



EUR 224-18/WG96-044
RTCA Paper 225-18/SC236-019

11 October 2018

Minutes of Meeting
EUROCAE WG-96 / RTCA SC-236 Joint Meeting #09
Standards for Wireless Avionics Intra-Communication (WAIC) Systems
within 4200 - 4400 MHz

Date	Tuesday October 9 to Friday October 12, 2018
Place	Panasonic Center Tokyo https://www.panasonic.com/global/corporate/center/tokyo.html
Venue	Panasonic Laboratory Tokyo
Host	Panasonic Laboratory Tokyo
Contact Persons EUROCAE RTCA	Anna Guégan < anna.guegan@eurocae.net > Phone: +33 1 40 92 79 31 And Rebecca Morrison rmorrison@rtca.org +1 202-330-0654

AGENDA

1. Welcome/Administrative Duties/EUROCAE and RTCA Policy Statements
2. IPR / Membership Call-Out and Introductions
3. Acceptance of Meeting Minutes for the 9th Joint Meeting of SC-236/WG-96 held at RTCA in Washington D.C., USA, August 2018
4. Review delivery schedule for MASPS and MOPS
5. Reports of the Sub-Working Groups
6. Status and review of the Draft Paper MASPS (dedicated for ICAO Job Card)
7. Consider a motion to initiate Open Consultation/Final Review and Comment on the MASPS
8. Review of Special Committee Schedule
9. New Business Discussions
10. Review of Action Items
11. Plan for next meeting
12. Adjourn

Note - Plenary Session is split into following blocks:

- October, 9: 9:00am Japanese Time covering agenda items 1 to 4
- October, 11: 3:30pm Japanese Time covering agenda items 5 to 7
- October, 12: 9:00am Japanese Time covering agenda items 6/7 (repeat) and 8 to 12
- All other working time was used by Sub-working Group Tasks

Attachments:

- Attachment A : Updated latest version of SC-236 TOR Rev 3 Approved 09-20-2018
- Attachment B : Action List (SC-236, WG-96 WAIC) – status August 2018
- Attachment C : Attendance List
- Attachment D : SC-236 Plenary 181011 (Steven Rines)

(Refer to RTCA web-folder)

Minutes of Meeting: October 9st (start 09:00pm local time)

Agenda Item 1 Welcome

Rebecca Morrison (RTCA) welcomes the group to the Plenary Meeting.
Welcome from new RTCA Co-chair WG-236 Steven Rines (SR), who will run the Plenary Meeting.
Co-Chairmen EUROCAE Robin Davies (joined by WebEx) and the Secretary of the Joint SC/WG Peter Anders (PA) joint the meeting.

Mr. Sotoyama Takayuki, host of the meeting venue, provides information on the location, security, WebEx access, social event, etc.

The list of attendees (direct and via WebEx) is contained in Attachment C.

Agenda Item 2. IPR / Membership Call-Out and Introductions

Rebecca Morrison (RM) read the RTCA's "Proprietary Policy" and some general information on RTCA / EUROCAE. Membership modalities are amended by Anna Guégan.

RM referred to the standard presentation SC236_WG96_EUROCAE_RTCA.pdf – RTCA workspace:

http://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=5608

This meeting is considered as a plenary meeting. However, there are 1,5 days dedicated for SWG meetings.

Brain Verna acts as the FAA representative (Government Authorized Representative), joining by WebEx.

There was a significant change in the leadership of the RTCA SC236. **Michael Franceschini** stepped back as the Co-chairman of SC-236. **Steve Rines** took over this position. This change was approved by the RTCA PMC, and the ToR of SC-236 has been updated accordingly (Revision 3).

New ToR has been uploaded and is attached as Attachment A.

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=7444

Agenda Item 3. Acceptance of Meeting Minutes for the 9th Joint Meeting of SC-236/WG-96 held at RTCA in Washington D.C., USA, August 2018

Acceptance of Meeting Minutes for the 9th Joint Meeting of SC-236/WG-96 held at RTCA in Washington D.C., USA, August 2018. See link:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=7815

Agenda Item 4. Review delivery schedule for MASPS and MOPS

MASPS Planning:

- Finalize the final SC-236 version by October 11, and to introduce it during the Plenary for the FRAC.
- FRAC launch in week 15.-20.October (to guarantee a 45 days comment phase)

- FRAC deadline 5.Dec (all comments received will be put on the RTCA webspace of SC-236.)
- SC-236 response to FRAC Comments during RTCA SC-236 Meeting January 14th- 17th 2019.
- Forwarding to RTCA for Publication after January Meeting.
- Side discussion: How will the MASPS be recognized by FAA? → BV will require that an **Advisory Circular** should be published by FAA. This AC could provide the process how applicants should demonstrate compliance with coexistence between WAIC and Radio Altimeters. The relevant two requirements are part of the MASPS, which applies to this compliance demonstration. RTCA SC-236 strongly supports this approach.

MOPS Planning: (Notice: this one-hour discussion was postponed to October 11 (morning 9:00)

- SR provides a proposal about the tasks of the MOPS. The first part of the presentation contains a mapping versus ARP4754A. The second part contains a list of related tasks and a schedule.
- **See Attachment D, prepared by SR.**
- SR is planning to elaborate a mapping of the generic requirements to the MOPS structure,
- SR requests SWG#1 to shift the focus from the MASPS to the requirements (mainly related to radio features and functions) related to the MOPS as MASPS FRAC is complete.

SWG Breakout sessions

At 11:30am (9.Oct) the first four agenda items are completed. Then, the meeting split into two separate sessions of Sub-working groups.

SWG 2 (SR) worked on the STPA models and requirements capturing.

SWG 1 (SB) worked exclusively on the received comments that mainly received from the ICAO/FSMP that received an early draft of the MASPS¹ in beginning of September.

Rebecca compiled all received comments into the RTCA Comments-response excel file format. The SWG#1 went through all comments, made a decision on the response and recorded the response into the excel file. US compiles in parallel the new version of the MASPS based on accepted change proposals.

- Just as a reminder, the main purpose of the MASPS is to enable amending ICAO Annex 10 in order to include a new SARP for the usage of Wireless Avionics Intra-Communication (WAIC) as an aeronautical communication means, in the frequency range within 4200 - 4400 MHz as already permitted for Radio Altimeters (RA). The MASPS shall provide conditions to allow the coexistence between RA and WAIC on aircraft in close distances, without impacting the existing design and installation conditions of RAs.
- TM presented the results of test campaigns that were done by the support of AVSI consortium. The results enabled the Group to determine some specific values in the calculation of margins (which were "**tbd**" so far). However, there is an issue with using results publicly on the measurement on Radio Altimeters. AVSI required managing these data as proprietary information. On the other hand, it is assumed that this information are required to justify the values used in the formula in the MASPS.
- As mitigation, it is proposed to present this information to EASA and to FAA in separate sessions, just obtain their agreement. (New **action items #31 and #32**). Radek (RZ) will be in charge to organize such sessions in near future. Rebecca explained that the FAA is considered as a non-competition organization and could receive such information without any constraints. BV confirmed that such an approach is acceptable.
- In addition, a White Paper should be prepared (similar to the one which is already produced for briefing the ICAO/FSMP in Sept 2018). This paper contains information on such test procedures considering WAIC to WAIC coexistence, and other information that is considered as non-proprietary.

¹ DO-XXX Minimum Aviation System Performance Standard (MASPS) for Coexistence of Wireless Avionics Intra-Communication Systems within 4200-4400 MHz

Plenary resumed on October,11: 3:30pm Japanese Time

Agenda Item 5. Reports of the Sub-Working Groups

SWG#1 (SB) worked exclusively on the comments received in advance (mainly from ICAO/FSMP) and on the internal individual members review based on the draft-version late-evening 10.October.

SWG 2 (SR) worked with VK on the STPA models and requirements capturing. SWG2 also reviewed inputs from SWG#3. Shohreh Safarian (FAA) reminded the group that there is a white paper from Martin Call addressing ***WAIC Airworthiness Considerations of a Physical Signal Wire versus a Wireless Signal*** with Respect to Safety and Security. Members of SWG#1 were encouraged to review this Paper. This White Paper can be found here:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=w230

Agenda Item 6. Status and review of the Draft Paper MASPS

The document is considered as being ready for the FRAC phase. No “TBD” anymore, all comments resolved. All comments, received so far, have been answered or considered in the Draft document.

Agenda Item 7. Consider a motion to initiate Open Consultation/Final Review and Comment on the MASPS

Note: This part of the Plenary has been presented twice, because of the time shift between Japan and Europe and Japan/US-site: First part takes place on 11.Oct 5:30pm (Japan Time), in order to invite European members (plus AG from EUROCAE) per webex. The second part takes place on 12.Oct 9:00am (Japan Time), in order to invite US members per webex.

RM and AG (joint by WebEx on 11.Oct) presents the timeline and principles of the Open Consultation, especially which procedures become effective if “non-consensus”. See RTCA/EUROCAE presentation on principles of consensus and timeline:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/document.php?document_id=34741&referring_url=%2Fkws

Any questions should be forwarded to Anna Guegan and Rebecca, because the entire FRAC process is going to be a Joint Process.

The chairman SR asked if anybody has objections to open the FRAC and Open Consultation at current time. No dissenting vote was raised.

Conclusion: FRAC/Open Consultation will be launched in CW42.

FRAC deadline will be 5.Dec (all comments received will be put on the RTCA webspace of SC-236). However, comments could be forwarded to RTCA or to EUROCAE.

SC-236 response to FRAC Comments will be finished during RTCA SC-236 Meeting January 14th- 17th 2019. Rebecca highly recommends to review public Comments in advance of the January meeting, in order to elaborate proposals for most problematic comments (Category High and Non-concur (dissenting opinion)).

Agenda Item 8. Review of Special Committee Schedule

Captured already by agenda item #4 above.

Agenda Item 9 . New Business Discussions

No points have been raised.

Agenda Item 10. Review of Action Items

The Plenary Action List (see Attachment B: Excel-file; Action List) has been reviewed:

#21: Closed; FCC petition text drafted; it's up to the Members to forward it to the FCC (envisaged target date End of November)

#27 and #28: Closed; MOPS layout and initial drafting have been assigned to SWG-2

#29: Closed - Answered by Brian Verna: *The answer is there is no minimum, the regulation says "do not be careless". The practical experience and feedback received was that a safe height of about 100 ft is normal considering rotorcraft operations. This of course can vary based on operational requirements.*

#30: kept open: RM will further check available sources explaining formal administrative RTCA acronyms

Two new actions have been opened: #31 and #32 - See above Agenda Item#4.

See Attachment B: Action List (SC-236-WG-96 WAIC) – status August 2018 (uploaded by Secretary).

Agenda Item 11. Plan for next meeting

Following next Joint meetings are planned:

- January 14-18, 2018 – AIRBUS, Mobile, Alabama (backup RTCA-HQ Washington DC)
- April 8-12, 2018 – Joint meeting (Likely in LH-T Hamburg or Frankfurt)
- July 2018 – Dates cannot be decided until April if we meet in Chicago. Discuss in January
- October 2018 – Reviewing potential dates in Cologne, Germany

Meeting hosts should facilitate having rooms for **two break-out sessions** in similar way as during the current meeting.

Adjourn (Friday 12:00)

Chairman Steve Rines thanks participants for fruitful contributions and closes the Meeting.

Complied by Peter Anders

Secretary of Joint SC-236/WG-96

Approved by Robin Davies

Co-Chairmen of WG-96 (EUROCAE)

Approved by Steve Rines

Co-Chairmen of SC-236 (RTCA)

Appendix – Group Photo

