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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8841; Directorate Identifier 2016-NM-115-AD; Amendment 39-18611; AD 2016-16-13]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2016-13-10, for certain The Boeing Company Model 737-300, -400, and -500 series airplanes. AD 2016-13-10 required repetitive external detailed inspections and nondestructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between station (STA) 400 and STA 460, and repair if necessary. AD 2016-13-10 also required a preventive modification of the fuselage skin at crown stringers S-1 and S-2R. This AD requires the same actions as AD 2016-13-10, and clarifies certain regulatory text. This AD was prompted by the determination that certain regulatory text in AD 2016-13-10 requires clarification. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

DATES: This AD is effective August 15, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 9, 2016 (81 FR 43483, July 5, 2016).

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of July 23, 2012 (77 FR 36134, June 18, 2012).

We must receive any comments on this AD by September 29, 2016.

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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, 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. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8841.

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-2016-8841; 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 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: Discussion

On June 21, 2016, we issued AD 2016-13-10, Amendment 39-18574 (81 FR 43483, July 5, 2016) ("AD 2016-13-10"), for certain The Boeing Company Model 737-300, -400, and -500 series airplanes. AD 2016-13-10 required repetitive external detailed inspections and nondestructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between STA 400 and STA 460, and repair if necessary. AD 2016-13-10 also required a preventive modification of the fuselage skin at crown stringers S-1 and S-2R. AD 2016-13-10 resulted from a determination that, for certain airplanes, the skin pockets adjacent to the Air Traffic Control (ATC) antenna are susceptible to widespread fatigue damage. We issued AD 2016-13-10 to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

Actions Since AD 2016-13-10 Was Issued

Since we issued AD 2016-13-10, we have determined that certain regulatory text in AD 2016-13-10 requires clarification:

- We have revised paragraphs (h)(3) and (i) of this AD to refer to paragraph (l)(3) of this AD for the exception to the service information.
- We have also removed the sentence from paragraph (h)(3) of AD 2016-13-10 that provided existing repair information and instead we have included existing repair information in the introductory text of paragraph (h) of this AD.

- We have revised paragraph (j) of this AD to also refer to Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, for locations for the modification of the chem-mill steps.
- We have revised paragraphs (j) and (l)(3) of this AD to refer to paragraph (n) of this AD for the appropriate procedures to request approval of an alternative method of compliance.

We are issuing this AD to correct the unsafe condition on certain The Boeing Company Model 737-300, -400, and -500 series airplanes.

Related Service Information Under 1 CFR Part 51

We reviewed Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015. The service information describes procedures for repetitive external detailed inspections and non-destructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between STA 400 and STA 460, and repair of any cracking. The service information also describes procedures for a modification of the chem-mill steps at the locations identified, including related investigative actions and corrective actions, and repetitive post-mod inspections. 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 issuing 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.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously.

FAA's Justification and Determination of the Effective Date

We are superseding AD 2016-13-10 to clarify certain regulatory text. We have made no other changes to the requirements published in AD 2016-13-10. Therefore, we find that notice and opportunity for prior public comment are unnecessary and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include Docket No. FAA-2016-8841; and Directorate Identifier 2016-NM-115-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this 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 AD.

Costs of Compliance

We estimate that this AD affects 186 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
Retained inspections from AD 2016-13-10	Between 7 and 15 work-hours × \$85 per hour, depending on airplane configuration = between \$595 and \$1,275 per inspection cycle	\$0	Between \$595 and \$1,275 per inspection cycle	Between \$110,670 and \$237,150 per inspection cycle.
Retained modification from AD 2016-13-10	236 work-hours × \$85 per hour = \$20,060	⁽¹⁾	\$20,060	\$3,731,160

¹ We currently have no specific cost estimates associated with the parts necessary for the modification. We cannot determine the cost of the materials because the modification parts must be sized at the time the modification is installed, taking into account any existing repairs in the area.

We have received no definitive data that enables us to provide a cost estimate 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 part 39 of the Federal Aviation Regulations (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 removing Airworthiness Directive (AD) 2016-13-10, Amendment 39-18574 (81 FR 43483, July 5, 2016), and adding the following new AD:



2016-16-13 The Boeing Company: Amendment 39-18611; Docket No. FAA-2016-8841; Directorate Identifier 2016-NM-115-AD.

(a) Effective Date

This AD is effective August 15, 2016.

(b) Affected ADs

This AD replaces AD 2016-13-10, Amendment 39-18574 (81 FR 43483, July 5, 2016) ("AD 2016-13-10").

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015.

(2) Installation of Supplemental Type Certificate (STC) 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 cracks found on the fuselage skin at the chem-mill steps, and the determination that, for certain airplanes, the skin pockets adjacent to the Air Traffic Control antenna are susceptible to widespread fatigue damage. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

(f) Compliance

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

(g) Retained Inspections With No Changes

This paragraph restates the requirements of paragraph (g) of AD 2016-13-10, with no changes. At the applicable time specified in tables 1, 2, 3, and 5 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, except as required by

paragraphs (l)(1) and (l)(2) of this AD: Do the actions specified in paragraphs (g)(1) and (g)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, except as required by paragraph (l)(3) of this AD. Repeat the applicable inspections thereafter at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015.

(1) Do an external detailed inspection for cracking of the fuselage skin chem-mill steps.

(2) Do an external non-destructive (medium frequency eddy current, magneto optical imaging, C-Scan, or ultrasonic phased array) inspection for cracking of the fuselage skin chem-mill steps.

(h) Retained Repair With Clarification of Repair Information and Service Information Exception

This paragraph restates the requirements of paragraph (h) of AD 2016-13-10, with clarification of repair information and service information exception. If any cracking is found during any inspection required by paragraph (g) of this AD, do the applicable actions specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. Installation of a repair prior to August 9, 2016 (the effective date of AD 2016-13-10) that meets the conditions specified in Part 9 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, terminates the inspections required by paragraph (g) of this AD for the area covered by that repair only. Installation of a repair prior to August 9, 2016, that meets the conditions specified in Part 9 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, covers all eight chem-mill step inspection areas between STA 410 and STA 450, and was done using a method approved in accordance with the procedures specified in paragraph (n) of this AD, terminates the inspections required by paragraph (g) of this AD for the area covered by that repair only, and terminates the preventive modification required by paragraph (i) of this AD.

(1) Repair before further flight in accordance with Part 2 (for Group 1 airplanes) or Part 7 (for Group 2 airplanes) of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015; except as required by paragraph (l)(3) of this AD. Installation of a repair that meets the conditions specified in Note (a) of table 1, 2, 3, or 5 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, terminates the repetitive inspections required by paragraph (g) of this AD for the area covered by that repair only.

(2) For Group 1 airplanes: Accomplishing the modification specified in paragraph (i) of this AD is a method of compliance with paragraph (h)(1) of this AD.

(3) If any cracking is found in any area not covered by the preventive modification doubler during any inspection required by paragraph (g) of this AD: Repair before further flight, in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, except as provided by paragraph (l)(3) of this AD. Installation of this repair terminates the repetitive inspections required by paragraph (g) of this AD for the area covered by that repair only.

(i) Retained Preventive Modification With Clarification of Service Information Exception and Method of Compliance Procedures

This paragraph restates the requirements of paragraph (i) of AD 2016-13-10, with clarification of service information exception and method of compliance procedures. For Group 1 airplanes: At the applicable time specified in tables 1, 2, and 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, except as required by paragraphs (l)(1) and (l)(2) of this AD, do a preventive modification of the fuselage skin at crown stringers S-1 and S-2R, including all applicable related investigative actions, in accordance with Part 9 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, except as provided by paragraph (l)(3) of this AD. Do all applicable related

investigative actions concurrently with the modification. Installation of a preventive modification terminates the repetitive inspections required by paragraph (g) of this AD for the modified area only. Thereafter, repeat the inspections specified in Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015.

(j) Retained Optional Modification With Clarification of Service Information

This paragraph restates the requirements of paragraph (j) of AD 2016-13-10, with clarification of service information. Accomplishing a modification of the chem-mill steps at any location identified in Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011; or Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015; using a method approved in accordance with the procedures specified in paragraph (n) of this AD, terminates the repetitive inspections required by paragraph (g) of this AD for the modified area only.

(k) Retained Post-Repair/Post-Modification Inspections With No Changes

This paragraph restates the requirements of paragraph (k) of AD 2016-13-10, with no changes. Tables 4 and 6 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, specify post-repair/post-modification airworthiness limitation inspections in compliance with 14 CFR 25.571(a)(3) at the modified locations, which support compliance with 14 CFR 121.1109(c)(2) or 129.109(b)(2). 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 an alternative method of compliance.

(l) Retained Exceptions to Service Bulletin Specifications With Clarification of Method of Compliance Procedures

This paragraph restates the requirements of paragraph (l) of AD 2016-13-10, With clarification of method of compliance procedures.

(1) Where Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, specifies a compliance time "after the Revision 3 date of this service bulletin," this AD requires compliance within the specified compliance time after August 9, 2016 (the effective date of AD 2016-13-10).

(2) Where the Condition column of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, specifies a condition based on when an airplane has or has not been inspected, this AD bases the condition on whether an airplane has or has not been inspected on August 9, 2016 (the effective date of AD 2016-13-10).

(3) Where Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015, specifies to contact Boeing for repair or preventive modification instructions: Before further flight, do the repair or preventive modification, as applicable, using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(m) Retained Credit for Previous Actions With No Changes

This paragraph restates the requirements of paragraph (m) of AD 2016-13-10, with no changes.

(1) This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before July 23, 2012 (the effective date of AD 2012-12-04, Amendment 39-17093 (77 FR 36134, June 18, 2012) ("AD 2012-12-04")), using Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before August 9, 2016 (the effective date of AD 2016-13-10), using Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, which was incorporated by reference in AD 2012-12-04.

(n) 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 (o)(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 method must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for AD 2012-12-04 are approved as AMOCs for the corresponding provisions of this AD.

(o) 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) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(5) and (p)(6) of this AD.

(p) 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.

(3) The following service information was approved for IBR on August 9, 2016 (81 FR 43483, July 5, 2016).

(i) Boeing Alert Service Bulletin 737-53A1293, Revision 3, dated January 23, 2015.

(ii) Reserved.

(4) The following service information was approved for IBR on July 23, 2012 (77 FR 36134, June 18, 2012).

(i) Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011.

(ii) Reserved.

(5) 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>.

(6) 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.

(7) 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 August 4, 2016.

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