

shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standardization Branch, ANM-113.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Standardization Branch, ANM-113.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Issued in Renton, Washington, on October 10, 1995.

Darrell M. Pederson,

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 95-25604 Filed 10-13-95; 8:45 am]

BILLING CODE 4910-13-U

#### 14 CFR Part 39

[Docket No. 95-ANE-37]

#### **Airworthiness Directives; Pratt & Whitney PW2000 Series Turbofan Engines**

**AGENCY:** Federal Aviation Administration, DOT.

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

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to Pratt & Whitney PW2000 series turbofan engines. This proposal would require a reduction in the cyclic service life limit for hubs, disks, airseals, blade retaining plates, and airsealing ring supports on certain high pressure turbines (HPT) and low pressure turbines (LPT), and provide for optional inspections for cracks or rework of certain HPT and LPT hardware in order to retain the original, higher cyclic service life limit for these components. This proposal is prompted in part by new temperature data from engine testing, which were used in recalculating stress levels, and resulted in a change to the calculated cyclic service life limit. The actions specified by the proposed AD are intended to prevent HPT or LPT failure, which may result in an uncontained engine failure and possible damage to the aircraft.

**DATES:** Comments must be received by December 15, 1995.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No.

95-ANE-37, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Pratt & Whitney, Technical Publications Department, M/S 132-30, 400 Main Street, East Hartford, CT 06108. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** John Fisher, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (617) 238-7149, fax (617) 238-7199.

#### **SUPPLEMENTARY INFORMATION:**

##### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 95-ANE-37." The postcard will be date stamped and returned to the commenter.

##### Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Assistant Chief Counsel, Attention:

Rules Docket No. 95-ANE-37, 12 New England Executive Park, Burlington, MA 01803-5299.

##### Discussion

The Federal Aviation Administration (FAA) has received updated high pressure turbine (HPT) and low pressure turbine (LPT) life limited part data for Pratt & Whitney PW2000 series turbofan engines, derived from the manufacturer's review of turbine temperature data. The updated data and resulting part life analysis indicate that the service cyclic life limits must be reduced for certain HPT and LPT hubs, disks, airseals, blade retaining plates, and airsealing ring supports. This condition, if not corrected, could result in HPT or LPT failure, which may result in an uncontained engine failure and possible damage to the aircraft.

The FAA has reviewed and approved the technical contents of Pratt & Whitney PW2000 Engine Manual, Part Number (P/N) 1A6231, Sections 72-52-00, 72-53-00, and 05-10-00, which lists the reduced service cyclic life limits for affected parts identified by P/N, and describes procedures for optional inspections for cracks or rework of certain HPT and LPT hardware in order to retain the original, higher cyclic service life limit for these components; PW Service Bulletin (SB) No. 72-82, Revision 4, dated June 18, 1987, that describes rework and reidentification of the 1st stage HPT blade retaining plates to extend part life from 5,000 total part cycles (TPC) to 15,000 TPC; PW Alert Service Bulletin (ASB) No. 72-228, Revision 4, dated November 9, 1988, that describes inspections and rework of the 2nd stage HPT blade retaining plates in order to attain their respective published part lives; PW Alert SB No. 72-450, Revision 5, dated May 28, 1994, that describes inspections, rework, and reidentification of the 2nd stage HPT hubs to extend part life from 6,000 TPC to 15,000 TPC; PW SB No. 72-501, dated September 30, 1993, that describes inspections, rework, and reidentification of the 2nd stage HPT blades and inspection and reidentification of 2nd stage HPT hubs to extend hub life from 7,500 TPC to 15,000 TPC; PW ASB No. 72-220, Revision 4, dated September 20, 1989, that describes rework of the HPT lenticular seal to extend part life from 4,000 TPC to 15,000 TPC; and PW SB No. 72-233, Revision 3, dated May 30, 1989, that describes rework and identification of the HPT lenticular seal to extend part life from 4,000 TPC to 15,000 TPC.

Since an unsafe condition has been identified that is likely to exist or

develop on other engines of this same type design, the proposed AD would require a reduction in the cyclic service life limit for hubs, disks, airseals, blade retaining plates, and airsealing ring supports on certain HPT and LPT, and provide for optional inspections for cracks or rework of certain HPT and LPT hardware in order to retain the original, higher cyclic service life limit for these components.

There are approximately 650 engines of the affected design in the worldwide fleet. The FAA estimates that 600 engines installed on aircraft of U.S. registry would be affected by this proposed AD, and that no additional labor costs would be incurred by the fleet since inspection and replacement intervals fall within the normal overhaul periods. Therefore, the FAA has determined that there would be no additional cost impact on U.S. operators due to sufficient time to schedule shop visits.

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that 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); and (3) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

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

Air transportation, Aircraft, Aviation safety, Safety.

#### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (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), 40101, 40113, 44701.

#### **§ 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

Pratt & Whitney: Docket No. 95-ANE-37.

*Applicability:* Pratt & Whitney Models PW2037, PW2037(M), PW2040, PW2240, and PW2337 turbofan engines installed on but not limited to Boeing 757 series and Ilyushin IL96 series aircraft.

Note: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (o) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any engine from the applicability of this AD.

*Compliance:* Required as indicated, unless accomplished previously.

To prevent high pressure turbine (HPT) or low pressure turbine (LPT) failure, which may result in an uncontained engine failure and possible damage to the aircraft, accomplish the following:

(a) Remove from service 1st stage HPT disks, Part Number (P/N) 1A5301, prior to exceeding 5,000 total part cycles (TPC), if installed with blade retaining plate, P/N 1A6998, and replace with serviceable parts. If blade retaining plate, P/N 1A6998, has not been installed on disk, P/N 1A5301, the disk may accumulate 15,000 TPC prior to removal from service.

(b) Remove from service 1st stage HPT blade retaining plates, P/N 1A6998, prior to exceeding 5,000 TPC, and replace with serviceable parts. If rework is accomplished prior to exceeding 5,000 TPC in accordance with the Accomplishment Instructions of PW Service Bulletin (SB) No. 72-82, Revision 4, dated June 18, 1987, and reidentified as assembly P/N 1B2373, the blade retaining plate may accumulate 15,000 TPC prior to removal from service.

(c) Remove from service 2nd stage HPT blade retaining plates, P/N 1B0450, prior to exceeding 7,000 TPC, and replace with serviceable parts.

(d) Remove from service 2nd stage HPT blade retaining plates, P/N 1B0945 (assembly P/N 1B0947), and replace with serviceable parts, in accordance with the

Accomplishment Instructions of PW Alert Service Bulletin (ASB) No. 72-228, Revision 4, dated November 9, 1988, as follows:

(1) Prior to exceeding 5,000 TPC, for retaining plates that have not been inspected in accordance with the Accomplishment Instructions of the above ASB prior to 3,000 TPC.

(2) Prior to exceeding 8,000 TPC, for retaining plates that have been inspected in accordance with the Accomplishment Instructions of the above ASB prior to 3,000 TPC.

(e) Remove from service 2nd stage HPT hubs, P/N's 1A8302, 1B1002, 1B1202, and 1B4902 prior to exceeding 6,000 TPC, and replace with serviceable hubs. Hubs may accumulate 15,000 TPC prior to removal from service if they are inspected at intervals that are not more than 6,000 TPC, in accordance with the Accomplishment Instructions of PW Alert SB No. 72-450, Revision 5, dated May 28, 1994.

(f) Remove from service 2nd stage HPT hubs, P/N 1B6602, prior to exceeding 7,500 TPC, and replace with serviceable hubs. Hubs may accumulate 15,000 TPC prior to removal from service if hub assemblies are inspected prior to 7,500 TPC to verify scarf cut blades are installed and to inspect the blade platform rail fillet radii dimensions, in accordance with the Accomplishment Instructions of PW SB No. 72-501, dated September 30, 1993. Hub assemblies found with non-scarf cut blades must be reinspected at intervals not to exceed 6,000 TPC since last inspection. Blades found with under minimum radii dimensions must be scrapped.

(g) Remove from service HPT lenticular airseal, P/N 1A8209, prior to exceeding 4,000 TPC, and replace with serviceable airseals. Airseals may accumulate 15,000 TPC prior to removal from service if:

(1) Inspected prior to exceeding 4,000 TPC, and thereafter inspected at intervals not to exceed 250 cycles in service since last inspection, in accordance with Compliance Paragraph E of the Accomplishment Instructions of PW ASB No. 72-220, Revision 4, dated September 20, 1989; or

(2) The 2nd stage HPT case and vane assembly is reworked (pre-trench) and reidentified prior to exceeding 4,000 TPC in accordance with the Accomplishment Instructions of PW SB No. 72-233, Revision 3, dated May 30, 1989.

(h) For PW2037, PW2037(M), and PW2337 model engines, remove from service 4th stage LPT disks, P/N's 8A1024, 8A1534, and 8A2137 prior to exceeding 17,000 TPC, and replace with serviceable disks.

(i) For PW2040 and PW2240 model engines, remove from service 4th stage LPT disks, P/N's 8A1534 or 8A2137, prior to exceeding 15,000 TPC, and replace with serviceable disks.

(j) Remove from service 3rd stage LPT airsealing ring supports, P/N 8A1783, and replace with serviceable parts, as follows:

(1) For PW2040 and PW2240 model engines, prior to exceeding 15,000 TPC.

(2) For PW2037, PW2037(M), and PW2337 model engines, prior to exceeding 17,000 TPC. Airsealing ring supports may accumulate 20,000 TPC prior to removal from

service if they were fluorescent penetrant inspected in accordance with PW2000 Engine Manual, P/N 1A6231.

(k) For PW2037, PW2037(M), and PW2337 model engines, remove from service prior to exceeding 17,000 TPC, and replace with serviceable parts, as follows:

(1) 4th stage LPT airseal, P/N's 8A1014 and 8A1805.

(2) 5th stage LPT airseal, P/N's 8A1015 and 8A1806.

(3) 7th stage LPT airseal, P/N's A8A1017, A8A1808, 8A2097, and A8A2097.

(l) Parts listed in paragraph (k) of this AD may accumulate 20,000 TPC prior to removal from service if they were fluorescent penetrant inspected for cracks between 12,000 TPC and 17,000 TPC in accordance with Section 72-53-00 of PW2000 Engine Manual, P/N 1A6231.

(m) For PW2040 and PW2240 model engines, remove from service prior to exceeding 15,000 TPC, and replace with serviceable parts, as follows:

(1) 4th stage LPT airseal, P/N's 8A1014 and 8A1805.

(2) 5th stage LPT airseal, P/N's 8A1015 and 8A1806.

(3) 7th stage LPT airseal, P/N's A8A1017, A8A1808, 8A2097, and A8A2097.

(n) Parts listed in paragraph (m) of this AD may accumulate the following TPC prior to removal from service if they were fluorescent penetrant inspected for cracks between 10,000 TPC and 15,000 TPC in accordance with Section 72-53-00 of PW2000 Engine Manual, P/N 1A6231.

(1) 4th stage LPT airseal, P/N's 8A1014 and 8A1805, prior to exceeding 18,000 TPC.

(2) 5th stage LPT airseal, P/N's 8A1015 and 8A1806, prior to exceeding 19,000 TPC.

(3) 7th stage LPT airseal, P/N's A8A1017, A8A1808, 8A2097, and A8A2097, prior to exceeding 20,000 TPC.

(o) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(p) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Issued in Burlington, Massachusetts, on October 3, 1995.

Jay J. Pardee,

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

[FR Doc. 95-25565 Filed 10-13-95; 8:45 am]

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#### 14 CFR Part 39

[Docket No. 94-ANE-51]

#### Airworthiness Directives; Pratt & Whitney JT9D-7R4 Series Turbofan Engines

**AGENCY:** Federal Aviation Administration, DOT.

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

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to Pratt & Whitney (PW) JT9D-7R4 series turbofan engines. This proposal would require replacement of 3rd, 4th, and 5th stage low pressure turbine (LPT) vane retention bolts and nuts, and the removal of the 5th stage vane configuration which includes an electro-discharge machined (EDM) slot and replacement with a cast slot configuration. This proposal is prompted by reports of LPT failures that resulted in uncontained engine failures. The actions specified by the proposed AD are intended to prevent LPT vane failures, which can result in uncontained engine failure, fire, and possible damage to the aircraft.

**DATES:** Comments must be received by December 15, 1995.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-ANE-51, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** John Fisher, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (617) 238-7149, fax (617) 238-7199.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications

should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 94-ANE-51." The postcard will be date stamped and returned to the commenter.

##### Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-ANE-51, 12 New England Executive Park, Burlington, MA 01803-5299.

##### Discussion

The Federal Aviation Administration (FAA) has received five reports of low pressure turbine (LPT) failures on Pratt & Whitney (PW) JT9D-7R4 series turbofan engines, three of which resulted in uncontained engine failures. These LPT failures have been attributed to the following two root causes. The FAA's investigation revealed that certain 4th stage LPT vane retention bolts fractured due to the application of uncured anti-gallant compound on vane retention bolts. Also, the investigation revealed that certain 5th stage vanes failed due to inclusion of an electro-discharge machined (EDM) slot, which is prone to high stress concentrations in the outer platform slot. These conditions, if not corrected, could result in LPT vane failures, which can result in uncontained engine failure, fire, and possible damage to the aircraft.

The FAA has reviewed and approved the technical contents of PW Service Bulletin (SB) No. JT9D-7R4-72-473, Revision 2, dated February 8, 1993, that describes procedures for identification