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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1322; Directorate Identifier 2011-NM-211-AD; Amendment 39-17141; AD 2012-15-12]

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 all The Boeing Company Model 767 airplanes. This AD was prompted by reports of cracks of the underwing longeron fittings in the wing center section. This AD requires repetitive inspections of the underwing longeron fitting for cracking, and related investigative and corrective actions if necessary. We are issuing this AD to detect and correct such cracking, which could result in loss of the primary load path between the fuselage and the wing box, and consequent catastrophic damage to the wing box and failure of the wing.

DATES: This AD is effective September 11, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of September 11, 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, Washington 98124-2207; phone: 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: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 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 December 19, 2011 (76 FR 78574). That NPRM proposed to require repetitive high frequency eddy current (HFEC) inspections of the underwing longeron fitting for cracking, and related investigative and corrective actions if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (76 FR 78574, December 19, 2011), and the FAA's response to each comment.

Request To Use Revised Service Information

Boeing, UPS, and United Airlines (United) requested that the NPRM (76 FR 78574, December 19, 2011) use the revised service information, which is Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012. (The NPRM referred to Boeing Alert Service Bulletin 767-57A0126, dated August 12, 2011, as revised by Boeing Service Bulletin 767-57A0126, Revision 1, dated November 9, 2011, as the appropriate source of service information for accomplishing the proposed requirements.) Boeing stated that the correction of the airplane variable effectivity table does not change the intent of the NPRM, because applicability paragraph (c) of the NPRM states that "This AD applies to all The Boeing Company Model 767-200, -300, -300F and -400ER series airplanes; certified in any category." Boeing also stated that including Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, in the AD might prevent confusion for operators of these airplanes.

We agree with this request because Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, clarifies inspection areas and corrects various typographical errors. Since the NPRM (76 FR 78574, December 19, 2011) applied to all Model 767-200, -300, -300F and -400ER series airplanes, the corrected effectivity in Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, does not affect the applicability of this AD. We have changed the final rule to reference Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012. We have also added new paragraph (i) to the final rule to give credit for actions accomplished before the effective date of this AD using Boeing Alert Service Bulletin 767-57A0126, dated August 12, 2011, as revised by Boeing Service Bulletin 767-57A0126, Revision 1, dated November 9, 2011, and re-identified subsequent paragraphs accordingly.

Request To Address Effects of NPRM (76 FR 78574, December 19, 2011) on Winglets

Aviation Partners Boeing (APB) commented that it has reviewed the NPRM (76 FR 78574, December 19, 2011), and Boeing Alert Service Bulletin 767-57A0126, dated August 12, 2011, and

has determined that the installation of winglets, per Supplemental Type Certificate (STC) ST01920SE, "does not affect them." We infer that APB means the installation of these winglets does not affect accomplishing the NPRM.

American Airlines (American) stated that the NPRM (76 FR 78574, December 19, 2011) does not refer to any effects this inspection or potential repair would have on aircraft equipped with APB winglets. American stated that the NPRM should include a reference to procedures or subsequent actions which may need to be taken over and above the repair, if a repair was to be installed on an airplane with such winglets.

We agree that the AD should clarify procedures to address these APB winglets. We have added new Note 1 to paragraph (c) of this AD to state that installation of 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. For all other AMOC requests, the operator must request approval according to paragraph (j) of this AD.

Request To Increase Compliance Times

United suggested the initial inspection compliance time of within 3,000 flight cycles or 7,000 flight hours, whichever occurs first, for airplanes that have accumulated over 70,000 total flight hours but less than 20,000 total flight cycles, be to changed to within 6,000 flight cycles or 14,000 flight hours, whichever occurs first. United also stated that, as an alternative for any airplane with less than 20,000 total flight cycles and less than 90,000 total flight hours, the initial inspection threshold of "within 3,000 flight cycles" be imposed. United stated that imposing the 3,000-flight-cycle or 7,000-flight-hour compliance times, whichever occurs first, might be more suitable for those airplanes with very high flight cycles, such as over 30,000 or 35,000 total flight cycles.

United stated it has reviewed its maintenance history and the most recent inspection results of maintenance planning data (MPD) structural tasks (53-622-00 and 53-632-00) on four of its high-time airplanes. United stated it had no findings, and based on its maintenance history, it considers the initial inspection threshold of 7,000 flight hours or 3,000 flight cycles, whichever occurs first, on any airplane with more than 70,000 total flight hours to be overly aggressive for those operators, like United, that fly airplanes on long routes with very few flight cycles. With average flight hours of approximately 4,500 and approximately 650 flight cycles per year, United stated that the 7,000-flight-hour initial inspection threshold will provide only an approximate 18-month window of opportunity to accomplish the initial inspection on many of its airplanes. United asserts that the 18-month threshold does not provide enough time to schedule this inspection on this many airplanes at a heavy maintenance environment, which is when it should be accomplished.

We do not agree, because fatigue analysis is based on statistical methods. Statistics from four airplanes using only the MPD general visual inspections, without the benefit of an HFEC inspection, does not provide sufficient statistical justification to increase the compliance time. In developing an appropriate compliance time for this AD, we considered the unsafe condition as well as the recommendations of the manufacturer, and the practical aspect of accomplishing the required inspection within an interval of time that corresponds to the normal maintenance schedules of most affected operators. We have not changed the final rule in this regard.

Request To Revise On-Condition Costs

UPS stated that the estimated on-conditions parts cost specified in the NPRM (76 FR 78574, December 19, 2011) only reflect the cost for one wing.

We agree. We have confirmed that one top-kit is required for each wing, and that the parts costs for both wings ranges up to \$14,290. We have revised the estimated on-condition costs in the final rule to include the cost required for both wings.

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 NPRM (76 FR 78574, December 19, 2011) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (76 FR 78574, December 19, 2011).

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

Interim Action

We consider this AD interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

Costs of Compliance

We estimate that this AD affects 417 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
Repetitive HFEC inspection	3 work-hours × \$85 per hour = \$255 per inspection cycle.	\$0	\$255 per inspection cycle	\$106,335 per inspection cycle.

We estimate the following costs to do any necessary inspections and replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these on-condition actions.

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Tension bolt hole and front spar lower chord HFEC inspection and fitting replacement.	104 work-hours × \$85 per hour = \$8,840.	Up to \$14,290	Up to \$23,130.

We have received no definitive data that would enable us to provide cost estimates for cracking repairs 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 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):



2012-15-12 The Boeing Company: Amendment 39-17141; Docket No. FAA-2011-1322; Directorate Identifier 2011-NM-211-AD.

(a) Effective Date

This AD is effective September 11, 2012.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 767-200, -300, -300F, and -400ER series airplanes, certificated in any category.

Note 1 to paragraph (c) of this AD: Installation of 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 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of cracks of the underwing longeron fittings in the wing center section. We are issuing this AD to detect and correct such cracking, which could result in loss of the primary load path between the fuselage and the wing box, and consequent catastrophic damage to the wing box and failure of the wing.

(f) Compliance

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

(g) Inspections, Related Investigative Actions, and Corrective Actions

Except as provided by paragraphs (h)(2) and (h)(3) of this AD, at the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012: Do a high frequency eddy current (HFEC) inspection to detect cracking of the underwing longeron fitting; and do all applicable related investigative and corrective actions; in

accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, except as provided by paragraph (h)(1) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection of the underwing longeron fitting thereafter at the applicable compliance time and intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012.

(h) Exceptions to Paragraph (g) of This AD

(1) If, during accomplishment of the related investigative action required by this AD, any cracking is found and Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, specifies to contact Boeing for repair instructions: Before further flight, do the repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) Where Paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, 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."

(3) The Condition column of Paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012, refers to total flight cycles and total flight hours "as of the original issue date of this service bulletin." However, this AD applies to the airplanes with the specified total flight cycles or total flight hours "as of the effective date of this AD."

(i) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 767-57A0126, dated August 12, 2011, as revised by Boeing Service Bulletin 767-57A0126, Revision 1, dated November 9, 2011; both of which are not incorporated by reference.

(j) 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.

(k) Related Information

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

(I) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information 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 Alert Service Bulletin 767-57A0126, Revision 2, dated March 12, 2012.

(ii) Reserved.

(3) 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; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: <https://www.myboeingfleet.com>.

(4) 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.

(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 July 23, 2012.

Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.