



No.	CF-2014-07	1/2
Issue Date	31 January 2014	

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-2014-07

Subject: Cracking of Skin Panels and Skin Splice Joints and Angles at Stringers 6 and 20 Between Fuselage Station 409.00 and 589.00

Effective: 14 February 2014

Applicability: Bombardier Inc. model CL-600-2B19 aeroplanes, serial numbers 7003 and subsequent.

Compliance: As indicated below, unless already accomplished.

Background: Complete aeroplane fatigue testing on a CL-600-2B19 aeroplane by the aeroplane manufacturer revealed the onset of simultaneous cracking on the skin panels and skin splice joints and angles at stringers number 6 and 20 at various locations between fuselage stations (FS) 409.00 to FS 589.00.

Cracks at multiple locations may reduce the residual strength of the joint below the required levels if the cracks are not detectable under the existing maintenance program established at the time of certification. This multiple site damage (MSD) behavior, if not corrected, could lead to widespread fatigue damage (WFD) and adversely affect the structural integrity of the aeroplane and/or could result in rapid decompression of the aeroplane.

A Temporary Revision (TR) has been made to the Maintenance Requirements Manual (MRM) to revise existing Airworthiness Limitations (AWL) tasks and introduce new inspection tasks for the detection of MSD. The aeroplane manufacturer is also developing a structural modification to preclude WFD from occurring in the fleet at these locations.

This AD mandates the incorporation of the new and revised AWL tasks, and a structural modification to preclude WFD.

Corrective Actions: **Part I – Revision to the Maintenance Schedule**

- A. Within 60 days from the effective date of this AD, amend the Transport Canada approved maintenance schedule by incorporating AWL tasks 53-41-109, 53-41-110, 53-41-204 and 53-41-205 listed in the MRM, Revision 9, dated 10 June 2013.
- B. For aeroplanes that have accumulated more than 38 000 total flight cycles on the effective date of this AD, initial compliance with the AWL tasks listed above shall be carried out within 2000 flight cycles from the effective date of this AD.
- C. If cracking or damage is found during the required inspections, contact the Bombardier Customer Response Center for an approved repair/modification and incorporate the repair/modification before further flight. The approved repair/modification must specifically reference this AD.

New limitations or inspection requirements specified in the approved repairs/modifications obtained from Bombardier, will supersede inspection requirements introduced in Part I A. of this AD for the area affected by the repair/modification only.

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

24-0022 (01-2005)

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- D. Compliance in accordance with superseding TRs or later revisions of the Airworthiness Limitations section of the MRM, approved by Transport Canada, also satisfies the requirements of Part I A. of this AD.

Part II – Structural Modification Point

- A. Prior to accumulating 60 000 total flight cycles, install repairs/modifications in accordance with a method approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. New limitations or inspection requirements specified in the approved repairs/modifications obtained from Bombardier, will supersede inspection requirements introduced in Part I A. of this AD. The repairs/modifications must specifically reference this AD.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness

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