



EUR 033-19 / WG82-064  
RTCA Paper No. 129-19/SC222-068

St Denis, 4 June 2019  
Washington, 4 June 2019

**Minutes of  
Working Group of the whole meeting of RTCA SC-222 (Meeting #32) and EUROCAE WORKING GROUP 82 (Meeting #34)  
“New Air-Ground Data Link Technologies”  
related to  
SATCOM**

<b>Date</b>	<b>Thursday 24<sup>th</sup> to Friday 25<sup>th</sup> January 2019</b>
<b>Place</b>	<b>Virtual Meeting</b>
<b>Venue</b>	<b>RTCA-Webex</b>
<b>Hosted by</b>	<b>RTCA</b>

**Participants:**

Name	Company	24 <sup>th</sup>	25 <sup>th</sup>
Darrell Andregg	Collins Aerospace	X	X
Alan Schuster Bruce	INMARSAT	X	X
Andrew Ives	INMARSAT	X	X
Gary Colledge	INMARSAT	X	X
Sachin Chhibber	Ligado	X	
Anna Guegan	EUROCAE	X	
Johan Gericke	COBHAM SATCOM	X	X
Karan Hofmann	RTCA	X	X
Rainer Koll	Stellar Aerospace	X	X
Chuck LaBerge	LaBerge Engineering (Chair SC-222)	X	X
Armin Schlereth	DFS (Chair WG-82)	X	X
Richard Tapp	Honeywell	X	X
Glenn Torgerson	The Boeing Co	X	X
Radek Zaruba	Honeywell	X	X
Ayaz Nemat	L3	X	
Ed Hahn	ALPA	X	
Michael Gertsman	Square Peg Communications	X	
Charles Gibson	Bombardier Aerospace	X	
Ricardo de Sousa	NATS	X	
Laurent Cadiet	Airbus	X	X

Abderrahmane Ledjiar	SITA	X	
Daniel Tesfagaber	Inmarsat		X
Kevan Bracken	Inmarsat		X
Sam Weich	Ligado		X

## DOCUMENTS

Agenda Item	Title	File name
1	WG-82 Calling notice	SC-222 and WG-82 Calling Notice Meeting 34 Final.pdf
2	Minutes of last meeting	222_31_82_Meeting_33_minutes.doc
4, 6a, 7	Draft MASPS DO-343B/ED-242A	Draft ED-242 for Open Consultation_asb4.docx
4, 7	DO-343B/ED 242A FRAC/OC Comments	OC WG-82 ED-242A Consolidated Comment Form Final_draft response_c.xlsx
5, 6b, 8	Draft MOPS DO-262D/ED-243A	ED-243 (FRAC-OC redlined).docx
5, 8	Draft MOPS DO-262D/ED-243A Comments	OC WG-82 ED-243A Consolidated Comment Form (RZ 2019-01-21).xlsx

All SBB related documents are available on the EUROCAE WG-82 SharePoint and RTCA SC-222 Workspace.

## PRESENTATIONS

Agenda Item	Title	File name
13	LTE and ATCt Resilience	LTE and ATCt 20190125_b.pptx

All presentations are available on the EUROCAE WG-82 SharePoint and RTCA SC-222 Workspace.

## **1 Welcome, Introductions, Administrative Remarks by Special Committee Leadership**

Chuck LaBerge and Armin Schlereth welcomed the group. Main items were related to INMARSAT SBB update of MASPS and MOPS material to discuss comments received during the FRAC/OC process and prepare MASPS and MOPS for adoption by the RTCA PMC and EUROCAE Council.

Before starting the meeting Karan Hofmann from RTCA secretariat and Anna Guegan from EUROCAE secretariat explained the actual updated role of RTCA and IPR and participation statement from RTCA and EUROCAE side.

The following meeting was moderated by Chuck LaBerge. Meeting minutes will be provided by Armin Schlereth.

## **2 APPROVAL OF THE AGENDA**

The final agenda of the RTCA SC-222 and EUROCAE WG-82 Plenary meeting looked as follows:

### **24-25 January 2019 (9:00 am – 12:00 pm ET)**

Welcome, Introductions, Administrative Remarks by Special Committee Leadership

- Government Authorized Representative (GAR): Steve Van Trees
- Chair RTCA SC-222: Dr. Chuck LaBerge, LaBerge Engineering
- Chair EUROCAE WG-82: Dr. Armin Schlereth, DFS

1. Agenda Overview
2. Review/Approve prior Plenary Meeting Summary – (action item status)
3. Coordination with other GROUPs (EUROCAE, RTCA, SESAR, AEEC)
4. Review/Resolution of DO-343B/ED-242A Final Review and Comment (FRAC)/Open Consultation Comments (OC) Comments
5. Review/Resolution of DO-262D/ED-243A for FRAC/OC Comments
6. Discuss proper designations for these documents
  - a. DO-343B/ED-242A should be DO-343A Change 1/ED-242 Change 1
  - b. DO-262D/ED-243A should be DO-262C Change 1/ED-243 Change 1
7. Decision to approve release and presentation of DO-343A Change 1/ED-242 Change 1 to PMC and Council
8. Decision to approve release and presentation of DO-262C Change 1/ED-243 Change 1 to PMC and Council
9. Discuss draft MOPS Material for Iridium CERTUS.
  - a. This is an SC-222 TOR item but is not included in the WG-82 TOR. Therefore, this discussion will be held in the afternoon (EST) of Thursday, January 24th. The same WebEx will be used. WG-82 members who are interested in the subject are cordially invited to participate, subject to their availability. Possible issues related to simultaneous vs. separate adjournment of the Plenary Session(s) will be resolved on Thursday, if necessary.
10. Update Work Plan for SC-222 and WG-82
11. Review of Action Items
12. Industry Presentations
13. SC-228 IRSA Discussion
14. Establish Agenda, Date and Place for next meeting
15. Adjourn – Plenary meeting

**3 Minutes of last meeting**

The minutes of the last meeting were approved after taking into account comments from the group. The action item list has been reviewed. The updated action item list is outlined at the end of the present minutes.

**4 Coordination with other GROUPs**

**EUROCAE**

No input provided at the meeting.

**ICAO**

No updated information has been provided as there was a parallel WEBEX of the CP PT-S of ICAO, and therefore the Rapporteur could not join the meeting.

**RTCA**

No input provided at the meeting.

**AEEC**

Alan Schuster-Bruce from Inmarsat explained that the work on LTE/ATCt resilience material is pretty much finished. It is planned to present it for adoption at the General Session in April 2019.

**SESAR**

No input provided at the meeting.

**5 Review/Resolution of DO-343B/ED-242A Final Review and comment (FRAC)/Open Consultation (OC) Comments**

Alan went through the comments received and led through the discussion of the resolutions.

**6 Review/Resolution of DO-262D/ED-243A Final Review and comment (FRAC)/Open Consultation (OC) Comments**

Radek went through the comments received and led through the discussion for the resolutions.

**7 Review proper designations for these documents**

Chuck LaBerge made a proposal to provide proper designations for the MASPS and MOPS documents as discussed.

**8 Decision to approve release and presentation of DO-343A Change1/ED-242A to PMC and Council**

Final DO-343A change 1/ED-242A Minimum Aviation System Performance Standard for AMS(R)S Data and Voice Communications Supporting Required Communications Performance (RCP) and Required Surveillance Performance (RSP) in Procedural Airspace FRAC resolution was completed. Consensus was reached. Document was approved releasable to Council and PMC for final approval and publication.

**9 Decision to approve release and presentation of DO-262C Change1/ED-243A to PMC and Council**

Final Revised DO-262C Change 1/ED-243A Minimum Operational Performance Standards for Avionics Supporting Next Generation Satellite Systems (NGSS) FRAC resolution was completed. Consensus was reached. Document was approved releasable to Council and PMC for final approval and publication.

**10 Discuss draft MOPS Material for Iridium Certus**

Some discussion will be held in afternoon working group session for SC-222 – but WG-82 members are invited to participate.

**11 Update Work Plan for SC-222 and WG-82**

It has been agreed that a dedicated WEBEX meeting will take place on 5<sup>th</sup> February to work out a detailed work plan for the upcoming activities on LTE/ATCt resilience and Iridium Certus material.

**12 Review of Action Items**

No new action items have been identified during the meeting. The one opened during the meeting related to ALPA coordination on MASPS comments could have been already closed during the working session.

**13 Industry Presentations**

Alan Schuster-Bruce gave a presentation on LTE/ATCt subject.

**14 SC-228 ISRA Discussion**

SC-228 UAS MASPS in C2 (Command & Control) link are expected Q1/2019. Currently no input on performance requirements are expected from SC-222/WG-82 until UAS MASPS is available. After availability of these requirements discussion on potential support of C2-link requirements by SATCOM will be re-opened.

**15 Establish Agenda, Date and Place of next meeting**

RTCA SC-222 and EUROCAE WG-82 agreed on the following planning.

**WEBEX's:**

All WEBEX'S will be organized by RTCA

- **5 Feb, 3pm – 6pm CET, SC-222/WG-82:** Coordination WEBEX to define further workplan
- **19-20 March, 9:00-12:00 EDT, SC-222** Iridium working session (WG-82 welcome to participate)
- **12-13 June, 9:00-12:00/15:00-18:00 CEST, SC-222/WG-82** Plenary Meeting
- **12 June, 13:00-16:00 EDT, SC-222** Iridium working session (WG-82 welcome to participate)

**Meetings:**

- **No next physical meeting(s) are planned.**

## Action items

### RTCA-SC222 / EUROCAE WG-82 30<sup>th</sup> meeting: 6.02.2018 and 7.02.2018

Action#	Content	Responsible	Deadline	Status
A30-09	<p>Review of SC-228 slides and material (ITU M.2127) to provide feedback on the following items:</p> <ol style="list-style-type: none"> <li>1) Support of 2000 UA</li> <li>2) 10 – 100 kbps per UA (Peak!)</li> <li>3) Voice latency of 390 millisecond maximum</li> <li>4) Use of protected spectrum (L-Band)</li> </ol> <p><b>Discussion at WG-82#31:</b> Chuck will provide a response on it asap.</p> <p><b>Discussion at WG-82/#32:</b> Values might change in the MASPS for UAS. MASPS are available end of the year. So no activities required by WG-82/SC-222 until availability of MASPS.</p> <p><b>Discussion at WG-82/#33:</b> MASPS on C2 link support by SATCOM expected Q1/2019.</p> <p><b>Discussion at WG-82/#34:</b> Status unchanged.</p>	Chuck	asap	Open

### RTCA-SC222 / EUROCAE WG-82 31<sup>st</sup> meeting: 26.06.2018 and 28.06.2018

Action#	Content	Responsible	Deadline	Status
A31-01	<p>Coordinate with RTCA SC-159 on GNSS issues (sensitivity level etc.)</p> <p><b>Discussion at WG-82/#33:</b> e-mail from Laurent (AIRBUS) → Chuck will respond asap on the numbers provided.</p> <p><b>Discussion at WG-82/#34:</b> In context of IRIDIUM review will take care of it soon.</p>	Chuck	end of 2018	Open
A31-02	<p>Coordinate with EUROCAE WG-62 on GNSS issues (sensitivity level etc.)</p> <p><b>Discussion at WG-82/#33:</b> Follow activities of A31-01</p> <p><b>Discussion at WG-82/#34:</b> Status unchanged.</p>	Armin	end of 2018	Open
A31-03	<p>Contact EUROCAE WG-105 (RPAS) to ask for requirements on SATCOM Performance Class A</p> <p><b>Discussion at WG-82/#34:</b> Still open. Armin to take care of it soon.</p>	Armin	asap	Open