

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2006-25030; Directorate Identifier 2006-NM-109-AD; Amendment 39-14649; AD 2006-12-23]**

**RIN 2120-AA64**

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

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

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**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD) that applies to certain Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The existing AD currently requires initial and repetitive inspections of the elevator tab assembly to find any damage or discrepancy; and corrective actions if necessary. This new AD adds certain new inspections and removes certain existing inspections. This AD results from additional reports of airframe vibrations of the elevator tab during flight on airplanes inspected per the existing AD; subsequently, considerable damage was done to the elevator tab, elevator, and horizontal stabilizer. In several incidents, a portion of the elevator tab separated from the airplane. We are issuing this AD 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.

**DATES:** This AD becomes effective July 3, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of July 3, 2006.

On February 19, 2002 (67 FR 1603, January 14, 2002), the Director of the Federal Register approved the incorporation by reference of Boeing Service Bulletin 737-55A1070, Revision 1, including appendices A, B, and C, dated May 10, 2001.

We must receive any comments on this AD by August 15, 2006.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

You may examine the contents of the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Washington, DC. This docket number is FAA-2006-25030; the directorate identifier for this docket is 2006-NM-109-AD.

**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) 917-6440; fax (425) 917-6590.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On December 28, 2001, we issued AD 2002-01-01, amendment 39-12592 (67 FR 1603, January 14, 2002). That AD applies to certain Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. That AD requires initial and repetitive inspections of the elevator tab assembly to find any damage or discrepancy; and corrective actions if necessary. That AD resulted from several reports indicating high-frequency airframe vibrations of the elevator tab during flight. The actions specified in that 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.

### **Actions Since AD was Issued**

Since we issued AD 2002-01-01, we have received additional reports of airframe vibrations of the elevator tab during flight on airplanes inspected per that AD. Subsequently, considerable damage was done to the elevator tab, elevator, and horizontal stabilizer. In several incidents, a portion of the elevator tab separated from the airplane. The vibrations of the elevator tab are due to wear of the hinges and the control system, which causes the assembly to loosen. Improper maintenance can also be a factor. Excessive in-flight vibrations of the elevator tab could lead to loss of the elevator tab and consequent loss of controllability of the airplane.

### **Relevant Service Information**

We have reviewed Boeing Alert Service Bulletin 737-55A1070, Revision 2, dated April 20, 2006. (Revision 1 of the service bulletin was cited in the existing AD as the appropriate source of service information for accomplishing the required actions.) Revision 2 is similar to Revision 1; however, among other things, Revision 2 removes procedures for elevator tab free-play checks with the clamped hinge fitting bolt and the nut loose. Revision 2 also adds procedures for detailed inspections of the tab mechanism, and various inspections of the tab mast fitting.

In addition, the corrective actions specified in Revision 2 are more comprehensive than those given in Revision 1. Specifically, the corrective actions include, among other things: repairing, replacing, reworking and checking tolerances of the reworked configuration to confirm the adequacy of certain corrective actions, and torquing certain components, as applicable. The corrective actions also specify the replacement of any damaged or discrepant part with a new part, or repair, as

applicable. Discrepancies include loose or missing parts or excessive wear. The service bulletin recommends contacting the manufacturer for repair instructions. The service bulletin also recommends reporting the inspection results to the manufacturer.

The compliance times for the initial inspections are as follows:

- Before the accumulation of 4,500 total flight cycles for airplanes on which the inspections specified in Boeing Service Bulletin 737-55A1070, Revision 1, dated May 10, 2001, have not been done;
- Within 1,500 flight cycles or 2,000 flight hours, whichever is first, after the last inspection completed in accordance with Boeing Service Bulletin 737-55A1070, Revision 1, for airplanes on which the inspections specified in the service bulletin have been done; and
- Within 1,500 flight cycles or 2,000 flight hours, whichever is first, after the last inspection completed in accordance with Boeing Service Bulletin 737-55A1070, Revision 1, for the one-time inspections for certain airplanes with configurations of graphite elevators with aluminum/fiberglass tabs.

For all airplanes, the compliance times for the repetitive inspections range between 1,500 flight cycles or 2,000 flight hours (whichever is first), and 4,500 flight cycles or 6,000 flight hours (whichever is first), depending on the inspection type. The compliance time for accomplishing certain corrective actions is before further flight.

### **FAA's Determination and Requirements of This AD**

The unsafe condition described previously is likely to exist or develop on other airplanes of the same type design. For this reason, we are issuing this AD to supersede AD 2002-01-01. This new AD retains the requirements of the existing AD. This AD also requires accomplishing the actions specified in Revision 2 of the service information described previously, except as discussed under "Differences Between AD and Service Bulletin."

### **Differences Between AD and Service Bulletin**

Service Bulletin 737-55A1070, Revision 2, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this AD requires repairing those conditions in one of the following ways:

- Using a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization whom we have authorized to make those findings.

The service bulletin specifies that if the total tab hinge free-play sum is more than a certain measurement, the corrective action may be done either within 30 days after the inspection, or before the next revenue flight, depending on the measurement. However, this AD requires that all corrective actions be done before further flight.

Where the service bulletin specifies reporting the inspection results to the manufacturer, this AD does not require such reporting.

Although the service bulletin uses the term "check" for certain inspections, this AD uses the term "inspection."

### **Clarification of Grace Period**

Footnote (a) in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1070, Revision 2, specifies the following: "For airplanes on which the initial actions required by Table 1 are due within 30 days after the release date of Service Bulletin 737-55A1070, Revision 2, the inspections and corrective actions defined by Service Bulletin 737-55A1070 Rev. 1 may be used."

Paragraph (l) of this AD provides a corresponding 30-day deferral before Revision 2 must be used to do the initial actions, except that the 30-day time frame begins at the effective date of this AD.

## **Changes to Existing AD**

This AD retains certain requirements of AD 2002-01-01. Since AD 2002-01-01 was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this AD, as listed in the following table:

| <b>REVISED PARAGRAPH IDENTIFIERS</b> |                                             |
|--------------------------------------|---------------------------------------------|
| <b>Requirement in AD 2002-01-01</b>  | <b>Corresponding requirement in this AD</b> |
| Paragraph (a)                        | paragraph (f).                              |
| Paragraph (b)                        | paragraph (g).                              |
| Paragraph (c)                        | paragraph (h).                              |

We have revised paragraph (d) of the existing AD to clarify the appropriate procedure for notifying the principal inspector before using any approved Alternative Methods of Compliance (AMOC) on any airplane to which the AMOC applies.

We have changed all references to a "detailed visual inspection" in the existing AD to "detailed inspection" in this AD.

In addition, we have revised paragraphs (a)(1) and (a)(2) of the existing AD (paragraphs (f)(1) and (f)(2) of this AD) to include a reference to the effective date of the existing AD. This information was omitted inadvertently from the existing AD.

## **FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD; therefore, providing notice and opportunity for public comment before the AD is issued is impracticable, and good cause exists to make this AD effective in less than 30 days.

## **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any relevant written data, views, or arguments regarding this AD. Send your comments to an address listed in the ADDRESSES section. Include "Docket No. FAA-2006-25030; Directorate Identifier 2006-NM-109-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

## **Examining the Docket**

You may examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza

level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that the 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. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

### **List of Subjects in 14 CFR Part 39**

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

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA 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. The Federal Aviation Administration (FAA) amends § 39.13 by removing amendment 39-12592 (67 FR 1603, January 14, 2002) and adding the following new airworthiness directive (AD):

# AIRWORTHINESS DIRECTIVE

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**



**2006-12-23 Boeing:** Amendment 39-14649. Docket No. FAA-2006-25030; Directorate Identifier 2006-NM-109-AD;

## Effective Date

- (a) This AD becomes effective July 3, 2006.

## Affected ADs

- (b) This AD supersedes AD 2002-01-01.

## Applicability

- (c) This AD applies to certain Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, line numbers 1 through 3132 inclusive, certificated in any category.

## Unsafe Condition

- (d) This AD results from additional reports of airframe vibrations of the elevator tab during flight on airplanes inspected per the existing AD; subsequently, considerable damage was done to the elevator tab, elevator, and horizontal stabilizer. In several incidents, a portion of the elevator tab separated from the airplane. We are issuing this AD 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.

## Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

## Restatement of the Requirements of AD 2002-01-01

### Initial/Repetitive Inspections

- (f) Do the applicable initial detailed/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 (f)(1) or (f)(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, until paragraph (i) of this AD has been accomplished.

**Note 1:** 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 (f) 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 as of February 19, 2002 (the effective date of AD 2002-01-01): Before the accumulation of 4,500 total flight cycles or within 120 days after February 19, 2002, whichever comes later.

(2) For airplanes having 4,500 or more total flight cycles as of February 19, 2002: Do the inspections at the times specified in paragraph (f)(2)(i) or (f)(2)(ii) of this AD, as applicable.

(i) Within 120 days after February 19, 2002.

(ii) If the initial inspections were done before February 19, 2002, per Boeing All Operator Telex M-7200-00-00034, dated February 15, 2000: Within 1,500 flight cycles or 2,000 flight hours after February 19, 2002, whichever comes later.

**Note 2:** Initial inspections done before February 19, 2002, per Boeing Alert Service Bulletin 737-55A1070, dated January 13, 2000, are considered acceptable for compliance with the initial inspections required by paragraph (f) of this AD.

(g) Within 4,500 flight cycles or 6,000 flight hours, whichever comes first, after doing the initial inspections required by paragraph (f) 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, until paragraph (i) of this AD has been accomplished.

## **Corrective Actions**

(h) If any damage or discrepancy is found after doing any inspection required by paragraph (f) or (g) 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.

## **New Requirements of This AD**

### **Initial/Repetitive Inspections/Corrective Actions**

(i) Do the applicable inspections of the elevator tab assembly on the left and right sides of the airplane to find any damage or discrepancy by doing all the actions, including rework and all corrective actions, as specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1070, Revision 2, dated April 20, 2006, except as provided by paragraphs (j) and (k) of this AD. Do the applicable actions at the applicable time specified in Table 1, Table 2, or Table 3 of paragraph 1.E., "Compliance," of the service bulletin; except that where the service bulletin specifies a time frame "after the release date" of the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD. All corrective actions must be done before further flight. Repeat the inspections specified in Table 3 of paragraph 1.E., "Compliance," of the service bulletin at the applicable time specified in the table. Accomplishing the actions required by paragraph (i) of this AD ends the requirements of paragraphs (f), (g), and (h) of this AD.

(j) If any damage or discrepancy is found during any inspection required by paragraph (i) of this AD, and the service bulletin specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph of (m) of this AD.

(k) Where Boeing Alert Service Bulletin 737-55A1070, Revision 1, dated May 10, 2001, or Revision 2, dated April 20, 2006, specifies reporting the inspection results to the manufacturer, this AD does not require such reporting.

### **Actions Done in Accordance With Revision 1 of Service Bulletin**

(l) Footnote (a) in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1070, Revision 2, specifies the following: "For airplanes on which the initial actions required by Table 1 are due within 30 days after the release date of Service Bulletin 737-55A1070, Revision 2, the inspections and corrective actions defined by Service Bulletin 737-55A1070 Rev. 1 may be used." This paragraph of this AD provides a corresponding 30-day deferral before Revision 2 must be used to do the initial actions, except that the 30-day time frame begins at the effective date of this AD.

### **Alternative Methods of Compliance (AMOCs)**

(m)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) AMOCs approved previously in accordance with AD 2002-01-01, are approved as AMOCs for the corresponding provisions of paragraphs (f), (g), and (h) of this AD.

(3) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

(4) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane.

### **Material Incorporated by Reference**

(n) You must use Boeing Service Bulletin 737-55A1070, Revision 1, including appendices A, B, and C, dated May 10, 2001; or Boeing Alert Service Bulletin 737-55A1070, Revision 2, dated April 20, 2006; as applicable; to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 737-55A1070, Revision 2, dated April 20, 2006, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On February 19, 2002 (67 FR 1603, January 14, 2002), the Director of the Federal Register approved the incorporation by reference of Boeing Service Bulletin 737-55A1070, Revision 1, including appendices A, B, and C, dated May 10, 2001.

(3) Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on June 7, 2006.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 06-5430 Filed 6-15-06; 8:45 am]

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