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-2014-22**

ATA: **27** **Type Certificate: A-142**

Subject: **Flight Controls – Outboard Spoiler Power Control Unit (PCU) – Inadvertent Spoiler Deployment**

Effective Date: **30 July 2014**

Applicability: **Bombardier Inc. model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001, 4003 through 4453.**

Compliance: **Within 6000 hours air time or 3 years, whichever occurs first, from the effective date of this AD, unless already accomplished.**

Background: Although AD CF-2009-26 was issued to mandate the upgrade of the spoiler lift/dump valve, it did not reduce the rate of inadvertent single spoiler deployment occurrences. Further investigation revealed that the outboard spoiler PCUs may also be subject to pressure reversals at the PCU main control valve seal, resulting in leakage at the piston head seal and piston rod seals. If not corrected, this condition may result in reduced controllability of the aeroplane.

This AD mandates the replacement of the existing outboard spoiler PCUs with the upgraded PCUs with re-designed seals for better leakage protection.

Corrective Actions: Incorporate the Modsum 4-113783 in accordance with Accomplishment Instructions of Bombardier Inc. Service Bulletin (SB) 84-27-63, Initial Revision, dated 17 October 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Robin Lau
Acting Chief, Continuing Airworthiness

Contact: Gordanko Jeremic, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.