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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0752; Directorate Identifier 2008-NE-22-AD; Amendment 39-15750; AD 2008-24-10]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp. JT15D-5; -5B; -5F; and -5R Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (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 follows:

There have been several reported incidents of high altitude, dual engine flameout on JT15D-5 engine powered aircraft operating in certain meteorological conditions. Subsequent to the investigation of incidents, review of the engine design has revealed that the Fuel Control Hydro Mechanical Unit (HMU) P3 servo can be exposed to excessive moisture and freezing.

We are issuing this AD to prevent engine flameouts of one or both engines, caused by excessive moisture and freezing in the P3 servo during certain flight conditions.

DATES: This AD becomes effective January 2, 2009. The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of January 2, 2009.

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: Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: ian.dargin@faa.gov; telephone (781) 238-7178; 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 August 22, 2008 (73 FR 49619). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states the following:

There have been several reported incidents of high altitude, dual engine flameout on JT15D-5 engine powered aircraft operating in certain meteorological conditions. Subsequent to the investigation of incidents, review of the engine design has revealed that the Fuel Control Hydro Mechanical Unit (HMU) P3 servo can be exposed to excessive moisture and freezing.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Request To Reference Hawker Beechcraft Service Bulletin for Wire Harness

One commenter, Flight Options, requests that we reference Hawker Beechcraft Service Bulletin (SB) No. SB 73-3888, Revision 1, dated July, 2008, in the AD. That SB instructs to re-route and secure the throttle solenoid wire harness, and instructs to install a serviceable compressor air to HMU delivery tube, using Pratt & Whitney Canada Corp. (P&WC) Alert SB No. JT15D-72-A7611, Revision 1, dated June 16, 2008. The commenter states that without the proposed AD referring to the Hawker Beechcraft SB, operators could leave wire harnesses unsecured, potentially leading to other system failures.

We partially agree. We recognize that instructions to re-route and secure the throttle solenoid wire harness are contained in the Hawker Beechcraft SB, and operators should refer to these requirements during the modification. We do not agree that securing the throttle solenoid wire harness needs to be mandated by this AD. However, we have added the Hawker Beechcraft SB reference to the Related Information paragraph in the AD.

Suggestion To Use Hawker Beechcraft SB for AD Compliance

Flight Options suggests that the Hawker Beechcraft SB No. SB 73-3888, Revision 1, or later Revision, is a satisfactory method of compliance with the proposed AD.

We agree that the SB contains a satisfactory method of compliance, but it also imposes additional requirements which are unnecessary. Accordingly, we do not agree that compliance to the Hawker Beechcraft SB needs to be mandated to prevent flameouts of one or both engines. We did not change the AD.

Request To Change Compliance Period

Flight Options requests that we change the proposed compliance period of "200 hours after the effective date of this AD or by December 31, 2008" to "400 hours after the effective date of this AD or by March 31, 2009". The commenter did not provide any data to substantiate their request.

We do not agree. A short compliance period is necessary, in the interest of safety. However, we changed the compliance to "within 200 flight hours after the effective date of this AD or within 30 days after the effective date of this AD, whichever occurs first".

Suggestion To Add P&WC Alert SB No. JT15D-72-A7611, Revision 1, to Previous Credit Paragraph

Flight Options suggests that we add P&WC Alert SB No. JT15D-72-A7611, Revision 1, dated June 16, 2008 to the Previous Credit paragraph (h). The commenter notes that P&WC added two engine models to that SB revision.

We do not agree. Engines that have been made compliant per that SB before the effective date of the AD are covered by compliance paragraph (e) which states "Unless already done, do the following actions." We did not change the AD.

Request To Remove Cessna Airplanes From Applicability

One commenter, Cessna Aircraft Company, requests that we remove the references to Cessna airplanes from the applicability, as the affected engines are not installed on Cessna airplanes.

We agree. We removed the Cessna references from the AD.

Request To Remove Mitsubishi Airplanes From Applicability

Hawker Beechcraft requests that we remove the references to Mitsubishi MU-300 and MU-300-10 airplanes from the applicability, as the affected engines are not installed on Mitsubishi airplanes.

We agree. We removed the Mitsubishi references from the AD.

Claim That AD Is Not Needed

One commenter, Hawker Beechcraft, claims that the AD is not needed. The commenter states that the earlier FAA AD 2006-21-02 addresses the problem, which at the time of AD issuance, was believed to be the result of ice buildup in the engine core.

We do not agree. While icing of the engine core stators remains the most obvious contributor to the engine flameout issue, more recent tests by P&WC have shown that freezing of the compressor air to HMU delivery tube at altitudes of 37,000 feet and higher, is also a contributing element. This AD is necessary to address required engine installation changes.

Request To Revise AD 2006-21-02

Hawker Beechcraft requests that we revise FAA AD 2006-21-02 to incorporate the replacement of the compressor air to HMU delivery tube, which is the subject of the proposed AD. The commenter states that having two ADs addressing dual-engine flameouts will be confusing to operators.

We do not agree. While the first AD addresses operational issues at the airplane level, a separate AD is required to mandate an engine configuration change to incorporate improvements to the compressor air to HMU delivery tube. This will eliminate a second contributor to the in-flight engine shutdowns seen in service.

Request To Add the JT15D-5F Engine Model to the Costs of Compliance

Hawker Beechcraft requests that we add the JT15D-5F engine model to the costs of compliance, as this model is also affected by P&WC ASB No. JT15D-72-A7611, Revision 1, dated June 16, 2008.

We agree. We inadvertently listed the JT15D-5R engine model twice; the second listing should have been -5F. We changed the costs of compliance to read "* * * and \$3,169 per product for JT15D-5B and -5F engines".

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 1,500 products of U.S. registry. We also estimate that it will take about 3 work-hours per product to comply with this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$1,981 per product for JT15D-5 and -5R engines, and \$3,169 per product for JT15D-5B and -5F engines. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$4,222,500. Our cost estimate is exclusive of possible warranty coverage.

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 (telephone (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:



2008-24-10 Pratt & Whitney Canada Corp.: Amendment 39-15750. Docket No. FAA-2008-0752; Directorate Identifier 2008-NE-22-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective January 2, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to the following Pratt & Whitney Canada Corp. (P&WC) turbofan engines with compressor air to HMU delivery tube, part number (P/N) 3119150-01 installed:

- (1) JT15D-5 turbofan engines, serial numbers (SNs) below and including SN PCE-100411.
- (2) JT15D-5 turbofan engines, SNs below and including SN PCE-JA0818.
- (3) All JT15D-5B turbofan engines.
- (4) All JT15D-5F turbofan engines.
- (5) JT15D-5R turbofan engines SNs below and including SN PCE-JG0104.

(6) All JT15D-5 turbofan engines converted to model JT15D-5R by incorporation of P&WC Service Bulletin No. 7605.

These engines are installed on, but not limited to, Hawker Beechcraft models 400, 400A, and 400T airplanes.

Reason

- (d) Transport Canada AD CF-2008-23, dated June 27, 2008, states:

There have been several reported incidents of high altitude, dual engine flameout on JT15D-5 engine powered aircraft operating in certain meteorological conditions.

Subsequent to the investigation of incidents, review of the engine design has revealed that the Fuel Control Hydro Mechanical Unit (HMU) P3 servo can be exposed to excessive moisture and freezing. To preclude P3 servo freezing, P&WC has issued JT15D Alert Service Bulletin (ASB) JT15D-72-A7611 to re-route compressor delivery air to the HMU and improve moisture separation. Considering the potentially hazardous consequence of possible in-flight dual engine flameout, this airworthiness directive is issued to mandate the incorporation of P&WC ASB JT15D-72-A7611 to the affected JT15D-5 engines, in order to minimize the possibility of this hazard.

We are issuing this AD to prevent engine flameouts of one or both engines caused by excessive moisture and freezing in the P3 servo during certain flight conditions.

Actions and Compliance

(e) Unless already done, do the following actions.

(1) Within 200 flight hours after the effective date of this AD or within 30 days after the effective date of this AD, whichever occurs first, remove from service compressor air to HMU delivery tube, P/N 3119150-01.

(2) Install a serviceable compressor air to HMU delivery tube in accordance with P&WC Alert Service Bulletin (ASB) No. JT15D-72-A7611, Revision 1, dated June 16, 2008.

Prohibition of Compressor Air to HMU Delivery Tube, P/N 3119150-01

(3) After the effective date of this AD, do not install any compressor air to HMU delivery tube, P/N 3119150-01, onto any engine.

Definition

(f) For the purpose of this AD, a serviceable compressor air to HMU delivery tube is a compressor air to HMU delivery tube that is other than the tube part number listed in this AD.

(g) Alternative Methods of Compliance (AMOCs): 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.

Previous Credit

(h) Replacement of the compressor air to HMU delivery tube using P&WC ASB No. JT15D-72-A7611, dated March 26, 2008, before the effective date of this AD, meets the requirements of this AD.

Related Information

(i) Refer to Transport Canada AD CF-2008-23, dated June 27, 2008, for related information.

(j) Hawker Beechcraft Service Bulletin No. SB 73-3888, Revision 1, dated July 2008, also pertains to the subject of this AD.

(k) Contact Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803; e-mail: ian.dargin@faa.gov; telephone (781) 238-7178; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(l) You must use Pratt & Whitney Canada Corp. Alert Service Bulletin No. JT15D-72-A7611, Revision 1, dated June 16, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(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.

(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 November 19, 2008.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.