



Airworthiness Directive

AD No.: 2015-0228

Issued: 24 November 2015

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: 08 December 2015

TCDS Number(s): EASA.A.182

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2009-0046, dated 02 March 2009.

ATA 53 – Fuselage – Frame 29 Wing-to-Fuselage Lug Plate Attachment Joint – 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.

Reason:

Reports were received of finding corrosion on the bolts and in the bore for the bolts, at the fuselage frame (FR) 29 wing-to-fuselage lug plate attachment joint and its interface. The detected corrosion initiated as a result of degradation of the external sealant at the FR 29 lug plate, which allowed moisture ingress (a combination of water, fuel and hydraulic fluid) into the joint. This eventually collected in the bores for the bolts and, with the internal sealant holding the moisture in-situ, a chemical reaction took place and corrosion started.

This condition, if not detected and corrected, could compromise the integrity of the affected structural parts of the aeroplane.



To address this unsafe condition, BAE Systems (Operations) Limited published Inspection Service Bulletin (ISB) 53-213 to provide inspection instructions, and EASA issued AD 2009-0046 to require those repetitive inspections and, depending on findings, accomplishment of applicable repair(s).

Since that AD was issued, it was found that both, ISB and AD, erroneously stated that the required inspections replaced current Maintenance Review Board Report (MRBR) fuselage structurally important item (FSII) task 53-20-103 and Corrosion Prevention and Control Programme (CPCP) Task C53-230-02-01.

For the reasons described above, this AD retains the requirements of EASA AD 2009-0046, which is superseded, removes the erroneous information and makes reference to substantive changes in BAE Systems (Operations) ISB 53-213 (hereafter referred to as 'the ISB' in this AD), currently at Revision 3.

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

Required as indicated, unless accomplished previously:

- (1) Within the compliance time as specified in Tables 1 & 2 (see Appendix 1) of this AD, as applicable, carry out MRBR task FSII 53-20-103, and MRBR task CSII (Corrosion Structurally Important Item) 53-20-103 or CPCP task C53-230-02-01, as applicable. Thereafter, repeat inspections MRBR task FSII 53-20-103, and MRBR task CSII 53-20-103 or CPCP task C53-230-02-01, as applicable at the intervals defined in the MRBR and CPCP.

Note 1: For aeroplanes on which MRBR task 53-20-103, or CPCP Task C52-230-02-01, as applicable, have been continuously accomplished since EASA AD 2009-0046 was issued, the latest MRBR/CPCP inspection is defined as the initial inspection as required by paragraph (1) of this AD.

- (2) Within 24 months after 16 March 2009 [the effective date of EASA AD 2009-0046], and thereafter, at intervals not to exceed the value(s) as defined in paragraph 1.D.(2) or 1.D.(3) of Revision 3 of the ISB, inspect the FR 29 wing-to-fuselage attachment lug plate joint in accordance with the instructions of paragraphs 2.C and 2.D of the ISB . This initial compliance time period replaces the one stated in paragraph 1.D.(2) or 1.D.(3) of the ISB.
- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, it is not possible to replace a removed bolt with the same part number replacement item, it is acceptable to replace it with an alternative bolt, provided this is done in accordance with an approved BAE Systems repair scheme.
- (4) If, during any inspection as required by this AD, defects are found, before next flight, accomplish the applicable repair(s) in accordance with the instructions of paragraph 2.C or 2.D of the ISB.
- (5) Repair of an aeroplane as required by paragraph (4) of this AD does not constitute terminating action for the repetitive inspections required by paragraphs (1) and (2) of this AD for that aeroplane.
- (6) On aeroplanes where sealants PR1196, PR1422B or PR1822B are used (as an alternative to sealant PR1198), these must be removed and replaced at intervals not to exceed 48 months.



- (7) Within 30 days after each inspection as required by paragraphs (1) and (2) of this AD, send an inspection report to BAE Systems in accordance with paragraph 2.H of the ISB.

Ref. Publications:

BAE Systems (Operations) Limited ISB 53-213 original issue dated 21 May 2008, Revision 1 dated 06 April 2010, Revision 2 dated 03 February 2011, and Revision 3 dated 02 May 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. This AD was posted on 21 October 2015 as PAD 15-134 for consultation until 18 November 2015. 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.
4. For any question concerning the technical content of the requirements in this AD, please contact: BAE Systems (Operations) Ltd, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW Scotland, United Kingdom
Telephone +44 1292 675207, Fax +44 1292 675704
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Appendix 1 – MRBR and CPCP Initial Inspection

Table 1	
FSII 53-20-103 (See Note 1 of this AD)	
Aeroplane Configuration	Compliance Time
AVRO 146-RJ100 aeroplanes being maintained under the basic MRBR, except those that have embodied Modification (Mod) HCM20315A	Within 4 000 flight cycles (FC) after the effective date of this AD
BAe 146 (all models), AVRO 146-RJ70 and AVRO 146-RJ85 aeroplanes being maintained under the basic MRBR, except those that have embodied Mod HCM20011A, or Mod HCM20012A, or Mod HCM20013A, or Mod HCM20313A, or Mod HCM20315A	

Table 2	
CSII 53-20-103 or C53-230-02-01 (See Note 1 of this AD)	
All other aeroplanes (see Note 1 of this AD)	Within 24 months after the effective date of this AD

