



U.S. Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: Recommendations on Special Committee-186
Work Plan, Priorities and Schedule

Date: July 18, 2006

From: Stephen M. George,
Designated Federal Representative,
RTCA/SC -186

Reply to
Attn. of:

To: Mr. Rocky Stone, Chairman
RTCA/SC -186, "Automatic Dependent
Surveillance – Broadcast"

Dear Rocky:

I am writing in response to an action item that we accepted at the last RTCA/SC-186 Plenary on June 16, 2006. This action was regarding the priorities of the Federal Aviation Administration (FAA) and its Automatic Dependent Surveillance-Broadcast (ADS-B) National Program. The FAA was asked to provide guidance to the special committee on the work plan, products and schedule in order to better integrate with the FAA's objectives for ADS-B. After reviewing objectives and schedule constraints within the program office and certification, the FAA recommends that SC-186 concentrate on the following three areas:

1. Development of the Aircraft Surveillance Applications Minimum Operational Performance Standards (ASA MOPS) which should include requirements for Airborne Surveillance and Separation Assurance Processing (ASSAP) and Cockpit Display of Traffic Information (CDTI) to support airborne applications and include provisions for receipt, processing and display of traffic information from both airborne ADS-B broadcasts and Traffic Information Service-Broadcast (TIS-B) broadcasts. The following airborne applications are to be included:

- a) Enhanced Visual Acquisition
- b) Enhanced Visual Approaches
- c) Final Approach and Runway Occupancy Awareness
- d) Airport Surface Situational Awareness
- e) Conflict Detection

The ASA MOPS must be published no later than March 14, 2008. This will support the FAA's Program Office objectives of having equipment standards completed to provide equipage incentives for ADS-B airborne applications.

2. Development of the Ground Surveillance Applications Minimum Aviation System Performance Standards (GSA MASPS) which should describe ADS-B Air to Ground applications and associated MASPS level safety and performance requirements to support the following Ground Surveillance Applications:

- a) ADS-B for use in Air Traffic Control (ATC) surveillance and separation services in a mixed ADS-B and ground surveillance radar environment. (Note 1)
- b) Operator fleet monitoring & management
- c) Surface vehicle movement
- d) ATC ground surveillance for closely spaced parallel runway operations (Precision Runway Monitoring (PRM))

The GSA MASPS must be completed no later than January 31, 2008 to support the FAA's ADS-B program office objectives.

Note 1: The GSA MASPS should leverage work developed under the ADS-B Requirements Focus Group (RFG) and continue supporting the RFG. However, the GSA MASPS should serve as an independent SC-186 standard for specific recommendations to the FAA from RTCA as the United States Federal Advisory Committee. The scope of ATC surveillance and separation services should include performance requirements to support, at a minimum, existing ATC separation minima provided by en-route and terminal surveillance radar. The requirement should also support required surveillance back-up requirements (including airborne position sensor backup), and potential reduced separation minima in various environments that may be feasible through improved surveillance capability provided by ADS-B.

3. Revision of RTCA/DO-286A, Minimum Aviation System Performance Standard for Traffic Information Service – Broadcast (TIS-B) to separate the functionality and associated safety and performance requirements of Automatic Dependent Surveillance – Rebroadcast (ADS-R) from TIS-B. The MASPS should specifically define ADS-R and provide substantiation for the safety and performance requirements of ADS-R distinct from TIS-B.

The revised MASPS must be completed no later than July 2007 to support the FAA's ADS-B program office objectives. Whether ADS-R and TIS-B are published in separate MASPS or combined in a single MASPS is at the discretion of SC-186.

It is also recommended that the Special Committee 186 develop a process to evaluate and document acceptance of additional applications into the ADS-B application MASPS (ASA and GSA) as the technology matures and additional capabilities/applications are proposed. It is further recommended that the committee ensure that as each standard is completed, that an impact assessment be performed to evaluate and document the impact on existing standards to ensure traceability and provide document change control.

Sincerely,



Stephen M. George
Designated Federal Representative,
RTCA/Special Committee 186

cc: Vincent Capezzuto, RTCA / SC 186 Co Chair