DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98–NM–298–AD]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 737, 757, and 767 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 certain Boeing Model 737, 757, and 767 series airplanes. This proposal would require repetitive inspections of certain motor operated hydraulic shutoff valves to detect malfunctioning; and replacement with new valves, if necessary. This proposal also would require eventual replacement of certain existing valves with new valves, which would constitute terminating action for the repetitive inspections. This proposal is prompted by reports that the motor switch contacts on certain hydraulic shutoff valves were misaligned, causing subsequent malfunction of those valves. The actions specified by the proposed AD are intended to prevent failure of the motor operated hydraulic shutoff valves, which could result in leakage of hydraulic fluid to the engine fire zone, reduced ability to retract the landing gear, loss of backup electrical power or other combinations of failures; and consequent reduced controllability of the airplane.

DATES: Comments must be received by December 13, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 98–NM–298–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: Kenneth W. Frey, 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) 227–2673; 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 Number 98–NM–298–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, Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 98–NM–298–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

The FAA received reports indicating that functional testing of the motors of certain hydraulic shutoff valves of Boeing Model 737, 757, and 767 series airplanes revealed that the motor switch contacts on the valves were misaligned. This misalignment could prevent the valve motor from turning off after it reaches the commanded stop position at the end of switch travel; such misalignment has been attributed to a design flaw. If the motor ceases operation and cannot be recommanded to operate, the related valve cannot open and close for the affected hydraulic system. Such malfunction could result in failure of the valve, leakage of hydraulic fluid to the engine fire zone, reduced ability to retract the landing gear, loss of backup electrical power, or other combinations of failures; and consequent reduced controllability of the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletins 737–29A1073, Revision 2, (for Model 737 series airplanes); 757–29A0048, Revision 2, (for Model 757 series airplanes), both dated July 1, 1999; and 767–29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes). These service bulletins describe procedures for repetitive inspections of the motor operated hydraulic shutoff valves to verify proper functioning. The service bulletins also describe procedures for replacement of any malfunctioning valves with new valves. Accomplishment of the actions specified in the alert service bulletins is intended to adequately address the identified unsafe condition.

Explanation of Requirements of Proposed Rule

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 accomplishment of the actions specified in the alert service bulletins described previously, except as discussed below.

Differences Between the Alert Service Bulletins and the Proposed AD

Operators should note that this AD proposes to mandate, within 2 years, the replacement of the motor operated hydraulic shutoff valves described in the alert service bulletins as terminating action for the repetitive inspections. The FAA has determined that long-term continued operational safety will be better assured by design changes to remove the source of the problem, rather than by repetitive inspections. Long-term inspections may not be providing the degree of safety assurance necessary for the transport airplane fleet. This, coupled with a better understanding of the human factors associated with numerous continual inspections, has led the FAA to consider placing less emphasis on inspections and more emphasis on design improvements. The proposed replacement requirement is in consonance with these conditions.

Operators should further note that the Circle Seal motor operated hydraulic shutoff valves having the replacement

part numbers (P/N) specified in the alert service bulletins are not adequate for installation as replacement parts due to intermittent failures in the valves. The failures prevent the valves from being moved to the commanded position when commanded to open or close. However, Circle Seal valves having P/N S270T010–10, S270T010–11, and S270T010–12 are adequate for installation as replacement parts.

The FAA has approved design changes incorporated into these valves, and the valves are being installed on airplanes in production.

Cost Impact

There are approximately 3,029 Boeing Model 737 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,234 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 2 work hours per airplane to accomplish the proposed inspection, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $148,080, or $120 per airplane, per inspection cycle.

There are approximately 802 Boeing Model 757 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 558 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 3 work hours per airplane to accomplish the proposed inspection, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $100,440, or $180 per airplane, per inspection cycle.

There are approximately 701 Boeing Model 767 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 280 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 4 work hours per airplane to accomplish the proposed inspection, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be $67,200, or $240 per airplane, per inspection cycle.

For all airplanes, it would take approximately 5 work hours per valve to accomplish the proposed replacement, at an average labor rate of $60 per work hour.

Required parts and hydraulic fluid would cost approximately $4,316 per airplane. Based on these figures, the cost impact of the valve replacements proposed by this AD on U.S. operators is estimated to be $4,616 per airplane, per valve replacement. This proposed AD would require eventual replacement of approximately 5,000 valves.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

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:

Boeing: Docket 98–NM–298-AD.

Applicability: Model 737, 757, and 767 series airplanes, certificated in any category, as listed in the following Boeing Alert Service Bulletins:

- 737–29A1073, Revision 2, dated July 1, 1999 (for Model 737 series airplanes);
- 757–29A0048, Revision 2, dated July 1, 1999 (for Model 757 series airplanes);
- 767–29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes).

Note 1: This AD applies to each airplane 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 airplanes 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 failure of the motor operated hydraulic shutoff valves, which could result in leakage of hydraulic fluid to the engine fire zone, reduced ability to retract the landing gear, loss of backup electrical power or other combinations of failures, and consequent reduced controllability of the airplane, accomplish the following:

Repetitive Inspections/Corrective Action

(a) Within 6 months after the effective date of this AD: Perform a general visual inspection to detect malfunctioning of any Circle Seal motor operated hydraulic shutoff valve having a part number specified in the ''Existing Part Number'' column (including parts marked with the suffix ''R'' after the serial number), of Paragraph 2.E. of Boeing Alert Service Bulletin 737–29A1073, Revision 2 (for Model 737 series airplanes), or 757–29A0048, Revision 2 (for Model 757 series airplanes), both dated July 1, 1999; or 767–29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes); as applicable; in accordance with the applicable alert service bulletin.

Note 2: For the purposes of this AD, a general visual inspection is defined as: ''A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.''

(1) If any malfunction of any valve is detected, prior to further flight, replace the valve with a new Whittaker valve in accordance with the applicable service bulletin; or replace any valve having P/N S270T010–1, –4, or –7, with a new Circle Seal valve having P/N S270T010–10; replace any valve having P/N S270T010–2, –5, or –8,

with a new Circle Seal valve having P/N S270T010–11; and replace any valve having P/N S270T010–3, –6, or –9, with a new Circle Seal valve having P/N S270T010–12; as applicable. Repeat the inspection thereafter at intervals not to exceed 6 months until accomplishment of the terminating action required by paragraph (b) of this AD.

(2) If no malfunction of any valve is detected, repeat the inspection thereafter at intervals not to exceed 6 months until accomplishment of the terminating action required by paragraph (b) of this AD.

Terminating Action

(b) Within 2 years after the effective date of this AD, accomplish the replacement of any Circle Seal valve having a P/N specified in the ''Existing Part Number'' column (including parts marked with the suffix ''R'' after the serial number), of Paragraph 2.E. of Boeing Alert Service Bulletin 737–29A1073, Revision 2 (for Model 737 series airplanes); 757–29A0048, Revision 2 (for Model 757 series airplanes), both dated July 1, 1999; or 767–29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes); as required by either paragraph (b)(1) or (b)(2) of this AD; in accordance with the applicable service bulletin. Accomplishment of this replacement constitutes terminating action for the repetitive inspections required by this AD.

(1) Replace with a new Whittaker valve in accordance with the applicable service bulletin.

(2) Replace any valve having P/N S270T010–1, –4, or –7, with a new Circle Seal valve having P/N S270T010–10; replace any valve having P/N S270T010–2, –5, or –8, with a new Circle Seal valve having P/N S270T010–11; and replace any valve having P/N S270T010–3, –6, or –9, with a new Circle Seal valve having P/N S270T010–12.

Spares

(c) As of the effective date of this AD, no person shall install on any airplane, any part identified in the ''Existing Part Number'' column (including parts marked with the suffix ''R'' after the serial number), of Paragraph 2.E. of Boeing Alert Service Bulletin 737–29A1073, Revision 2 (for Model 737 series airplanes); 757–29A0048, Revision 2 (for Model 757 series airplanes), both dated July 1, 1999; or 767–29A0083, Revision 2, dated July 15, 1999 (for Model 767 series airplanes); as applicable.

Alternative Methods of Compliance

(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, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with §§ 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 21, 1999.

D.L. Riggin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 99–28086 Filed 10–26–99; 8:45 am]

BILLING CODE 4910–13–U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NE–04–AD]

RIN 2120–AA64

Airworthiness Directives; Pratt & Whitney JT8D 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 certain Pratt & Whitney (PW) JT8D series turbofan engines. This proposal would require recalculation of cyclic life limits for certain compressor and turbine disks installed on engines with hush kits (Stage III noise reduction systems) installed in accordance with PW Service Bulletin No. 5947, removal from service of disks that exceed the new, lower cyclic life limits, and replacement with serviceable parts. This proposal is prompted by reports that compressor and turbine disks have higher rotor speeds on engines with hush kits that result in lower cyclic lives. The actions specified by the proposed AD are intended to prevent compressor and turbine disk failure due to reduced cyclic lives, which could result in an uncontained engine failure and damage to the airplane.

DATES: Comments must be received by December 27, 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–04–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) 565–8770, 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: James Rosa, Aerospace Engineer, Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (781) 238–7152, 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–04–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–04–AD, 12 New