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[4910-13-P]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

**[Docket No. FAA-2015-0869; Directorate Identifier 2015-NE-11-AD; Amendment 39-18296; AD 2015-21-04]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Pratt & Whitney Turbofan Engines**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Pratt & Whitney (PW) PW4164, PW4168, PW4168A, PW4164-1D, PW4168-1D, PW4168A-1D, and PW4170 turbofan engines. This AD was prompted by crack finds in the 6th stage low-pressure turbine (LPT) disk. This AD requires removal of the affected 6th stage LPT disks. We are issuing this AD to prevent failure of the 6th stage LPT disk, which could lead to an uncontained disk release, damage to the engine, and damage to the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-8770; fax: 860-565-4503. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this

material at the FAA, call 781-238-7125. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0869.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0869; or in person at the Docket Management Facility 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 address for the Docket Office (phone: 800-647-5527) is Document Management Facility, 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:** Besian Luga, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7750; fax: 781-238-7199; email: [besian.luga@faa.gov](mailto:besian.luga@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all PW PW4164, PW4168, PW4168A, PW4164-1D, PW4168-1D, PW4168A-1D, and PW4170 turbofan engines. The NPRM published in the Federal Register on June 8, 2015 (80 FR 32316). The NPRM was prompted by findings of cracks in the 6th stage LPT disk. The NPRM proposed to require removal of the affected 6th stage LPT disks. We are issuing this AD to correct the unsafe condition on these products.

## **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM (80 FR 32316, June 8, 2015) and the FAA's response to this comment.

### **Request to Clarify Definition of LPT Shop Visit**

An individual commenter requested that we define "LPT shop visit" more precisely to prevent unnecessary discussions regarding its meaning.

We agree. We revised the definition to read: "For the purpose of this AD, an "LPT shop visit" is defined as the removal of the 6th stage disk from the LPT rotor and the removal of the blades from the disk."

## **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD with the change described previously.

### **Related Service Information under 1 CFR Part 51**

We reviewed PW Service Bulletin (SB) No. PW4G-100-72-252, dated November 18, 2014. The SB provides a list of PW 6th stage LPT disks affected by this AD. This service information is reasonably available because the interested parties have access to it through their normal course of business or see ADDRESSES for other ways to access this service information.

### **Costs of Compliance**

We estimate that this AD affects 18 engines installed on airplanes of U.S. registry. We also estimate that no additional hours will be required per engine to comply with this AD because the engine is already disassembled in the shop when we require the part to be removed. The average labor rate is \$85 per hour. We estimate that 6 engines will require replacement parts during an LPT shop visit, and that the prorated replacement parts cost

will be \$108,800 per engine. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$652,800.

### **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**

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),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) 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.

### **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 airworthiness directive (AD):

**2015-21-04 Pratt & Whitney:** Amendment 39-18296; Docket No. FAA-2015-0869; Directorate Identifier 2015-NE-11-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to all Pratt & Whitney (PW) PW4164, PW4168, PW4168A, PW4164-1D, PW4168-1D, PW4168A-1D, and PW4170 turbofan engines with 6th stage low-pressure turbine (LPT) disks, part number 50N886, installed.

**(d) Unsafe Condition**

This AD was prompted by crack finds in the 6th stage LPT disk. We are issuing this AD to prevent failure of the 6th stage LPT disk, which could lead to an uncontained disk release, damage to the engine, and damage to the airplane.

**(e) Compliance**

Comply with this AD within the compliance times specified, unless already done. At the next LPT shop visit after the effective date of this AD, remove from service 6th stage LPT disks with serial numbers listed in the Accomplishment Instructions, Table 1, of PW Service Bulletin No. PW4G-100-72-252, dated November 18, 2014.

**(f) Definition**

For the purpose of this AD, an “LPT shop visit” is defined as the removal of the 6th stage disk from the LPT rotor and the removal of the blades from the disk.

**(g) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

**(h) Related Information**

For more information about this AD, contact Besian Luga, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7750; fax: 781-238-7199; email: besian.luga@faa.gov.

**(i) 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.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Pratt & Whitney (PW) Service Bulletin No. PW4G-100-72-252, dated November 18, 2014.

(ii) Reserved.

(4) For PW service information identified in this AD, contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; phone: 860-565-8770; fax: 860-565-4503.

(5) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(6) You may view this service information 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 October 9, 2015.

Robert G. Mann,  
Acting Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

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