RTCA Paper No. 251-20/SC186-380 EUROCAE No. 090-20/WG51-196

Sept 15, 2020

SEVENTY-EIGHTH MEETING

of RTCA SC-186

held jointly with EUROCAE WG-51

AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST (ADS-B)

DATE: Sept 15, 2020

TIME: 11:00 a.m. – 12:00 p.m. (EDT)

PLACE: Virtual

The attendees included:

SC-186 Co-Chairmen SC-186 Secretary

Rocky Stone United Airlines, Inc. Michael Garcia Aireon

Jessie Turner Boeing

SC-186 Government Authorized Representative

Matt Haskin FAA

EUROCAE WG-51, SG-3

Bogdan Petricel Chair

Nico de Gelder Secretary

EUROCAE WG-51, SG-1

Jorg Steinleitner Chair

<u>RTCA</u>

Al Secen

Rebecca Morrison

Members (Present in the room and on the Teleconference/WebEx)

** Note: All files named in conjunction with Agenda items can be downloaded from the RTCA SC-186 Workspace at http://workspace.rtca.org/kws **

Doug Guetter

Al Secen (RTCA)

Stuart Bowman

Bill de Groh (APA)

Alex Engel (EUROCAE)

Rocky Stone

Brenda CTR Perez

Bogdan Petricel

Larry Kenney

Stuart Bowman

Martin Gray

Paul Vonhoene

Brenda CTR Perez

ERIC POTIER

Kevin Hallworth

Tom Pagano

Christine Haissig

Rob Strain

Greg Comstock

Randy Jacobson

Michael Garcia

Cisco Webex

Doug Arbuckle

Eric JAUNY

Stuart MCKAY

Alex Rodriguez Gregg Nesemeier FAA AIR-6B2

Jack FieldMiles BellmanJorg SteinleitnerBob Pomrink

Jen Scott Erickson. Matthew S

Ed Hahn S. Puranik
Jessie Turner H. Peter Stassen
Nico de Gelder Eltzafan Mark

Lesley Weitz Todd Skoog (Garmin)

Joe KotulaRandy BonePaul HarrisonBill PenhallegonRay MeiSteph PriessIan Macoombbill carson

Matt Haskin Julien Damblemont

Ann C Drumm Aaron Dutle
tim steiner Alexander Engel
Edward Johnson Rebecca Morrison

1. Chairman's Introductory Remarks.

Rocky convened the Sept 15, 2020 meeting by welcoming all in attendance. Participants were identified based on the WebEx participant list, and the RTCA VP and EUROCAE TPM read several standard policy statements
 (02_RTCA_RTCA_EUROCAE_Welcome_Virtual_Mtg_KickOff_Slides.pdf)

(02_K10/1_K10/1_BeR00/1E_Welcome_virtual_Mtg_Klekom_Brucs.pur)

- 2. Review of Meeting Agenda.
 - Rocky reviewed the agenda and noted that it is posted to the RTCA workspace.
 - Al and Alex Engel noted that this is a joint plenary between RTCA SC-186 and EUROCAE WG-51
- 3. Review/Approval of the 77th Meeting Summary
 - The minutes from the May 1st 2020 plenary (#77) were posted to the RTCA website
 - The minutes were approved
- 4. Closing of the Open Consultation (OC)/Final Review and Comment (FRAC) of Draft Change 1 to DO-361A /ED-236A, "Minimum Operational Performance Standards (MOPS) for Flight-deck Interval Management (FIM)"
 - A presentation on this topic "FIM Change 1 FRAC Outcomes for Plenary 09152020_final.pdf" was presented by Lesley Weitz
 - FIM MOPS was published 2020-03-30
 - ASA MOPS was published 2020-06-11
 - FIM MOPS Change 1
 - Includes Test Descriptions, Test Vectors and updates related to other recently updated standards
 - FRAC/OC Closed 2020-07-07
 - received 185 Comments (no Non-Concurs)
 - Major topics resolved during FRAC/OC resolution were summarized
 - Rocky made a motion to request Plenary to approve FIM MOPS Change 1 for submission to the December 17th PMC and EUROCAE Council
 - Motion was seconded and approved
 - Completed document to be submitted to RTCA/EUROCAE no later than 2020-11-13
 - This concludes the Terms of Reference (TOR) deliverables provided by RTCA SC-186 Working Group 4/EUROCAE WG-51 Subgroup 3
- Other Business.
 - Closing of the Open Consultation (OC)/Final Review and Comment (FRAC) of Draft DO-260C/ED-102B, "Minimum Operational Performance Standards for 1090 MHz Extended Squitter Automatic Dependent Surveillance – Broadcast (ADS-B) and Traffic Information Services – Broadcast (TIS-B)"
 - presentation on this topic "SC186 WG3 Status Brief 09-15-2020 Plenary.pptx" was presented by Tom Pagano
 - Activity commenced in Jan 2016
 - Final MOPS to be delivered to PMC 2020-11-11 for approval to the Dec 2020 PMC

- CSC has assigned a subgroup to support the editorial process to incorporate the agreed-to resolutions
- Supports several applications including: Flight-deck Interval Management (FIM), ADS-B Weather Air Reports (AIREPs), ADS-B Weather Pilot Reports (PIREPs), Phase Overlay, High Velocity vehicles, Interrogation/Reply Monitor (IRM), Unmanned/Remotely-Piloted Aircraft Systems (UAS/RPAS), Advanced Receiver, Airborne Collision Avoidance (ACAS), Detect and Avoid (DAA), Airspeed and Heading
- 1763 comments were received with 23 Non-Concur
- All Non-Concur comments were resolved or withdrawn with written confirmation
- Outcome
 - 1090ES MOPS update from Version 2 (DO-260B) to Version 3 (DO-260C)
- CSC approved DO-260C/ED-102B September 4, 2020 and agreed to the plan to produce the final document
- EUROCAE agrees with path forward and seeks approval of ED-102B
- Rocky made a motion to request Plenary to approve DO-260C 1090ES MOPS version 3 for submission to the December 17th PMC
 - Motion was seconded and approved
 - Alex Engel also requested if there were any objections for ED-102B approval. Hearing none, the document was also approved from a EUROCAE perspective.
- WG-5 Universal Access Transceiver (UAT) Work Plan (DO-282C) Discussion
 - Rocky introduced the concept of initiating WG-5 to begin to align DO-282C with DO-260C. He indicated that further work to initiate this would begin offline.
- ARINC 718A-5 ATC Transponder Status Update
 - Jessie Turner briefed the group on the AEEC Traffic Surveillance Working Group Status
 - Scope of this working group is to update the ARINC standard to support the changes expected from DO-260C/ED-102B and DO-181F/ED-73F.
 - Next steps are to update and review various sections to ensure correct industry references and review functional descriptions.
 - Jessie indicated that all anticipated changes can be accommodated with program pins using a strobing technique on start-up. Airplane Personality Modules (APM) will also be supported.
 - ARINC 718A draft to be completed by Feb 2021 with AEEC approval expected in May 2021
- Ketchikan, AK midair collision and implications for ADS-B In certification standards
 - presentation on this topic "Ketchikan Midair ADS-B In Cert Implications.pdf" was presented by Gregg Nesemeier
 - Gregg reviewed the accident investigation and how the ADS-B Traffic Advisory System (ATAS) may have helped reduce the likelihood of the midair collision
 - The FAA is considering making ATAS a mandatory application for a TSO'd ASA system when the FAA revises to TSO-C195c (planned for 2021).

- This is a difference from DO-317C, which TSO-C195c will otherwise invoke
- Also evaluating potential harmonization of this action with EASA
- Date, Place and Time of Next Meeting.
 - Plenary 79 Virtual plenary meeting date and time proposed is Nov 10 at 11am EDT. The agenda will include:
 - Review of proposed TOR update (which will include the plan for the DO-282C UAT MOPS update) to be presented at the Dec. 17th RTCA PMC meeting
 - Review of any items needing the committee's awareness or decision prior to documents being submitted to RTCA/EUROCAE
- New Business
 - None
- Review Action Items/Work Programs.
 - Remaining Action Items from previous plenaries:
 - Target due date for the updated UAT MOPS (DO-282C) set to August 2021 in the TOR (it is unlikely that WG5 would begin until after WG3 has completed FRAC). WG initiation action still remains open and the target date for completion of DO-282C may be adjusted once the working group initiates. Cochairs will be needed to re-form the group. Some delays expected due to COVID-19 situation.
- Adjourn Plenary.
 - Rocky thanked everyone for their participation and adjourned the meeting.