



No.	1/2
CF-1992-26R2	
Issue Date	
1 September 2010	

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-1992-26R2
- Subject:** Wing Rear Spar Cracking
- Effective:** 14 September 2010
- Revision:** Supersedes Airworthiness Directive (AD) CF-1992-26R1 issued 24 September 2002.
- Applicability:** The following Bombardier Inc. aircraft models with more than 2500 hours air time or more than 8000 water drops:
- CL-215-1A10 – Serial Numbers 1001 through 1125,
CL-215-6B11 (CL-215T Variant) – Serial Numbers 1056 through 1125.
- Compliance:**
- (a) Initially within 50 hours air time or within 150 water drops, whichever occurs first after the effective date of this directive, unless already accomplished within the last 550 hours air time or 1850 water drops; and
 - (b) thereafter at intervals not to exceed 600 hours air time or 2000 water drops, whichever occurs first.
- Background:** Cracks have been found in the rear spar of the left wing at Wing Station (WS) 51.00 on several aircraft in service. On some aircraft, the cracks propagated through the lower spar cap and fail-safe straps into the spar web and the lower wing skin. The cracks are not visible from outside the aircraft.
- Revision 1 of this AD was issued to reduce the original 3000 hours air time inspection threshold to 2500 hours air time or 8000 water drops, and require the repeat inspection to be performed at intervals not exceeding 600 hours air time or 2000 water drops. Also, an additional ultrasonic inspection of the wing lower skin was added.
- Revision 2 of this AD is issued as a result of cracks found outside the inspection area specified in Revision 1. This revision extends the inspection area of the rear spar lower cap from WS 51.00 to WS 49.50 and to modify the ultrasonic inspection calibration procedure.
- Corrective Actions:**
- A. Perform an ultrasonic inspection of the rear spar lower cap at the left and right wing between WS 51.00 and WS 49.50. Inspect in accordance with the Accomplishment Instructions, paragraph 2.C, Part A, of the Bombardier Alert Service Bulletin 215-A454, Revision 4, dated 18 November 2009, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- 1. If cracks are found in the rear spar lower cap, visually inspect for cracks from inside the wing box, those areas of the rear spar web and the wing lower skin adjacent to the crack in the rear spar lower cap.
 - 2. Repair any crack found prior to further flight.

- B. Perform an ultrasonic inspection of the wing lower skin underneath the drag angle between the front spar and the rear spar at the left and right WS 51.00. Inspect in accordance with the Accomplishment Instructions, paragraph 2.D, Part B, of the Bombardier Alert Service Bulletin 215-A454, Revision 4, dated 18 November 2009 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Inspections carried out at WS 51.00 in accordance with the Accomplishment Instructions, paragraph 2.D, Part B, of the Bombardier Alert Service Bulletin 215-A454, Revision 3, dated 13 March 2001 within the last 550 hours air time or 1850 water drops is compliant with the initial inspection requirements of this paragraph.

1. If cracks are found in the wing lower skin, visually inspect for cracks from inside the wing box, those stringers adjacent to the skin crack.
 2. Repair any crack found prior to further flight.
- C. Within 10 days of accomplishing the inspections as per paragraphs A or B above, regardless of whether cracks were found, report the results to Bombardier in accordance with Bombardier Alert Service Bulletin 215-A454, Revision 4, dated 18 November 2009 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization: For Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Robin Lau for
Derek Ferguson
Chief, Continuing Airworthiness

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