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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2016-3697; Product Identifier 2015-NM-143-AD; Amendment 39-19062; AD 2017-20-05]**

**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 superseding Airworthiness Directive (AD) 2011-01-15, which applied to certain The Boeing Company Model 757-200, -200CB, and -300 series airplanes. AD 2011-01-15 required repetitive inspections for cracking of the fuselage skin of the crown skin panel along the chem-milled step at certain stringers, and repair if necessary. This AD adds repetitive inspections for cracking in additional areas, and repair if necessary; removes airplanes from the applicability; adds an optional skin panel replacement, which terminates all inspections; adds an optional preventive modification, which terminates certain inspections; and reduces the compliance time for certain inspections. This AD was prompted by reports of the initiation of new fatigue cracking in the fuselage skin of the crown skin panel along locally thinned channels adjacent to the chem-milled steps. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective November 6, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 6, 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; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. 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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3697.

## **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-2016-3697; 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:** Eric Schrieber, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348; fax: 562-627-5210; email: [eric.schrieber@faa.gov](mailto:eric.schrieber@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2011-01-15, Amendment 39-16572 (76 FR 1351, January 10, 2011) (“AD 2011-01-15”). AD 2011-01-15 applied to certain The Boeing Company Model 757-200, -200CB, and -300 series airplanes. AD 2011-01-15 required repetitive inspections for cracking of the fuselage skin of the crown skin panel along the chem-milled step at stringers S-4L and S-4R, from station (STA) 297 through STA 439, and repair if necessary. AD 2011-01-15 also included terminating action for the repetitive inspections of the repaired areas only. AD 2011-01-15 resulted from reports of cracking in the fuselage skin of the crown skin panel. The NPRM published in the Federal Register on February 18, 2016 (81 FR 8157) (“The NPRM”). The NPRM was prompted by reports of the initiation of new fatigue cracking in the fuselage skin of the crown skin panel along locally thinned channels adjacent to the chem-milled steps. The NPRM proposed to add repetitive inspections for cracking in additional areas, and repair if necessary. The NPRM also proposed to remove airplanes from the applicability in AD 2011-01-15. The NPRM also proposed to add an optional skin panel replacement, which would terminate all inspections, and an optional preventive modification, which would terminate certain inspections.

We issued a supplemental NPRM (SNPRM) that published in the Federal Register on May 5, 2017 (82 FR 21146). The SNPRM proposed to reduce the compliance time for certain inspections.

We are issuing this AD to correct the unsafe condition on these products.

### **Comments**

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

### **Supportive Comment**

United Airlines and Boeing concurred with the SNPRM.

### **Request for Alternative Method of Compliance (AMOC)**

VT Mobile Aerospace Engineering (MAE) Inc. stated that the proposed AD (in the SNPRM) affects Model 757-200 airplanes that were modified using certain VT MAE supplemental type certificates (STCs). VT MAE noted that its design at certain inspection locations is not identical to that of the Boeing STC design at those locations. Therefore, VT MAE plans to issue new service

information to address the unsafe condition, and plans to request approval of an AMOC from the FAA for use of the new service information.

FedEx stated that its airplanes have been modified in accordance with the VT MAE STC, and once this AMOC is approved to address this issue, FedEx will use it to comply with the requirements in the proposed AD (in the SNPRM).

We acknowledge the commenters' remarks. Under the provisions of paragraph (n) of this AD, we will consider requests for approval of an AMOC that addresses the VT MAE STCs, if appropriate data are submitted to substantiate that the method would provide an acceptable level of safety. We have made no change to this AD in this regard.

## Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

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

## Related Service Information Under 1 CFR Part 51

We reviewed Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016. This service information describes procedures for repetitive external sliding probe eddy current (EC) and external spot-probe-medium-frequency EC inspections for cracking of the crown skin panel, repair, a preventive modification, and replacement of the crown skin panel. 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 652 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 (Zone 1) [Retained actions from AD 2011-01-15]	2 work-hours × \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$110,840 per inspection cycle.
Inspections (Zones 2 and 3) [new action]	Up to 4 work-hours × \$85 per hour = Up to \$340 per inspection cycle	\$0	Up to \$340 per inspection cycle	Up to \$221,680 per inspection cycle.
Optional modification	Up to 615 work-hours × \$85 per hour = Up to \$52,275	Up to \$26,496	Up to \$78,771	Up to \$51,358,692.

We have received no definitive data that enables us to provide a cost estimate for the on-condition actions or the optional replacement 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

We have determined that 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 removing Airworthiness Directive (AD) 2011-01-15, Amendment 39-16572 (76 FR 1351, January 10, 2011), and adding the following new 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)

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**2017-20-05 The Boeing Company:** Amendment 39-19062; Docket No. FAA-2016-3697; Product Identifier 2015-NM-143-AD.

### **(a) Effective Date**

This AD is effective November 6, 2017.

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

This AD replaces AD 2011-01-15, Amendment 39-16572 (76 FR 1351, January 10, 2011) (“AD 2011-01-15”).

### **(c) Applicability**

(1) This AD applies to The Boeing Company Model 757-200 and -300 series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(2) Installation of Supplemental Type Certificate (STC) ST01518SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgSTC.nsf/0/38B606833BBD98B386257FAA00602538?OpenDocument&Highlight=st01518se](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSTC.nsf/0/38B606833BBD98B386257FAA00602538?OpenDocument&Highlight=st01518se)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE 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 the initiation of fatigue cracking in the fuselage skin of the crown skin panel along locally thinned channels adjacent to the chem-milled steps. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin of the crown skin panel, which could result in pressure venting and consequent rapid decompression of the airplane.

### **(f) Compliance**

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

### **(g) Repetitive Inspections**

Do the applicable inspections required by paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) For all airplanes: Within the compliance time specified in paragraph (h) of this AD, do the Zone 1 inspection specified in paragraph (g)(1)(i) or (g)(1)(ii) of this AD. Repeat the applicable Part

1 or Part 2 inspection thereafter at the applicable times specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016. Accomplishing the preventive modification specified in paragraph (k)(1) of this AD or the replacement specified in paragraph (k)(2) of this AD terminates the inspections required by this paragraph.

(i) Do an external sliding probe eddy current (EC) inspection for cracking of the crown skin panel in the applicable Zone 1 areas specified in, and in accordance with, Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(ii) Do an external spot-probe-medium-frequency EC inspection for cracking of the crown skin panel in the applicable Zone 1 areas specified in, and in accordance with, Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(2) For airplanes on which any crack is found during any inspection required by paragraph (g)(1) of this AD; or any repair is installed that covers any portion of the Zone 1 inspection area specified in Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016; or the optional Zone 1 preventive modification specified in paragraph (k)(1) of this AD is installed: At the applicable time specified in table 2 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, except as required by paragraph (l)(1) of this AD: Do the Zone 2 inspection specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD. Repeat the applicable Part 4 or Part 5 inspection thereafter at the applicable times specified in table 2 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016. Accomplishing the replacement specified in paragraph (k)(2) of this AD terminates the inspections required by this paragraph.

(i) Do an external sliding probe EC inspection for cracking of the crown skin panel in the applicable Zone 2 areas specified in, and in accordance with, Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(ii) Do an external spot-probe-medium-frequency EC inspection for cracking of the crown skin panel in the applicable Zone 2 areas specified in, and in accordance with, Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(3) For airplanes on which any crack is found during any inspection required by paragraph (g)(1) of this AD; or any repair is installed that covers any portion of the Zone 1 inspection area specified in Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016; or the optional Zone 1 preventive modification specified in paragraph (k)(1) of this AD is installed: At the applicable time specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, except as required by paragraph (l)(1) of this AD, do the Zone 3 inspection specified in paragraph (g)(3)(i) or (g)(3)(ii) of this AD. Repeat the applicable Part 6 or Part 7 inspection thereafter at the applicable times specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016. Accomplishing the replacement specified in paragraph (k)(2) of this AD terminates the inspections required by this paragraph.

(i) Do an external sliding probe EC inspection for cracking of the crown skin panel in the applicable Zone 3 areas specified in, and in accordance with, Part 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(ii) Do an external spot-probe-medium-frequency EC inspection for cracking of the crown skin panel in the applicable Zone 3 areas specified in, and in accordance with, Part 7 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

## **(h) Initial Compliance Time for Inspection Required by Paragraph (g)(1) of This AD**

Within the applicable compliance times specified in paragraphs (h)(1), (h)(2), (h)(3), and (h)(4) of this AD, whichever occurs latest: Do the initial inspection required by paragraph (g)(1) of this AD.

(1) For all airplanes: Before the accumulation of 15,000 total flight cycles.

(2) For airplanes on which an external sliding probe EC inspection for Zone 1, as specified in Boeing Special Attention Service Bulletin 757-53-0097, has been done as of the effective date of this AD: Within 620 flight cycles after accomplishing the most recent external sliding probe EC inspection for Zone 1.

(3) For airplanes on which an external spot-probe-medium-frequency EC inspection for Zone 1, as specified in Boeing Special Attention Service Bulletin 757-53-0097, has been done as of the effective date of this AD: Within 200 flight cycles after accomplishing the most recent external spot-probe-medium-frequency EC inspection for Zone 1.

(4) For all airplanes: Within 200 flight cycles or 90 days after the effective date of this AD, whichever occurs first.

## **(i) Post-Preventive Modification Supplemental Inspections**

For airplanes on which a preventive modification has been installed as specified in Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016: At the applicable time specified in table 4 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016; do eddy current and detailed inspections for cracking of the applicable areas of the fuselage skin of the doublers, triplers, and fillers of the preventive modification, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016. Repeat the inspection thereafter at the applicable times specified in table 4 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

## **(j) Repair**

If any cracking is found during any inspection required by paragraph (g)(1), (g)(2), (g)(3), or (i) of this AD, repair before further flight using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Doing the repair ends the repetitive inspections for the repaired area only.

## **(k) Optional Terminating Actions**

(1) Accomplishing the preventive modification, including doing high frequency EC open-hole inspections for cracking in the existing fastener holes, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, except as required by paragraph (l)(2) of this AD, terminates the inspections required by paragraph (g)(1) of this AD, provided the preventive modification is done before further flight after accomplishing an inspection required by paragraph (g)(1) of this AD. If any cracking is found during any high frequency EC open-hole inspection, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(2) Replacing the crown skin panel between station (STA) 297 and STA 439, and stringers S-4L and S-4R, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, or using a method approved in accordance with the procedures specified in paragraph (n) of this AD, terminates the inspections required by paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

## **(l) Exceptions to Service Information Specifications and Preventive Modification**

(1) Where Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, specifies a compliance time “after the Revision 2 date of this service bulletin,” or “after the Revision 3 date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016, specifies to contact Boeing for repair instructions: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

## **(m) Credit for Previous Actions**

This paragraph provides credit for Zone 1 inspections required by paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010 (which was incorporated by reference in AD 2011-01-15); Boeing Special Attention Service Bulletin 757-53-0097, Revision 1, dated January 6, 2011; or Boeing Special Attention Service Bulletin 757-53-0097, Revision 2, dated July 28, 2015.

## **(n) 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 (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 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) AMOCs approved for AD 2011-01-15 are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD; except, as of the effective date of this AD, AMOCs that extend the initial compliance times specified in AD 2011-01-15 are no longer approved for the compliance time extension, and the compliance times required by this AD must be complied with.

(5) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (n)(5)(i) and (n)(5)(ii) 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. 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.



**(o) Related Information**

(1) For more information about this AD, contact Eric Schrieber, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348; fax: 562-627-5210; email: Eric.Schrieber@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(3) and (p)(4) 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.

(i) Boeing Special Attention Service Bulletin 757-53-0097, Revision 3, dated December 2, 2016.

(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; 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 September 14, 2017.

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