

CHANGE ISSUE – RTCA/DO-242

MASPS for ADS-B

Rev B

Tracking Information (committee secretary only)	
Change Issue Number	86
Submission Date	19 November 2009
Status (open/closed/deferred)	CLOSED
Last Action Date	09/15/2010

Short Title for Change Issue:	Revise References and Definitions of TCAS/ACAS Operational and TCAS/ACAS Resolution Advisory Active
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MASPS Document Reference:		Originator Information:	
Entire document (y/n)	y	Name	Thomas Pagano, FAA
Section number(s)		Phone	609-485-5387
Paragraph number(s)		E-mail	thomas.pagano@faa.gov
Table/Figure number(s)	Tables	Other	

Proposed Rationale for Consideration (originator should check all that apply):	
<input type="checkbox"/>	Item needed to support of near-term MASPS/MOPS development
X	DO-260()/ED-102 1090 MHz Link MOPS / SARPs
X	UAT MOPS / SARPs
<input type="checkbox"/>	STP/ASAS MOPS
<input type="checkbox"/>	ASA MASPS
<input type="checkbox"/>	ADS-B or related TSO's, AC's or other regulatory guidelines
<input type="checkbox"/>	Item needed to support applications that have well defined concept of operation
<input type="checkbox"/>	RTCA OSED / SPR/Interop: (Approved/In Progress)
<input type="checkbox"/>	RFG OSED / SPR/Interop: (Approved/In Progress)
<input type="checkbox"/>	Has supporting analysis, if candidate stressing application
<input type="checkbox"/>	Item needed to support Ground Station Requirements/Specifications
<input type="checkbox"/>	Item identified during recent ADS-B development activities and operational evaluations
<input type="checkbox"/>	ADS-B MASPS clarifications and/or correction item
<input type="checkbox"/>	Validation/modification of questioned MASPS requirement item
X	New requirement item (must be associated with traffic surveillance to support ASAS or ATC Services)
<input type="checkbox"/>	Other: (Explain)

Nature of Issue:	<input type="checkbox"/>	Editorial	<input type="checkbox"/>	Clarity	<input type="checkbox"/>	Performance	X	Functional
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Issue Description:

Issue Paper IP 12 was originally proposed by Captain Bob Hilb, who was at the time with UPS Airlines. IP 12 outlines several sections of what became DO-242A dealing with the CDTI Capability Flag, the TCAS Installed and Operational Flag, and the TCAS/ACAS Resolution Advisory Active Flag. These parameters were included in DO-242A, DO-260A, DO-282A, and the 1090ES and UAT SARPs documents.

Part of the issue deals with the fact that the Operational Status message in DO-260 was implemented incorrectly and when DO-260A was being drafted in order to comply with the above MASPS requirements, there needed to be several bits devoted in the Capability Codes (CC) and Operational Mode (OM) section of the Operational Status Message dealing with the TCAS Installed and Operational, plus the TCAS RA Active statuses.

With the development of DO-260B/ED-102A and ADS-B Version TWO, it was discussed and agreed that there was no longer a need to be backward compatible with ADS-B Version ZERO definitions of these TCAS bits. The “Not-TCAS” bit was deleted and the TCAS Installed and Operational was simplified to “TCAS Operational.”

DO-242B needs to be revised in order to conform the definitions of TCAS/ACAS parameters to what was implemented in DO-260B/ED-102A and DO-282B.

Originator’s proposed resolution if any:

Review the revised and simplified definitions of TCAS/ACAS Operational and the TCAS/ACAS RA Active parameters in DO-260B/ED-102A and DO-282B and make similar changes in DO-242B.

Note: Attach additional sheets to capture supporting discussion with source and date.

Issue History:

22 February 2002: Issue Paper IP 12 was originally proposed by Captain Bob Hilb, who was at the time with UPS Airlines. IP 12 outlines several sections of what became DO-242A dealing with the CDTI Capability Flag and the TCAS Installed and Operational Flag. These parameters were included in DO-242A, DO-260A, DO-282A, and the 1090ES and UAT SARPs documents.

17 April 2003: Issue Paper IP 72 was written in April 2003 and discusses the issue of TCAS/ACAS CC and OM modes as they relate to discussions during the development of the UAT SARPs at ICAO.

2009: The RTCA/EUROCAE groups discussing the revised Link MOPS discussed revising and simplifying the definitions of the TCAS/ACAS bits in the Operational Status and Target State and Status Messages. The end result of those discussions is what was implemented into DO-260B/ED-102A and DO-282B.

Working Group 6 Deliberations:

9/15/2010 – Meeting #17

The reconvened WG-6 reviewed this Issue Paper and agreed that all of the proposed changes have been made to the respective Link MOPS and to the working draft of DO-242B as it will be combined with DO-289.