Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2024-0003

Issue date: 06 August 2024

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].

Design Approval Holder's Name:

BAE SYSTEMS (OPERATIONS) Limited

Type/Model Designation(s):

Jetstream 4100 series aeroplanes

Effective Date:	20 August 20204
TCDS	EASA.A.189
Foreign AD (if applicable):	Not applicable
Supersedure:	This AD supersedes G-2022-0006 dated 30 March 2022

ATA 05 – Time Limits / Maintenance Checks – Airworthiness Limitations – Amendment / Implementation

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Manufacturer(s):

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

Applicability:

Jetstream 4100 Series aircraft, all models, all serial numbers.

Definitions:

The ALS: BAE Systems (Operations) Ltd Jetstream J41 AMM Revision 45 dated 15 December 2023 and AMM Revision 46, dated 20 February 2024 as listed in Table 1 of this AD.

The AMP: The approved Aircraft Maintenance Programme (AMP) on the basis of which the operator or owner ensures the continuing airworthiness of each operated aeroplane. For Jetstream 4100 aeroplanes operated under UK regulation, compliance with the approved AMP is required by UK regulation (EU)1321/2014 Part M.A.301, para (c).

SUPERSEDED

Reason:

The Jetstream J41 Aircraft Maintenance Manual (AMM), includes the following chapters:

05-10-10 “Airworthiness Limitations”, and

05-10-20 “Certification Maintenance Requirements”, and

05-10-30 “Critical Design Configuration Control Limitations (CDCCL) – Fuel System”.

The maintenance tasks and limitations contained in theses chapters have been identified as mandatory actions for continued airworthiness. CAA issued AD G-2022-0006 which superseded EASA AD 2017-0187, (which superseded earlier ADs: 2014-0043 and 2010-0098) to require operators to comply with these instructions.

As a result of recent in-service cracking of the Jetstream 4100 passenger door edge member, seal carrier and inner skin adjacent to the roller guide bracket, a review of the fatigue test data and existing inspection requirements was undertaken by BAE Systems (Operations) Ltd. The review concluded a new inspection, designated SSI 52-10-009C was needed, to address a potential unsafe condition related to undetected cracking in the area addressed by the new SSI. The initial application of the inspection introduced by SSI 52-10-009C (Non-Destructive Testing) is addressed in BAE ISB J41-52-065 Revision 1, dated 08 June 2022. Mandated by AD G-2022-0019 issued 31 October 2022. With the introduction of the new SSI 52-10-009C, the existing inspection task, SSI 52-10-009A is deleted.

A further revision to AMM Chapter 5 Revision 44, dated 15 June 2021 was identified as required, this related to 05-10-10 Life Limited Parts - Fuselage Attachment Fittings. Nose Undercarriage Pintle Bracket (Club Foot Tension Bolts only). The AMM text required revision to reflect an increased range of bolt grip lengths, that could, as a result of build tolerance, be present in aeroplanes. Due to a publication error, this text was not included in AMM Chapter 5 Revision 45, dated 15 December 2023. This missing text has now been subsequently introduced into AMM Chapter 5 Revision 46, dated 20 February 2024 (issued via TOR 1941 Revision 1 dated 18 March 2024, noting Revision 46 only includes the sections/paragraphs that have been revised from those published in Revision 45).

Failure to comply with the new and more restrictive actions could result in an unsafe condition. For this reason, this AD is issued. All current SSI requirements are now fully referenced in AMM Chapter 5 Revision 45, dated 15 December 2023 and AMM Chapter 5 Revision 46, dated 20 February 2024 as listed in Table 1 of this AD.

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

Required as indicated, unless previously accomplished:

(1) From the effective date of this AD, accomplish the following actions, in accordance with the instructions as specified in BAE Systems (Operations) Ltd Jetstream 41 AMM Revision 45, dated 15 December 2023 and AMM Revision 46, dated 20 February 2024 as listed in Table 1 of this AD:

(1.1) Replace each component before exceeding the applicable life limit, and

(1.2) Within the thresholds and intervals, accomplish all applicable maintenance tasks*, and

(1.3) Ensure the continuing airworthiness of the aeroplane by compliance with each CDCCL – Fuel System Item.

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* For SSI 52-10-009C (AMM Chapter 5, 05-10-10): From the effective date of this AD, aircraft approaching or exceeding the newly introduced threshold inspection requirement, the compliance alleviation period stated in AD G-2022-0019 Required Actions and Compliance Times is applicable for compliance with this AD. Subsequent inspections are to be in accordance with the requirements of SSI 52-10-009C, as recorded in AMM Chapter 5, 05-10-10.

Table 1 AMM Chapters

Chapter No.	AMM revision	Chapter name
05-10-10	46	Airworthiness Limitations
05-10-20	45	Certification Maintenance Requirements
05-10-30	45	CDCCL – Fuel System

Corrective Action(s):

(2) In the case of discrepancies found during accomplishment of any task as required by paragraph (1) of this AD, before next flight accomplish the applicable corrective action(s) in accordance with the applicable BAE System (Operations) Ltd maintenance documentation. If a detected discrepancy cannot be corrected by using existing BAE System (Operations) Ltd instructions, before next flight contact BAE Systems (Operations) Ltd for approved instructions and accomplish those instructions accordingly.

Aircraft Maintenance Programme (AMP) Revision:

(3) Within 12 months after the effective date of this AD, revise the approved AMP, by incorporating all applicable maintenance tasks, airworthiness limitations and CDCCL - Fuel System Items included in the chapters of BAE System (Operations) Ltd Jetstream 41 AMM at Revision 45, dated 15 December 2023, and AMM at Revision 46, dated 20 February 2024 as listed in Table 1 of this AD, as applicable to aeroplane model.

Recording AD Compliance:

(4) When the AMP of an aeroplane has been revised as required by paragraph (3) of this AD, that action ensures continued accomplishment of tasks as required by paragraph (1) of this AD for that aeroplane. Consequently, after revising the AMP, it is not necessary to continue to record accomplishment of individual actions for demonstration of AD compliance.

Reference Publications:

BAE System (Operations) Ltd JetstreamJ41 AMM at Revision 45, dated 15 December 2023.

BAE System (Operations) Ltd JetstreamJ41 AMM at Revision 46, dated 20 February 2024.

BAE System (Operations) Ltd have advised that the new/revised requirements introduced into AMM Revision 46 will in the future be reissued as a supplement, with a new publication date, to be read in conjunction with AMM at Revision 45, dated 15 December 2023.

The use of AMM at Revision 45, dated 15 December 2023 in conjunction with the supplement covering new/revised requirements previously addressed in AMM Revision 46 is acceptable for compliance with this AD.

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The use of later approved revisions and/or new approved supplements of the above mentioned document is acceptable for compliance with this AD.

Remarks:

1. This AD was posted on 20 June 2024 as PAD 2011 for consultation until 20 July 2024. 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. 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
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Ayrshire, KA9 2AW
Scotland
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