



No.	CF-2006-08R1	1/2
Issue Date	31 August 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) 593**. 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), Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF-2006-08R1

Subject: Hydraulic System Power Transfer Unit Overspeed

Effective: 17 September 2009

Cancellation: Supersedes and cancels Airworthiness Directive (AD) CF-2006-08, dated 26 April 2006

Applicability: Bombardier Inc. Models DHC-8-400, DHC-8-401 and DHC-8-402, Serial Numbers 4001, 4003, 4004, 4006 and 4008 through 4184.

Compliance: As indicated below, unless already incorporated.

Background: Several cases have been reported where a loss of fluid in the No.2 hydraulic system has caused the power transfer unit (PTU) to overspeed, resulting in pressure fluctuations and increased fluid flow within the No.1 hydraulic system. In one case, the hydraulic system control logic did not shut down the PTU and the overspeed condition persisted, resulting in the illumination of the No.1 HYD FLUID HOT caution light.

As an interim action to avoid possible loss of both the No.1 and No.2 hydraulic systems, the Airplane Flight Manual (AFM) has been revised to include pulling the HYD PWR XFER circuit breaker in the event of the loss of all hydraulic fluid in the No.2 hydraulic system.

Insertion of the resultant Temporary Amendment (TA) No. 13 into the AFM was mandated in the original issue of this directive. This instruction has been re-identified as Part I in this revision and it remains in effect until Part II of this directive is accomplished.

Revision 1 of this directive introduces Part II, which mandates modification of the PTU control logic, including the provision of automatic PTU shutdown in the event of loss of fluid in the No. 2 hydraulic system. In addition, the applicability of the directive has been revised to remove aircraft Serial Number (SN) 4185 and subsequent, since an equivalent modification has been installed in production on these aircraft.

Corrective Actions: **Part I: AFM Change**

Within 14 days after the effective date of the original issue of this directive (31 May 2006):

1. Amend the AFM, PSM 1-84-1A, by inserting Temporary Amendment No. 13, dated 14 July 2005, or later approved changes to this AFM temporary amendment.
2. Advise all flight crew of the changes introduced by the AFM temporary amendment.

Note: Aircraft SN 4185 and subsequent have been removed from the applicability of this directive since an equivalent PTU control logic modification [consisting of both (a) Modsum 4-126354 and (b) Modsum 4-901472 or Modsum 4-901473] has been

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

installed in production. As a result, it is permissible to amend AFM PSM 1-84-1A by removing TA No.13 for these specific aircraft SNs.

Part II: Modification

- A. Within 6 000 hours air time of the effective date of this directive, modify/rework the PTU control logic by incorporating Modsum 4-126425. Bombardier Service Bulletin (SB) 84-29-22, Revision A, dated 24 February 2009, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada, provides approved instruction for incorporating Modsum 4-126425.

Note: For Bombardier Inc. Models DHC-8-400, DHC-8-401 and DHC-8-402 Aircraft, SNs 4001, 4003, 4004, 4006 and 4008 through 4094, accomplishment in accordance with the original issue of Bombardier SB 84-29-22, dated 5 December 2008, also meets the intent of Part II of this directive.

- B. Upon completion of SB 84-29-22, initial issue, dated 5 December 2008, Revision A dated 24 February 2009, or later revision approved by the Chief, Transport Canada, it is permissible to amend AFM PSM 1-84-1A by removing TA No.13.

Authorization: For Minister of Transport, Infrastructure and Communities

Derek Ferguson
Chief, Continuing Airworthiness

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