

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 97-NM-56-AD]

RIN 2120-AA64

**Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50**

**Series Airplanes, and C-9 (Military) Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes, and C-9 (military) airplanes. This proposal would require a one-time visual inspection to determine if all corners of the doorjamb of the forward service door have been previously modified. The proposal would also require various repetitive inspections to detect cracks of the fuselage skin and doubler at all corners of the doorjamb of the forward service door, and to detect cracks on the skin adjacent to the modification; and various follow-on actions. This proposal is prompted by reports of fatigue cracks found in the fuselage skin and doubler at the corners of the doorjamb of the forward service door. The actions specified by the proposed AD are intended to detect and correct such fatigue cracking, which could result in rapid decompression of the fuselage and consequent reduced structural integrity of the airplane.

**DATES:** Comments must be received by September 29, 1997.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 97-NM-

56-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department C1-L51 (2-60). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:** Wahib Mina, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (562) 627-5324; fax (562) 627-5210.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

Interested persons are invited to participate in the making of the proposed 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 above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed 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 summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 97-NM-56-AD." The postcard will be date stamped and returned to the commenter.

#### Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 97-NM-56-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

#### Discussion

The FAA has received reports of fatigue cracks in the fuselage skin and doubler at the corners of the doorjamb of the forward service door on Model DC-9 series airplanes. These cracks were discovered during inspections conducted as part of the Supplemental Structural Inspection Document (SSID) program, required by AD 96-13-03, amendment 39-9671 (61 FR 31009, June 19, 1996). Investigation revealed that such cracking was caused by fatigue-related stress. Fatigue cracking in the fuselage skin or doubler at the corners of the doorjamb of the forward service door, if not detected and corrected in a timely manner, could result in rapid decompression of the fuselage and consequent reduced structural integrity of the airplane.

#### Explanation of Relevant Service Information

The FAA has reviewed and approved McDonnell Douglas Service Bulletin DC9-53-279, dated December 10, 1996, and Revision 1, dated May 6, 1997. The service bulletins describes the following procedures:

1. Performing a one-time visual inspection to determine if all corners of the upper cargo doorjamb have been previously modified;
2. For certain airplanes: Performing a low frequency eddy current (LFEC) or x-ray inspections to detect cracks of the fuselage skin and doubler at all corners of the doorjamb of the forward service door;
3. For certain other airplanes: Performing high frequency eddy current inspection (HFEC) or LFEC, as applicable, to detect cracks on the skin adjacent to the modification;
4. Conducting repetitive inspections, or modifying the corner skin of the doorjamb of the forward service door and performing follow-on action eddy current inspections, if no cracking is detected;
5. Performing repetitive eddy current inspections to detect cracks on the skin

adjacent to any corner that has been modified; and

6. Modifying any crack that is found to be 2 inches or less in length at all corners that have not been modified and performing follow-on repetitive eddy current inspections.

Accomplishment of the modification will minimize the possibility of fatigue cracks in the fuselage skin and doubler.

#### Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require a one-time visual inspection to determine if all corners of the doorjamb of the forward service door have been previously modified. The proposed AD would also require various repetitive inspections to detect cracks of the fuselage skin and doubler at all corners of the doorjamb of the forward service door, and to detect cracks on the skin adjacent to the modification; and various follow-on actions. The actions would be required to be accomplished in accordance with the service bulletins described previously.

Operators should note that, although the service bulletins specify that the manufacturer must be contacted for disposition of certain conditions, this proposal would require the repair of those conditions to be accomplished in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

#### Cost Impact

There are approximately 823 McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes, and C-9 (military) airplanes of the affected design in the worldwide fleet. The FAA estimates that 575 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 1 work hour per airplane to accomplish the proposed visual inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the visual inspection proposed by this AD on U.S. operators is estimated to be \$34,500, or \$60 per airplane.

Should an operator be required to accomplish the proposed HFEC, LFEC, or x-ray inspection, it would take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection proposed by this AD on U.S. operators is estimated to be \$60 per airplane, per inspection cycle.

Should an operator be required to accomplish the proposed modification, it would take approximately 30 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$1,256, \$1,420, \$5,804, or \$6,113 per airplane, depending on the service kit purchased. Based on these figures, the cost impact of the modification proposed by this AD on U.S. operators is estimated to be \$3,056, \$3,220, \$7,604, or \$7,913 per airplane, respectively.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

#### Regulatory Impact

The regulations proposed herein would not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

#### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

#### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

**McDonnell Douglas:** Docket 97-NM-56-AD.

**Applicability:** Model DC-9-10, -20, -30, -40, and -50 series airplanes, and C-9 (military) airplanes, as listed in McDonnell Douglas Service Bulletin DC9-53-279, Revision 1, dated May 6, 1997; certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 fatigue cracking in the fuselage skin or doubler at the corners of the doorjamb of the forward service door, which could result in rapid decompression of the fuselage and consequent reduced structural integrity of the airplane, accomplish the following:

**Note 2:** Where there are differences between the service bulletin and the AD, the AD prevails.

**Note 3:** The words "repair" and "modify/modification" in this AD and the referenced service bulletin are used interchangeably.

**Note 4:** This AD is related to AD 96-13-03, amendment 39-9671, (61 FR 31009, June 19, 1996), and will affect Principal Structural Element (PSE) 53.09.033 of the DC-9 Supplemental Inspection Document (SID).

(a) Prior to the accumulation of 50,000 total landings, or within 3,225 landings after the effective date of this AD, whichever occurs later, perform a one-time visual inspection to determine if the corners of the doorjamb of the forward service door have been modified prior to the effective date of this AD.

(b) *Group 1.* If the visual inspection required by paragraph (a) of this AD reveals that the corners of the upper cargo doorjamb have not been modified, prior to further flight, perform a low frequency eddy current (LFEC) or x-ray inspection to detect cracks of the fuselage skin and doubler at all corners of the doorjamb of the forward service door, in accordance with McDonnell Douglas Service Bulletin DC9-53-279, dated December 10, 1996, or Revision 1, dated May 6, 1996.

(1) Condition 1. If no crack is detected during any inspection required by paragraph (b) of this AD, accomplish either paragraph (b)(1)(i) or (b)(1)(ii) of the AD.

(i) *Option 1.* Repeat the inspections as follows until paragraph (b)(1)(ii) of this AD is accomplished:

(A) If the immediately preceding inspection was conducted using LFEC techniques, conduct the next inspection within 3,225 landings.

(B) If the immediately preceding inspection was conducted using x-ray techniques, conduct the next inspection within 3,075 landings.

(ii) *Option 2.* Prior to further flight, modify the corners of the doorjamb of the forward service door in accordance with the service bulletin; this modification constitutes terminating action for the repetitive inspection requirements of paragraph (b)(1)(i) of this AD. Prior to the accumulation of 28,000 landings after accomplishment of the modification, perform a high frequency eddy current (HFEC) inspection to detect cracks on the skin adjacent to the modification, in accordance with the service bulletin. Within 20,000 landings after accomplishment of the HFEC inspection, perform an eddy current inspection to detect cracks in the subject area, in accordance with the service bulletin.

(A) If no crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (b)(1)(ii) of this AD, repeat the eddy current inspection thereafter at intervals not to exceed 20,000 landings.

(B) If any crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (b)(1)(ii) of this AD, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(2) Condition 2. If any crack is found during any inspection required by paragraph (b) of this AD and the crack is 2 inches or less in length: Prior to further flight, modify it in accordance with the service bulletin. Prior to the accumulation of 28,000 landings after accomplishment of the modification, perform a HFEC inspection to detect cracks on the skin adjacent to the modification, in accordance with the service bulletin. Within 20,000 landings after accomplishment of the HFEC inspection, perform an eddy current inspection to detect cracks in the subject area, in accordance with the service bulletin.

(i) If no crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (b)(2) of this AD, repeat the eddy current inspection thereafter at intervals not to exceed 20,000 landings.

(ii) If any crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (b)(2) of this AD, repair it in accordance with

a method approved by the Manager, Los Angeles ACO.

(3) Condition 3. If any crack is found during any inspection required by this paragraph and the crack is greater than 2 inches in length: Prior to further flight, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(c) *Group 2, Condition 1.* If the visual inspection required by paragraph (a) of this AD reveals that the corners of the doorjamb of the forward service door *have been modified* in accordance with the DC-9 Structural Repair Manual (SRM) (using a steel doubler), accomplish either paragraph (c)(1) or (c)(2) of this AD in accordance with McDonnell Douglas Service Bulletin DC9-53-279, dated December 10, 1996, or Revision 1, dated May 6, 1997.

(1) *Option 1.* Prior to the accumulation of 6,000 landings after the effective date of this AD, perform a HFEC inspection to detect cracks on the skin adjacent to the modification in accordance with the service bulletin. Within 3,000 landings after accomplishment of the HFEC inspection, perform an eddy current inspection to detect cracks in the subject area, in accordance with the service bulletin.

(i) If no crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (c)(1) of this AD, repeat the eddy current inspection thereafter at intervals not to exceed 3,000 landings.

(ii) If any crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (c)(1) of this AD, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(2) *Option 2.* Prior to further flight, modify the corners of the doorjamb of the forward service door in accordance with the service bulletin. Prior to the accumulation of 28,000 landings after accomplishment of the modification, perform a HFEC inspection to detect cracks on the skin adjacent to the modification, in accordance with the service bulletin. Within 20,000 landings after accomplishment of the HFEC inspection, perform an eddy current inspection to detect cracks in the subject area, in accordance with the service bulletin.

(i) If no crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (c)(2) of this AD, repeat the eddy current inspection thereafter at intervals not to exceed 20,000 landings.

(ii) If any crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (c)(2) of this AD, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(d) *Group 2, Condition 2.* If the visual inspection required by paragraph (a) of this

AD reveals that the corners of the doorjamb of the forward service door *have been modified* in accordance with DC-9 SRM or Service Rework Drawing (using an aluminum doubler), prior to the accumulation of 28,000 landings since accomplishment of the modification, or within 3,225 after the effective date of this AD, whichever occurs later, perform an HFEC inspection to detect cracks on the skin adjacent to the modification, in accordance with McDonnell Douglas Service Bulletin DC9-53-279, dated December 10, 1996, or Revision 1, dated May 6, 1997. Within 20,000 landings after accomplishment of the HFEC inspection, perform an eddy current inspection to detect cracks in the subject area, in accordance with the service bulletin.

(1) If no crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (d) of this AD, repeat the eddy current inspection thereafter at intervals not to exceed 20,000 landings.

(2) If any crack is detected on the skin adjacent to the modification during any eddy current inspection required by paragraph (d) of this AD, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(e) *Group 2, Condition 3.* If the visual inspection required by paragraph (a) of this AD reveals that the corners of the doorjamb of the forward service door *have been modified*, but not in accordance with DC-9 SRM or Service Rework Drawing, prior to further flight, repair it in accordance with a method approved by the Manager, Los Angeles ACO.

(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, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. 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 5:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

(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.

Issued in Renton, Washington, on July 29, 1997.

**Darrell M. Pederson,**

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

[FR Doc. 97-20438 Filed 8-11-97; 8:45 am]

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