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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0993; Directorate Identifier 2011-NM-018-AD; Amendment 39-17043; AD 2012-09-08]

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 767-200 and -300 series airplanes. This AD was prompted by reports of multiple site damage cracks in the radial web lap and tear strap splices of the aft pressure bulkhead at station (STA) 1582 due to fatigue. This AD requires repetitive inspections for cracking of the aft pressure bulkhead at STA 1582, repair or replacement of any cracked bulkhead, and eventual replacement of the aft pressure bulkhead at STA 1582 with a new bulkhead. Accomplishing the replacement terminates the repetitive inspections required by this AD. We are issuing this AD to prevent fatigue cracking of the aft pressure bulkhead, which could result in rapid decompression of the airplane and possible damage or interference with the airplane control systems that penetrate the bulkhead, and consequent loss of controllability of the airplane.

DATES: This AD is effective June 18, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of June 18, 2012.

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; email me.boecom@boeing.com; 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: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone (425) 917-6577; fax (425) 917-6590; email: berhane.alazar@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on September 27, 2011 (76 FR 59590). That NPRM proposed to require repetitive inspections for cracking of the aft pressure bulkhead at station (STA) 1582, repair or replacement of any cracked bulkhead, and eventual replacement of the aft pressure bulkhead at STA 1582 with a new bulkhead. That proposed AD specified that accomplishing the replacement would terminate the repetitive inspections specified in the NPRM.

Comments

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

Support for NPRM (76 FR 59590, September 27, 2011)

American Airlines has no objection to the NRPM (76 FR 59590, September 27, 2011), and noted that it will incorporate the requirements into its maintenance program.

Request To Include AD 2004-14-19, Amendment 39-13728 (69 FR 42549, July 16, 2004) in NPRM (76 FR 59590, September 27, 2011) Requirements

Boeing and Airborne Express (ABX) asked that the requirements in AD 2004-14-19, Amendment 39-13728 (69 FR 42549, July 16, 2004), be added to the affected ADs section and the related requirements of the NPRM (76 FR 59590, September 27, 2011). Boeing stated that this would ensure that the initial actions in paragraphs (b), (c), and (d) of AD 2004-14-19 begin 50,000 flight cycles after the aft pressure bulkhead has been replaced. ABX recommend that we add a paragraph that allows a 50,000 flight cycle threshold on a new aft pressure bulkhead for the inspections required by AD 2004-14-19.

We do not agree to include AD 2004-14-19, Amendment 39-13728 (69 FR 42549, July 16, 2004), in the affected ADs section and related requirements of this AD. We have determined that an unsafe condition exists, and that the actions this AD requires are adequate to ensure the continued safety of the affected fleet. The commenter's suggested changes would alter the actions currently required by this AD, so additional rulemaking would be required. We find that delaying this action would be inappropriate in light of the identified unsafe condition. We have not changed this final rule

regarding this issue. However, operators can always request approval of an alternative method of compliance (AMOC) for AD 2004-14-19.

Request To Clarify Terminating Action for Other ADs

Boeing asked that we change paragraph (g) of the NPRM (76 FR 59590, September 27, 2011) to remove the terminating action for the repetitive inspections specified in paragraph (b) of AD 2004-05-16, Amendment 39-13511 (69 FR 10917, March 9, 2004). Boeing stated that the inspections required by paragraph (b) of AD 2004-05-16 are not terminated by doing the inspections required by paragraph (g) of the NPRM. Boeing added that the inspections required by AD 2004-05-16 are for cracking of the web of the aft pressure bulkhead at the web y-chord joint. Boeing noted that this cracking pattern, location, and growth rate are not covered by the inspection in paragraph (g) of the NPRM.

We agree with the commenter for the reasons provided. We have removed the terminating action for the repetitive inspections required by AD 2004-05-16 (69 FR 10917, March 9, 2004) from paragraph (g) of this AD.

Boeing also requested that we revise paragraph (g) of the NPRM (76 FR 59590, September 27, 2011) to specify that accomplishing the inspections in paragraph (g) of the NPRM terminates the "initial" and repetitive inspections required by paragraphs (f) "and (h)" of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119).

We partially agree with the commenter. Doing the inspections required by paragraph (g) of this AD replaces the inspections (repetitive) required by paragraph (f) of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119). We have revised paragraph (g) of this AD accordingly. However, the inspection required by paragraph (h) of AD 2005-03-11 is a one-time inspection of the "oil can" locations of the aft pressure bulkhead web, which is not in the same location as the inspections required by paragraph (g) of the NPRM (76 FR 59590, September 27, 2011). Therefore the requirements in paragraph (h) of AD 2005-03-11 cannot be terminated by the inspections required by paragraph (g) of this AD. However, under the provisions of paragraph (i) of this AD, we will consider requests to provide such relief through approval of an AMOC if sufficient data are submitted to substantiate that the terminating action would also provide an acceptable level of safety.

Boeing also asked that we revise paragraph (h) of the NPRM (76 FR 59590, September 27, 2011) to specify that doing the replacement specified in paragraph (h) of the NPRM terminates the actions required by paragraphs (a) and (b) of AD 2004-05-16, Amendment 39-13511 (69 FR 10917, March 9, 2004) and the actions required by paragraphs (f) and (h) of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119).

We agree with the commenter. Once the replacement required by paragraph (h) of this AD is done, it is not necessary to do the inspections required by paragraphs (a) and (b) of AD 2004-05-16, Amendment 39-13511 (69 FR 10917, March 9, 2004) and paragraphs (f) and (h) of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119). We have revised paragraph (h) of this AD accordingly.

Request To Include Inspection in Airworthiness Limitations

ABX asked that we add a new paragraph following paragraph (h) of the NPRM (76 FR 59590, September 27, 2011), which allows synchronizing the maintenance program and the AD requirements for all airplanes equipped with improved aft pressure bulkheads. ABX added that we should mandate the airworthiness limitations (AWLs) for the maintenance on aft pressure bulkheads that have been replaced, in order to relieve the burden of requesting AMOCs. ABX added that the improved aft pressure bulkhead should have the same maintenance requirements whether it was installed on an airplane in production or in service.

We partially agree with the commenter. We agree that the actual dimensional and material configuration of the modified aft pressure bulkhead is identical to the later production airplanes. However, although the configuration is identical, the fatigue life of the bulkhead is not. All Model 767 airplanes, including the fatigue test airplanes, are subject to limit test pressurization loads during production. This limit loading substantially enhances the fatigue life of the structure. We have made no change to the AD in this regard.

Clarification of Effect of Winglet Installation

We have added new Note 1 to paragraph (c) of this AD to state that supplemental type certificate (STC) ST01920SE ([http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/082838ee177dbf62862576a4005cdfc0/\\$FILE/ST01920SE.pdf](http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/082838ee177dbf62862576a4005cdfc0/$FILE/ST01920SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01920SE is installed, a "change in product" 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 the AD with the changes described previously. 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 83 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	22 work-hours X \$85 per hour = \$1,870 per inspection cycle	0	\$1,870	\$155,210
Replacement	1,541 work-hours X \$85 per hour = \$130,985	\$399,539	\$530,524	\$44,033,492

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



2012-09-08 The Boeing Company: Amendment 39-17043; Docket No. FAA-2011-0993; Directorate Identifier 2011-NM-018-AD.

(a) Effective Date

This AD is effective June 18, 2012.

(b) Affected ADs

Certain requirements of this AD affect certain requirements of AD 2004-05-16, Amendment 39-13511 (69 FR 10917, March 9, 2004), and AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119).

(c) Applicability

This AD applies to The Boeing Company Model 767-200 and -300 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 767-53A0139, dated November 12, 2009.

Note 1 to paragraph (c) of this AD: Supplemental Type Certificate (STC) ST01920SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/082838ee177dbf62862576a4005cdfc0/\\$FILE/ST01920SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/082838ee177dbf62862576a4005cdfc0/$FILE/ST01920SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01920SE 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

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

(e) Unsafe Condition

This AD was prompted by reports of multiple site damage cracks in the radial web lap and tear strap splices of the aft pressure bulkhead at station (STA) 1582 due to fatigue. We are issuing this AD to prevent fatigue cracking of the aft pressure bulkhead, which could result in rapid decompression of the airplane and possible damage or interference with the airplane control systems that penetrate the bulkhead, and consequent loss of controllability of the airplane.

(f) Compliance

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

(g) Repetitive Inspections

Except as provided by paragraph (h) of this AD: Before the accumulation of 43,000 total flight cycles, or within 1,600 flight cycles after the effective date of this AD, whichever occurs later, do detailed, low-frequency eddy current, and mid-frequency eddy current inspections for cracking of the aft pressure bulkhead at STA 1582, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-53A0139, dated November 12, 2009. If any crack is found, before further flight, replace the bulkhead as required by paragraph (h) of this AD, or repair the crack in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-53A0139, dated November 12, 2009, and repeat the inspections thereafter at intervals not to exceed 1,600 flight cycles. If no crack is found, repeat the inspections thereafter at intervals not to exceed 1,600 flight cycles. Accomplishing the inspections required by this paragraph terminates the inspections required by paragraph (f) of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119).

(h) Replacement

Except as provided by paragraph (g) of this AD: Before the accumulation of 43,000 total flight cycles, or within 5,000 flight cycles after the effective date of this AD, whichever occurs later: Replace the aft pressure bulkhead at STA 1582 with a new bulkhead, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-53A0139, dated November 12, 2009. Accomplishing the replacement in this paragraph terminates the repetitive inspections required by paragraph (g) of this AD. Accomplishing the replacement in this paragraph also terminates the inspections required by paragraphs (a) and (b) of AD 2004-05-16, Amendment 39-13511 (69 FR 10917, March 9, 2004), and paragraphs (f) and (h) of AD 2005-03-11, Amendment 39-13967 (70 FR 7174, February 11, 2005), corrected on March 11, 2005 (70 FR 12119).

(i) 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 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 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.

(j) Related Information

For more information about this AD, contact Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone (425) 917-6577; fax (425) 917-6590; email: berhane.alazar@faa.gov.

(k) Material Incorporated by Reference

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51.

(i) Boeing Alert Service Bulletin 767-53A0139, dated November 12, 2009.

(2) 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; email me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

(4) 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 April 29, 2012.

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