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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2001-NM-217-AD; Amendment 39-12546; AD 2001-24-29]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 747 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that requires a one-time inspection for chafing between the hose for the passenger oxygen system (hereinafter called the "oxygen hose") and adjacent electrical wire bundles at certain passenger service units, and corrective actions, if necessary. This AD also requires rerouting or reorienting the oxygen hose to ensure sufficient clearance between the hose and electrical wire bundles. This action is necessary to prevent chafing between the oxygen hose and adjacent electrical wire bundles, which could result in arcing of a chafed electrical wire bundle and consequent burn-through of the oxygen hose. If this occurs when the oxygen system is pressurized, such arcing could represent a potential ignition source in an oxygen-enriched environment. This action is intended to address the identified unsafe condition.

**DATES:** Effective January 16, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 16, 2002.

**ADDRESSES:** 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 Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 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:** Stephen Oshiro, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2793; fax (425) 227-1181.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 747 series airplanes was published in the Federal Register on July 23, 2001 (66 FR 38206). That action proposed to require a one-time inspection for chafing between the hose for the passenger oxygen system (hereinafter called the "oxygen hose") and adjacent electrical wire bundles at certain passenger service units (PSU), and corrective actions, if necessary. That action also proposed to require rerouting or reorienting the oxygen hose to ensure sufficient clearance between the hose and electrical wire bundles.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received from a single commenter.

## **Request To Extend Compliance Time**

The commenter requests that the FAA extend the compliance time for the actions in the proposed AD from 12 months to 18 months after the effective date of the AD. The commenter states that it will take about 40 work hours per airplane to do the proposed actions, and this work would best be performed during a heavy maintenance check where appropriate time and expertise is available.

The FAA concurs with the commenter's request. We find that such an increase in the compliance time will not adversely affect safety and will allow the required actions to be completed during a regularly scheduled maintenance visit. We have revised paragraph (a) of this AD accordingly.

## **Request To Limit Applicability**

The commenter requests that the FAA revise the proposed AD to state that only airplanes with PSU configurations delivered by Boeing and as shown in Boeing Alert Service Bulletin 747-35A2035 are subject to the proposed AD. The commenter states that it has accomplished extensive interior modifications and replaced the PSUs on its airplanes through a supplemental type certificate.

The FAA does not concur with the commenter's request. We do not consider the illustrations contained in Boeing Alert Service Bulletin 747-35A2035, Revision 1, dated July 22, 1999, as revised by Boeing Service Bulletin Information Notice 747-35A2035 IN 01, dated September 23, 1999, to be an adequate method of establishing the applicability of this AD. Because the service bulletin does not indicate that the chafing condition is limited to specific PSU part numbers, all airplanes identified in the effectivity listing of the service bulletin must be considered to be subject to the identified unsafe condition. Note 1 of this AD states that, for airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. No change to the final rule is necessary in this regard.

## **Conclusion**

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Cost Impact**

There are approximately 469 Model 747 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 166 airplanes of U.S. registry will be affected by this AD, and that the average airplane has approximately 150 PSUs installed (though the actual number varies considerably between airplane configurations). It will take approximately 38 work hours per airplane (0.25 work hours per PSU) to accomplish the required actions, at the average labor rate of \$60 per work hour. Required parts will cost approximately \$5,250 per airplane (\$35 per PSU). Based on these figures, the cost impact of this AD on U.S. operators is estimated to be \$1,249,980, or \$7,530 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

## **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.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it 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.

#### **Sec. 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 "av-info.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).

**2001-24-29 Boeing:** Amendment 39-12546. Docket 2001-NM-217-AD.

*Applicability:* Model 747 series airplanes, as listed in Boeing Alert Service Bulletin 747-35A2035, Revision 1, dated July 22, 1999; certificated 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 (b) 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 prevent chafing between the oxygen hose and electrical wire bundles at certain passenger service units, which could result in arcing of a chafed wire bundle and consequent burn-through of the oxygen hose, with the arcing potentially representing an ignition source in an oxygen-enriched environment, accomplish the following:

## Inspection and Follow-On Actions

(a) Within 18 months after the effective date of this AD, do a detailed visual inspection for chafing between oxygen hoses and electrical wire bundles at the passenger service units (PSU) in the main deck passenger compartment, upper deck sculpted ceiling, personnel accommodation (crew rest) area, lower lobe forward galley, and aft galley; as applicable. Do the inspection according to Boeing Alert Service Bulletin 747-35A2035, Revision 1, dated July 22, 1999, as revised by Boeing Service Bulletin Information Notice 747-35A2035 IN 01, dated September 23, 1999. Before further flight following this inspection, do the corrective actions in paragraphs (a)(1) and (a)(2) of this AD, as applicable, and reroute the oxygen hose or install an elbow at the oxygen mask inlet connector to reorient the oxygen hose away from the electrical wiring, as applicable, to ensure a minimum of 2 inches clearance between the oxygen hose and electrical wire bundle, according to the service bulletin.

**Note 2:** For the purposes of this AD, a detailed visual 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 any chafing of an oxygen hose is found: Replace the chafed oxygen hose with a new oxygen hose, and install protective sleeving over the new oxygen hose, according to the service bulletin.

(2) If any chafing of a wire bundle is found, repair the wire bundle according to the service bulletin.

**Note 3:** Inspections and follow-on actions done prior to the effective date of this AD according to Boeing Service Bulletin 747-35-2035, dated January 7, 1983, are acceptable for compliance with corresponding actions in paragraph (a) of this AD.

### **Alternative Methods of Compliance**

(b) 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 4:** 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**

(c) 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**

(d) The actions shall be done in accordance with Boeing Alert Service Bulletin 747-35A2035, Revision 1, dated July 22, 1999, as revised by Boeing Service Bulletin Information Notice 747-35A2035 IN 01, dated September 23, 1999. 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**

(e) This amendment becomes effective on January 16, 2002.

Issued in Renton, Washington, on November 28, 2001.

**Vi L. Lipski,**

*Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 01-30205 Filed 12-11-01; 8:45 am]

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