EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0184 **Date: 12 September 2012** 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.

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].

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 2012-0178 dated 07 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:	A pressurisation problem on an AVRO 146-RJ100 aeroplane during climb-out has recently been reported. 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. Existing fatigue inspections of the fuselage skin may not detect a crack growing in this area. 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. For the reasons described above, 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, has resulted in a further review of the cracking event. This review concluded that the event was

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<tr><td></td><td>more serious than previously considered and that the compliance time must be reduced in order to mitigate the risk of cracking on other aeroplanes.

For the reasons described above, this AD retains the requirements of EASA AD 2012-0178, which is superseded, and requires the accomplishment of a one-time inspection of the affected fuselage area within a reduced period and, depending on findings, repair of cracked structural items.</td></tr>
<tr><td>Effective Date:</td><td>19 September 2012</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, accomplish a low frequency eddy current inspection and a detailed visual inspection in accordance with the instructions of paragraph 2.C of BAE Systems (Operations) Ltd ISB.53-239.

Table 1 - Inspection thresholds
<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 1 month, 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>
(2) If, during the inspections 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 instructions, accomplish the repair before next flight.

(3) Within 30 days after the accomplishment of inspection, as required by paragraph (1) of this AD, report the inspection result including no finding to BAE Systems (Operations) Ltd using inspection report form of Appendix 1 of ISB.53-239.</td></tr>
<tr><td>Ref. Publications:</td><td>BAE Systems (Operations) Limited ISB.53-239, dated 13 June 2012.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</td></tr>
<tr><td>Remarks:</td><td>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. Based on the required actions and the compliance time, EASA have decided to issue of a Final AD with Request for Comments, postponing the public consultation process until after publication.

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.</td></tr>
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