


EASA	NOTIFICATION OF A PROPOSAL TO CANCEL AN AIRWORTHINESS DIRECTIVE
	<p>PAD No.: 12-109-CN</p> <p>Date: 21 August 2012</p> <p>Note: This Proposed Airworthiness Directive (PAD) Cancellation Notice (CN) 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>In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the cancellation of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below. All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation closing date indicated.</p>	
<p>Design Approval Holder's Name: VARIOUS (see Applicability below)</p>	<p>Type/Model designation(s): Mode 'C' and Mode 'S' Transponders</p>
ETSO Authorisations: Various	
Foreign AD:	None
Cancellation:	This Notice proposes to cancel EASA AD 2006-0265 dated 30 August 2006, which superseded CAA United Kingdom AD 002-12-99 Rev.2, as well as any corresponding EU Member State ADs that were issued in response to that AD.
ATA 34	Navigation Systems – Mode S and C Transponders – Check
Manufacturer(s):	Various, see Applicability
Applicability:	<p>Mode 'C' and Mode 'S' transponders, all types and models utilising Gilham code altitude input.</p> <p>Such transponders are known to have been manufactured by, but not limited to, Aviation Communication & Surveillance Systems (ACSS), Becker Flugfunkwerk GmbH, Funkwerk Avionics GmbH (formerly Filser Electronic GmbH), Garmin International Inc., Garrecht Avionik GmbH, Honeywell International Inc. (formerly Allied Signal, Bendix-King), Rockwell Collins Inc. and Trig Avionics Ltd.</p> <p>The affected transponders are known to be installed on, but not limited to, JAR/FAR/CS 23 and 25 aeroplanes equipped with Traffic Alert and Collision Avoidance System (TCAS).</p>
Reason:	<p>During the 1990's, the FAA received reports of eleven incidents involving certain transport category airplanes equipped with Mode "C" transponder(s) with single Gilham code altitude input. These reports indicated that, during level flight, the TCAS II issued false advisories that directed the flight crew to either climb or descend. Further investigation showed that these events were caused by incorrect Gilham coded altitude input. The instances reported in the USA all involved communication between aeroplanes with the TCAS II and aeroplanes having the Mode "C" transponder(s). Aeroplanes having Mode "C" transponders installed are predominantly older, out-of-production transport</p>

	<p>category (JAR/FAR/CS 25) aeroplanes.</p> <p>Such inaccurate altitude reporting and consequent false TCAS II advisories, if not prevented, could cause the flight crew to manoeuvre the aeroplane from its assigned flight path, possibly resulting in a mid-air collision.</p> <p>To address this potential unsafe condition, on 12 November 1999, FAA issued AD 99-23-22 to require repetitive testing of the affected transponders. This AD was later revised (R1 dated 16 December 1999) and subsequently cancelled (rescinded) by AD 99-23-22R2 on 20 April 2000. The reason to rescind that AD were that test data had been collected that demonstrated that the repetitive tests are unnecessary.</p> <p>Prompted by the original FAA AD 99-23-22 and some similar reported occurrences in the United Kingdom (UK), the CAA UK issued AD 002-12-99 (later revised twice), which was made applicable to a much wider range of aircraft, i.e. not restricted to aircraft with TCAS installed and also applicable to aircraft fitted with Mode "S" transponders, if using Gilham code altitude input.</p> <p>In 2006, EASA adopted the CAA UK requirements as EASA AD 2006-0265 to require the identification of incorrect transmission of altitude data from transponders which utilise Gilham coded altitude encoders as a sensor input and, where aircraft transponders accept dual Gilham coded altitude encoders, the transponder altitude data comparator must be checked for correct operation. That AD had been published as PAD 06-170 for consultation on 07 August 2006 with a comment period until 21 August 2006 and no comments were received during the consultation period.</p> <p>Since that AD was issued, many comments have been received on the impact of the repetitive requirements, particularly on general aviation (JAR/FAR/CS 23) aeroplanes. These comments and other findings confirm the conclusion of the FAA that the repetitive tests of these transponders are no longer necessary to ensure safe operation. The test interval of 24 months does not guarantee proper transponder operation during the next 24 months and any discrepancy will likely be detected by Air Traffic Control (ATC) and reported to the operator.</p> <p>In addition, the European Commission has recently published Implementing Regulation (EU) No. 1207/2011 which contains the requirements for the performance and interoperability of surveillance for the Single European Sky, which includes repetitive testing of transponders. This regulation only applies to aeroplanes with a take-off mass exceeding 5 700 kilograms.</p> <p>After review of all available information, EASA proposes to cancel EASA AD 2006-0265. A Safety Information Bulletin (SIB) is expected to be published to recommend certain actions for general aviation aeroplanes and helicopters that still have the affected transponders installed, but who do not have to comply with European Commission Implementing Regulation (EU) No. 1207/2011.</p>
Effective Date:	[TBD: same date as Final AD-CN issue date]
Required Action(s) and Compliance Time(s):	None
Ref. Publications:	None.
Remarks:	<ol style="list-style-type: none"> 1. This PAD-CN will be closed for consultation on 31 October 2012. 2. Enquiries regarding this PAD-CN should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 3. For any question concerning the technical content of this PAD-CN, please contact the ETSOA holder of your transponder, or the type certificate holder of your aeroplane.

