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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0471; Project Identifier MCAI-2019-00126-E; Amendment 39-21226; AD 2020-18-05]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp. Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Pratt & Whitney Canada Corp. (P&WC) PT6B-37A model turboshaft engines with engine serial number PCE-PU0289 and earlier. This AD was prompted by a report of contamination from galvanic corrosion between the fuel control unit (FCU) aluminum body and the steel union fitting causing the loss of engine control, resulting in an engine over-speed condition and subsequent in-flight shutdown (IFSD). This AD requires replacing the FCU with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 7, 2020.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 7, 2020.

ADDRESSES: For service information identified in this final rule, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; website: https://www.pwc.ca/en/. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0471.

Examining the AD Docket

You may examine the AD docket on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0471; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the

mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Mehdi Lamnyi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7743; fax: 781-238-7199; email: Mehdi.Lamnyi@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all P&WC PT6B-37A model turboshaft engines with engine serial number PCE-PU0289 and earlier. The NPRM published in the Federal Register on May 14, 2020 (85 FR 28888). The NPRM was prompted by a report of contamination from galvanic corrosion between the FCU aluminum body and the steel union fitting causing the loss of engine control, resulting in an engine over-speed condition and subsequent IFSD. The NPRM proposed to require replacing the FCU with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

Transport Canada Civil Aviation (Transport Canada), which is the aviation authority for Canada, has issued Transport Canada AD CF-2019-05, dated February 19, 2019 (referred to after this as "the MCAI"), to address the unsafe condition on these products. The MCAI states:

> There has been one reported incident on a PT6B-37A engine, where the contamination from galvanic corrosion between the FCU aluminum body and the steel union fitting has caused the loss of engine control, resulting in an engine over-speed condition and subsequently leading to an engine inflight shutdown (IFSD). This condition, if not corrected, could lead to additional cases of IFSDs, which on a single engine helicopter may result in an emergency autorotation landing. To address the subject galvanic corrosion problem in the FCU, P&WC has issued Service Bulletin (SB) 39107 to replace the affected FCUs with a modified FCU that is not susceptible to the subject galvanic corrosion problem. This [Transport Canada] AD mandates compliance with P&WC SB 39107, requiring the replacement of the affected FCUs to mitigate the potential unsafe condition.

You may obtain further information by examining the MCAI in the AD docket on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0471.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA has considered the comment received. An individual commenter supported the NPRM.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

Service Information Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed P&WC Service Bulletin (SB) No. PT6B-72-39107, Revision No. 1, dated December 13, 2017. The SB describes procedures for replacing the FCU. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 75 engines installed on helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace the FCU	1 work-hour × $85 per hour = $85	$37,000	$37,085	$2,781,375

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-18-05 Pratt & Whitney Canada Corp: Amendment 39-21226; Docket No. FAA-2020-0471; Project Identifier MCAI-2019-00126-E.

(a) Effective Date

This AD is effective October 7, 2020.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Pratt & Whitney Canada Corp. (P&WC) PT6B-37A model turboshaft engines with engine serial number PCE-PU0289 and earlier, which do not have an installed fuel control unit (FCU) that incorporates a stainless steel air adapter using P&WC Service Bulletin (SB) No. PT6B-72-39107, Revision No. 1, dated December 13, 2017.

(d) Subject

Joint Aircraft System Component (JASC) Code 7321, Fuel Control/Turbine Engines.

(e) Unsafe Condition

This AD was prompted by a report of contamination from galvanic corrosion between the FCU aluminum body and the steel union fitting causing the loss of engine control, resulting in an engine over-speed condition and subsequent in-flight shutdown (IFSD). The FAA is issuing this AD to prevent failure of the FCU due to contamination from galvanic corrosion. The unsafe condition, if not addressed, could result in loss of engine control, failure of the engine, IFSD, and loss of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within the compliance time identified in Table 1 to paragraph (g) of this AD, replace the FCU with an FCU that incorporates the stainless steel air adapter using the Accomplishment Instruments, paragraphs 3.A. and 3.C., of P&WC SB No. PT6B-72-39107, Revision No. 1, dated December 13, 2017.

Table 1 to paragraph (g) – Compliance time requirements

Compliance Time (A or B, whichever occurs later after the effective date of this AD)	
A	Before the FCU accumulates 1,500 flight hours, or before the FCU accumulates six years since new or last overhaul, whichever occurs first.
B	Within six months.

(h) Credit for Previous Actions

You may take credit for the replacement of the FCU that is required by paragraph (g) of this AD if you replaced the FCU with an FCU that incorporates a stainless steel air adapter before the effective date of this AD using P&WC SB No. PT6B-72-39107, Original Issue, dated December 15, 2016.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office

(j) Related Information

(1) For more information about this AD, contact Mehdi Lamnyi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7743; fax: 781-238-7199; email: Mehdi.Lamnyi@faa.gov.

(2) Refer to Transport Canada Civil Aviation (Transport Canada) AD CF-2019-05, dated February 19, 2019, for more information. You may examine the Transport Canada AD in the AD docket on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0471.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Pratt & Whitney Canada Corp. (P&WC) Service Bulletin No. PT6B-72-39107, Revision No. 1, dated December 13, 2017.

(ii) [Reserved]

(3) For P&WC service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; website: https://www.pwc.ca/en/.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 20, 2020.
Lance T. Gant,
Director, Compliance & Airworthiness Division, Aircraft Certification Service.
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