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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(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.

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### Propellers - Variable Pitch - McCauley

**AD/PMC/50**

**RPM Restriction and Life Limit**

**6/2007  
TX**

**Applicability:** McCauley Propeller Systems models 3A32C406/82NDB-X and D3A32C409/82NDB-X propellers herein referred to as C406 and C409 propellers, respectively.

These propellers are installed on, but not limited to, the aeroplanes in the following Table 1:

**Table 1 - Aeroplanes That Propellers Are Installed On, But Not Limited To**

Aeroplane models	With engine model
Beech: A35, B35, C35, D35, E35, F35, G35, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, 36, A36, A45, and D45.	Teledyne Continental Motors (TCM) IO-520 series and IO-550 series reciprocating engines.
Beech: A36TC, B36TC, S35, V35A, V35B	TCM TSIO-520 series reciprocating engines.
Navion: A (L-17B, C), B, D, E, F, G, and H	TCM IO-550 and TSIO-520 series reciprocating engines.

**Requirement:**

1. Install a placard on the instrument panel as close to the tachometer as possible, that states, in 1/8 inch-high or higher characters, "Continuous operation between 2,350-2,450 RPM at or above 24" manifold pressure is prohibited". The placard shall have red letters, on a white contrasting background with a red border.
2. For propellers with unknown total hours time-in-service (TIS), or 10,000 or more hours total TIS on the effective date of this AD, remove the propeller from service.

**Propellers - Variable Pitch - McCauley**

AD/PMC/50 (continued)

3. For propellers with fewer than 10,000 hours total TIS on the effective date of this AD do the following:
  - a. Perform an inspection of the propeller blades and repair if necessary, using paragraphs 2.B. through 2.F. of Accomplishment Instructions of McCauley Propeller Systems Alert Service Bulletin (ASB) No. ASB248, dated 19 April 2005.
  - b. Life-limit-stamp the letter "L" on the propeller hub and blades, using paragraph 3 of Accomplishment Instructions of McCauley Propeller Systems ASB No. ASB248.
  - c. Remove the propeller from service.

*Note: FAA AD 2007-08-04 Amdt 39-15021 dated 4 April 2007 refers.*

- Compliance:
1. Within 10 hours TIS after the effective date of this AD.
  2. Within 50 hours TIS after the effective date of this AD.
  - 3a. Within 100 hours after the effective date of this AD, thereafter, within every 100 hours TIS or at next annual inspection, whichever occurs first.
  - 3b. At the next propeller overhaul or next major propeller disassembly after the effective date of this AD.
  - 3c. Upon reaching the life limit of 10,000 hours total TIS.

This Airworthiness Directive becomes effective on 20 April 2007.

Background: This AD requires adding an operational revolutions per minute (RPM) restriction on the C406 and C409 propellers, and installing an RPM restriction placard in the cockpit. This AD also adds a 10,000-hour total TIS life limit for these propellers. This AD also removes from service any propeller that has 10,000 hours or more total TIS, or that has unknown total TIS. Also, this AD requires initial and repetitive propeller blade inspections for damage, and repair if necessary. This AD results from testing by the manufacturer that identified stress conditions that affect the fatigue life and damage tolerance of C406 and C409 propellers, when installed on TCM IO-520, TSIO-520, or IO-550 reciprocating engines. The issuing of this AD is intended to prevent blade or hub failure that could result in separation of a propeller blade and loss of control of the aeroplane.



David Punshon  
Delegate of the Civil Aviation Safety Authority

16 April 2007