



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0817; Product Identifier 2017-NE-30-AD]**

**RIN 2120-AA64**

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

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Pratt & Whitney Division (PW) PW4052, PW4056, PW4060, PW4062, PW4062A, PW4152, PW4156A, PW4158, PW4460, and PW4462 turbofan engine models, including engines identified with suffixes -1C, -1E, -3, -3A, or -3B. This proposed AD was prompted by the discovery of multiple cracked 4<sup>th</sup> stage low-pressure turbine (LPT) air seals in the fleet. This proposed AD requires removal from service of certain air seals. We are proposing this AD to correct the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Pratt & Whitney Division, 400 Main St., East Hartford, CT 06118; phone: 800-565-0140; fax: 860-565-5442. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **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-2017-0817; 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 NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Jo-Ann Theriault, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7105; fax: 781-238-7199; email: [jo-ann.theriault@faa.gov](mailto:jo-ann.theriault@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0817; Product Identifier 2017-NE-30-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all

comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

### **Discussion**

We were notified of the discovery of multiple cracked 4<sup>th</sup> stage LPT air seals, part number (P/N) 50N346. This proposed AD requires removal from service of certain air seals. Replacement of the air seal also requires replacement of the 4<sup>th</sup> stage LPT vane cluster honeycomb. This condition, if not corrected, could result in failure of the air seal, uncontained air seal release, damage to the engine, and damage to the airplane.

### **Related Service Information**

We reviewed PW Alert Service Bulletin (SB) No. PW4ENG A72-830, Revision 1, dated May 2, 2017. This PW Alert SB provides instructions for replacement of the 4<sup>th</sup> stage LPT air seal. We also reviewed Cleaning Inspection Repair (CIR) Manual, P/N 51A357, Task 72-53-24, Repair-02. This CIR Manual provides guidance for 4<sup>th</sup> stage LPT vane cluster honeycomb replacement repair. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require replacing 4<sup>th</sup> stage LPT air seals, P/N 50N346.

## Costs of Compliance

We estimate that this proposed AD affects 991 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement of air seal	0 work-hours X \$85 per hour = \$0	\$13,800	\$13,800	\$13,675,800

## 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated

appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 proposed regulation:

- (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),
- (3) Will not affect intrastate aviation in Alaska, 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.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Pratt & Whitney Division:** Docket No. FAA-2017-0817 Product Identifier 2017-NE-30-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Pratt & Whitney Division (PW) PW4052, PW4056, PW4060, PW4062, PW4062A, PW4152, PW4156A, PW4158, PW4460, and PW4462 turbofan engine models, including engines identified with suffixes -1C, -1E, -3, -3A, or -3B, with 4th stage low-pressure turbine (LPT) air seal, part number (P/N) 50N346, installed.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7240, Turbine Engine Combustion Section.

**(e) Unsafe Condition**

This AD was prompted by the discovery of multiple cracked air seals. We are issuing this AD to prevent failure of the 4th stage LPT air seal, uncontained air seal release, damage to the engine, and damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) At the next disassembly of the LPT module, remove 4th stage air seal, P/N 50N346, from service and replace with a part eligible for installation.

(2) Reserved.

**(g) Installation Prohibition**

After the effective date of this AD, do not install any 4th stage LPT air seal, P/N 50N346, into any LPT module.

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

(1) The Manager, ECO Branch, FAA, Compliance and Airworthiness Division, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Jo-Ann Theriault, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7105; fax: 781-238-7199; email: jo-ann.theriault@faa.gov.

(2) For service information identified in this AD, contact Pratt & Whitney Division, 400 Main St., East Hartford, CT 06118; phone: 800-565-0140; fax: 860-565-5442. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on September 29, 2017

Robert J. Ganley,  
Manager, Engine and Propeller Standards Branch,  
Aircraft Certification Service.  
[FR Doc. 2017-21558 Filed: 10/11/2017 8:45 am; Publication Date: 10/12/2017]