

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2006-23742; Directorate Identifier 2005-NE-53-AD; Amendment 39-15896; AD 2009-10-01]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Pratt & Whitney (PW) JT9D-7R4 Series Turbofan Engines; Correction**

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

**ACTION:** Final rule; correction.

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**SUMMARY:** The FAA is correcting airworthiness directive (AD) 2009-10-01, which was previously published in the Federal Register. That AD applies to PW JT9D-7R4 series turbofan engines. In the Federal Register, the AD number in the CFR citation of the headings section is incorrect. This document corrects that AD number. In all other respects, the original document remains the same.

**DATES:** Effective May 18, 2009.

**FOR FURTHER INFORMATION CONTACT:** Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.riley@faa.gov; telephone (781) 238-7758; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** On May 5, 2009 (74 FR 20580), we published a final rule AD, FR Doc, E9-10145, in the Federal Register. That AD applies to PW JT9D-7R4 series turbofan engines. We need to make the following correction:

#### **§ 39.13 [Corrected]**

On page 20580, in the second column, in the Headings Section, in the CFR citation, in the third line, "AD 2009-10-06" is corrected to read "AD 2009-10-01".

Issued in Burlington, Massachusetts, on May 7, 2009.  
Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.

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

[Docket No. FAA-2006-23742; Directorate Identifier 2005-NE-53-AD; Amendment 39-15896;  
AD 2009-10-01]

**RIN 2120-AA64**

#### **Airworthiness Directives; Pratt & Whitney (PW) JT9D-7R4 Series Turbofan Engines**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD) for PW JT9D-7R4 series turbofan engines. That AD currently requires removing certain reduced cooling flow 2nd stage high-pressure turbine (HPT) vane assemblies installed in certain 2nd stage HPT vane cluster assemblies. It also requires a visual and a fluorescent penetrant inspection (FPI) of the 2nd stage HPT air seal assembly, part number (P/N) 815097. This AD requires a visual and FPI of all P/N 2nd stage HPT air seal assemblies that were used with reduced cooling flow 2nd stage HPT vane assemblies. This AD results from PW identifying additional P/N air seal assemblies that are affected by the unsafe condition. We are issuing this AD to prevent uncontained failure of the 2nd stage HPT air seal assembly, leading to engine in-flight shutdown and damage to the airplane.

**DATES:** This AD becomes effective June 9, 2009.

**ADDRESSES:** You can get the service information identified in this AD from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770; fax (860) 565-4503.

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:** Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.riley@faa.gov; telephone (781) 238-7758; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 by superseding AD 2007-17-21, Amendment 39-15180 (72 FR 48549, August 24, 2007), with a proposed AD. The proposed AD applies to PW JT9D-7R4 series turbofan engines. We published the

proposed AD in the Federal Register on November 9, 2007 (72 FR 63510). That action proposed to require at the next HPT module exposure:

- Removing the reduced cooling flow 2nd stage HPT vane assemblies.
- Visual and fluorescent penetrant inspections of the 2nd stage HPT air seal assemblies that have operated in an engine with reduced cooling flow 2nd stage HPT vane assemblies.

### **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.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

### **Difficulty Determining Reduced Cooling Flow 2nd Stage HPT Vane Assemblies**

One commenter, FedEx Express, states since FedEx Express does not track 2nd stage NGVs, it will be difficult to determine if the 2nd stage air seal operated in an engine with reduced cooling flow HPT vane assemblies installed.

We don't agree. There is no requirement to identify 2nd stage air seals which may have operated in the past with reduced cooling flow 2nd stage HPT vane assemblies. This AD requires inspections of 2nd stage air seals if at disassembly, the air seals are found with reduced cooling flow 2nd stage HPT vanes installed. HPT 2nd stage air seals that pass inspection requirements per the engine manual may be reinstalled. We changed the AD to make this clear.

### **Request to Remove PW Alert Service Bulletin JT9D-7R4-A72-596 From the AD**

The same commenter states that the NPRM contains a paragraph titled "Relevant Service Information." The paragraph provides the instructions for modifying the reduced cooling flow vane assemblies. FedEx Express asks "What is the purpose of the subject paragraph?" They ask if the AD will include a reference to PW ASB JT9D-7R4-A72-96 as a requirement to modify 2nd stage HPT vane assemblies. They ask us to remove the paragraph since it may not be pertinent to the action required by this AD.

We partially agree. We agree that incorporating the requirements of PW ASB JT9D-7R4-A72-596, dated September 15, 2005, isn't a requirement of the AD. However, we include this information in the AD as relevant information to inform operators that a rework procedure for the 2nd stage vanes is available and that parts don't have to be replaced with new parts. We didn't change the AD.

### **Conclusion**

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

## **Costs of Compliance**

We estimate that this AD will affect 85 PW JT9D-7R4 series turbofan engines installed on airplanes U.S. registry. We also estimate that it would take about 65.5 work-hours per engine to perform the required actions, and that the average labor rate is \$80 per work-hour. Required parts will cost about \$5,400 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$904,400.

## **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 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 at the address listed under ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, 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 removing Amendment 39-15180 (72 FR 48549, August 24, 2007), and by adding a new airworthiness directive, Amendment 39-15896, to read as follows:



**CORRECTION:** [*Federal Register: May 18, 2009 (Volume 74, Number 94)*]; Page 23109;  
[www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html)]

**2009-10-01 Pratt & Whitney:** Amendment 39-15896. Docket No. FAA-2006-23742; Directorate Identifier 2005-NE-53-AD.

### **Effective Date**

- (a) This airworthiness directive (AD) becomes effective June 9, 2009.

### **Affected ADs**

- (b) This AD supersedes AD 2007-17-21, Amendment 39-15180.

### **Applicability**

- (c) This AD applies to Pratt & Whitney (PW) JT9D-7R4G2, -7R4E1, -7R4E4, and -7R4H1 series turbofan engines. These engines are installed on, but not limited to, Boeing 747-200, -300, 767-200, and Airbus A300-600 and A310-300 series airplanes.

### **Unsafe Condition**

- (d) This AD results from the manufacturer identifying additional part number (P/N) air seal assemblies that are affected by the unsafe condition. We are issuing this AD to prevent uncontained failure of the 2nd stage high-pressure turbine (HPT) air seal assembly, leading to engine in-flight shutdown and damage to the airplane.

### **Compliance**

- (e) You are responsible for having the actions required by this AD performed at the next HPT module exposure after the effective date of this AD, unless the actions have already been done.

- (f) At the next HPT module exposure, remove reduced cooling flow 2nd stage HPT vane assemblies P/Ns: 797282, 796972, 800082, 800072, 803182, 803282, and 822582, installed in 2nd stage HPT vane cluster assemblies: P/Ns 797592, 797372, 799872, 799782, and 822572.

- (g) For 2nd stage HPT air seals that are installed in engines that had a reduced cooling flow HPT vane assembly removed as specified in (f) of this AD, do the following:

- (1) Perform a onetime visual inspection of the 2nd stage HPT air seal assembly. Information on the visual inspection can be found in the JT9D-7R4 engine manual, Section 72-51-22, Inspection/Check-01, paragraphs 1.D.(1), 1.D.(4), and 1.D.(6). (2) Perform a fluorescent penetrant inspection (FPI) of the 2nd stage HPT air seal assembly for cracks. Information on the FPI can be found in the JT9D-7R4 engine manual, Section 72-51-00, Inspection/Check-03.

## **Definition**

(h) For the purpose of this AD, we define an HPT module exposure as removing the 1st stage HPT rotor or the 2nd stage HPT rotor from the HPT case.

## **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.

## **Related Information**

(j) Pratt & Whitney Alert Service Bulletin JT9D-7R4-A72-596, dated September 15, 2005, contains information for modifying the reduced cooling flow 2nd stage HPT vane assemblies. Contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-8770; fax (860) 565-4503, for a copy of this service information.

(k) Contact Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.riley@faa.gov; telephone (781) 238-7758; fax (781) 238-7199, for more information about this AD.

## **Material Incorporated by Reference**

(l) None.

Issued in Burlington, Massachusetts, on April 23, 2009.  
Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.