


EASA	AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2013-0200</p> <p>Date: 30 August 2013</p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>	
<p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
<p>Design Approval Holder's Name: BAE SYSTEMS (OPERATIONS) LTD</p>		<p>Type/Model designation(s): BAe 146 and AVRO 146-RJ aeroplanes</p>
TCDS Number:	EASA.A.182	
Foreign AD:	Not applicable	
Supersedure:	This AD supersedes CAA UK AD G-2005-0014 (EASA approval nr. 2005-4654) dated 31 May 2005.	
ATA 27	Flight Controls – Elevator Control System Bearings – Replacement	
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 series aeroplanes, all models, all serial numbers.	
Reason:	<p>Occurrences of flight control surface restrictions were reported by BAe 146 operators, typically occurring after a period of cold soaking at altitude. The phenomenon disappeared when the aeroplane descended into warmer air. Results of subsequent investigations revealed that deterioration of flight control bearings in service is a major contributor to these restriction reports. The current bearings are a “sealed for life” type with a light dust shield and have no provisions for re-greasing. Over time, the original lubrication is lost and moisture can enter the bearing assembly, which can be exacerbated by the use of pressure washing. Such deterioration can lead to bearing corrosion, particularly when moisture freezes in the bearing.</p> <p>This condition, if not corrected, could lead to flight control restrictions, possibly resulting in reduced control of the aeroplane.</p> <p>To address this potential unsafe condition, BAE Systems (Operations) Ltd issued Inspection Service Bulletin (ISB) 27-177, currently at revision 4, to provide instructions for flight control system bearings replacement.</p> <p>Prompted by these occurrences, The United Kingdom Civil Aviation Authority (UK CAA), acting for and behalf of the EASA, issued AD G-2005-0014 (EASA</p>	

	<p>approval number 2005-4654) to require a one-time replacement of elevator bearings.</p> <p>Since that AD was issued, it has been realised that repetitive replacement of the affected bearings is also required in accordance with the ISB.</p> <p>For the reasons described above, this AD retains the requirements of EASA AD G-2005-0014, which is superseded, and additionally requires repetitive replacement of specific elevator bearings.</p>					
Effective Date:	13 September 2013					
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>Restatement of the requirement of CAA UK AD G-2005-0014:</p> <p>(1) Within 8 years in service since new, or before 31 October 2006, whichever occurs later after 30 June 2005 [the effective date of CAA UK AD G-2005-0014], replace each elevator control system bearing as specified in Table 1 of this AD, with a serviceable part in accordance with the instructions of paragraph 2.B of BAE Systems (Operations) Ltd ISB 27-177 Revision 4.</p> <p style="text-align: center;">Table 1</p> <table border="1" data-bbox="699 853 1251 1093"> <thead> <tr> <th style="text-align: center;">Bearings to be Replaced</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Elevator Servo Tab Hinge Bearing</td> </tr> <tr> <td style="text-align: center;">Elevator Servo Tab Mechanism Bearing</td> </tr> <tr> <td style="text-align: center;">Elevator Trim Tab Hinge Bearing</td> </tr> <tr> <td style="text-align: center;">Elevator Trim Tab Drive Rod Bearing</td> </tr> </tbody> </table> <p>New requirements of this AD:</p> <p>(2) Within 8 years after the replacement as required by paragraph (1) of this AD, or 5 month after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 8 years, replace each elevator control system bearing, as specified in Table 1 of this AD, with a serviceable part in accordance with the instructions of paragraph 2.B of BAE Systems (Operations) Ltd ISB 27-177 Revision 4.</p> <p>(3) Replacement of elevator control system bearings accomplished before the effective date of this AD in accordance with the instructions of BAE Systems (Operations) Ltd ISB 27-177 at Initial issue, or Revision 1, or Revision 2, or Revision 3, are acceptable to comply with the requirement of paragraph (1) of this AD, and the initial requirements of paragraph (2) of his AD.</p>	Bearings to be Replaced	Elevator Servo Tab Hinge Bearing	Elevator Servo Tab Mechanism Bearing	Elevator Trim Tab Hinge Bearing	Elevator Trim Tab Drive Rod Bearing
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Ref. Publications:	<p>BAE Systems (Operations) Ltd ISB 27-177, original issue dated 03 June 2004, or Revision 1 dated 05 October 2005, or Revision 2 dated 27 February 2007, or Revision 3 dated 17 December 2012, or Revision 4 dated 03 April 2013.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>					
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 18 July 2013 as PAD 13-101 for consultation until 15 August 2013. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 					

	<p>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, Facsimile +44 1292 675704; E-mail: RApublications@baesystems.com.</p>
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