


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2007-0120</b></p> <p><b>Date: 03 May 2007</b></p>	
<p>No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.</p>		
<p><b>Type Approval Holder's Name :</b></p> <p>Bombardier Aerospace</p>	<p><b>Type/Model designation(s) :</b></p> <p>CL-600-2B16 (604 variant)</p>	
<p>TCDS Number : EASA IM.A.023 (Transport Canada A-131)</p>		
<p>Foreign AD: None</p>		
<p>Supersedure: Not applicable</p>		
<p><b>ATA 34</b></p>	<p><b>Navigation – Mode S Transponder Wiring – Modification</b></p>	
<p>Manufacturer:</p>	<p>Bombardier Aerospace</p>	
<p>Applicability:</p>	<p>Model CL-600-2B16 (604 variant) aircraft, serial number (s/n) 5301 through 5630, as modified in-service by Bombardier Aerospace Service Bulletin (SB) 604-34-040 or 604-34-041; and aircraft s/n 5631 through 5665.</p>	
<p>Reason:</p>	<p>When operating in European Mode S Designated Airspace, the Mode S ground stations may lose detection of Bombardier CL-600-2B16 aircraft equipped with Mode S Enhanced Surveillance (EHS) transponders</p> <p>Investigation of this problem revealed that the Rockwell Collins TDR-94D transponder, P/N 622-9210-008 [installed in production aircraft from s/n 5631 onwards and by optional in-service retrofit modification through Bombardier Aerospace SB 604-34-040 or SB 604-34-041 on any preceding s/n aircraft] does not reply to "ALL CALL" interrogation used by pure Mode S ground radar stations.</p> <p>The reason for the inability of the TDR-94D transponder to communicate with pure Mode S ground radar is due to a wire strapping that was added for Aircraft Type Category identification during the installation of the above referenced modifications. The Aircraft Type Category strapping is part of future Automatic Dependent Surveillance-Broadcast (ADS-B) function. As the aircraft becomes airborne, this strapping causes the transponder to generate a software error which prevents Mode S "ALL CALL" replies.</p> <p>This condition, if not corrected, could lead to further incidents of Mode S loss of detection by ground stations.</p> <p>For the reason stated above, this Airworthiness Directive (AD) requires the</p>	

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	<p>removal of the Aircraft Type Category strapping wires to both transponders (1P1RF/2P1RF Pin 21 to ground). This strapping is only used for ADS-B, and it is not used for the other transponders functions.</p> <p><b>Note:</b> The current Mode A and Mode C Secondary Surveillance Radar (SSR) <b>does</b> detect Air Traffic Control Radar Beacon System (ATCRBS) type communications from the TDR-94D transponder. This method of SSR is, however, to be progressively replaced in certain European countries by Mode S SSR ground radar systems. The introduction of Mode S will be significantly affected if this problem remains for any length of time.</p>
Effective Date:	18 May 2007
Compliance:	<p>Required as indicated, unless accomplished previously:</p> <p>Within the next 3 months after the effective date of this directive, remove the Aircraft Type Category strapping wires to both transponders (1P1RF/2P1RF Pin 21 to ground) in accordance with the instructions of Bombardier Aerospace Service Bulletin (SB) 604-34-054.</p> <p><b>Note:</b> For aircraft that have incorporated the corrective actions suggested in the Bombardier Advisory Wire AW 604-34-007 via Service Request for Product Support Action (SRPSA), the requirement of this AD is already met through Bombardier drawing 604-70482 Engineering Order (EO), Revision D-1. In this case, no further actions are required other than to record the Service Bulletin incorporation (and AD compliance) in the Log Book and to send the SB Incorporation Sheet to Bombardier Business Aircraft Customer Support (BBACS).</p>
Ref. Publications:	Bombardier Aerospace Service Bulletin No. SB 604-34-054 or later approved revisions.
Remarks :	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Method of Compliance (AMOCs) for this AD.</li> <li>2. This AD was posted on 03 April 2007 as PAD 07-052 for consultation until 02 May 2007. No comments were received during the consultation period.</li> </ol> <p>Enquiries regarding this AD should be referred to the AD Focal Point – Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</p> <ol style="list-style-type: none"> <li>4. For any questions concerning the technical content of the requirements in this AD, please contact Bombardier CRC (Customer Response Center) group: Tel: 1-800-567-1511 (N. America) +1-14-855-7453 (International) Fax: +1-514-855-8000 E-mail: <a href="mailto:ac.yul@aero.bombardier.com">ac.yul@aero.bombardier.com</a></li> </ol>