



EUR 100-19/WG96-054
RTCA Paper No. 102-19/SC236-028

22 April 2019

Minutes of Meeting
EUROCAE WG-96 / RTCA SC-236 Joint Meeting #12
Standards for Wireless Avionics Intra-Communication (WAIC) Systems
within 4200 - 4400 MHz

Date	Tuesday April 9, 2019 – Friday April 12, 2019
Place	Konrad-Adenauer-Ufer 3 50668 Köln Germany
Venue	EASA
Host	EASA
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

Plenary Session Beginning Tuesday April 9, 2019

1. Welcome/Administrative Duties/EUROCAE and RTCA Policy Statements
2. IPR / Membership Call-Out and Introductions
3. Acceptance of Meeting Minutes for the 11th Joint Meeting of SC-236/WG-96 held in Mobile, Alabama January 2019
4. Review delivery schedule for MASPS and MOPS
5. Review and disposition comments received against the MASPS
6. Reports of the Sub-Working Groups
7. Consider a motion to complete Open Consultation/Final Review and Comment on the MASPS and send to EUROCAE Council and RTCA PMC for publication
8. Review of Special Committee Schedule
9. New Business Discussions
10. Review of Action Items
11. Plan for next meeting
12. Adjourn

(Plenary will adjourn to working group meetings when business is complete)

- **Attachments:**
- Attachment A : Attendance List
- Attachment B : Action List (SC-236, WG-96 WAIC) – status April 2019

(Used presentations, please refer to RTCA web-folder directly)

Minutes of Meeting: Start on Tuesday April 9th (09:10pm local time)

Agenda Item 1 Welcome

Anna Guégan (EUROCAE) welcomes the group to the Plenary Meeting, also on behalf of Rebecca Morrison (RTCA). Due to flight delay, Rebecca will arrive later (she arrived on Wednesday, 10th April).. Welcome from RTCA Co-chair WG-236 Steven Rines (SR), and the Secretary of the Joint SC/WG Peter Anders (PA). Robin Davies (EUROCAE Co-Chairmen) arrived later too (11:30am).

EASA (Kevin Hallworth) organized hosting the meeting venue. Kevin provides information on the location, security, webex access, and a social event planned later the week.

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

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

Anna (AG), on behalf of Rebecca Morrison, reads the RTCA's "Proprietary Policy" and some general information on RTCA / EUROCAE membership modalities.

AG 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. Brain Verna (BV), acting as the FAA representative (Government Authorized Representative) participates this plenary.

Agenda Item 3. Acceptance of Meeting Minutes for the 10th Joint Meeting of SC-236/WG-96 held at Panasonic in Tokyo, Japan, October 2018

Minor editorial changes have been incorporated by the secretary Peter Anders.

Acceptance of Meeting Minutes for the 11th Joint Meeting of SC-236/WG-96 held at Mobile/Alabama organized by AIRBUS-Americas. See link:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=8410

Peter Anders informed the Joint SC-236/WG96 about his retirement by this summer. Therefore, he will be replaced as Joint-Secretary. Radek, who already volunteered earlier in January, will become Secretary from next meeting (June '19) on. To pave the formal process related to this this change, there are three Action items created (refer to Attachment B; Actions #38...40).

Agenda Item 4. Review delivery schedule for MASPS and MOPS and Agenda Item 5. Review and disposition comments received against the MASPS

MASPS Status and Planning:

- The MASPS¹ was finalized during this week January 14th- 17th 2019.
- All comments from FRAC, collected together by Rebecca, have been implemented or answered so

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

far. However, comments received from FAA², especially comments received just during the latest phase of FRAC were reviewed together with the FAA after the January Plenary Meeting (note: FAA resumed working in late January). It should be noted that the FAA has sent some additional comments that were addressed during webex meetings (during February/March '19) organized by SWG#1 with FAA. All items found acceptance by FAA finally.

- Results were incorporated into following folder/document:
 - https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/document.php?document_id=34741&referring_url=%2Fkws
 - https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=8401
- One item is still under discussion: It is one of the essential request of EASA and FAA to add an appendix to the MASPS to show how technical values have been justified, and to explain the test (setup) and lab measurement principles.
- The AVSI established a paper that would fulfill perfectly this FAA/EASA request (see also discussions during the January plenary meeting (see MoM January'19). This part, which is planned to add as an Appendix to the MASPS document, could not be added to the MASAP until following AVSI internal issue will be solved:
 - o At current time, this Paper has been finalized/completed by members of AVSI. However, per contract, a publication of this paper could be made possible only, if each and every member of AVSI agree to do so. One member, THALES, raised concerns on the paper, and disagree so far with the publication.
 - o There was a side discussion of the AVSI with Thales to solve Thales' concerns. The discussion finished with disagreement at Thales side.
- Further discussions of the AVSI members need to be done, in order to find "backup" solutions, in case THALES will stay in disagreement. (see Agenda item #7).

MOPS Planning:

- Steven (SR) provides a proposal about the tasks of the MOPS. It outlines how the STPA Requirements will flow into the MOPS requirements. Currently, it is important to trace the higher level data security requirements into the level of MOPS requirements (at equipment level, or at integration level). SR planes to use the working group session to finalize this mapping together the mixed working groups 2+3+4.

Agenda Item 6: Reports of the Sub-Working Groups

SWG 1 Sanjay (SB) reported that SWG#1 worked on the received comments by the FAA on the MASPS. Uwe, the editorial owner of the MASPS, took the lead to incorporate agreed changes into the document. The main point was to incorporate also the AVSI Paper.

Note: Most of the SWG#1 members are also AVSI members. However, the work on the "AVSI paper" was done with a subset of members, sharing both AVSI and SWG#1. One of the reason is that the AVSI paper remains a proprietary paper, without publishing permission, until all AVSI members will agree to put it on public.

These sub-SWG members joint together during the 9th April afternoon in order to discuss the remaining concerns of THALES. *This side meeting is not part of the Plenary!*

SWG 2 Steven (SR) worked on the STPA models and requirements capturing, especially to capture requirements related to Cyber-security. Therefore, SWG2 and SWG3 worked closely together, i.e. by organizing joint webex sessions, where both group members were invited.

In response to Action item #36, SR reported about his attempt to co-work with SAE/ARINC activities on "interoperability" and its approach to establish an Industry Standard (reminder: during the January meeting

² Reminder: Due to the US Government shut-down, the FAA was unable helping to resolve their comments in time, or during the January meeting.

SR presented a suitable way, how ARINC-854 “Standard on Messaging process”³ could be applied to WAIC implementation too. It remained open, how close this quasi API Standard could be linked with the future MOPS. SR participated on SAE/ARINC Cabin System Subcommittee meetings by End of January, and proposed further development of a Standard to be used for WAIC-components-interoperability (via an ARINC Project Initiation/Modification (APIM)). One of the results was that the SAE/ARINC Cabin System Subcommittee requested SR to provide more justifications on the process and its benefits.

The draft of the APIM is available here:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/download.php/36010/APIM%2019-# AEEC APIM Media Independent Aircraft Network Communications.docx

That closes Action Item#36.

SR plans to complete the entire requirements capturing via STPA in the next two months. He will report on the completion during the next plenary meeting End June.

SR did also work on the final outline of the WAIC MOPS document. The update is available here:

https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/download.php/36961/WAIC%20MOPS%20Draft%20190423.docx

That closes Action item#37

SWG3 and 4: refer to their contributions on the requirements capturing process of SWG#2. Steve will provide status of this mapping later on this meeting.

Break-out sessions (9th April, Tuesday afternoon – continuing on Wednesday)

At this point, the Plenary was split into two Groups:

1. SWG#1 (AVSI members only) to discuss status of the paper, and to close down concern of THALES (THALES was invited by phone/webex)
2. SWG#2 (under leadership of SR), joint by other SWG#3, #4 and #1 members, to progress on the mapping “security requirements” <> MOPS level requirements. Final results could be found here: https://workspace.rtca.org/apps/org/workgroup/sc236_standards_for_waic/documents.php?folder_id=8285

Continue of Plenary Minutes of Meeting: Thursday April 11th (09:00pm local time)

Agenda Item 7. Consider a motion to complete Open Consultation/Final Review and Comment on the MASPS and send to EUROCAE Council and RTCA PMC for publication)

The main open discussion point was how to get approval for publication of the AVSI paper as an Attachment of the MASPS to justify the technical values mentioned there.

Again, after a second call with THALES on Thursday morning, their concerns and disagreement still remained unchanged as the day before. So, the group considers following option, also be called Plan “B”:

Rebecca proposed to have virtual plenary **before May 16th**, which is the absolute latest date that could be used to consider a motion to complete Open Consultation/FRAC on the MASPS and to send subsequently the final document to EUROCAE Council and to RTCA PMC for publication (Notice: PMC End of June). It should also be noted that the MASPS (or its reference) should enable ICAO/FSMP to complete the ICAO Annex 10 JobCard. Next meeting FSMP August 12th. Availability of the MASAS by this date is expected by the FSMP.

It should be useful accelerating the agreement process in THALES, which is considered as the current show-stopper.

One proposal was, to establish a Letter to be sent from RTCA (with FAA support mentioning in the Letter) to THALES. Rebecca will consider.

³ Even though, it is primarily established for cabin related components, it could be adapted easily as a general-purpose aviation standard

Another push could be initiated by EUROCAE. THALES is member of the EUROCAE Committee, and so she/he could be convinced by other EUROCAE Committee leaders (AIRBUS, BAE Systems, , ..) to agree on the AVSI Paper, and to permit its public usage.

However, the whole group members expressed their hopes that the issue could be closed before May, 16th, latest 15th afternoon.

Agenda Item 8. Review of Special Committee Schedule

MASPS:

Captured already by agenda item #7 above. The next step is organizing a virtual plenary on May, 16th,

MOPS:

SR presented the “The Big Picture” of relations between MOPS and other entities, including Standards that are necessary to be established somewhere, but obviously outside RTCA MOPS scope. However, the context of the MOPS needs to be in line with such other activities. A planning, in terms of schedule, is quite difficult. One task was discussed about the “Knowledge base” (part of the big picture). SR asked David Redman, whether this activity could be considered by AVSI as a future mission. David will review Steven’s proposal later on.

Concerning short term actions, SR repeated his approach to complete the entire requirements capturing via STPA in the next two months. He will report on the completion during the next plenary meeting End June.

Agenda Item 9. New Business Discussions

Secretary position switch was discussed during Agenda Item 3 (see above). No other points have been raised.

Agenda Item 10. Review of Action Items

The Plenary Action List has been reviewed:

Actions #36 and #37 have been closed.

Three new actions have been opened: #38 to #40 see above Agenda #3.

Summary and tracking of Action Items see **Attachment B: Action List** (SC-236-WG-96 WAIC) – status April 2019 (uploaded by Secretary).

Agenda Item 11. Plan for next meetings

Following next Joint meetings are planned:

- 24-28 June 2019 – FAA offices/ Chicago with 24th as SWG and/or AVSI meeting)
- 7th – 10th October Germany/Hamburg, hosted by Lufthansa-Technik (11th October 2019 SWG)
- January/February in RTCA HQ Washington/DC (poll will be sent out); offering other US hosts are welcome.

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

Adjourn

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

Complied by Peter Anders

Approved by Robin Davies

Approved by Steve Rines

Secretary of Joint SC-236/WG-96

Co-Chairmen of WG-96 (EUROCAE)

Co-Chairmen of SC-236 (RTCA)

Appendix 1: AVSI Paper briefing/discussion

Post-Meeting Notice: After adjourn of the official plenary meeting, all members were invited of a briefing about the general content of the AVSI Paper. The content of the paper was presented via video-projection only (not by paper). David Redman (AVSI) and Radek went through the paper.

The paper is proprietary to the members of AVSI, even if proprietary information are no directly included. Types of Radio Altimeters, that were targets of lab measurements, are designated as anonymous types, i.e. no vendor name is associated with such Radio Altimeters.

This paper was envisaged to be used initially only for the ICAO/FSMG JobCard (required for the ICAO-Annex 10 SARPs amendment on WAIC). However, in the meantime, it became part of the MASPS too (see discussions above during plenary).