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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0245; Directorate Identifier 2010-NE-15-AD; Amendment 39-16398; AD 2010-17-06]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp. (P&WC) PW615F-A Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

> A PW617F-E engine powered twin engined aircraft had recently experienced an uncommanded power reduction on one of its engines. Investigation showed that the Fuel Filter Bypass Valve poppet in the Fuel Oil Heat Exchanger (FOHE) on that engine had worn through the housing seat, allowing unfiltered fuel and debris to contaminate the Fuel Metering Unit (FMU), resulting in fuel flow drop and subsequent power reduction. P&WC has confirmed that this is a dormant failure that could result in an unsafe condition.
>
> The PW615F-A engine Fuel Filter Bypass Valve installation is very similar to that of PW617F-E, but so far there have been no operational abnormalities reported due to subject valve failure on PW615F-A engines. However, evaluation by P&WC has confirmed similar dormant failure of worn through poppets of the subject valve on some PW615F-A engine installations, which could affect both engines at the same time on an aircraft and may result in an unsafe condition.

We are issuing this AD to prevent uncommanded power reduction, which could result in the inability to continue safe flight and safe landing.

DATES: This AD becomes effective September 27, 2010. The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 27, 2010.

ADDRESSES: The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on May 17, 2010 (75 FR 27489). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states that:

> A PW617F-E engine powered twin engined aircraft had recently experienced an uncommanded power reduction on one of its engines. Investigation showed that the Fuel Filter Bypass Valve poppet in the Fuel Oil Heat Exchanger (FOHE) on that engine had worn through the housing seat, allowing unfiltered fuel and debris to contaminate the Fuel Metering Unit (FMU), resulting in fuel flow drop and subsequent power reduction. P&WC has confirmed that this is a dormant failure that could result in an unsafe condition.
>
> The PW615F-A engine Fuel Filter Bypass Valve installation is very similar to that of PW617F-E, but so far there have been no operational abnormalities reported due to subject valve failure on PW615F-A engines. However, evaluation by P&WC has confirmed similar dormant failure of worn through poppets of the subject valve on some PW615F-A engine installations, which could affect both engines at the same time on an aircraft and may result in an unsafe condition.
>
> P&WC on 9 December 2009, issued an alert Service Bulletin (SB) A63071 that introduced a new Fuel Filter Bypass Valve assembly with an improved design poppet to help alleviate the subject poppet wear problem. This airworthiness directive (AD) is issued to mandate replacement of FOHE Fuel Filter Bypass Valve on all PW615F-A engines as per the P&WC SB A63071 instructions.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 378 engines installed on airplanes of U.S. registry. We also estimate that it will take about 3.5 work-hours per engine to comply with this AD. The average labor rate is $85 per work-hour. Required parts will cost about $22,582 per engine. Based on these figures, we estimate the cost of the AD on U.S. operators to be $8,648,451.

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.

We are 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

We determined that 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. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

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

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

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

Adoption of 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 AD:

2010-17-06 Pratt & Whitney Canada Corp. (formerly Pratt & Whitney Canada, Inc.): Amendment 39-16398. Docket No. FAA-2010-0245; Directorate Identifier 2010-NE-15-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective September 27, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Pratt & Whitney Canada Corp. PW615F-A turbofan engines with fuel/oil heat exchanger (FOHE) part number (P/N) 35C3778-01 or P/N 35C3778-02 installed. These engines are installed on, but not limited to, Cessna 510 (Mustang) airplanes.

Reason

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

> A PW617F-E engine powered twin engined aircraft had recently experienced an uncommanded power reduction on one of its engines. Investigation showed that the Fuel Filter Bypass Valve poppet in the Fuel Oil Heat Exchanger (FOHE) on that engine had worn through the housing seat, allowing unfiltered fuel and debris to contaminate the Fuel Metering Unit (FMU), resulting in fuel flow drop and subsequent power reduction. P&WC has confirmed that this is a dormant failure that could result in an unsafe condition.
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> The PW615F-A engine Fuel Filter Bypass Valve installation is very similar to that of PW617F-E, but so far there have been no operational abnormalities reported due to subject valve failure on PW615F-A engines. However, evaluation by P&WC has confirmed similar dormant failure of worn through poppets of the subject valve on some PW615F-A engine installations, which could affect both engines at the same time on an aircraft and may result in an unsafe condition.

We are issuing this AD to prevent uncommanded power reduction, which could result in the inability to continue safe flight and safe landing.

Actions and Compliance

(e) Unless already done, replace the FOHE fuel filter bypass poppet valve with a larger fuel filter bypass poppet valve within 25 hours of the effective date of the AD. Use paragraph 3.A. of the

Accomplishment Instructions of Pratt & Whitney Canada Corp. Alert Service Bulletin (ASB) No. PW600-72-A63071, Revision 1, dated January 7, 2010, to do the replacement.

Previous Credit

(f) A fuel filter bypass poppet valve replacement performed before the effective date of this AD using Pratt & Whitney Canada Corp. ASB No. PW600-72-A63071, dated December 9, 2009, satisfies the replacement requirement of this AD.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) Refer to MCAI Transport Canada AD CF-2010-03, dated January 20, 2010, for related information. Contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Web site: http://www.pwc.ca, for a copy of this service information.

(i) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(j) You must use Pratt & Whitney Canada Corp. ASB No. PW600-72-A63071, Revision 1, dated January 7, 2010 to do the replacement required by this AD.

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

(2) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Web site: http://www.pwc.ca.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on August 4, 2010.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.