



EUROCAE WG-117 / RTCA SC-240 WG meeting minutes

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EUROCAE WG-117 / RTCA SC-240 Topics on Software Advancements (TOSA) Plenary Meeting 8

WG meeting minutes

	Date	Name	Signature
Approved			
Reviewed			
Prepared	01/10/2021	Andrew Hoag	



EUR 241-21/WG117-14
RTCA 216-21/SC240-014

August 31, 2021

EUROCAE WG-117 / SC-240 “Topics on Software advancements (TOSA)”

Meeting #8 Calling Notice

Date	<i>28-30 September 2021</i>
Place	<i>15 :00 – 19 :30 CEST / 09 :00am – 1 :30pm EDT</i>
Venue	<i>Virtual (Web Ex) and at EUROCAE Headquarters 9-23 Rue Paul Lafargue 93200 Saint Denis France</i>
Hosted by	EUROCAE

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IMPORTANT NOTE:

Please refer to the information provided on page 2.

Seats will be limited (25) and available on a first-come-first-served-basis, please send an email to confirm your physical attendance before 21 September to

Sebastian.reschenhofer@eurocae.net

AGENDA

1. Welcome, Introductions
2. Review of RTCA and EUROCAE Policies and Expectations
3. Review and Adoption of Agenda
4. Review of minutes of previous meeting/s and status of action items
5. Management team general information if any
6. Review of WG-117/SC-240 Work Plan, schedule, deliverables & task allocation
7. Consider a motion to initiate OC/FRAC on the SG-2 Document
8. Special Presentations
9. Subgroups Status Presentations including proposed text for standards
10. Review of Actions
11. Date of Next Meeting/s
12. Any other business
13. Close

MINUTES, DAY 1
Tuesday 28 September 2021
1400 CEST (UTC +2) / 0800 EDT (UTC -4)

EUROCAE WG-117/RTCA SC-240 Topics on Software Advancement (TOSA) chairs: Steve Cook and Burak Ata.

EUROCAE workspace URL: <https://join.eurocae.net/WorkspaceSelector>

RTCA workspace URL: <https://aeropus.i3cloudservices.com/>

Plenary #8 was hybrid (virtual and in-person at EUROCAE, Saint Denis, France). The meeting was scheduled for 28-30 September 2021 as detailed in the Meeting #8 calling notice. The virtual meeting was held via WebEx.

1. 1402/0802 Welcome, Introductions

Steve Cook and Burak Ata kicked off Meeting #8 noting that this was their first face-to-face meeting as COVID-19 has impacted previous meetings of WG-117/SC-240. The team looks forward to additional in-person meetings.

Steve Cook, Burak Ata, Odile Auzary, and Patrick Serrot attended at EUROCAE headquarters. The virtual WebEx attendance was recorded (Appendix A).

Day 1 Agenda

- Welcome/Introductions [All]
- Review of RTCA and EUROCAE Policies and Expectations [Sebastian/Rebecca]
- Review and Adoption of Agenda [Ata/Cook]
- Approval of minutes of previous meeting and status of action items [Ferrand/Hoag]
 - Actions updates
- Special Presentation – FAA Policy on UAS Type Certification – James Foltz, FAA
- Break
- Breakout Groups and Newcomer’s Orientation [All]
- Adjourn

2. 1415/0815 Review of RTCA and EUROCAE Policies and Expectations

Rebecca Morrison and Sebastian Reschenhofer reviewed the RTCA and EUROCAE policies and expectations to all present. This included:

- RTCA Anti-Trust Policy
- RTCA Proprietary Policy
- RTCA Committee Participation / Membership policy
- EUROCAE IPR Policy
- EUROCAE GDPR and Privacy
- Participation in EUROCAE WGs

There were no questions or additional discussion regarding the RTCA and EUROCAE policies and expectations.

3. 1426/0826 Review and Adoption of Agenda

The proposed agenda for Plenary #8 was adopted without objection. Ross Hannan made the motion to approve, and Keith Darwin seconded.

4. Review of minutes of previous meeting/s and status of action items

Andy Hoag reviewed the minutes of Plenary #7. The consolidated action item list is below in Table 1 and includes actions open in addition to actions closed in Plenaries 7 and 8.

- A decision was made to close action 13 and keep action 17 open; Burak Ata will continue to provide schedule harmonization between the subgroups.
- Action 15 was marked as closed. A summary of the leadership team meeting on 5 August 2021 was presented including an illustration of the alignment between the subgroups for compatibility as the FRAC/OC process moves forward.

Ross Hannan made the motion to approve, and Keith Darwin seconded. There were no objections.

5. Special Presentation – FAA Policy on UAS Type Certification – James Foltz, FAA

James Foltz, Strategic Policy Manager Emerging Aircraft FAA AIR-618, presented on Associated Elements.

New Policy Memo Overview

- Holistic approach, with FAA AIR and FAA AFS engagement
- AFS will generate conditions and limitations for waivers and exemptions necessary for safe operation of the UAS
- First 10 D&R UAS Airworthiness Criteria Notices were published in the Federal Register in November 2020
-

Moving Forward

- This policy is limited in scope to UA using the Durability & Reliability (D&R) Means of Compliance (MoC)
- The FAA is working on development of additional policy for larger, more complex UA

The group discussion included questions from Mark Grindle on ground-based versus cert/flight standards, Amanda Melles on EASA discussions, Ross Hannan on a 2019 flyaway, and John Waddle on next steps for operations.

6. Review of WG-117/SC-240 Work Plan, schedule deliverables & task allocation

Burak Ata presented the SG-1 and SG-2 schedules. The SG-1 schedule included a completion percentage and peer review date per IP – tracked on the workspace.

7. Breakout Groups and Newcomer's Orientation

The plenary split into breakout groups for SG-1 and SG-2.

8. Adjourn

Day 1 of plenary adjourned with the plan to re-group in breakout sessions for SG-1 and SG-2 in Day 2.

End of Day 1

**Table 1: Consolidated Action Item List, Plenary 7 – Plenary 8
(actions open; actions closed in Plenary 7 – Plenary 8)**

Action	Opened	Description	Assigned to	Due	Status	Closed
10	Plenary #5	Subgroups to define relationships (giver/receiver)	Stempel, Serrot	26-Aug-2021	Open	
13	Plenary #6	Publish agenda work plans & master schedule on both worksites	Ata	End of Plenary #7	Closed	Plenary #8
15	Plenary #6	Ensure compatibility between the two deliverables: assert how SG1 guidance can take advantage on SG2 supplement.	Cook, Ata	Plenary #7	Closed	Plenary #8
17	Plenary #7	SG leadership meeting - meet with leads to harmonize the schedule	Ata	5-Aug-2021	Open	
18	Plenary #8	Burak and Steve to meet with Subgroup leads to develop the "flight plan" on EASA and FAA comments	Cook, Ata	14-Oct-2021	Open	
19	Plenary #8	Present original concept at Plenary #9	Hannan	Plenary #9	Open	
20	Plenary #8	RTCA and EUROCAE brief on FRAC and OC process and details	Morrison, Reschenhofer	Plenary #9	Open	

MINUTES, DAY 2
Wednesday 29 September 2021
1400 CET (UTC +2) / 0800 EST (UTC -4)

1. **1400/0800 Welcome/Introductions/Status**

Agenda for day 2:

- Welcome/Introductions/Status
- Breakout Groups
- Adjourn

Note that Day 3 breakouts will return at 1600/1000 instead of 1630/1030.

2. **Breakout Groups**

The plenary split into breakout groups for SG-1 and SG-2.

3. **Adjourn**

Day 2 of plenary adjourned with the plan to re-group in breakout sessions for SG-1 and SG-2 at the start of Day 3 before returning at 1600/1000.

End of Day 2

MINUTES, DAY 3
Thursday 30 September 2021
1400 CET (UTC +2) / 0800 EST (UTC -4)

1. **1400/0800 Welcome/Introductions/Status**

Agenda for day 3:

- Welcome/Introductions/Status
- Breakout Groups, continued
- EASA/FAA Presentation
- SG-1 Status, Issues, Way Forward
- SG-2 Status, Issues, Way Forward
- SG-2 status/overview/consider a motion to initiate OC/FRAC on the SG-2 Document
- Review of Actions
- Date of Next Meeting/s
- Any other business
- Adjourn

2. **Breakout Groups, continued**

Breakouts returned at 1600.

3. **EASA/FAA Perspective on SC-240/WG-117 SG1/SG2**

The EASA/FAA presentation was prepared by Mike Vukas, Gabriele Melia, Dietmar Freese, and Guillaume Soudain. It was posted on the EUROCAE workspace.

SG1 – topics

- Transition criteria
- SPA vs SQA
- Re-verification reducing change control
- Life cycle data traceability
- Software architecture definition
- HLR/LLR vs Single Software Requirements
- Software Product vs Software Component
- SG1 Relationship to DO-178C supplements
- Relationship of Activities text to Objectives
- The “low-risk” concept of the standard is not appearing clearly enough
- Clear concept description should be prepared by the group

SG-2 – topics

- Structure of the supplement may impair the compatibility with core documents. Need a clear statement that the guidance is replacing/supplementing sections 12.3.4 (SH/SE) / 12.4 (COTS per 278A/109A)
- Guidance on availability of source code (both for OTS and open source) is not fully clear
- A clear description of the concept for the supplement should be prepared by the group

Discussion from Guillaume Soudain and Mike Vukas noted that they are looking to give an area for the modulation of the concept of low risk. What gets produced in SG1 will be harmonized enough with the two authorities to be able to use SG1 for certification.

4. SG-1 Status, Issues, Way Forward

Ross Hannan and Todd Stemple covered SG-1 progress and status.

Burak Ata highlighted that SG-1 had a very productive week at Plenary 8. Steve Cook thanked Ross and Todd for their leadership.

Steve Cook noted that we are running behind and that he and Burak need to present status to the PMC and TAC. Any schedule change must be approved. Steve asked for an estimate to align schedules – will SG1 be ready to go into FRAC at the next plenary? Steve noted that there is a preference to only ask once for an extension to the FRAC/OC and delivery schedule.

Ross noted that there is a good amount of content, but the final tasks are not as difficult. Todd mentioned that not all the SG-1 IPs are text, some are concepts.

Steve mentioned that SG-2 merged IPs into a single document (with 280 comments), and it took two plenaries to run through the list. Ross said that there is a merged version for SG1, but it has not yet been shared.

5. SG-2 Status, Issues, Way Forward

Patrick Serrot presented the SG-2 status in slides that he prepared with Mark Lillis. Mark had to drop off early.

There was a plan to issue a motion to initiate FRAC/OC for SG2. Based on the latest input and feedback, SG2 is not ready to do this at Plenary #8.

Steve Cook asked about an open-source real time operating system – is it a “type 1” or a “type 3.” It is a “type 3.” Ross Hannan asked a question about DAL in SG-2 – it was in the slide but wanted to ensure it is not used in the text. New action for SG2 – “ensure that the use of DAL is addressed.”

Plan to enter FRAC/OC at next plenary.

6. Actions; Date of Next Meeting/s; Any other business; Adjourn

Andy Hoag covered the actions list.

The next meeting is planned to occur in November or December 2021 – the Slido poll showed December as the leading choice.

Plenary #8 was closed.

End of Day 3

GLOSSARY OF TERMS, ABBREVIATIONS, AND ACRONYMS

This table is intended as quick reference for minutes and does not supersede respective authoritative sources.

SC-240/WG-117 SG-1/SG-2 developed a Common Glossary available in the SG-1 workspace.

Term	Usage	See Also; Context
AL	Assurance Level	DO-278A/ED-109A
COTS	Commercial off-the-shelf	
DAL	Design Assurance Level	DO-178C/ED-12C
GA	General Aviation	
EASA	European Union Aviation Safety Agency	
EASA SORA	EASA Specific Operations Risk Assessment	
FAA	Federal Aviation Administration	
FAA MOSAIC	FAA Modernization of Special Airworthiness Certification	
FAS	RTCA/EUROCAE Forum for Aeronautical Software	
FRAC	RTCA Final Review and Comment	
HLR	High-Level Requirement	
IP	Information Paper	
IPR	Intellectual Property Rights	
ISRA	Inter-Special Committee Requirements Agreement	
LLR	Low-Level Requirement	
OC	EUROCAE Open Consultation	
OTS		
PDI	Parameter Data Item	DO-178C/ED-12C
PMC	Program Management Committee	
SC	Special Committee (RTCA)	
SG	Subgroup	
SW	Software	
TOSA	Topics on Software Advancement	
WG	Working Group (EUROCAE)	

ATTACHMENT A**WG-117/SC-240 Meeting 7 Attendance**

Surname	Firstname	Organization
Ata	Burak	Volocopter
Bath	Patty	AVISTA, Inc
Blankenberger	Martha	Rolls-Royce PLC
Chelini	Jim	VEROCEL, Inc.
Cinquemani	Raimondo	Università Telematica Giustino Fortunato
Conner	Blake	Collins Aerospace
Cook	Stephen	Northrop Grumman Corporation
Crestey	Francoise	Collins Aerospace
Daniels	Dewi	Aeronautiques Associates
Darwin	Keith	Garmin Ltd.
Dykes	Matthew	Textron
Fabre	Louis	Airbus
GHIMIRE	Ritesh	Federal Aviation Administration (FAA)
Grady	Kat	Joby Aviation
Hahn	Ed	Air Line Pilots Association (ALPA)
Hannan	Ross	Sigma Associates (Aerospace)
HEUDE	Pascal	Airbus
Hoag	Andrew	Aireon, LLC
Holman	Jeremy	Garmin Ltd.
Iwaszkiewicz	Tomasz	VEROCEL, Inc.
Lillis	Mark	Triumph Engine Control Systems
Loewen	Howard	MicroPilot
Marchand	Cyril	Thales Group
Melia	Gabriele	EASA
MELLES	Amanda	Mannarino Systems & Software, Inc.
Minsker	Uzi	Israel Aerospace Industries LTD (IAI)
Momberg	Martin	Airbus
Morrison	Rebecca	RTCA, Inc.
Rai	Malkit	General Atomics Aeronautical Systems, Inc.
Romanski	George	Federal Aviation Administration (FAA)
Schauer	Werner	Frequentis AG
Serrot	Patrick	Thales Group
Snider	Tom	Honeywell International, Inc.
Soudain	Guillaume	EASA
SPENCER	Richard	Federal Aviation Administration (FAA)
Stempel	Todd	ENSCO, Inc.
Thurling	Andy	Northeast UAS Airspace Integration Research Alliance (NUAIR)
Tudor	Nick	Tudor Associates Ltd
Vukas	Mike	Federal Aviation Administration (FAA)
Waddle	John	Astronautics Corporation of America
White	Jeff	Amazon Prime Air

1. Records and control of the document

Revision	Description of changes	Author	Location	Comments
1.0	Initial version	Andrew Hoag		