

# Proposed Rules

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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. 99-NE-06-AD]

RIN 2120-AA64

#### 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 JT9D-7R4 series turbofan engines. This proposal would require initial and repetitive inspections of certain High Pressure Turbine (HPT) stage 1 and stage 2 disks utilizing an improved ultrasonic method when the disks are exposed during a shop visit, and if a subsurface anomaly is found, removal from service and replacement with a serviceable part. This proposal is prompted by the results of a stage 1 HPT disk fracture investigation which has identified a population of HPT stage 1 and 2 disks that may have subsurface anomalies formed during the forging process. The actions specified by the proposed AD are intended to prevent HPT disk fracture, which could result in an uncontained engine failure, damage to the aircraft, and an in-flight engine shutdown.

**DATES:** Comments must be received by July 6, 1999.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-06-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.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, 400 Main St., East Hartford, CT 06108; telephone (860) 565-6600, fax (860) 565-4503. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

#### FOR FURTHER INFORMATION CONTACT:

Peter White, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7128, 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 99-NE-06-AD." 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 Regional Counsel, Attention: Rules Docket No. 99-NE-06-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

#### Discussion

The Federal Aviation Administration (FAA) received a report of an uncontained high pressure turbine (HPT) disk failure on an International Aero Engines (IAE) V2500-A1 series turbofan engine. The investigation into the cause of that failure revealed that certain HPT stage 1 and stage 2 disks were manufactured using a process that resulted in a subsurface defect in the disk material. The subsurface defect, called a "clean linear" anomaly, was formed during a specific forging process also used for HPT stage 1 and stage 2 disks for the JT9D-7R4 series engines. The anomaly may not have been detected during ultrasonic inspection during manufacture due to its orientation and shape. The disk failure occurred as a result of a crack that initiated at the anomaly site. An improved ultrasonic inspection has been developed which is more capable of detecting anomalies, or cracks that originate from the sites of anomalies, prior to disk failure. V2500-A1, PW2000 and JT9D-7R4 1st and 2nd stage HPT disks manufactured using this same material and forging process are affected. There are approximately 131 JT9D-7R4 HPT stage 1 and stage 2 disks that were manufactured using this material and forging process, and those disks have been identified by serial number in Pratt & Whitney (PW) Service Bulletin JT9D-7R4-72-553, Revision 1, dated February 17, 1999. This condition, if not corrected, could result in an HPT disk fracture, which could result in an uncontained engine failure, damage to the aircraft, and an in-flight engine shutdown.

The FAA has reviewed and approved the technical contents of PW Service Bulletin (SB) JT9D-7R4-72-553, Revision 1, dated February 17, 1999, that describes inspection procedures and criteria for certain stage 1 and 2 HPT disks.

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same

type design, the proposed AD would require initial and repetitive inspections of certain stage 1 and stage 2 HPT disks using an improved ultrasonic method whenever the disk is exposed during a shop visit. If a subsurface anomaly is found, the disk must be removed from service and replaced with a serviceable part. The actions would be required to be accomplished in accordance with the SB described previously.

There are approximately 131 affected disks installed in engines in the worldwide fleet. The FAA estimates that 25 engines on aircraft of U.S. registry would be affected by this proposed AD. The FAA estimates that the shipping cost per disk to the facility which will inspect the disk and its return will be approximately \$250 per disk, that no engines will require an unplanned HPT module disassembly/assembly, that the inspection would take approximately 8 work hours per disk to accomplish the proposed actions, and that the average labor rate is \$60 per work hour. Some disks will require multiple inspections during their service life. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$88,000. The manufacturer has advised the FAA that the all costs relative to the inspection will be reimbursed to the operator.

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:

**99-XX-XX Pratt & Whitney:** Docket No. 99-NE-06-AD.

**Applicability:** Pratt & Whitney JT9D-7R4 Series Turbofan Engines, installed on but not limited to Boeing 747, Airbus A300 and Airbus A310 series airplanes.

**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 (d) 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 high pressure turbine (HPT) disk fracture, which could result in an uncontained engine failure and damage to the aircraft, accomplish the following:

(a) For engines with a HPT stage 1 or Stage 2 disk installed that has a serial number listed in the Accomplishment Instructions section of PW SB JT9D-7R4-72-553, Revision 1, dated February 17, 1999, perform initial and repetitive ultrasonic inspections in accordance with the Accomplishment Instructions section of PW SB JT9D-7R4-72-553, Revision 1, dated February 17, 1999, as follows:

(1) Perform an initial ultrasonic inspection at the next HPT disk piece part accessibility after the effective date of this AD.

(2) Thereafter, perform an ultrasonic inspection at each HPT disk piece part accessibility after the initial inspection performed in accordance with paragraph (a)(1) of this AD.

(3) For the purpose of this AD, piece part accessibility is defined as removal of the blades from the disk.

(b) Remove from service those HPT disks found with a crack indicating a subsurface anomaly and replace with a serviceable part.

(c) For engines that do not have a HPT stage 1 or Stage 2 disk installed that has a serial number listed in the Accomplishment Instructions section of PW SB JT9D-7R4-72-553, Revision 1, dated February 17, 1999, no inspections are required.

(d) 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 request 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.

(e) 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 May 27, 1999.

**David A. Downey,**

*Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.*  
[FR Doc. 99-14128 Filed 6-3-99; 8:45 am]

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#### DEPARTMENT OF TRANSPORTATION

##### Federal Aviation Administration

##### 14 CFR Part 39

[Docket No. 98-NM-266-AD]

RIN 2120-AA64

##### Airworthiness Directives; Dassault Model Mystere-Falcon 50 and 900 Series Airplanes, Falcon 900EX Series Airplanes, and Falcon 2000 Series Airplanes

**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 all Dassault Model Mystere-Falcon 50 and 900 series airplanes, Falcon 900EX series airplanes, and Falcon 2000 series airplanes. This proposal would require revising the Airplane Flight Manual to provide the flight crew with certain instructions associated with the onset of stall warning. This proposal also would require repetitive inspections to detect discrepancies of the hinge pin assemblies of the rear horizontal stabilizer, and corrective actions, if necessary. For certain airplanes, this proposal also would require