DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NM–68–AD; Amendment 39–11165; AD 99–10–12]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 737–100, –200, –300, –400, and –500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 737–100, –200, –300, –400, and –500 series airplanes, that currently requires repetitive inspections to detect cracking, plating degradation, and corrosion of the main landing gear (MLG) actuator beam arms and actuator beam attach bolts; and rework or replacement, if necessary. The existing AD also provides for optional terminating action for the repetitive inspections. This amendment removes the requirement to inspect the actuator beam attach bolts, expands the applicability of the existing AD to include additional airplanes, and removes the optional terminating action. This amendment is prompted by reports of cracked MLG actuator beam arms. The actions specified in this AD are intended to detect and correct corrosion and cracking of the MLG actuator beam arm, which could result in damage to the control cables for the aileron and spoiler and consequent reduced controllability of the airplane.

DATES: Effective May 27, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 27, 1999.

Comments for inclusion in the Rules Docket must be received on or before July 12, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 99–NM–68–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

The service information referenced in this AD 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; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–1153; fax (425) 227–1181.

SUPPLEMENTARY INFORMATION: On February 13, 1991, the FAA issued AD 91–05–16, amendment 39–6913 (56 FR 7561, February 25, 1991), applicable to certain Boeing Model 737–100, –200, –300, –400, and –500 series airplanes. That AD requires repetitive visual and ultrasonic inspections of the main landing gear (MLG) actuator beam arms and actuator beam attach bolts for cracking, plating degradation, and corrosion; and rework or replacement, if necessary. The existing AD also provides for optional terminating action for the repetitive inspections. That action was prompted by reports of failure of the actuator beam arm and trunnion pin due to corrosion. The actions required by that AD are intended to prevent structural damage and severing of control cables and hydraulic tubing in this area, which could result in reduced controllability of the airplane.

Actions Since Issuance of Previous Rule

Since the issuance of that AD, the FAA has received reports of cracking of an actuator beam arm on the MLG on three Boeing Model 737–300 series airplanes. Two operators reported damage to the landing gear, wing structure, fluid lines, and aileron and spoiler control cables; the damage has been attributed to fractures of the MLG actuator beam arm. One of those operators subsequently conducted a fleet-wide inspection and found a cracked actuator beam arm on another airplane. The beam arm fractures originated from corrosion pits in the actuator beam arm clevis. All three fractured actuator beam arms had been reworked in accordance with AD 91–05–16. In one case, the fracture occurred 7 years (at approximately 13,500 flight cycles) after completion of the terminating action in compliance with that AD.

FAA's Conclusions

The FAA has determined that rework or replacement of the actuator beam arm, which AD 91–05–16 provides as either optional corrective action or optional terminating action for the repetitive inspections, does not adequately prevent corrosion and subsequent cracking of the clevis area. Therefore, the FAA finds that, to ensure the continued safety of the fleet, it is necessary to require that repetitive inspections to detect cracks and corrosion in the actuator beam arm clevis must be performed on all affected airplanes, including those on which the rework or replacement has been accomplished. Paragraph B. of AD 91–05–16, which provided for optional terminating action for the repetitive inspections, has not been included in this AD.

In addition, AD 91–05–16 requires a one-time inspection of the actuator beam attach bolts. However, there have been no known reports of bolt fractures since the effective date of AD 91–05–16. Therefore, the FAA has determined that further inspection of those bolts is unnecessary, and the corresponding requirement of AD 91–05–16 (paragraph A.2.) has not been included in this AD. The inspection requirements of this AD are limited to the actuator beam arm clevis.

Furthermore, the FAA finds it necessary to expand the applicability of this AD to include additional airplanes. The applicability of AD 91–05–16 currently excludes in-production Model 737 series airplanes. However, the design change for incorporation on in-production airplanes can produce the same result as that of the preventive modification (rework) specified by Boeing Alert Service Bulletin 737–32A1224, Revision 1, dated April 12, 1990 which has been shown to be ineffective in preventing the unsafe condition. (That alert service bulletin is referenced as the appropriate source of service information in AD 91–05–16 for accomplishment of the rework.) Therefore, the applicability of this AD includes all Model 737–100,–200, –300, –400, and –500 series airplanes.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Service Bulletin 737–32A1224, Revision 2, dated April 25, 1991. The content of Revision 2 is similar to that of Revision 1, which was cited as the appropriate source of service information for accomplishment of the requirements of AD 91–05–16. Revision 2 was issued to clarify the actions and to revise the effectivity for various actions.

The FAA also has reviewed and approved Boeing Alert Service Bulletin 737–32A1314, dated April 15, 1999, which describes procedures for repetitive inspections of the clevis on certain actuator beam arm assemblies;

the inspections include a visual inspection to detect corrosion and an ultrasonic inspection to detect cracking. The alert service bulletin also describes procedures for replacement of any beam arm having a cracked or corroded clevis with a new actuator beam arm.

The note in Figure 1 of Boeing Alert Service Bulletin 737–32A1314 references Temporary Revision (TR) 04–14 to the 737 Nondestructive Test (NDT) Manual. That note states that the TR would be issued prior to May 14, 1999; in fact, the manufacturer released that TR by telegraphic release on April 26, 1999. The TR contains new information that is needed to perform ultrasonic inspections for airplanes having certain actuator beam arm assemblies. Specifically, the TR provides instructions for procuring or fabricating NDT transducers that are needed to accomplish the inspections for those certain airplanes.

Explanation of Requirements of Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this AD supersedes AD 91–05–16 to continue to require repetitive inspections to detect cracking of the actuator beam arm clevis of the MLG, and rework or replacement, if necessary. These actions are required to be accomplished in accordance with Boeing Alert Service Bulletin 737–32A1224, Revision 1, or Boeing Service Bulletin 737–32A1224, Revision 2.

This AD adds repetitive detailed visual inspections to detect corrosion and repetitive ultrasonic inspections to detect cracking of the actuator beam arm clevis; these actions terminate the repetitive inspections described in Boeing Alert Service bulletin 737–32A1224, Revision 1, or Boeing Service Bulletin 737–32A1224, Revision 2. These inspections are required to be accomplished in accordance with Boeing Alert Service Bulletin 737–32A1314.

For airplanes on which any corrosion or cracking is found during any of the newly added inspections, this AD requires replacement of the actuator beam arm with a new actuator beam arm in accordance with Boeing Alert Service Bulletin 737–32A1314.

Difference Between the Rule and the Relevant Service Information

Operators should note that Alert Service Bulletin 737–32A1314 specifies compliance in terms of either years or flight cycles. However, the threshold and repetitive interval required by paragraph (b) of this AD are specified in terms of calendar time only; i.e., 4 years and 90 days, respectively. The unsafe condition identified by this AD is caused by corrosion, which is a function of time rather than accumulated flight cycles.

Interim Action

This is considered to be interim action until final action is identified, at which time the FAA may consider further rulemaking.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this 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 under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the 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 that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 99–NM–68AD.'' The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will 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 final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a ''significant regulatory action'' under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 removing amendment 39–6913 (56 FR 7561, February 25, 1991), and by adding a new airworthiness directive (AD), amendment 39–11165, to read as follows:

99–10–12 Boeing: Amendment 39–11165. Docket 99–NM–68–AD. Supersedes AD 91–05–16, Amendment 39–6913.

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 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 detect and correct corrosion and cracking of the actuator beam arm of the main landing gear (MLG), which could result in damage to the control cables of the aileron and spoiler and consequent reduced controllability of the airplane, accomplish the following:

Restatement of the Requirements of AD 91–05–16, Amendment 39–6913

(a) For airplanes listed in Boeing Alert Service Bulletin 737–32A1224, Revision 1, dated April 12, 1990: Prior to the accumulation of 10,000 landings or 4 years of service, after new or overhauled MLG installation, whichever occurs first, or within the next 600 landings after April 1, 1991 (the effective date of AD 91–05–16, amendment 39–6913), whichever occurs later, perform visual and ultrasonic inspections of the actuator beam arm clevis for evidence of cracking, in accordance with Boeing Alert Service Bulletin 737–32A1224, Revision 1, dated April 12, 1990, or Revision 2, dated April 25, 1991.

(1) If cracks are found, prior to further flight, remove and rework, or replace, the actuator beam arm in accordance with the service bulletin.

(2) If no cracks are found, repeat the ultrasonic inspections in accordance with the service bulletin, at intervals not to exceed 600 landings, until the initial inspection required by paragraph (b) of this AD has been accomplished.

New Requirements of this AD

(b) Inspect the actuator beam arm clevis, by performing a detailed visual inspection to detect corrosion and an ultrasonic inspection to detect cracking, at the latest of the times specified in paragraphs (b)(1), (b)(2), (b)(3), and (b)(4) of this AD; in accordance with Boeing Alert Service Bulletin 737–32A1314, dated April 15, 1999. Accomplishment of these inspections constitutes terminating action for the requirements of paragraph (a) of this AD. Repeat the inspections specified by paragraph (b) of this AD thereafter at intervals not to exceed 90 days.

(1) Inspect within 4 years since date of manufacture or installation of new landing gear.

(2) Inspect within 4 years since the most recent landing gear overhaul.

(3) Inspect within 4 years since accomplishment of the replacement of the actuator beam arm clevis performed in accordance with the alert service bulletin, or the rework performed in accordance with Boeing Alert Service Bulletin 737–32A1224, Revision 1, dated April 12, 1990, or Boeing Service Bulletin 737–32A1224, Revision 2, dated April 25, 1991.

(4) Inspect within 90 days after the effective date of this AD.

Note 2: The **Note** in Figure 1 of Boeing Alert Service Bulletin 737–32A1314 contains a reference to Temporary Revision (TR) 04–14 to the 737 Nondestructive Test Manual (NDT). The TR was issued April 26, 1999, by telegraphic release. The TR provides instructions for procuring or fabricating NDT transducers needed to accomplish ultrasonic inspections on airplanes having certain actuator beam arm assemblies. Incorporation of the TR into the general revisions of the NDT is acceptable, provided that the information contained in the general revisions is identical to that specified in the TR.

Corrective Actions

(c) If any corrosion or cracking is detected during any inspection required by paragraph (b) of this AD, prior to further flight, replace the actuator beam arm with a new actuator beam arm in accordance with Boeing Alert Service Bulletin 737–32A1314, dated April 15, 1999. Repeat the inspections required by paragraph (b) of this AD within 4 years after accomplishment of the replacement, and thereafter at intervals not to exceed 90 days.

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). 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 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.

Incorporation by Reference

(f) The actions shall be done in accordance with Boeing Alert Service Bulletin 737–32A1224, Revision 1, dated April 12, 1990; Boeing Service Bulletin 737–32A1224, Revision 2, dated April 25, 1991; or Boeing Alert Service Bulletin 737–32A1314, dated April 15, 1999; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124–2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on May 27, 1999.

Issued in Renton, Washington, on May 4, 1999.

D.L. Riggin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 99–11784 Filed 5–11–99; 8:45 am]

BILLING CODE 4910–13–U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NM–97–AD; Amendment 39–11166; AD 99–10–13]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 737–300, –400, –500, –600, –700, and –800 Series Airplanes Equipped with Vickers Combined Stabilizer Trim Motors

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 737 series airplanes. This action requires repetitive inspections and functional tests of a trailing edge flap limit switch to verify proper operation, and replacement of the existing limit switch with a new limit switch, if necessary. This AD also requires modification of the stabilizer control system, which constitutes terminating action for the repetitive inspections and tests. This amendment is prompted by reports of uncommanded stabilizer trim motion due to failure of the trailing edge flap limit switch. The actions specified in this AD are intended to prevent such failure, which could result in uncommanded (nose down) stabilizer trim motion and consequent reduced controllability of the airplane.

DATES: Effective May 27, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 27, 1999.

Comments for inclusion in the Rules Docket must be received on or before July 12, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 99–NM–97–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.