

**MEETING MINUTES OF THE 43rd MEETING
JOINT RTCA SPECIAL COMMITTEE 217
EUROCAE WORKING GROUP 44**

23rd through 26th of October 2023, Zurich, Switzerland - Hosted by Lufthansa Systems FlightNav

Executive Summary

RTCA SC-217 and EUROCAE WG-44 met jointly from the 23rd through the 26th of October 2023. Plenary was held on October 26th, with the prior days considered working sessions. The meeting was held in hybrid mode: in-person at Lufthansa Systems FlightNav in Zurich, Switzerland, and WebEx available to members participating remotely.

The main objective was to progress with the revisions to DO-200B/ED-76A in preparation for initiating FRAC/OC. The group reviewed the change proposals on the topics currently being worked by sub-teams: Tool Qualification, Document mechanics/organization, and Terminology consistency. The proposed content prepared by the sub-teams was discussed and revised until group consensus was reached. Significant progress was made on these topics.

In Plenary, the group addressed organizational and administrative items, approved the minutes from the 42nd meeting, and reviewed the status of the action items. The outcome of the discussions and the decisions made during the working meeting were formally confirmed. The plan for completing DO-200C/ED-76B was updated. The remaining work items to be completed are:

- Finalization of Appendix D – Tool Qualification Adaptation Guidance
- Finalization of Appendix F – Compliance matrix
- Completion of Appendix G – mapping of the objectives in DO-200B/ED-76A to the requirements numbers in DO-200C/ED-76B
- Completion of the Executive Summary
- Completion of the Revisions Section
- Completion of the Membership Section

On the topic of crisis management, the group agreed to not pursue any further action. It was considered that each organization is responsible for establishing their own crisis management procedures.

The group received an update on the coordination with RTCA SC-227, Standards of Navigation Performance. The Joint SC-217/WG-44 – SC-227 Data Definition Group has made solid progress on groundwork which involves translating minimum display requirements, in particular data elements and integrity requirements, into database requirements. On the topic of Display Characteristics Settings in Aeronautical Databases, RTCA SC-227 WG-3 (the Certification Sub-group) has now a better understanding of the underlying philosophy and the concerns, resulting in agreement that SC-217/WG-44 documents will not be impacted.

A status report on the coordination with EUROCAE WG-105, Unmanned Aircraft Systems (UAS) was provided. The comment period of the Open Consultation on the draft ED-318 "Technical Specification for Geographical Zones and U-Space data provision and exchange" has been closed. Resolution of comments is ongoing. Publication is expected in Q4 2023.

The group decided to hold the next meetings as follows:

- Plenary to initiate FRAC/OC, Virtual, 7 December 2023, 11:30 EST
- 44th Plenary: 5 – 8 March 2024, Location: Olathe, Kansas (Garmin). 4 March 2023 will be reserved for a FRAC/OC Resolution “Tiger” Team meeting.
- 45th Plenary: 3 – 6 June 2024, Location: TBD (Europe), possible locations Brussels (EUROCONTROL) or Paris (EUROCAE) (Doodle poll to be organised to determine the location).
- 46th Plenary: 22 – 25 October 2024, Location: Cedar Rapids, Iowa, USA (Collins Aerospace)

In addition, a working meeting via WebEx was scheduled to take place on 8 November 2023, 11:00 – 13:00 EST.

1 Working meeting

1.1 Introduction

The working meeting took place on 23-26 October 2023. Brian Gilbert opened the meeting and introduced the meeting agenda. He recalled that during the working meeting the following topics would be covered: Tool Qualification, document organization (including requirements numbering in accordance with the agreed scheme), terminology/consistency, and error reporting. The goal for the week was to complete the drafting of DO-200C/ED-76B with a view of having the document ready for FRAC/OC. The Plenary meeting was scheduled to take place on Thursday, 26 October 2023.

1.2 Attendance List

Name	Company/Organization
Alan Mitan*	NGA Aero
Alex Milns	EUROCAE
Andrew Goldsmith*	Federal Aviation Administration (FAA)
Begoña Martin Velayos*	European Aviation Safety Agency (EASA)
Bradford Miller	Federal Aviation Administration (FAA)
Brian Belcher*	U.S. Navy
Brian Gilbert	The Boeing Company
Brian Smith*	NGA
Buşra Mutlu*	IGA
Caroline Biarnes	Thales
Collin Ogden*	Collins Aerospace
Darin Fala	Honeywell International, Inc.
David Atkinson	National Geospatial-Intelligence Agency
David Baker*	The MITRE Corporation
Emilio Jose Mora Castro*	EASA
Erik Ringnes	Honeywell International, Inc.
Eustis Gosselin*	Jacobs Technology
Frank Wigold	Lufthansa
Jeff Meyers*	Federal Aviation Administration (FAA)
Jeff Plantinga	GE Aviation
Jennifer Wyse	GE Aviation
Kevin Carey	U.S. Air Force
Kimberly Jordan	Universal Avionics Systems Corp.
Laurent Pomiès*	DOSOFT Consulting (EUROCAE)
Max Gornish	Garmin Ltd.
Michael Sauter	Lufthansa
Orbelin “Orby” Arreola*	HQ, U.S. Air Force Flight Standards Agency
Rebecca Morrison	RTCA, Inc.
Richard Timms	NGA
Reuss Anderson*	Garmin Ltd.
Sasho Neshevski*	EUROCONTROL
Scott Clewell*	Garmin Ltd.

Name	Company/Organization
Scott Roesch	Honeywell International, Inc.
Stéphane Dubet*	DGAC/DSNA
Stephen Moody	Jeppesen
Thomas Ciolino	U.S. Air Force
Thuan T. Nguyen*	Federal Aviation Administration (FAA)

*Participation via WebEx

1.3 Tool Qualification

David Baker presented the work of the sub-team since the last meeting. The group reviewed and discussed the revision of the existing Appendix D.2 and the new Appendix D.3, notably on the use of external components as well as on the associated tool qualification objectives. The draft introductory text was reviewed and edited.

Regarding Appendix D.2 DO-330/ED-215 Objectives aeronautical data processing adaptations, the explanatory text and Tables D-1 through D-11 were reviewed.

Regarding Appendix D.3, Additional adaptations for tool external components - the introductory text and the text on the External Component Qualification Strategies was reviewed and the guidance in the tables was and updated.

A discussion took place on referencing of DO-330/ED-215 Software Tool Qualification Considerations (adaptations) and DO-278 - Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems. Rebecca Morrison expressed a concern that DO-278 was being used selectively and without consultation of the SC that authored DO-278. It also became clear that regulators were interpreting guidance referencing DO-278 in way that the group did not intend. It was therefore recommended to not reference DO-278, but to potentially use DO-278 as inspiration when drafting the DO-200 adaptations to DO-330 objectives. It was agreed to not reference DO-278.

The group reviewed the comments received from EASA on Appendix D.3. Emilio Jose Mora Castro from EASA joined the meeting for this item. EASA's concern was with using N/A (not applicable) on some objectives; instead it was recommended to provide clarification and guidance on how to achieve compliance.

Full review of Appendices D.2 and D.3 was completed. Due to the significant number of changes, EASA requested additional time to review Appendix D.3. It was agreed to allow two weeks for review and comments and to set up a dedicated meeting of the joint group to review those comments.

For what concerns Termination as acceptable error condition, the proposed content in WP-10022-2 was reviewed and finalized.

1.4 Error reporting

The requirements related to error reporting were reviewed and finalized. A new note was added in Section 2.3.3 under requirement R_014 (notifying a data supplier of a perceived error), clarifying the responsibility of the users in case where it may not be possible to fulfill R_014.

1.5 Document mechanics/organization

Rick Timms presented the work done by the sub-team. The requirements in Section 2 have been numbered in accordance with the agreed convention - using the letters "R" and "D" for "shall" and "should" statements, respectively (e.g., R_001, D_002, etc.). The use of "shall" and "should" throughout the document was reviewed to ensure they are used only in requirements, and a review of terms such as "need", "must", "will", etc. was conducted to reword any non-requirements that may be misinterpreted as requirements. The group completed a full review of the proposed revisions and finalized the updates, which included splitting up or combining requirements based on how they are presented. The group also authored introductory text explaining how the requirements numbering schema is applied.

Appendix F will retain compliance objective tables, but the tables will be revised to account for the requirements identifiers. A new Appendix G will be added to provide a mapping from the DO-200B Objective numbers to the DO-200C requirement identifiers. The group began filling in the Appendix G table together in order to establish a methodology.

1.6 Crisis management

The group agreed to not pursue any further action after no progress had been made on the white paper since the previous plenary. It was considered that each organization is responsible for establishing their own crisis management procedures.

1.7 Terminology consistency

The group reviewed instances in draft DO-200C/ED-76B of the term “data processor”. It was noted that while the terms Supplier and Processor have historically been used to distinguish Type 1 vs. Type 2 data providers, this distinction is not clear in the document. While the term Supplier is defined, no definition exists for Processor. The group decided to update all instances of the term “data processor” in the document to avoid using that term.

2 Plenary meeting

2.1 Welcome, Introductions, and Review of the RTCA/EUROCAE Policies

The Plenary Session took place on the 26th of October 2023 in hybrid mode - face-to-face meeting at Lufthansa Systems FlightNav in Zurich, Switzerland, with WebEx facility available to members who connected remotely. The main objective of the meeting was to progress with the revision of DO-200B/ED-76A.

The meeting was opened by Brian Gilbert (RTCA SC-217 co-chair), who introduced the meeting agenda for the Plenary.

Rebecca Morrison presented the RTCA membership policy, RTCA Anti-Trust Policy, RTCA Proprietary Information Policy, and RTCA Committee Participation Membership Policy. Alex Milns presented the EUROCAE IPR Policy, EUROCAE membership policy regarding participation in EUROCAE Working Groups, and General Data Protection Regulation (GDPR) and Privacy policy. Alex Milns informed the group of the planned EUROCAE Symposium 2024 scheduled to take place on 24-25 April 2024 in Lucerne, Switzerland.

2.2 Review and Approve minutes from the 42nd Joint Plenary (March 2023)

Sasho Neshevski reported on the status of the draft meeting minutes of the 42nd Joint Plenary. The draft meeting minutes had been uploaded on AerOpus on 12 September 2023. No comment had been received to the draft. No comments were raised during the meeting. The group approved the minutes from the 42nd Joint Plenary.

2.3 Work Plan

2.3.1 FRAC/OC Initiation

In view of the additional time needed for review by EASA of Appendix D.3 updates made during this meeting, it was decided to allow two weeks for internal working group review and comments. A working meeting of the joint group to review and resolve the comments on the Appendix D Tool Qualification working paper was scheduled to take place on 8 November 2023. A virtual Plenary to initiate FRAC/OC on DO-200C/ED-76B was scheduled for 7 December 2023.

2.3.2 Remaining actions regarding the draft Revised DO-200C/ED-76B

The main remaining actions with respect to preparing the draft document for OC/FRAC are as follows:

- Final review and resulting updates to Appendix D – Tool Qualification Adaptation Guidance
- Finalization of Appendix F – Compliance matrix

- Completion of Appendix G – mapping of the objectives in DO-200B/ED-76A to the requirements numbers in DO-200C/ED-76B.
- Completion of the Executive Summary
- Completion of the Revisions Section
- Completion of the Membership Section

2.4 Coordination with other RTCA SCs/EUROCAE WGs

2.4.1 Status report on Coordination with SC-227, Standards of Navigation Performance

Reuss Anderson informed the group on the status of the coordination. SC-227 WG-3 continues its work to revise DO-257 to Revision C (MOPS for Depiction of Navigational Information on Electronic Maps). There is good participation and the Committee is making solid progress in its work. The latest SC-227 plan is to complete DO-257C around May 2025 (FRAC resolution). Work is ongoing on a list of data elements that are required for DDC.

The Joint SC-217/WG-44 – SC-227 Data Definition Group has been meeting every two weeks. Solid progress has been made on groundwork which involves translating minimum display requirements, in particular data element and integrity requirements, into database requirements. The group has addressed the requirements related to Standard Instrument Departure (SID) charts, though the progress has been slow. After SIDs, other chart types are planned to be addressed.

On the topic of Display Characteristics Settings in Aeronautical Databases, the Certification Sub-group of RTCA SC-227 WG-3 has now a better understanding of the underlying philosophy and the concerns of the proposing organization (Garmin) and an organization expressing concern (Boeing). Good basis for finding a common ground and a balanced approach has been achieved. In this context, no impact is expected on SC-217/WG-44 current ToR.

2.4.2 Coordination with EUROCAE WG-105, Unmanned Aircraft Systems (UAS)

Stéphane Dubet provided a status report. He informed the group that the comment period of the Open Consultation on the draft ED-318 "Technical Specification for Geographical Zones and U-Space data provision and exchange" has been closed. Over 270 comments have been received. 10 Non-Concur comments were received; those have been resolved. Resolution of Editorial and Minor comments is ongoing, Major ones have already been resolved. The resolution of all comments requires some additional actions on the definition of the model. The delivery to EUROCAE is planned for the end of October 2023. Publication is expected in Q4 2023.

Regarding ED-269, the remaining action involves editorial clean-up and fine-tuning. No impact on SC-217/WG-44 is foreseen.

EUROCAE WG-105 and RTCA SC-228, Minimum Performance Standards for Unmanned Aircraft Systems, do not work jointly on this task. SC-228 has had a Plenary the previous week and has prepared Revision of their ToR. It may be necessary to establish coordination in during the foreseen revision of DO-272. The June 2024 PMC may be an opportunity to address this point.

2.4.3 Coordination with EUROCAE WG-114/SAE/G34 Artificial Intelligence (AI) in Aviation

Laurent Pomiès provided an update. Some coordination with the leadership has taken place. WG-114 has no clear will to collaborate on data related technical aspects at this stage.

Rebecca Morrison informed the group that a workshop on AI will be held by RTCA at the end of November and took the action to share the link with the details of the event.

2.5 Review of action items

The following action items are open:

- Action Item 10094: Prepare a Working Paper (WP) on data integrity definitions for submission to ICAO.
- Action Item 10103: Document mechanics/organisation
- Action Item 10104: Terminology consistency: Review terminology for consistency. Action to be initiated at the beginning of DO-200D/ED-76C development.

2.6 *Dates of next meetings*

The dates and locations of the next meetings were agreed as follows:

- Plenary to initiate FRAC/OC: Virtual, 7 December 2023, 11:30 EST
- 44th Plenary: 5 – 8 March 2024, Location: Olathe, Kansas (Garmin). 4 March 2023 will be reserved for a FRAC/OC Resolution “Tiger” Team meeting.
- 45th Plenary: 3 – 6 June 2024, Location: TBD (Europe), possible locations Brussels (EUROCONTROL) or Paris (EUROCAE) (Doodle poll to be organised to determine the location).
- 46th Plenary: 22 – 25 October 2024, Location: Cedar Rapids, Iowa, USA (Collins Aerospace)

All meetings (except the one on 7 December 2023) are foreseen as in-person meetings with the possibility to join remotely via WebEx.

In addition, a working meeting via WebEx was scheduled to take place on 8 November 2023, 11:00 – 13:00 EST to review the comments on the Tool Qualification paper.

2.7 *Adjourn*

Brian Gilbert thanked all members for the participation, in particular Frank Wigold and Michael Sauter for hosting the meeting, and closed the plenary meeting.


Certified as a true and accurate summary of the meeting:



Sasho Neshevski
Secretary, RTCA SC-217, EUROCAE WG-44



Brian Gilbert
Chairman, RTCA SC-217



Stéphane Dubet
Chairman, EUROCAE WG-44