



No.	CF-2005-41R1	1/2
Issue Date	10 May 2012	

# 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-2005-41R1

**Subject:** Shear Pin Failure In The Pitch Feel Simulator Unit

**Effective:** 24 May 2012

**Replacement:** Supersedes Airworthiness Directive CF-2005-41, issued 22 December 2005.

**Applicability:** Bombardier Inc. model CL-600-2B19 aeroplanes, serial numbers 7003 thru 8111.

**Compliance:** As indicated below, unless already accomplished.

**Background:** The shear pin in the input lever of several Pitch Feel Simulators (PFS) units has failed due to fatigue. The shear pin failure is not always detectable by the flight crew in normal operation. Failure of the shear pins in both PFS units on an aeroplane could result in loss of pitch feel forces and reduced controllability of the aeroplane.

Recently, Transport Canada has certified the new design of the PFS unit – part number (P/N) 601R92300-7 as a terminating action. Revision 1 of this AD mandates the retrofit of all in-service CL-600-2B19 aeroplanes with the redesigned PFS unit.

**Corrective Actions:**

1. In accordance with the applicable schedule detailed below, perform a functional check of the input lever of each PFS following the procedures detailed in the Accomplishment Instructions of Bombardier Alert Service Bulletin (ASB) A601R-27-144, dated 15 September 2005, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:
  - a. For aeroplanes that have accumulated 3900 hours air time or more as of the effective date of the original issue of this AD (15 February 2006), perform the functional check within 100 hours air time from the effective date of the original issue of this AD (15 February 2006);
  - b. For aeroplanes that have accumulated less than 3900 hours air time as of the effective date of the original issue of this AD (15 February 2006), perform the functional check prior to reaching 4000 hours air time; and
  - c. Repeat the functional checks at intervals not to exceed 100 hours air time.
2. If a disconnected PFS input lever is detected, replace the defective PFS before further flight.
3. The PFS input lever checks required under this AD replaces the PFS checks that were introduced by Temporary Revision (TR) 2B-1784 to the CL-600-2B19 Maintenance Requirements Manual, Airworthiness Requirements, Appendix B – Airworthiness Limitations.

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)

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4. Replace the PFS P/N 601R92300-3 or 601R92300-5 with the new design P/N 601R92300-7 in accordance with the Accomplishment Instructions of Bombardier Aerospace Service Bulletin (SB) 601R-27-139, initial issue, dated 22 December 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, in accordance with the following schedule:

Accumulated PFS hours air time as of the effective date of this AD	Compliance schedule
Less than 18 000	Within 6000 hours air time, but not to exceed 23 000 hours air time, or 36 months, whichever occurs first, from the effective date of this AD.
More than or equal to 18 000 but not more than 19 000	Within 5000 hours air time, but not to exceed 23 000 hours air time, or 30 months, whichever occurs first, from the effective date of this AD.
More than 19 000 but not more than 20 000	Within 4000 hours air time, but not to exceed 23 000 hours air time, or 24 months, whichever occurs first, from the effective date of this AD.
More than 20 000	Within 3000 hours air time, or 18 months, whichever occurs first, from the effective date of this AD.

Note: The compliance time in this AD differs from the recommended compliance time mentioned in the Bombardier SB.

5. Incorporation of PFS P/N 601R92300-7 provides terminating action to paragraphs 1 to 3 of this AD, and does not alter the approved maintenance program for the new redesigned PFS P/N 601R92300-7.

**Authorization:** For the Minister of Transport, Infrastructure and Communities

*ORIGINAL SIGNED BY*

Derek Ferguson  
Chief, Continuing Airworthiness

**Contact:** Mr. Gordanko Jeremic, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail [ADs@tc.gc.ca](mailto:ADs@tc.gc.ca) or any Transport Canada Centre.