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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. 99-NM-291-AD; Amendment 39-12531; AD 2001-24-14]**

**RIN 2120-AA64**

**Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 Series Airplanes; C-9 Airplanes; and Model DC-9-81, -82, -83, and -87 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 McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes; C-9 airplanes; and Model DC-9-81, -82, -83, and -87 series airplanes, that requires an inspection of the power feeder bus cables of the auxiliary power unit (APU) for overheat damage between certain fuselage stations; and corrective action(s), if necessary. This action is necessary to prevent loose terminal stud connections and consequent damage to the small copper terminals, which could result in overheating of the wires at the terminal strip. Such overheating could cause an electrical failure and could result in smoke and fire in the electrical/electronic compartment. 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 Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). 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 FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Elvin Wheeler, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5344; fax (562) 627-5210.

**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 McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes; C-9 airplanes; Model DC-9-81, -82, -83, and -87 series airplanes; and Model MD-88 airplanes was published in the Federal Register on July 23, 2001 (66 FR 38170). That action proposed to require an inspection of the power feeder bus cables of the auxiliary power unit (APU) for overheat damage between certain fuselage stations; and corrective action(s), if necessary.

## **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.

### **Request To Allow Continued Operation of the Airplane With Damaged Wiring**

One commenter requests that the FAA revise paragraph (c) of the proposed AD to allow for continued operation of the airplane with damaged wiring provided that the APU electrical power is not used per the Master Minimum Equipment List (MMEL). The commenter states that such a change would allow for any extensive wiring repairs to be programmed for maintenance stations where the necessary tools and materials are available.

The FAA does not concur. We have determined that, due to the safety implications and consequences associated with such overheat damage, any subject power feeder bus cable that is found to be damaged must be repaired or replaced before further flight. We do not consider it appropriate to render the APU inoperative and allow continued operation on a revenue bearing flight with a known discrepancy until such a time that the required repair or replacement can be accomplished. No change to the final rule is necessary in this regard.

### **Request To Delay Issuance of Final Rule**

One commenter requests that issuance of the final rule be delayed until the Work Instructions of McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000 (which is referenced as the appropriate source of service information in this AD), are revised. The commenter provides several examples of information that needs to be clarified and that is missing.

The FAA does not agree with the commenter's request to delay issuance of the final rule. We do agree to clarify the following information provided by the commenter:

1. The commenter states that "View A-A" of the referenced service bulletin should pertain to Group 2 airplanes, as well as Group 1 airplanes. However, the FAA notes that on page 1 of 16 in the referenced service bulletin, it states "Group 1--Applicable to airplanes, which have not been modified by prior issue of this service bulletin, equipped with APU feeder cables that require inspection, terminal stud stackup revision and torquing nameplate." The key words here are "requires terminal stud stackup revision, and torquing nameplate." These words are not found in the Group 2 definition on page 1 of 16. View A-A refers to the name plate and stacking.

2. The commenter states that no term codes were given in the referenced service bulletin. The FAA notes that term code 1184 is called out in the referenced service bulletin on page 10. Paragraph K. on page 8 of the referenced service bulletin references Douglas Process Standard (DPS) 1.834-40.2. The term code can be found in Table 5.2 in the DPS. The DPS also references the Standard Wiring Practices Manual (SWPM), Chapter 20. The term code also can be found in 20-00-16, page 298.6 and page 243 (details for termination) in DPS 1.834-40.2.

3. The commenter states that no crimp tool code had been noted in the referenced service bulletin. The FAA notes that the crimp tool code can be found in DPS 1.834-40.2, Table 5.1, which is referenced in the service bulletin. It can also be found in SWPM 20-20-03, page 290.

4. The commenter states that no torque value was given in the referenced service bulletin. The FAA notes that the torque value can be found on the nameplate pertaining to the affected terminal strip. It also can be found in SWPM 20-00-03.

5. The commenter states that there was no requirement for a continuity check after the repair. The FAA notes that the continuity check can be found in the referenced service bulletin on page 12, paragraph 3.C.

### **Explanation of Change to Applicability**

The airplane manufacturer has informed the FAA that, although the effectivity of McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000, specifies "MD-80," the listing of affected manufacturer's fuselage numbers does NOT include Model MD-88 airplanes. McDonnell Douglas Model MD-88 airplanes are not subject to the identified unsafe condition. Therefore, we have removed that airplane model from the applicability of the final rule.

### **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 550 Model DC-9-10, -20, -30, -40, and -50 series airplanes; C-9 airplanes; and Model DC-9-81, -82, -83, and -87 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 450 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the required inspection, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$27,000, or \$60 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).

## **2001-24-14 McDonnell Douglas:** Amendment 39-12531. Docket 99-NM-291-AD.

*Applicability:* Model DC-9-10, -20, -30, -40, and -50 series airplanes; C-9 airplanes; and Model DC-9-81, -82, -83, and -87 series airplanes; as listed in McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000; 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 (d) 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 electrical failure due to overheated wires at the terminal strip, which could result in smoke and fire in the electrical/electronic compartment, accomplish the following:

### **General Visual Inspection**

(a) Within 1 year after the effective date of this AD, do a general visual inspection of the power feeder bus cables of the auxiliary power unit (APU) for overheat damage between fuselage stations Y=160.000 (Item No. S3-287) and Y=148.000 (Item No. S3-23), per McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000.

**Note 2:** For the purposes of this AD, a general visual inspection is defined as "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

### *Condition 1 (No Evidence of Damage)*

(b) If no damage is detected during the inspection required by paragraph (a) of this AD, do the applicable action specified in paragraph (b)(1) or (b)(2) of Table 1 of this AD, per McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000. Table 1 is as follows:

**Table 1.--Condition 1**

<b>For airplanes identified in the referenced service bulletin as * * *</b>	<b>Action</b>	<b>By</b>
(1) Group 1.....	Revise the wiring installation and replace the nameplate with a new nameplate.	Before further flight.
(2) Group 2.....	Revise the wiring installation	Before further flight.
(3) Group 3.....	No further action is required by this AD.	[Reserved].

*Condition 2 (Evidence of Damage)*

(c) If any damage is detected during the inspection required by paragraph (a) of this AD, do the applicable action(s) specified in paragraph (c)(1), (c)(2), or (c)(3) of Table 2 of this AD, per McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000. Table 2 is as follows:

**Table 2.--Condition 2**

<b>For airplanes identified in the referenced service bulletin as * * *</b>	<b>Action</b>	<b>By</b>
(1) Group 1.....	(i) Repair or replace wiring with new wiring; and (ii) Revise wiring installation; and (iii) Replace nameplate with a new nameplate.	Before further flight. Before further flight. Before further flight.
(2) Group 2.....	(i) Repair or replace wiring with new wiring; and (ii) Revise wiring installation.	Before further flight. Before further flight.
(3) Group 3.....	(i) Repair wiring, or..... (ii) Replace wiring with new wiring.	Before further flight. Before further flight.

**Alternative Methods of Compliance**

(d) 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, Los Angeles 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, Los Angeles ACO.

**Note 3:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

**Special Flight Permits**

(e) 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**

(f) The actions shall be done in accordance with McDonnell Douglas Alert Service Bulletin DC9-24A072, Revision 01, dated May 22, 2000. 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 Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

## **Effective Date**

(g) 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. 01-30190 Filed 12-11-01; 8:45 am]

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