



No.	CF-2004-22	1/2
Issue Date 22 October 2004		

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-2004-22

Subject: Bombardier CL-600 "Challenger" – Angle of Attack Vane

Effective: 26 October 2004

Applicability: The following Bombardier Inc. "Challenger" aircraft with angle of attack vane Part Number 600-59154-5 installed:

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|-------|-----------------------------|-------------------------|
| (i) | CL-600-1A11 (CL-600) | S/N 1004 to 1085 |
| (ii) | CL-600-2A12 (CL-601) | S/N 3001 to 3066 |
| (iii) | CL-600-2B16 (CL-601-3A/-3R) | S/N 5001 to 5194 |
| (iv) | CL-600-2B16 (CL-604) | S/N 5301 and subsequent |

Compliance: When indicated unless already accomplished.

Background: It has been determined that angle of attack (AOA) vanes P/N 600-59154-5 can develop premature wear of the potentiometer which can delay the stall computer commands for stall warning, stick shaker and stick pusher operation. The problem is dormant and an out-of-tolerance AOA transducer can only be identified on in service aircraft through a maintenance check of the transducer resistance.

Corrective Actions: **Part A – Introduction of AFM Temporary Revision**

1. Within seven days of the effective date of this directive, amend the Aircraft Flight Manual (AFM) by inserting the applicable Temporary Revision (TR) detailed below. Later approved revisions of these TRs are also acceptable. Brief flight crews on the performance changes introduced by these TRs.

CL-600-1A11 (CL-600)	PSP 600 DOT	- TR 600/21-2
	PSP 600 US	- TR 600/20-2
	PSP 600-1 DOT	- TR 600-1/17-2
	PSP 600-1 US	- TR 600-1/15-2
	PSP 600-1-18	- TR 600-1/13-2

CL-600-2A12 and CL-600-2B16	PSP 601-1A	- TR 601/25-2
	PSP 601-1A-1	- TR 601/13-2
	PSP 601-1A-17	- TR 601/24-2
	PSP 601-1A-18	- TR 601/25-2
	PSP 601-1B	- TR 601/17-2
	PSP 601-1B-1	- TR 601/12-2
	PSP 601A-1	- TR 601/23-2
	PSP 601A-1-1	- TR 601/22-2
	PSP 601A-1-17	- TR 601/22-2
	PSP 601A-1-18	- TR 601/21-2
	PSP 601A-1-18A	- TR 601/24-2

CL-600-2B16 (CL-604)	PSP 604-1	- TR 604/9-6
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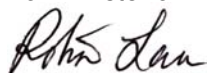
Part B – Transducer Linearity Check

2. Accomplish Part B of this directive in accordance with the procedures detailed in the applicable Bombardier Alert Service Bulletin (ASB) noted below or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:
 - (i) CL-600-1A11 (CL-600) ASB A600-0729 dated 14 October 2004
 - (ii) CL-600-2A12 (CL-601) ASB A601-0571 dated 14 October 2004
 - (iii) CL-600-2B16 (CL-601-3A/-3R) ASB A601-0571 dated 14 October 2004
 - (iv) CL-600-2B16 (CL-604) ASB A604-27-026 dated 14 October 2004
3. Using the schedule which follows, carry out a transducer linearity check of AOA vanes P/N 600-59154-5 in accordance with Accomplishment Instructions Part A - Special Check – AOA Transducer Linearity Check - of the above referenced applicable ASB:
 - (i) For aircraft with 50 hours or more air time since installation of an AOA vane P/N 600-59154-5, before accumulating 50 hours air time from the effective date of this directive;
 - (ii) For aircraft with less than 50 hours air time since installation of an AOA vane P/N 600-59154-5, at or before accumulating a total of 100 hours air time since installation of the AOA vane.
4. If the transducer does not meet the linearity requirements defined in the applicable Aircraft Maintenance Manual detailed below, replace the AOA vane with a serviceable unit before the next flight:
 - (i) CL-600-1A11 (CL-600) PSP 602 Chapter 27-39-11
 - (ii) CL-600-2A12 (CL-601) PSP 601-2 Chapter 27-39-11
 - (iii) CL-600-2B16 (CL-601-3A/-3R) PSP 601-2 Chapter 27-39-11
 - (iv) CL-600-2B16 (CL-604) AMM Task 27-35-04-720-801
5. If a serviceable AOA transducer, P/N 600-59154-3 or P/N 600-59154-5, is not available when the linearity check is performed, a specific purpose flight permit may be issued in accordance with Canadian Aviation Regulation Part V, subpart 7, section 507.04.

Part C – Repeat Inspections

6. Repeat the transducer linearity check using the procedure detailed in Part B of this directive at intervals not to exceed 100 hours air time.

Authorization: For Minister of Transport



Robin Lau
for B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Ian McLellan, Continuing Airworthiness, Ottawa, telephone (613) 952-4362, facsimile (613) 996-9178 or e-mail mclelli@tc.gc.ca or any Transport Canada Centre.