


EASA	AIRWORTHINESS DIRECTIVE						
	AD No.: 2009-0097						
	Date: 22 April 2009 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.						
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].							
Type Approval Holder's Name : Rockwell Collins Inc.	Type/Model designation(s) : TDR-94 and TDR-94D transponders						
ETSO Authorisation Number : EASA.210.280 Rev.C							
Foreign AD : None							
Supersedure : None							
ATA 34	Navigation - Mode S Transponder - Check / Modification						
Manufacturer(s):	Rockwell Collins Inc.						
Applicability:	Rockwell Collins Mode S Transponders identified by type and Part Number (P/N) as follows:						
	<table border="1"> <thead> <tr> <th data-bbox="544 1335 703 1384">Type</th> <th data-bbox="703 1335 1458 1384">P/N (all serial numbers)</th> </tr> </thead> <tbody> <tr> <td data-bbox="544 1384 703 1496">TDR-94</td> <td data-bbox="703 1384 1458 1496">622-9352-004, 622-9352-005, 622-9352-006, 622-9352-007, 622-9352-008, 622-9352-108, 622-9352-207, 622-9352-308, and 622-9352-408</td> </tr> <tr> <td data-bbox="544 1496 703 1608">TDR-94D</td> <td data-bbox="703 1496 1458 1608">622-9210-004, 622-9210-005, 622-9210-006, 622-9210-007, 622-9210-008, 622-9210-108, 622-9210-207, 622-9210-308 and 622-9210-408</td> </tr> </tbody> </table>		Type	P/N (all serial numbers)	TDR-94	622-9352-004, 622-9352-005, 622-9352-006, 622-9352-007, 622-9352-008, 622-9352-108, 622-9352-207, 622-9352-308, and 622-9352-408	TDR-94D
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These transponders are known to be installed on, but not limited to, the following aeroplanes: <ul style="list-style-type: none"> - ATR 42 and ATR 72, all models. - Bombardier (formerly Canadair) CL-600-1A11, CL-600-2A12 (601 Variant), CL-600-2B16 (601-3A, 601-3R and 604 Variants), CL-600-2B19, CL-600-2C10, CL-600-2D15 and CL-600-2D24. - Bombardier (formerly De Havilland Canada) DHC-8, all models. - Dassault Aviation Mystère-Falcon 50 (including EX variant), Mystère-Falcon 900, Falcon 900EX, Falcon 2000 and Falcon 2000EX. - Gulfstream G-IV. - Hawker Beechcraft (formerly Raytheon, Beech) 200 and 400 series, all models. - SAAB SF340A and 340B. 							

Reason:	<p>The European Air Navigation Service Providers (ANSP) have implemented Advanced Surface Movement Guidance & Control Systems (A-SMGCS) to improve the surveillance and control of on-ground aeroplanes and vehicles, providing conflict detection and alerting on runways.</p> <p>To ensure proper and effective operation of the A-SMGCS, transponder replies to Air Traffic Control Radar Beacon System (ATCRBS) and All-Call interrogations must be inhibited when the aeroplane is on ground.</p> <p>Rockwell Collins TDR-94 and TDR-94D Mode S Transponders have two Air/Ground Discrete inputs that may be connected to the aeroplane Weight-On-Wheels system. A connection to the Air/Ground #2 discrete will implement an inhibition of ATCRBS, ATCRBS/Mode-S All-Call and Mode-S Only All-Call replies when the aeroplane is on the ground. No ground reply inhibition occurs if the connection is to the Air/Ground #1 discrete.</p> <p>An aeroplane with this transponder interface problem, if not corrected, does not meet the specifications of ICAO Annex 10 volume IV amendment 7 section 3.1.2.10.3.10 "Inhibition of replies" which could lead to degradation of the functioning of the A-SMGCS, could affect the ATC functions in tower, approach and en-route sectors, increase the risk of undetected runway incursions and endangering the aeroplane occupants and persons on the ground.</p> <p>For the reasons described above, this new EASA AD requires a check of the transponder Air/Ground discrete input connection and, in case of discrepancies, the accomplishment of corrective action.</p>
Effective Date:	06 May 2009
Required Action and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within 12 months after the effective date of this AD, accomplish the following: <ul style="list-style-type: none"> Verify that the transponder Air/Ground discrete input connections are installed in accordance with Table 1 of Rockwell Collins Service Information Letter TDR94() SIL 07-1 (ref. 523-0809129-001000). If the wiring installation is not compliant with the information provided in Table 1 of the SIL, modify the aeroplane Air/Ground discrete input connections in accordance with approved aeroplane modification instructions. (2) ATR aeroplanes modified in accordance with ATR Service Bulletin (SB) ATR42-34-0164 or SB ATR72-34-1093 (modification n° 05602), as applicable to aeroplane model, including those ATR aeroplanes on which modification n° 05602 was incorporated during production, are not affected by this AD, as this modification is equal to the requirements of paragraph (1) of this AD. (3) Bombardier CL-600-2B19, serial number 7122, if modified in accordance with Bombardier SB 601R-34-146, is not affected by this AD, as this modification is equal to the requirements of paragraph (1) of this AD. (4) Dassault aeroplanes modified in accordance with Dassault Aviation SB F50-457 (modifications M2966 and M2968), SB F50-469 (modification M2998), SB F900-354 (modification M3896), SB F900-368 (modification M5013), SB F900EX-239 (modification M3896), SB F900EX-270 (modification M5013), F2000-312 (modifications M2624 and M2632), SB F2000-327 (modification M2468), SB F2000EX-043 (modification M2624) or SB F2000EX-084 (modification M2468), as applicable to aeroplane model, are not affected by this AD, as these modifications are equal to the requirements of paragraph (1) of this AD.
Ref. Publications:	Rockwell Collins Service Information Letter TDR-94() SIL 07-1, document reference 523-0809129-001000, dated 25 May 2007.

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 initially published on 09 October 2008 as PAD 08-113 for consultation until 30 October 2008 and then republished on 03 March 2009 as PAD 08-113R1 for extended consultation until 31 March 2009. The Comment Response Documents 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: Rockwell Collins Inc., 400 Collins Road NE, Cedar Rapids, Iowa 52498, United States of America, telephone +1-319-265-5400 Website: www.rockwellcollins.com Email: response@rockwellcollins.com
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