



RTCA Paper No. 005-21/206-179 EUROCAE Paper No. 003-21/WG76-59 January 27, 2021

Summary of the 62nd Meeting RTCA Special Committee 206 (SC-206) Summary of the 58th Meeting EUROCAE WG-76 Aeronautical Information Services (AIS) and Meteorological (MET) Data Link Services

Executive Summary

The joint RTCA SC-206 / EUROCAE WG-76 Plenary meeting was held on December 11th. The meeting was held virtually due to existing travel restrictions.

- SG-1 Aircraft-based Observation (AbO) Requirements
 - o ADS-B Wx (Weather) implements aircraft-based observations (AbO) via ADS-B
 - o ADS-B Wx required major revisions to the ADS-B MOPS
 - o SG-1 supported coordination of the ADS-B MOPS and the MODE S Transponder MOPS with ICAO, ARINC, and FAA
 - o The RTCA PMC will decide at their December 17, 2020 meeting if these documents will be published
 - Standards development in 2021 will continue
 - The FAA will publish a revised ADS-B and Mode S Transponder TSO invoking DO-260C and DO-181F
 - o The FAA will publish AC 90-114C to facilitate operations using ADS-B V3

• SG-5: FIS-B MOPS

- o DO-358B was released for FRAC in June 2020
 - o All FRAC comments have been received and resolved
 - o However, a Current Report List issue was identified, therefore the document was not released to the PMC until the CRL issue was addressed
- DO-358B was released for a second FRAC in August 2020 to address only changes related to the CRL issue
 - o No comments were received during the second FRAC
- o During the August 2020 Plenary, it was noted to SC-206 that several test file errors were identified related to the DO-358A document
 - o The test files were revised and an errata was developed
- O DO-358B and the errata to DO-358A were approved to be released to the PMC during the December 2020 Plenary

SG-6: MASPS

o SG-6 conducted Operations Safety Assessments (OSA) and Operations Performance Assessments (OPA) on several Service Descriptions developed for DO-364A

- o SG-6 began to develop terminology for the various processing functions and how those definitions will be used within DO-364A and the Service Descriptions
- o Work is continuing on the Collaborative Decision Making (CDM) Service Description
- Industry briefings were presented on the following topics (briefing slides can be found at: https://workspace.rtca.org/apps/org/workgroup/sc-206/documents.php?folder_id=9597)
 - o Industry Turbulence Safety Action Team (ITSAT) / DO-370 Update
 - o Unmanned Aircraft Systems (UAS) Urban Air Mobility (UAM) Update
 - o Collaborative Decision Making (CDM) Update
 - o ICAO Progress Report
- Next Meeting:
 - o March 23-25, 2021 (Virtual)
 - Joint RTCA SC-206 (Meeting 63) / EUROCAE WG-76 (Meeting 59) Plenary

Joint Plenary Meeting Summary

The joint RTCA SC-206 / EUROCAE WG-76 Plenary meeting was held on Friday, December 11th. The meeting was held virtually due to existing travel restrictions.

Presentations are posted at:

https://workspace.rtca.org/apps/org/workgroup/sc-206/documents.php?folder_id=9597

Friday, December 11th Plenary

The Plenary convened at approximately 0900 EST

- 1. Welcome and Opening Remarks
 - Reference the Leadership Plenary Slides December 11, 2020
 - The EUROCAE and RTCA disclaimers and membership policies were read
 - Rocky Stone noted that the Subgroups had a very productive week and a lot of work was accomplished
- 2. Introduction of Attendees

Rocky Stone, Co-chair United Airlines
 Mark Libant, Co-chair NAV Canada

• Joe Bracken, Secretary AvMet Applications, Inc.

• Eldridge Frazier FAA, Government Authorized Representative

• Moin Abulhosn FAA

• Jeff Aenmey EUROCAE

• Bill Carson The MITRE Corporation

• Jim Dall L3Harris

• Steve Darr Dynamic Aerospace, Inc.

• Alexander Engel EUROCAE (WG-76 Technical Programme Manager)

John Ferrara Consultant
 Tammy Flowe FAA
 Paul Freeman L3Harris

• Izabela Gheorghisor The MITRE Corporation

• Karan Hofmann RTCA, Inc. (SC-206 Program Director)

• Amanda Hoprich AvMet Applications, Inc.

Ed Johnson
 FAA

Chris Karapostoles United Airlines

Deborah Kowalewski
 Robert Lee
 Airline Dispatchers Federation
 AvMet Applications, Inc.

Jim McClay AOPAMichael McPartland MIT

Macarena Martin-Viton Airbus (WG-76 Secretary)

Jim Mills
 HQ USAF/DoD
 Madhu Niraula
 Tim Rahmes
 HQ USAF/DoD
 Collins Aerospace
 The Boeing Company

Charles Thomas L3HarrisWillie Truong Honeywell

• Dirk Zinkhan EUMETNET EIG

- 3. Review and Approval of Meeting Agenda
 - The meeting agenda for this week was approved
- **4.** Review and Acceptance of Meeting Summary of Joint RTCA SC-206 (Meeting 61) / EUROCAE WG-76 (Meeting 57) Plenary
 - Rocky Stone made a motion to accept the Meeting Summary
 - o Tammy Flowe seconded the motion
 - The Meeting Summary was approved
- **5.** Report of Sub-Groups:
 - SG-1: Aircraft-based Observation (AbO) Requirement
 - o Reference the SG1 Plenary Update December 11, 2020 slides
 - o Steve Darr provided the SG-1 status briefing
 - o Reference Slide 3
 - Alex Engel stated that the EUROCAE versions of the same documents are already in for Council approval by December 16th
 - 1. There should be approval of the EUROCAE documents around the same day the RTCA PMC will publish the US documents
 - o Reference Slide 4
 - Steve Darr asked Alex Engel about the approval process of EUROCAE documents
 - 1. Alex responded that the Council receives the document and is given a 2-week review period
 - 2. They basically take the RTCA date and adjust the review / comment period accordingly to allow for Council approval to be similar to PMC issuance
 - o Rocky Stone asked Steve Darr, with respect to the ARINC work, if there is any indication that pin-based transponders will be compatible with V3
 - Steve responded that there are three Standards being updated to accommodate ADS-B
 - 1. The 718 Standard uses pin programming
 - 2. The current characteristics of pin programming is not able to support the V3 boxes without changes
 - i. However, the basic pin technology is able to support V3
 - 3. Pin programming technology is being revised to support changes to ADS-B V3
 - 4. Steve Darr developed a method to reduce the programming pins needed for the Aircraft Type parameter from 8 to 7 that he presented to the ARINC committee.
 - i. They will be deciding next month regarding whether to use 7 or 8 pins for Aircraft Type
 - John Ferrara asked Steve if one will be able to put a V3 transponder into a V2 rack
 - 1. John assumes a V3 transponder will not be recognized

- 2. Steve responded that the details of how that is implemented is beyond the Committee discussions and dependent on which manufacturer does what
- 3. John added that the airlines may not want to change racks
- 4. Steve responded that V2 transponders will continue to be built
- o Alex Engel noted that the UAT MOPS for ADS-B is an RTCA-only document
 - This is not a joint activity between SC-186 and EUROCAE WG-51
 - When the document comes to the FAA there will be direct coordination with EASA
 - 1. When the FAA issues a TSO, there may be a complimentary E-TSO issued by EASA
- SG-5: FIS-B MOPS (DO-358B) FRAC Resolution
 - o Reference the SG5 FRAC Resolution Briefing December 11, 2020 slides
 - o John Ferrara provided the briefing
 - o John reported that SG5 has resolved all issues to DO-358B
 - o The document is ready for release and contains all comments from FRAC 1, no comments from FRAC 2, and includes all changes related to CRL
 - o Reference Slide 6
 - Steve Darr asked if there is a path forward to address the second major bullet
 - 1. John responded that this has been addressed and corrected
 - o Reference Slides 9-13
 - Regarding the errata, John noted that there was no change to DO-358A; just to the test files
 - o John stated that SG-5 is requesting the authority to submit DO-358B and the errata to the PMC for review, approval, and publication
 - Rocky clarified with Karan Hofmann that this will not be submitted to the PMC at next weeks' meeting
 - 1. Karan responded that the documents will not go to the PMC until their March 2021 meeting
 - Rocky asked John if he was okay with a March 18, 2021 approval
 - 1. John responded in the affirmative
 - Rocky made a motion to forward DO-358B and the errata to the PMC for approval and publication
 - Jim Mills seconded the motion
 - SC-206 agreed for the documents to be sent to the PMC
 - o Rocky extended, on behalf of SC-206, a thank you to John Ferrara for all his work in leading the development of this document
 - John thanked the SG-5 team for all the outstanding work that they did
 - o Moin Abulhosn asked if SG-5 will remain intact after March 2021
 - Karan responded that they could go into an Inactive, or Active Monitor status
 - 1. This allows the Subgroup to not be totally "sunset" and available if they ever need to be reactivated
 - Eldridge added that he suspects in another year, with the industry changing from Text AIRMET to a WXXM format, this may result in a DO-358 revision
 - 1. Perhaps in the 2022 timeframe

- WG-76 and SG-6: MASPS (DO-364A)
 - o Reference the <u>SG6/WG-76 Plenary Update December 11, 2020</u> slides
 - o Eldridge Frazier provided the briefing
 - o Reference Slide 5
 - Eldridge noted that they are bringing on a meteorologist subject matter expert to help work the CDM SD
 - Rocky added that WG3 is behind schedule, but feels that once meteorologist assistance is available, they will be able to catch up

6. Industry Coordination

- Industry Turbulence Safety Action Team (ITSAT) / DO-370 Update
 - o Reference the <u>Industry Turbulence Safety Action Team (ITSAT) / DO-370 Update</u> slides
 - o Tammy Flowe provided the briefing
 - o Tammy reported that ITSAT is not a nationally sanctioned group, but is supported by industry
 - o Development of the problem statement for this group is key
 - o Reference Slide 5
 - Tim Rahmes reported that Boeing supports the ITSAT effort
 - 1. Tim asked, from an FAA perspective, if there might be another activity similar to what was conducted by Mike Emanuel's group during the development of DO-370
 - i. Tammy responded that industry does not want to wait another 5 years; therefore, she does not envision another study like that
 - 1. Also, industry supports conducting a "fly-along" of the various capabilities
 - Rocky stated that he concurs with the "fly-along" to obtain pilot inputs and PIREP information
 - 1. Rocky added that he does not envision a DO-370 revision
 - 2. The outcome may be a process document that addresses equating different technologies
 - 3. The various means for generating turbulence information need to be operationally comparable
 - Rocky added that this is a perennial airline problem in terms of turbulence mitigation and injuries
 - o There will be another ITSAT update provided at the March 2021 Plenary
- Unmanned Aircraft Systems (UAS) and Urban Air Mobility (UAM) Update
 - o Steve Young was unable to attend and provide an update
 - o There were no slides presented
 - \circ Eldridge provided a summary of what he has been involved in related to UAS and UAM
 - The ASTM F38 group is working on Standards for meteorological information for aircraft flying below 400 feet
 - 1. F38 held a Plenary yesterday
 - 2. This group is broken into 3 groups
 - i. MET services

- ii. MET service providers
- iii. Interface
- The first effort will take a year to develop
- In a parallel effort, there is work going in within NASA regarding UAM
 - 1. This work is primarily focused on larger systems intended to move people
- There are a number of meetings and a lot of work going on within the industry
 - 1. RTCA will probably be involved in many of these discussions
 - RTCA is related to data link services
 - 1. The ASTM work will include more than just data link services
 - 2. There may eventually be an ISRA between RTCA and ASTM
- Collaborative Decision Making (CDM) Update
 - o Rocky Stone provided the update
 - o There were no slides presented
 - o Rocky reported that Frank Oley (A4A) was unable to attend and provide an update
 - Frank will brief the group at the March 2021 Plenary
 - The industry is waiting for RTCA to identify the minimum information set
 - Rocky agreed to contact Frank Oley (A4A) to provide a CDM briefing at the March 2021 Plenary
- ICAO Progress Update
 - o Reference the <u>ICAO IMP Update</u> slides
 - o Mark Libant provided the update
 - o Reference Slide 3
 - Eldridge asked Mark for a synopsis of what is contained in Volume I and II
 - 1. Mark responded that Volume I is primarily for managers and decision makers and is in more general terms
 - 2. Volume II focuses on implementation guidance and it more technical than Volume I
 - Eldridge added that DO-364A should probably reference more of Volume II
 - 1. Mark concurred

7. TOR Discussion

- Eldridge commented that there is no need for a TOR discussion at this time
 - o Perhaps after the ITSAT provides their next briefing at the March 2021 Plenary and once the DO-364A dates are more firm
 - o Rocky and Karan agreed and stated that we know the dates will need to be adjusted, but not at this time
 - Karan added that we should wait for more realistic deliverable due dates and more substantive changes before going to the PMC
- Eldridge asked Karan if DO-358B is approved in March 2021, do we need to update or remove the document from the TOR
 - o Karan responded in the negative and stated we can make those revisions later
- **8.** Future Meetings, Plans, and Dates

- Proposal to change WG-76/SG-6 Meetings
 - o Reference the 2021 SG6/WG-76 Meeting Proposal slides
 - o Eldridge Frazier provided the briefing
 - o After discussion, the decision by the SG-6 participants was to retain the 0900 (EST) start time as that seems to work best for the US and European members
 - The European representatives stated that starting at 0900 (EST) and ending at 1500 (EST) results in less conflict with meetings within Europe
 - Alex stressed that it is important to retain the expertise of the Boeing representative (Louis Bailey)
 - Therefore, the group consensus was for the SG-6 meetings to take place between 0900 1500 (EST) with a lunch break between 1200-1300
 - o The following dates were discussed and agreed upon for SG-6 meetings in the first quarter of 2021
 - January 26 & 27
 - 1 day for OSA, 1 day for OPA
 - February 16 & 17
 - March 23 & 24
 - With the Plenary being held on March 25th
- The March 2021 Plenary and Subgroup meetings will be held virtually
 - o Subgroup meetings will be held on March 23-24
 - o Plenary meeting will be held on March 25th
- June 21-25, 2021
 - o The meeting is expected to be held in Ottawa
 - o The group hopes to be able to meet in person in June
 - Tammy suggested keeping the option open for holding this meeting virtually
 - Alex added that we should keep this as an option for June and beyond
 - Alex suggested holding an option of conducting separate in-person meetings in the US and Europe, but connected virtually
- September 20-24, 2021
 - o There was no new discussion at this time
 - o The meeting is expected to be held in Brussels
- December 6-10, 2021
 - o It was decided to hold the December 2021 meeting during the week of December 6th
 - o Karan Hofmann agreed to look into meeting space at RTCA headquarters in Washington, DC
- The following table of future meeting dates / locations was discussed during the Closing Plenary session

Meeting Dates	Locations (Hosts)	Releases / Approvals
March 23-25, 2021	Virtual	Joint WG-76/SC-206 Plenary (SG1 & SG6)
June 21-25, 2021	Ottawa, Canada (NAV Canada)	Joint WG-76/SC-206 Plenary (SG1 & SG6)
September 20-24, 2021	Brussels	Joint WG-76/SC-206 Plenary (SG1 & SG6) DO-364A FRAC Release

December 6-10, 2021	Washington, DC (RTCA?)	SG6 – DO-364A FRAC Resolution
		Review/Plenary approves release of DO-364A
		to PMC

- 9. Action Item Review
 - Action Item 356
 - o This Action Item can be Closed
 - Action Item 364
 - o This Action Item can be Closed
 - Action Item 370
 - o This Action Item can be Closed (March 2021 Plenary will be held virtually)
 - Action Item 371
 - o This Action Item can be Closed
 - Action Item 372
 - o This Action Item to remain Open
 - Action Item 373
 - o This Action Item can be Closed
 - Action Item 374
 - o This Action Item to remain Open
 - Action Item 375
 - o This Action Item to remain Open
 - o Tammy noted that the ITSAT did discuss including airframe manufacturer representatives
 - The group decided not to do that right now
 - However, Tammy does anticipate including airframe manufacturers as the effort progresses
 - Action Item 376
 - o To be closed
 - The current SC-206 Plenary Action Item list is below
 - o The 2 new Action Items identified during this Plenary session are denoted in the table below and shaded in green

#	Owner	Action	Date	Due Date	Status				
	Open Action Items								
372	Eldridge Frazier	Refer to closed Action Item #348 Pull all recommendations made to RTCA regarding SC-206 involvement in uplinking AIS/MET information to UAS operators, and present at the September 11 th SC-206 Leadership Meeting	August 2020	September 2020	Open				
374	Steve Young	Develop proposal / rationale for change to SC-206 TOR to address UAS/UAM gaps in weather information	August 2020	December 2020	Open				

375	Tammy Flowe	Engage with SC-206 Leadership to discuss potential future SG-4 work and invite SC-206 Leadership to bi-weekly ITSAT telecons	August 2020	December 2020	Open
377	Rocky Stone	Contact Frank Oley (A4A) to provide a CDM briefing at the March 2021 Plenary	December 2020	March 2021	Open
378	Karan Hofmann	Karan to look into meeting space for December 2021 Plenary	December 2020	March 2021	Open

10. Other Business

- Steve Darr reported on an ISRA request by SC-186
 - o The intent behind this ISRA is for implementation of ADS-B Wx in the UAT MOPS
 - o Steve reported that the newly proposed ISRA was approved by SC-186
 - If SC-206 approves it, it will take effect
 - This ISRA is nearly identical to the existing SC-206 / SC-186 ISRA
 - o Rocky Stone made a motion to approve the proposed ISRA
 - Steve Darr seconded the motion
 - The ISRA was approved and is in effect
- Alex Engel closed the meeting by stating that he is appreciative of and impressed with the work of the Committee over this past year
 - o The work has been very technical and required detailed discussions
 - o What the group has achieved over the past 12 months is amazing
 - Alex stressed that he appreciates all the input and stamina in the meetings; even after the "lockdowns" began
 - o Alex noted that EUROCAE, they cannot do anything without input from RTCA
 - o Alex wants to thank the participants for sticking with the work and the input to the Standards documents

11. Adjourn

The Plenary adjourned at approximately 1100 EST on Friday, December 11th.

CERTIFIED as a true and accurate summary of the meeting.

Joe Bracken, SC-206 Secretary

Macarena Martin-Viton, WG-76 Secretary

Rocky Stone, SC-206 Co-chair

Mark Libant, SC-206 Co-chair