



EUR 004-22 / WG99-04
RTCA Paper No. 014-22/SC234-017

Saint Denis, January 5, 2022
Washington, January 5, 2022

EUROCAE WG-99 Plenary #10
RTCA SC-234 Plenary #7

DATE: December 15, 2021
TIME: 09:00 AM– 1:00 PM EST/1300 – 1700 CET
PLACE: Virtual
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AGENDA

PARTICIPANTS

Name	Organization
Andreas Rochau	SAFRAN
Andrew Diaz	Panasonic
Anna Guegan	EUROCAE
Bassam Chamas	Panasonic
Dan Griffith	The Boeing Company
Dennis Lewis	The Boeing Company
Eric Hundley	Liberty Partners, Inc.
Gerlof Osinga	The Boeing Company
Jamie Lutkus	Astronics
Joachim Kienzler	Lufthansa Technik
Joerg Rohwer	Lufthansa Technik
Karan Hofmann	RTCA, Inc
Kenneth Webb	Collins Aerospace
Luca Musso	Leonardo-Finmeccanica

Matt Lukasiewicz	Astronics
Mike Airey	LSA Electronmagnetics
Naruto Yonemoto	Electronic Navigation Research Institute
Peter Walther	Airbus
Robert Kebel	Airbus
Sal Navidi	Honeywell
Stephan Schulte	Lufthansa
Stephane Andre	AEROCONSEIL - AKKA TECHNOLOGIES
Thiemo Stadler	Airbus
Trong Nguyen	NASA

Welcome, Introductions and Administrative Remarks

EUROCAE WG-99 Co-chairs: Robert Kebel and Stephan Schulte:
 EUROCAE WG-99 Technical Programme Manager: Anna Guégan
 RTCA SC-234 Chair: Jamie Lutkus
 RTCA SC-234 Government Authorized Representative: Brian Verna
 RTCA SC-234 Program Director: Karan Hofmann

Opening remarks on Anti-Trust Laws, IP Policy, and Membership Policy provided by Karan Hofmann and Anna Guegan.

Chairmen lead introductions of participants.

Problem statements:

- PED tolerance requirements updates for 5G and WiFi 6E frequency spectrum expansion
- PED interference with radio altimeters by 5G connection
- PED interference with aircraft systems with connection to WAPs utilizing WiFi 6E (new 6GHz band)

Agenda review:

- Review of the WiFi 6E and 5G working group findings
- Plan for updating standards:
 - DO-363A/ED-130
 - DO-307/ED-239A

Schedule:

- Today (15 Dec): 2nd plenary
- Two week break over the Holidays
- 4 Jan 2022: restart of working groups
- 21 Jan: decision on working group tasks
- 28 Jan: document updates due from working groups
- 9 Feb: final document updates

- 16 Feb: 3rd plenary
 - Goal is to walk out with final document updates
 - Beginning of the FRAC/OC process
 - Document will be out for public comment for 45 days
- 1 Apr: FRAC/OD Completion
- 2 Apr – 4 May: work to resolve comments and incorporate into documents
- 4 May: 4th plenary to close out the document updates; ...may the force be with you
- 23 June 2022: publication of document

Minutes:

- IRA and NIRA coupling (Robert Kebel)
 - IRA coupling (intentional radiated on antenna): working group identified in-band intentional 5G emissions
 - NIRA: working group identified out-of-band unintentional "spurious" 5G emissions
- Discussion of unwanted 5G emissions limits:
 - NIRA coupling:
 - SC-239 limit is determined to be conservative for testing PED tolerance
 - DO-307 Table 4-7 update to cover the target IPL value for the radio altimeter
 - DO-307 Section 4.7.2 revision needs to be issued to address "NO IPL for RA" since this is no longer true per SC-239
 - Open items:
 - There are questions for SC-239 working group - to be answered
 - Determination of IPL target values
 - Proposal for text updates
 - IRA coupling:
 - Temporary issue for the next few years
 - DO-307 update adding an appendix to address and point to Section 2
 - Working group determined specific conditions that need to exist for IRA coupling to occur
- Discussion of WiFi 6E group findings
 - Mike Airey conducted research which has published conclusions in the slides
 - Use of existing 5GHz test data on Non-HIRF aircraft may be considered
- Way forward
 - Meetings will restart beginning of the year (4-Jan 2022)

- Need buyoff from regulators (FAA and EASA) based on consensus of the working groups
 - Executive summary will be provided to FAA and EASA for buyoff
 - High level of the consensus
 - Additional supporting charts
 - 21 Jan is the goal for executive summary delivery to the FAA and EASA
 - Brian at FAA Flight Operations will circulate within FAA, including aircraft certification
 - Brian will be responsible for coordinating with aircraft certification
 - To maintain schedule we will complete FAA/EASA review of executive summary in parallel with the working groups.
- Document editing process
 - Mike will head both RTCA/ED document updates with Matt Lukasiewicz assisting as representative for the WiFi 6E related updates.
 - DO-363A/ED-130 (Mike Airey)
 - WiFi 6E representative (Matt Lukasiewicz)
 - DO-307/ED-239A (Mike Airey)
 - WiFi 6E representative (Matt Lukasiewicz)