Safety Information Bulletin

Airworthiness – Operations – ATM/ANS

SIB No.: 2021-01

Issued: 21 January 2021

Subject: **Collins Aerospace Very High Frequency Data Radios - Data Link over Very High Frequency Data Link Mode 2 Operations**

Ref. Publications:

Collins Aerospace (formerly known as Rockwell-Collins) Operator Service Bulletins (SB):

- SB-7, Publication Part Number 523-0820634, latest revision 7 dated 04 February 2014;
- SB-9, Publication Part Number 523-0822044, original issue dated 01 October 2013;
- SB-11, Publication Part Number 523-0822655, original issue dated 25 August 2014;
- SB-13, Publication Part Number 523-0823006, original issue dated 16 February 2016;
- SB-16, Publication Part Number 523-0822864, original issue dated 07 April 2015;
- SB-17, Publication Part Number 523-0823721, latest revision 1 dated 04 August 2016;
- SB-501, Publication Part Number 523-0820788, latest revision 9 dated 31 January 2018.

Applicability:

Operators of aeroplanes equipped with data link installations over very high frequency (VHF) data link (VDL) Mode 2, that operate in the single European sky airspace and use Collins Aerospace VHF Data Radios (VDR) of the following types and Part Numbers (P/N):

VDR Type	P/N
VHF-920	822-1250-002, 822-1250-020
VHF-2100	822-1287-101, 822-1287-120, 822-1287-140, 822-1287-180
VHF-2100E	822-2168-120
VHF-4000	822-1468-210, 822-1468-302, 822-1468-310
VHF-4000E	822-1872-310
VHF-4000F	822-2993-310

These VDRs are known to be installed on, but not limited to Airbus, Boeing, Bombardier and Embraer aeroplanes.

Description:

EASA has been made aware that certain Collins Aerospace VDRs cease to decode VDL Mode 2 uplink messages following a reception of a corrupted VDL uplink message (‘burst’). Although transmission of downlink messages is still possible, the affected VDRs will not decode the resulting uplink acknowledgments. As communication can no longer be established with the VDR within the

required timeframe, the communication link is disconnected. This phenomenon, known as 'VDR deafness', affects the overall performance of Controller Pilot Data Link Communications (CPDLC) operations in the single European sky.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant any Airworthiness Directive (AD) action under Regulation (EU) 748/2012, Part 21.A.3B, nor Safety Directive (SD) action under Commission Regulation (EU) 965/2012, Annex II, ARO.GEN.135(c), or under Commission Regulation (EU) 2017/373, ATM/ANS.AR.A.025.

EASA is continuing to monitor the situation and further actions may be considered to limit or to prohibit data link operations over VDL Mode 2 of aircraft using equipment affected by the 'VDR deafness' issue.

Recommendation(s):

EASA recommends that owners, operators, and maintenance organisations accomplish the instructions of the following SBs, as applicable, or their approved equivalent, for those VDRs used for Data Link over VDL Mode 2 operations, at the earliest practical opportunity:

VHF Data Radio Type	P/N	SB
VHF-920	822-1250-002 822-1250-020	SB-16 SB-17
VHF-2100	822-1287-101 822-1287-120 822-1287-140 822-1287-180	SB-7 SB-501 SB-501 SB-7
VHF-2100E	822-2168-120	SB-501
VHF-4000	822-1468-210 822-1468-302 822-1468-310	SB-13 SB-11 SB-13
VHF-4000E	822-1872-310	SB-13
VHF-4000F	822-2993-310	SB-9

Contact(s):

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