



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0244; Directorate Identifier 2016-NM-044-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, and -500 series airplanes. This proposed AD was prompted by a determination that supplemental inspections are required for timely detection of fatigue cracking for certain structural significant item (SSIs). This proposed AD would require revising the maintenance or inspection program, as applicable, to add supplemental inspections. This proposed AD would also require inspections to detect cracks in each SSI, and repair of any cracked structure. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0244; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jennifer Tsakoumakis, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5264; fax: 562-627-5210; email: jennifer.tsakoumakis@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0244; Directorate Identifier 2016-NM-044-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On April 8, 2008, we issued AD 2008-09-13, Amendment 39-15494 (73 FR 24164, May 2, 2008) (“AD 2008-09-13”), for all Model 737-300, -400, and -500 series airplanes. AD 2008-09-13 requires revising the FAA-approved maintenance inspection program to include inspections that will give no less than the required damage tolerance rating (DTR) for each SSI, doing repetitive inspections to detect cracks of all SSIs, and repairing cracked structure. AD 2008-09-13 resulted from a report of incidents involving fatigue cracking in transport category airplanes that are approaching or have exceeded their design service objective. We issued AD 2008-09-13 to ensure the continued structural integrity of all Model 737-300, -400, and -500 series airplanes.

Actions Since AD 2008-09-13 was Issued

Since we issued AD 2008-09-13, a structural reevaluation was conducted by the manufacturer. As a result, we have determined that supplemental inspections are required for timely detection of fatigue cracking for certain SSIs.

Related Service Information under 1 CFR part 51

We reviewed Boeing Document D6-82669, "Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes," Revision October 2015. The service information identifies SSIs having fatigue crack growth characteristics warranting special attention, describes procedures for inspections to detect cracks of all structure identified as SSIs, and provides corrective actions for cracked SSI structure. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require revising the maintenance or inspection program, as applicable, to include inspections that will give no less than the required DTR for certain SSIs, and repairing any cracked structure. This proposed AD would also require initial and repetitive inspections to detect cracks of all structure identified in Boeing Document D6-82669, "Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes," Revision October 2015, and repair if necessary.

Accomplishing the actions required by paragraphs (g) and (h) of this proposed AD would terminate all requirements of AD 2008-09-13.

Costs of Compliance

We estimate that this proposed AD affects 500 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revision of maintenance or inspection program	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$42,500

We have not specified cost estimates for the inspections and repair specified in this proposed AD. Compliance with this proposed AD constitutes a method of compliance with the FAA aging airplane safety final rule (AASFR) (70 FR 5518, February 2, 2005) for certain baseline structure of Model 737-300, -400, and -500 series airplanes. The AASFR requires certain operators to incorporate damage tolerance inspections into their maintenance programs. These requirements are described in 14 CFR 121.1109(c)(1) and 14 CFR 129.109(b)(1). Accomplishment of the actions specified in this proposed AD will meet the requirements of these regulations for certain baseline structure. The costs for accomplishing the inspection portion of this proposed AD were accounted for in the regulatory evaluation of the AASFR.

We estimate the following costs to do any necessary reporting that would be required based on the results of the inspections specified in the proposed revision of the maintenance or inspection program. We have no way of determining the number of aircraft that might need this action:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 FAA amends § 39.13 by adding the following new AD:

The Boeing Company: Docket No. FAA-2017-0244; Directorate Identifier 2016-NM-044-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2008-09-13, Amendment 39-15494 (73 FR 24164, May 2, 2008) (“AD 2008-09-13”).

(c) Applicability

This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors; 53, Fuselage; 54, Nacelles/Pylons; 55, Stabilizers; 57, Wings.

(e) Unsafe Condition

This AD was prompted by a structural reevaluation conducted by the manufacturer. We have determined that supplemental inspections are required for timely detection of fatigue cracking for certain structural significant items (SSIs). We are issuing this AD to ensure the continued structural integrity of all The Boeing Company Model 737-300, -400, and -500 series airplanes.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Revision of the Maintenance or Inspection Program for All Airplanes

Before the accumulation of 66,000 total flight cycles, or within 12 months after the effective date of this AD, whichever occurs later: Incorporate a revision into the maintenance or inspection program, as applicable, that provides no less than the required damage tolerance rating (DTR) for each SSI listed in Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015. The required DTR value for each SSI is listed in Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015. The revision to the maintenance or inspection program must include, and must be implemented in accordance with, the procedures in Section 5.0, “Damage Tolerance Rating (DTR) System Application;” and Section 6.0, “SSI Discrepancy Reporting;” of Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015. Accomplishment of the revision required by this paragraph terminates the requirements of paragraph (g) of AD 2008-09-13.

(h) Initial and Repetitive Inspections

Before the accumulation of 66,000 total flight cycles, or within 12 months after the effective date of this AD, whichever occurs later: Perform an inspection in accordance with Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015, to detect cracks of all structure identified in Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015. Once the initial inspection has been performed, repeat the inspections thereafter at the intervals specified in Boeing Document D6-82669, “Supplemental Structural Inspection Document, Models 737-300/400/500 Airplanes,” Revision October 2015. Accomplishing

an initial inspection required by this paragraph terminates the corresponding inspection required by paragraph (h) of AD 2008-09-13.

(i) Repair

If any cracked SSI structure is found during any inspection required by paragraph (h) of this AD, repair before further flight using a method approved in accordance with the procedures specified in paragraph (l) of this AD. Within 18 months after repair, incorporate a revision into the maintenance or inspection program, as applicable, to include a damage-tolerance-based alternative inspection program for the repaired structure. Thereafter, inspect the affected structure in accordance with the alternative program. The inspection method and compliance times (i.e., threshold and repetitive intervals) of the alternative program must be approved in accordance with the procedures specified in paragraph (l) of this AD.

(j) Terminating Action for AD 2008-09-13.

Accomplishing the revision required by paragraph (g) of this AD and all initial inspections required by paragraph (h) of this AD terminates all requirements of AD 2008-09-13.

(k) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be

directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2008-09-13 are approved as AMOCs for the corresponding provisions of paragraphs (g) and (h) of this AD for the SSIs identified in the AMOC, except for AMOCs written for empennage SSIs E-19, E-21, E-29, E-30, and E-31.

(m) Related Information

(1) For more information about this AD, contact Jennifer Tsakoumakis, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960

Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5264; fax: 562-627-5210; email: jennifer.tsakoumakis@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 16, 2017.

Dionne Palermo,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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