FAA Administrator, FAA Executives and 200 members of the public.

There were presentations on UAS Landscape, Reauthorization Requirements, and Survey Results. There was a DAC Prioritization Exercise to gain consensus on top priorities. The top two selected were “What do we Need to Do to Fly Drone in Airspace?” and “Privacy and Pre-emption, Issues, Jurisdiction”.

DAC actions included launching ad hocs to develop detailed task statements for the two working groups for the above-mentioned priorities, establishing a DAC Subcommittee (DACSC), and tasking the DACSC to set priorities among remaining issues.

The specifics of leadership and members of the working groups and DACSC are still being worked.

The next DAC meeting is scheduled for January 4, 2017 hosted by Amazon in Las Vegas, NV.

G. FAA Actions Taken on Previously Published Documents – Report

- Lou Volchansky - PMC DFO presented (FAA Guidance based on RTCA Documents – RTCA Paper No. 213-16/PMC-1515)

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.

FAA Published Guidance (Since Previous PMC)

RTCA Document	Developed By	FAA Guidance	Approval Date	Comment
DO-230G – Standards for Airport Security Access Control Systems	SC-224	Applicable FAA Orders: 5090.3C, 5100.38D, 5100.39A, 5190.6B, 5300.1F, 5500.1.	21 June 2016	Includes operational guidance checklist (with format included in Recommended Security Guidelines for Airport Planning, Design and Construction).
DO-93A – MOPS for Airborne Selective Calling Equipment	SC-232	TSO-C59b	27 June 2016	Expands number of SelCal frequencies

Change 1 to DO-300A – MOPS for Traffic Alert and Collision Avoidance System II (TCAS II) Hybrid Surveillance	SC-147	TSO-C119e	30 June 2016	DO-300A Change 1 invoked by the FAA in TSO-C119e
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RTCA Published Documents - FAA Pending Guidance (through Oct 2016)

RTCA Document	Developed By	FAA Guidance	Planned Release Date	Comment
DO-315A - Minimum Aviation System Performance Standards (MASPS) for Enhanced Vision Systems, Synthetic Vision Systems, Combined Vision Systems and Enhanced Flight Vision Systems	SC-213	AC 20-167A	2016	Plan to release AC 20-167A after EFVS rule is published
Chg 1 to DO-262B - MOPS for Avionics Supporting Next Generation Satellite System (NGSS) Iridium Specific Apdx D	SC-222	TSO-C159c	September 2016	DO-262B Appendix D will be used by Iridium manufactures in support of their TSOA for Iridium Technique Specific Equipment.
DO-350 (SPR ATNB2); DO-351 (Interop Std for ATNB2); DO-352 (Interop Std	SC-214	AC 20-140C	September 2016	ATN B1 Interop Standards improvements for CPDLC at Oceanic/ Continental boundaries. AC 20-140C includes B2.

ATNB2, FANS 1/A); DO-353 (Interop Std for ATNB2, FANS 1/A)		AC 20-160A	September 2016	Onboard recording of CPDLC Communication in Crash Survivable Memory
DO-220A – MOPS for Airborne Weather Radar Systems	SC-230	TSO-C63e; AC 20-182A	October 2016	Aircraft weather radar design approval; weather radar installation guidance
Change 1 to DO-300A; Change 2 to DO-300	SC-147	AC 20-151C	January 2017	Airworthiness installation guidance
Change 2 to DO-300 - Minimum Operational Performance Standards (MOPS) for Traffic Alert and Collision Avoidance System II (TCAS II) Hybrid Surveillance	SC-147	Note to manufacturers posted on RGL (rgl.faa.gov)	February 2017	DO-300 Change 2 can be used by manufacturers in support of their justification package for a TSO deviation.
DO-346, MOPS for Aeronautical Mobile Airport Communication System (AeroMACS)	SC-223	TSO-C207a	April 2017	Revise AeroMACS TSO to be used by ATS

RTCA Documents Pending PMC Approval

RTCA Document	Developed By	Planned FAA Guidance	Planned Release Date	Comment
C2 Data Link MOPS and V&V (Terrestrial)	SC-228	AC on UAS C2 Equipment	March 2017	Airworthiness installation guidance

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

- Rebecca Morrison, RTCA Program Director, reported

Highlights from the Chair Reports for several selected Special Committees were reviewed. Reports were received from SCs 206, 229, 235, and 236. Other information was included in other presentations during this PMC. The complete matrix and individual committee reports are posted on Workspace (RTCA Paper No. 214-16/PMC-1516).

Ms. Charisse Green, SC-229 DFO, brought up the matter discussed at a recent SC-229 Plenary. The Aviation Investigation Report A13H0001 included a recommendation by the Transportation Safety Board of Canada report (A 16-03) requesting that “RTCA establish rigorous ELT system crash survivability specifications that reduce the likelihood that an ELT system will be rendered inoperative as a result of impact forces sustained during an aviation occurrence.” Since this recommendation coincides with the work the committee is tasked to complete, the recommendation was submitted to SC-229 for review and possible response. After PMC discussion, it was felt a letter should be sent to the TSB from RTCA in coordination with EUROCAE recommending they forward any request through the FAA and EASA for consideration and any tasking to SC-229/WG-98. This could also be discussed at the RTCA/EUROCAE Secretariat Coordination meeting next month. (Action)

I. European/EUROCAE Coordination – Status Update

- Rebecca Morrison, RTCA Program Director, reported

Topic of Note:

- SC-223 (Internet Protocol Suite): Concerns over joint work, lack of maturity and non-coordinated efforts by multiple groups (previously discussed under agenda item 6B)
 - o Will be discussed during RTCA/EUROCAE Secretariat Coordination
- TAC Meeting held September 13-14, 2016
 - o TOR in draft to create new working group for UAS
 - Merging UAS (WG-73) and Light RPAS (WG-93)

- Approval expected September 29 from EUROACE Council
 - Scope covers the full range of required standards and guidance to support diverse types of RPAS
- WG-98 updates are now coordinated with PMC approved TOR (June 2016) for SC-229
- WG-76 updated TOR to push SPR deadline to 2017 and MASPS to 2019
- WG-92 status for the need to ED-92 (VDL/2 MOPS) with final report expected end of 2016 prior to updating TOR (joint with SC-214)
- Proposing new WG for the Electronic Flight Bag (EFB) Applications
 - EUROCAE propose this should be joint activity with RTCA
 - TOR expected mid to late October
- TAC Membership Changes:
 - TAC Chair: Eric Bouchard, Dassault Aviation
 - TAC Vice-Chair: Ralph Rudolph, DFS
 - New TAC Member: Giancarlo Buono, IATA
- Discussion Items:
 - Efficiency Improvements
 - Validation of Documents (how do we know the documents are correct/usable)

PMC members asked for further insight into the EFB WG scope. This WG will address standards for tablets and distinguish applications for tablet and airplane cockpit. PMC members also requested a copy of the EFB WG TOR when available in mid to late October.

Key dates for future coordination:

- RTCA/EUROCAE Secretariat Coordination: October 10-11, 2016, Boston, MA, MITRE
- TAC Meetings
 - October 20-21 October, 2016, Toulouse, Airbus
 - February 1-2, 2017, Frankfurt, Frankfurt Airport
- EUROCAE Symposium: April 27-28, 2017, London

International Civil Aviation Organization (ICAO) Update:

- Standards Round Table
 - October 4, 2016
- 39th Triennial Assembly
 - September 27 – October 7, 2016

The RTCA staff will continue to keep the PMC apprised of developments.

AGENDA ITEM 7

Other Business.

A. EASA Weather in Cockpit for General Aviation Aircraft Workshop

- Robert Grove, PMC Member, commented.

Mr. Grove informed everyone that EASA was going to host a workshop next month (October 28-29) on “Weather Information Provided to Pilots.”

AGENDA ITEM 8

Schedule for Committee Deliverables and Next Meeting Date

Documents expected for the December 2016 meeting:

- SC-159 Navigation Equipment Using the Global Positioning System
 - New Document – *Minimum Operational Performance Standards for GPS/GLONASS (FDMA + antenna) LI-only Airborne Equipment*
 - Revision to DO-229D - *Minimum Operational Performance Standards for Global Positioning System/Wide Area Augmentation System Airborne Equipment (GPS/SBAS)*
- SC-206 Aeronautical Information and Meteorological (MET) Data Link Services (AIS)
 - New Document – *Minimum Aviation System Performance Standards for Aeronautical Information/Meteorological Data Link Services*
- SC-222 AMS(R)S Systems
 - Revision to DO-343 – *Minimum Aviation System Performance Standard for AMS(R)S Data and Voice Communications Supporting Required Communications Performance (RCP) and Required Surveillance Performance (RSP) in Procedural Airspace (coordinated with EUROCAE WG-82 To include System Specific Attachment from INMARSAT)*
- SC-228 Minimum Performance Standards for Unmanned Aircraft Systems
 - New Document – *Detect and Avoid Minimum Operational Performance Standards Phase I (DAA MOPS)*
 - New Document – *Minimum Operational Performance Standards (MOPS) for Air-to-Air Radar Detect and Avoid (DAA) Systems Phase 1*
- SC-234 Portable Electronic Devices
 - New Document – *Guidance for the Development of Portable Electronic Devices (PED) Tolerance for Civil Aircraft*
 - Revision to DO-307 – *Aircraft Design and Certification for Portable Electronic Device (PED) Tolerance*

The dates for the next three PMC meetings were confirmed: Thursday, December 15, 2016; Tuesday, March 21, 2017; and Thursday, June 22, 2017

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 – September 22, 2016
ATTENDANCE LIST**

PMC MEMBERS:		
Christopher	Hegarty	The MITRE Corporation Chairman
Doug	Arbuckle	Federal Aviation Administration
Robert	Grove	Garmin Ltd.
Richard	Heinrich	Rockwell Collins, Inc.
Jens	Hennig	General Aviation Manufacturers Association
Robert	Ireland	Airlines for America
Margaret	Jenny	RTCA, Inc.
Randy	Kenagy	Air Line Pilots Association
George	Ligler	Project Management Enterprises Inc
Jessie	Turner	The Boeing Company
Lou	Volchansky	Federal Aviation Administration (Designated Federal Representative)

OTHER ATTENDEES:		
Jonathan	Archer	General Aviation Manufacturers Association
Clay	Barber	Garmin Ltd.
Andy	Cebula	RTCA, Inc.
Stephen	Diehl	The Boeing Company
Robert	Duffer	Federal Aviation Administration
Alison	Duquette	Federal Aviation Administration
Karan	Hofmann	RTCA, Inc.
Nazih	Khaouly	Federal Aviation Administration
Trin	Mitra	RTCA, Inc.
John	Moore	Rockwell Collins, Inc.
Rebecca	Morrison	RTCA, Inc.
Richard	Nguyen	The Boeing Company
Andrew	Pasztor	Wall Street Journal
Norman	Pereira	Federal Aviation Administration
Brent	Phillips	Federal Aviation Administration
Aloke	Roy	Honeywell
Al	Secen	RTCA, Inc.
Ron	Stroup	Federal Aviation Administration
Brandi	Teel	RTCA, Inc.
Don	Walker	Federal Aviation Administration

PMC ACTION ITEM TABLE

TRACKING NUMBER (Meeting Date and agenda item from which original action resulted)	ACTION	ACTION ASSIGNED TO	DUE DATE	STATUS
03/17/2016 Agenda Items 3A-D	03/17/2016 – Report back on Boeing/ARINC ATC Winds work and results 06/21/2016 (Item 5B) – Update provided; follow on in Dec	PMC Jesse Turner	Jun 2016 Dec 2016	Open
03/17/2016 Agenda Item 4B	03/17/2017 – Determine SC-214 participation with SC-223 IPS activity 06/21/2016 (Item 5D) – Still being worked 09/22/2016 – (Item 5A) – Solution determined	PMC George Ligler SC-214 Chuck Stewart	Jun 2016 Sep 2016	Closed
03/17/2016 Agenda Item 7C	03/17/2016 – ICC Look at CCC concept with recommendations for implementation 06/21/2016 (Item 4B) – Reported back; follow on action 09/22/2016 (Item 4B) – Action complete; presented draft CCC Charter	ICC George Ligler	Jun 2016 Sep & Dec 2016	Closed
06/21/2016 Agenda Item 4A	06/21/2016 – Word Definitions/usage for Shall, Should, Must, May, Will and be included in MOPS & MOPS 09/22/2016 (Item 4A) – Recommendation presented and approved.	ICC George Ligler	Sep 2016	Closed
06/21/2016 Agenda Item 4A	06/21/2016 – Ad-hoc to draft words covering Cyber Security Guidelines (MOPS, MASPS, TORs) 09/22/2016 (Item 5B) – Recommendation presented and approved.	George Ligler, Jens Hennig, Al Secen, Richard Jennings	Sep 2016	Closed
06/21/2016 Agenda Item 5E	06/21/2016 – GADSS Presentation by FAA 09/22/2016 (Item 5C) – Update provided	FAA Chris Parfitt	Sep 2016	Closed
06/21/2016 Agenda Item 7D	06/21/2016 –Updating References to RTCA documents recommendation 09/22/2016 (Item 5D) – Update provided	RTCA	Sep 2016	Closed
09/22/2016 Agenda Item 4A	09/22/2016 – Include possible MOPS/MASPS Drafting Guide changes provided by Don Walker	RTCA Al Secen	Dec 2016	Open
09/22/2016 Agenda Item 4B	09/22/2016 – CCC Initiation (membership)	RTCA	Dec 2016	Open
9/22/2016 Agenda Item 6B	09/22/2016 – Follow up discussion with EUROCAE on harmonization work with SC-223 and WG-82	RTCA Margaret Jenny Al Secen	Dec 2016	Open
09/22/2016 Agenda Item 6D	09/22/2016 – PBN, Speed, Spacing Task Group Final Report Presentation	NAC Task Leads	Dec 2016	Open
09/22/2016 Agenda Item 6H	09/22/2016 – Response to Transportation Safety Board of Canada letter in coordination with EUROCAE	RTCA Al Secen	Oct 2016	Open