



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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ISSUE DATE: March 12, 2010

AD 2010-06-51; Docket No. FAA-2010-0230; Directorate Identifier 2010-NM-071-AD

Emergency airworthiness directive (AD) 2010-06-51 is sent to all owners and operators of The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes.

Background

The FAA received a report of failure of the aft attach lugs on the left elevator tab control mechanism, which resulted in severe elevator vibration. The flightcrew diverted from the intended route and made an uneventful landing. Subsequent investigation revealed extensive damage to the elevator tab control system. Severe vibration in this attach point is suspected of allowing rapid wear of the joint, and resulted in failure of the attach lugs. This condition, if not corrected, could result in a loss of aircraft control and structural integrity.

Explanation of Relevant Service Information

We have reviewed Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010. The service bulletin describes procedures for a detailed inspection to detect discrepancies of the inboard and outboard aft attach lugs of the elevator tab control mechanism. Discrepancies include movement or rotation of the spacer, and gaps between the swage ring and the aft attach lug or between the spacer and the aft attach lug. The service bulletin describes procedures for replacing any discrepant elevator tab control mechanism, including performing the detailed inspection on the replacement part before and after installation. For certain airplanes, the compliance time for the inspection is 12 or 30 days, depending on airplane line number, total accumulated flight cycles, and approval for operation under extended twin operations (ETOPS).

FAA's Determination and Requirements of this AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same type design. Therefore, we are issuing this AD to detect and correct a loose bearing in the aft lug of the elevator tab control mechanism, which could result in unwanted elevator and tab vibration. The consequent structural failure of the elevator or horizontal stabilizer could result in loss of aircraft control and structural integrity. This AD requires accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this AD and the Service Bulletin." This AD also requires reporting the inspection results to Boeing.

Differences Between this AD and the Service Bulletin

The effectivity of Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010, includes all Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. The inspection requirements of this AD, however, affect only those airplanes subject to a short compliance time (within 12 or 30 days). Because the suspect components may be installed as replacements on all airplanes subject to this AD, paragraph (l) of this AD requires that the part be inspected before and after installation. We may consider superseding this AD to apply the inspection requirements to the remaining airplanes,

which would be subject to a longer compliance time that would allow enough time to provide notice and opportunity for prior public comment on the merits of the inspection for these airplanes.

Interim Action

This AD is considered to be interim action. The inspection reports that are required by this AD will enable the manufacturer to obtain better insight into the nature, cause, and extent of the issue, and eventually to develop final action to address the unsafe condition. Once final action has been identified, we might consider further rulemaking.

Examining the Docket

You may examine the contents of this AD docket on the Internet at <http://www.regulations.gov>; (on the next business day after we have issued the AD), or in person at U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. This docket number is FAA-2010-0230; the directorate identifier for this docket is 2010-NM-071-AD.

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.

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 this emergency regulation is later deemed significant under DOT Regulatory Policies and Procedures, we will prepare a final regulatory evaluation and place it in the AD Docket. See the "Examining the Docket" section for a location to examine the regulatory evaluation, if filed.

Determination of Rule's Effective Date

This emergency AD is issued under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator, and is effective immediately upon receipt.

Because an unsafe condition exists that requires the immediate adoption of this emergency AD, we find that notice and opportunity for prior public comment hereon are impracticable and that good cause exists for making this emergency AD effective in less than 30 days.

2010-06-51 The Boeing Company: Docket No. FAA-2010-0230; Directorate Identifier No. 2010-NM-071-AD.

Effective Date

(a) Emergency airworthiness directive (AD) 2010-06-51, issued on March 12, 2010, is effective immediately upon receipt.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes; certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 27: Flight controls.

Unsafe Condition

(e) This AD results from a report of failure of the aft attach lugs on the left elevator tab control mechanism, which resulted in severe elevator vibration. The Federal Aviation Administration is issuing this AD to detect and correct a loose bearing in the aft lug of the elevator tab control mechanism, which could result in unwanted elevator and tab vibration. The consequent structural failure of the elevator or horizontal stabilizer could result in loss of aircraft control and structural integrity.

Compliance

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

Inspection and Corrective Action

(g) For Groups 1, 2, and 3; and Group 4, Configuration 2; as identified in Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010: At the applicable time specified in paragraph 1.E. Compliance of Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010, except as required by paragraph (i) of this AD, do a detailed inspection of the inboard and outboard aft attach lugs of the left and right elevator control tab mechanisms for gaps between the swage ring and the aft attach lug, and between the spacer and the aft attach lug; and try to move or rotate the spacer using hand pressure, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010.

(h) If, during accomplishment of the actions required by paragraph (g) of this AD, any gap is found between the swage ring and the aft attach lug, or between the spacer and the aft attach lug; or if the spacer moves or rotates: Before further flight, do the actions required by paragraphs (h)(1) and

(h)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010.

(1) Inspect the replacement elevator tab control mechanism for discrepancies, as specified in paragraph (g) of this AD; and, if no discrepancy is found, install the replacement elevator tab control mechanism.

(2) Re-inspect the installed elevator tab control mechanism, as required by paragraph (g) of this AD.

Exception to Service Bulletin Specifications

(i) Where Boeing Alert Service Bulletin 737-27A1296, dated March 12, 2010, specifies a compliance time after the date of the original issue of the service bulletin, this AD requires compliance within the specified compliance time after receipt of this AD.

Inspection Done According to Multi Operator Message (MOM)

(j) An inspection done before receipt of this AD according to Boeing Multi Operator Message Number MOM-MOM-10-0159-01B, dated March 10, 2010, is considered acceptable for compliance with the corresponding inspection specified in paragraph (g) of this AD.

Reporting

(k) At the applicable time specified in paragraph (k)(1) or (k)(2) of this AD: Submit a report of the findings (both positive and negative) of the inspections required by paragraph (g) of this AD to Boeing Commercial Airplanes Group, Attention: Manager, Airline Support, email: rse.boecom@boeing.com. The report must include the inspection results including a description of any discrepancies found, the airplane line number, and the number of flight cycles and flight hours accumulated on the airplane. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056.

(1) If the inspection was done on or after receipt of this AD: Submit the report within 10 days after the inspection.

(2) If the inspection was done before receipt of this AD: Submit the report within 10 days after receipt of this AD.

Parts Installation

(l) For all airplanes: As of receipt of this AD, no person may install an elevator tab control mechanism, part number 251A2430-(), on any airplane, unless the mechanism has been inspected before and after installation, in accordance with the requirements of paragraph (g) of this AD, and no discrepancies have been found.

Special Flight Permit

(m) Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

Alternative Methods of Compliance (AMOCs)

(n)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-917-6490; fax 425-917-6590. Information may be e-mailed to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically refer to this AD.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that 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, and the approval must specifically refer to this AD.

Contact Information

(o) For technical information about this AD, contact Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6490; fax (425) 917-6590. For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

Issued in Renton, Washington, on March 12, 2010.

Original signed by:

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.