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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NM-15-AD; Amendment 39-13124; AD 2003-08-11]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to all Boeing Model 747-100, -200B, -200F, -200C, -100B, -300, -100B SUD, -400, -400D, and -400F series airplanes; and Model 747SR series airplanes. This action requires repetitive inspections to detect discrepancies of the actuator attach fittings of the inboard and outboard flaps, and follow-on and corrective actions as necessary. This action is necessary to detect and correct cracking and other damage of the actuator attach fittings of the trailing edge flaps, which could result in abnormal operation or retraction of a trailing edge flap, and possible loss of controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective May 8, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 8, 2003.

Comments for inclusion in the Rules Docket must be received on or before June 23, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-15-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2003-NM-15-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Gary Oltman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6443; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA has received reports of three fractures of the attach fittings of the trailing edge flap actuator on Boeing Model 747 series airplanes. The fractures have been attributed to corrosion and/or cracking. In one case, the fracture caused the flap to jam and resulted in an air turnback. In another case, the fractures occurred in the area of the upper journal. If not corrected, corroded or cracked attach fittings could fracture and result in abnormal operation or retraction of a trailing edge flap, and possible loss of controllability of the airplane.

Related Rulemaking

On June 20, 2001, the FAA issued related AD 2001-13-12, amendment 39-12292 (66 FR 34526, June 29, 2001), which applies to certain Boeing Model 747 series airplanes. That AD:

- Requires repetitive inspections to detect cracks and corrosion around the lower bearing of the actuator attach fittings of the inboard and outboard flaps;
- Requires repetitive overhauls for certain actuator attach fittings or repetitive replacement of the fittings with new fittings, as applicable, which terminates the repetitive inspections; and
- Provides for replacement of actuator attach fittings with improved fittings, which terminates all requirements of the AD.

The three incidents previously discussed occurred since AD 2001-13-12 was issued. Those incidents occurred on airplanes that had been inspected in accordance with AD 2001-13-12. Consequently, the FAA has determined that the terminating action in AD 2001-13-12 (replacement with improved fittings) will not adequately address the unsafe condition. However, the service information cited in this new AD has been approved as an alternative method of compliance (AMOC) with the requirements of paragraphs (a) through (e) of AD 2001-13-12. The FAA may consider superseding that AD to incorporate the requirements of this AD as well as other requirements.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002, which describes procedures for, among other things, repetitive inspections of the attach fittings of the inboard and outboard flaps to detect discrepancies. The inboard fittings are to be inspected using borescopic and detailed visual methods; and the outboard fittings are to be inspected using borescopic, detailed visual, and ultrasonic methods. Discrepancies include surface corrosion, pitting, damaged cadmium plating, and cracking. Corrective/follow-on actions may include repetitive detailed visual inspections to detect bushing migration and cracking and other damage of the actuator attach fittings; repetitive application of corrosion-inhibiting compound; and replacement of the fittings with new or overhauled fittings, which terminates the repetitive inspections. The manufacturer advises that Boeing Service Bulletin 747-57A2316 replaces Boeing Service Bulletin 747-57A2310, which was cited as the appropriate source of service information for the requirements of AD 2001-13-12. Although Service Bulletin 747-57A2316 replaces Service Bulletin 747-57A2310, AD 2001-13-12 is still in effect. As stated previously, Service Bulletin 747-57A2316 has been approved as an AMOC for the requirements of paragraphs (a) through (e) of AD 2001-13-12.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to detect and correct cracking and other damage of the actuator attach fittings of the trailing edge flaps, which could result in abnormal operation or retraction of a trailing edge flap, and possible loss of controllability of the airplane. This AD requires accomplishment of certain actions specified in Boeing Alert Service Bulletin 747-57A2316, described previously.

Interim Action

This is considered to be interim action. Although Boeing Alert Service Bulletin 747-57A2316 specifies actions in addition to those required by this AD, only certain actions specified in the service bulletin are required by this AD. The FAA may consider issuing further rulemaking to require repetitive replacement of the fittings with new or overhauled fittings. However, because of the urgency of the identified unsafe condition, the FAA finds it necessary to issue this AD immediately without prior public comment. The planned compliance times for the additional actions would be long enough to practicably provide notice and opportunity for public comment.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested. Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003-NM-15-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-08-11 Boeing: Amendment 39-13124. Docket 2003-NM-15-AD.

Applicability: All Model 747-100, -200B, -200F, -200C, -100B, -300, -100B SUD, -400, -400D, and -400F series airplanes; and all Model 747SR series airplanes; certified in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct cracking and other damage of the actuator attach fittings of the trailing edge flaps, which could result in abnormal operation or retraction of a trailing edge flap, and possible loss of controllability of the airplane, accomplish the following:

Inspection: Inboard Flap Attach Fittings

(a) Perform borescopic and detailed inspections to detect discrepancies of the inboard flap attach fittings, in accordance with Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002. Discrepancies include corrosion, pitting, and damaged or missing cadmium plating. Do the inspection at the applicable time specified in paragraph (a)(1) or (a)(2) of this AD.

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

(1) If the age of the fittings can be determined: Inspect within 14 years since the fittings were new or last overhauled, or within 90 days after the effective date of this AD, whichever occurs later.

(2) If the age of the fittings cannot be determined: Inspect within 90 days after the effective date of this AD.

Note 3: The exceptions specified in flag note 4 of Figure 1 of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002, apply to the requirements of paragraphs (a) and (b) of this AD.

Inspection: Outboard Flap Attach Fittings

(b) Perform borescopic, detailed, and ultrasonic inspections to detect discrepancies of the outboard flap attach fittings, in accordance with Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002. Discrepancies include surface corrosion, pitting, damaged or missing cadmium plating, and cracks. Do the inspection at the applicable time specified in paragraph (b)(1) or (b)(2) of this AD.

(1) If the age of the fittings can be determined: Inspect within 8 years since the fittings were new or last overhauled, or within 90 days after the effective date of this AD, whichever occurs later.

(2) If the age of the fittings cannot be determined: Inspect within 90 days after the effective date of this AD.

Follow-on Actions: No Discrepancies Found

(c) If no discrepancy is found during any inspection required by paragraph (a) or (b) of this AD: Do the actions specified by either paragraph (c)(1) or paragraph (c)(2) of this AD.

(1) Repeat the applicable inspections specified in paragraphs (a) and (b) of this AD at least every 9 months until the actions specified in paragraph (c)(2) of this AD have been accomplished.

(2) Perform a detailed inspection of the fitting to detect cracks, corrosion, damaged cadmium plating, or bushing migration, in accordance with and at the time specified in Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002. Do the follow-on actions in accordance with Parts 3, 4, and 5 of the Accomplishment Instructions of the service bulletin at the times specified in Figure 1 of the service bulletin, as applicable. Accomplishment of the actions specified by paragraph (c)(2) of this AD terminates the initial and repetitive inspection requirements of paragraphs (a), (b), and (c)(1) of this AD.

Note 4: The exceptions specified in flag note 2 of Figure 1 of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002, apply to those requirements of paragraphs (c)(2) and (d) of this AD that are specified in Part 2 of the service bulletin.

Corrective/Follow-on Actions: Discrepancies Found

(d) If any discrepancy is found during any inspection required by paragraph (a), (b), or (c) of this AD: Perform applicable corrective and follow-on actions at the time specified and in accordance with Figure 1 of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002. Before further flight: Replace any discrepant fitting in accordance with Part 5 of the Accomplishment Instructions of the service bulletin, and accomplish the follow-on actions for the other fitting common to that flap in accordance with Part 2 of the Accomplishment Instructions of the service bulletin. Replacement of a fitting terminates the initial and repetitive inspections—specified in paragraphs (a), (b), and (c) of this AD—for that fitting only.

Optional Action To Reset Compliance Schedule

(e) Replacement of fittings with new or overhauled fittings, in accordance with Part 5 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002, terminates the initial and repetitive inspection requirements of paragraphs (a), (b), and (c) of this AD.

Alternative Methods of Compliance

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(h) The actions shall be done in accordance with Boeing Alert Service Bulletin 747-57A2316, dated December 19, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on May 8, 2003.

Issued in Renton, Washington, on April 14, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-9691 Filed 4-22-03; 8:45 am]

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