



No.	CF-2011-28	1/2
Issue Date 28 July 2011		

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- 2011-28

Subject: Oxygen Supply System – Deformation of the Pressure Regulator on the Oxygen Cylinder and Regulator Assembly

Effective: 18 August 2011

Applicability: Bombardier Inc. Aeroplanes:

Model CL-600-2C10, Serial Numbers 10002 through 10999
Model CL-600-2D15 and CL-600-2D24, Serial Numbers 15001 through 15990
Model CL-600-2E25, Serial Numbers 19001 through 19990

Compliance: As indicated below, unless already accomplished

Background: During a routine inspection, deformation was found at the neck of the pressure regulator body on the oxygen Cylinder and Regulator Assemblies (CRA) of a BD-700-1A11 aeroplane.

An investigation by the vendor, Avox Systems Inc., revealed that the deformation was attributed to two (2) batches of raw material that did not meet the required tensile strength. This may cause elongation of the pressure regulator neck, which could result in rupture of the oxygen cylinder, and in the case of cabin depressurization, oxygen would not be available when required.

Although there have been no reported failures to date on any CL-600-2C10, CL-600-2D15, CL-600-2D24 or CL-600-2E25 aeroplanes, similar oxygen pressure regulators, Part Number (P/N) 806370-06, could also be installed on the aeroplanes listed in the Applicability section of this directive.

This directive mandates the replacement of oxygen CRAs containing pressure regulators that do not meet the required material properties.

Corrective Actions: Within 1800 hours air time from the effective date of this directive, but no later than 31 December 2011:

Note: The compliance time in this directive differs from the recommended compliance time mentioned in the Bombardier Service Bulletin (SB).

Part I – Inspection of the oxygen pressure regulator serial number

- A. Inspect the serial number of each oxygen pressure regulator, P/N 806370-06, to determine if the serial number is listed in Table 2 of the Bombardier Service Bulletin (SB) 670BA-35-011, dated 5 July 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

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

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- B. If the serial number of the pressure regulator, P/N 806370-06, is listed in Table 2 of the above-mentioned SB, proceed to Part II of this directive.
- C. If the serial number of the pressure regulator, P/N 806370-06, is not listed in Table 2 of the above-mentioned SB, proceed to Part III of this directive.

Part II – Replacement of the affected oxygen CRA

Replace the affected oxygen CRA in accordance with the accomplishment instructions of the above-mentioned SB.

Part III – Future Installation of the oxygen CRA

As of the effective date of this directive, installation of an oxygen pressure regulator, P/N 806370-06, with a S/N listed in Table 2 of the Bombardier SB 670BA-35-011, dated 5 July 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, is not permitted on any CL-600-2C10, CL-600-2D15, CL-600-2D24 or CL-600-2E25 aeroplane unless the serial number has a suffix "A" beside the serial number.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Robin Lau
Acting Chief, Continuing Airworthiness

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