



No.	CF-2010-25	1/2
Issue Date	3 August 2010	

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- 2010-25

Subject: AC Electrical Load Distribution

Effective: 24 August 2010

Applicability: Bombardier Inc. CL-600-2B16 Serial Numbers 5701 through 5752, 5754 through 5775, 5777, 5779 through 5781, 5783 through 5790, 5792, 5794 through 5796, 5798, 5801, and 5804

Compliance: As indicated below unless already accomplished

Background: During pre-delivery inspections and test flights, several short circuit events were reported, one of which resulted in smoke in the cockpit. There were no in-service incidents.

Investigations have identified three conditions affecting the wiring of Circuit Breaker Panels 1, 2, 3 and 4 (CBP-1, CBP-2, CBP-3, and CBP-4) and Junction Boxes 17 and 18 (JB17 and JB18), which would lead to short circuiting:

1. In CBP-1, there may be low clearance between specific bus bars and the circuit breaker panel structure.
2. Some nickel-plated terminal lugs, size number 22-20 with a green insulating sleeve, may not have been manufactured to applicable standards. These terminal lugs may have been installed in CBP-1, CBP-2, CBP-3, CBP-4, JB17 and JB18. This manufacturing defect affects the mechanical hold of the wire in the crimped lug barrel.
3. In JB17, JB18 and the above-mentioned CBPs, foreign object debris (FOD) may be found.

If not corrected, these conditions could result in arcing, damage to adjacent structure, smoke in the cockpit, or loss of system redundancies.

This directive is issued to mandate the replacement or relocation of the specific CBP-1 bus bars, the inspection, and rework if necessary, of any loose or improperly crimped lugs in CBP-1, CBP-2, CBP-3, CBP-4, JB17 and JB18, and to ensure there is no FOD in the affected areas.

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

Canada

**Corrective
Actions:**

A. Inspection of Loose and Improperly Crimped Terminal Lug Connections and for FOD in CBP-1 and Replacement or Relocation of Bus Bars: - Applicable to Serial Numbers 5701 through 5752, 5754 through 5775, 5777, 5780 through 5781, 5783 through 5790, 5792, 5794 through 5796, 5798, 5801, and 5804

Within 800 hours air time after the effective date of this directive, inspect for FOD, replace any loose or badly crimped lugs, and relocate or replace the CBP-1 bus bars in accordance with the Accomplishment Instructions of the Bombardier Service Bulletin (SB) 605-24-004, dated 18 January 2010, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

B. Inspection of Loose and Improperly Crimped Terminal Lug Connections and for FOD in CBP-2, CBP-3, CBP-4, JB17 and JB18: - Applicable to Serial Numbers 5701 through 5752, 5754 through 5756, 5758 through 5775, 5779, 5781, 5788, 5789, 5792, 5795, 5798, 5801 and 5804

Within 800 hours air time after the effective date of this directive, inspect for FOD and replace any loose or badly crimped lugs in CBP-2, CBP-3, CBP-4, JB17 and JB18 in accordance with the Accomplishment Instructions of the Bombardier SB 605-24-002, dated 07 December 2009, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization: For Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: Miss Helen Tsai, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail CAWWEBFeedback@tc.gc.ca or any Transport Canada Centre.