Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2022-0012

Issue date: 15 June 2022

Note: In this Airworthiness Directive, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as "UK Regulation (EU) year/number or UK Regulation (EU) No. number/year".

This Airworthiness Directive (AD) is issued by the UK CAA in accordance with UK Regulation (EU) No. 748/2012 Part 21.A.3B, acting as the Authority of the State of Design for the affected product(s), under Article 34 of the Air Navigation Order 2016 (ANO) and UK Regulation (EU) 2018/1139.

In accordance with UK Regulation (EU) No. 1321/2014 Annex I (Part-M), M.A.301 / Annex VB (Part-ML), ML.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 or agreed by the CAA [Part-M, M.A.303 / Part-ML, ML.A.303].

Type Approval Holder's Name:

BAE SYSTEMS (OPERATIONS) LIMITED

Type/Model Designation(s):

BAe ATP

Effective Date:	29 June 2022
TCDS:	EASA.A.192
Foreign AD (if applicable):	Not Applicable
Supersedure:	Not Applicable

ATA 31 – Indicating / Recording Systems – Flight Data Recording System – Check

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Manufacturer(s):

British Aerospace plc, British Aerospace (Commercial Aircraft) Ltd, Jetstream Aircraft Ltd, British Aerospace Regional Aircraft, British Aerospace (Operations) Ltd and BAE Systems (Operations) Ltd

Applicability:

BAe ATP aeroplanes, all manufacturer serial numbers (MSN)

Definitions:

For the purposes of this AD, the following definitions apply:

BAE: BAE Systems (Operations) Ltd
LFD: Large Freight Door
FDR: Flight Data Recorder
DARU: Data Acquisition and Recording Unit

Reason:

During investigation by UK AAIB of a Serious Incident involving an ATP aircraft, it was found that "Both FDR and QAR recordings ended prior to the aircraft landing and an intermittent recording fault was identified with the FDR."

The AAIB Bulletin states; "*The majority of FDRs found with moisture ingress were those that had been fitted to BAe ATP aircraft with the Large Freight Door (LFD). Discussions with engineers, and inspection of SE-MHF, indicate that rainwater can enter the cargo bay area during loading, which may then find its way into the rear equipment bay and the FDR" …… "Therefore, to minimise the effects of moisture ingress on the performance of the FDR fitted to the ATP, the following Safety Recommendation is made:*

Safety Recommendation 2019-001

It is recommended that the European Union Aviation Safety Agency (EASA) require BAE SYSTEMS to protect the flight data recorder fitted to those ATP aircraft equipped with large freight doors from the effects of rainwater and other liquids."

As a result of these findings BAE have issued Service Bulletin ATP-31-027 which increases the frequency of existing instructions for FDR / DARU data download. BAE are also working to develop a modification to provide protection of the FDR / DARU against moisture ingress. Whilst this is in progress, this AD requires a reduction in the interval of periodic data download of the FDR / DARU to confirm correct functioning of this equipment.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

(1) Within 3 months from the effective date of this AD, and every 6 months thereafter, perform an FDR/DARU data download and read out in accordance with SB ATP-31-027 / MPD Task 313102-RDG-10000-1, to verify the correct functioning of the FDR / DARU.

Whilst performing the FDR/DARU data download, check and report back to BAe Systems any signs of water/moisture that might have percolated through and dripped onto the FDR/DARU from the cargo bay floor. Make sure that the area is dry before closing up.

Operator Feedback

(2) After each download and inspection in accordance with (1) above, any findings must be reported to BAE, at the address stated in Note 4. below.

Reference Publications:

BAE Systems (Operations) Ltd Service Bulletin ATP-31-027 Original Issue, 22 February 2022.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with this AD.

Remarks:

1. This AD was originally posted on 25 April 2022 as PAD 1997 for consultation until 23 May 2022. No comments were received during the consultation period.

2. If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this AD.

3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the CAA aviation safety reporting system Occurrence reporting | Civil Aviation Authority (caa.co.uk). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

4. Enquiries regarding this AD should be referred to: Continued.Airworthiness@caa.co.uk

5. For any questions concerning the technical content of the requirements in this AD, please contact: BAE Systems (Operations) Ltd, Customer Technical Support Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, The United Kingdom or E-mail: raengliaison@baesystems.com