Rules and Regulations

Federal Register

Vol. 67, No. 9

Monday, January 14, 2002

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000–NM–44–AD; Amendment 39–12592; AD 2002–01–01]

RIN 2120–AA64

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

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737–100, –200, –200C, –300, –400, and –500 series airplanes, that requires initial and repetitive inspections of the elevator tab assembly to find any damage or discrepancy; and corrective actions, if necessary. The actions specified by this AD are intended to prevent excessive in-flight vibrations of the elevator tab, which could lead to loss of the elevator tab and consequent loss of controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective February 19, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 19, 2002.

ADDRESSES: 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 Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 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: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2028; fax (425) 227–1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 737–100, –200, –200C, –300, –400, and –500 series airplanes was published in the **Federal Register** on May 31, 2001 (66 FR 29514). That action proposed to require initial and repetitive inspections of the elevator tab assembly to find any damage or discrepancy; and corrective actions, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

One commenter has no objection to the proposed rule.

Clarify Repetitive Inspection Intervals

Two commenters ask for clarification of the repetitive inspection interval for Work Packages II and III, as specified in paragraph (a) of the proposed rule. One commenter states that it is unclear which interval the operator should use for the repetitive inspections: the interval in paragraph (a) or (b) of the proposed rule. The commenter adds that if the operator adheres to Work Package III using the more restrictive repetitive inspection intervals specified in paragraph (a), the requirement in paragraph (b) of the proposed rule is being met by the more frequent inspections; therefore, there is no need to track paragraph (b). The second commenter states that it interprets Note 2 of the proposed rule as referring to the requirements of the initial inspection only, and not to the repetitive inspection intervals specified in paragraphs (a) and (b) of the proposed rule. The commenter adds that its interpretation is that the repetitive inspections are still required at the intervals specified in paragraphs (a) and (b) of the proposed rule, but an inspection done per Work Package III can be used to take credit for the inspection specified in Work Package II.

The FAA concurs that clarification of the correct repetitive inspection interval for substitution of Work Package III for Work Package II, as specified in paragraph (a) of the final rule, is necessary. If the repetitive inspections in paragraph (a) are being done per Work Package III, it is not necessary to track paragraph (b), as noted by the first commenter. Note 2 of this final rule has been changed for clarification.

Clarify Reporting Requirement

One commenter asks that the FAA add a note to the proposed rule stating that the FAA is not requiring the reporting requirement that is specified in Boeing Service Bulletin 737–55A1070, Revision 1. The commenter adds that a section should be added to the proposed rule stating that operators should submit their findings to Boeing after each inspection.

The FAA agrees that some clarification is necessary. Although the referenced service bulletin specifies that a report of inspection results should be submitted to the airplane manufacturer (Boeing) after each inspection, and provides the information to be included in that report, we are not mandating the reporting requirement in this final rule. We have added this clarification to paragraphs (a) and (b) of the final rule.

Referenced Service Information

One commenter notes several issues with the service bulletin:

- Page 25 of Boeing Service Bulletin 737–55A1070, Revision 1, dated May 10, 2001, specifies concurrent accomplishment of certain service bulletins. The commenter would like clarification as to whether the referenced service bulletins are required to be accomplished concurrently with accomplishment of Boeing Service Bulletin 737–55A1070.
- Page 76 of the service bulletin has a typographical error in Item (g). That item specifies VMM 55–30–16, which should be CMM 55–30–16.
- Figures 3 and 4 of the service bulletin will be difficult to break into the three work packages, as these figures have combined all three packages into each figure, and have separated the Model 737–200 and –400 series airplanes. The commenter would like the figures broken out to have one figure

for each work package and airplane model.

The commenter has notified the airplane manufacturer of the above issues.

The FAA will inform the airplane manufacturer of the changes requested by the commenter, and we can clarify some of the issues noted by the commenter:

- The service bulletins referenced on page 25 of Boeing Service Bulletin 737–55A1070 are not required to be accomplished concurrently with the bulletin referenced in this final rule. The manufacturer merely recommends concurrent accomplishment because the actions are similar to those in this final rule.
- We agree that Item (g) on page 76 of the bulletin references an incorrect acronym (VMM); the bulletin should refer to the Component Maintenance Manual, so the correct acronym is CMM.
- Only the airplane manufacturer can make revisions or corrections to the figures illustrated in the service bulletin.

No changes to the final rule are necessary in this regard.

Change Paragraph (a)

One commenter asks that the initial detailed visual/free play inspections specified in paragraph (a) of the proposed rule limit the inspections for Work Package I to the ones for elevator tab free play, elevator tab hinge free play, and tab axial free play only. The commenter notes that the detailed visual inspections are not necessary. The commenter also asks that a check be included to ensure that self-locking castellated nuts with cotter pins are installed at each hinge location. The commenter states that the elevator tab and attachment hardware are inspected during the elevator tab hinge free play inspection, so another inspection is redundant. The commenter adds that the detailed visual inspection procedure for the elevator tab attachment hardware cannot be completed because, although the bolt can be wiggled or moved to check for unusual looseness, the spacers and bushings cannot be checked without removing the tab from the elevator. Additionally, the commenter notes that the attachment hardware of the elevator tab control push rod was already addressed in AD 2000–19–05, amendment 39–11906 (65 FR 65258, November 1, 2000), which requires replacement of all existing bolts and attachment nuts at the forward and aft end attachment of each elevator tab push rod with new bolts and self-locking castellated nuts.

The FAA does not agree with the commenter. Although a partial visual inspection may be done during the free play inspection, no minimum level of inspection is defined by the service bulletin. Figures 3 and 4 of Work Package I of the service bulletin describe procedures for doing the free play inspections, but do not describe procedures for a visual inspection. Contrary to the commenter's statement that a visual inspection cannot be completed unless the tab is removed, the spacers and bushings can indeed be visually inspected for unusual looseness without removing the tab, either by inspecting manually or using a probe. We also disagree that the free play inspections are a substitute for the detailed visual inspections. Additionally, AD 2000–19–05 requires a one-time visual inspection of the attachment nuts at the forward- and aft-end attachment of each elevator push rod only, and, therefore, is not a substitute for the repetitive inspections of the tab, hinges, and control mechanism required by this AD. No change to the final rule is necessary in this regard.

Add Paragraph or Note

One commenter asks that a paragraph or note be added to the proposed rule stating that installation of a new or overhauled elevator and tab assembly during a maintenance visit meets the intent of Work Packages II and III, and, therefore, paragraph (a) of the proposed rule does not need to be done during that maintenance visit.

The FAA does not agree. A complete definition of configuration and installation procedures that meet all the requirements of this AD for a new or overhauled elevator and tab assembly, is currently not available. However, once those procedures are defined, the FAA may approve requests for alternative methods of compliance under the provisions of paragraph (d) of the final rule, if data are submitted to substantiate that adequate installation procedures have been developed and an acceptable level of safety can be maintained.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 2,790 Model 737 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,080 airplanes of U.S. registry will be affected by this AD, as follows:

Work package	Work hours @ $60/WH	Cost per airplane	Fleet cost
I	18	$1,080	$1,166,400
II	9	540	583,200
III	14	840	907,200

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect 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, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3)

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 final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it 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 adding the following new airworthiness directive:

2002–01–01 Boeing: Amendment 39–12592. Docket 2000–NM–44–AD.

Applicability: Model 737–100, –200, –200C, –300, –400, and –500 series airplanes, line numbers 1 through 3132 inclusive, 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 prevent excessive in-flight vibrations of the elevator tab, which could lead to loss of the elevator tab and consequent loss of controllability of the airplane, accomplish the following:

Initial/Repetitive Inspections

(a) Do the applicable initial detailed visual/free play inspections of the elevator tab assembly on the left and right sides of the airplane to find any damage or discrepancy per Work Package I of Boeing Service Bulletin 737–55A1070, Revision 1, dated May 10, 2001; at the times specified in paragraph (a)(1) or (a)(2) of this AD, as applicable. Repeat the free-play inspections after that at intervals not to exceed 1,500 flight cycles or 2,000 flight hours, whichever comes first, per either Work Package II or Work Package III of the service bulletin. Where the service bulletin specifies reporting the inspection results to the manufacturer, this AD does not require such reporting.

Note 2: There is a one-way interchangeability between the free-play inspections specified in Work Packages II and III. The repetitive free-play inspections specified in Work Package II can be replaced by the repetitive free-play inspections specified in Work Package III at the repetitive inspection intervals specified in paragraph (a) of this AD. But the repetitive free-play inspections specified in Work Package III cannot be replaced by the repetitive free-play inspections specified in Work Package II.

(1) For airplanes having less than 4,500 total flight cycles: Before the accumulation of 4,500 total flight cycles or within 120 days after the effective date of this AD, whichever comes later.

(2) For airplanes having 4,500 or more total flight cycles: Do the inspections at the times specified in paragraph (a)(2)(i) or (a)(2)(ii) of this AD, as applicable.

(i) Within 120 days after the effective date of this AD.

(ii) If the initial inspections were done before the effective date of this AD per Boeing All Operator Telex M–7200–00–00034, dated February 15, 2000: Within 1,500 flight cycles or 2,000 flight hours after the effective date of this AD, whichever comes later.

Note 3: Initial inspections done before the effective date of this AD per Boeing Alert Service Bulletin 737–55A1070, dated January 13, 2000, are considered acceptable for compliance with the initial inspections required by paragraph (a) of this AD.

Note 4: For the purposes of this AD, a detailed visual inspection is defined as: ''An intensive visual examination of a specific structural area, system, installation or assembly to find 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) Within 4,500 flight cycles or 6,000 flight hours, whichever comes first, after doing the initial inspections required by paragraph (a) of this AD: Do the free-play inspections of the elevator tab assembly on the left and right sides of the airplane to find any damage or discrepancy per Work Package III of Boeing Service Bulletin 737–55A1070, Revision 1, dated May 10, 2001. Repeat the inspections after that at intervals not to exceed 4,500 flight cycles or 6,000 flight hours, whichever comes first. Where the service bulletin specifies reporting the inspection results to the manufacturer, this AD does not require such reporting.

Corrective Actions

(c) If any damage or discrepancy is found after doing any inspection required by paragraph (a) or (b) of this AD, before further flight, do the applicable corrective action per the Accomplishment Instructions of Boeing Service Bulletin 737–55A1070, Revision 1, dated May 10, 2001.

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. 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 5: 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 Service Bulletin 737–55A1070, Revision 1, including appendices A, B, and C, dated May 10, 2001. 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.

Effective Date

(g) This amendment becomes effective on February 19, 2002.

Issued in Renton, Washington, on December 28, 2001.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02–200 Filed 1–11–02; 8:45 am]

BILLING CODE 4910–13–P