



No.	CF-2004-09R1	1/1
Issue Date 4 July 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-2004-09R1

Subject: Power Turbine RPM Steady-State Operation Avoidance

Effective: 28 July 2005

Revision: Supersedes Airworthiness Directive (AD) CF-2004-09, issued 22 April 2004.

Applicability: Bell Helicopter Textron Canada (BHTC) Model 407 helicopters, serial numbers 53000 to 53644.

Compliance: As indicated.

Background: Transport Canada has been advised of multiple reports of failure of the third stage turbine wheel used in both the Rolls-Royce 250-C30S and 250-C47B engines. There have been six in-flight failures of which three have occurred to the 250-C47B engine utilized by BHTC for the Model 407. Rolls-Royce has determined that detrimental vibrations can occur within a particular range of turbine speeds as a potential contributing factor to these failures. BHTC revised their rotorcraft flight manual and provided a decal to inform pilots to avoid steady-state operations at these engine turbine speeds.

This revision introduces a slight increase to the steady-state operation avoidance limitations.

Corrective Actions: **Part A: Rotorcraft Flight Manual Amendment**

Within 10 calendar days after the effective date of this directive, insert the flight manual supplement BHT-407-FM-1, Revision 3, or later approved revision, into the rotorcraft flight manual and advise the pilot of this change.

Part B: Installation of Decal

In conjunction with Part A above, install the decal as per Alert Service Bulletin 407-05-67, dated 8 June 2005, or later revision approved by Chief, Continuing Airworthiness, Transport Canada.

Authorization: For Minister of Transport

A. Wan
Acting 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.

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