

# Proposed Rules

Federal Register

Vol. 63, No. 2

Monday, January 5, 1998

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 95-ANE-69]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney JT9D Series Turbofan Engines

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

**ACTION:** Supplemental notice of proposed rulemaking; reopening of comment period.

**SUMMARY:** This notice revises an earlier proposed airworthiness directive (AD), applicable to Pratt & Whitney JT9D series turbofan engines, that would have required initial and repetitive eddy current inspections (ECI) of 14th and 15th stage high pressure compressor (HPC) disks for cracks, and removal of cracked disks and replacement with serviceable parts. That proposal was prompted by reports of disk bore cracks found during shop inspections on both the 14th and 15th stage HPC disks. This action revises the proposed rule by extending the repetitive inspection interval and changing the definition of a shop visit. The actions specified by this proposed AD are intended to prevent 14th and 15th stage HPC disk rupture, which could result in an uncontained engine failure and damage to the aircraft.

**DATES:** Comments must be received by March 6, 1998.

**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-69, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.dot.gov". Comments sent via the Internet must contain the docket number in the subject line. 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, Publications Department, Supervisor Technical Publications Distribution, M/S 132-30, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700. 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:** Tara Goodman, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7130; fax (781) 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-69." 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-69, 12 New England Executive Park, Burlington, MA 01803-5299.

#### Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add an airworthiness directive (AD), applicable to Pratt & Whitney (PW) Model JT9D-59A, -70A, -7Q, -7Q3, and JT9D-7R4 series turbofan engines, was published as a notice of proposed rulemaking (NPRM) in the **Federal Register** on May 6, 1996 (61 FR 20192). That NPRM would have required initial and repetitive eddy current inspections (ECI) of 14th and 15th high pressure compressor (HPC) disks for cracks in accordance with Non-Destructive Inspection Procedure No. 858 (NDIP-858), dated November 7, 1995, attached to PW Alert Service Bulletin (ASB) No. JT9D-7R4-A72-524, dated December 13, 1995, and ASB No. A6232, Revision 1, dated January 11, 1996. That action also proposed to require the removal of cracked disks and replacement with serviceable parts. That NPRM was prompted by reports of disk bore cracks found during shop inspections on both the 14th and 15th stage HPC disks. That condition, if not corrected, could result in 14th and 15th stage HPC disk rupture, which could result in an uncontained engine failure and damage to the aircraft.

Since the issuance of that NPRM, the FAA received several comments that required changing the compliance section.

Several commenters state that the proposed rule's definition for shop visit (separation of "N" flange) would cause hardship, since operators have no records for tracking "N" flange separation. The commenters propose to change the definition of shop visit to occur when the low pressure turbine (LPT) is inspected as a module. One of the commenters further states that this inspection is done whenever the LPT module is separated from the engine at the "N" flange. The FAA concurs with this change, since the proposed definition facilitates the FAA's intent. Therefore, the "Shop Visit" definition

in this final rule has been changed accordingly.

Another commenter disagrees with the FAA's statement that the required action would take place during regularly scheduled maintenance. The FAA agrees with the commenter that this inspection may not always coincide with scheduled maintenance activity, since the shop visit rates can vary between operators. However, the FAA's intent is to facilitate this required inspection during a shop visit to the extent possible, while maintaining the required level of safety.

The same commenter proposes that the inspections be required at next shop visit, instead of using cycles since last shop visit. The FAA disagrees. Shop visit intervals vary among different operators and may exceed the inspection intervals established to maintain an acceptable level of safety.

Another commenter states that the cyclic drawdown should be extended from 1,000 cycles to 1,500 cycles in order to prevent possible premature engine removals. The commenter does not provide any additional data/actions that would assure an equivalent level of safety. The FAA disagrees, since the proposed additional cycles of operation without inspections would result in a reduced level of safety. Therefore, the 1,000 cycle in service (CIS) inspection interval remains as proposed.

The FAA conducted an additional review of the proposed inspection intervals and concluded that the inspection requirements of paragraph (c)(1)(iv) as published are unnecessarily restrictive. Therefore, the inspection interval of 3,000 cycles since new is extended to 5,000 cycles since new, in order to make it consistent with the inspection requirement of the preceding paragraph.

Since this change expands the scope of the originally proposed rule, the FAA has determined that it is necessary to reopen the comment period to provide additional opportunity for public comment.

There are approximately 1,100 engines of the affected design in the worldwide fleet. The FAA estimates that 170 engines would be affected by this proposed AD. The FAA anticipates that the majority of the required initial and repetitive eddy current inspections would take place during regularly scheduled maintenance visits, but it would take 3 work hours per engine per inspection, and the average labor rate is \$60 per work hour. Based on these figures, the total cost impact of the proposed AD per engine is estimated to be \$30,600. Based on these estimates,

the total cost of the proposed AD would be \$5,202,000.

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), 40113, 44701.

##### § 39.13 [Amended]

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

**Pratt & Whitney:** Docket No. 95-ANE-69.

**Applicability:** Pratt & Whitney (PW) Model JT9D-59A, -70A, -7Q, -7Q3, and JT9D-7R4 series turbofan engines, with the following 14th and 15th stage high pressure compressor (HPC) disks installed: Part Numbers (P/N's) 5000814-01, 790014, 789914, 790114, 5000815-01, 5000815-021, 704315, 704315-001, 786215, 786215-001, 704314, 789814, and 790214. These engines are installed on but not limited to Airbus A300 and A310 series aircraft, Boeing 747 and 767 series aircraft, and McDonnell Douglas DC-10 series aircraft.

**Note 1:** This airworthiness directive (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 request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

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

To prevent 14th and 15th stage HPC disk rupture, which could result in an uncontained engine failure and damage to the aircraft, accomplish the following:

(a) Inspect 14th stage HPC disks, P/N 5000814-01, in accordance with Non-Destructive Inspection Procedure No. 858 (NDIP-858), dated November 7, 1995, attached to PW Alert Service Bulletin (ASB) No. JT9D-7R4-A72-524, dated December 13, 1995, as follows:

(1) Perform an initial eddy current inspection (ECI) for cracks as follows:

(i) For disks with 7,000 or more cycles since new (CSN), and 3,000 or more cycles in service (CIS) since last shop visit, on the effective date of this AD, inspect within the next 1,000 CIS after the effective date of this AD, or at the next shop visit, whichever occurs first.

(ii) For disks with 7,000 or more CSN, and less than 3,000 CIS since last shop visit, on the effective date of this AD, inspect within 4,000 CIS since the last shop visit, or at the next shop visit, whichever occurs first.

(iii) For disks with less than 7,000 CSN on the effective date of this AD, inspect at the next shop visit after the effective date of this AD, but before exceeding 4,000 CIS since last shop visit, or 8,000 CSN, whichever occurs later.

(iv) For uninstalled disks on or after the effective date of this AD, inspect prior to installation.

(2) Thereafter, perform ECI for cracks at intervals not to exceed 4,000 CIS since last ECI.

(3) Prior to further flight, remove cracked disks and replace with serviceable parts.

(b) Inspect 14th stage HPC disks, P/N's 790014, 789914, 790114, and 15th stage HPC disks, P/N's 5000815-01, 5000815-021, 704315, 704315-001, 786215, and 786215-001, in accordance with NDIP-858, dated November 7, 1995, attached to PW ASB No. JT9D-7R4-A72-524, dated December 13, 1995, or PW ASB No. A6232, Revision 1, dated January 11, 1996, as applicable, as follows:

(1) Perform an initial ECI for cracks as follows:

(i) For disks with 6,500 or more CSN, and 3,000 or more CIS since last shop visit, on the effective date of this AD, inspect within the next 1,000 CIS after the effective date of this AD, or at the next shop visit, whichever occurs first.

(ii) For disks with 6,500 or more CSN, and less than 3,000 CIS since last shop visit, on the effective date of this AD, inspect within 4,000 CIS since the last shop visit, or at the next shop visit, whichever occurs first.

(iii) For disks with less than 6,500 CSN on the effective date of this AD, inspect at the next shop visit after the effective date of this AD, but before exceeding 4,000 CIS since last shop visit, or 7,500 CSN, whichever occurs later.

(iv) For uninstalled disks on or after the effective date of this AD, inspect prior to installation.

(2) Thereafter, perform ECI for cracks at intervals not to exceed 4,000 CIS since last ECI.

(3) Prior to further flight, remove cracked disks and replace with serviceable parts.

(c) Inspect 14th stage HPC disks, P/N's 704314, 789814, and 790214, in accordance with NDIP-858, dated November 7, 1995, attached to PW ASB No. A6232, Revision 1, dated January 11, 1996, as follows:

(1) Perform an initial ECI for cracks as follows:

(i) For disks with 2,000 or more CSN, and 2,000 or more CIS since last shop visit, on the effective date of this AD, inspect within the next 1,000 CIS after the effective date of this AD, or at the next shop visit, whichever occurs first.

(ii) For disks with 2,000 or more CSN, and less than 2,000 CIS since last shop visit, on the effective date of this AD, inspect within 3,000 CIS since the last shop visit, or at the next shop visit, whichever occurs first.

(iii) For disks with 2,000 or more CSN, and no previous shop visits, inspect within 3,000 CIS after the effective date of this AD, or at the next shop visit, whichever occurs first.

(iv) For disks with less than 2,000 CSN on the effective date of this AD, inspect at the next shop visit after the effective date of this AD, but before exceeding 5,000 CSN.

(iv) For uninstalled disks on or after the effective date of this AD, inspect prior to installation.

(2) Thereafter, perform ECI for cracks at intervals not to exceed 3,000 CIS since last ECI.

(3) Prior to further flight, remove cracked disks and replace with serviceable parts.

(d) Within 30 days of inspection, report inspection results on the form labeled "14th and 15th Stage HPC Disk Inspection Report," to Pratt & Whitney Customer Technical Support. The fax number is listed on that form which is attached to PW ASB No. JT9D-7R4-A72-524, dated December 13, 1995. Reporting requirements have been approved by the Office of Management and Budget and assigned OMB control number 2120-0056.

(e) For the purpose of this AD, a shop visit is defined as a low pressure turbine module removal from an uninstalled engine.

(f) 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. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

**Note 2:** Information concerning the existence of approved alternative methods of

compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(g) 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 December 23, 1997.

**Jay J. Pardee,**

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

[FR Doc. 98-69 Filed 1-2-98; 8:45 am]

BILLING CODE 4910-13-U

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 97-NM-78-AD]

RIN 2120-AA64

#### **Airworthiness Directives; Boeing Model 777 Series Airplanes Equipped With Pratt & Whitney Engines and Used in Extended Range Twin-Engine Operations (ETOPS)**

**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 certain Boeing Model 777 series airplanes equipped with Pratt & Whitney engines. This proposal would require replacement of the integrated drive generator (IDG) and the backup generator with a new IDG and a new backup generator. This proposal is prompted by reports of IDG shaft failure resulting from design problems in the hydraulic and mechanical systems of the generator, and by reports of backup generator failure resulting from the failure of the oil pressure switch. The actions specified by the proposed AD are intended to prevent continued degradation of the power system, which could result in loss of electrical power.

**DATES:** Comments must be received by February 19, 1998.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-78-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Comments may be inspected at this location between 9:00 a.m. and 3:00

p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:** Chris Hartonas, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office; 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2864; fax (425) 227-1181.

#### 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 shall 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 No. 97-NM-78-AD." The postcard will be date stamped and returned to the commenter.

##### Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-78-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

##### Discussion

The FAA has been monitoring the reliability of the electrical power system