

RTCA Special Committee 186, Working Group 5

ADS-B UAT MOPS (DO-282), Revision A

Meeting #15

UAT Spectrum Certification Status

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SUMMARY

In its work to develop Minimum Operational Performance Standards (MOPS) for the Universal Access Transceiver (UAT), SC-186 Working Group 5 tailored the UAT message and equipment standards to ensure it would operate compatibly in its intended environment. As a direct result of that approach, NTIA granted Stage 4 certification to the UAT on April 16, 2003.

Background:

Federal Government use of radio spectrum is managed by the National Telecommunications and Information Administration (NTIA). In the NTIA *Manual of Regulations and Procedures for Federal Radio Frequency Management*, it is stated that “Government agencies planning the use of, conducting experiments related to, or developing and procuring telecommunications requiring the use of radio frequencies shall take all reasonable measures to ensure that such systems will neither cause nor receive harmful interference to or from other authorized users when placed in their intended operational environment.” This requirement is further reinforced by the Office of Management and Budget Circular No. A-11 which specifies that agencies “must obtain certification by the National Telecommunications and Information Administration, Department of Commerce that the radio frequency is available before you submit estimated for the development or procurement of major communications-electronics systems”.

NTIA certification of spectrum support is granted in four stages as the system under consideration matures. These stages are: Stage 1: Conceptual, Stage 2: Experimental, Stage 3: Developmental, and Stage 4: Operational. Systems are considered to have fully met the Circular A-11 “certification” requirement when they achieve Stage 4.

Current Status:

In its work to develop Minimum Operational Performance Standards (MOPS) for the Universal Access Transceiver (UAT), SC-186 Working Group 5 tailored the UAT message and equipment standards to ensure it would operate compatibly in its intended environment. As a direct result of that approach, NTIA granted Stage 4 certification to the UAT on April 16, 2003. Government agencies can now procure and use UAT in the United States. Consistent with current rules for the 960-1215 MHz band, the Federal Aviation Administration will administer such use, including the assignment of ground station uplink slots to preclude self-interference.

Future Work:

It must also be recognized however that the 960-1215 MHz band is shared between government and non-government users. Consistent with existing practice, non-government use of the band is regulated by the Federal Communications Commission. In the recent Proceeding to update Part 87 (aviation systems) of the FCC rules, submissions were made to enable UAT use of the band. As that Proceeding is not yet complete, it is expected that near-term use of the band by UAT will require some form of “blanket waiver”. The FAA is currently initiating discussions with the FCC to facilitate that process.