

EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2012-0125</p> <p>Date: 09 July 2012</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 EC 1702/2003, Part 21A.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 :</p> <p>BAE Systems (Operations) Ltd</p>	<p>Type/Model designation(s) :</p> <p>BAe 146 and AVRO 146-RJ aeroplanes</p>
<p>TCDS Number : EASA.A.182</p>	
<p>Foreign AD : Not applicable</p>	
<p>Supersedure: This AD supersedes EASA AD 2008-0180 dated 30 September 2008.</p>	
ATA 53	Fuselage – Wing-to-Fuselage & Main Landing Gear (MLG) Door Fairing Panel Grommets – Inspection / 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, incorporating modifications HCM00633E and/or HCM00934A.
Reason:	<p>There have been a number of incidents where wing-to-fuselage or MLG door fairing panels have detached from the aeroplane during flight. Subsequent inspection revealed the loss of the fairing panels to be due to failure of certain steel grommets, P/N SL5183 and HC535H0312, through which the attachment bolts are inserted. These failures may have been caused by improper installation of the grommets or damage resulting from maintenance procedures relating to paint stripping and repainting, allowing air loads to pull the panel through the grommet. A detaching panel could strike the aeroplane during flight, causing damage. In addition, a detaching panel could become attached to the structure or control surfaces, resulting in reduced control of the aeroplane.</p> <p>Following the application of BAE Systems (Operations) Ltd Inspection Service Bulletin (ISB) 53-202 at Revision 1 to the first few, it was discovered that removal of existing grommets P/N SL5183 and HC535H0312 may result in localised damage to the aluminium foil membrane attached to the inner surface of some fairing panels. BAE Systems (Operations) Ltd therefore issued additional instructions in All Operators Message (AOM) 08-015V, including</p>

	<p>bonding checks and detailed procedures for applying an electro-conductive paste at each SL5185 grommet location in order to bridge any gap between grommet and the inner aluminium foil.</p> <p>To address this potential unsafe condition, EASA issued AD 2008-0180 to require repetitive inspections of the wing-to-fuselage & MLG door fairing panel grommets and, when damage is detected, the accomplishment of corrective actions.</p> <p>Since that AD was issued, BAE Systems(Operations) Ltd issued ISB 53-202 at Revision 2 to incorporate the instructions of AOM 08-015V. Revision 3 was issued to revise the electrical resistance test instructions. Revision 4 was issued to include a note about compliance with the FAA requirements for Damage Tolerance Data for Repairs and Alterations.</p> <p>After a reported in-flight loss of a top wing leading edge fairing panel above the centre tank, ISB 53-202 Revision 5 was issued to include an illustration of the kinds of grommet failure that might be expected.</p> <p>For the reasons described above, this AD retains the requirements of EASA AD 2008-0180, which is superseded, and requires the use of the revised accomplishment instructions.</p>
Effective Date:	23 July 2012
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Within 4 000 flight cycles (FC) or 2 years after 14 October 2008 [the effective date of EASA AD 2008-0180], whichever occurs later, and thereafter at intervals not to exceed 8 000 FC, visually inspect the steel grommets on the fairing panels in accordance with the instructions of paragraph 2.C of BAE Systems (Operations) Limited ISB.53-202 (the ISB) at Revision 5. (2) Inspections and corrective actions accomplished prior to the effective date of this AD, in accordance with the ISB at any Revision (except the original issue), are acceptable to comply with the initial requirements of this AD. After the effective date of this AD, repetitive inspections and corrective actions must be accomplished in accordance with the ISB at Revision 5. (3) If, during any inspection as required by paragraph (1) of this AD, damage is found, before next flight, replace the damaged grommets with <u>new</u> P/N SL5185 grommets in accordance with the instructions of paragraph 2.C of the ISB at Revision 5. If replacement grommets are not available, a temporary repair may be accomplished in accordance with the instructions of Appendix 3 of the ISB at Revision 5, or an approved BAE Systems temporary repair scheme. (4) Within 8 000 FC after accomplishing a temporary repair, as specified in paragraph (3) of this AD, replace the steel grommets on the fairing panel with <u>new</u> P/N SL5185 grommets in accordance with the instructions of paragraph 2.C of the ISB at Revision 5. (5) For aeroplanes (fairing panels) on which, prior to 14 October 2008 (the effective date of the issue of the EASA AD 2008-0180), <u>new</u> P/N SL5185 grommets have been installed without accomplishing an electrical bonding check, no later than during the next scheduled (repeat) inspection as required by paragraph (1) of this AD, accomplish a bonding check and, when unsatisfactory bonding is detected, before next flight, apply electro-conductive paste in accordance with the instructions of paragraph 2.C of the ISB at Revision 5. (6) After modification of an aeroplane by replacement of all existing grommets with P/N SL5185 grommets on all panels, the accomplishment of the corresponding bonding checks and the application of electro-conductive paste, the repetitive inspections of this AD are no longer required for that aeroplane. In addition, after modification of an individual panel by

	replacement of all existing grommets with <u>new</u> P/N SL5185 grommets, the accomplishment of the corresponding bonding checks and the application of electro-conductive paste, the repetitive inspections of this AD are no longer required for that panel.
Ref. Publications:	<p>BAE Systems (Operations) Limited ISB.53-202 Revision 5 dated 2 November 2011.</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 21 May 2012 as PAD 12-047 for consultation until 18 June 2012. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. 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, Facsimile +44 1292 675704 E-mail: RAPublications@baesystems.com.