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RTCA Paper No. 270-17/SC230-026
Date: October 6, 2017

RTCA SC-230 Meeting Minutes (October 5-6, 2017)

Attendance list:

Name	Company
Caruhel, Camille	Airbus
JEANNEAU, Charlotte	Airbus
Bernus, Christophe	Airbus
<i>BULANCEA, Andrei</i>	Airbus
Tschacher, Luke	The Boeing Company
Nguyen, Lee	Federal Aviation Administration
Blake, William	Garmin
Gidner, Dawn	Honeywell International, Inc.
Dancejic, Goran	Honeywell International, Inc.
Harrah, Steve	NASA
Proctor, Fred	NASA
Rossi, Angelo	MITRE
Finley, Jeff	Rockwell Collins, Inc.
Fersdahl, Mark	Rockwell Collins, Inc.
Smith, Mark	Rockwell Collins, Inc.
Beutelmann, Peter	Rockwell Collins, Inc.
Sishtla, Venkata	Rockwell Collins, Inc.
Hofmann, Karan	RTCA
Lug, Matthew	United States Air Force

The SC-230 Plenary on October 5-6, 2017 was held with the following agenda:

- Welcome/Introductions/Administrative Remarks
- Introductions
- Plenary 6 Minutes Approval
- Review of Proposed Change 1 for DO-220A and DO-213A
- Action Item Review
- Any other Business
- Adjourn

October 5, 2017

The meeting minutes from the last RTCA SC-230 teleconference held on March 8th, 2017 were reviewed and accepted by SC-230 without further comments.

After new member introductions, we dove into the proposed changes/comments that have been submitted to date on DO-213A.

Comment_213A_1: The first comment regarding Section 2.4.1.2.2 clarifications for only requiring one applicable polarization during production/quality testing was found acceptable. There was some discussion regarding the sensitivity of individual polarizations. Discussion concluded that, in general, the production/quality testing is being done to ensure the manufacturing process is being maintained. Manufacturing processes are generally going to impact each polarization in a common manner and therefore it was agreed that only one polarization is required for this particular test phase.

This discussion above did result in a new comment being generated (Comment_213A_3) regarding the requirement for repair testing. This particular section is unchanged from the original DO-213, but the team determined it warranted further discussion. An [ACTION](#) was given to WG9 (Steve / Christophe, Dawn to set-up initial meeting times and attendees) to further discuss this comment in a follow-on working group meeting to be scheduled after the Plenary.

Comment_213A_2 resulted in an [ACTION](#) for Boeing (Luke) to provide suggested text within DO-213A for further review from WG9 in a follow-on working group meeting.

After DO-213 comments were discussed, we dove into the proposed changes/comments that have been submitted to date on DO-220A.

Comment_220A_1 was as suggestion to clarify cases where new caution alerts may start to be inhibited at a higher altitude than 50 feet. Steve provided background on why ~50 feet was chosen originally. This rough altitude was determined to be an altitude at which alerting the pilot of a windshear event would potentially do more harm than good and result in a pilot action that is not recoverable. His comment was

that 50 feet is not a hard line, but was chosen as a representative height below which alerts can do more harm than good. This comment was directly addressed with the addition of “*no less than* 50 feet” within the requirement of section 2.2.3.16. An [ACTION](#) was given to WG9 (Dawn) to address whether there should be an upper bound and whether cautions and warnings need to be addressed separately.

Comment_220A_2 regarding Advisories being explicitly labeled as (optional), ultimately gained consensus from the team.

Comment_220A_3 and Comment_220A_5 were both addressed with proposed updates to DO-220A Table 2-5 to update the requirement for MOPS testing ‘D’ [During] to ‘A’ [After]. The team agreed that the table entries could be changed and that a note should be added to describe the operation of the unit during each of these tests (Operational Shock and Electrostatic Discharge). After the plenary, offline communications amongst the WG members determined no further notes are needed within DO-220 as the procedure within DO-160 adequately addresses the required operation during test (*note: See the October 6 discussion on this comment*).

The final comment reviewed today (Comment 220A_4) to remove any formal MOPS testing after Crash Safety testing was accepted by the team as DO-160 already covers the required procedures for ensuring the component has remained intact and has not been dislodged from its mount.

This concluded the meeting held on 10/5/2017.

October 6, 2017

Friday started off by re-visiting Comment 220A_4 (ES Discharge). There was a recommendation to add a note to this test to indicate the box will be functional during the test and MOPS testing is conducted after the test. [ACTION](#) was given to WG9 (Dawn / Lee) to recommend wording for the note.

Comment_220A_6 (Humidity) - There was some confusion on what the ‘15 minute test’ was as it was not clear to some which test this referred to in DO-160. Two options were determined to be available for discussion with Peter and the rest of WG9. Option 1, delete the note all together or Option 2, add some clarity to the note. An [ACTION](#) was given to RCI (Peter), Honeywell (Dawn) and Garmin (William) to discuss further with their environmental teams to determine whether the note is needed and to propose alternate wording if Option 2 is decided.

A new comment was brought up on DO-220A regarding windshear penetration. It was noted that there is no direct requirement to actually penetrate a windshear for verification within DO-220A. It was noted that section 2.4.3.3.20 states it can be verified by in-situ measurements, appropriate ground based systems, or equivalent. The team agreed this is a terminology issue that can be corrected throughout



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just indicate Windshear Detection Flight (or equivalent). The WG9 will take an [ACTION](#) to replace this text throughout (Dawn).

Karan took an [ACTION](#) to verify if we can release a 'Change 1' with the changes actually incorporated rather than having it in two separate documents on the RTCA website. Similar examples out there may be DO-181C with Change 1.

Proposed FRAC (virtual) dates are January 10th-11th, 11:00-2:00 EST with a tentative date for the FRAC resolution in DC in March. Jeff took an [ACTION](#) to follow up with Karan on these tentative dates.

The last topic on the agenda was discussion on the industry response to the Radar detection of Ice Crystal letter to Industry. To date, 8 responses have come in with an overall push to continue the research in the area of radar detection of ice crystals. A recommendation was made to move from a MASPS to a MOPS with regards to the end objective for this function of the radar. The team concluded that we may be a bit early in the process to define MOPS requirements for ice crystal detection with the WXR, but that it may not be too early to start the process to work in parallel with the research. Jeff took an [ACTION](#) to discuss the best path forward for this additional work with RTCA and provide suggested next-steps.

This concluded the plenary for SC-230.