

No. CF-2011-40 Issue Date 26 October 2011

## 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) 521 Division X**. 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), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

- Number: CF-2011-40
- Subject: Separation of Turbine Exhaust Duct Flanges
- Effective: 16 November 2011
- Applicability: Pratt & Whitney Canada PW901A Auxiliary Power Units, Serial Number PCE-900776 and preceding.
- Compliance: As indicated below, unless already accomplished.
- **Background:** The PW901A Auxiliary Power Units (APU) has experienced several events of High Pressure Turbine (HPT) blade fracture, some of which have resulted in the separation of the rear gas generator case, exhaust duct support, the turbine exhaust duct flanges and the release of high energy debris. Subsequent investigation revealed the turbine exhaust duct can separate under excessive load conditions resulting from extreme engine distress such as HPT blade fractures.

In order to minimize the possibility of uncontained failure, Pratt & Whitney Canada (P&WC) has issued Alert Service Bulletin (ASB) 16255R2 to strengthen the exhaust duct support in order to prevent flange separation during engine distress conditions.

This directive mandates the incorporation of P&WC Service Bulletin (SB) 16255R2.

**Corrective** After the effective date of this directive, the first time the APU or module is at a maintenance facility that can perform the modifications, regardless of the maintenance action or reason of APU removal, or within 42 months from the effective date of this directive, whichever occurs first, modify the rear gas generator case, exhaust duct support and the turbine exhaust duct flanges by incorporating P&WC SB 16255R2 dated 1 March 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with previous versions of P&WC SB A16255 prior to the effective date of this directive satisfies the requirements of this directive.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Rémy Knoerr Acting Director, National Aircraft Certification

Contact: Mr. Robin Lau, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail <u>CAWWEBFeedback@tc.gc.ca</u> or any Transport Canada Centre.

To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or www.tc.gc.ca/civilaviation/communications/centre/ address.asp



Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.