


<b>EASA</b>	<b>NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE</b>
	<p><b>PAD No.: 13-176</b></p> <p><b>Date: 28 November 2013</b></p> <p>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.</p>
<p>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.</p>	
<b>Design Approval Holder's Name :</b>  BAE SYSTEMS (OPERATIONS) Ltd	<b>Type/Model designation(s) :</b>  Jetstream 4100 aeroplanes
TCDS Number : EASA. A.189	
Foreign AD : Not applicable	
Supersedure : None	
<b>ATA 24</b>	<b>Electrical Power – Earth Post – Inspection / Repair</b>
Manufacturer(s):	Jetstream Aircraft Ltd, British Aerospace Regional Aircraft Ltd , British Aerospace (Operations) Ltd and British Aerospace (Commercial Aircraft) Ltd
Applicability:	Jetstream 4100 aeroplanes, all models, all serial numbers
Reason:	<p>An occurrence was reported involving a Jetstream 4100 aeroplane, where a bracket, on which the earth post for the generator and propeller de-ice systems is located, failed due to overheating. Although the earth post and cables were not damaged, the mounting bracket and underlying structure were damaged to the extent that repair of the wing front spar web was necessary. Furthermore, the aft engine cross support rod, which is attached to the same bracket, was found damaged, as a result of excessive current load, and required replacement. The subsequent investigation determined that, due to the damage tolerance of the aft engine cross rod support, the rod does not present an airworthiness issue. However, as a consequence of overheating failure of the earth post, degradation of the wing front spar cap and/or web could affect the structural integrity of the wing.</p> <p>This condition, if not detected and corrected, could reduce the capacity of the wing to support loads, possibly resulting in wing structure failure and consequent loss of the aeroplane.</p> <p>To address this potential unsafe condition, BAE Systems (Operations) Ltd issued Service Bulletin (SB) J41-24-043 to provide inspection instructions.</p> <p>For the reasons described above, this AD requires a one-time visual inspection of the affected earth posts, an electrical high current bonding</p>

	check of the bracket and, if discrepancies are detected, the accomplishment of applicable corrective action(s).
Effective Date:	[TBD: 14 days after final AD issue date]
Required action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) Within 6 months after the effective date of this AD, accomplish the following actions on both engines, in accordance with the instructions of paragraph 2.B of BAE Systems (Operations) Ltd SB J41-24-043 at Revision 2: <ol style="list-style-type: none"> <li>(1.1) Visually inspect the structure around the earth posts EP2 and EP4, the brackets on which they are mounted and the attachment of the nacelle horizontal support (SB J41-24-043 paragraphs 2.B.(2)(a) and (2)(b)).</li> <li>(1.2) Visually inspect the generator and propeller de-ice system earth cables (SB J41-24-043 paragraph 2.B.(2)(d)).</li> <li>(1.3) Check, and if necessary adjust, the torque load of the EP2 and EP4 earth post stiff nuts (SB J41-24-043 paragraph 2.B.(2)(e)).</li> <li>(1.4) Accomplish a high-current millivolts-drop test of the EP2 and EP4 earth bolts (SB J41-24-043 paragraph 2.B.(3)).</li> </ol> </li> <li>(2) If, during the visual inspection, as required by paragraph (1.1) of this AD, any lateral movement of the earth post or any other damage, as specified in BAE Systems (Operations) Ltd SB J41-24-043, is detected, before next flight, contact BAE Systems (Operations) Ltd to obtain approved repair instructions and accomplish those instructions accordingly (SB J41-24-043 paragraph 2.B.(2)(c)).</li> <li>(3) If, during the visual inspection, as required by paragraph (1.2) of this AD, overheated cable insulation, or arcing damage, or terminal tag overheat is detected, before next flight accomplish the applicable corrective action(s) in accordance with the instructions of BAE Systems (Operations) Ltd SB J41-24-043 at Revision 2 (SB J41-24-043 paragraph 2.B.(2)(d)).</li> <li>(4) If, during the high-current millivolts-drop test, as required by paragraph (1.4) of this AD, resistance is measured exceeding the value(s) as specified in BAE Systems (Operations) Ltd SB J41-24-043 at Revision 2, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of BAE Systems (Operations) Ltd SB J41-24-043 at Revision 2 (SB J41-24-043 paragraph 2.B (4)).</li> <li>(5) Within 60 days after accomplishment of the actions as required by paragraph (1) of this AD, report the results to BAE Systems (Operations) Ltd in accordance with BAE Systems (Operations) Ltd SB J41-24-043 at Revision 2.</li> <li>(6) Inspections and corrective actions, accomplished before the effective date of this AD in accordance with BAE Systems (Operations) Ltd SB J41-24-043 at original issue, or Revision 1, are acceptable to comply with the requirements of this AD.</li> </ol>
Ref. Publications:	<p>BAE Systems (Operations) Ltd SB J41-24-043 original issue dated 27 September 2011, or Revision 1 dated 16 January 2012, or Revision 2 dated 21 August 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"> <li>1. This Proposed AD will be closed for consultation on 26 December 2013.</li> <li>2. Enquiries regarding this PAD should be referred to the Safety Information</li> </ol>

	<p>Section, Executive Directorate, EASA. E-mail <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</p> <p>3. For any questions 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: <a href="mailto:RApublications@baesystems.com">RApublications@baesystems.com</a>.</p>
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