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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1109; Directorate Identifier 2011-NM-172-AD; Amendment 39-17455; AD 2013-10-02]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for certain The Boeing Company Model 757-200 and -200PF series airplanes. That AD currently requires modifying the nacelle strut and wing structure, and repairing any damage found during the modification. This new AD specifies a maximum compliance time limit that overrides the optional threshold formula results. This AD was prompted by reports indicating that the actual operational loads applied to the nacelle are higher than the analytical loads that were used during the initial design. Subsequent analysis and service history, which includes numerous reports of fatigue cracking on certain strut and wing structure, indicated that fatigue cracking can occur on the primary strut structure before an airplane reaches its design service objective. We are issuing this AD to prevent fatigue cracking in primary strut structure and consequent reduced structural integrity of the strut.

DATES: This AD is effective June 20, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of June 20, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of October 16, 2003 (68 FR 53496, September 11, 2003).

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of November 13, 2000 (65 FR 59703, October 6, 2000).

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; 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, WA. 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: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: Nancy.Marsh@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003). That AD applies to the specified products. The NPRM published in the Federal Register on October 29, 2012 (77 FR 65506). That NPRM proposed to continue to require modifying the nacelle strut and wing structure, and repairing any damage found during the modification. That NPRM also proposed to specify a maximum compliance time limit that overrides the optional threshold formula results.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 65506, October 29, 2012) and the FAA's response to each comment.

Clarification Regarding the Installation of Winglets

Aviation Partners Boeing (APB) stated that it has reviewed the NPRM (77 FR 65506, October 29, 2012) and the "Boeing Service Bulletin" and has determined that the installation of winglets per Supplemental Type Certificate (STC) ST01518SE ([http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/\\$FILE/ST01518SE.pdf](http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/$FILE/ST01518SE.pdf)) does not affect them. APB also stated that it will provide supporting data to the FAA upon request.

We agree with the commenter's statement that the installation of winglets as specified in STC ST01518SE ([http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/\\$FILE/ST01518SE.pdf](http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/$FILE/ST01518SE.pdf)) does not affect accomplishment of the requirements of this AD, and an alternative method of compliance (AMOC) is not necessary for a "change in product" AMOC approval request. We have therefore added this provision in new paragraph (c)(2) of this AD.

Statement of Compliance With NPRM (77 FR 65506, October 29, 2012)

Nord Wind Airlines reported the status of compliance of its airplanes with the NPRM (77 FR 65506, October 29, 2012).

No request was submitted by Nord Wind Airlines. We have not changed this AD in regard to Nord Wind Airlines' comment.

Statement of Previous Compliance With NPRM (77 FR 65506, October 29, 2012)

FedEx stated that it has previously performed the prescribed inspections and terminating actions on its airplanes and that no further actions are necessary for it to be in compliance with the NPRM (77 FR 65506, October 29, 2012).

No request was submitted by FedEx. We have not changed this AD in regard to FedEx's comment.

Change Made to Restated Paragraph (h) of This AD

We have revised the wording in paragraph (h) of this AD to clarify the applicable service information to be used after the effective date of this AD.

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 (77 FR 65506, October 29, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 65506, October 29, 2012).

Costs of Compliance

We estimate that this AD affects 278 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
Modification [retained actions from AD 2003–18–05, Amendment 39–13296 (68 FR 53496, September 11, 2003)].	800 work-hours × \$85 per hour = \$68,000.	\$0	\$68,000	\$18,904,000

The new requirements of this AD add no additional economic burden.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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

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) 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), and adding the following new AD:



2013-10-02 The Boeing Company: Amendment 39-17455; Docket No. FAA-2012-1109; Directorate Identifier 2011-NM-172-AD.

(a) Effective Date

This AD is effective June 20, 2013.

(b) Affected ADs

This AD supersedes AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003).

(c) Applicability

(1) This AD applies to The Boeing Company Model 757-200 and -200PF series airplanes, certificated in any category, line numbers 1 through 735 inclusive, powered by Pratt & Whitney engines.

(2) Supplemental Type Certificate (STC) ST01518SE ([http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/\\$FILE/ST01518SE.pdf](http://rgl.faa.gov/Regulatory-and-Guidance-Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/$FILE/ST01518SE.pdf)) 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. For all other AMOC requests, the operator must request approval for an AMOC in accordance with the provisions of paragraph (k) of this AD.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

(e) Unsafe Condition

This AD was prompted by reports indicating that the actual operational loads applied to the nacelle are higher than the analytical loads that were used during the initial design. Subsequent analysis and service history, which includes numerous reports of fatigue cracking on certain strut and wing structure, indicated that fatigue cracking can occur on the primary strut structure before an airplane reaches its design service objective. We are issuing this AD to prevent fatigue cracking in primary strut structure and consequent reduced structural integrity of the strut.

(f) Compliance

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

(g) Retained Modification With New Service Information and Reduced Compliance Time

This paragraph restates the requirements of paragraph (a) of AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), with new service information and a reduced compliance time. Modify the nacelle strut and wing structure on both the left and right sides of the airplane, in accordance with Boeing Service Bulletin 757-54-0034, dated May 14, 1998; Boeing Service Bulletin 757-54-0034, Revision 1, dated October 11, 2001; or Boeing Service Bulletin 757-54-0034, Revision 2, dated May 7, 2009; at the later of the times specified in paragraph (g)(1) or (g)(2) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 757-54-0034, Revision 2, dated May 7, 2009, may be used to accomplish the actions required by this paragraph.

(1) At the earlier of the times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD.

(i) Prior to the accumulation of 37,500 total flight cycles.

(ii) At the later of the times specified in paragraph (g)(1)(ii)(A) or (g)(1)(ii)(B) of this AD.

(A) Within 20 years since the date of manufacture.

(B) Within the compliance time calculated using the optional threshold formula described in Boeing Service Bulletin 757-54-0034, Revision 2, dated May 7, 2009, or within 8 years after the effective date of this AD, whichever occurs first.

(2) Within 3,000 flight cycles after November 13, 2000 (the effective date of AD 2000-20-09, Amendment 39-11920 (65 FR 59703, October 6, 2000)).

(h) Retained Concurrent Requirements With New Service Information

This paragraph restates the requirements of paragraph (b) of AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), with new service information. Except as provided by paragraph (j) of this AD: Prior to or concurrently with the accomplishment of the modification of the nacelle strut and wing structure required by paragraph (g) of this AD, accomplish the actions specified in Boeing Service Bulletin 757-54-0027, Revision 1, dated October 27, 1994; and Boeing Service Bulletin 757-54-0036, dated May 14, 1998, or Boeing Service Bulletin 757-54-0036, Revision 1, dated July 31, 2006; as applicable; in accordance with those service bulletins. As of the effective date of this AD, use only Boeing Service Bulletin 757-54-0027, Revision 1, dated October 27, 1994; and Boeing Service Bulletin 757-54-0036, Revision 1, dated July 31, 2006; to accomplish the applicable requirements of this paragraph.

(i) Retained Repair With New Service Information

This paragraph restates the requirements of paragraph (c) of AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), with new service information. If any damage to airplane structure is found during the accomplishment of the modification required by paragraph (g) of this AD, and Boeing Service Bulletin 757-54-0034, dated May 14, 1998; Boeing Service Bulletin 757-54-0034, Revision 1, dated October 11, 2001; or Boeing Service Bulletin 757-54-0034, Revision 2, dated May 7, 2009; specifies to contact Boeing for appropriate action: Before further flight, repair the damage using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(j) Retained Modification With New Service Information

This paragraph restates the requirements of paragraph (d) of AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), with new service information. Modify the nacelle strut (including replacing the upper link with a new, improved part, and modifying the wire support bracket attached to the upper link), in accordance with Boeing Service Bulletin 757-54-0036, dated May 14, 1998; or Boeing Service Bulletin 757-54-0036, Revision 1, dated July 31, 2006; at the earlier of the times specified in paragraphs (j)(1) and (j)(2) of this AD. As of the effective date of this

AD, use only Boeing Service Bulletin 757-54-0036, Revision 1, dated July 31, 2006, to accomplish the requirements of this paragraph.

(1) Prior to or concurrently with accomplishment of the modification of the nacelle strut and wing structure required by paragraph (g) of this AD.

(2) Prior to the accumulation of 27,000 total flight cycles (for Model 757-200 series airplanes) or 29,000 total flight cycles (for Model 757-200PF series airplanes), or within 2 years after October 16, 2003 (the effective date of AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003)), whichever is later.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle 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.

(4) AMOCs approved previously in accordance with AD 2003-18-05, Amendment 39-13296 (68 FR 53496, September 11, 2003), are approved as AMOCs for the corresponding provisions of this AD, except for AMOCs that approved a revised compliance time.

(l) Related Information

For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: Nancy.Marsh@faa.gov.

(m) 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 June 20, 2013.

(i) Boeing Service Bulletin 757-54-0034, Revision 2, dated May 7, 2009.

(ii) Boeing Service Bulletin 757-54-0036, Revision 1, dated July 31, 2006.

(4) The following service information was approved for IBR on October 16, 2003 (68 FR 53496, September 11, 2003).

(i) Boeing Service Bulletin 757-54-0034, Revision 1, dated October 11, 2001.

(ii) Reserved.

(5) The following service information was approved for IBR on November 13, 2000 (65 FR 59703, October 6, 2000).

(i) Boeing Service Bulletin 757-54-0027, Revision 1, dated October 27, 1994.

(ii) Boeing Service Bulletin 757-54-0034, dated May 14, 1998.

(iii) Boeing Service Bulletin 757-54-0036, dated May 14, 1998.

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

(7) You may review copies of the 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.

(8) 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 May 6, 2013.

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