

EASA Safety Information Bulletin

SIB No.: 2011-20R1

Issued: 06 May 2013

Subject: Rockwell Collins TPR 901 Mode S Transponder – Incorrect 'Downlink Aircraft Identification' and Incorrect Operation with Airport Ground Tracking Systems

Ref. Publications: Rockwell Collins Service Bulletins (SB) and Service Information Letters (SIL) as listed below:

Document	Publication No.	Issue date
SB 15	523-0817823-001000	24 September 2009
SB 15 R1	523-0817823-101000	22 November 2010
SB 16	523-0819070-001000	10 November 2010
SB 503 R1	523-0819194-101000	12 April 2011
SIL 10-1	523-0819008-001000	20 October 2010
SIL 11-1	523-08190607-001000	17 May 2011

Applicability: Rockwell Collins TPR 901 Mode S Air Traffic Control (ATC) Transponders, Part Number (P/N) 822-1338-003, all serial numbers.

These transponders are known to be installed on, but not limited to, aeroplanes modified per FAA Supplemental Type Certificate (STC) <u>ST01202WI-D</u>, or modified per STC EASA.IM.A.00392, which is the European validation (dated 29 March 2005) of the FAA STC.

Description: The Rockwell Collins transponder type TPR 901, P/N 822-1338-003 (initial standard) introduced a transient problem, affecting the ability of the transponder to transmit the correct aircraft downlink aircraft identification, also referred to as flight identification. This transient problem resulted in an additional alpha character (generally a 'U') being appended to the downlink aircraft identification. This problem mainly affects Boeing 747-400 series aeroplanes.

Rockwell Collins published SB 15, containing modification instructions to correct the problem, but this modification

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		inadvertently introduced a new problem, affecting the correct operation with airport ground tracking systems. This problem affects all aircraft which have a Rockwell Collins TPR 901 transponder P/N 822-1338-003 installed which has been modified in accordance with Rockwell Collins SB 15. Prompted by these findings, Rockwell Collins SB 15 Revision 1 was issued to instruct operators not to install SB 15.
		Rockwell Collins SB 16 was issued to modify the transponder back to the pre-SB 15 configuration, to allow correct operation with airport ground tracking systems, which also re-introduced the transient problem affecting the ability of the transponder to transmit the correct downlink aircraft identification.
		Since this SIB was first issued, Boeing has included the Rockwell Collins TPR 901, P/N 822-1338-005 in the IPC (Illustrated Parts Catalogue) for 747-400 aeroplanes. Also, Boeing has published SB 747-34-3003, detailing this change of transponder part number.
Į		Rockwell Collins SB 503 contains modification instructions to correct the transient problem affecting the downlink aircraft identification, which includes a change to P/N 822-1338-005.
		Based on the available information, EASA have determined that, at this time, this airworthiness concern is not an unsafe condition that would warrant Airworthiness Directive (AD) action under EU <u>748/2012</u> , Part 21.A.3B. Nevertheless, these anomalies cause increased workload for the air traffic controllers and flight crew.
	Recommendation:	For the reasons described above, EASA recommend operators of the affected aircraft to modify their transponders in accordance with the instructions of Rockwell Collins SB 503, or Boeing SB 747-34-3003 (applicable to 747-400 only).
		Rockwell Collins SIL 11-1 provides additional information relating to an updated <u>Approved Model List</u> (AML) of STC ST01202WI-D, which may be used by the operator.
	Contacts:	For further information contact the Safety Information Section, Executive Directorate, EASA; E-mail: <u>ADs@easa.europa.eu</u> .
		Copies of the referenced service publications or modification materials can be obtained upon request from: Rockwell Collins, Inc., Customer Response Center, Mail Stop 133-100, 400 Collins Road NE, Cedar Rapids, Iowa 52498-0001, United States of America. Telephone +1 319-265-5467, Fax +1 319-295-4941 Email: response@rockwellcollins.com.

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