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| No.        | CF-2011-12   | 1/1 |
| Issue Date | 06 June 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- 2011-12
- Subject:** Cracked Rudder Actuator Mounting Bracket
- Effective:** 24 June 2011
- Applicability:** **Bombardier Inc. DHC-8 Aeroplanes:**  
**Models 102, 103, 106, 201, 202, 301, 311, 314 and 315, Serial Numbers 003 through 672**  
**Models 400, 401 and 402, Serial Numbers 4001 through 4343**
- Compliance:** As indicated, unless already accomplished.
- Background:** Several reports have been received regarding cracking of the DHC-8 Series 100 rudder actuator mounting bracket. An investigation revealed that the mounting bracket has been under-designed based on the static and endurance loading conditions. The failure of the mounting brackets that attach the power control unit (PCU) to the airframe could result in a loss of the rudder actuating system. The loss of both rudder PCU actuators could result in free play of the rudder control surface and potentially induce a flutter condition.
- This directive mandates the installation of a new design of rudder actuator mounting bracket.
- Corrective Actions:** Within 6000 hours air time or three (3) years after the effective date of this directive, whichever comes first, do the following:
- A. For Models 102, 103, 106, 201, 202, 301, 311, 314 and 315 aeroplanes, incorporate Bombardier Modsum 8Q101890. Approved instructions for incorporating Modsum 8Q101890 are provided in Bombardier Service Bulletin (SB) 8-27-110, Revision A, dated 3 December 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
  - B. For Models 400, 401 and 402 aeroplanes, incorporate Bombardier Modsum 4-113655. Approved instructions for incorporating Modsum 4-113655 are provided in Bombardier Service Bulletin (SB) 84-27-53, dated 26 November 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- Authorization:** For the Minister of Transport, Infrastructure and Communities
- ORIGINAL SIGNED BY*
- Derek Ferguson  
Chief, Continuing Airworthiness
- Contact:** Mr. Anthony Wan, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail [CAWWEBFeedback@tc.gc.ca](mailto:CAWWEBFeedback@tc.gc.ca) or any Transport Canada Centre.

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](http://www.tc.gc.ca/civilaviation/communications/centre/address.asp)

