Transport Canada Transports Canada

TP 7245E

No. CF-2004-05R2 1/2

Issue Date 1 June 2005

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-2004-05R2**

Subject: **Tail Rotor Blade Trailing Edge Skin Cracks**

Effective: 30 June 2005

Revision: Supersedes Airworthiness Directive (AD) CF-2004-05R1, issued 28 June 2004.

Applicability: Bell Helicopter Textron Canada Models 206A, 206B helicopters equipped with tail rotor blade, part numbers 206-016-201-131 or 206-016-201-133, and 206L series helicopters equipped with tail rotor blade, part number 206-016-201-131, with serial numbers identified in the applicable Alert Service Bulletin (ASB) identified in Table 1.

Compliance: As indicated.

Background: Transport Canada has been advised of three (3) occurrences of skin cracks originating near the tail rotor blade trailing edge balance weight. Two of the occurrences caused a loss of the weight and a strip of material along the trailing edge leading to an imbalance, which caused the fracture of three of the four tail rotor gearbox attachments. One of these occurrences resulted in the gearbox shifting that caused failure of the drive shaft and resulting loss of yaw control.

Revision 1 of this directive introduced terminating action requiring affected blades to be inspected for acceptable tail rotor blade skin thickness.

This revision introduces more stringent tail rotor skin damage limits, and re-balance requirements as specified in “Part F”.

Corrective Actions:

Part A: Identification of Affected Tail Rotor Blades

1. Prior to next flight after the effective date of this directive, verify if the rotorcraft is equipped with rotor blades identified in the “Component Affected” section of the applicable Alert Service Bulletin as listed in Table 1. If the rotorcraft is equipped with an affected blade, enter the part number and serial number into the journey logbook. If not equipped, indicate that the aircraft is not equipped with blades affected by this directive.

2. Prior to the installation of any spare blade, if it is listed in the "Component Affected" section of the applicable ASB, the blade is to be identified with a "Blue Diamond" decal as per PART II, paragraph 4, of the bulletin.

Part B: Initial and Recurring Check For Tail Rotor Blade Cracks

Check the affected tail rotor blade for cracking prior to the next flight after the effective date of this directive, and at repeat intervals, as per the instructions in PART I of the applicable Alert Service Bulletin as listed in Table 1. If a crack is found, replace the failed part prior to next flight.

Part C: Schedule 100-hour / Annual Inspection For Tail Rotor Blade Cracks

At the next, and recurring, 100-hour scheduled inspection or annual inspection, which ever occurs first after the effective date of this directive, perform a visual inspection with magnification of the tail rotor blade in accordance with PART II of the applicable ASB as listed in Table 1. If a crack is found, replace the failed part prior to next flight.

Part D: Terminating Inspection

By no later than 27 April 2007, send the affected tail rotor blades to the repair facility identified in Part III of the applicable Alert Service Bulletin as listed in Table 1. Tail rotor blades found with unacceptable blade skin thickness are to be removed from service.

Part E: New Skin Damage Limits

At the next 100-hour scheduled inspections or annual inspection, whichever occurs first after the effective date of this directive, or if damage is identified, inspect the rotor blades in accordance with Part IV of the applicable ASB as listed in Table 1.

Part F: One-Time Inspections

Inspect the maintenance records of the affected blades to determine if the blades had been previously repaired following the inspection called by the previous revisions of this AD. If it has been repaired, contact the blade repair shop to determine if the weight of the trailing edge root weight package had changed. If the weight package was increased, the tail rotor blade is to be sent for rebalancing as per Part III of the applicable ASB as listed in Table 1.

TABLE 1

Helicopter Model	Alert Service Bulletin
206 A, 206 B	206-04-100, Revision C, or later revisions approved by Chief, Continuing Airworthiness, Transport Canada
206 L Series	206L-04-127, Revision C, or later revisions approved by Chief, Continuing Airworthiness, Transport Canada

Authorization: For Minister of Transport

B. Goyaniuk

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Chief, Continuing Airworthiness

Contact: Mr. Bill Taylor, Continuing Airworthiness, Ottawa, telephone 613 952-4366, facsimile 613 996-9178, or e-mail taylorw@tc.gc.ca or any Transport Canada Centre.