



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0339; Directorate Identifier 2014-NM-025-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 certain The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. This proposed AD would require repetitive inspections for cracking in the upper corners of the forward entry door skin cutout, and repair if necessary. Accomplishment of this repair or a preventive modification would terminate the repetitive inspections. This proposed AD also would require repetitive post-modification and post-repair inspections. We are proposing this AD to detect and correct cracking in the doorway upper corners, which could result in cabin depressurization.

**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 proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; 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-2014-0339; 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:** Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: [alan.pohl@faa.gov](mailto:alan.pohl@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-2014-0339; Directorate Identifier 2014-NM-025-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**

We received reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. The airplanes had accumulated between 33,150 and 76,242 total flight cycles. The cracking is caused by fatigue from cabin pressure loads. This condition, if not corrected, could result in cabin depressurization.

### **Relevant Service Information**

We reviewed Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2014-0339.

## **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 accomplishing the repetitive inspections for cracking in the upper corners of the forward entry door skin cutout, and repair if necessary, as specified in the service information described previously, except as discussed under "Difference Between this Proposed AD and the Service Information."

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

## **Explanation of Post-Modification and Post-Repair Inspection**

The Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, states that Group 1 and 2 airplanes having the repair or preventive modification installed in accordance with Boeing Service Bulletin 737-53-1163, dated December 21, 1993, are not required to be inspected; however, this AD would require inspections of Group 1 and 2 airplanes in accordance with paragraph (i) of this AD, which corresponds with table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

## **Difference between this Proposed AD and the Service Information**

The service bulletin specifies to contact the manufacturer for instructions on how to inspect and repair certain conditions, but this proposed AD would require inspecting and repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or

- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

**Costs of Compliance**

We estimate that this proposed AD affects 371 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

**Estimated Costs: Required Actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	3 work-hours X \$85 per hour = \$255	\$0	\$255	\$94,605

**Estimated Costs: Optional Actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Preventive modification	44 work-hours X \$85 per hour = \$3,740	Up to \$3,912	Up to \$7,652

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these repairs:

**On-condition Costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Repair	60 work-hours X \$85 per hour = \$5,100	Up to \$4,964	Up to \$10,064

We have received no definitive data that would enable us to provide a cost estimate for the post-repair or post-preventive modification inspections specified in this proposed 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 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 this 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 airworthiness directive (AD):

**The Boeing Company:** Docket No. FAA-2014-0339; Directorate Identifier 2014-NM-025-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of fatigue cracks found in the upper corners of the forward entry door skin cutout. We are issuing this AD to detect and correct cracking in the doorway upper corners, which could result in cabin depressurization.

**(f) Compliance**

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

**(g) Inspection**

(1) For airplanes identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, as Groups 1 and 2, Configuration 2, and Group 3: Before the accumulation of 27,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, do an external detailed inspection for cracking of the skin assembly, and a low frequency eddy current (LFEC) inspection for cracking of the skin assembly and bear strap, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, except as required by paragraph (j) of this AD. Repeat the inspections thereafter at intervals not to exceed 4,500 flight cycles. Do all applicable corrective actions before further flight.

(2) For airplanes identified as Group 4 in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014: Within 120 days after the effective date of this AD, do inspections of the skin assembly and bear strap and all applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

**(h) Terminating Actions**

(1) Accomplishment of the preventive change specified in Part II of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1163, dated December 21, 1993, or the preventive modification specified in Part 2 of the

Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, terminates the inspection requirements specified in paragraph (g)(1) of this AD.

(2) Accomplishment of the repair specified in Part III of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1163, dated December 21, 1993, or Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, terminates the inspection requirements specified in paragraph (g)(1) of this AD.

**(i) Post-Modification and Post-Repair Inspections**

For airplanes identified in Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, as Groups 1 and 2, on which a repair or preventive modification has been installed in accordance with Boeing Service Bulletin 737-53-1163, dated December 21, 1993, or Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014: At the applicable time specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, inspect the fuselage skin assembly, bear strap, and frame and sill outer chords, as applicable, for cracking, in accordance with table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. Repeat the inspection thereafter at the times specified in table 3 of paragraph 1.E., “Compliance” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014. If any crack is found during any inspection required by this paragraph, repair before further flight using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

**(j) Exception to Service Information Specifications**

If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, specifies to

contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

**(k) Explanation of Service Information and AD**

The Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014, states that Group 1 and 2, Configuration 1 airplanes having the repair or preventive modification installed in accordance with Boeing Service Bulletin 737-53-1163, dated December 21, 1993, are not required to be inspected. However, this AD requires inspections of Group 1 and 2 airplanes, as identified in and in accordance with paragraph (i) of this AD, which correspond with table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1163, Revision 1, dated January 8, 2014.

**(l) Credit for Previous Actions**

This paragraph provides credit for the actions specified in paragraphs (g) and (h) of this AD if those actions were performed before the effective date of this AD using Boeing Service Bulletin 737-53-1163, dated December 21, 1993, which is not incorporated by reference in this AD.

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

(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. 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 (n)(1) of this AD. Information may be emailed to:  
9-ANM-Seattle-ACO-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 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.

**(n) Related Information**

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; 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 May 30, 2014.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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