

RTCA Special Committee 209, Working Group #1
ATCRBS / Mode S Transponder MOPS Maintenance
Meeting #5

Melbourne, Florida
11 – 14 February 2008

Proposed Update to the Test Procedure for
Event-Driven Extended Squitter

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SUMMARY

This Working Paper is in response to Action Item WG1-3-1 which indicates that there needs to be a test procedure to go into DO-181D for the extraction of GICB Registers for ADS-B.

Replace Step 8 of the test procedure in section 2.5.4.6.2.2 with the following:

Step 8: Provide data to the transponder to trigger data to be loaded into GICB Register 0A₁₆. Verify that an Event-Driven Extended Squitter is generated with the proper data content. Repeat for all supported Event-Driven Extended Squitter Message types. Event-Driven Extended Squitter Messages include BDS 6,1, BDS 6,2 and BDS 6,5: the Aircraft Status, the Target State and Status, and the Aircraft Operational Status Messages, respectively. Verify that the data contained in the GICB Register corresponding to the Event-Driven Extended Squitter Message type matches the data contained in the transmitted Extended Squitter. Update GICB Register 0A₁₆ at a rate less than twice every second. Verify that an Event-Driven Extended Squitter is generated subsequent to each update with the proper data content. Vary the data content provided externally to the transponder and verify that the data content subsequent to update of the Event-Driven report is correct. Increase the update rate to exceed twice per second. Verify that the Event-Driven Extended Squitter rate does not exceed twice per second, and that the data content reflects the most recent update contents.