

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2017-0715; Product Identifier 2017-NM-073-AD; ~~Amendment 39-19096~~; AD 2017-23-02]

RIN 2120-AA64

#### Airworthiness Directives; The Boeing Company Airplanes

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the fuselage crown skin panels are subject to widespread fatigue damage (WFD). This AD requires repetitive inspections, replacement, and applicable on-condition actions for certain fuselage crown skin panels. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective December 20, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 20, 2017.

**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 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 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-2017-0715.

#### 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-2017-0715; 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 final rule, 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:** Jennifer Tsakoumakis, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5264; fax: 562-627-5210; email: Jennifer.Tsakoumakis@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 certain The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on August 10, 2017 (82 FR 37366). The NPRM was prompted by an evaluation by the DAH indicating that the fuselage crown skin panels are subject to WFD. The NPRM proposed to require repetitive inspections, replacement, and applicable on-condition actions for certain fuselage crown skin panels.

We are issuing this AD to detect and correct cracking in the fuselage crown skin panels. Multiple adjacent cracks in the fuselage crown skin could link up and lead to decompression or loss of structural integrity of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this final rule. We have considered the comments received.

### **Support for the NPRM**

Boeing concurred with the NPRM.

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

Aviation Partners Boeing stated that accomplishing Supplemental Type Certificate (STC) ST01219SE does not affect the ability to accomplish the actions specified in the NPRM.

We concur with the commenter. We have redesignated paragraph (c) of the proposed AD as paragraph (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 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.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule 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 final rule.

## Related Service Information Under 1 CFR Part 51

We reviewed Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017. This service information describes procedures for repetitive inspections, replacement, and applicable on-condition actions for certain fuselage crown skin panels. 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 200 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
Inspection	Up to 507 work-hours × \$85 per hour = \$43,095 per inspection cycle	\$0	Up to \$43,095 per inspection cycle	Up to \$8,619,000 per inspection cycle.
Replacement	304 work-hours × \$85 per hour = \$25,840 per skin panel	95,000	\$120,840 per skin panel	Up to \$24,168,000.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### 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):



FAA  
Aviation Safety

## 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)

**2017-23-02 The Boeing Company:** Amendment 39-19096; Docket No. FAA-2017-0715; Product Identifier 2017-NM-073-AD.

### (a) Effective Date

This AD is effective December 20, 2017.

### (b) Affected ADs

None.

### (c) Applicability

(1) This AD applies to The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/EBD1CEC7B301293E86257CB30045557A?OpenDocument&Highlight=st01219se](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/EBD1CEC7B301293E86257CB30045557A?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 an evaluation by the design approval holder indicating that the fuselage crown skin panels are subject to widespread fatigue damage. We are issuing this AD to detect and correct cracking in the fuselage crown skin panels. Multiple adjacent cracks in the fuselage crown skin could link up and lead to decompression or loss of structural integrity of the airplane.

### (f) Compliance

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

### (g) Required Actions

Except as required by paragraph (h) of this AD: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017.

## **(h) Exceptions to Service Information Specifications**

(1) For purposes of determining compliance with the requirements of this AD, the phrase “the effective date of this AD” may be substituted for “the original issue date of this service bulletin,” as specified in Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017.

(2) Where Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, specifies contacting Boeing, and specifies that action as RC: This AD requires using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(3) Part 7 of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, specifies post-modification airworthiness limitation inspections in compliance with 14 CFR 25.571(a)(3) at the modified locations to support compliance with 14 CFR 121.1109(c)(2) or 129.109(b)(2). Although Part 7 is identified as RC, this AD does not require accomplishment of Part 7. As airworthiness limitations, these inspections are required by maintenance and operational rules. It is therefore unnecessary to mandate them in this AD. Deviations from these inspections require FAA approval, but do not require approval of an alternative method of compliance.

## **(i) Terminating Action for Repetitive Inspections**

(1) Replacement of a skin panel, in accordance with Part 8 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, except as required by paragraph (h)(2) of this AD, terminates the actions specified in Parts 1, 4, and 6 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, as required by paragraph (g) of this AD, for that replaced skin panel only. To be acceptable as terminating action, the replacement may not be done prior to the applicable time specified in Table 4 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017.

(2) Completion of a structural repair manual repair to repair cracking, in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, except as required by paragraph (h)(2) of this AD, terminates the repetitive inspections specified in Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, as required by paragraph (g) of this AD, for that repair location only.

(3) Completion of a “Category C repair” to repair cracking, in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, except as required by paragraph (h)(2) of this AD, terminates the repetitive inspections specified in Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, as required by paragraph (g) of this AD, for that repair location only.

(4) Completion of a “Change Category C Repair to SB Repair,” in accordance with Part 6 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, except as required by paragraph (h)(2) of this AD, terminates the inspections specified in Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1358, dated April 27, 2017, as required by paragraph (g) of this AD, for that repair location only.

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

(1) The Manager, Los Angeles ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (k) 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 Branch, 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) Except as required by paragraphs (h)(2) and (h)(3) of this AD: For service information that contains steps that are labeled as RC, the provisions of paragraphs (j)(4)(i) and (j)(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.

#### **(k) Related Information**

For more information about this AD, contact Jennifer Tsakoumakis, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5264; fax: 562-627-5210; email: Jennifer.Tsakoumakis@faa.gov.

#### **(l) 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 737-53A1358, dated April 27, 2017.

(ii) Reserved.

(3) 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>.

(4) You may view this service information at the FAA, Transport Standards Branch, 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 October 27, 2017.

Jeffrey E. Duven,  
Director, System Oversight Division,  
Aircraft Certification Service.