


EASA	AIRWORTHINESS DIRECTIVE	
	AD No.: 2008-0159	
	Date: 25 August 2008	
<p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>		
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
Type Approval Holder's Name :	Type/Model designation(s) :	
Honeywell International Inc.	MST-67A Mode-S Transponders	
ETSO Approval Number : EASA.210.150		
Foreign AD :	None	
Supersedure :	None	
ATA 34	Navigation Systems – Mode-S Transponder – Modification / Replacement	
Manufacturer(s):	Honeywell International Inc.	
Applicability:	<p>MST-67A Mode-S Transponders Part Number (P/N) 066-01143-2001, serial numbers up to and including MST67A-F1450; and P/N 066-01143-2101, serial numbers up to and including MST67A-G2850, when installed in aircraft that must comply with Mode-S Enhanced Surveillance (EHS) operational requirements (see Note below).</p> <p>These transponders are known to be installed on, but not limited to, Cessna Model 550, 560 and 650 "Citation" series, Gulfstream Aerospace Corporation G-1159B, Gulfstream (IAI) Model 1125 "Astra", Hawker Beechcraft (Raytheon) Hawker 800 series and Sabreliner Corporation (North American) NA-265 series aircraft.</p> <p>Note: The requirements of Mode S EHS apply to IFR flights operated as General Air Transport (GAT) by fixed wing aircraft having a maximum take-off mass greater than 5 700 kg or a maximum cruising true airspeed in excess of 250 knots in the designated Mode-S EHS airspace in Europe, which at the moment includes Germany, France, the United Kingdom and The Netherlands. For more information regarding Mode-S EHS designated airspace, consult the Eurocontrol website at www.eurocontrol.int/mode-s and local Aeronautical Information Circulars (AIC).</p>	
Reason:	<p>The Honeywell MST-67A Transponder does not set bit 25 to 1 in the Mode-S Datalink Capability Report (also known as BDS 1,0) as required by ICAO Annex 10, Volume IV, Fifth Edition, July 2007. When the Mode S Secondary Surveillance Radars (SSR) receive the Datalink Capability Report with bit 25 set to zero, the Mode S SSR radar assumes that the Enhanced Surveillance</p>	

	<p>parameters are not available and therefore never requests the EHS downlink parameters from the aircraft.</p> <p>In addition, the Mode-S Sub network Version Number (MSSVN) is coded to zero, which prevents the Mode-S SSR radar from correctly decoding BDS registers 4,0, 5,0 and 6,0. The MSSVN should be coded to 'three' as the MST 67A is designed to be compliant with ICAO Annex 10, Volume IV, Fifth Edition, July 2007. As a result of these anomalies, the affected MST-67A units do not support Mode-S enhanced surveillance. This condition, if not corrected, could result in the Mode-S SSR radar detecting the aircraft as Elementary (ELS) only, creating disruptions in the Air Traffic Management process and potentially compromising aircraft safety.</p> <p>To address and correct this unsafe condition, Honeywell has developed software update 01/04, which is available for in-service application through Honeywell Service Bulletin (SB) MST 67A-34-56.</p> <p>For the reasons described above, this EASA AD requires a temporary Airplane Flight Manual (AFM) limitation to ensure the flight crew is aware of this anomaly, and the modification of all affected Honeywell MST-67A transponders to incorporate the new software update. After the installation of modified transponders, the limitation may be removed from the AFM.</p>
Effective Date:	08 September 2008
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless previously accomplished:</p> <p>(1) Before next flight after the effective date of this AD, amend the applicable AFM, Section Limitations, to incorporate the following:</p> <p>“MODE-S TRANSPONDER: KNOWN TRANSMISSION ANOMALY - NO EHS DAPS”</p> <p>This may be accomplished by inserting a copy of this AD into the applicable AFM, Section Limitations. After the effective date of this AD, each flight plan (item 18) should be amended accordingly.</p> <p>(2) Within 18 months after the effective date of this AD, modify the Honeywell MST-67A Transponders in accordance with Honeywell SB MST 67A-34-56, or replace the transponder with a unit incorporating Software 01/04. As an alternative, software version 01/03 may be used, provided that the owner/operator has determined that the aircraft is not affected by the problems identified in paragraph 1.C of Honeywell SB MST 67A-34-56. Honeywell Software Bulletin (SWB) MST 67A-SW5, Publication 605-07740-0050, pertains to this subject.</p> <p>Note: The wording in paragraph 1.C of Honeywell SB MST 67A-34-56 may lead to confusion. MST-67A Transponders with 01/03 software do accept Aircraft/Flight Identification Labels 233 through 236 with SSM set to '00', but will not accept the labels if SSM is set to '11'.</p> <p>(3) After installation of modified transponders on an aircraft as required by paragraph (2) of this AD, the limitation as required by paragraph (1) of this AD may be removed from the AFM of that aircraft.</p> <p>(4) After 04 March 2010, no person shall install a spare MST-67A Transponder, identified by part- and serial number in the Applicability section of this AD, on any aircraft operating under IFR in designated EHS airspace in Europe, unless it has been modified in accordance with Honeywell SB MST 67A-34-56 or Honeywell SWB MST 67A-SW5.</p>
Ref. Publications:	<p>Honeywell Service Bulletin MST 67A-34-56, Publication number 605-07740-0060, Revision 0, dated 05 March 2008.</p> <p>Honeywell Software Bulletin MST 67A-SW5, Publication number 605-07740-0050, Revision 0, dated 07 November 2007.</p>

Remarks :	<ol style="list-style-type: none">1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.2. This AD was posted on 23 July 2008 as PAD 08-080 for consultation until 20 August 2008. The Comment Response Document can be found at http://ad.easa.europa.eu.3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA; E-mail ADs@easa.europa.eu.4. For any question concerning the technical content of the requirements in this AD, please contact: Honeywell International, Inc., 23500 W 105th Street, Olathe, Kansas 66061, United States of America Telephone (800) 601-3099 (USA) or +1 602 365-3099 (International), E-mail: ATS-CRC-Group@Honeywell.Com
-----------	--