



Airworthiness Directive

AD No.: 2006-0139R1

Issued: 10 October 2016

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):

BAe 146 and AVRO 146-RJ aeroplanes

Effective Date: Revision 1: 24 October 2016

Original issue: 06 June 2006

TCDS Number(s): EASA.A.182

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2006-0139 dated 23 May 2006.

ATA 27 – Flight Controls – Lift Spoiler Actuators – Inspection

Manufacturer(s):

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

Applicability:

BAe 146 and AVRO 146-RJ aeroplanes, all models, all serial numbers (s/n) equipped with lift spoiler actuators (jacks) P/N P308-45-0002 or P308-45-0102.

Reason:

An aeroplane on approach experienced an asymmetric uncommanded deployment of a lift spoiler that resulted in a roll rate that required significant control inputs. The failure was caused by corrosion at the thread where the eye-end was screwed into the piston of the lift spoiler jack. The lift spoiler jack is most highly loaded at high flap angles with the aeroplane operating near the maximum permitted speed for that flap angle. The most likely flight phase for this failure to occur is



therefore approach or take-off. The low altitude of these flight phases provides less time in which to safely control the roll rate.

This condition, if not corrected, could lead to uncommanded roll, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, BAE Systems (Operations) Ltd published Service Bulletin (SB) 27-176 (later revised) to provide instructions for inspection and replacement of lift spoiler jacks.

Consequently, EASA issued AD 2006-0139 to require repetitive inspections of the lift spoiler jacks and replacement in case of findings.

Since that AD was issued, BAE Systems (Operations) Ltd published SB 27-176 Revision 03 to introduce an improved part which is less prone to corrosion and can therefore be exempted from the repetitive inspections.

For the reasons described above, this AD is revised to introduce replacement of all lift spoiler jacks with improved parts as an optional terminating action for the repetitive inspections. This AD also introduces editorial changes without changing the requirements.

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

Required as indicated, unless accomplished previously:

Inspections:

- (1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 48 months, inspect the eye end assembly of each lift spoiler jack P/N P308-45-0002 or P/N P308-45-0102 for corrosion, damaged threads or thread fretting in accordance with the instructions of BAE Systems (Operations) Ltd SB 27-176 Revision 03 (hereafter referred to as 'the SB' in this AD) .

Table 1 – Initial Inspection

Lift spoiler jack manufacturing date / serial number	Compliance Time (after 06 June 2006, the effective date of this AD at original issue)
Manufactured before 01 January 2000, and those with serial number (s/n) prefix "DAWX" or "CSW"	Not later than 30 June 2006
Manufactured after 31 December 1999, except those with s/n prefixed "DAWX" or "CSW"	Not later than 31 October 2006

Corrective action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, severe corrosion is found on a lift spoiler jack as specified in paragraph 2.C of the SB, before next flight, replace the affected lift spoiler jack with a serviceable part (see Note 1) in accordance with the instructions of the SB.



Note 1: For the purpose of this AD, a serviceable part is a lift spoiler jack having P/N P308-45-0002 or P/N P308-45-0102 which, prior to installation, has passed an inspection in accordance with the instructions of the SB, or a lift spoiler jack having P/N P308-45-0202.

- (3) If, during any inspection as required by paragraph (1) of this AD, light corrosion is found on a lift spoiler jack, within 24 months after that inspection, re-inspect the lift spoiler jack eye-end assembly and, depending on findings, accomplish the applicable corrective action(s) in accordance with the instructions of the SB.

Parts installation:

- (4) From 06 June 2006 [the effective date of this AD at original issue] it is allowed to install on any aeroplane a lift spoiler jack having P/N P308-45-0002 or P/N P308-45-0102, provided that, prior to installation, it has passed an inspection in accordance with the instructions of the SB and, following installation, it is inspected as required by this AD.

Credit:

- (5) Inspections and corrective actions, accomplished on an aeroplane before the effective date of this AD in accordance with the instructions of BAE Systems (Operations) Ltd SB 27-176 at original issue, or Revision 01, or Revision 02, are acceptable to comply with the initial requirements of this AD for that aeroplane.

Terminating Action:

- (6) Replacement of all affected lift spoiler jacks on an aeroplane with serviceable parts (see Note 1 of this AD) having P/N P308-45-0002 or P308-45-0102 in accordance with the instructions of the SB does not constitute terminating action for the repetitive inspections required by this AD for that aeroplane.
- (7) Replacement of all six lift spoiler jacks on an aeroplane with lift spoiler jacks having P/N P308-45-0202 in accordance with the instructions of the SB constitutes terminating action for the repetitive inspections required by this AD for that aeroplane.

Ref. Publications:

BAE Systems (Operations) Ltd Service Bulletin 27-176, original issue dated 01 October 2003, or Revision 01 dated 13 January 2004, or Revision 02 dated 25 October 2004, or Revision 03 dated 06 March 2015.

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. The original issue of this AD was posted on 05 April 2006 as PAD 06-089 for consultation until 01 May 2006. The Comment Response Document can be found at <http://ad.easa.europa.eu>.



3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact:
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