



# AIRWORTHINESS DIRECTIVE

*This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) to ADs.*

**Number:**

CF-2015-23

**Effective Date:**

6 August 2015

**ATA:**

73

**Type Certificate:**

E-12 & E-21

**Subject:**

Fuel Control – Fuel Control Unit Bellow Leak

**Applicability:**

Pratt and Whitney Canada (P&WC) – Engine models as listed below:

Engine Model	Engine Serial Numbers	Affected Configurations
PT6A-60AG	All serial numbers that have the affected configuration	Pre-SB 13402 configured, BS919 and BS1048 Engines
PT6A-65AG	All serial numbers that have the affected configuration	Pre-SB 13408 configured, BS708, BS903, BS1101 and BS1102 Engines
PT6A-67AF	All serial numbers that have the affected configuration	Installed in single engine application
PT6A-67AG	Serial No. PCE-RD0159 and earlier engines and additionally all those engines that are converted to engine model PT6A-67AG	Installed in single engine application

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

There have been in-service incidents involving corrosion and perforation of the two-ply Cu-Be bellows in Woodward Fuel Control Units (FCU) fitted to PT6A-60, -65 and -67 series engines. In certain instances, associated bellows leakage has resulted in loss of engine power, in-flight shutdowns (IFSD) and even accidents. Engines installed on the aeroplanes that are used for crop dusting, due to the operational environment, are more susceptible to corrosion damage to the subject bellows.

Loss of engine power or shut down in flight by itself usually is not considered a catastrophic event. However, on an aeroplane with single engine installation, an engine power loss or IFSD at a critical phase of flight could adversely affect the safe operation of the aeroplane.

In order to alleviate the hazard of engine power loss due to corrosion induced bellow failures, P&WC has issued SB 14389 and SB 13473 that incorporates improved bellow-ply sealing and a diffuser to eliminate direct impingement of compressor discharge (P3) air on the bellows surface. This AD is issued to mandate compliance with P&WC SB 14389 and SB 13473 requirements on affected engines.

**Corrective Actions:****Part I - For PT6A-67AG and PT6A-67AF engines that are installed in single engine application:**

Within 500 hours of airtime or one year, whichever occurs first, from the effective date of this AD, replace the FCU on affected engines in accordance with the applicable SB 14389R3 accomplishment instructions dated 27 January 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Previous incorporation of SB 14389R3 or its earlier versions, or SB 13473 on affected PT6A-60AG engines meets the mandatory requirements of this AD.

**Part II – For PT6A-60AG BS919 and BS1048 engines with Pre-SB 13402 configuration**

Within 36 months from the effective date of this AD, replace the FCU on affected engines in accordance with the applicable accomplishment instructions in SB 13473R1 dated 26 May 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Previous incorporation of SB 13402R3 or its earlier versions on affected PT6A-60AG engines meets the mandatory requirements of this AD. Accordingly, update engine logbook to reflect SB 13473 compliance.

**Part III – For PT6A-65AG BS708, BS903, BS1101 and BS1102 engines with Pre-SB 13408 configuration**

Within 36 months from the effective date of this AD, replace the FCU on affected engines in accordance with the applicable accomplishment instructions in SB 13473R1 dated 26 May 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Previous incorporation of SB 13408R2 or its earlier versions, or SB 13473 on affected PT6A-65AG engines, meets the mandatory requirements of this AD. Accordingly, update engine logbook to reflect SB 13473 compliance.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Robin Lau  
Acting Chief, Continuing Airworthiness  
Issued on 23 July 2015

**Contact:**

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