



Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2023-0006

Issue date: 24 November 2023



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) LTD

Type/Model Designation(s):

BAe 146 and AVRO 146-RJ aeroplanes

Effective Date:	08 December 2023
TCDS:	EASA.A.182
Foreign AD (if applicable):	Not applicable
Supersedure:	Not applicable

ATA 53 - Fuselage – Centre Fuselage Forward Rib 0 Longerons – Inspection (and reporting if required)

Manufacturer(s):

BAE Systems (Operations) Ltd, British Aerospace plc, British Aerospace (Commercial Aircraft) Ltd, British Aerospace (Operations) Ltd, British Aircraft Regional Aircraft Ltd and British Aerospace Regional Aircraft trading as Avro International Aerospace.

Applicability:

BAe 146 and AVRO 146-RJ, aeroplanes, all models all serial numbers.

Definitions:

For the purposes of this AD, the following definition applies:

The ISB: BAE SYSTEMS (Operations) Ltd ISB.53-249 Revision – Initial issue, dated 25 August 2023
Title: Fuselage – Centre Fuselage – To Inspect Forward Rib 0 Longerons.

Reason:

An operator recently reported, during routine maintenance, cracking on the radius of the Rib 0 Forward Longerons at Frame 26. The cracking initiated close to a local blend in the radius. Failure of the Rib 0 Forward Longerons could lead to structural failure of adjacent structure, leading to failure of the fuselage skin, leading to rapid decomposition and potential loss of the aircraft.

The AD is issued to address the unsafe condition described above. The required actions are a one-off visual and one-off high frequency eddy current inspection of the radius of the Rib 0 Forward Longerons at Frame 26. Should defects be detected in the fleet by these inspections, the information obtained may lead to future mandatory actions.

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

Required as indicated, unless accomplished previously in accordance with ISB 53-249.

Inspections (and reporting, if applicable):

- (1) Within four months of the effective date of this AD perform the following inspections.
 - i. Prepare the areas to be inspected in accordance with ISB paragraph 2.A & B.
 - ii. Inspect (visually and using high frequency eddy current) in accordance with ISB paragraph 2.C.
 - iii. If no cracking, surface defects, blending or undercutting is detected, restore protective treatments in accordance with ISB paragraphs 2.A and 2.E.
- (2) If cracking, surface defects, blending or undercutting is detected, before further flight, report to BAE Systems Repair Design Office (raenglai@baesystems.com) and await further instructions. Use a copy of the Inspection Report form in ISB Appendix 1.

Reference Publications:

BAE SYSTEMS (Operations) Ltd ISB.53-249 Revision – Initial issue, dated 25 August 2023 Title: Fuselage – Centre Fuselage – To Inspect Forward Rib 0 Longerons.

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

Remarks:

1. This AD was posted on 02 October 2023 as PAD 2008 for consultation until 31 October 2023. 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 \(caa.co.uk\)](https://www.caa.co.uk/occurrence-reporting). 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 Airworthiness Directive 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. E-mail: raengliaison@baesystems.com.
6. Aircraft with Construction number E301, addressed in TCDS BA29, is not included in the effectivity of this AD, as the Rib 0 Longeron has a different part number, to all the other aircraft manufactured and is not subject to the unsafe condition described in the Remarks paragraph.