

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2006-23921; Directorate Identifier 2005-NM-205-AD; Amendment 39-14812; AD 2006-22-15]

RIN 2120-AA64

#### Airworthiness Directives; Boeing Model 747 Airplanes

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD), which applies to all Boeing Model 747 series airplanes. That AD currently requires repetitive inspections for cracking of the top and side panel webs and panel stiffeners of the nose wheel well (NWW), and corrective actions if necessary. This new AD reduces the interval for certain repetitive inspections and removes a certain optional inspection. This new AD also requires replacing the NWW side and top panels with new panels, which terminates the repetitive inspections. This AD results from the development of a new modification. We are issuing this AD to prevent fatigue cracks in the top and side panel webs and stiffeners of the NWW, which could compromise the structural integrity of the NWW and could lead to the rapid decompression of the airplane.

**DATES:** This AD becomes effective December 11, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 11, 2006.

On May 10, 2005 (70 FR 21141, April 25, 2005), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2465, Revision 4, dated February 24, 2005.

**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:** Nick Kusz, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6432; fax (425) 917-6590.

## **SUPPLEMENTARY INFORMATION:**

### **Examining the Docket**

You may examine the airworthiness directive (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 issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that supersedes AD 2005-09-02, amendment 39-14070 (70 FR 21141, April 25, 2005). [A correction of that AD was published in the Federal Register on May 25, 2005 (70 FR 29940).] The existing AD applies to all Boeing Model 747 series airplanes. That NPRM was published in the Federal Register on February 15, 2006 (71 FR 7883). That NPRM proposed to continue to require repetitive inspections for cracking of the top and side panel webs and panel stiffeners of the nose wheel well (NWW), and corrective actions if necessary. That NPRM also proposed to reduce the interval for certain repetitive inspections and remove a certain optional inspection. That NPRM also proposed to require replacing the NWW side and top panels with new panels, which would terminate the repetitive inspections.

### **Comments**

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

### **Support for the NPRM**

Boeing, the airplane manufacturer, agrees with the contents of the NPRM.

### **Request To Remove Actions for Group 2 Airplanes or Extend Compliance Time**

The Air Transport Association (ATA), on behalf of one of its members, Northwest Airlines (NWA), requests that either the proposed requirement for terminating action for Group 2 airplanes be removed from the NPRM or the compliance time for doing the termination action be extended from four years to six years. The ATA notes that there are no service instructions for the terminating action for Group 2 airplanes. The ATA also states that extending the compliance time will allow the development of the service instructions and an assessment of the requirement's impact. NWA adds that it has not experienced extensive cracking that would warrant serious consideration or justification to mandate the terminating action (replacement of the NWW side and top panels). NWA also states that it would be very difficult to accomplish the replacement without a service bulletin.

We agree with the commenter's concern regarding lack of availability of service instructions for Group 2 airplanes; however, we do not consider that removing the terminating action or delaying this action until after the manufacturer develops a service bulletin for the replacement of the NWW side and top panels for Group 2 airplanes is warranted.

We have coordinated with Boeing regarding the availability of service instructions. Boeing states that it will issue a revised service bulletin that includes procedures for Group 2 airplanes by July 2007 and that there will be parts available at that time. Therefore, we have revised the compliance time for Group 2 airplanes to allow adequate time to accomplish the actions specified in this final rule.

We have extended the compliance time specified in paragraph (o) of the final rule from 48 months to 57 months. We have determined that extending the compliance time will not adversely affect safety. In addition, under the provisions of paragraph (p) of the final rule, we may approve requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety.

## Explanation of Change Made to NPRM

For clarification, the FAA has revised the definition of a "detailed inspection" in Note 1 of this final rule.

## Typographical Errors

The date of Revision 4 of Boeing Alert Service Bulletin 747-53A2465 was inadvertently specified as "February 25" instead of "February 24" in paragraph (f) and Table 1 of the NPRM. We have revised this final rule accordingly.

The Federal Register number and date of the existing AD was inadvertently specified as "70 FR 29940, May 25, 2005" in paragraph 2. of the NPRM. The existing AD was published April 25, 2005 (70 FR 21141). A correction of the existing AD was published May 25, 2005 (70 FR 29940). We have revised this final rule accordingly.

## Conclusion

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

## Costs of Compliance

There are about 1,127 airplanes of the affected design in the worldwide fleet. The following table provides the estimated costs for U.S. operators to comply with this AD. Work hours are estimated at an average labor rate of \$65 per work hour.

Estimated Costs					
Action	Work hours	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Area 1 and 3 inspections (required by AD 2005-09-02).	79	\$0	\$5,135, per inspection cycle	255	\$1,309,425, per inspection cycle.
Area 2 inspections (required by AD 2005-09-02).	8-18	0	\$520-\$1,170, per inspection cycle.	255	Up to \$298,350, per inspection cycle.
Replacement (new action)	800	115,765	\$167,765	255	\$42,780,075.

## 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 39-14070 (70 FR 21141, April 25, 2005), corrected at 70 FR 29940, May 25, 2005, and by adding the following new airworthiness directive (AD):

# AIRWORTHINESS DIRECTIVE

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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



**2006-22-15 Boeing:** Amendment 39-14812. Docket No. FAA-2006-23921; Directorate Identifier 2005-NM-205-AD.

## Effective Date

- (a) This AD becomes effective December 11, 2006.

## Affected ADs

- (b) This AD supersedes AD 2005-09-02.

## Applicability

(c) This AD applies to all Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category.

## Unsafe Condition

(d) This AD results from the development of a new modification. We are issuing this AD to prevent fatigue cracks in the top and side panel webs and stiffeners of the nose wheel well (NWW), which could compromise the structural integrity of the NWW and lead to the 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 Requirements of AD 2005-09-02 With New Repetitive Interval and Service Information

### Initial and Repetitive Inspections of the Top and Side Panel Stiffeners

(f) Prior to the accumulation of 16,000 total flight cycles, or within 1,000 flight cycles after January 27, 2005 (the effective date of AD 2004-25-23, amendment 39-13911), whichever is later, do internal detailed and surface high frequency eddy current (HFEC) inspections of the top and side panel stiffeners of the NWW (specified as Area 3 in the service bulletin) for cracks in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin (ASB) 747-53A2465, Revision 4, dated February 24, 2005. Repeat the inspections thereafter at the compliance times specified in paragraph (f)(1) or (f)(2) of this AD, as applicable.

(1) For airplanes on which an inspection has not been done before the effective date of this AD in accordance with any service bulletin listed in Table 1 of this AD: Within 1,500 flight cycles after

doing the inspection specified in paragraph (f) of this AD, repeat the inspection. Repeat the inspection thereafter at intervals not to exceed 1,500 flight cycles.

(2) For airplanes on which an inspection has been done before the effective date of this AD in accordance with any service bulletin listed in Table 1 of this AD: Within 6,000 flight cycles after doing the inspection specified in paragraph (f) of this AD or within 1,500 flight cycles after the effective date of this AD, whichever occurs first, repeat the inspection. Repeat the inspection thereafter at intervals not to exceed 1,500 flight cycles.

**Table 1.–Boeing Service Bulletins**

<b>Service bulletin</b>	<b>Revision level</b>	<b>Date</b>
Boeing ASB 747–53A2465	Original	April 5, 2001.
Boeing ASB 747–53A2465	2	November 11, 2004.
Boeing ASB 747–53A2465	3	December 23, 2004.
Boeing ASB 747–53A2465	4	February 24, 2005.
Boeing Service Bulletin 747–53A2465	1	October 16, 2003.

**Note 1:** 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."

#### **Initial Inspections of the Top and Sidewall Panel Webs**

(g) Do an external detailed inspection of the top and sidewall panel webs of the NWW (specified as Area 1 and Area 2 in the service bulletin) for cracks, in accordance with the Accomplishment Instructions of Boeing ASB 747-53A2465, Revision 4, dated February 24, 2005, at the earlier of the times specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) At the later of the times specified in paragraph (g)(1)(i) and (g)(1)(ii) of this AD:

(i) Before accumulating 20,000 total flight cycles.

(ii) Within 100 flight cycles or 90 days after May 10, 2005 (the effective date of AD 2005-09-02), whichever occurs first.

(2) At the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD:

(i) Before accumulating 16,000 total flight cycles.

(ii) Within 1,000 flight cycles after May 10, 2005.

#### **Repetitive Inspections of the Top and Sidewall Panel Webs**

(h) Repeat the inspection required by paragraph (g) of this AD at the intervals specified in paragraphs (h)(1) and (h)(2) of this AD, as applicable.

(1) For airplanes with fewer than 20,000 total flight cycles as of May 10, 2005, repeat at intervals not to exceed 1,000 flight cycles until the first inspection after the airplane reaches 20,000 total flight cycles.

(2) For airplanes with 20,000 total flight cycles or more, repeat at intervals not to exceed 500 flight cycles.



## Ultrasonic (UT) Inspections

(i) Do an UT inspection of the top and sidewall panel webs for cracks, in accordance with Boeing ASB 747-53A2465, Revision 4, dated February 24, 2005, at the later of the times specified in paragraphs (i)(1) and (i)(2) of this AD. Repeat the inspections thereafter at intervals not to exceed 500 flight cycles.

(1) Prior to the accumulation of 20,000 total flight cycles.

(2) Within 100 flight cycles or 90 days after May 10, 2005, whichever occurs first.

## Additional Inspections and Corrective Actions

(j) Except as specified in paragraph (l) of this AD, if any crack is found during any inspection required by this AD, prior to further flight, do any applicable additional detailed inspections of stiffeners and beams and make repairs, in accordance with the Accomplishment Instructions of Boeing ASB 747-53A2465, Revision 4, dated February 24, 2005.

## Actions Accomplished per Previous Issues of Service Bulletin

(k) The actions specified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD are acceptable for compliance with the corresponding action specified in the applicable paragraph.

(1) Inspections and corrective actions accomplished before January 27, 2005, in accordance with Boeing ASB 747-53A2465, dated April 5, 2001, are considered acceptable for compliance with the corresponding inspections specified in paragraph (f) of this AD.

(2) Inspections accomplished before the effective date of this AD, in accordance with Boeing Service Bulletin 747-53A2465, Revision 1, dated October 16, 2003; Boeing ASB 747-53A2465, Revision 2, dated November 11, 2004; and Boeing ASB 747-53A2465, Revision 3, dated December 23, 2004; are considered acceptable for compliance with the corresponding inspections specified in paragraph (f) of this AD.

**Note 2:** The detailed and surface HFEC inspections of the top and side panel stiffeners of the NWW specified in Boeing ASB 747-53A2465, dated April 5, 2001; and Boeing Service Bulletin 747-53A2465, Revision 1, dated October 16, 2003; are acceptable for compliance with the internal detailed and surface HFEC inspections specified in paragraph (f) of this AD.

(3) Inspections and corrective actions accomplished before May 10, 2005, in accordance with Boeing Service Bulletin 747-53A2465, Revision 1, dated October 16, 2003; Boeing ASB 747-53A2465, Revision 2, dated November 11, 2004; and Boeing ASB 747-53A2465, Revision 3, dated December 23, 2004; are considered acceptable for compliance with the corresponding inspections specified in paragraphs (g) and (h) of this AD.

## Certain Other Corrective Actions

(l) Where Boeing Service Bulletin and ASB 747-53A2465 specify contacting the manufacturer if certain cracking is found, this AD requires, before further flight, repairing the cracking using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

## No Reporting Requirement

(m) Although Boeing Service Bulletin and ASB 747-53A2465 specify that operators should report inspection results to the manufacturer, this AD does not require those inspection results to be reported.

## New Requirements of This AD

### Terminating Action

(n) For Group 1 and 3 airplanes identified in Boeing Service Bulletin 747-53A2562, Revision 1, dated July 28, 2005: Before accumulating 22,000 total flight cycles or within 48 months after the effective date of this AD, whichever occurs later, replace the NWW side and top panels with new panels in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53A2562, Revision 1, dated July 28, 2005. Doing the replacement terminates the requirements of this AD.

(o) For Group 2 airplanes identified in Boeing Service Bulletin 747-53A2562, Revision 1, dated July 28, 2005, and Model 747 airplanes not identified in the service bulletin: Before accumulating 22,000 total flight cycles or within 57 months after the effective date of this AD, whichever occurs later, replace the NWW side and top panels using a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Doing the replacement terminates the requirements of this AD.

### Alternative Methods of Compliance (AMOCs)

(p)(1) The Manager, Seattle 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 according to AD 2005-09-02 are approved as AMOCs for the corresponding provisions of paragraphs (f) through (j) and (l) of this AD.

(5) AMOCs approved previously according to AD 2004-25-23 are approved as AMOCs for the corresponding provisions of paragraph (f) of this AD.

### Material Incorporated by Reference

(q) You must use Boeing Alert Service Bulletin 747-53A2465, Revision 4, dated February 24, 2005; and Boeing Service Bulletin 747-53A2562, Revision 1, dated July 28, 2005; as applicable, to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Boeing Service Bulletin 747-53A2562, Revision 1, dated July 28, 2005, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On May 10, 2005 (70 FR 21141, April 25, 2005), the Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2465, Revision 4, dated February 24, 2005.

(3) Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, WA 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on October 25, 2006.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-18465 Filed 11-3-06; 8:45 am]

SUPERSEDED