



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-8186; Directorate Identifier 2016-NM-074-AD; Amendment 39-18784; AD 2017-02-05]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports of skin cracking found at the corners of the aft entry and aft galley doorways. This AD requires repetitive inspections for cracking of the fuselage skin assembly and the bear strap at the corners of the aft entry and aft galley doorways, and repair if necessary, which terminates the repetitive inspections of the repaired areas. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; 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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8186.

### **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-2016-8186; 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: [galib.abumeri@faa.gov](mailto:galib.abumeri@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on August 22, 2016 (81 FR 56538). The NPRM was prompted by reports of skin cracking found at the corners of the aft entry and aft galley doorways. The NPRM proposed to require repetitive inspections for cracking of the corners of the aft entry and aft galley doorways; and repair if necessary, which terminates the repetitive inspections of the

repaired areas. We are issuing this AD to detect and correct cracking of the corners of the aft entry and aft galley doorways, which could result in rapid decompression and consequent reduced structural integrity of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that accomplishing supplemental type certificate (STC) ST01219SE does not affect compliance with the actions specified in the NPRM.

We agree with the commenter. We have redesignated paragraph (c) of the proposed AD as (c)(1) and added paragraph (c)(2) to this AD to state that installation of STC ST01219SE does not affect the ability to accomplish the actions required by this final rule. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" AMOC approval request is not necessary to comply with the requirements of 14 CFR 39.17.

### **Request to Clarify the Description of the Inspection**

Boeing asked that we clarify the description of the inspection in the "Related Service Information under 1 CFR part 51" section of the NPRM. Boeing requested that we change the inspection type from "external detailed inspections" to "external low frequency eddy current and detailed inspections." Boeing also requested that we change the inspection location from "the skin assembly of the corners of the aft entry" to "the skin assembly and the bear strap of the corners of the aft entry." Boeing indicated that the revised wording reflects the actions specified in the service information.

We agree with the commenter that clarification is necessary. We have added the specified language to the “Related Service Information under 1 CFR part 51” section in this final rule accordingly.

**Request to Clarify the Description of the Unsafe Condition**

Boeing asked that we revise the unsafe condition specified in paragraph (e) and the inspection requirement specified in paragraph (h) of the proposed AD to clarify the location of the cracking from “the corners of the aft entry and aft galley doorways” to “the fuselage skin assembly and the bear strap at the corners of the aft entry and aft galley doorways.” Boeing stated the unsafe condition is related to the fuselage skin assembly and the bear strap, and added that the word “doorways” is generic and could include other structure.

We agree with the commenter that clarification is necessary. We have revised the SUMMARY section and paragraphs (e) and (h) of this AD accordingly.

**Request to Change the Inspection Paragraph Heading**

Southwest Airlines (SWA) asked that the heading of paragraph (h) of the proposed AD be changed from “Repetitive Inspections” to “Initial and Repetitive Inspections” (for Groups 2 through 8 airplanes) or that we remove the word “Repetitive” to be consistent with the heading of paragraph (g) of the proposed AD.

We find that clarification is necessary. Using the term “repetitive inspections” is intended to cover both the initial and repetitive inspections identified within the paragraph. In addition, the heading of paragraph (g) of this AD does not specify repetitive inspections because the inspection program for Group 1 airplanes is undefined in the service information, and the need to repeat any inspection would be determined on a case-by-case basis as approved by the FAA. Therefore, we have made no change to this AD in this regard.

### **Request to Clarify Service Bulletin Provisions**

SWA also asked for clarification that the notes and provisions identified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016, apply to paragraph (h) of the proposed AD. SWA stated that those notes specify that it is not necessary to inspect the skin and bear strap at a cutout corner location with an existing external repair or modification if certain conditions are met.

We acknowledge the commenter's concern, and agree that the notes and provisions identified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016, apply in this AD. No change to this AD is necessary in this regard.

### **Request to Revise Repair Method**

SWA asked that we revise paragraph (i) of the proposed AD, which specifies repair for cracking in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016. SWA requested that we also allow repair using a method approved by the FAA, in accordance with paragraph (k) of the proposed AD. SWA did not provide a reason for this request.

We do not agree with the commenter's request. It is not necessary to specifically refer to paragraph (k) in this AD, as the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016, do not include an instruction to contact Boeing for instructions. We will always consider a request for approval of an alternative method of compliance for the repair, if the request is accompanied by appropriate data to show that the alternative method would provide an acceptable level of safety. Therefore, we have made no change to paragraph (i) of this AD.

### **Additional Change from the Proposed AD**

We have changed the paragraph designation for paragraph (k)(3)(i) of the proposed AD to paragraph (k)(4) of this AD.

## **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

## **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016. The service information describes procedures for, among other things, external low frequency eddy current and detailed inspections for cracking of the skin assembly and the bear strap, as applicable, of the corners of the aft entry and aft galley doorways, and repair of any cracking. 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.

## **Costs of Compliance**

We estimate that this AD affects 326 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	22 work-hours X \$85 per hour = \$1,870 per inspection cycle	\$0	\$1,870 per inspection cycle	\$609,620 per inspection cycle

We have received no definitive data that will enable us to provide cost estimates for the on-condition actions specified in this 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

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 this AD:

(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),

(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.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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):

**2017-02-05 The Boeing Company:** Amendment 39-18784; Docket No. FAA-2016-8186; Directorate Identifier 2016-NM-074-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to all 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 737-53A1350, dated May 6, 2016.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/BE866B732F6CF31086257B9700692796?OpenDocument&Highlight=st01219se](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/BE866B732F6CF31086257B9700692796?OpenDocument&Highlight=st01219se)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by reports of skin cracking found at the corners of the aft entry and aft galley doorways. We are issuing this AD to detect and correct cracking of the fuselage skin assembly and the bear strap at the corners of the aft entry and aft galley doorways, which could result in rapid decompression and consequent reduced structural integrity of the airplane.

**(f) Compliance**

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

**(g) Inspections for Group 1 Airplanes**

For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016: Within 120 days after the effective date of this AD, inspect the airplane using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

**(h) Repetitive Inspections for Groups 2 through 8 Airplanes**

For airplanes identified as Groups 2 through 8 in Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016, except as required by paragraph (j) of this AD, do low frequency eddy current and detailed inspections for cracking of the fuselage skin assembly and the bear strap at the aft entry and aft galley doorway corners, as applicable, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016. Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016.

**(i) Repair**

If any crack is found during any inspection required by paragraph (h) of this AD, repair before further flight, in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016. Accomplishment of this repair terminates the repetitive inspections required by paragraph (h) of this AD for the repaired doorway corner location only.

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

Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016, specifies a compliance time “after the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

**(k) 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 (l) 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) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (k)(4)(i) and (k)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled "RC Exempt," then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

**(l) Related Information**

For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: galib.abumeri@faa.gov.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin 737-53A1350, dated May 6, 2016.

(ii) Reserved.

(3) For service information identified in this AD, Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on January 11, 2017.

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

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