



No.	CF-2013-11	1/2
Issue Date	17 April 2013	

EMERGENCY 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-2013-11

Subject: Cracking of the Wing Lower Spar and Wing Lower Skin

Effective: 17 April 2013

Applicability: Bombardier Inc. aeroplanes:

Model CL-215-1A10, serial numbers 1001 through 1125;
Model CL-215-6B11 (CL-215T Variant), serial numbers 1056 to 1125.

Compliance: As indicated below, unless already accomplished.

Background: While performing modifications on a CL-215-1A10 aeroplane, an operator discovered that the wing lower rear spar cap and reinforcing strap were fractured at Wing Stations (WS) 49.5 and 50 respectively and the rear spar web and wing lower skin were also cracked. It is suspected that a crack initiated at the wing lower spar cap, leading to its failure, the subsequent failure of the reinforcing strap and cracking of the spar web and wing lower skin. The damage was outside of the area addressed by the repetitive ultrasonic inspections required by AD CF-1992-26R2 and was found 95 hours air time after the last ultrasonic inspection.

Failure and cracking of the above-noted wing structure, if not detected, could result in failure of the wing. In order to mitigate the unsafe condition, this AD mandates a repetitive visual inspection of the wing lower skin until an eddy current inspection of the spar cap is performed or a visual inspection of the wing structures is performed by removing the fuel bladder. Transport Canada may mandate additional corrective actions pending the outcome of the failure investigation and fleet findings. The requirements of AD CF-1992-26R2 remain applicable.

Corrective Actions: **Part I – Repetitive Detailed Inspection**

- A. Within 10 hours air time from the effective date of this AD, carry out a detailed inspection for cracking of the left hand (LH) and right hand (RH) wing lower skin between WS 45.00 and 51.00, in accordance with Part A of the Accomplishment Instructions of Bombardier Inc. Service Bulletin (SB) 215-A558, dated 5 April 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If any crack is found, contact Bombardier Inc. for a Transport Canada approved repair and carry out the repair prior to further flight.

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

- C. Repeat the inspection and applicable repair of Part I at intervals not to exceed 25 hours air time until either the one-time detailed inspection of Part II or the one-time eddy current inspection of Part III of this AD is carried out.

Part II - One-Time Detailed Inspection

- A. In lieu of performing the repetitive inspection of Part I, paragraph C, of this AD, carry out a one-time detailed inspection of the LH and RH wing lower skin, front and rear spar caps, front and rear spar webs and reinforcing straps, in accordance with Part B of the Accomplishment Instructions of Bombardier Inc. SB 215-A558, dated 5 April 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If any crack is found, contact Bombardier Inc. for a Transport Canada approved repair and carry out the repair prior to further flight.
- C. Compliance with Part II of this AD is considered terminating action to the requirements of Part I of this AD.

Part III – One-Time Eddy Current Inspection

- A. In lieu of performing the repetitive inspection of Part I, paragraph C, of this AD, carry out a one-time eddy current inspection of the LH and RH wing lower front and rear spar caps in accordance with Parts C-1 and C-2 of the Accomplishment Instructions of Bombardier Inc. SB 215-A558, dated 5 April 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If any crack is found, contact Bombardier Inc. for a Transport Canada approved repair and carry out the repair prior to further flight.
- C. Compliance with Part III of this AD is considered terminating action to the requirements of Part I of this AD.

Part IV – Defect Reporting

No later than 14 days after each inspection in accordance with Part I, Part II or Part III of this AD, report all crack findings to Bombardier Aerospace Specialized and Amphibious Aircraft Technical Support.

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

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: Yosha Mendis, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail ADs@tc.gc.ca or any Transport Canada Centre.