



## Airworthiness Directive

**AD No.:** 2017-0053

**Issued:** 24 March 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.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 by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

BAE SYSTEMS (OPERATIONS) LTD

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

Jetstream 3100 and 3200 aeroplanes

**Effective Date:** 07 April 2014

**TCDS Number(s):** EASA.A.191

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes CAA UK AD 005-03-96 dated March 1996.

### ATA 32 – Landing Gear – Main Landing Gear / Pintle to Cylinder Interface – Inspection

**Manufacturer(s):**

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

**Applicability:**

Jetstream Series 3100 and 3200 aeroplanes, all models, all serial numbers.

**Reason:**

Cracks were found during early fatigue testing and in service on the main landing gear (MLG) main fitting at the pintle to cylinder interface.

This condition, if not detected and corrected, could lead to structural failure of the MLG, possibly resulting in loss of control of the aeroplane during take-off or landing runs.

To address this unsafe condition, BAE Systems (Operations) Ltd published several Service Bulletins (SB) which, in 1996, were consolidated into a single SB 32-JA960142 to provide instructions for inspection. CAA UK issued AD 005-03-96 accordingly to require repetitive inspections of the MLG.

Recently, a crack was found which was below the critical crack length, but unusually large compared to other similar cracks previously found in service. Further investigation into the subject determined



that the existing inspection interval remains valid, but also showed that the assumed detectable defect size of a 1.27 mm (0.05 in) crack cannot be guaranteed using the current accomplishment instructions for high frequency eddy current (HFEC) or fluorescent dye penetrant (FDP) inspection.

Consequently, BAE Systems (Operations) Ltd issued SB 32-JA960142 Revision 04, which provides improved procedures for HFEC and FDP inspection to ensure the detection of cracks of 1.27 mm (0.05 in).

For the reason described above, this AD retains the requirements of CAA UK AD 005-03-96, which is superseded, and requires accomplishment of repetitive inspections in accordance with the improved procedures.

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

Required as indicated, unless accomplished previously:

Note: BAE Systems (Operations) Ltd SB 32-JA960142 Revision 04 dated 21 October 2016 is hereafter referred to as 'the SB' in this AD.

#### **Inspection(s):**

- (1) Within the threshold as defined in Table 1 of this AD, as applicable, and, thereafter, at intervals not exceeding 1 200 flight cycles (FC), inspect the MLG for cracks in accordance with the instructions of the SB.

Table 1 – Inspection Threshold

MLG Condition	Threshold
Inspected in accordance with Alert SB 32-A-JA941245 (Revision 03 or earlier) or SB 32-JA960142 (Revision 03 or earlier)	Before exceeding 1 200 FC since the previous inspection
Not inspected in accordance with Alert SB 32-A-JA941245 (Revision 03 or earlier) or SB 32-JA960142 (Revision 03 or earlier) since first installation on an aeroplane	Before exceeding 8 000 FC since installation

#### **Corrective Action(s):**

- (2) If, during any inspection as required by paragraph (1) of this AD, any crack is found, before next flight, replace the MLG with a serviceable unit in accordance with the instructions of the SB.

#### **Credit:**

- (3) Inspections and corrective action(s) on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of BAE Systems (Operations) Ltd SB 32-JA960142 at Revision 03, are acceptable to comply with the initial requirements of this AD for that aeroplane.

#### **Terminating Action:**

- (4) None.



**Ref. Publications:**

BAE Systems (Operations) Ltd SB 32-JA960142 Revision 03 dated 31 August 2016, or Revision 04 dated 21 October 2016.

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

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 10 January 2017 as PAD 17-002 and republished on 06 February 2017 as PAD 17-002R1 for consultation until 06 March 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: BAE Systems (Operations) Ltd, Business Support Team - Technical Publications, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom, Telephone +44 1292 675207, Facsimile +44 1292 675704, E-mail: [RApublications@baesystems.com](mailto:RApublications@baesystems.com).

