AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/BELL 407/27 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Bell Helicopter Textron Canada (BHTC) 407 Series Helicopters

AD/BELL 407/27 Amdt 1 — Power Turbine RPM Steady State Operation Avoidance — 10/2005

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

Requirement:

1. Flight Manual Amendment

   Unless previously accomplished incorporate BHT-407-FM-1 Revision 3 or later Transport Canada approved revision into the rotorcraft flight manual.

2. Installation of Decal

   Unless previously accomplished, install the decal as per Alert Service Bulletin 407-05-67, dated 8 June 2005, or later Transport Canada approved revision. It is permissible to locally manufacture the decal with white lettering on a black background, minimum 10 point font size.

Requirements 1 and 2 may be accomplished by a pilot endorsed on the Bell 407.

Note: Transport Canada AD CF-2004-09R1 refers.

Compliance: Within 10 calendar days after the effective date of this directive.

This Amendment becomes effective on 29 September 2005.

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 occurring at power turbine speeds between 68% and 86% may be a potential contributing factor to these failures.

This amendment introduces a slight increase to the steady-state operation avoidance limitations, and includes additional helicopters in the applicability section.

Bell Helicopter Textron Canada (BHTC) 407 Series Helicopters

AD/BELL 407/27 Amdt 1 (continued)

The original issue of this Directive became effective 30 September 2004.

James Coyne
Delegate of the Civil Aviation Safety Authority

18 August 2005