

TERMS OF REFERENCE

Revision 7

Special Committee 147

MINIMUM OPERATIONAL PERFORMANCE STANDARDS FOR TRAFFIC ALERT

AND COLLISION AVOIDANCE SYSTEMS (TCAS) AIRBORNE EQUIPMENT

1.0 REQUESTOR

Co-chairmen SC-147

Robert G. Buley,
Aircraft Data Fusion, Inc.
Phone: 651-233-3599
Fax: 952-646-9227
E-Mail: bobbuley@aircraftdf.com

J. Stuart Searight
Federal Aviation Administration
609- 485-5036
609- 485-4064
stuart.searight@faa.gov

2.0 DELIVERABLES

PRODUCT

DUE DATE

- | | |
|--|--------|
| 1. Change 1 for DO-300, Minimum Operational Performance Standards (MOPS) for TCAS II Hybrid Surveillance | 5/2009 |
|--|--------|

3.0 TERMINATION OF COMMITTEE

Activities of Special Committee 147 will terminate with approval by the PMC of the committee's final document. Any change/extension of a committee's work program requires prior PMC approval.

4.0 NAS ARCHITECTURE LINKAGE

The activities of Special Committee 147 are directly traceable to the Operational Concept for Free Flight and the FAA Operational Evolution Plan, the FAA Flight Plan 2007-2011 and NAS Architecture document.

5.0 REQUIREMENTS ASSESSMENT

5.1 Special Committee 147 has completed the Minimum Operational Performance Standards (MOPS) for the Traffic Alert and Collision Avoidance Systems known as TCAS I and TCAS II as well as MOPS for Hybrid Surveillance techniques that can optionally be implemented for TCAS II systems. Special Committee 147 has also revised the TCAS II MOPS, published June, 2008 as DO-185B. To address in a timely manner, issues that may arise as experience is gained with TCAS II, v7.1, it is important that SC-147 be maintained. As manufacturers begin development of DO-185B compliant systems and the FAA continues efforts to introduce V7.1 into the NAS, SC-147 will provide the forum for industry and FAA to coordinate on any issues which might arise.

6.0 TERMS OF REFERENCE

- 6.1 Special Committee 147 shall support the operational evaluation of TCAS II and related surveillance systems. Specifically, during the period of transition from DO-185A to DO-185B systems, Special Committee 147 shall support: data collection and analysis; identification of problems; preparation of recommended training procedures, and development, verification, and validation of revised DO-185B requirements as necessary.
- 6.2 Special Committee 147 shall support, through participation, Special Committee 186's development of MOPS for Aircraft Separation Assurance System (ASAS)/Cockpit Display of Traffic Information (CDTI), supplying TCAS expertise to that development. Any potential changes to DO-185A's specification of TCAS display symbology shall be coordinated with the PMC, prior to development of standards/test procedures, by SC-186.
- 6.3 Special Committee 147 shall develop "Change 1" for DO-300, Minimum Operational Performance Standards (MOPS) for TCAS II Hybrid Surveillance (Section 2.0, item 1). Change 1 shall consist of an errata of any needed corrections or new material for DO-300 that are discovered during the development and certification processes of these systems. Any proposed items in this document will be coordinated with FAA and its related TSO or other regulatory documents for these systems.
- 6.4 Special Committee 147 shall provide technical and operational recommendations and feedback to the FAA and other regulatory authorities that consider rule making with respect to TCAS II units to comply with all final changes to the revised TCAS II minimum operational requirements specified in, DO-185B, and as defined in items 6.3 and 6.4 above.

6.5 Special Committee 147 shall work collaboratively with EUROCAE Working Group 75 (WG75) on all efforts enumerated above. The working arrangement shall consist of meetings between the two committees and incorporation of WG75 members into the SC186 Working Groups. SC147 will maintain these Terms of Reference separately from those of WG75.

7.0 GUIDANCE

7.1 Work Product 1 will be presented to the Program Management Committee with recommendations from SC-147 on what further actions, if any, are needed. Should SC-147 propose that changes to DO-185B be recommended, then the schedule and responsibility for that work would be considered by the PMC.

7.2 RTCA Special Committee 147 shall coordinate display issues of TCAS traffic as appropriate with RTCA Special Committee 186 to optimize the integration of TCAS traffic display and visual alerts in the Cockpit Display of Traffic Information (CDTI) MOPS.

7.3 Special Committee 147 should coordinate as necessary with ICAO, EUROCONTROL, EUROCAE, IATA and any other interested parties.

8.0 CHAIRMAN

It is proposed that the current SC-147 chairmen continue to lead SC-147 activities as defined herein in addition to any additional leadership named by the Program Management Committee.