



## Notification of a proposal to issue an Airworthiness Directive

**PAD No.: 17-002**

**Issued: 10 January 2017**

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), 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.

**Design Approval Holder's Name:**

BAE SYSTEMS (OPERATIONS) LTD

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

Jetstream 3100 and 3200 aeroplanes

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**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 12.7 mm (0.5 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 12.7 mm (0.5 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), except as specified in paragraph (2) of this AD, inspect the MLG for cracks in accordance with the instructions of the SB.

Table 1 – Inspection Threshold and Interval

<b>MLG Condition / FC Accumulated</b>	<b>Threshold</b>
A crack less than 12.7 mm (0.5 in) was found during a previous inspection and the MLG has not been replaced	Within 7 days after the last inspection
No cracks were found / 1 050 FC or more since the initial inspection	Within 150 FC after the effective date of this AD
Not inspected / 7 850 FC or more since first installation on an aeroplane	
No cracks were found / less than 1 050 FC since the initial inspection	Before exceeding 1 200 FC since the initial inspection
Not inspected / less than 7 850 FC 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, a crack of less than 12.7 mm (0.5 in) is found, re-inspect the MLG at intervals not to exceed 7 days in accordance with the instructions of the SB.



- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, a crack of 12.7 mm (0.5 in) or more is found, before next flight, replace the MLG with a serviceable unit in accordance with the instructions of the SB.

**Credit:**

- (4) 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:**

- (5) 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. This Proposed AD will be closed for consultation on 07 February 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of the requirements in this PAD, 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).

