



## Safety Information Bulletin

### Airworthiness

**SIB No.: 2016-19R1**

**Issued: 09 January 2017**

**Subject: Honeywell Mode S Transponders: Enhanced Surveillance Parameters not provided to Mode S Ground Stations**

This SIB revises and replaces SIB 2016-19 dated 13 december 2016, including its Correction dated 16 december 2016, to clarify the Applicability.

**Ref. Publications:**

Honeywell Service Information Letter (SIL) D201206000008 Revision 2 dated 22 November 2013.

**Applicability:**

Mode S Transponders XS-852E and XS-852F, incorporated in Primus II Integrated Communication Units (also known as COM units) RCZ-833J, -833K, -851J, -851K, and -854J, Part Number (P/N) 7510700-563, P/N 7510700-613, P/N 7510700-615, P/N 7510700-624, P/N 7510700-625, P/N 7510700-663, P/N 7510700-665 and P/N 7510700-675; and

Mode S Transponders, Primus EPIC XS-857A and -858A, P/N 7517400-950 and P/N 7517401-960.

These transponders are known to be installed on, but not limited to, aeroplanes manufactured by Textron Aviation (formerly Cessna), Embraer, Gulfstream and Learjet.

**Description:**

Mode S ground stations are unable to receive Mode S Enhanced Surveillance (EHS) parameters from aeroplanes, fitted with a certain Honeywell transponder, as listed above. The issue is related to the report of airborne capability when interrogated by secondary radars using Mode S protocols with a Surveillance Identifier (SI) code. An incorrect Mode S transponder register content is sent in reply to the Mode S ground station request. The result is that the Mode S ground station cannot correctly establish the EHS capability of the aeroplane and therefore it does not request any EHS parameters.

The Mode S EHS parameters are used by controllers and ground based safety nets. Most European States have already mandated the provision of Mode S EHS parameters through National aeronautical information publications (AIP). Aeroplanes operating in the airspace of these States may be subject to ramp checks to determine compliance with the affected State's AIP.

These parameters are also required for compliance with European Commission Regulation [\(EU\) 1207/2011](#), amended by Regulation [\(EU\) 1028/2014](#), which will extend this provision across the rest of Europe. A transponder software upgrade is required to correct this, and other miscellaneous issues.

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This is information only. Recommendations are not mandatory.



At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) [748/2012](#), Part 21.A.3B.

**Recommendation:**

EASA recommends operators to modify the Mode S transponder installation in accordance with the applicable Honeywell SB (listed below), which will correct this anomaly, as well as ensure compliance with the State AIP and with the relevant European Commission Regulations.

SB (publication) Nr.	Applicability / Description
SB 7510700-23-0054 (A24-3851-005), original issue, dated 01 November 2012	Conversion of RCZ-833J/K, -851J/K, or -854J Integrated Communications Unit (COM Unit), P/N 7510700-563, -613, -615, -624, -625, -663, -665, or -675 into P/N 7510700-565, -618, -617, -628, -627, -662, -667, or -677 in same sequence with modification (mod) BC; Install XS-852E/F Mode S Diversity Transponder Module Assembly, P/N 7517400-921 or -922 with mod AE to make sure transponder sends correct (1) data for SI request, (2) altitude A429 label to Traffic Collision Avoidance System (TCAS), (3) identification in capability report when connected to Change 7.1 TCAS II.
SB 7517400-23-0025 (A24-3834-029), original issue dated 05 November 2012	Mod AE to XS-852E/F Mode S Diversity Transponder Module Assembly, P/N 7517400-921, -922; make sure transponder sends correct (1) data for SI request, (2) altitude A429 label to TCAS, (3) identification in capability report when connected to Change 7.1 TCAS II.
SB 7517400-34-0003 (A24-3834-030), original issue dated 22 April 2013	Mod AE to XS-857A Mode S Diversity Transponder Module Assembly, P/N 7517400-950; make sure transponder sends correct (1) data for SI request, (2) altitude A429 label to TCAS, (3) identification in capability report when connected to Change 7.1 TCAS II.
SB 7517401-34-0005 (A24-3834-031), original issue dated 22 April 2013	Mod AE to XS-858A Automatic Dependent Surveillance Broadcast (ADS-B) Transponder Assembly, P/N 7517401-960; make sure transponder sends correct (1) data for SI request, (2) altitude A429 label to TCAS, (3) identification in capability report when connected to Change 7.1 TCAS II.

**Contact(s):**

For further information, contact the EASA Safety Information Section, Certification Directorate.

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For further information or technical assistance, or a copy of the applicable SB(s), contact

Honeywell via e-mail: [AeroTechSupport@Honeywell.com](mailto:AeroTechSupport@Honeywell.com).

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