

**RTCA Special Committee 186 Working Group 6**

**ADS-B / ASA MASPS Maintenance**

**Meeting #29**

**Hilton Garden Inn, Seattle North, Everett WA**

**9:00am – 5:00pm EST**

**14 – 17 November 2011**

**Proposed Table of Contents for the Combined DO-242B and DO-289  
Super MASPS**

**Gary Furr, Engility Corporation and Tom Pagano, FAA**

**SUMMARY**

This Working Paper reviews the proposed Table of Contents of the combined Super MASPS including parts of both DO-242B and DO-289 as it has been reviewed and revised during several WG-6 Meetings.

## **1. INTRODUCTION**

The RTCA SC-186 Plenary has directed the newly reconvened Working Group 6 to review the ADS-B MASPS (working draft of DO-242B) and the ASA MASPS (DO-289, including Change 1) for the purpose of combining the two MASPS documents.

During discussions in several Teleconference and face-to-face Meetings that Working Group 6 has held since reconvening, it has been suggested that the two MASPS documents be combined into a newly minted RTCA publication which represented a combining and reorganizing of the materials in both MASPS documents.

This Working Paper serves to present the latest version of the proposed Table of Contents of the combined MASPS document in a format that will allow further modifications during this and future meetings and Teleconferences.

## 2.0 Initial Proposed Outline of Combined Document

Sections numbers of DO-3xx	Title of DO-3xx Sections	Author	Comments
1	Purpose and Scope	Larry Kenney	Review Section 1 of both DO-242A and DO-289 and make recommendations on final content.
1.1	Introduction		
1.2	System Overview		
1.3	Operational Applications		
2	Functional and Operational Requirements	Dean Miller	Review Section 2 of both DO-242A and DO-289 and make recommendations on final content.
2.1	General Requirements		Probably all of section §2.1.2 can be moved into the ADS-B section below into §3.3. §2.1.2.19 may specifically be moved into Appendix “I” and revised
2.2	Operational Requirement Descriptions		Parts of DO-289 section 2.4 will be moved into §2.2. Need to review the need for the Operational descriptions in the new document.
3	ADS-B and Airborne Systems Definition and Performance Requirements		Latency definitions will have to come from more recent documents than the original MASPS.
3.1	System Descriptions		Includes the following items: (1) Air Systems, (2) Ground Systems. Surface Vehicles are assumed to be part of the system.
3.1.1	ADS-B Subsystem Description (Transmit and Receive)	Tom Pagano	Review Sections of both DO-242A and DO-289 and make recommendations on final content.
3.1.2	ASSAP Subsystem Description	Dave Elliott	
3.1.3	CDTI Subsystem Description	Pete Stassen	
3.1.4	ANSP Systems		
3.1.4.1	ADS-B (Ground Receive) (RAD, NRA, APT)	John Fisher	
3.1.4.2	TIS-B and ADS-R Service Description	Mike Garcia	
3.1.4.3	TIS-B and ADS-R Subsystem Requirements	Garcia, Chamlou	Missing – ITT has draft under internal review as of 10/19/2011
3.1.5	Surface Vehicles	John Fisher	
3.2	Broadcast Information Elements Requirements	Tom Pagano	
3.3	System Application Requirements		Parts of DO-289 §2.4 may be moved into §3.4. Top level summary and table of applications.
3.3.1	Latency (additionally App_J from new DO-317A ????)	Miller, Strain, Pagano	
3.3.2	ADS-R/TIS-B Service Status Update Interval	Miller, Strain, Pagano	

Sections numbers of DO-3xx	Title of DO-3xx Sections	Author	Comments
3.4	Subsystem Requirements		
3.4.1	ASSAP	Dave Elliott	
3.4.2	CDTI	Pete Stassen	
3.4.3	ADS-B Subsystem Requirements	Tom Pagano	
3.4.3.1	ADS-B Surveillance Coverage	Tom Pagano	
3.4.3.2	ADS-B Information Exchange Requirements by Equipage Class	Tom Pagano	
3.4.3.3	ADS-B Data Exchange Requirements	Tom Pagano	
3.4.3.4	ADS-B Network Capacity	Stan Jones	Missing, draft to be available by 10/28/2011
3.4.3.5	ADS-B Medium	Stan Jones	
3.4.3.6	ADS-B System Quality of Service	Dean Miller	
3.5	Messages and Reports	Gary Furr	The Intent Info can be removed IP12-ASA needs to be reviewed as part of this editing. Add broadcast of TCAS RA Message for TCAS equipped aircraft.
3.6	External Subsystem Requirements	Rudy Johnson	Section 3.4 of DO-289 "External Subsystems" should be reviewed and included as necessary
3.7	Assumptions		Missing - (was Functional Level Requirements in DO-242A) might include some assumptions on position source systems from SC-159
4	ADS-B IN System Applications Requirements		
4.1	Basic Airborne Situational Awareness (AIRB) (mentions EVAcq)	Eric Vallauri	
4.2	Visual Separation n Approach (VSA)	Eric Vallauri	
4.3	Basic Surface Situational Awareness (SURF)	Eric Vallauri	
4.4	In Trail Procedure (ITP)	Ken Jones	
4.5	Interval Management	Peter Moertl	
4.5.1	GIM-S	Peter Moertl	
4.5.2	FIM-S	Peter Moertl	
4.6	Future Applications		
4.6.1	SURF-IA	Peter Moertl	
4.6.2	TSAA	David Gray	
Appendix A	Acronyms and Definitions of Terms	Gary Furr	First presented in WP26-04
Appendix B	Bibliography and References	Gary Furr	First presented in WP26-04
Appendix C	Derivation of Link Quality Requirements for Future Applications	Dean Miller	Missing

Sections numbers of DO-3xx	Title of DO-3xx Sections	Author	Comments
Appendix D	Receive Antenna Coverage Constraints (update old 242A-App_H)	Tom Pagano Stan Jones	Missing
Appendix E	Target State stuff to be moved from the body into this appendix	Tom Pagano Gary Furr	Missing
Appendix F	Derivation of Track Acquisition and Maintenance Requirements (updated old 242A-App_L, presented in WP27-06)	Tom Pagano	
Appendix G	Future Air-Referenced Velocity (ARV) Broadcast Conditions (updated old 242A-App_Q, presented in WP28-06)	Tom Pagano	