

**RTCA SC-228**  
**Summary of Plenary 12 – RTCA Paper No: 338-16/SC228-046**  
**Washington, D.C.**  
**12:30 am, Friday, November 14, 2016**

The twelfth Plenary of RTCA Special Committee 228 was called to order by SC-228 Co-Chair, Paul McDuffee at 12:30 pm on 14 November 2016, using WebEx audio and web conferencing. Paul welcomed all attendees.

1. Agenda Item #1 - Welcome/Introductions/Administrative Remarks.
  - 1.1 The session started off with Paul McDuffee announcing himself as the Co-Chair for SC-228 and that Rick Heinrich is also in attendance.
  - 1.2 Paul M introduced Steve Van Trees, who read the Public Meeting Announcement as the Designated Federal Official.
  - 1.3 Al reviewed the proprietary policy and community participation.
  - 1.4 Al reviewed the membership policy.
  - 1.5 The complete list of session participants is listed in Appendix A.
2. Agenda Item #2 – Agenda Overview.
  - 2.1 Paul M acknowledged that this was an unusual meeting; a virtual meeting using WebEx.
  - 2.2 The agenda is focused on the readiness of the DAA and RADAR MOPS presented by working group 1.
  - 2.3 Paul M asked for approval of the minutes from Plenary #11 (RTCA Paper 305-16/SC228-044). John Moore moved to approve the minutes, Steve Van Trees seconded, there were no comments, and the minutes were approved.
3. Agenda Item #3 – Determine approval of WG-1 DAA MOPS.
  - 3.1 Paul M handed off discussion to Don Walker and Brandon Suarez to discuss the status of the DAA and RADAR MOPS. Asking the Co-Chairs to discuss the timeline to getting the MOPS prepared and presented to PMC. Also asking the Co-Chairs to discuss the results of the electronic ballot collected today.
  - 3.2 Don outlined where the workgroup stands, and indicated the 2500 comments from FRAC represented a massive amount of work. Don indicated that there were at least a half dozen comment resolutions which had been agreed to, but had not yet made it into the document.
  - 3.3 Don indicated that there were no outstanding substantive disagreements within the workgroup; it was just a matter of needing additional time to get the agreed to material into the document.
  - 3.4 Brandon S thanked everyone in WG-1 for getting all the material into the document. He also acknowledged that a few items were missing.

- 3.5 Paul M reviewed the ballot results and identified that there were 2 “no” votes. Further commenting that we are at a 98% solution. Paul stated that we owe it to ourselves and the community to achieve a better quality product. Paul’s view of the risks to the effort from slipping to the next PMC cycle: Low Risk
- 3.6 Paul proposed that completing the document by the end of December 2016 as being still achievable. And asked that the workgroup review comments addressed, address grammatical and format, and provide more time for the PMC to review the document.
- 3.7 Paul M proposed that both MOPS documents should be inserted into the March PMC cycle. In doing so, proposed that the next Sc-228 plenary could be in about January to approve.
- 3.8 Rick H injected that it was important to get this right. And that the committee should not stop work to get approval, but should get to work with Phase 2. Rick does not see this as a negative impact on the document; he sees the workgroup producing a higher quality document.
- 3.9 Tod Lewis injected that he was aware of several small problems with the document, and had concern that there could be some larger problem that we were simply unaware.
- 3.10 Bruce Eckstein commented that all big Non-Concurs had been addressed, and that all remaining concerns were “cleanup”.
- 3.11 Shelly O’Leary commented that the original plan to have a document ready today with small copy edits over the next month really doesn’t describe the current state; the current document does not have any real editorial review.
- 3.12 Rick H commented that a document going to PMC review is supposed to be “done” completely. The flexibility the PMC was offering was that a “content clear” document with small publication repairs was pushing the envelope for PMC review of a document which is still in production. The content related issues are inconsistent with the “accelerated” flexibility the PMC was offering.
- 3.13 Paul M identified that there were a large number of “abstain” ballots, and this adds to his discomfort. Making him uncomfortable with a document starting out with this many concerns hanging over it.
- 3.14 John Moore injected that WG-2 will be holding a workshop Jan 30-Feb3 at NASA Ames, and that turning this into a Plenary was a possibility. John also expressed concern about participation at these “WebEx” or “Virtual” Plenary... it has generally been the policy of the committee to disallow WebEx for plenary meetings – preferring that participants should meet face to face.
- 3.15 Paul M noted that Feb 22 would be about the last date for holding a plenary prior to the March 22 PMC.
- 3.16 John M injected that if there is a January Plenary, a face to face meeting coinciding with workgroup meetings would improve turnout.
- 3.17 Brandon asked for clarification that we even need a face to face.
- 3.18 Don suggested that a WG-1 face-to-face meeting has an advantage in that if there are any lingering issues, they can be dealt with... Don’s fear is that come the next “Virtual” plenary, we will be faced with a small number of non-concurs and a bunch of abstain ballots.

- 3.19 Paul M indicated that it would be preferable to not drag this into January as it will become a distraction to Phase 2 work. At worst, finish this by the second week in January.
  - 3.20 Al gave some prospective dates for a January Plenary. 1/9 and 1/16
  - 3.21 Shelly indicated that she could complete the document by December 21<sup>st</sup>; earlier perhaps.
  - 3.22 Paul M suggested that the MOPS could be ready no later than December 15.
  - 3.23 John M questioned that if there is this much energy in the discussion, there may be more issues and more to the changes proposed.
  - 3.24 Brandon indicated that it was a reasonable request that the MOPS should be ready by mid-December.
  - 3.25 Shelly added that the final edit copy could be complete by December 16<sup>th</sup>
  - 3.26 Paul M reiterated that all the FRAC comments should be incorporated.
  - 3.27 Shelly announced that she could provide a final copy by December 9<sup>th</sup>
  - 3.28 Don announced that we don't have to do a face-to-face WG-1 meeting. But warned that there is a risk that we will still have unsatisfied members come mid-December.
  - 3.29 Paul M stated that we could accomplish document completion and distribution by email with completion by December 9. And an extra-ordinary plenary on December 16 via telecon.
  - 3.30 Don indicated that the dates will work.
  - 3.31 The leadership will establish the final date (whether it will be December 15 or 16). With the MOPS documents passed to PMC review.
4. Agenda Item#4 – Adjournment: With no further questions or comments from the Plenary participants and adjourned the meeting.

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

Richard Heinrich	SC-228 Plenary Co-Chair	Rockwell Collins
Paul McDuffee	SC-228 Plenary Co-Chair	Insitu
Paul Campbell	SC-228 Plenary, WG1 Secretary	FAA, AUS-420
Brandon Suarez	SC-228 WG1 for DAA, Co-Chair	General Atomics
Don Walker	SC-228 WG1 for DAA, Co-Chair	FAA, AIR-130
John Moore	SC-228 WG2 for C2, Co-Chair	Rockwell Collins
Steve Van Trees	SC-228 WG2 for C2, Co-Chair	FAA, AIR-130
Al Secen	SC-228 Program Director	RTCA

Name	Organization
Arthur, Keith	NASA
Askar, Naiel	General Atomics Aeronautical Systems, Inc.
Baraban, Dmitri	The MITRE Corporation
Benner, William	FAA
Benson, Rob	Qelzal
Bete	
Boci, Tony	Exelis
Boddicker, Mathias	Navy
Butler, Geoff	
Calhoun, Sean	Calhoun Analytics
Campbell, Paul	Federal Aviation Administration
Chauhan, Deepak	FAA
Chen, David	FAA
Chen, Won-Zon	NGC
Chiappe, Dan	CSULB
Cirulli, Dave	Meggitt
Coenen, Olivier	Qelzal
Connolly, Jack	NASA
Davis, James	Sagetech
Demory, C	Navy
Dutle, Aaron	NASA
Eckstein, Bruce	Harris Corporation

Name	Organization
Edwards, Matthew	MIT Lincoln Laboratory
Euteneuer, Eric	Honeywell International, Inc.
Franceschini, Mike	Honeywell
Fern, Lisa	NASA
Fredricks, Eric	FAA
Fu, Alex	FAA
Greutert, Ed	Tla vista solutions
Guendel, Randall	MIT Lincoln Laboratory
Heinrich, Richard	Rockwell Collins, Inc.
Hughes, Robert	Northrop Grumman Corporation
Jack, Devin	Adaptive Aerospace Group
Kay, Jacob	Bihle Applied Research, Inc.
Kotegawa, Tatsuya	General Atomics
Kunzi, Fabrice	General Atomics Aeronautical Systems, Inc.
Langelier, Marcie	NAVY
Lester, Ted	The MITRE Corporation
Lewis, Elliot	NASA
Long, Anthony	FAA
Mariano, Sheila	Federal Aviation Administration

Name	Organization
McDuffee, Paul	Insitu
Moore, John	Rockwell Collins, Inc.
Munoz, Cesar	NASA
O'Leary, Michelle	Regulus Group
Pagano, Thomas	Regulus Group
Patterson, Brian	The MITRE Corporation
Pratt, Ethan	Bihrl Applied Research, Inc.
Reed, Mark	Air Line Pilots Association
Roth, Dan	NASA
Santiago, Confesor	NASA
Schwartz, Jonathan	MITRE
Shively, Jay	NASA
Shrestha, Akhilesh	Arcon
Sivananthan, Siva	ARCON Corporation
Smearcheck, Samantha	Calhoun Analytics

Name	Organization
Smith, Mark	L-3 Communications
Stanfield, Wade	Thales
Suarez, Brandon	General Atomics Aeronautical Systems, Inc.
Sunshine, Erin	MITRE
Thippavong, David	NASA
Van Trees, Stephen	FAA
Vian, John	Boeing
Vu, Kim	NASA
Walker, Don	FAA
Warren, Jeremy	Booz Allen Hamilton (USAF Exempt)
Wilkening, Christopher	Bihrl Applied Research, Inc.
Young, Ray	Northeast UAS Airspace Integration Researc...

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Kristina Carr  
Secretary, RTCA SC-228

CERTIFIED as a true and accurate summary of the Meeting.

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Richard Heinrich  
Co-Chair, RTCA SC-228