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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

[Docket No. 2003-NE-41-AD; Amendment 39-13490; AD 2004-04-09]

**RIN 2120-AA64**

### **Airworthiness Directives; Pratt & Whitney Canada JT15D-1, -1A, and -1B Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for Pratt & Whitney Canada (PWC) JT15D-1, -1A, and -1B turbofan engines with certain impellers part number (P/N) 3020365. This AD requires a one-time borescope inspection of the rear face of certain impellers for evidence of a machined groove or step, and repair or replacement of the impeller if a groove or step is found. This AD results from three reports of uncontained failure of the impeller. We are issuing this AD to prevent uncontained failure of the impeller and possible damage to the airplane.

**DATES:** This AD becomes effective April 5, 2004. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of April 5, 2004.

**ADDRESSES:** You can get the service information identified in this AD from Pratt & Whitney Canada, 1000 Marie-Victorin, Longueuil, Quebec, Canada J4G1A1, telephone (800) 268-8000; fax (450) 647-2888.

You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA. You may examine the service information, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7178; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR Part 39 with a proposed airworthiness directive (AD). The proposed AD applies to PWC JT15D-1, -1A, and -1B turbofan engines with certain impellers part number (P/N) 3020365. We published the proposed AD in the Federal Register on November 13, 2003 (68 FR 64295). That action proposed to require a one-time borescope inspection of the rear face of certain impellers for evidence of a machined groove or step, and repair or replacement of the impeller if a groove or step is found.

## **Comments**

We provided the public the opportunity to participate in the development of this AD. We received no comments on the proposal or on the determination of the cost to the public.

## **Conclusion**

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

## **Changes to 14 CFR Part 39—Effect on the AD**

On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. That regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. The material previously was included in each individual AD. Since the material is included in 14 CFR part 39, we will not include it in future AD actions.

## **Costs of Compliance**

There are about 1,300 PWC JT15D-1, -1A, and -1B turbofan engines of the affected design in the worldwide fleet. We estimate that 740 of the PWC engines installed on airplanes of U.S. registry are affected by this AD. We also estimate that it will take about 2 work hours per engine to perform the inspection at a hot section inspection interval, and 30 work hours per engine to replace impellers found with a groove or a step in the rear face at shop visit. The average labor rate is \$65 per work hour. Required parts will cost about \$55,427 per engine. Based on these figures, we estimate that for impellers inspected at hot section inspections, the total labor cost of the AD to U.S. operators is \$96,200. On the basis of 100 percent replacement, the total labor cost of the AD to U.S. operators is estimated to be \$1,443,000 and the parts replacement cost is estimated to be \$41,015,980 for a total replacement cost of \$42,555,180.

## **Regulatory Findings**

We have 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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under 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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-NE-41-AD" in your request.

**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 Federal Aviation Administration 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):

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-04-09 Pratt & Whitney Canada:** Amendment 39-13490. Docket No. 2003-NE-41-AD.

## **Effective Date**

- (a) This AD becomes effective April 5, 2004.

## **Affected ADs**

- (b) None.

## **Applicability**

(c) This AD applies to Pratt & Whitney Canada (PWC) JT15D-1, -1A, and -1B turbofan engines with certain impellers, part number (P/N) 3020365, installed. These engines are installed on, but not limited to, Cessna Aircraft Company Models 500 and 501 airplanes.

## **Unsafe Condition**

(d) This AD results from three reports of uncontained failure of the impeller. The actions specified in this AD are intended to prevent uncontained failure of the impeller and possible damage to the airplane.

## **Compliance**

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

(f) If you have already inspected the impeller, P/N 3020365, using PWC overhaul manual Revision 14, or if the impeller is listed in Appendix A of PWC Service Bulletin (SB) No. JT15D-72-7590, dated May 23, 2003, no further action is required.

## **One-Time Borescope Inspection**

(g) Perform a one-time borescope inspection of the impeller rear face for evidence of a machined groove or step, using paragraph 3.B. of Accomplishment Instructions of PWC SB No. JT15D-72-7590, dated May 23, 2003, as follows:

(1) For engines with 5,000 or more cycles-since-new (CSN) on the effective date of this AD, inspect within 250 cycles-in-service (CIS) after the effective date of this AD.

(2) For engines with fewer than 5,000 CSN on the effective date of this AD, inspect before reaching 5,250 CSN.

### **Disposition of Inspected Impellers**

(h) Before further flight, repair or replace impellers that do not pass the inspection requirements of paragraph 3.B.(8) of Accomplishment Instructions of PWC SB No. JT15D-72-7590, dated May 23, 2003.

### **Alternative Methods of Compliance**

(i) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

### **Material Incorporated by Reference**

(j) You must use Pratt & Whitney Canada Service Bulletin No. JT15D-72-7590, dated May 23, 2003, to perform the one-time inspection required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You can get a copy from Pratt & Whitney Canada, 1000 Marie-Victorin, Longueuil, Quebec, Canada J4G1A1, telephone (800) 268-8000; fax (450) 647-2888. You can review copies at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

### **Related Information**

(k) Transport Canada airworthiness directive No. CF-2003-17, dated June 23, 2003, also addresses the subject of this AD.

Issued in Burlington, Massachusetts, on February 18, 2004.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 04-4100 Filed 2-27-04; 8:45 am]

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