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Saint Denis, 11May2023
Washington, 11May2023

**EUROCAE WG-119 Plenary Meeting #12 “Radar Altimeter” /
RTCA SC-239 Plenary Meeting #12 “Low Range Radar Altimeter”**

DATE: 11 May 2023

TIME: 1 – 3 PM Central European Time

PLACE: Hybrid (Eurocae – St. Denis / Online)

CONTACTS:

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AGENDA

1. Welcome and Introductions
2. EUROCAE/RTCA presentations (Administrative Reminders – Rebecca/Anna)
3. Validation of the previous Plenary MoM (Sai)
6. Review of MOPS Schedule
5. MOPS Sub-Group Reports (Timo, Dave, Eddie, Kim)
4. Consider a motion to close OC/FRAC and send ED-310/DO-399 to the RTCA PMC and EUROCAE Council for publication.
7. Discussion of Future Meetings
8. Other Business
9. Review of Action Items
10. Adjourn

PARTICIPANTS –

Display Name	Organization
Nicholas Shrout	ASRI
Ahmad Armand	T-Mobile
Andrew Roy	ASRI
Anna GUEGAN	Eurocae
Barbara Clark	FAA
Behlul Poonawalla	Freeflight systems
Dave Redman	AVSI
Donny Morrow	ALPA
Doug Hyslop	CTIA
Ed Hahn	ALPA
Eddie Straub	Garmin
Hussain Al-Sadi	Boeing
JD Gomaz	L3-Harris
Janet Young	FCC
Jean-Luc Robin	Airbus
Kambiz Rahnavardy	FCC
Kim Kolb	Boeing
Matt Harris	Boeing
Mauro Pagliarini	EASA
Paul Dunlap Airbus Helicopters, Inc.	Airbus Helicopters, Inc.
Pierpaolo Vallese	Qualcomm
Rajah Castillo	Sensor Systems
Rebecca Morrison	RTCA
Ricardo Hisano	TCCA
Richard AMY	DGAC France
Rodrigo Machado	ANAC
Roland Smith	Ericsson
Sai Kalyanaraman	Collins Aerospace
Sergio Machado	ANAC
Seth Frick	Honeywell
Shunichi Futatsumori ENRI	ENRI, Japan
Stéphane Tallet	Thales
Tlmo Warns	Airbus
Ted Peterson	Collins
Torben Themsen	GSMA
Tuck Poon	Nokia

Agenda Item 1: Welcome, Introductions and Administrative Remarks

Jean Luc welcomes the group and the group did a round of introductions.

Agenda Item 2. EUROCAE/RTCA presentations (Administrative Reminders)

Rebecca and Anna provided the RTCA and Eurocae policies and administrative reminders.

Agenda Item 3. Validation of the previous Plenary MoMs

Sai presented minutes for the previous plenaries and obtained approval from the group.

Agenda Item 6: MOPS Schedule

The high-level MOPS schedule had been developed during the February plenary and did not need further changes as of the May plenary and the schedule was aligned with the ToR.

Agenda item 5 : SG Status and Presentations

Jean Luc went through the list of SG's with updates to share at this plenary and handed it over to Timo Warns who leads SG6.

Timo presented the SG6 approach toward the characterization and classification of interference security threats. He presented the overview of the security threat and response models and how they are anticipated to drive security performance requirements and test cases and procedures. He also provided an overview of the SG6 schedule which indicated the performance reqs will be addressed in July'23, followed by test cases in Oct'23 and preliminary validation occurring by Dec'23. He indicated that the SG6 meetings had restarted in Jan'23 with regular monthly cadence. Timo indicated that the next steps were to identify an RFI detection CONOPS, development of draft reqs and address SG6 req. applicability considerations.

Eddie Straub presented the SG4 update. He clarified that SG4 will look to develop all DO-155A/ED-30A performance reqs and test procedures with the exception of Tx, Rx spectrum reqs and data security reqs. He highlighted the technical challenges (Antenna performance standards, New TSO/MOPS category identification and the evaluation of a high-fidelity Loop loss model). He shared an overview of the requirements that still remain to be addressed (accuracy, time constant, noise, recovery/reacq) and listed the SG4 risks as technical, schedule and resources to help execute the SG4 activity.

Eddie indicated that SG4 had resumed regular virtual meetings and has created a new informal baseline reqs document. He listed the items that SG4 progressed on during the SC-239 week in May (review of HW loop loss proposal, consensus on top level TSO needs and moving towards development and consensus on details on plan for loop loss model and validation plans for the same).

Kim Kolb provided an SG2 status update and share the updated envelope of the global emissions mask which was based on the identified RF environment. SG2 continues to trace and identify the global RF environment on either side of the rad alt band and provide additional descriptions and information on the evolving list of 5G C Band plans.

Dave Redman provided an SG5 update. Scope of SG5 activity is to define RFI tolerance for future rad alt solutions. The deliverable from SG5 is intended to be based on consensus around achievable, testable RFI resiliency reqs. He added that DO-399 FRAC comments resolution was still in process and that he had also resumed weekly meetings to address SG5 scope. He had also provided an initial proposal as a starting point for the ITM discussions. He indicated that the SG5 schedule was consistent with that of the larger SC-239 group's timeline. He reviewed the plans for activity within SG5 for the upcoming meetings which included a review of his approach to ITM definitions.

Agenda Item 4: DO-399/ED-310

OC/FRAC comment resolution is not complete based on correspondence received within the last week from multiple non-member commenters (including an unresolved non-Concur). SC-239/WG-119 are still reviewing the content of these inputs to determine appropriate responses/resolutions consistent with RTCA and EUROCAE processes. SC-239/WG-119 leadership are also consulting with the RTCA PMC, EUROCAE TAC, and RTCA/EUROCAE leadership.

No motion to recommend DO-399/ED-310 for publication can be considered at this time. SC-239/WG-119 will prioritize continued progress on the MOPS while the comment resolution process is worked.

Agenda Item 7: Future Meetings

Dates for the next SC-239 plenary: TBD (meeting week identified as the week of the 18th of Sep in DC and the plenary date was later identified as 22Sep2023). The subsequent meeting (after the Sep '23 meeting) was planned to be held in Europe circa Jan 2024.

Agenda item 8: Other Business

A request was made in working meetings to affirm the scope and intent of the MOPS in relation to ongoing Continued Operational Safety (COS) activities concerning RF interference to current Radar Altimeter equipment.

The consensus in this discussion (in alignment with the current ToR), is that the MOPS shall specify requirements which yield a robust long-term solution for RF spectrum compatibility of future Radar Altimeter equipment. No modifications or constraints are to be imposed to drive requirements to specifically enable more expedient implementations of potentially less robust equipment in support of COS activities.

It was deemed that it was not within the scope of SC-239/WG-119 activities to dictate or predict any particular timelines for development and implementation of equipment which is compliant to the new MOPS.

Agenda item 9: Action Items:

A request was made of SC-239/WG-119 leads to present the MOPS development status at the upcoming ICAO FSMP in Aug 2023.

Action Item: Anna and Rebecca to help determine how to share material in support of the above with ICAO FSMP.

Agenda item 10: Adjourn.

The meeting was adjourned shortly after discussion of the action item indicated above.