

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 96-NM-146-AD.

Applicability: Model 737 series airplanes equipped with an aileron or elevator power control unit (PCU) having part number (P/N) 65-45180-29, serial numbers 182 through 1297 inclusive; certificated in any category.

Note 1: Originally, aileron or elevator PCU's having P/N's and serial numbers identified in the applicability of this AD may have been installed on Model 737 series airplanes having line numbers 1793 through 2036 inclusive. In addition, some of these PCU's may have been used as spares; therefore, specific airplane line numbers equipped with such PCU's cannot be provided in this AD.

Note 2: PCU's having P/N 65-45180-29 consist of a PCU assembly having P/N 65-44761-21 plus associated hydraulic fittings. Both PCU P/N's 65-45180-29 and 65-44761-21 are serialized. PCU's subject to the requirements of this AD may be more easily identified using serial numbers for P/N 65-44761-21. The following serial numbers correspond to P/N 65-44761-21:

8549A,
8550A,
8552A,
8556A,
8557A,
8561A,
8563A through 8718A inclusive,
8720A through 8726A inclusive,
8728A through 8745A inclusive,
8749A,
8750A through 8758A inclusive,
8760A through 8873A inclusive,
8876A through 9004A inclusive,
9007A through 9012A inclusive,
9014A through 9040A inclusive,
9042A through 9066A inclusive,
9068A through 9340A inclusive,
9342A through 9388A inclusive,
9390A through 9529A inclusive,
9531A through 9676A inclusive, and
9678A through 9688A inclusive.

Note 3: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 (c) 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 reduced roll and/or pitch rate control of the aileron and consequent increased pilot workload, accomplish the following:

(a) Within 18 months after the effective date of this AD, replace the four flow restrictors, part number (P/N) JETA1875500D, on the aileron and elevator power control units (PCU's), P/N 65-45180-29, serial numbers 182 through 1297 inclusive, with flow restrictors having P/N JETX0527100B, in accordance with Boeing Service Letter 737-SL-27-71-A, dated June 19, 1992, including Attachment 1.

(b) As of the effective date of this AD, no person shall install a flow restrictor having P/N JETA1875500D on an aileron or elevator PCU having P/N 65-45180-29, serial numbers 182 through 1297 inclusive, of any airplane.

(c) 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 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(d) 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 August 21, 1996.

Ronald T. Wojnar,

Manager, Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 96-21878 Filed 8-23-96; 9:01 am]

BILLING CODE 4910-13-U

14 CFR Part 39

[Docket No. 96-NM-147-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, -300, -400, and -500 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 Boeing Model 737-100, -200, -300, -400, and -500 series airplanes. This proposal would require operational tests of the standby rudder power control unit (PCU) to ensure correct operation of the rudder, and correction of any discrepancy found; and repetitive inspections to detect galling on the input shaft and bearing of the standby PCU, and replacement of the standby rudder actuator with a serviceable actuator, if necessary. This proposal also would require eventual replacement of the input bearing of the standby PCU with an improved bearing, which constitutes terminating action for the inspections to detect galling. This proposal is prompted by a review of the design of the flight control systems on Model 737 series airplanes. The actions specified by the proposed AD are intended to prevent corrosion of the servo valve and bypass valve sleeves of the standby PCU, and galling on the input shaft and bearing of the standby PCU, which could result in uncommanded movement of the rudder or increased pedal forces. These conditions, if not corrected, could result in reduced controllability of the airplane.

DATES: Comments must be received by October 24, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 96-NM-147-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 (206) 227-2673; fax (206) 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 96-NM-147-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-103, Attention: Rules Docket No. 96-NM-147-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

In October 1994, the FAA organized a team to conduct a Critical Design

Review (CDR) of the flight control systems installed on Boeing Model 737 series airplanes in an effort to confirm the continued operational safety of these airplanes. The formation of the CDR team was prompted by questions that arose following an accident involving a Model 737-200 series airplane that occurred near Colorado Springs, Colorado, and one involving a Model 737-300 series airplane that occurred near Pittsburgh, Pennsylvania. The CDR team's analysis of the flight control systems was performed independent of the investigations of these accidents, which are conducted by the National Transportation Safety Board (NTSB). The cause of the accidents has not yet been determined.

The CDR team was composed of representatives from the FAA, the NTSB, other U.S. government organizations, and foreign airworthiness authorities. The team analyzed conclusions from previous reviews and analyses of the design of the flight control systems on Model 737 series airplanes. The team completed its review in May 1995. The recommendations of the team include various changes to the design of the flight control systems of these airplanes, as well as correction of any design deficiencies. This proposed AD is one of nine rulemaking actions being issued by the FAA to address the recommendations of the CDR team.

Reports Received by FAA

The FAA received a report indicating that significant corrosion was found on the outer diameter and radial passages of both the servo valve and bypass valve sleeves of the standby rudder power control unit (PCU). Although the bypass valve was functional, the servo valve was seized, and the input ball of the input shaft was sheared. The slides removed from these valves also exhibited heavy corrosion deposits on the outer diameter surfaces and gray/black hydraulic fluid stains within the standby PCU. In addition, water was found in the PCU. The corrosion has been attributed to high moisture content in the standby PCU, which may have condensed in the PCU prior to installation and was not flushed out by hydraulic fluid cycling. Investigation of the fracture surface indicated that the fracture of the ball of the input shaft was caused by stress corrosion cracking. When the standby rudder system is powered, and the servo valve of the standby PCU is jammed in an off neutral position, uncommanded movement of the rudder could occur.

The FAA also received reports of galling on the input shaft and bearing of

the standby rudder PCU. Galling is defined as fretting or chafing of a mating surface by sliding contact with another surface or body. The friction between the sliding surfaces causes the material from one surface to be welded or deposited onto the other surface, which ultimately destroys the surface area, and forces an uncommanded motion of the rudder. In response to these reports, the airplane manufacturer increased the clearance between the input shaft and bearing. However, this change did not eliminate the galling condition. Further, some reported incidents of uncommanded yaw were traced to galling on the input shaft and bearing. Galling on the input shaft and bearing of the standby rudder PCU could result in increased rudder pedal forces and erratic operation of the yaw damper.

Uncommanded movement of the rudder due to corrosion of the servo valve and bypass valve sleeves of the standby rudder PCU, or increased rudder pedal forces and uncommanded motion of the rudder, due to galling on the input shaft and bearing of the standby PCU; if not corrected, could result in reduced controllability of the airplane.

FAA's Findings

In light of this information, the FAA finds that certain procedures and corrective actions must be accomplished to ensure correct operation of the rudder when the standby hydraulic system is powered, and to detect galling on the input shaft and bearing of the standby rudder PCU. In addition, the FAA finds that the input bearing of the standby PCU must be replaced eventually with an improved bearing. The FAA has determined that these actions are necessary to ensure the safety of the affected fleet.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Service Letter 737-SL-27-103, dated October 13, 1995, which describes procedures for repetitive operational tests to cycle hydraulic fluid through the standby rudder PCU and to ensure correct operation of the rudder when the standby hydraulic system is powered, and correction of any discrepancy found. Cycling of fluid through the standby rudder PCU will minimize the possibility of moisture collection and corrosion within the unit.

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 repetitive operational tests to cycle hydraulic fluid through the standby rudder PCU and to ensure correct operation of the rudder when the standby hydraulic system is powered, and correction of any discrepancy found. The operational tests and correction of discrepancies would be required to be accomplished in accordance with the service letter described previously.

Additionally, the proposed AD would require repetitive inspections to detect galling on the input shaft of the standby rudder PCU, and replacement of the standby rudder actuator with a serviceable actuator, if necessary. The actions would be required to be accomplished in accordance with certain procedures specified in this proposed AD.

The proposed AD also would require eventual replacement of the input bearing of the standby rudder PCU with an improved bearing. Accomplishment of the replacement constitutes terminating action for the repetitive inspections to detect galling on the input shaft of the standby rudder PCU. The replacement would be required to be accomplished in accordance with a method approved by the FAA.

Explanation of Proposed Compliance Times

In developing an appropriate compliance time for the proposed operational tests, the FAA's intent is that the actions be performed during a regularly scheduled maintenance visit for the majority of the affected fleet, when the airplanes would be located at a base where special equipment and trained personnel would be readily available, if necessary. The FAA has determined that an interval of 250 hours time-in-service corresponds closely to the interval representative of most of the affected operators' regularly scheduled "A" checks. The FAA considers that this interval represents an interval in which the tests can be accomplished in a timely manner within the fleet and still maintain an adequate level of safety.

Similarly, in developing an appropriate compliance time for the proposed inspections to detect galling, the FAA's intent is that the inspections be accomplished during a regularly scheduled "C" check of the airplane. In addition, the FAA considered the availability of replacement standby rudder actuators that may be needed if galling is detected. The FAA finds that an interval of 3,000 hours time-in-service correlates with that representative of normal maintenance schedules and will provide an acceptable level of safety.

Cost Impact

There are approximately 2,830 Model 737 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,037 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 1 work hour per airplane to accomplish the proposed operational tests, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the proposed operational tests on U.S. operators is estimated to be \$62,220, or \$60 per airplane, per test cycle.

The FAA estimates that it would take approximately 2 work hours per airplane to accomplish the proposed inspections, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the proposed inspections on U.S. operators is estimated to be \$124,440, or \$60 per airplane, per inspection cycle.

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.

The FAA currently has no specific cost estimates associated with the proposed replacement of the input bearing, since the improved bearing has not been developed yet. The proposed compliance time of 3 years for this replacement should allow the time necessary for design of an acceptable replacement part, and should coincide with normal maintenance schedules, thereby minimizing the costs and schedule impact of such a change on operators. As indicated earlier in this preamble, the FAA specifically invites the submission of comments and other data regarding this economic aspect of the proposal.

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 96–NM–147–AD.

Applicability: All Model 737–100, –200, –300, –400, and –500 series airplanes, certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 uncommanded movement of the rudder or increased rudder pedal forces, and consequent reduced controllability of the airplane, accomplish the following:

(a) Within 250 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 250 hours time-in-service: Perform an operational test to cycle hydraulic fluid through the standby rudder power control unit (PCU) and to ensure correct operation of the rudder when the standby hydraulic system is powered, in accordance with Boeing Service Letter 737–SL–27–103, dated October 13, 1995. Prior to

further flight, correct any discrepancy that is found, in accordance with the service letter.

(b) Within 3,000 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 3,000 hours time-in-service: Perform an inspection to detect galling on the input shaft and bearing of the standby rudder PCU by accomplishing paragraphs (b)(1) through (b)(10) of this AD.

(1) Shut off all hydraulic power.

(2) Gain access to the standby rudder actuator.

(3) Disconnect the input rod from the standby actuator.

(4) Using a push/pull spring scale (minimum +/- 10% accuracy at 1.0 pound; preferably one having a peak load memory function), push on the standby rudder actuator input lever with sufficient force to move the lever from the neutral position up to, but not touching, the aft stop. The scale must be contacting the input lever at approximately the clevis bolt centerline. While applying the load required to move the lever, the scale must be maintained at an angle perpendicular to the lever arm (not to exceed 20 degrees from perpendicular). The force required to move the input lever throughout this range of motion must not exceed one pound.

(5) Repeat the test specified in paragraph (b)(4) of this AD, moving the lever arm from the aft stop position up to the forward stop, but not touching. The force required to move the input lever throughout this range of motion must not exceed one pound.

(6) Repeat the test specified in paragraph (b)(4) of this AD, moving the lever arm from the forward stop position back to the neutral position. The force required to move the input lever throughout this range of motion must not exceed one pound.

(7) If the actuator force encountered during any of the procedures required by paragraph (b)(4), (b)(5), or (b)(6) of this AD exceeds one pound, prior to further flight, replace the standby rudder actuator with a serviceable actuator, and test the standby rudder actuator in accordance with the procedure specified in paragraph (b)(9) of this AD.

(8) If the actuator force encountered during any of the procedures required by paragraph (b)(4), (b)(5), or (b)(6) of this AD is one pound or less, prior to further flight, reconnect the input rod to the standby rudder actuator, and test the standby rudder actuator in accordance with the procedure specified in paragraph (b)(9) of this AD.

(9) Perform a functional test of the standby rudder actuator in accordance with Maintenance Manual 737-100/-200, Chapter 27-21-141, removal/installation (for Model 737-100 and -200 series airplanes); or maintenance Manual 737-300/-400/-500, Chapter 27-21-24, removal/installation (for Model 737-300, -400, and -500 series airplanes).

(10) Restore the airplane to its normal condition.

(c) Within 3 years after the effective date of this AD, replace the input bearing of the standby rudder PCU with an improved bearing in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Accomplishment of the replacement terminates the repetitive inspections required by paragraph (b) of this AD.

(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 ACO. 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 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(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 airplane to a location where the requirements of this AD can be accomplished.

Issued in Renton, Washington, on August 21, 1996.

Ronald T. Wojnar,

Manager, Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 96-21879 Filed 8-23-96; 9:01am]

BILLING CODE 4910-13-U

14 CFR Part 39

[Docket No. 96-NM-148-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-300 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 737-300 series airplanes. This proposal would require an inspection to detect fatigue cracking, base trim, and upper flange over-trim of the pulley brackets of the aileron control cables. It also would require, if necessary, replacement of the pulley brackets with new pulley brackets, and replacement of the two button-head rivets with flush-head rivets. This proposal is prompted by a review of the design of the flight control systems on Model 737 series airplanes. The actions specified by the proposed AD are intended to prevent fatigue cracking or fracturing of the pulley brackets, which could result in slack in the cables and consequent reduced ability of the flightcrew to control the aileron.

DATES: Comments must be received by October 24, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 96-NM-148-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: Don Kurle, Senior Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-2798; fax (206) 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 96-NM-148-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-103, Attention: Rules Docket No. 96-NM-148-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.