

**RTCA SC-228**  
**Summary of Plenary 15 – RTCA Paper No: 246-18/SC228-058**  
**Washington, DC**  
**1:00 p.m., Thursday, September 13, 2018**

The fifteenth Plenary of RTCA Special Committee 228 was called to order by SC-228 Co-Chair, John Moore at 1:00 p.m. (PST) on 13 September 2018, using WebEx audio and web conferencing. John welcomed all attendees and deferred to AI for logistics and administrative remarks.

1. Agenda Item #1 – Call to Order: Welcome
  - 1.1. John Moore welcomed everyone to the Plenary and stated that the purpose of the meeting was to address unfinished business from the previous Plenary.
  - 1.2. John reviewed and received concurrence on the agenda. Reference “180913 SC-228 16<sup>th</sup> Plenary Main Slides.pdf” for slides used during plenary. These slides are on the RTCA workspace website.
2. Agenda Item #2 – Review RTCA meeting guidelines
  - 2.1. AI Secen reviewed the Anti-Trust Policy.
  - 2.2. AI then reviewed the Proprietary Policy and RTCA Committee Participation Membership Policy.
  - 2.3. AI asked everyone in attendance to sign in via the roster or provide contact information on the new member sheet.
3. Agenda Item #3 – Opening Remarks/ Introductions
  - 3.1. John reviewed the Leadership Team for SC-228 and stated that SC-228 has 550 registered members.
  - 3.2. John indicated that the decrease (of 26) in membership is attributed to no longer being a Federal Advisory Committee (FAC), but still maintaining compliance as a Standards Committee.
  - 3.3. John highlighted current events in the UAS community. Specifically, NASA Armstrong selected three proposals from industry groups to collaborate on solving the barriers to routine commercial UAS operations. General Atomics, PAE ISR and Bell Helicopter Textron submitted the proposals that selected.
  - 3.4. Roll Call – The complete list of session participants is listed in Appendix A.
4. Agenda Item #4 – Approve meeting minutes from Meeting #15
  - 4.1. John reviewed the key points of Plenary #15 Minutes as documented.
  - 4.2. Acceptance of Plenary #15 minutes; moved by Jim Williams, 2<sup>nd</sup> by Jesse Turner – unanimously approved.
5. Agenda Item #5 – Approve proposed Terms of Reference (TOR) changes for submission to PMC
  - 5.1. John provided a history of the revisions emphasizing the changes proposed by WG1 in Revision #5 that needed to be vetted among the extended -228 membership, refinement of the Phase 2 scope proposed by WG2 and editorial changes in Revision #6.

- 5.2. Today's discussion focused on Revision #7:
  - 5.2.1. References to Part 91 operations were removed and language for take-off and landing operations in Class C, D, E and G airspace is added.
  - 5.2.2. Additional language acknowledges that Target Levels of Safety have not been defined for DAA systems and it is the responsibility of the FAA to identify the appropriate safety thresholds prior to the implementing any standard.
  - 5.2.3. There was a recommendation to remove "and subsequent issuance of airworthiness and operational approval." and a question concerning the reference to FAA "safety oversight".
    - 5.2.3.1. Steve Van Trees indicated that during Phase 1, representatives from all the safety organizations across the FAA participated in the SRM process and that forum will be reconstituted. As is past practice, ATO will focus on the operational mitigations and AIR will lead the certification aspects.
    - 5.2.3.2. John Moore reiterated that ALPAs primary concern was assurance that the FAA (not RTCA) would be responsible for ensuring a safety process would be performed prior to the qualification of any DAA systems.
  - 5.2.4. C2 proposed changes for this revision include:
    - 5.2.4.1. Integrate the Ka/Ku content into the MASP and remove the SATCOM MOPS as a deliverable in Phase 2.
    - 5.2.4.2. Remove inconsistent language referring to network standard that was intended to be removed in previous TOR updates.
  - 5.2.5. Question from the floor: Is there a clear path for certification of a DAA system? John indicated that the products from RTCA provide guidance to OEM on how to certify the aircraft instead the specific piece of equipment (due to the wide range of variability among systems).
  - 5.2.6. John asked for and received concurrence on both the C2 and DAA TOR changes. It indicated that the next PMC date is 9/20/2018 however; process lead times dictate that these changes will not be presented until the following PMC.
6. Agenda Item #6 – WG1 Status Report presented by Ted Lester
  - 6.1. Bi-weekly meetings are on-going
  - 6.2. Currently preparing the Ground-based Radar MOPS for review and comment (RAC)
  - 6.3. Ted provided updated statuses for Display, Alerting, and Guidance Terminal Area, DAA MOPS Rev B, and advised of upcoming activities.
7. Agenda Item #7 – WG2 Status Report presented by Jim Williams
  - 7.1. Update on the activities of the past week including the adjudication of comments for C2 Link System MASPS RAC all Sections except 4
  - 7.2. Reviewed the areas of MASPS that will be worked on in preparation for the October Plenary and provided a schedule for MASPS completion.
  - 7.3. Reviewed the additional documents that will be developed consistent with changes to the TOR- C2 Data Link (Terrestrial) MOPS Rev. A, MASPS for Ka/Ku Band SATCOM C2 Link Systems and Revision of C2 Link Systems MASPS.
  - 7.4. Jim noted that the intent of the collective set of documents is to provide enough information that a manufacturer understands what to build to receive an approval.

8. Agenda Item #8 – New Business
  - 8.1. John reviewed upcoming Plenary meeting dates and TOR deliverable dates.
    - 8.1.1. Plenary #18 - October 25 or 26, 2018, RTCA Headquarters
    - 8.1.2. Plenary #19 – January 25 or 26, 2019, RTCA Headquarters
  - 8.2. John reviewed proposed TOR deliverable dates (based on today’s discussion).
    - 8.2.1. John used an infographic to explain the relationship between FRAC, Plenary and PMC dates.
    - 8.2.2. John noted there the proposed SC-228 TOR has nine documents that need to be FRACed between now and September 2020.
9. Agenda Item #9 – Adjourn
  - 9.1. Michelle O’Leary moved to adjourn with a 2second from Paul McDuffee; unanimously approved. The Plenary adjourned at 1:59 p.m.

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Kristina Carr  
Secretary, RTCA SC-228

CERTIFIED as a true and accurate summary of the Meeting.

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John Moore  
Co-Chair, RTCA SC-228

## Appendix A – List of SC-228 Plenary Participants

John Moore	SC-228 Plenary Co-Chair	Rockwell Collins, Inc.
Jonas Trego	SC-228 Plenary, WG1 Secretary	General Atomics – Aeronautical Systems Inc.
Don Walker	SC-228 WG1 for DAA, Co- Group Lead	Honeywell International Inc.
Ted Lester	SC-228 WG1 for DAA, Co- Group Lead	MITRE
Steve Van Trees	SC-228 GAR, WG2 for C2, Co-Group Lead	FAA, AIR-130
Jim Williams	SC-228 WG2 Co-Group Lead	
Al Secen	SC-228 Program Director	RTCA

## ATTENDEES

<b>Company</b>	<b>Name</b>
Adaptive Aerospace Group	Hoffler, Keith
Air Line Pilots Association (ALPA)	Ingham, Edward
	Reed, Mark
Airbus	Lawson, James
ARCON Corporation	Colbert, Dennis
	Khomchuk, Petro
BAE Systems	Schultz, David
Cobham Aerospace Communications	Knickelbein, Jeffrey
Electronics and Telecommunications Researc...	Kim, Hee Wook
Federal Aviation Administration (FAA)	Aurandt, Kevin
	Campbell, Paul
	Carr, Kristina
	Chen, David
	Farrier, Thomas
	Georgiou, Peter
	Hinaman, Arthur
	Hirt, Ruth
	Jain, Ravi
	Mariano, Sheila
	Neale, Michael
	Nellis, Don
	Nguyen, Lee

<u>Company</u>	<u>Name</u>
Firebird SE LLC	Eckstein, Bruce
General Atomics Aeronautical Systems, Inc.	Kunzi, Fabrice
	Suarez, Brandon
	Trego, Jonas
Harris Corporation	Boci, Tony
Honeywell International, Inc.	Fern, Lisa
	Malaga, Alfonso
	Walker, Don
INMARSAT	Feliachi, Rym
JHW Unmanned Solutions LLC	Williams, Jim
Kitty Hawk	Coyle, Phillip
	Fisher, Nate
Ligado Networks	Weich, Samuel
Lockheed Martin Corporation	Terry, Ryan
MIT Lincoln Laboratory	Edwards, Matthew
Mosaic ATM, Inc.	Carros, Peter
NASA	Brandt, Summer
	Clements, Donna
	Cone, Andrew
	Connolly, Jack
	Eng, Daniel
	Hoang, Ty
	Kerczewski, Robert
	Lewis, Todd
	Rorie, Conrad
	Roth, Danny
	Shively, Robert
	Wada, Douglas
	Wu, Gilbert
Regulus Group	Benner, William
	O'Leary, Michelle
	Pagano, Thomas
Rockwell Collins, Inc.	Barney, Tyler
	Moore, John
RTCA, Inc.	Secen, Al
Sagetech Corporation	Davis, James
SAIC	Lombard, Kolie
Seamatica Aerospace Limited	Borshchova, Iryna
Square Peg Communications, Inc.	Gertsman, Michael

<u>Company</u>	<u>Name</u>
The Boeing Company	McDuffee, Paul
	Suarez, Cesar
	Wilson, Amelia
	Wilson, Ian
The MITRE Corporation	Arnstein, Donald
	Fenlason, Norman
	Lester, Ted
Transport Canada	Bloch-Hansen, Craig
	Diodati, Enzo

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