

Proposed Rules

Federal Register

Vol. 64, No. 175

Friday, September 10, 1999

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. 98-NM-323-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 757-200, -200PF, and -200CB Series Airplanes Powered by Rolls-Royce RB211-535C/E4/E4B Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

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

SUMMARY: This document revises an earlier proposed airworthiness directive (AD), applicable to certain Boeing Model 757-200, -200PF, and -200CB series airplanes, that would have required modification of the engine thrust control cable installation, and repetitive inspections to detect certain discrepancies of the cables, pulleys, pulley brackets, and cable travel; and repair, if necessary. That proposal was prompted by reports of failure of certain engine thrust control cables. This new action would revise the proposed rule by extending the compliance time for certain actions, revising certain inspection procedures, and adding a requirement for a one-time inspection to determine the part number of thrust control cable pulleys and replacement of existing pulleys with new pulleys, if necessary. The actions specified by this new proposed AD are intended to prevent failure of certain engine thrust control cables, which could result in a severe asymmetric thrust condition during landing, and consequent reduced controllability of the airplane.

DATES: Comments must be received by October 5, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114,

Attention: Rules Docket No. 98-NM-323-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: Kathrine Rask, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1547; 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-323-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-323-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add an airworthiness directive (AD), applicable to certain Boeing Model 757-200, -200PF, and -200CB series airplanes, was published as a notice of proposed rulemaking (NPRM) in the **Federal Register** on February 17, 1999 (64 FR 7822). That NPRM would have required modification of the engine thrust control cable installation, and repetitive inspections to detect certain discrepancies of the cables, pulleys, pulley brackets, and cable travel; and repair, if necessary. That NPRM was prompted by reports of failure of certain engine thrust control cables. That condition, if not corrected, could result in a severe asymmetric thrust condition during landing, and consequent reduced controllability of the airplane.

Actions Since Issuance of Previous Proposal

Due consideration has been given to the comments received in response to the NPRM. Certain of these comments and the information they provided have led the FAA to consider making certain significant changes to the proposal. These comments and the changes prompted by them are explained below.

Request to Extend Compliance Time

One commenter requests that the compliance time for the thrust control cable inspection [specified in paragraph (a) of the NPRM] be extended from 18 months or 6,000 flight hours after the effective date of this AD (whichever occurs first) to 24 months or 6,000 flight hours after the effective date of this AD (whichever occurs first). The commenter states that, for some operators, 6,000 flight hours would not closely correspond to 18 months.

The FAA concurs with the commenter's request to extend the compliance time somewhat. The FAA's intent is that the inspection specified in the proposal be performed during a regularly scheduled maintenance visit,

when the airplane is at a base where special equipment and trained personnel are readily available, if necessary. The FAA has determined that an interval of 24 months better corresponds to operators' normal maintenance schedules than an interval of 18 months. The FAA does not consider that such an extension of the compliance time to 24 months would adversely affect safety. Therefore, as the commenter requests, paragraph (a) of this supplemental NPRM has been revised accordingly. Similarly, the repetitive interval for the inspection specified in paragraph (a) of this supplemental NPRM has been revised from the earlier of 18 months or 6,000 flight hours to the earlier of 24 months or 6,000 flight hours, and paragraphs (c) and (d) of this supplemental NPRM [i.e., paragraphs (b) and (c) of the original NPRM] have been revised to incorporate a compliance time of 24 months or 6,000 flight hours after the effective date of this AD, whichever occurs first.

Request To Revise Inspection Procedure

Two commenters request that the "Thrust Control Cable Inspection Procedure," specified in paragraph (a) and described in Appendix 1 of the proposal, be revised to focus on minimizing the possibility of failure of an engine thrust control cable. One of the commenters suggests that the procedure be revised to eliminate all steps that don't contribute to the intent of the AD. The same commenter also suggests that the inspection procedure would be enhanced by adding an inspection of the cable joints.

The FAA concurs with the commenters' request, and the "Thrust Control Cable Inspection Procedure" specified in Appendix 1 of this supplemental NPRM has been revised accordingly.

Request To Add Requirement for Pulley Replacement

One commenter, the airplane manufacturer, suggests that the intent of the proposed AD would be enhanced by inclusion of a requirement for replacement of existing phenolic thrust control cable pulleys in the struts with aluminum pulleys. The commenter states that phenolic pulleys have seized due to delamination and loss of bearing lubrication, which would result in chafing of the engine thrust control cables. The commenter notes that this replacement is described in Boeing Service Letter 757-SL-76-004-A, dated July 21, 1997.

The FAA concurs with the commenter's request. Therefore, a new paragraph (b) has been added to this

supplemental NPRM, which would require, for airplanes having line numbers 1 through 636 inclusive, a one-time inspection of the thrust control cable pulleys in the struts to determine the part number of the pulleys, and replacement of phenolic pulleys with new aluminum pulleys. Such replacement would be required to be accomplished in accordance with the Boeing 757 Airplane Maintenance Manual. A new **Note 2** also has been added to this supplemental NPRM to provide references for the location of the pulleys to be inspected in accordance with paragraph (b) of this proposed AD.

Request To Revise Cost Impact

One commenter, the airplane manufacturer, requests that the "Cost Impact" section of the proposal be revised to remove the statement that the manufacturer will provide certain parts at no cost to the operators. The FAA concurs with the commenter's request and has revised the Cost Impact section of this supplemental NPRM in accordance with new cost data provided by the manufacturer.

Explanation of Additional Change to the Original NPRM

The Cost Impact section in this supplemental NPRM has been revised to increase the number of affected airplanes in the worldwide fleet as well as on the U.S. Register from the numbers stated in the original NPRM. Since the issuance of the NPRM, more airplanes have been delivered by the manufacturer; thus the number of affected airplanes has increased. No change to the applicability statement of the AD has been made or is necessary.

Conclusion

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.

Cost Impact

There are approximately 483 airplanes of the affected design in the worldwide fleet. The FAA estimates that 248 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 3 work hours per airplane to accomplish the proposed inspection to verify the integrity of the thrust control cables, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection proposed by this AD on U.S. operators is estimated to be \$44,640, or \$180 per airplane, per inspection cycle.

It would take approximately 1 work hour per airplane to accomplish the proposed inspection to determine the part number of the thrust control cable pulleys, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection proposed by this AD on U.S. operators is estimated to be \$14,880, or \$60 per airplane, per inspection cycle.

For airplanes identified in Boeing Service Bulletin 757-76-1 (8 U.S.-registered airplanes), it would take approximately 2 work hours per airplane to accomplish the proposed guide bracket removal, 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 \$960, or \$120 per airplane.

For airplanes identified in Boeing Service Bulletin 757-76-0005 (14 U.S.-registered airplanes), it would take approximately 14 work hours per airplane to accomplish the proposed replacement, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$1,410 per airplane. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be \$31,500, or \$2,250 per airplane.

For airplanes identified in Boeing Alert Service Bulletin 757-30A0018, Revision 1 (167 U.S.-registered airplanes), it would take approximately 2 work hours per airplane to accomplish the proposed installation and adjustment, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$192 per airplane. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be \$52,104, or \$312 per airplane.

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-323-AD.

Applicability: Model 757-200, -200PF, and -200CB series airplanes powered by Rolls-Royce RB211-535C/E4/E4B turbofan engines, certificated in any category.

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 (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 engine thrust control cable failure, which could result in a severe asymmetric thrust condition during landing, and consequent reduced controllability of the airplane, accomplish the following:

Inspections and Corrective Actions

(a) Within 24 months or 6,000 flight hours after the effective date of this AD, whichever occurs first: Accomplish the "Thrust Control

Cable Inspection Procedure" specified in Appendix 1. (including Figure 1) of this AD to verify the integrity of the thrust control cables. Prior to further flight, repair any discrepancy found in accordance with the procedures described in the Boeing 757 Maintenance Manual. Repeat the inspection thereafter at intervals not to exceed 24 months or 6,000 flight hours, whichever occurs first.

(b) For airplanes having line numbers 1 through 636 inclusive: Within 24 months or 6,000 flight hours after the effective date of this AD, whichever occurs first, perform a one-time inspection of the 8 engine thrust control cable pulleys in the struts (4 in each strut) to determine the part number (P/N) of each pulley. If any pulley having P/N 65B80977-1 is installed, prior to further flight, replace it with a pulley having P/N 255T1232-7, in accordance with the procedures described in the Boeing 757 Airplane Maintenance Manual.

Note 2: The location of the pulleys to be inspected in accordance with paragraph (b) of this AD is specified in Chapters 53-11-53-04, 76-11-52-01, and 76-11-52-02 of the Boeing 757 Illustrated Parts Catalog.

Modifications

(c) For airplanes identified in Boeing Service Bulletin 757-76-1, dated May 18, 1984: Within 24 months or 6,000 flight hours after the effective date of this AD, whichever occurs first, remove the guide bracket of the engine thrust control cable located on the front spar of the right wing in accordance with the service bulletin.

(d) For airplanes identified in Boeing Service Bulletin 757-76-0005, dated May 5, 1988: Within 24 months or 6,000 flight hours after the effective date of this AD, whichever occurs first, remove the engine thrust control cable breakaway stop assemblies, and replace sections of the engine thrust control cables with smaller diameter cables in accordance with the service bulletin.

(e) For airplanes identified in Boeing Alert Service Bulletin 757-30A0018, Revision 1, dated September 17, 1998: Within 60 days after the effective date of this AD, install a support bracket assembly between the window heat wire bundle and the engine thrust control cable; and adjust the wire bundle clearance, as necessary, to parallel the minimum clearance specified in the alert service bulletin.

Alternative Method of Compliance

(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, 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.

Appendix 1.—Thrust Control Cable Inspection Procedure

Special Flight Permits

(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 airplane to a location where the requirements of this AD can be accomplished. Issued in Renton, Washington, on September 2, 1999.

1. General

A. Clean the cables, if necessary, for the inspection, in accordance with Boeing 757 Maintenance Manual 12-21-31.

B. Use these procedures to verify the integrity of the thrust control cable system. The procedures must be performed along the entire cable run for each engine. To ensure verification of the portions of the cables which are in contact with pulleys and quadrants, the thrust control must be moved by operation of the thrust and/or the reverse thrust levers to expose those portions of the cables.

C. The first task is an inspection of the control cable wire rope. The second task is an inspection of the control cable fittings. The third task is an inspection of the pulleys.

Note: These three tasks may be performed concurrently at one location of the cable system on the airplane, if desired, for convenience.

2. Inspection of the Control Cable Wire Rope

A. Perform a detailed visual inspection to ensure that the cable does not contact parts other than pulleys, quadrants, cable seals, or grommets installed to control the cable routing. Look for evidence of contact with other parts. Correct the condition if evidence of contact is found.

Note: For the purposes of this procedure, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

B. Perform a detailed visual inspection of the cable runs to detect incorrect routing, kinks in the wire rope, or other damage. Replace the cable assembly if:

(1) One cable strand had worn wires where one wire cross section is decreased by more than 40 percent (see Figure 1),

(2) A kink is found, or

(3) Corrosion is found.

C. Perform a detailed visual inspection of the cable: To check for broken wires, rub a cloth along the length of the cable. The cloth catches on broken wires.

(1) Replace the 7x7 cable assembly if there are two or more broken wires in 12 continuous inches of cable or there are three or more broken wires anywhere in the total cable assembly.

(2) Replace the 7x19 cable assembly if there are four or more broken wires in 12 continuous inches of cable or there are six or more broken wires anywhere in the total cable assembly.

3. Inspection of the Control Cable Fittings

A. Perform a detailed visual inspection to ensure that the means of locking the joints

are intact (wire locking, cotter pins, turnbuckle clips, etc.). Install any missing parts.

B. Perform a detailed visual inspection of the swaged portions of swaged end fittings to detect surface cracks or corrosion. Replace the cable assembly if cracks or corrosion are found.

C. Perform a detailed visual inspection of the unswaged portion of the end fitting. Replace the cable assembly if a crack is visible, if corrosion is present, or if the end fitting is bent more than 2 degrees.

D. Perform a detailed visual inspection of the turnbuckle. Replace the turnbuckle if a crack is visible or if corrosion is present.

4. Inspection of Pulleys

A. Perform a detailed visual inspection to ensure that pulleys are free to rotate. Replace pulleys which are not free to rotate.

BILLING CODE 4910-13-P

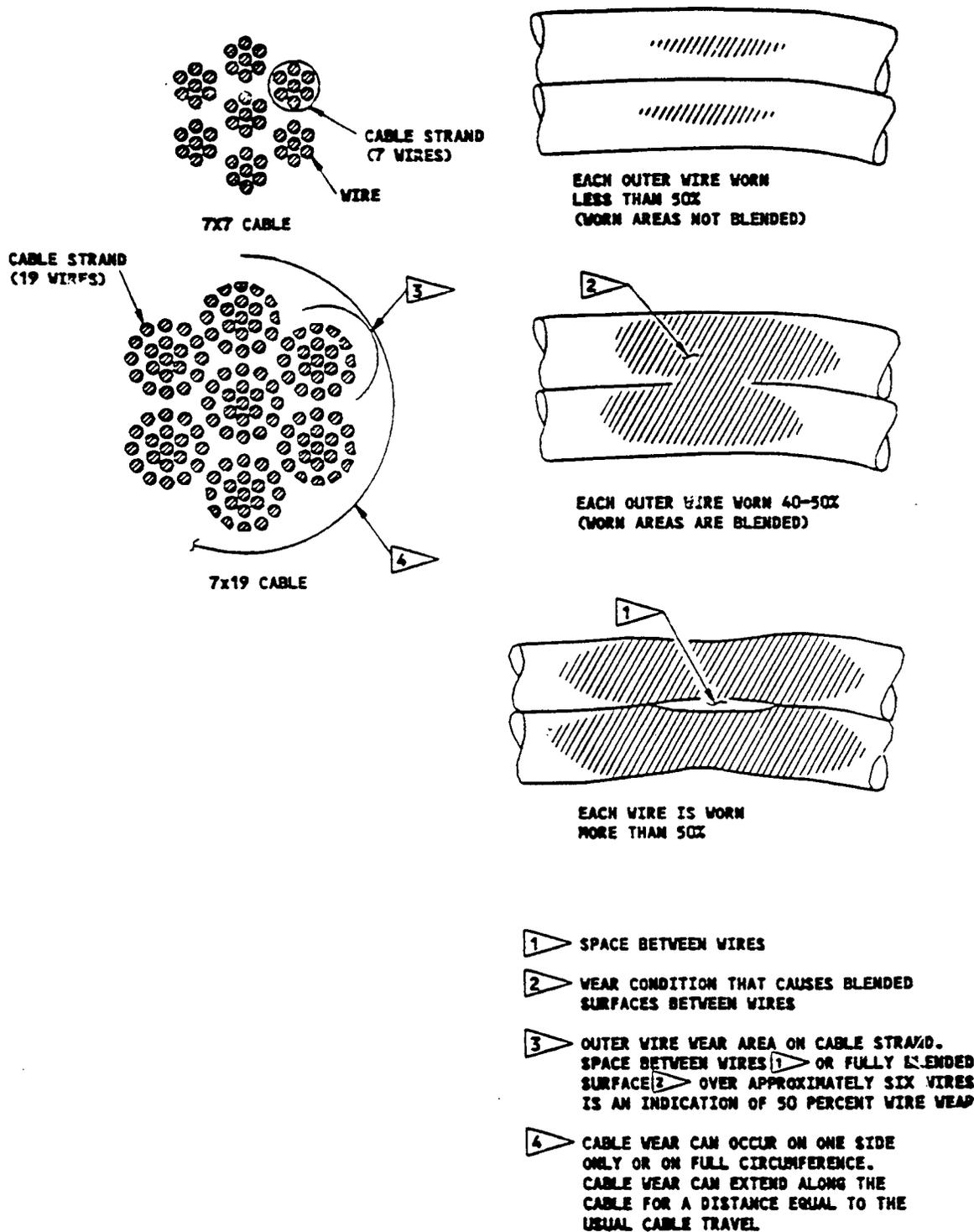


FIGURE 1

Dorenda D. Baker,
Acting Manager, Transport Airplane
Directorate, Aircraft Certification Service.
[FR Doc. 99-23478 Filed 9-9-99; 8:45 am]
BILLING CODE 4910-13-C