



No.	CF-2011-42	1/2
Issue Date	09 November 2011	

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-2011-42

Subject: Longerons Cracking

Effective: 21 November 2011

Applicability: Bell Helicopter Textron Canada (BHTC) helicopters equipped with upper left longeron assembly part number 206-031-314-037, 206-031-314-177 or spare assembly part number 206-031-314-219B:

Model 407, Serial Number 53000 through 53900, 53911 through 54061 and 54300.

Compliance: As indicated below, unless already accomplished.

Background: It has been determined that the upper left longeron part number (P/N) 206-031-314-037, 206-031-314-177 and spare assembly P/N 206-031-314-219B on helicopters with 1200 or more hours air time is prone to cracking. This situation, if not corrected, can lead to a serious structural defect and loss of the helicopter.

This directive mandates corrective action introduced by Bell Helicopter Alert Service Bulletin 407-11-95 Rev A, dated 12 August 2011.

Corrective Actions: Part I. Initial inspection

In accordance with the following phase-in schedule:

- A. For aircraft with 1200 or more hours air time since new: within the next 50 hours air time from the effective date of this directive, but no later than 30 November 2011, and
- B. For aircraft with less than 1200 hours air time since new: prior to reaching 1250 hours air time. Perform the following inspections:

A general visual inspection for cracks of the aft fuselage top skin in accordance with the Accomplishment Instructions, Part I of Alert Service Bulletin (ASB) 407-11-95 Rev A dated 12 August 2011 or later revisions approved by the Chief, Continuing Airworthiness. If the skin is found cracked, remove the skin and replace it with a new skin before the next flight.

A general visual inspection of the upper left longeron assembly for general condition and cracks in accordance with Part II of the above mentioned ASB or later revisions approved by the Chief, Continuing Airworthiness. If the longeron is found cracked, proceed to Part III of this directive. If the longeron is found serviceable, proceed to Part II of this directive.

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

Part II. Repetitive inspection

Inspect in accordance with Part II of the above mentioned ASB using the following schedule:

- A. For the upper left longeron assembly not modified with external strap doublers in accordance with Part III of the above mentioned ASB, at intervals not to exceed 50 hours air time. If the longeron is found cracked proceed to Part III of this directive.
- B. For the upper left longeron assembly modified with external strap doublers in accordance with Part III of the above mentioned ASB, at intervals not to exceed 150 hours air time. If the longeron is found cracked proceed to Part III of this directive.

Part III. Repair

- A. If the longeron is found cracked and the crack has not propagated through the complete longeron, before further flight, stop drill the longeron and repair in accordance with Part IV of the above mentioned ASB, or later revisions approved by the Chief, Continuing Airworthiness, or replace with the new longeron assembly P/N 206-031-314-237B and install three (3) external CRES strap doublers.
- B. If the longeron is found cracked and the crack has propagated through the complete unit, perform a repair of the longeron in accordance with Part IV of above mentioned ASB or later revisions approved by the Chief, Continuing Airworthiness, or replace with the new longeron assembly P/N 206-031-314-237B and install three (3) external CRES strap doublers.
- C. After the completion of the repair, perform a general visual inspection of the repaired longeron at intervals not to exceed 50 hours air time for general condition and cracks in accordance with Part II of the above mentioned ASB or later revisions approved by the Chief, Continuing Airworthiness.

Part IV. Terminating action

The terminating action to this directive consists of the installation of a new longeron assembly P/N 206-031-314-237B and installation of the three (3) external CRES strap doublers as defined in Part III of the above mentioned ASB later revisions approved by the Chief, Continuing Airworthiness.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

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