AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (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 407/24 Tail Rotor Gearbox 11/2003

Applicability: Bell Helicopter Textron Canada Model 407 Helicopters serial number (S/N) 53000 through 53498, 53500 through 53522, 53524 and 53526, equipped with tail rotor gearbox case part number (P/N) 406-040-406-109 or 406-040-406-113.

Requirement:

1. Identify the tail rotor gearbox case installed on the helicopter and, if applicable, check for the presence of oil feed gallery in accordance with the Accomplishment Instructions, Part I of ASB 407-03-57 Rev B.

2. If the oil feed gallery is present, re-identify the case assembly in accordance with the Accomplishment Instructions, Part I of ASB 407-03-57 Rev B.

3. If the oil feed gallery is not present create an oil feed gallery and re-identify the case in accordance with the Accomplishment Instructions, Part II of ASB 407-03-57 Rev. B.

Note: Transport Canada CF-2003-10 refers.

Compliance: **Tail Rotor Gearboxes installed in an aircraft:**

For Requirement 1: Within 50 flight hours or 30 days from the effective date of this Directive, whichever occurs first.

For Requirement 2: Within 50 flight hours or 30 days from the effective date of this Directive, whichever occurs first.

For Requirement 3: For tail rotor gearboxes with less than 1800 flight hours time since new; prior to reaching 1800 flight hours time since new.

For tail rotor gearboxes with less than 1800 flight hours since last overhaul; prior to reaching 1800 flight hours since overhaul.

For tail rotor gearboxes with more than 1800 flight hours time since new; within 50 flight hours or 30 days from the effective date of this Directive.

For tail rotor gearboxes with more than 1800 flight hours time since last overhaul; within 50 flight hours or 30 days from the effective date of this Directive.

Bell Helicopter Textron Canada (BHTC) 407 Series Helicopters

AD/BELL 407/24 (continued)

Tail Rotor Gearboxes held as spares:

For Requirements 1, 2 and 3: Prior to installation in a helicopter.

This Airworthiness Directive becomes effective on 30 October 2003.

Background: There have been a number of tail rotor gearboxes identified as not having the required oil feed gallery to the duplex bearing. This reduces the oil supply to the bearing that could lead to failure of the duplex bearing. The splash lubrication the bearing receives will be sufficient to maintain the integrity of the bearing before modification of the tail rotor gearbox is required as detailed in this Directive.

Jim Coyne
Delegate of the Civil Aviation Safety Authority

19 September 2003

The above AD is notified in the *Commonwealth of Australia Gazette* on 8 October 2003.