

RTCA SC-206: Summary of the 61st meeting
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- There may be a need in the future to adjust the Terms of Reference to account for an extension to the schedule
- The Plenary participants discussed alternatives to the current work program to address open items through parallel efforts
- SG-6 leadership reported that future delays to the schedule could result in resource and funding issues that would need to be addressed and overcome
- 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>)
 - Industry Turbulence Safety Action Team (ITSAT) / DO-370 Update
 - Traditional Alphanumeric Codes (TAC) to XML (IWXXM) transition
 - Included G-AIRMET / ATOP Design Standard Discussion
 - Unmanned Aircraft Systems (UAS) Urban Air Mobility (UAM) Update
 - Collaborative Decision Making (CDM) Update
- Next Meeting:
 - December 7-11, 2020 (Venue TBD – live or virtual)
 - Joint RTCA SC-206 (Meeting 62) / EUROCAE WG-76 (Meeting 58) Plenary

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Joint Plenary Meeting Summary

The joint RTCA SC-206 / EUROCAE WG-76 Plenary meeting was held on August 28th. 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>

Friday, August 28th Plenary

The Plenary convened at approximately 1000 EDT on Friday, August 28th

1. Welcome and Opening Remarks

- Reference the August 2020 EUROCAE WG-76 / RTCA SC-206 Plenary Slides

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 |
| • Louis Bailey | The Boeing Company |
| • Bill Carson | The MITRE Corporation |
| • Steve Darr | Dynamic Aerospace, Inc. |
| • Lauren Donohue | EUMETNET EIG |
| • Matt Eckstein | Delta Air Lines |
| • Mark Eden | Air Line Pilots Association, Int'l |
| • Alexander Engel | EUROCAE |
| • John Ferrara | Consultant |
| • Tammy Flowe | FAA |
| • Paul Freeman | L3Harris |
| • Rebecca Fuller | AvMet Applications, Inc. |
| • Bill Geoghagan | NATCA |
| • Izabela Gheorghisor | The MITRE Corporation |
| • Karan Hofmann | RTCA, Inc. |
| • Jeremy Holman | Garmin |
| • Ed Johnson | FAA |
| • Kevin Johnston | FAA |
| • Robert Lee | AvMet Applications, Inc. |
| • Matthew Lug | US Air Force |
| • Jack May | AvMet |
| • Greg Meymaris | UCAR |
| • Macarena Martin-Viton | Airbus (WG-76 Secretary) |
| • Jim Mills | HQ USAF/DoD |
| • Madhu Niraula | Collins Aerospace |
| • Mark Phaneuf | Air Line Pilots Association, Int'l |
| • Nathan Polderman | United Airlines |

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- Kurt Stiefel FAA
- Charles Thomas L3Harris
- Willie Truong Honeywell
- Katya Vashchankova IATA
- Bill Watts Delta Air Lines
- Steve Young NASA
- Dirk Zinkhan EUMETNET EIG

3. Review and Approval of Meeting Agenda

- The meeting agenda for this week was approved

4. Review and Acceptance of Minutes of SC-206 Meeting 60/WG-76 Meeting 56

- Rocky Stone made a motion to accept the Meeting Summary
 - Alex Engel seconded the motion
- The Meeting Summary was approved

5. SG-5: FIS-B MOPS (DO-358B)

- Reference the SG-5 FRAC / DO-358B Status Briefing slides
- John Ferrara provided the SG-5 status briefing
- John noted that SG-5 will not be requesting release of the document for publication at this meeting
 - There is a technical issue that is delaying the document
- Reference Slide 3
 - John stated that SG-5 will be seeking FRAC resolution at the December 2020 Joint Plenary meeting
 - This will be dependent upon the Program Office and Harris on how to address this system error and correct DO-358B
 - There have been discussions with the Program Office and Harris seeking consensus on how the uplink will need to be changed
- Reference Slide 5
 - Steve Darr asked if the FAA certification office has confirmed the final sub-bullet in that vendors would need a deviation from the existing TSO
 - John noted that a product not described in DO-358B will be ignored
 - 1. Jeremy Holman concurred
 - Moin Abulhosn noted that the rules require non-TSO'd extra functions be defined and disclosed to the FAA
 - 1. Moin added that DO-358A states that if you have a TRA or TMOA, to ignore it
- Reference Slide 9
 - Rocky commented about the need for an errata to DO-358A to correct a few minor errors in document and in the test procedures
 - Rocky asked if an errata must go to the PMC for approval
 - Karan responded that the PMC has requested to review all document changes, even errata
 - Rocky asked if an errata requires Plenary approval
 - 1. Karan responded that it is “cleaner that way” and could be included as part of a scheduled Plenary discussion

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- Rocky made a motion to permit SG-5 to prepare an errata to address the DO-358A issues
 1. Steve Darr seconded the motion
 2. **New Action Item: John Ferrara and SG-5 were tasked with developing the necessary errata document**
- o Rocky commented on the update to DO-358B regarding the CRL issue
 - Rocky asked if this could be considered a minor change that was identified post-FRAC and after all comments were resolved
 1. Rocky was curious if the revised document could be sent to the PMC without an additional FRAC cycle
 - Karan responded that this issued was identified independent of any FRAC comment received; therefore, this is not related to the completed FRAC
 1. Technically, there should be another FRAC period to allow review and comment
 2. Karan noted the following alternatives for going forward
 - i. Approve DO-358B “as is” and expect a revised document be sent to the PMC
 - ii. Or hold the release of DO-358B until the issue is fully resolved and a separate FRAC is held
 - Paul Freeman commented that the change will affect a small percentage of the “shall” statements
 1. Paul is concerned over an additional full review of the document as the scope of the change is very bounded
 - John stated that SG-5 cannot release the document with a known error
 - Jeremy Holman noted that SG-5 agrees that the document should not be published with a known error
 1. Jeremy added that he is against issuing a document when a “change 1” would be issued soon after
 2. Jeremy recommends holding the document and publishing it once
 - Rocky offered the solution to construct a revised document and conduct a “mini-FRAC”
 1. At the time of the mini-FRAC, SG-5 should emphasize that the document includes only one minor change from the previous version and discourage full review of items outside the area of the change
 2. Karan proposed that this Plenary approve, after the change has been incorporated, SG-5 release the document for a 30-day FRAC period
 - i. In addition, SG-5 will have a FRAC resolution presentation prepared for the December Joint Plenary
 - Rocky suggested that SG-5 proceed with making the necessary changes necessary and reopening the FRAC process when ready
 1. John commented that they are on hold until the Program Office and Harris make a decision
 - Rocky added that SC-206 can generate an interim Plenary if necessary
- o John Ferrara noted his thanks and appreciation for the level of effort that Bill Carson and Jeremy Holman provided in developing the DO-358B document
 - Paul Freeman seconded the appreciation for Bill and Jeremy’s efforts
- o Eldridge added that, given the low number of comments received to the document, a great deal of appreciation goes to John Ferrara’s leadership in developing the document

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6. Report of Sub-Groups:

- SG-1: Aircraft-based Observation (AbO) Requirement
 - Reference the SG-1 Status Briefing slides
 - Steve Darr provided the SG-1 status briefing
 - Reference Slide 4
 - Bill Carson asked if this is in the context of only the 1090 Extended Squitter MOPS
 1. Steve responded in the affirmative
 - Reference Slide 5
 - Moin asked, with respect to the Mean and Peak EDR within the Emergency/Priority Status Message column, if this is consistent with what is in DO-370
 1. Steve responded in the affirmative
 - John Ferrara asked what the US and European positions are for backward compatibility of existing transponders
 - Steve responded that there are no plans to make changes to any Rules (that Steve is aware of)
 1. European Rules say the version number will be V2
 2. The US SBS office will issue other guidance to allow V3 to be compliant
- SG-6: MASPS (DO-364A)
 - Reference the SG-6 Status Briefing slides
 - Eldridge Frazier provided the SG-6 status briefing
 - Reference Slide 4
 - Eldridge noted that he believes SG-6 is approximately 6 months behind schedule due to holding only virtual meetings and COVID-related delays
 1. Eldridge added that at some point they may need to approach the PMC with a Terms of Reference (TOR) revision for an extension
 - Macarena Martin-Viton offered the following suggestion

OSA part
WoW proposal

Progress until end of year

- Main group (including pilots, ATC) go through Operational Hazards and Airspace tables for all SDs (bi-weekly meetings)

Impact # TOC	Effect on OSA/ATA/ATIS system (Available VTA Information (single element))	Operational Hazards				Airspace Tables			
		High	Medium	Low	None	High	Medium	Low	None
BC-WTA-01	Input to the GDLFF from external information sources is no longer available. Reference 1	2	2	2	2	2	2	2	2
BC-WTA-02	The GDLFF which includes in sub-functions, fails to process external source information. Reference 2	2	2	2	2	2	2	2	2
BC-WTA-03	The GDLFF fails to output VTA information. Reference 2	2	2	2	2	2	2	2	2
BC-WTA-04	The GDLFF input fails to receive the message() from the GDLFF.	2	2	2	2	2	2	2	2
BC-WTA-05	The GDLFF which includes in sub-function VTA message() from the GDLFF.	2	2	2	2	2	2	2	2

- Small team go through the Basic causes and IMM. Make SAA vs WTA and others SDs → Next plenary present the work and analysis + decide all SReq SRecom

Basic Cause #	Basic Cause Statement	Applicable BSM	Applied to Function
BC-WTA-01	Input to the GDLFF from external information sources is no longer available. Reference 1	BSM-WTA-01	GDLFF
BC-WTA-02	The GDLFF which includes in sub-functions, fails to process external source information. Reference 2	BSM-WTA-02	GDLFF
BC-WTA-03	The GDLFF fails to output VTA information. Reference 2	BSM-WTA-03	GDLFF
BSM-WTA-04		BSM-WTA-04	GDLFF
BC-WTA-04	The GDLFF input fails to receive the message() from the GDLFF.		
BC-WTA-05	The GDLFF which includes in sub-function VTA message() from the GDLFF.		

- Bill Carson responded that the basic concept is acceptable

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- Jim Mills noted that if this is a parallel effort between the two Working Groups, Bill Carson and Izabela Gheorghisor participate in both; which would be a challenge
 - 1. Bill added that parallel teams must have the appropriate representation to avoid critical gaps
- Jim asked Eldridge about the programmatic issues if the schedule slips
 - 1. Eldridge responded that funding would be an issue that he would have to address
 - i. The primary issue would be for contract support
- Jim asked Macarena if she could define the expertise needed in the “small teams”
 - 1. Macarena responded that each would need more engineers
- Eldridge stressed a concern over funding for extended efforts
 - 1. There are not enough staff resources to participate in multiple groups

7. Industry Coordination

- Industry Turbulence Safety Action Team (ITSAT) / DO-370 Update
 - Reference the ITSAT / DO370 Status Briefing slides
 - Tammy Flowe provided the update
 - Tammy commented that we must find a way for industry to best use the data, and it may be time to take a second look with emerging technologies
 - Reference Slide 8
 - Tammy asked Moin why DO-370 has not been invoked over the past 2 years
 - Moin responded that the document has remained “on the shelf” due to the extreme nature of what the document is about; providing guidance to the developer to an EDR algorithm for the industry
 - 1. Moin added that he is updating and briefing upper management on DO-370
 - Tammy clarified that DO-370 is based only on insitu algorithms and is limited in scope
 - Expanding the document will require additional research
 - Greg Meymaris added that when the document was being developed, NCAR had to develop a testing procedure with simulated aircraft and database fields
 - 1. Other applications (not considered at the time that DO-370 was being developed) do not use those database fields, but use information (e.g. accelerometer) from a tablet
 - 2. Other application developers would need to participate in discussions and the revision of DO-370
 - 3. DO-370 standardized the performance of an algorithm, but did not address that algorithms behavior once installed on the aircraft
 - 4. A procedure will need to be developed to compare the various tools
 - Moin concurred
 - Matt Eckstein noted that the discussion during the development of DO-370 was not focused enough on the end user
 - The end user must be able to use the information to make decisions
 - A long-term goal is to provide a rapidly updating picture of the state of the atmosphere
 - Tammy noted that she is not expecting a decision today by the group

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- Tammy proposed that this discussion continue and that RTCA representatives participate in the ITSAT bi-weekly telecons
- Tammy added, that perhaps by the December Plenary, there may be a better plan of action moving forward
- Tammy is proposing revisiting DO-370
- Ed Johnson noted that, with respect to EDR, what they have built into the ADS-B MOPS does leverage the DO-370 document
- Tammy proposed to Rocky and Mark Libant that SG-4 be stood up again
 - Rocky responded that we will need more information by the December Plenary on the level of interest and utility of the product
 - Tammy stressed that if DO-370 is revisited, we must find a way to complete it in less than 5 years
- **New Action Item: Tammy to engage with SC-206 Leadership to discuss potential future SG-4 work and invite SC-206 Leadership to bi-weekly ITSAT telecons**
- Traditional Alphanumeric Codes (TAC) to XML (IWXXM) transition
 - Reference the TAC / IWXXM Status Briefing slides
 - Kevin Johnston / Jack May provided the update
 - Note that this update also includes discussion on a G-AIRMET / ATOP Design Standard
 - Kevin asked if SC-206 is involved with the dissemination of information from the aircraft while another group would work on the display of the information
 - Rocky responded that SC-206 is a datalink specific committee, and has avoided work dealing with displays
 - Jack commented that there are a number of possibilities in terms of how earlier TAC information can be displayed in the future using IWXXM
 1. Rocky concurred and noted that time will tell how much RTCA can get engaged in associated Standards
 - i. There are several possibilities of what could be done
 2. Rocky added that he is intrigued with the relationship between ATOP and CPDLC in that this could remove human plotting with simplified graphics
 - Kevin commented those working ATOP know they need to address this
 1. For ATOP, the changes are occurring before 2026
 2. When the information becomes available, those working ATOP would like to exploit it earlier
 - Rocky stated that he looks forward to providing more input in this area in the future
 - Bill Geoghagan asked Kevin if NATCA is involved
 1. Kevin responded that he believes they are
 2. Jack responded that he believes Eric Avila is involved in the discussions
 3. Bill added that NATCA also has an ATOP representative
 - Eldridge commented that the issues that Kevin and Jack raised will directly impact future versions of DO-358
 1. There is a high potential that there will be a requirement for a DO-358C version to address weather and NOTAMS
 - i. This may result in significant changes to the document

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2. Rocky noted that Eldridge’s comment is pertinent and may result in future tasking by the PMC

- Unmanned Aircraft Systems (UAS) Urban Air Mobility (UAM) Update
 - Reference the UAS/UAM Status Briefing slides
 - Steve Young provided the update
 - **New Action Item: Steve offered to develop a proposal / rationale for a change to the SC-206 TOR to address UAS/UAM gaps in weather information**
 - Rocky commented that SC-206 will continue to monitor this work and that Eldridge is the main Point of Contact within SC-206

- Collaborative Decision Making (CDM) Update
 - Reference the CDM Status Briefing slides
 - Rocky Stone provided the update
 - There was further discussion associated with this status update

8. Future Meetings, Plans, and Dates

- December 7-11, 2020
 - As part of the discussion regarding the next planned Joint Plenary meeting, a new Action Item was identified
 - **New Action Item: Hold a joint Leadership Meeting on October 9th to decide on December meeting location**
 - The invite should include Alex Engel and Macarena Martin-Viton
- March 22-26, 2021
 - No new discussion at this time
- June 21-25, 2021
 - No new discussion at this time
- September 20-24, 2021
 - No new discussion at this time
- December 2021
 - No new discussion at this time
- The following table of future meeting dates / locations was discussed during the Closing Plenary session
 - The DO-364A FRAC Release and FRAC Resolution items were moved to the subsequent meeting date to match the Milestone schedule

Meeting Dates	Locations (Hosts)	Releases / Approvals
December 7-11, 2020	Hampton, VA (NIA) OR Washington, DC (RTCA)	Joint WG-76/SC-206 Plenary (SG1 & SG6)
March 22-26, 2021	Europe Madrid or Toulouse	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

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

- Action Item 329
 - This item can be Closed
- Action Item 348
 - This item can be Closed
 - **New Action Item: Eldridge to pull all RTCA ~~recommendations~~ regarding recommendations regarding SC-206 involvement in uplinking AIS/MET information to UAS operators, and present at the September 11th SC-206 Leadership Meeting**
- Action Item 356
 - There will be a discussion on October 9th to decide whether this meeting will be in person or virtual
 - This item remains Open
- Action Item 364
 - Mark Libant asked that this Action Item be assigned to him and that the due date be moved to the December Plenary
 - This item remains Open
- Action Item 367
 - This item can be Closed
- Action Item 370
 - Macarena noted that she has already reserved rooms. However, the number of attendees per each must be reduced due to COVID restrictions
 - This item remains Open
- Action Item 371
 - Alex noted that he has reserved rooms already
 - This item remains Open
- Five (5) new Action Items were identified during this Plenary session
 - Those items are denoted in the table below as shaded in green

#	Owner	Action	Date	Due Date	Status
Open Action Items					
329	Karan Hofmann	Provide copies of harmonized MASPS drafting guides to SG-6 when complete	Dec 2019		Closed
348	Eldridge Frazier	Pending the outcome of AI 347, Eldridge to coordinate with Kevin Johnston (ANG-C) and meet with Jay Merkle (FAA) to discuss SC-206 involvement in uplinking AIS/MET information to UAS operators	Sept 2019	August 2020	Closed
356	Steve Young	Investigate possible Langley tours for the December 2020 Joint Plenary meeting	Dec 2019	August 2020	Open
364	Mark Libant	Stephane to coordinate with Alex on the possible release of some of the Volume II	March 2020	September 2020	Open

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		SWIM manual language / definitions to SC-206 / SG-6			
367	WG76 / SC-206 Leadership	Cedric to work with Benoit to review an existing Service Description and annotate accordingly to support his position (coordinate with Stephane Dubet as being developed)	March 2020	August 2020	Closed
370	Macarena Martin-Viton	Macarena to check on availability of Toulouse meeting space for March 2021 Joint Plenary meeting	June 2020	August 2020	Open
371	Alex Engel	Alex to check on availability of Brussels meeting space for the September 2021 Joint Plenary meeting	June 2020	August 2020	Open
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
373	Leadership	Hold international leadership telecon on October 9 th to decide on December meeting location (in person or virtual). Include Alex Engel and Macarena Martin-Viton on the invite	August 2020	October 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
376	John Ferrara	Develop Errata Sheet to address corrections to DO-358A	August 2020	December 2020	Open

10. Other Business

- Rocky noted that, effective at the end of September, United Airlines is eliminating his position as a Management Technical Pilot
 - However, Rocky does have a commitment from United Airlines to sponsor his continued support of SC-206
 - Rocky added that he hopes this will not result in a significant impact to his ability to participate
 - However, he may become unavailable on short notice
- Eldridge noted that he wants to recognize and thank Rebecca Fuller for all the work she has done while Amanda Hoprich has been on leave

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- Eldridge added that Rebecca has done a fantastic job in supporting SG-5 and the various Working Groups
- Rocky seconded that appreciation for all Rebecca's support

11. Adjourn

The Plenary adjourned at approximately 1350EDT on Friday, August 28th.

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