RTCA Special Committee 186 Working Group 6

ADS-B / ASA MASPS Maintenance

Meeting #26

Teleconference and WebEx Session
9:00am – 11:00am EDT
17 August 2011

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

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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, ?GIM?)	John Fisher	
3.1.4.2	TIS-B and ADS-R Service Description	Mike Garcia	
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	
3.4	Subsystem Requirements		
3.4.1	ASSAP	Dave Elliott	
3.4.2	CDTI	Pete Stassen	

Sections numbers of DO-3xx	Title of DO-3xx Sections	Author	Comments
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	
3.4.3.5	ADS-B Medium	Stan Jones	
3.4.3.6	ADS-B System Quality of Service	Dean Miller	
3.4.4	TIS-B and ADS-R Subsystem Requirements	Mike Garcia	For any remaining requirements from the TIS-B MASPS
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		
4	ADS-B IN System Applications Requirements		Consideration for asking WG-4 to write a page (+/-) on each of the applications in this section
4.1	Enhanced Visual Acquisition (EVACQ) / ATSA-AIRB (Reference only in DO-3xx)	Eric Vallauri	
4.2	Enhanced Visual Approach (EVAPP) / ATSA-VSA (Reference only in DO-3xx)	Eric Vallauri	
4.3	ATSA – SURF (Reference only in DO-3xx)	Eric Vallauri	
4.4	In Trail Procedure (ITP) (Reference only in DO-3xx)	Ken Jones	
4.5	Interval Management (Reference in DO-3xx and add Appendix “I” for intent)	Peter Moertl	
4.5.1	GIM-S		
4.5.2	FIM-S		
4.6	Future Applications		
4.6.1	SURF-IA	Peter Moertl - SURFIA	
4.6.2	TSAA	David Gray - TSAA	
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	
Appendix D	Design Tradeoff Considerations (update old 242A-App_G)	Tom Pagano	

Sections numbers of DO-3xx	Title of DO-3xx Sections	Author	Comments
Appendix E	Receive Antenna Coverage Constraints (update old 242A-App_H)	Tom Pagano Stan Jones	
Appendix F	Integrity Considerations for ADS-B Applications (rewrite and retitle old 242A-App_I)		
Appendix G	Latency and Report Time Error Data (update old 242A-App_K and/or use App_U from 1090ES)	Tom Pagano	
Appendix H	Derivation of Track Acquisition and Maintenance Requirements (update old 242A-App_L)	Tom Pagano	
Appendix I	Future Air-Referenced Velocity (ARV) Broadcast Conditions (update old 242A-App_Q)	Tom Pagano	
Appendix J	Compatibility of ASA MASPS with ADS-B Standards and Fielded Systems (update of old 289-App_AE)		
Appendix K	MASPS / Link MOPS Compliance Matrices (alternatively could be published as new Appendices in Changes to DO-260B and DO-282B)		
Appendix L	Traceability Matrix to show disposition of DO-289 and DO-242A requirements into DO-3xx	Dave Elliott Gary Furr	
Appendix M			
Appendix N			