



EUR 154-17/ WG79-51
RTCA Paper No. 154-17/SC213-100

06 June 2017

Minutes of Meeting
EUROCAE WG-79 #23 meeting/ RTCA SC-213 Joint Plenary # 33
Enhanced Vision Systems (EVS) Synthetic Vision Systems (SVS)

Date	<i>May 9th through May 12th 2017</i>
Place	<i>Saint-Denis, Paris, France</i>
Venue	<i>EUROCAE</i>
Host	<i>EUROCAE</i>
Contact Persons EUROCAE RTCA	<i>Sergiu Marzac</i> sergiu.marzac@eurocae.net <i>Phone: +33 1 49 46 19 73</i> <i>And</i> <i>Rebecca Morrison</i> rmorrison@rtca.org <i>+1 202-330-0654</i>

Attendance:

Name	Organization
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Please see attached PDF document for complete attendance list.

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May 2017 – WG-79 #23 meeting /SC213 Paris 33rd Joint Plenary Minutes

Attendance on file.

Date: May 09 - 12, 2017

Place: 9 Rue Paul Lafargue, 93210 Saint-Denis France

Hoste: EUROCAE

Agenda:

May 9th 2017 (start 12:00 – end 18:00)

1. SC-213 WG3 subgroup meeting
2. WG-79 MASPS Discussion (SC213 WG4)
3. EFVS Industry WG: How to evaluate EVS performance

May 10th (start 9:30 – end 18:00)

1. 09:00 Check in
2. 09:30 Welcome, introductions, administrative items, agenda review
3. 09:40 SC-213 DFO Statement
4. 09:45 Review/approve last full plenary meeting minutes
5. 09:50 RTCA presentation on FRAC process
6. 10:05 WG-79/SC-213 TOR – Review schedule
7. 10:15 Meeting dates & location [RTCA Washington Oct 16th]
8. 10:30 Break
9. 10:45 SC-213 WG 1,2&3 updates
10. 11:15 WG-79 updates
11. 11:35 NASA WG3 update
12. 12:35 Lunch
13. 13:45 SC213 WG3 discussions
14. 16:00 Break
15. 16:15 SC213 WG3 discussions
16. 17:15 WG-79 industry update & MASPS discussion

May 11th (start 9:30 – end 18:00)

1. 09:30 WG-79 MASPS discussion
2. 11:00 Break
3. 11:15 EFVS Performance Testing
4. 12:15 Lunch
5. 13:45 SC-213 WG2 discussion
6. 15:45 Break
7. 16:00 WG-79 industry update & MASPS discussion
8. 17:00 Administrative

May 12th (start 09:30 – end 15:00)

9. 9:30 WG-79 Review of the MASPS CVS requirements
10. 10:45 Break
11. 11:00 WG-79 Review of the MASPS CVS requirements
12. 14:00 Administrative

Welcome and Introduction

Bruno Aymeric, Thales, EUROCAE WG79 Chair, opened the meeting and welcomed everyone. Trent Prange, FAA DFO, read the RTCA public meeting announcement.

Rebecca Morrison, RTCA, presented the RTCA Proprietary Policy and the RTCA Committee Participation Membership Policy. She also invited participants to attend the RTCA Global Symposium in Crystal City, VA June 13 and 14, 2017 and directed them to the website for additional information.

Bruno announced that Carlo Tiana, Rockwell Collins, is new Secretary of EUROCAE WG-79. His first official action will be to schedule the group dinner for this evening.

Minutes of 32nd Joint Plenary meeting were approved.

Rebecca presented the FRAC review process.

Patrick Krohn, Universal, presented the work plan upcoming for the joint deliverables of SC213 and WG79:

- DO-XYZ New MASPS for SVS ASA, due August 2017
- SPR DO-YYY Vision Systems for Takeoff, due February 2018
- MASPS DO-XXX for CVS for Rotorcraft Operations, due February 2018

Trent Prange, FAA, did not identify future work for SC213 as of now and the group may conclude in February, 2018.

Bruno presented the current WG-79 TORs.

II. Working Group Updates

SC213 WG 1 (SVS) is not active - nothing on horizon.

SC213 WG 2 (EVS for Takeoff) - Tim Etherington, Rockwell Collins, reported that there has been steady progress with bi-weekly telecons.

SC213 WG 3 (ASA) - Thea Feyereisen, Honeywell, reported that a solid final draft document has been distributed to members prior to plenary.

SC213 WG 4 / WG79 WG1 - Bruno reported that actions from previous plenary have been closed. Minimum updates were made to ED179. CONOPS document was delivered to EUROCAE.

III. Research Update

Kyle Ellis, NASA, presented NASA research in support of WG3 content.

Johannes Ernst presented DLR research in support of WG4 helicopter operations.

IV. Working Group 3

Thea Feyereisen, Honeywell, walked members through the draft document. Minor updates were made and the committee assessed that the document ASA SVS is ready for FRAC. The document was forwarded to RTCA management for formatting.

V. Working Group 4

Philippe Salmon, Airbus, presented current status for MASPS for CVS for Rotorcraft Situational Awareness. The document is progressing and should be ready in mid-July for editorial work and adjustments. The final draft is anticipated to be ready for review in September, 2017, and ready for formal process release November, 2017.

Frans van Gorkam, EASA, indicated that there are currently no applications for CVS for Rotorcraft and rulemaking task for CS-AWO has no plan for incorporating these MASPS into CS-AWO. Frans expects that upon application there would be CRI material possibly referring these MASPS. Frans will share the document with Rotorcraft groups within EASA for

operational side feedback.

VI. SC 213 EFVS Visual Advantage WG

Scott McLennan, FAA presented an update on 91.167. The effective date is March 21, 2017 and the compliance date is March 13, 2018. AC 90-106A operational approval criteria are published

It is anticipated that there will be no minimums reduction, just a number "Visual Advantage" (VA) assigned to a system. The number will be subtracted from the IAP minimums. They are seeking a single number for all weather conditions, with recognition that this is imperfect.

FAA indicated a strong desire for sensor manufacturers to be involved in determination of VA. The FAA proposed the intent would then be for the AEG to check that the systems performs as proposed by the Manufacturer.

Concern was expressed by members that VA should be determined by full installation as individual sensors vary between installations and may be enhanced onboard with additional processing.

FAA Flight Standards does not intend to initially allow EFVS to touchdown operations under 1000' RVRs.

Frans believes that in Europe, the determination will be done in certification process.

VII. WG2

Randy Bailey, NASA presented the EFVS-aided LVTO SPR document. The assumption behind the document and the operation is that a DO-315A compliant system is installed on the aircraft. SPR provides minimal additional requirements and credits specifically for the LVTO segment. Five actions were captured by Randy for WG level resolution.

VIII. Conclusion

RTCA SC-213 will host a plenary via Webex on August 1, 11am - 5pm EDT. The purpose of this meeting is to review and disposition FRAC from WG3 ASA SVS.

EUROCAE WG79 will host a plenary via Webex (date TBC) to continue WG activities on CRW CVS MASPS.

The next face-to-face Joint RTCA-EUROCAE Plenary meeting will be October 17 - 19, 2017, at RTCA in Washington, DC. This meeting may be hosted alternatively by Gulfstream in Savannah, but this is yet to be confirmed by Gulfstream. The first day of the October meeting (Tuesday 17th) will be reserved for WG break-out sessions.

No new action items were captured.

1. EUROCAE WG-79 specific section - Status of Action Items and Review of Actions

The following actions were closed:

MTG 21-08, MTG 22-01, MTG 22-03, XX-XXX.

The following actions were added:

MTG23-01

Number	Action	Responsible	Due By	Status
MTG10-03	Strengthen group - encourage EASA Ops panel to participate to WG-79	All	Continuous	Continuous If a WG-79 is ops-focused, EASA could send a participant from ops panel instead of Frans. Desired greater participation from US operators/regulators.
MTG-17-02	Finalize coordinated schedule for RTCA FRAC / EUROCAE Open Consultation process for SVS ASA MASPS	Bruno A	ASAP	Bruno, and Adrian offline
MTG 21-08	Identify / review existing reference document or work in progress that would apply specifically to helicopters	Olivier L	March 17 th	Closed.
MTG 21-12	Prepare a presentation of SAE 6377 activity for next meeting	Bruno A	April 12 th 2017	
MTG 22-01	Suggest topics (to Bruno) for presentations at Plenary, if any	All	April 17 th 2017	Thomas M. and Johannes E. invited to present. Closed.
MTG 22-02	Thomas to provide material on sensor types being considered	Thomas M.	May 4 th 2017	
MTG 22-03	Propose definition of image conformality	Philippe S.	May 4 th 2017	Closed.
MTG 22-04	Propose approach for Means of Compliance section.	Philippe S.	May 9 th 2017	
MTG 23-01	Detailed action list for SA-MASPS WG	Philippe S.	December 2017	Detailed list tracked via separate action log by Philippe.

2. Report to the EUROCAE Secretariat

Will be covered by sending draft Minutes to the Secretariat (Adrian Cioranu/Sergiu Marzac)

3. Date of Next Meetings

Being planned:

- July 2017: Face-to-Face for SA-MASPS Working Group to advance document maturity in advance of FRAC. Working group meeting.
- September 2017: Full WG-79 membership (Meeting #24) Webex

EUROCAE WG-79 Meeting #25 and Joint Plenary with RTCA SC-213 will be held October 9th -12th at RTCA in Washington DC (location tentative, may be updated to Savannah, GA)