Minutes of Joint Plenary Meeting
EUROCAE WG-79 Meeting # 26 / RTCA SC-213 Meeting # 35

<table>
<thead>
<tr>
<th>Date</th>
<th>October 18th through 19th 2017</th>
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<tr>
<td>Place</td>
<td>RTCA - 1150 18th St. NW, Suite 910 - Washington DC 20036 USA</td>
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<tr>
<td>Venue</td>
<td>RTCA</td>
</tr>
<tr>
<td>Host</td>
<td>RTCA</td>
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</tbody>
</table>
| Contact Persons | Sergiu Marzac  
sevgiu.marzac@eurocae.net  
Phone: +33 1 49 46 19 73  
And  
Rebecca Morrison  
morrison@rtca.org  
+1 202-330-0654 |
| EUROCAE       |                                |
| RTCA          |                                |

Attendance: Please see attendance list at end.

Points of contact:

**Tim Etherington**,  
RTCA SC-213 Co-Chair  
Email: tjetheri@rockwellcollins.com  
Phone: 319-295-5233  
Mobile: 319-431-7154

**Patrick Krohn**,  
RTCA SC-213 Co-Chair  
Email: pkrohn@uasc.com  
Phone: 425-602-1375  
Mobile: 425-626-4074

**Thea Feyereisen**

**SC-213 Secretary**  
Email: thea.feyereisen@honeywell.com

**Bruno Aymeric**  
WG-79 Chairman  
Email: bruno.aymeric@fr.thalesgroup.com

**Carlo Tiana**  
WG-79 Secretary  
Email: carlo.tiana@rockwellcollins.com
Agenda

Following agenda is replicated from official meeting agenda - please refer to official agenda for any discrepancies; it can be found at:
RTCA Paper Number: 184-17/SC213-101
EUROCAE Paper Number: 223-17 / WG79-55

Tuesday, October 17th 2017 (start 0900 – end 1700)

Working group sessions.

Wednesday, October 18th 2017 (start 0900 – end 1700)

1. Plenary discussion (sign-in at 09:00 a.m.)
2. Introductions and administrative items
3. DFO statement
4. Review and approve minutes from last full plenary meeting
5. Review of terms of reference and update work product dates
6. WG1, WG2, WG3 and WG4 status updates
7. Industry updates
8. Working group discussions

Thursday, October 19th 2017 (start 0900 – end 1700)

1. Working Group discussions
2. Discuss initiating Open Consultation/Final review and comment for: Safety and Performance
3. Requirements (SPR) for Vision Systems for Takeoff
4. Discuss initiating Open Consultation/Final review and comment for: Minimum Aviation System Performance Standards (MASPS) for a Combined Vision Guidance System for Rotorcraft Operations
5. Discussing closing the comment resolutions from Open Consultation/Final Review and comment for the ASA SVS MASPS (conclusion from the August 17th meeting)
6. Administrative items (new meeting location/dates, action items etc.)
10. Adjourn
I. Welcome and Introduction

Patrick Krohn, Universal, opened the meeting and reviewed the schedule for the meeting. Trent Prange, FAA DFO, read the RTCA public meeting announcement. Rebecca Morrison, RTCA, and Trent Prange presented the RTCA Proprietary Policy and the RTCA Committee Participation Membership Policy. Minutes from the May (33rd Plenary) and August (34th Plenary) were approved without objection. Rebecca Morrison, presented the FRAC review process.

II. Working Group Updates

SC213 WG 1 (SVGS) - Not currently active.
SC213 WG 2 (EVS for Takeoff) – Randy Bailey, NASA, reports that the document is maturing through committee working group telecons.
SC213 WG 3 (ASA) - Thea Feyereisen, Honeywell, reported that comments received from Airbus are resolved.
SC213 WG 4 / WG79 WG1 – Philippe Salmon, Rockwell Collins, reported that a draft a Vision Systems Non-Operational Credit for Helicopters is ready for review and submission to FRAC.

III. FAA AC Update

Trent Prange reports that FAA intends to split AC 20-167A so that enhanced vision and synthetic vision each have their own document. The intent is to have one 20 series document for EVS/EFVS/CVS and another 20 series document for SVS and SVGS. Editorial draft of both documents are underway. The document will then progress to a division review. Public comment solicitation is expected by the end of this calendar year or early next year.

IV. EASA CS-AWO Update

Frans VanGorkum reports on CS-AWO rulemaking task: comments were received on the NPA which caused some delay in release of the document. Latest estimates from Rulemaking is that release is aimed for 3rd quarter 2018, followed by public consultation for 2-3 months, and 6 months to dispose of comments. NPA working draft is available to the working group, but doc will be released at end of November for public consultation.

V. Updates to TOR, Discussion on Future Work Products for SC-213

Currently, there are three work activities on SC-213:

1. WG2 EFVS for Take-off SPR
   a. WG2 is making good progress and no activities are on the horizon after February 2018.
2. WG3 SVS ASA
   a. WG3 activities are complete as MASPS will be presented to PMR in December.
3. WG4 Rotorcraft MASPS
   a. WG4 activities are winding down as MASPS is nearing FRAC.

FAA is trying to decrease number of committees, but keep active in active ones. SC-213 needs to define if there are future work products or if the committee will sunset.

Areas of interest expressed by committee members include:
- Extending Vision Systems for operations below 1000RVR
- Update the documents to reflect operational experience
- Support Taxi Operations
- More detailed requirements for CVS (HUD and HDD)
- SVGS LPV to 150/100
VI. Review of SVS ASA MASPS Final Draft

Thea Feyereisen, WG3 chair, led the review of Airbus comments and discussion of the SVS ASA MASPS Final Draft. Minor edits were made. Final batch of comments and their disposition was reviewed and accepted by the group. The committee members unanimously approved the ASA SVS MASP document. The document will now go to the RTCA and EASA editors for final formatting.

VII. Review of EFVS for Takeoff SPR Draft

Randy Bailey led the discussion and review of the DRAFT EFVS for Takeoff SPR. SPR covers a certified EFVS system being used either in (a) 1000RVR with no centerline lights, and no electronic means to define a runway using EFVS as a substitute for centerline light or electronic means to define a runway (e.g. ILS), or (b) 500RVR with no centerline lights but with an electronic means to define the runway. Video was reviewed showing EFVS based LVTO and some possible system failures.

VIII. Review of Helicopter CVS MASPS Draft

Philippe Salmon, Rockwell Collins, presented the current MASP draft of Helicopter CVS. This is the first time the draft document was presented to the entire joint plenary. There were several comments with respect to intended function. Edits were made. The document will be posted to RTCA site for an internal pre-frac review.

IX. Report to PMC/EUROCAE Secretariat

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

XI. Dates of next meetings

Rotorcraft MASPS document:

   a. Full team to mark up document and send comments to Philippe directly
2. December 4, 2017 (Virtual) Plenary? to open FRAC.
3. January 29, 2018 (Virtual) Plenary to close FRAC.
4. February 5, 2018 send to RTCA/EUROCAE PMC.

Next Face to Face Joint Plenary dates:

1. Frans Van Gorkum looking at EASA Hosting for the week of April 9th or 16th or 23rd
2. Location would be EASA HQ in Cologne, Germany.

XII. Recognition

Tony Barber, Bombardier, is retiring. He is an original member of the RTCA SC213, Tony has had a significant impact to the committee and its work products. He was recognized with a plaque from RTCA and Professional Pilot magazine for his significant contribution to the industry.
XIII. Conclusion and Action Item Summary

New action items captured:

1. Leadership committee should discuss additional content to be added to SC-213 Terms of Reference including, for example:
   a. TOR dates for WG4
   b. Extending Vision Systems for operations below 1000RVR
   c. Update the documents (DO-315B/DO-341, etc.) to reflect operational experience obtained since their publication
   d. Support Taxi Operations
   e. More detailed requirements for CVS (HUD and HDD)
   f. SVGS LPV to 150/100.

XIV. Attendance

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<tr>
<th>Company</th>
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<tr>
<td>NASA</td>
<td>Bailey, Randy</td>
<td>Manager</td>
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<td>Barber, Anthony</td>
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<td>Blondino, Ryan</td>
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<td>Airbus</td>
<td>BOUSQUET, Fabrice</td>
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<td>Webb, Mike</td>
<td>Member Webex</td>
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EUROCAE WG-79 specific section - Status of Action Items and Review of Actions

The following actions were closed:
MTG21-08, MTG22-01-04

The following actions were added:
None.

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| 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 17th    | Closed.                                                                                   |
| MTG 21-12| Prepare a presentation of SAE 6377 activity for next meeting          | Bruno A    | April 12th, 2017 | ASAP                                                                                     |
| MTG 22-04| Suggest topics (to Bruno) for presentations at Plenary, if any        | All         | April 17th, 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 4th, 2017  | Closed                                                                                   |
| MTG 22-03| Propose definition of image conformality                              | Philippe S. | May 4th, 2017  | Closed                                                                                   |
| MTG 22-04| Propose approach for Means of Compliance section                      | Philippe S. | May 9th, 2017   | Closed                                                                                   |
| MTG 23-01| Detailed action list for SA-MASPS WG                                   | Philippe S. | December 2017  | Detailed list tracked via separate action log by Philippe.                               |