



No.	CF-2009-47	1/2
Issue Date	14 December 2009	

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF- 2009-47

Subject: Air-Driven Generator Electrical Harness Assembly – Potential Failure Due To Corrosion

Effective: 7 January 2010

Applicability: Bombardier Inc. Regional Jet Series aeroplanes as follows:

Model CL-600-2B19; serial numbers 7305 through 7990, and 8000 through 8111

Model CL-600-2C10; serial numbers 10003 through 10302

Models CL-600-2D15 and CL-600-2D24; serial numbers 15001 through 15259

Compliance: Within 6 000 flight hours or 6 years, whichever occurs first, from the effective date of this Directive, unless already accomplished.

Note: The compliance times in this Directive differ from the recommended compliance times mentioned in the Bombardier Service Bulletins (SB).

Background: There have been failures of the harness assembly (power feeder wires) connecting the Air-Driven Generator (ADG) to the aeroplane electrical system, in the area close to the ADG cannon plug. Several electrical wires were found cut as a combined result of corrosion and bending stress from the harness mounting to the ADG.

The ADG electrical wires are insulated with a silver-plating for corrosion protection. It has been determined that the silver-plating of wire strands in the area of tight bend is highly susceptible to breakdown. The plating layer may crack as a result of mechanical stress, and consequently lead to the onset of corrosion on all, or a majority, of the wire strands.

In the event of a damaged harness assembly, the ADG may not be able to provide emergency electrical power to the aeroplane. This directive is issued to correct the identified unsafe condition by requiring the replacement of the harness assembly with tin-plated electrical wires, and the re-orientation of the ADG cannon plug to reduce bending stress.

Corrective Actions: Within the compliance times specified in the Compliance paragraph of this directive, modify affected aeroplanes as follows:

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or www.tc.gc.ca/civilaviation/communications/centre/address.asp

1. For Model CL-600-2B19, in accordance with Bombardier SB number 601R-24-128 Rev. A dated 27 November 2009, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada Civil Aviation. Compliance with the Initial Issue of this SB dated 17 September 2009, fulfills the requirement of this Directive and no additional action is required.
2. For Models CL-600-2C10, CL-600-2D15, and CL-600-2D24, in accordance with Bombardier SB number 670BA-24-027 dated 17 September 2009, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada Civil Aviation.

Authorization: For Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: Mr. Eric S. Lucas, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail [CAW WEB Feedback@tc.gc.ca](mailto:CAW_WEB_Feedback@tc.gc.ca) or any Transport Canada Centre.