

Proposed Rules

Federal Register

Vol. 62, No. 235

Monday, December 8, 1997

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-38]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney JT9D-7R4 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 (PW) JT9D-7R4 series turbofan engines, that would have required removal of web material at ten bosses on the diffuser case assembly, inspections, shotpeening of the area, and remarking the diffuser case assemblies with a new part number. That proposal was prompted by reports of cracks in the aft corners of the bosses. This action revises the proposed rule by adding initial and repetitive on-wing eddy current inspections (ECI) of the affected bosses for cracks, and replacement, if found cracked, with serviceable parts. In addition, this action revises the initial accomplishment time for the previously proposed actions. Finally, this action adds further etches, fluorescent penetrant inspections (FPIs), x-ray inspections, and shotpeening to the shop requirements, and provides an optional terminating action in the form of a redesigned diffuser case. The actions specified by this proposed AD are intended to prevent diffuser case assembly rupture, which could result in an uncontained engine failure, engine fire, and damage to the aircraft.

DATES: Comments must be received by February 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-38, 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, fax (860) 565-4503. 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-38." 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-38, 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) JT9D-7R4 series turbofan engines, was published as a notice of proposed rulemaking (NPRM) in the **Federal Register** on August 23, 1995 (60 FR 43730). That NPRM would have required removing webs of material at ten bosses on the diffuser case assembly, performing a fluorescent penetrant inspection (FPI) and x-ray inspection of the reworked area, performing furnace stress relief if a local stress relief had been previously accomplished, shotpeening the reworked area, and remarking the diffuser case assemblies with a new part number. That NPRM was prompted by reports of cracks at the aft corners of bosses on the diffuser case assembly. No engine failures have resulted from these cracks. The cracks occur in webs of material at 10 diffuser case bosses that were a result of a machining operation during original manufacture. The webs of material create stress concentrations that can cause a crack to start. That condition, if not corrected, could result in diffuser case assembly rupture, which could result in an uncontained engine failure, engine fire, and damage to the aircraft.

Since the issuance of that NPRM, the FAA received three comments regarding the actions proposed by this AD.

One commenter states basic concurrence with the intent of the AD, but recommends a change in the accomplishment time, from the next shop visit, not to exceed 6,000 cycles in service (CIS) after the effective date of this AD, to the next diffuser module

disassembly after the effective date of this AD. The commenter states that the original accomplishment time causes an undue scheduling burden, and estimates that an additional \$469,608 will be incurred without the revision to the accomplishment time. The FAA concurs. The FAA has revised the accomplishment time, and has added initial and repetitive on-wing and shop eddy current inspections (ECI) of the bosses to mitigate any additional safety risk incurred by the extension of the accomplishment time.

One commenter recommends a change to the work hours estimate in the economic analysis. The commenter states that 44 work hours of labor are necessary to perform the actions required by this AD, instead of the 20 work hours specified in the NPRM, and indicates that 44 work hours is more consistent with the maintenance environment of airlines and repair facilities. The FAA concurs, and has revised the economic analysis accordingly, but has increased the work hours estimate further in this supplemental NPRM to include the time required to accomplish the additional actions proposed in this supplemental NPRM.

In addition, since issuance of the NPRM, the FAA has determined the need to enhance the AD by adding further etches, fluorescent penetrant inspections (FPIs), x-ray inspections, and shotpeening to the shop requirements. The FAA estimates that an additional two hours of labor will be necessary to access and perform the enhanced inspection of the diffuser case. The FAA also has determined the need to clarify, based on overhaul shop concerns regarding repairable diffuser cases, that cracks under the rail are acceptable as long as total weld bead length is less than 1.5 inches. This supplemental NPRM has been revised accordingly to incorporate these changes.

Finally, this supplemental NPRM references PW Service Bulletin (SB) No. JT9D-7R4-72-527, Revision 3, dated April 16, 1997, Revision 2, dated July 12, 1996, and Revision 1, dated May 3, 1996, that describes the on-wing ECIs required by this AD, and SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996, that describes the new shop procedures required by this AD. In addition, installation of diffuser case, part number 815736, in accordance with the requirements of PW SB No. JT9D-7R4-72-533, dated August 29, 1996, constitutes terminating action for this AD.

Since these changes expand 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 690 engines of the affected design in the worldwide fleet. The FAA estimates that 137 engines would be affected by this proposed AD, that it would take approximately 46 work hours per engine to accomplish the proposed actions, and that the average labor rate is \$60 per work hour. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$378,120.

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-38.

Applicability: Pratt & Whitney (PW) JT9D-7R4 series turbofan engines, installed on but not limited to Airbus A300, A310 series, and Boeing 747, 767 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 (g) 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 diffuser case assembly rupture, which could result in an uncontained engine failure, engine fire, and damage to the aircraft, accomplish the following:

(a) For assembled diffuser case assembly, Part Numbers (P/Ns) 789996, 789996-002, 789996-003, 790541, 790541-002, 790541-003, 798379, 798379-003, 798379-004, 5000366-002, 5000366-021, 5000366-022, 5004770-01, 5004770-022, and 5004770-023, perform initial on-wing eddy current inspection (ECI) or initial and repetitive fluorescent penetrant inspection (FPI) or ECI shop inspections of the diffuser case bosses in accordance with PW Service Bulletin (SB) No. JT9D-7R4-72-527, Revision 3, dated April 16, 1997, or Revision 2, dated July 12, 1996, or Revision 1, dated May 3, 1996, within 250 cycles in service (CIS) after the effective date of this AD, as follows:

(1) For assembled diffuser cases in the shop, that have not been previously inspected in accordance with any one of the requirements of the SBs cited in paragraph (a) of this AD, perform an initial FPI or ECI of both rear corners of all 10 diffuser case mounting bosses and 2 case mount pads in accordance with any one of the SBs cited in paragraph (a) of this AD, or,

(i) If cracks are found, perform repairs in accordance with the applicable Engine Manual, Chapter/Section 72-41-02, Repair-28.

(ii) Thereafter, perform inspections within 650 CIS since last inspection, in accordance with any one of the SBs cited in paragraph (a) of this AD.

(2) For assembled diffuser cases that are installed on-wing, that have not been previously inspected in accordance with any one of the requirements of this AD, perform an initial ECI of both rear corners of boss six, located at the six o'clock position, in accordance with any one of the SBs cited in paragraph (a) of this AD:

(i) If a crack indication is found, borescope or FPI the area where the crack was indicated, in accordance with any one of the SBs cited in paragraph (a) of this AD. Depending on the crack size, accomplish the following:

(A) The diffuser case may continue in service provided it is inspected at intervals not to exceed 50 CIS since last borescope inspection, if the circumferential crack dimension "B", is less than 0.5 inches long, and the axial crack dimension "A" is less than 0.8 inches long, in accordance with any one of the SBs cited in paragraph (a) of this AD.

(B) The diffuser case may continue in service for a maximum of 5 CIS, if the axial crack dimension "A" is equal to or greater than 0.8 inches but less than or equal to 1.0 inch, in accordance with any one of the SBs cited in paragraph (a) of this AD.

(C) Remove from service prior to further flight the diffuser case when the axial crack dimension "A" is greater than 1.0 inch, in accordance with any one of the SBs cited in paragraph (a) of this AD.

(ii) Diffuser cases with no cracks at boss six, perform an ECI at intervals not to exceed 650 CIS since the last boss 6 inspection, in accordance with any one of the SBs cited in paragraph (a) of this AD.

(b) At the next diffuser module disassembly when all hardware is stripped off the diffuser case, but not to exceed 6,000 CIS after the effective date of this AD, inspect diffuser cases, P/Ns 790541, 798379, 789996, 5004770-01, or 5000366-02, for existence of web material at ten boss locations, in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996.

(1) Rework the diffuser case assembly in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996. This rework removes web material at 10 boss locations.

(2) Perform an etch and an ultra-high fluorescent penetrant inspection (FPI) of the reworked areas in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996, to ensure that there are no crack indications.

(3) If a crack indication is discovered, repair, and perform an ECI and an FPI in accordance with Engine Manual Section 72-41-02, Repair-28, or remove the diffuser case from service and replace with a serviceable part.

(4) Perform an x-ray inspection of the reworked areas (all 10 boss locations and 2 mount pad locations) in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996, to ensure that there are no crack indications. Additionally, the x-ray inspection is performed to assure that there are no cracks, incomplete fusion, incomplete penetration, voids, porosity, or inclusions from previous local weld repairs. If any of these defects are discovered, repair per PW JT9D-7R4 Engine Manual, Section 72-41-02, Repair-28, or remove the diffuser case from service and replace with a serviceable part.

(5) Determine if local stress relief was performed previously, and if weld repairs have been performed at any of the boss locations described in the above SB, through reviewing maintenance records. If

maintenance records cannot be located, or maintenance records indicate that a weld repair with no stress relief or a weld repair with a local stress relief that has been performed at any of the 10 boss locations or 2 mount pad locations, perform furnace stress relief and FPI of the diffuser case assemblies in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996.

(6) Shotpeen the reworked areas in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996.

(7) Remark the diffuser case assembly with a new part number in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996.

(c) At the next shop visit, but not to exceed 6,000 CIS after the effective date of this AD, for diffuser case assembly, P/Ns 790541-002, 790541-003, 798379-003, 798379-004, 789996-002, 789996-003, 5000366-021, 5000366-022, 5004770-022, and 5004770-023, that have been previously reworked to remove web material at any boss locations prior to the effective date of this AD in accordance with the original issue of PW SB No. JT9D-7R4-72-469, dated October 2, 1992, accomplish the following:

(1) Unless maintenance records indicate that x-ray inspections were performed at the last shop visit where diffuser case repairs were accomplished at the 10 boss locations, prior to the effective date of this AD, in accordance with PW JT9D-7R4 Engine Manual, Section 72-41-02, Repair-28, perform an x-ray inspection of all 10 boss locations and 2 mount pad locations in accordance with the x-ray requirements of PW JT9D-7R4 Engine Manual, Section 72-41-02, Repair-28.

(2) Determine if any previous weld repairs have been performed at any of the boss locations described in the above SB through reviewing maintenance records. If maintenance records cannot be located, or maintenance records indicate that a weld repair with no stress relief or with a local stress relief has been performed at any of the boss locations, perform furnace stress relief, FPI, and shotpeen diffuser case assemblies in accordance with PW SB No. JT9D-7R4-72-469, Revision 3, dated January 24, 1996.

(d) For the purpose of this AD, shop visit is defined as separation of diffuser case at "K" and "M" flanges.

(e) For the purpose of this AD, an assembled diffuser case in the shop is defined as a diffuser case either mounted or dismounted from the engine, but with external hardware removed to perform the inspections.

(f) Installation of diffuser case, P/N 815736, in accordance with the requirements of PW SB No. JT9D-7R4-72-533, dated August 29, 1996, constitutes terminating action for this AD.

(g) 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.

(h) 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 November 28, 1997.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 97-31967 Filed 12-5-97; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Airspace Docket No. 97-ASO-26]

Proposed Amendment to Class E Airspace; New Bern, NC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to amend the Class E airspace area at New Bern, NC. The required weather observation information is available on a continuous basis to the air traffic control providing service to New Bern, Craven County, NC, Airport. Therefore, the Class E surface area airspace at New Bern, NC, meets the requirement for modification from part time to continuous.

DATES: Comments must be received on or before January 7, 1998.

ADDRESSES: Send comments on the proposal in triplicate to: Federal Aviation Administration, Docket No. 97-ASO-26, Manager, Airspace Branch, ASO-520, P.O. Box 20636, Atlanta, Georgia 30320.

The official docket may be examined in the Office of the Assistant Chief Counsel for Southern Region, Room 550, 1701 Columbia Avenue, College Park, Georgia 30337, telephone (404) 305-5586.

FOR FURTHER INFORMATION CONTACT: Nancy B. Shelton, Airspace Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305-5581.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking