RTCA Special Committee 186

Working Group 3

ADS-B 1090ES MOPS Corrigenda

Additional Items to be Considered for Inclusion in DO-260B Corrigenda

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Summary

This working paper presents additional errata found in DO-260B that need to be considered for inclusion in the proposed DO-260B Corrigenda.

Issue

Since the release of RTCA DO-260B, Honeywell has accumulated a list of potential problems in the document. A large percentage of the items on the list have been addressed by the draft "List of Corrigendum-1", Revision 1.0, distributed on 7 April 2011. However, the following table documents several other items that should be considered for inclusion:

DO-260B section	Comment	Resolution
2.4.3.2.1.2.1	Step 3 (Page 366), which mentions **Table 2-19**, but if you click on it, it will trace to Figure 2-19 (Page 199) rather than Table 2-19 (Page 87).	At least mention in the errata that this has been noted even though it is a hyperlinking issue that cannot be corrected without a reissue of the document.
2.4.3.2.4.2, Step 2	Set up the ADS-B Transmitting Subsystem as above and set the Movement input to represent a Movement of **greater than or equal to** Zero knots, but **less than** 0.125 knots. Verify that the Movement subfield is set to TWO (binary 000 0010). Increase the Movement input to a value **greater than** 0.126 knots and **less than** 0.270 knots, and verify that the Movement subfield is set to THREE (binary 000 0011)	**should be:** Set up the ADS-B Transmitting Subsystem as above and set the Movement input to represent a Movement of greater than ~~or equal to~~ Zero knots, but less than or equal to 0.125 knots. Verify that the Movement subfield is set to TWO (binary 000 0010). Increase the Movement input to a value greater than 0.12~~6~~5 knots and less than 0.270 knots, and verify that the Movement subfield is set to THREE (binary 000 0011) ➔ missing checks for movements of 4-8. Do we wish to add any?
2.4.3.2.4.2, Step 3	Continue to increase the Movement input in increments equal to those identified in Table 2-16 for values **greater than or equal to** ONE knot and **less than** 175 knots. Verify that for each such increment, the encoding of the Movement subfield is equal to that specified in Table 2-16. Increase the Ground Speed input data to **exactly** 175 knots and verify that the Movement subfield is set to 124. Continue increasing the Ground Speed data input for values greater than 175 knots and verify that the Movement subfield continues to be set at 124.	**should be:** Continue to increase the Movement input in increments equal to those identified in Table 2-16 for values greater than ~~or equal to~~ ONE knot and less than or equal to 175 knots. Verify that for each such increment, the encoding of the Movement subfield is equal to that specified in Table 2-16. Increase the Ground Speed input data to exactly 175 knots and verify that the Movement subfield is set to 12~~4~~3. Continue increasing the Ground Speed data input for values greater than 175 knots and verify that the Movement subfield continues to be set at 124.
2.4.3.2.4.2, Step 4	In 2.4.3.2.4.2, step 4, 2nd paragraph, there is a **61** second delay before checking to see if the low rate has been started. That seems strange since the requirement is less than 10 meters in **30** seconds. The 61 seconds is tested in a couple other places as well. This goes back to DO-260A as well. Cannot determine why 61 seconds was used.	We suggest using "**36**" seconds (30 seconds + the 5 second squitter time + 1 second of slop).
2.4.3.2.7.1.3.9, Step 2	In the first paragraph, the "ALTITUDE TYPE" field in "ME" should be "bit 9", not "bit 10".	

DO-260B section	Comment	Resolution
2.4.3.2.7.2.4.5	This test has you verify the setting of the Single Antenna Flag in the Airborne Position Message. There is no SAF in the Airborne Position Messages any more - it is in the Aircraft Operational Status Message.	Steps 1 and 2 need to be updated to reflect the Aircraft Operational Status Messages instead of the Airborne Position Messages.
2.4.3.2.7.2.10, Step 1	In the second paragraph, “ME” bit 10 should be “bit 9”.	
2.4.3.3.1.4.3.1, step 3.b.(3)	Step 3, part b instructs us to set the Mode A Code to “0330”, and then in part b.(3) to verify that the Mode A Code Subfield is set to “1010100101010” binary. This is incorrect and it looks like a cut-and-paste error from Step 3, part a.(3) above.	The Mode A code of “0330” should correspond to a Mode A Code Subfield of “1010000101000”.
2.2.3.2.3.1 Table 2-14	The value for "R_C < 0.5 NM (925 m)" should be "R_C < 0.5 NM (926 m)". Note that Table 2-69, 2-70, A-13, A-28, and N-4 (for Type Code 13) are correct.	
A.1.4.1 Table A-2	The value for "R_C < 0.5 NM (925 m)" should be "R_C < 0.5 NM (926 m)".	
N.2.2.2 Table N-4	For Type Code 14, the value of R_C should be “926 m” instead of “26 m”.	

Summary

The Working Group is asked to consider the above list for inclusion in the DO-260B Corrigenda.