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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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**Pratt and Whitney Canada Turbine Engines - PW500 Series****AD/PW500/2****Fuel Manifold Leakage****1/2007**

**Applicability:** Pratt & Whitney Canada (P&WC) PW535A model engines with serial numbers PCE-DC0143 and earlier, NOT incorporating P&WC Service Bulletin (SB) 30197 at revision 3 or earlier revision status.

**Requirement:** Unless already accomplished in accordance with the instructions of P&WC SB 30197R3 or its earlier versions, replace fuel manifold, part number (P/N) 3052627-01 with a new fuel manifold P/N 3056404-01 in accordance with the instructions of P&WC alert service bulletin (ASB) A30314 dated 27 September 2006 or later Transport Canada approved revisions.

*Note: Transport Canada Airworthiness Directive number CF-2006-22 dated 20 November 2006 refers.*

**Compliance:** For engines with fuel manifold, part number (P/N) 3052627-01, that has a total time since new (TTSN) of 1,500 flight hours or higher:

Within 50 flight hours or 60 days after the effective date of this directive, whichever occurs first.

For engines with fuel manifold P/N 3052627-01, that has less than TTSN of 1,500 flight hours:

Within 150 flight hours or 90 days after the effective date of this directive, whichever occurs first.

This Airworthiness Directive becomes effective on 18 January 2007.

**Background:** There have been three reported incidents of PW535A engines leaking fuel in service. Investigation revealed the manufacturing process of the fuel manifold introduced characteristics that have resulted in a loss of sealing at a crimped joint. PW535A engine fuel manifold leakage could result in engine fire, in-flight shutdown or damage to the airframe.

**Pratt and Whitney Canada Turbine Engines - PW500 Series**

AD/PW500/2 (continued)

P&WC ASB A30314 introduces a new manifold with an improved manufacturing process to rectify identified in-service leakage problem.



James Coyne  
Delegate of the Civil Aviation Safety Authority

24 November 2006