



# 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 5 WG meeting minutes

	Date	Name	Signature
Approved	01/04/2020		
Reviewed	01/04/2020		
Prepared	01/04/2020	Andrew Hoag Fabrice FERRAND	



EUR 011-21/WG117-008  
RTCA 009-21/SC240-008

January 15, 2021

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

**Meeting #5 Calling Notice**

<b>Date</b>	<i>2-4 February 2021</i>
<b>Place</b>	<i>15 :00 – 18 :00 CET / 09 :00 – 12 :00 EST</i>
<b>Venue</b>	<i>Virtual (Web Ex)</i>
<b>Hosted by</b>	<b>RTCA and EUROCAE</b>

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**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. Special Presentations
8. Subgroups Status Presentations including proposed text for standards
9. Review of Actions
10. Date of Next Meeting/s
11. Any other business
12. Close

**MINUTES, DAY 1**  
**2 February 2021**  
**1500 CET / 0900 EST**

**1. 1500/0900 Welcome, Introductions**

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

Plenary #5 is a virtual event scheduled for 3 days as detailed in the 15 January meeting calling notice. The virtual meeting was held via WebEx and utilized the Slido tool to allow participants to vote on meeting times and submit anonymous questions or feedback.

The EUROCAE workspace is available at <https://join.eurocae.net/WorkspaceSelector>

The new RTCA workspace is available at AerOpus at <https://aeropus.i3cloudservices.com/>

**2. 1522/0922 Review of RTCA and EUROCAE Policies and Expectations**

Rebecca Morrison and Sebastian Reschenhofer reviewed the RTCA and EUROCAE Policies and Expectations to all present on the call. This includes:

- RTCA Anti-Trust Policy
- RTCA Proprietary Policy
- RTCA Committee Participation Membership policy
- EUROCAE IPR Policy
- Participation in EUROCAE WGs

**3. 1537/0937 Review and Adoption of Agenda**

The proposed agenda for Plenary #5 was adopted.

**4. 1545/0945 Review of minutes of previous meeting/s and status of action items**

Andy Hoag reviewed the minutes of Plenary #4. The consolidated action item list is below in Table 1 and includes updates made throughout Plenary #5.

The WG/SC agreed that there is value in archiving WebEx chat logs and Slido information as long as it is kept separate from meeting minutes.

**5. 1553/0953 Management team general information / Review of WG-117/SC-240 Work Plan, schedule, deliverables & task allocation /**

Team noted Barbara Lingberg's retirement from the FAA and thanked her for her contributions.

Discussion on RTCA workspace migration – the new system AerOpus will replace the previous workspace.

**Table 1: Consolidated Action Item List, Plenary 4 - Plenary 5**

Action	Opened	Description	Assigned to	Due	Status	Closed
6	Plenary #3	SG-2 deliverable - Supplement, Stand-alone, Companion option 3 investigation for next plenary (or propose #1)	Soudain	Plenary #4	Closed	Plenary #4
7	Plenary #4	SG-1 provide updated SG-1 schedule	Hannan	30 Nov 2020	Closed	Plenary #5
8	Plenary #4	Pranav and Burak to align with other working groups - discussion	Ata, Nagarajan	Plenary #5	Closed	Plenary #5
9	Plenary #5	Create master schedule	Ata	28 Feb 2021	Open	
10	Plenary #5	Subgroups to define relationships (giver/receiver)	Hannan, Serrot	12 Feb 2021	Open	
11	Plenary #5	Create outreach plan for additional experts in other domains	Ata	28 Feb 2021	Open	
12	Plenary #5	Ensure consistency on UAS use cases between SG-1 and SG-2 ("Medium" risk)	Stempel, Lillis	Plenary #6	Open	

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Break until 1645/1045

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## **6. 1645/1045 Special Presentations**

Todd Stempel shared the common glossary slides, StempelCommonGlossary.pptx.

A template is available on the workspace, SC-204\_WG-117\_CommonGlossary\_Template.xlsx

Pranav Nagarajan presented the Liaison report on WG-63 SG-1, Nagarajan\_Liaison Report\_WG-63\_SG-1.pdf.

WG-63 SG-1 is tasked with creating a technical report on the Applicability of Existing Development Assurance and System Safety Practices to Unmanned Aircraft Systems and Vertical Take-Off and Landing Systems.

It is being developed jointly and in coordination with SAE S-18, WG-105, and WG-112.

The WG-63 discussion included DAL attribute allocation and decomposition, in addition to discussions on linking or making references between documents.

Rebecca Morrison noted that WG-117/SC-240 can only reference published worked. If WG-63 and WG-117 are referencing each other, their publications must be coordinated. Rebecca and Sebastian can coordinate this with the secretariats if required.

## **7. Adjourn**

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End of Day 1, 1734/1134

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**MINUTES, DAY 2**  
**3 February 2021**  
**1500 CET / 0900 EST**

1. **1500/0900 Welcome/Introductions**

Tactical agenda for day 2:

- SG-1 status, including IP summary
- Break
- SG-1 Use Cases / Scope
- Action Item Review
- Adjourn

2. **1509/0909 SG-1 status, including IP summary**

Ross Hannan presented SG-1 status.

Discussion included several questions around complexity and DAL and manned vs unmanned craft.

- “I couldn't correlate Complexity approach in AEH and the Lower Risk SW application in our SG1. A SEH can even be DAL A but a lower risk SW can be highly complex”
  - Todd noted that the concepts are sourced from concepts in DO-254 related to simplicity and complexity but those terms are replaced with product assured and design assured. The use of “simple” does not suggest reduced level of effort. Did not go after “simple complex.”
- “For SEH exhaustive testing is requested most of the time. With a similar approach, are you suggesting to test lower risk SW in the same manner?”
  - Todd noted that a product-assured approach. That is, software must have a set of well-defined functions and interfaces to surrounding software and hardware.

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Break until 1645/1045

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3. **SG-1 Use Cases / Scope**

Pranav Nagarajan and Guillaume Soudain presented the Use Cases on Lower Risk applicability presentation. Content was also contributed by Gabriele Melia, EASA, Mike Vukas, FAA, and Christoph Torens, DLR.

This presentation introduces two different use cases driving considerations on lower risk

- GA Level I aircraft, where lower risk is defined from a product category perspective (CS-23 amdt 5), and potentially with a particular operational scope (e.g. commercial operations)
- UAS MEDIUM Risk Operation in the specific category, where « lower risk » is defined from an ORA perspective

This approach attempts to capture a characterization of “Lower Risk” from a use case perspective, with the intent to foster common focus in SG1.

→ “Lower Risk” is related to the type of product and operations

→ It should not be driven by Failure Conditions contributions to avoid undue limitations

- If not defining precisely “Lower Risk”, at least the rationale for “levelling” of objectives in the new standard should be based on those use cases.
- These use cases reflect anticipated conditions of usage for the new SG-1 software standard, provided it fully addresses the range [C; C(-); D; D(-)].
- If not covering the full range [C; C(-); D; D(-)], the standard from SG1 could be usable, however not in a stand alone manner.

#### **4. Action Item Review / Adjourn**

No new actions were added to the WG/SC action item list during Day 2.

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End of Day 2, 1748/1148

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**MINUTES, DAY 3**  
**4 February 2021**  
**1500 CET / 0900 EST**

1. **1500/0900 Welcome/Introductions**

Tactical agenda for day 3:

- SG-2 status
- Action Item Review / Adjourn

2. **1505/0905 SG-2 status**

Mark Lillis provided an overview of SG-2 progress and recurring meetings. Patrick Serrot reviewed the timeline.

The WG/SC discussed progress, relationship formalization, and participation.

Action #10 was opened for SG-1 and SG-2 to define relationship.

Action #11 was opened to create a plan to reach out to experts in other domains.

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Break until 1645/1045

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3. **1645/1045 Action Item Review / Adjourn**

Action items 9-12, assignees, and due dates were reviewed by the WG/SC.

Discussion on if an in-person meeting would be possible in late summer 2021 given the unknowns in global environment.

Plenary #5 was closed.

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End of Day 3, 1656/1056

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**ATTACHMENT A****WG-117/SC-240 Meeting 5 Attendance**

Due to the specific format of the meeting (online WebEx), attendance cannot be signed by each participant.

<b>Surname</b>	<b>Firstname</b>	<b>Organization</b>
Ata	Burak	Volocopter
Blankenberger	Martha	Rolls-Royce PLC
BOURDEAU	Julien	Aviadal
Conner	Blake	Collins Aerospace
Cook	Stephen	Northrop Grumman Corporation
Crestey	Francoise	
Darwin	Keith	Garmin Ltd.
Decker	Christian	
Diebold	Mitchell	Garmin Ltd.
DÖRHÖFER	Christoph	Amazilia Aerospace
Dutle	Aaron	NASA
Dykes	Matthew	Textron
Eliahoo	Sharon	
ELLIOTT	Philip	Rolls-Royce
FISH	Johannes	LH Systems
FREESE	Dietmar	EASA
GHIMIRE	Ritesh	Federal Aviation Administration (FAA)
Hannan	Ross	Sigma Associates (Aerospace)
HEUDE	Pascal	Airbus
Hoag	Andrew	Aireon, LLC
Holman	Jeremy	Garmin Ltd.
Iwaszkiewicz	Tomasz	VEROCEL, Inc.
Johnson	Matthew	
Lillis	Mark	Triumph Engine Control Systems
Melia	Gabriele	EASA
MELLES	Amanda	Mannarino Systems & Software, Inc.
MEYERS	Scott	Collins Aerospace
MINDKER	Uzi	IAI
Momberg	Martin	Airbus
Morrison	Rebecca	RTCA, Inc.
NAGARAJAN	Pranav	University of Munich
Nakao	Haruka	JAMSS
PALMA	Diego	Agência Nacional de Aviação Civil (ANAC-Brazil)
Peters	Kelly	Piper Aircraft
Papadatos	Pater	Honeywell International, Inc.
Rai	Malkit	General Atomics Aeronautical Systems, Inc.
REEVE	Tammy	Patmos Engineering
Reschenhofer	Sebastian	EUROCAE
Romanski	George	Federal Aviation Administration (FAA)
SAKUGAWA	Benedito	Agência Nacional de Aviação Civil (ANAC-Brazil)
Serrot	Patrick	Thales Group
Snider	Tom	Honeywell International, Inc.
Soudain	Guillaume	EASA
SPENCER	Richard	Federal Aviation Administration (FAA)
Stempel	Todd	ENSCO, Inc.
Tudor	Nick	Tudor Associates Ltd
Torens	Christoph	DLR
Vukas	Mike	Federal Aviation Administration (FAA)
Waddle	John	Astronautics Corporation of America



**1. Records and control of the document**

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