



No.	CF-2002-32R1	1/2
Issue Date	31 July 2002	

# 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-2002-32R1

**Subject:** Bell 407 – Tailboom Tailrotor Gearbox Support Casting

**Revision:** Supersedes Airworthiness Directive CF-2002-32 issued 3 June 2002.

**Effective:** Upon receipt.

**Applicability:** Bell Helicopter Textron Canada Ltd (BHTCL), Model 407 Helicopters serial numbers 53000 through 53475 equipped with tailboom assemblies P/N 407-030-801-105, -107 or 407-530-014-103 identified as serial numbers 53390 through 53440, 53449, BP921, BP1014; and subcomponent tail rotor gearbox support casting part number 406-030-121-105 identified as serial number 980867/01-2, -3, -4, -5, -8, -9, -10.

**Compliance:** As indicated.

**Background:** Transport Canada has been advised of an occurrence of cracked tail rotor gearbox support casting that is part of the tailboom assembly. The crack originated from a weld repair made during fabrication of the part. BHTCL has identified other support castings that have the same repair and potential for cracking. This Airworthiness Directive mandates the requirement to locate the affected support castings and introduce repeat 25-hour visual inspections of the affected parts until they are removed from service.

This revision corrects the issue date of the applicable Alert Service Bulletin.

**Corrective Actions:** **Part 1. Identification of Affected Tailboom Assemblies**

Within the next 10 hours air time or 7 days, whichever occurs first, determine if the affected part is installed on the applicable aircraft by conducting Part I of Alert Service Bulletin 407-02-53 dated 05 June 2002, or revisions approved by the Chief, Continuing Airworthiness.

**Part 2. Visual Inspection and Replacement**

If an affected casting is identified by Part 1 then,

- Conduct an inspection of the casting for cracks in accordance with Part II of Alert Service Bulletin 407-02-53 dated 05 June 2002, or revisions approved by the Chief, Continuing Airworthiness. Repeat this inspection every 25 hours air time; and,
- No later than 30 September 2002, remove the tailboom from service until the affected tail rotor gearbox support casting is replaced.

If a crack is found, replace the tailboom before the next flight. Report finding to Transport Canada, Continuing Airworthiness Division (AARDG) at facsimile (613) 996-9178 and to Bell Helicopter Textron – Product Support Engineering at facsimile (450) 433-0272.

**Authorization:** For Minister of Transport



for B. Goyaniuk  
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](mailto:taylorw@tc.gc.ca) or any Transport Canada Centre.