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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25327; Directorate Identifier 2006-NM-116-AD; Amendment 39-14842; AD 2006-09-06 R1]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747-400, 747-400D, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is revising an existing airworthiness directive (AD) that applies to certain Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747-400, 747-400D, and 747SR series airplanes. That AD currently requires repetitive inspections to detect cracking of certain lower lobe fuselage frames, and repair if necessary. This new AD specifies appropriate service information for certain corrective actions. This AD results from reports indicating that fatigue cracks were found in lower lobe frames on the left side of the fuselage. We are issuing this AD to detect and correct fatigue cracking of certain lower lobe fuselage frames, which could lead to fatigue cracks in the fuselage skin, and consequent rapid decompression of the airplane.

DATES: The effective date of this AD is June 7, 2006.

On June 7, 2006 (71 FR 25926, May 3, 2006), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002.

On May 5, 1999 (64 FR 15298, March 31, 1999), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2408, dated April 25, 1996.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA proposed to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) with an airworthiness directive (AD) to revise AD 2006-09-06, amendment 39-14576 (71 FR 25926, May 3, 2006). The existing AD applies to certain Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747-400, 747-400D, and 747SR series airplanes. The proposed AD was published in the Federal Register on July 13, 2006 (71 FR 39600) to require repetitive inspections to detect cracking of certain lower lobe fuselage frames, and repair if necessary, and to specify appropriate service information for certain corrective actions.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Support for the Proposed AD

Boeing supports the proposed AD.

Request To Change Incorporation of Certain Information

The Modification and Replacement Parts Association (MARPA) states that, typically, airworthiness directives are based on service information originating with the type certificate holder or its suppliers. MARPA adds that manufacturer service documents are privately authored instruments generally having copyright protection against duplication and distribution. MARPA notes that when a service document is incorporated by reference into a public document, such as an airworthiness directive, it loses its private, protected status and becomes a public document. MARPA adds that if a service document is used as a mandatory element of compliance, it should not simply be referenced, but should be incorporated into the regulatory document; by definition, public laws must be public, which means they cannot rely upon private writings. MARPA is concerned that the failure to incorporate essential service information could result in a court decision invalidating the AD.

MARPA adds that incorporated by reference service documents should be made available to the public by publication in the Docket Management System (DMS), keyed to the action that incorporates them. MARPA notes that the stated purpose of the incorporation by reference method is brevity, to keep from expanding the Federal Register needlessly by publishing documents already in the hands of the affected individuals; traditionally, "affected individuals" means aircraft owners and operators, who are generally provided service information by the manufacturer. MARPA adds that a new class of affected individuals has emerged, since the majority of aircraft maintenance is now

performed by specialty shops instead of aircraft owners and operators. MARPA notes that this new class includes maintenance and repair organizations, component servicing and repair shops, parts purveyors and distributors, and organizations manufacturing or servicing alternatively certified parts under 14 CFR 21.303 (parts manufacturer approval (PMA)). MARPA adds that the concept of brevity is now nearly archaic as documents exist more frequently in electronic format than on paper. Therefore, MARPA asks that the service documents deemed essential to the accomplishment of the NPRM be incorporated by reference into the regulatory instrument, and published in the DMS.

We do not agree that documents should be incorporated by reference during the NPRM phase of rulemaking. The Office of the Federal Register (OFR) requires that documents that are necessary to accomplish the requirements of the AD be incorporated by reference during the final rule phase of rulemaking. This final rule incorporates by reference the document necessary for the accomplishment of the requirements mandated by this AD. Further, we point out that while documents that are incorporated by reference do become public information, they do not lose their copyright protection. For that reason, we advise the public to contact the manufacturer to obtain copies of the referenced service information.

Additionally, we do not publish service documents in DMS. We are currently reviewing our practice of publishing proprietary service information. Once we have thoroughly examined all aspects of this issue, and have made a final determination, we will consider whether our current practice needs to be revised. However, we consider that to delay this AD action for that reason would be inappropriate, since we have determined that an unsafe condition exists and that the requirements in this AD must be accomplished to ensure continued safety. Therefore, we have not changed the AD in this regard.

Explanation of Change to Heading

We have revised the heading, "RESTATEMENT OF THE REQUIREMENTS OF AD 99-07-12, WITH ADDITIONAL INFORMATION FOR GROUP 2 AIRPLANES," to state, "* * * WITH COMPLIANCE TIMES FOR GROUP 2 AIRPLANES." This change provides more information about the new requirements of this AD.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the change described previously. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

There are about 681 airplanes of the affected design in the worldwide fleet. This AD affects about 99 airplanes of U.S. registry. The new requirements of this AD add no additional economic burden. The current costs for this AD are repeated for the convenience of affected operators, as follows:

The actions in this AD take about 2 work hours per airplane, at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of both the retained and new actions for U.S. operators is \$15,840, or \$160 per airplane, per inspection cycle.

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); and
- (3) 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

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 Federal Aviation Administration (FAA) amends § 39.13 by removing amendment 39-14576 (71 FR 25926, May 3, 2006) and adding the following new airworthiness directive (AD):



2006-09-06 R1 Boeing: Amendment 39-14842. Docket No. FAA-2006-25327; Directorate Identifier 2006-NM-116-AD.

Effective Date

- (a) The effective date of this AD is June 7, 2006.

Affected ADs

- (b) This AD revises AD 2006-09-06.

Applicability

(c) This AD applies to Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747-400, 747-400D, and 747SR series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002.

Unsafe Condition

(d) This AD results from reports indicating that fatigue cracks were found in lower lobe frames on the left side of the fuselage. We are issuing this AD to detect and correct fatigue cracking of certain lower lobe fuselage frames, which could lead to fatigue cracks in the fuselage skin, and consequent rapid decompression of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of the Requirements of AD 99-07-12, With Compliance Times for Group 2 Airplanes

Initial Inspections

(f) For airplanes on which the initial detailed internal inspection of the Section 46 lower lobe frames required by paragraph (f)(2) or (i)(2) of AD 2005-20-30, amendment 39-14327, has not been accomplished: Perform a detailed visual inspection to detect cracking of the lower lobe fuselage frames from Body Station 1820 to Body Station 2100, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2408, dated April 25, 1996; or Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002; as applicable; at the later of the applicable times specified in paragraph (f)(1), (f)(2), or (f)(3) of this AD.

- (1) For all airplanes: Prior to the accumulation of 15,000 total flight cycles; or

(2) For Group 1 airplanes identified in Revision 1 of the service bulletin: Within 1,500 flight cycles or 18 months after May 5, 1999 (the effective date of AD 99-07-12, amendment 39-11097), whichever occurs first.

(3) For Group 2 airplanes identified in Revision 1 of the service bulletin: Within 1,500 flight cycles or 18 months after June 7, 2006, whichever occurs first.

Note 1: Paragraphs (f)(2) and (i)(2) of AD 2005-20-30 require a detailed inspection to detect cracks in the Section 46 lower lobe frames, in accordance with Boeing Service Bulletin 747-53A2349, Revision 2, dated April 3, 2003. The initial inspection is required prior to the accumulation of 22,000 total flight cycles; or within 1,000 flight cycles after June 11, 1993 (the effective date of AD 93-08-12, amendment 39-8559), or November 16, 2005 (the effective date of AD 2005-20-30), depending on previous inspections accomplished; whichever occurs later.

Note 2: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

Repetitive Inspections

(g) If no cracking is detected during the inspection required by paragraph (f) of this AD, repeat the inspection thereafter at intervals not to exceed 3,000 flight cycles.

Corrective Actions

(h) If any cracking is detected during any inspection required by paragraph (f) of this AD, prior to further flight, accomplish paragraphs (h)(1) and (h)(2) of this AD:

(1) Within 20 inches of the crack location on the frame, perform a detailed inspection of the adjacent structure to detect cracking. As of June 7, 2006, the detailed inspection must be done in accordance with Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002. If any cracking is detected during any detailed inspection done in accordance with paragraph (f) or (h)(1) of this AD, prior to further flight, repair in accordance with paragraph (h)(1)(i) or (h)(1)(ii) of this AD, as applicable.

(i) For Group 1 airplanes: Using a method approved in accordance with the procedures specified in paragraph (j) of this AD. The Boeing 747 Structural Repair Manual, Subject 53-10-04, Figure 67 or 90, is one approved method.

(ii) For Group 2 airplanes: Using a method approved in accordance with the procedures specified in paragraph (j) of this AD. The Boeing 747-400 Structural Repair Manual, Subject 53-60-07, Repair 1 or 2, is one approved method.

(2) Repeat the inspection required by paragraph (f) of this AD thereafter at intervals not to exceed 3,000 flight cycles.

Optional Terminating Inspection

(i) Accomplishment of the initial detailed inspection of the Section 46 lower lobe frames required by paragraph (f)(2) or (i)(2) of AD 2005-20-30 constitutes terminating action for the requirements of this AD only for airplanes identified in Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002, as Group 1 airplanes. Accomplishment of the initial detailed inspection of the Section 46 lower lobe frames required by paragraph (f) of AD 2006-05-02

constitutes terminating action for the requirements of this AD only for airplanes identified in Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002, as Group 2 airplanes.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards 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 an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who 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.

(4) AMOCs approved previously in accordance with AD 99-07-12, are approved as AMOCs for the corresponding provisions of this AD.

Material Incorporated by Reference

(k) You must use Boeing Alert Service Bulletin 747-53A2408, dated April 25, 1996; or Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002; as applicable; to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) On June 7, 2006 (71 FR 25926, May 3, 2006), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2408, Revision 1, dated April 4, 2002.

(2) On May 5, 1999 (64 FR 15298, March 31, 1999), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2408, dated April 25, 1996.

(3) Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on November 20, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-20618 Filed 12-6-06; 8:45 am]