

AD Number: **CF-2014-33**
Issue Date: **2 October 2014**

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-2014-33 **Effective Date:** 16 October 2014

ATA: 71 **Type Certificate:** E-6/E-13/E-15

Subject: Power Plant - Power Turbine Containment Ring Failure

Replacement: Supersedes AD CF-2013-33R1, issued 14 November 2013.

Applicability: Pratt & Whitney Canada (P&WC):

Model PT6A-20, PT6A-20A, PT6A-20B, PT6A-25, PT6A-28, PT6A-34B, PT6A-36 and PT6A-135 engines;

Model PT6A-11 engines, serial numbers (S/N) PCE-10539 and earlier;

Model PT6A-11AG engines, S/N PCE-10224 and earlier;

Model PT6A-15AG engines, S/N PCE-14088 and earlier;

Model PT6A-21 engines, S/N PCE-25361 and earlier;

Model PT6A-25A engines, S/N PCE-48757 and earlier;

Model PT6A-25C engines, S/N PCE-26258 and earlier;

Model PT6A-27 engines, S/N PCE-42523 and earlier as well as all engines converted to PT6A-27;

Model PT6A-34 engines, S/N PCE-57303 and earlier as well as all engines converted to PT6A-34;

Model PT6A-34AG engines, S/N PCE-57312 and earlier as well as all engines converted to PT6A-34AG;

Model PT6A-110 engines, S/N PCE-15052 and earlier;

Model PT6A-112 engines, S/N PCE-12562 and earlier.

Model PT6A-114 engines, S/N PCE-17218 and earlier;

Model PT6A-135A engines, S/N PCE-35089 and earlier.

Compliance: As indicated below, unless already accomplished.

Background:

There have been in-service events involving the perforation of PT6A small series engine cases, as a result of the loss of the integrity of the Power Turbine (PT) Containment Rings. Perforation of engine cases has been seen to result from the liberation of PT blades and from fracture/displacement of the PT Containment Ring itself.

In order to minimize future uncontained events, P&WC has issued Service Bulletin (SB) A1427 to modify the PT Containment Ring with better containment capability. Transport Canada (TC) issued AD CF-2013-33R1 to mandate incorporation of SB A1427.

After the issuance of AD CF-2013-33R1, a subsequent decision was made to also mandate compliance with SB 12076R3, as both SB A1427 and SB A1427R3 address similar unsafe conditions, but on different model PT6A engines. In addition, an updated P&WC risk assessment has determined that the compliance time of the SBs can be extended from 24 months to 48 months.

This AD supersedes AD CF-2013-33R1 and is issued to mandate the compliance with SB A1427R3 or SB 12076R3 requirements, as applicable.

Corrective Actions:

Within 48 months from 28 November 2013 (the effective date of AD CF-2013-33R1), or when the affected engine or module is at a maintenance base that can perform the procedures, whichever occurs first, modify the existing PT Containment Ring in accordance with either P&WC SB A1427R3, dated 27 January 2012, or P&WC SB 12076R3, dated 17 January 1992, as applicable, or their later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Incorporation of P&WC SB A1427 or SB 12076 or their later revisions, prior to the effective date of this AD, also satisfies the requirement of this AD.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Robin Lau
Acting Chief, Continuing Airworthiness

Contact: AK Durrani, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.