

[Federal Register: December 12, 2001 (Volume 66, Number 239)]  
[Rules and Regulations]  
[Page 64125-64128]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr12de01-16]

---

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. 99-NM-297-AD; Amendment 39-12536; AD 2001-24-19]

**RIN 2120-AA64**

**Airworthiness Directives; 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**

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

**ACTION:** Final rule.

---

**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; Model DC-9-81, -82, -83, and -87 series airplanes; and Model MD-88 airplanes, that requires an inspection to detect chafing or overheat damage of the electrical wires located at fuselage station Y=110.000 bulkhead of the lower nose left tunnel; and corrective actions, if necessary. This AD also requires replacing the external power ground stud with a new ground stud using new attaching parts, torquing new attachments, and installing a nameplate. This action is necessary to prevent loose external power ground wires, which could cause arcing and overheated wire insulation and consequent smoke/fire in the cockpit. 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 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.

**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 38183). That action proposed to require an inspection to detect chafing or overheat damage of the electrical wires located at fuselage station Y=110.000 bulkhead of the lower nose left tunnel; and corrective actions, if necessary. That action also proposed to require replacing the external power ground stud with a new ground stud using new attaching parts, torquing new attachments, and installing a nameplate.

## **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. Although the commenters generally support the proposed rule, they have made a number of recommendations, as described in the following paragraphs.

### **Requests for More Specific Inspection and Repair/Replacement Instructions**

On behalf of its members, the Air Transport Association of America requests that the proposed AD be modified to include more specific details for wire location, bundle numbers, and allowable damage limits. The commenters' specific requests are described in the following paragraphs.

- One commenter requests that more detailed work instructions for the specific area or wire bundle be included either in Boeing Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000, or the proposed AD. The commenter states that Figure 1 in the service bulletin does not include specific details as to the location of the wiring within the left tunnel and does not specify the bundle numbers. In addition, that figure includes details for only the ground stud location, buildup, and placard location, and does not include the necessary details for wiring installation.
- One commenter requests that either the proposed AD or Boeing Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000, be revised to clearly identify the wiring damage limits used to determine whether to repair or replace the wiring. The commenter contends that the service bulletin should at least provide specific chapter, page, and task number references in the Aircraft Maintenance Manual (AMM) and Standard Wiring Practices Manual (SWPM). The work instructions in the service bulletin provide only a general reference to the AMM and SWPM.

The FAA does not concur. We point out that the Accomplishment Instructions of McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000, provides a specific reference to Chapter 20 of the AMM and Chapter 20 of the SWPM for repair of electrical wiring. We consider that the procedures referenced in those documents include the specific details required to enable operators to accomplish any necessary corrective actions. Therefore, no change to the final rule is necessary in this regard.

### **Request To Revise the Compliance Time for the Corrective Actions**

One commenter requests revising the compliance time for the corrective actions in the proposed AD. The proposed AD would require those actions to be accomplished in conjunction with the wiring inspection before further flight. However, the commenter contends that, if wiring damage is found, continued operation of the airplane should be allowed provided external electrical power is not used, as provided for in the master minimum equipment list (MMEL). This would allow operators to accomplish any extensive wiring repairs at maintenance stations where the required tools and

materials are available. If no damage is found, replacement of ground studs and installation of nameplates should be allowed prior to the compliance deadline. This would allow inspections to be accomplished at the maximum number of stations while allowing operators to concentrate on the required materials at a limited number of stations.

The FAA partially concurs. We agree that the compliance time in paragraph (b) of the final rule should be changed to allow operators that do not find any chafing or damage during the inspection required by paragraph (a) of this AD to accomplish the corrective actions within 18 months after the effective date of this AD instead of before further flight. We consider that such a change still provides an adequate level of safety for the fleet. However, because of the safety implications and consequences associated with chafing or overheat damage of the electrical wires located at fuselage station Y=110.000 bulkhead of the lower nose left tunnel, the corrective actions specified by paragraphs (c) and (d) of this AD must be accomplished before further flight. Further, we do not consider it appropriate to allow continued operation on a revenue-bearing flight when the external electrical power is not used. Paragraph (b) of the final rule has been changed accordingly.

### **Request To Revise the Torque Value and Modify the Nameplate**

One commenter requests revising the torque value in the proposed AD to require the standard torque value of 85 to 95 in-lb, and modification of the nameplate to indicate the higher torque value for the jam nut. The commenter states that it began inspections and modifications on some of its fleet per McDonnell Douglas Alert Service Bulletin DC9-24-135 in 1999, but discontinued those inspections after it was notified that the jam nut torque seemed inadequate to keep the wire connection from moving. Investigation revealed that the 70 in-lb torque value specified in the service bulletin was lower than that specified in both Douglas Process Standard 1.834-6 and Section 20-20-03 of the SWPM, which show the standard torque value for an AN315 jam nut to have a torque value of 85 to 95 in-lb. The commenter states that it was informed by the manufacturer, Boeing, that the 70-in-lb torque value is adequate, but that it has no technical objection to a 90-in-lb torque value. The commenter considers it necessary to comply with the 70-in-lb torque value specified in the service bulletin. However, since the intent of the proposed AD and the service bulletin is to prevent loose external power ground wires and consequent arching and overheating of the wire installation, the commenter does not understand why the service bulletin requires a lower torque value than the standard torque value cited in the referenced Boeing documents.

The FAA does not concur. After careful review of the referenced service bulletin, we have determined that the torque values specified in the Accomplishment Instructions of the service bulletin are adequate. In addition, we point out that the commenter has not provided substantial evidence regarding the necessity of requiring a higher torque value for the ground stud installation. For these reasons, we have determined that no change to the final rule is necessary in this regard.

### **Explanation of Changes Made to This Final Rule**

The FAA has revised paragraphs (c) and (d) of the final rule to clarify that the limits of any chafing or damage are referenced in McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000. In addition, in paragraphs (c) and (d) of the proposed AD, we inadvertently included the phrase "if necessary" instead of "as applicable," and have revised those paragraphs in the final rule to reflect this clarification.

### **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 1,908 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 of the affected design in the worldwide fleet. The FAA estimates that 967 airplanes of U.S. registry will be affected by this AD, that it will take approximately 2 work hours per airplane to accomplish the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$35 per airplane. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$149,885, or \$155 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).

**2001-24-19 McDonnell Douglas:** Amendment 39-12536. Docket 99-NM-297-AD.

*Applicability:* 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; as listed in McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 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 (e) 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 loose external power ground wires, which could cause arcing and overheated wire insulation and consequent smoke/fire in the cockpit, accomplish the following:

## Inspection

(a) Within 18 months after the effective date of this AD, do a general visual inspection to detect chafing or overheat damage of the electrical wires located at fuselage station Y=110.000 bulkhead of the lower nose left tunnel, per McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 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 Chafing or Damage)*

(b) If no chafing or overheat damage is detected during the inspection required by paragraph (a) of this AD, within 18 months after the effective date of this AD, do the actions specified in paragraphs (b)(1), (b)(2), and (b)(3) of this AD per McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000.

- (1) Replace the external power ground stud with a new ground stud using new attaching parts.
- (2) Torque the new attachments.
- (3) Install nameplate (includes applying silicone primer and adhesive/sealant).

**Note 3:** Accomplishment of the actions identified in paragraphs (b)(1), (b)(2), and (b)(3) of this AD per McDonnell Douglas DC-9 Service Bulletin 24-135, dated April 14, 1993, before the effective date of this AD, is considered acceptable for compliance with the requirements of paragraph (b) of this AD.

*Condition 2 (Chafing or Damage Within Limits)*

(c) If any chafing or damage is detected within the limits referenced in McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000, before further flight, repair damage; perform a continuity test to check the integrity of the wiring, and repair as applicable; and do the actions required by paragraphs (b)(1), (b)(2), and (b)(3) of this AD; per the alert service bulletin.

*Condition 3 (Chafing or Damage Beyond Limits)*

(d) If any chafing or damage is detected beyond the limits referenced in McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 2000, before further flight, replace any damaged wire with a new wire; perform a continuity test to check the integrity of the wiring, and repair as applicable; and do the actions required by paragraphs (b)(1), (b)(2), and (b)(3) of this AD; per the alert service bulletin.

**Alternative Methods of Compliance**

(e) 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 4:** 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 Permit**

(f) 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**

(g) The actions shall be done in accordance with McDonnell Douglas Alert Service Bulletin DC9-24A135, Revision 01, dated May 1, 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**

(h) 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. 01-30195 Filed 12-11-01; 8:45 am]

**BILLING CODE 4910-13-U**