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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0036; Directorate Identifier 2009-NM-077-AD; Amendment 39-17362; AD 2013-04-05]

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 certain The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports of cracks in the skin and surrounding structure under the number 3 very high frequency (VHF) antenna on the lower external surface of the airplane at buttock line 0.0, aft of the main landing gear wheel well. This AD requires inspecting for cracking and corrosion under the number 3 VHF antenna, and corrective actions if necessary; and, for certain airplanes, replacing bonded skin panels with solid skin panels if not previously accomplished. This AD also provides an optional preventive modification (which would terminate the inspection requirements for certain airplanes). We are issuing this AD to detect and correct cracks and corrosion of the skin and surrounding structure under the number 3 VHF antenna, which could result in separation of the antenna from the airplane, and rapid depressurization of the airplane.

DATES: This AD is effective March 28, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of March 28, 2013.

ADDRESSES: 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 review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. 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>; 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 Document 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: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6447; fax: (425) 917-6590; email: wayne.lockett@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That SNPRM published in the Federal Register on March 16, 2012 (77 FR 15640). The original NPRM (75 FR 19564, April 15, 2010) proposed to require inspections for cracking and corrosion under the number 3 VHF antenna, and corrective actions if necessary; and, for certain airplanes, replacing bonded skin panels with solid skin panels if not previously accomplished. The SNPRM proposed to add an optional preventive modification, which would terminate the inspection requirements for certain airplanes; change certain repairs; and add inspections.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the SNPRM (77 FR 15640, March 16, 2012) and the FAA's response to each comment.

Support for the SNPRM (77 FR 15640, March 16, 2012)

The Boeing Company supports the SNPRM (77 FR 15640, March 16, 2012).

Request To Clarify Required Actions

United Airlines requested that we revise paragraph (g) of the SNPRM (77 FR 15640, March 16, 2012) to more clearly indicate what actions are mandated. United Airlines explained that paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, provides information in a tabular format that can be easily misinterpreted, and that for the initial inspection, the reader can potentially use two of the initial inspection options without knowing that the third inspection is also required. As an example, United Airlines explained that in table 1 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, the first action is to perform external visual inspections, but that action also directs operators to paragraph 3.B.3.a., which requires external detailed and external high frequency eddy current (HFEC) inspections.

We agree to clarify. We have eliminated unnecessary repeated phrasing (e.g., external detailed, HFEC) from paragraph (g) of this final rule to indicate those actions that are mandated.

The second row, first column of table 1 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, identifies that the action specified in the second, third, and fourth row, second column, is to be done on all airplanes, and are not optional. All airplanes listed in the Applicability section of this AD are required to have those actions completed.

Also, the reference to the Work Instructions paragraphs (e.g., 3.B.3.a., 3.B.5.a.) direct operators where to find those specific actions in the Accomplishment Instructions of the service bulletin.

Request To Delete Requirement

Southwest Airlines requested that we remove paragraph (h)(2) from the supplemental NPRM (77 FR 15640, March 16, 2012). That paragraph proposed to require that operators comply with section 121.1109(c)(2) or section 129.109(c)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(c)(2)) and obtain an approved damage tolerance evaluation for any repair installed. Southwest Airlines considered that paragraph (h)(2) of the supplemental NPRM contradicts the following statement in the preamble of the supplemental NPRM:

Table 10 in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010; and Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010; specify post-repair/modification inspections at the number 3 VHF antenna location, which may be used in support of compliance with section 121.1109(c)(2) or 129.109(c)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 129.109(c)(2)), but this supplemental NPRM does not propose to require those post-repair/modification inspections.

Southwest Airlines reasoned that the requirement to have a damage tolerance assessment is already mandated by 14 CFR 121.1109, and it is not necessary to require this in the supplemental NPRM.

We agree with the commenter's request. We have added new paragraph (i) to this final rule and deleted paragraph (h)(2) of the supplemental NPRM (77 FR 15640, March 16, 2012) to clarify that the post-repair/modification inspections are not required by this AD. We also removed the reference to Table 10 of paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, and clarified that Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, is the appropriate reference for the damage tolerance inspections. We have also changed 129.109(c)(2) to 129.109(b)(2) in Note 1 to paragraph (i) of this final rule.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the 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 supplemental NPRM (77 FR 15640, March 16, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the supplemental NPRM (77 FR 15640, March 16, 2012).

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

Costs of Compliance

We estimate that this AD affects 629 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	Number of U.S.-registered airplanes	Cost on U.S. operators
Inspection	Up to 13 work-hours x \$85 per hour = Up to \$1,105 per inspection cycle.	None	Up to \$1,105 per inspection cycle.	629	Up to \$695,045 per inspection cycle.
Concurrent replacement for Group 2 and Group 7 airplanes ¹ .	2,112 work-hours x \$85 per hour = \$179,520.	\$35,000	\$214,520	387	\$83,019,240.

¹ The concurrent modification for Group 2 and Group 7 airplanes required by this AD is already required by AD 90-06-02, Amendment 39-6489 (55 FR 8372, March 7, 1990). AD 90-06-02 mandated the skin replacement within 20 years of the manufacture date of the airplane. All Group 2 and Group 7 airplanes have exceeded the 20-year threshold.

We have received no definitive data that would enable 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.



2013-04-05 The Boeing Company: Amendment 39-17362; Docket No. FAA-2010-0036; Directorate Identifier 2009-NM-077-AD.

(a) Effective Date

This AD is effective March 28, 2013.

(b) Affected ADs

AD 90-06-02, Amendment 39-6489 (55 FR 8372, March 7, 1990), affects this AD.

(c) Applicability

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 Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53: Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracks of the skin and surrounding structure under the number 3 very high frequency (VHF) antenna on the lower external surface of the airplane at buttock line 0.0, aft of the main landing gear wheel well. We are issuing this AD to detect and correct cracks and corrosion of the skin and surrounding structure under the number 3 VHF antenna, which could result in separation of the antenna from the airplane, and rapid depressurization of the airplane.

(f) Compliance

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

(g) Inspections

Except as required by paragraph (j)(1) of this AD, at the applicable times specified in tables 1 through 9 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010: Do the applicable inspections (external detailed; external high frequency eddy current (HFEC); and internal detailed and HFEC) for cracks and corrosion in the skin, support, frames, stringers, or antenna, as applicable. Do the inspections in accordance with Parts 1, 3, 4, and 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, except as required by paragraphs (j)(2) and (j)(3) of this AD. Repeat the applicable inspections thereafter at the applicable times specified in tables 1 through 9 of paragraph 1.E., "Compliance," of Boeing Special Attention

Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, until the actions specified in paragraph (k) of this AD are done.

(h) Repair

If any crack or corrosion is found during any inspection required by paragraph (g) of this AD: Repair before further flight, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, except as required by paragraphs (j)(2) and (j)(3) of this AD. Repair of any crack or corrosion terminates the repetitive inspection requirements of paragraph (g) of this AD for the repaired area only.

(i) No Post Repair/Modification Inspections

The post-repair/modification inspections specified in Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, are not required by this AD.

Note 1 to paragraph (i) of this AD: The damage tolerance inspections specified in Part 8 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, may be used in support of compliance with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)). The actions specified in Part 8 of the Accomplishment Instructions and corresponding figures of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, are not required by this AD.

(j) Exceptions

(1) Where Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, 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.

(2) Where Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, specifies contacting Boeing for inspection or repair instructions: Do the applicable action using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(3) For Group 7 airplanes, as identified in paragraph 1.A., "Effectivity," of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010: Use the applicable instructions for Group 2, Configuration 1, 2, or 3 airplanes, as identified in Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010.

(k) Optional Terminating Action

For Groups 1, 2, 3, 4, 6, and 7 airplanes, as identified in Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010: Except as provided by paragraphs (j)(2) and (j)(3) of this AD, accomplishment of the preventive modification, including all applicable HFEC and detailed inspections for cracking or corrosion inside or outside the repair skin cutout area, in the frame fastener holes, or in the support channel; and all applicable repairs or replacements; as specified in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010, terminates the repetitive inspection requirements of paragraph (g) of this AD.

(l) Concurrent Skin Panel Replacement

For Groups 2 and 7 airplanes, as identified in Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010: Before or concurrently with accomplishing the requirements of paragraph (g) of this AD, do the replacement of the bonded skin panels with solid skin panels, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-53A1042, Revision 9, dated July 25, 1991, except as required by paragraph (j)(3) of this AD. The actions specified in paragraph (l) of this AD are also required by AD 90-06-02, Amendment 39-6489 (55 FR 8372, March 7, 1990).

(m) Credit for Previous Actions

(1) This paragraph provides credit for the replacement required by paragraph (l) of this AD, if the replacement of bonded skin panels with solid skin panels was performed before the effective date of this AD using the service information identified in paragraphs (m)(1)(i), (m)(1)(ii), (m)(1)(iii), and (m)(1)(iv) of this AD.

(i) Boeing Service Bulletin 737-53A1042, Revision 5, dated October 5, 1984.

(ii) Boeing Service Bulletin 737-53A1042, Revision 6, dated August 10, 1989.

(iii) Boeing Service Bulletin 737-53A1042, Revision 7, dated October 19, 1989.

(iv) Boeing Service Bulletin 737-53A1042, Revision 8, dated July 19, 1990.

(2) This paragraph provides credit for the inspections required by paragraph (g) of this AD, if the inspections were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 737-53-1287, dated March 11, 2009.

(n) 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 the Related Information section of this AD. Information may be emailed to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your Principal Maintenance Inspector or Principal Avionics Inspector, as appropriate, or lacking a principal inspector, your local Flight Standards 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.

(o) Related Information

(1) For more information about this AD, contact Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: wayne.lockett@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, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(p) Material Incorporated by Reference

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

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

(i) Boeing Special Attention Service Bulletin 737-53-1287, Revision 1, dated November 15, 2010.

(ii) Boeing Service Bulletin 737-53A1042, Revision 9, dated July 25, 1991.

(3) 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>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the 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 February 1, 2013.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.