



Civil Aviation Authority

# PROPOSED AIRWORTHINESS DIRECTIVE



**Number: 2006**

Issue date: 19 April 2023

In accordance with the CAA Continuing Airworthiness Procedures, the issuance of an Airworthiness Directive (AD) is proposed which will be applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

**Type Approval Holder's Name:**

**Type/Model Designation(s):**

BAE SYSTEMS (OPERATIONS) LIMITED

BAe ATP

Effective Date:	[TBD - standard: 14 days after AD issue date]
TCDS:	EASA.A.192
Foreign AD (if applicable):	Not Applicable
Supersedure:	This AD supersedes UK AD G-2022-0012 dated 15 June 2022

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

---

### 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  
DARU: Data Acquisition and Recording Unit  
LFD: Large Freight Door  
FDAU: Flight Data Acquisition Unit  
FDR: Flight Data Recorder  
QAR: Quick Access Recorder

**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 issued Service Bulletin (SB) ATP-31-027 which increased the frequency of existing instructions for FDR / DARU data download and was the subject of AD G-2022-0012.

Since this time, BAE have developed a modification which introduces Moisture Covers to provide protection of the FDR, DARU and FDAU against moisture ingress. SB ATP-31-028 addresses embodiment of this modification, No. JDM20035A.

For the reasons described above, this AD supersedes AD G-2022-0012, and requires embodiment of FDR, DARU and FDAU moisture covers, in accordance with SB ATP-31-028. Following embodiment of this modification, the requirement for FDR / DARU data download is removed from the AD, reinstating the previous frequency as stated in the ATP Maintenance Planning Document (MPD).

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

Required as indicated, unless accomplished previously:

**Modification**

- (1) Within 6 months from the effective date of this AD, modify the aircraft in accordance with SB ATP-31-028, which introduces FDR, DARU and FDAU Moisture Covers.

**Check**

- (2) For aircraft which have not been modified in accordance with SB ATP-31-028, within 6 months since the last time the data download and read out were performed to satisfy compliance with AD G-2022-0012, 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.

**Reference Publications:**

BAE Systems (Operations) Ltd Service Bulletin ATP-31-027 Original Issue, 22 February 2022  
BAE Systems (Operations) Ltd Service Bulletin ATP-31-028 Original Issue, 23 March 2023

The use of later approved revisions of this document is acceptable for compliance with this AD.

**Remarks:**

1. This PAD will be closed for consultation on 17 May 2023.
2. Information about any failures, malfunctions, defects, or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the CAA aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this PAD 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.
3. Enquiries regarding this PAD should be referred to: [Continued.Airworthiness@caa.co.uk](mailto:Continued.Airworthiness@caa.co.uk)
4. For any questions concerning the technical content of the requirements in this PAD, 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](mailto:raengliaison@baesystems.com)