Transport Canada Transports Canada

TP 7245E

No. CF-2002-34 1/2

Issue Date 15 July 2002

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-2002-34**

Subject: **PW120 Engines - Inspection / Modification of Mechanical Fuel Control Unit**

Effective: 23 August 2002

Applicability: All Pratt & Whitney Canada PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126, PW126A, PW127, PW127B, PW127C, PW127E, PW127F, PW127G, PW127J engines.

Compliance: As detailed below, unless already accomplished.

Background: Certain PW120 series engines fitted with Honeywell mechanical fuel control unit (MFCU) have experienced a loss of throttle response and an overspeed condition, and several of these incidents resulted in in-flight shutdowns. An investigation revealed a dislodgment of the outer lip of the bypass valve ribbed diaphragm within the engine MFCU. This dislodgment is due to inadequate pre-load being applied to the outer lip during MFCU assembly. P&WC has issued Service Bulletin (SB) 21562 to introduce an improved diaphragm, which incorporates a beaded outer lip to rectify this problem. In addition, P&WC SB 21669 was issued to introduce an inspection to ensure the integrity of the unit.

Corrective Actions: To prevent MFCU failure and possible engine shutdown, accomplish the following:

1. For PW120 series engines with Honeywell MFCU that have been modified in accordance with P&WC SB 21562 initial issue dated 25 February 1998 or Revision 1 dated 4 September 1998, or Revision 2 dated 7 December 2000, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada, no further action is required by this directive.

2. For PW120 series engines with Honeywell MFCU that have not been modified in accordance with P&WC SB 21562 initial issue or Revision 1 or 2 as stated above, inspect the MFCU as follows:

   a) Within 400 flight hours, or at the next aircraft “A” check inspection after the effective date of this directive, whichever occurs later, inspect the MFCU in accordance with P&WC SB 21669 dated 2 October 2001, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada. If the MFCU does not meet the inspection criteria, the unit must be removed from the engine and replaced with a serviceable one before next flight;

   b) Subsequently, at intervals not to exceed 1,200 flight hours, or the aircraft “3A” check, whichever occurs later, repeat the inspection in 2 a) above.

3. Within 4,500 flight hours or 24 months, whichever occurs first after the effective date of this directive, replace the MFCU with a modified unit that has the new bypass valve diaphragm in accordance with P&WC SB 21562 Revision 2, or later revisions approved by the Chief, Continuing Airworthiness, Aircraft Certification, Transport Canada. Incorporation of the MFCU modification in accordance with P&WC SB 21562 constitutes terminating action for the inspection requirements of paragraph 2 above.

Authorization: For Minister of Transport

B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Luc Deniger, Continuing Airworthiness, Ottawa, (613) 952-5385 or e-mail denigel@tc.gc.ca or any Transport Canada Center.