EASA	NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE
	PAD No.: 13-110 **Date: 29 July 2013** Note: This Proposed Airworthiness Directive (PAD) 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.

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 closing date indicated.

Design Approval Holder's Name:	**Type/Model designation(s):**
BAE SYSTEMS (OPERATIONS) LTD	BAe 146 and AVRO 146-RJ aeroplanes

TCDS Number:	EASA.A.182
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2012-0184 dated 12 September 2012.

ATA 53	**Fuselage – Rear Fuselage Skin and Frames – Inspection / Repair**
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:	In 2012 a pressurisation problem occurred on an AVRO 146-RJ100 aeroplane during climb-out. Subsequent investigation results identified a 42.87 inch (1089 mm) long crack in the fuselage skin in the rear fuselage drum, near the rear passenger door. The skin crack had initiated in the step of the skin land adjacent to a lap joint. In addition to the skin crack, cracks were found in Frames 41X and 42. This condition, if not detected and corrected, could lead to degradation of the structural integrity of the aeroplane. Prompted by this finding, BAE Systems (Operations) Ltd issued Inspection Service Bulletin (ISB) 53-239, providing instructions to inspect the internal area of the rear fuselage drum for cracks, corrosion and any other defects and EASA issued AD 2012-0178 which required accomplishment of a one-time inspection of the affected fuselage area and, depending on findings, repair of cracked structural items. Following the issuing of that AD, some new information on additional damage found on the aeroplane that had the pressurisation problem resulted in a further review of the cracking event. This review concluded that the event was more serious than previously considered and that the compliance time must be reduced in order to mitigate the risk of cracking on other aeroplanes. EASA then issued AD 2012-0184 which superseded EASA

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<table>
<tr><td></td><td>AD 2012-0178.

After analysing the responses to EASA AD 2012-0184, which covered the initial inspection of stringer 30, left hand (LH) and right hand (RH), BAE Systems (Operations) Ltd also assessed the similar design features at other skin lands in the rear fuselage drum, namely at stringer 2 right and stringers 11 and 18, LH and RH. As a result they determined that inspections at the other stringers would be required and also that repeat inspections of all these stringers would be necessary. Consequently, BAE Systems (Operations) Ltd ISB.53-239 Revision 1 and 2 were issued to include these new inspections.

For the reasons described above, this AD retains the requirements of EASA AD 2012-0184, which is superseded, and requires the accomplishment of additional inspections of the affected fuselage area, including repetitive inspections, and depending on findings, repair of cracked structural items.</td></tr>
<tr><td>Effective Date:</td><td>[TBD: 14 days after final AD issue date]</td></tr>
<tr><td>Required Action(s) and Compliance Time(s):</td><td>Required as indicated, unless accomplished previously:

(1) Within the compliance time as specified in Table 1 of this AD, as applicable, and thereafter at intervals not to exceed values specified in Table 2 of this AD, as applicable to aeroplane modification status, accomplish an external eddy current inspection in accordance with the instructions of paragraph 2.C of BAE Systems (Operations) Ltd ISB.53-239 Revision 2.

Table 1 - Compliance time
<table><tr><td>Flight cycles (FC) accumulated since aeroplane first flight on the effective date of this AD</td><td>Compliance Time</td></tr><tr><td>9 000 FC or more</td><td>Within 1 000 FC or 6 months, whichever occurs first after the effective date of this AD</td></tr><tr><td>Less than 9 000 FC</td><td>Before exceeding 10 000 FC since aeroplane first flight</td></tr></table>
Table 2 – Repeat inspection intervals
<table><tr><td>BAe 146 and Avro 146-RJ aeroplanes post modification HCM50070E, or post modification HCM50070F or post modification HCM50259A</td><td>BAe 146 and Avro 146-RJ aeroplanes pre modification HCM50070E, and pre modification HCM50070F and pre modification HCM50259A</td></tr><tr><td>4 000 FC</td><td>7 500 FC</td></tr></table>
(2) Inspection and any necessary corrective action accomplished before the effective date of this AD on stringer 30, LH or RH, in accordance with BAE Systems (Operations) Ltd ISB.53-239 at Initial issue is acceptable to comply with the requirements of paragraph (1) of this AD for that stringer 30 LH or RH.

(3) Inspections and corrective actions accomplished before the effective date of this AD in accordance with BAE Systems (Operations) Ltd ISB.53-239 at Revision 1, are acceptable to comply with the initial inspections required by paragraph (1) of this AD.

(4) If, during any inspection as required by paragraph (1) of this AD, any crack, corrosion, or any other irregularity is detected, before next flight, contact BAE Systems (Operations) Ltd for approved repair instructions and, within the compliance time as specified in those instructions, accomplish the repair accordingly. If no compliance time is defined in the repair</td></tr>
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	instructions, accomplish the repair before next flight. (5) Accomplishment of a repair as required by paragraph (4) of this AD does not constitute a terminating action for the inspections required by this AD.
Ref. Publications:	BAE Systems (Operations) Ltd ISB.53-239 Revision 2, dated 15 July 2013. 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 26 August 2013. 2. Enquiries regarding this PAD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 3. For any question concerning the technical content of the requirements in this PAD, 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.

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