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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. 2002-NM-168-AD; Amendment 39-12803; AD 2002-14-03]**

**RIN 2120-AA64**

### **Airworthiness Directives; McDonnell Douglas Model MD-11 and -11F Airplanes**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model MD-11 and 11F airplanes. This action requires a one-time inspection to detect loose preload-indicating (PLI) washers or cracked or corroded nuts of the lower bolts of the inboard flap outboard hinge, and replacement with new parts if necessary. This action is necessary to detect and correct loose PLI washers or cracked or corroded nuts of the lower bolts of the inboard flap outboard hinge, which could result in separation of the inboard flap outboard hinge from the wing structure and consequent reduced controllability of the airplane.

**DATES:** Effective August 2, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 2, 2002.

Comments for inclusion in the Rules Docket must be received on or before September 16, 2002.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-168-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: [9-anm-iarcomment@faa.gov](mailto:9-anm-iarcomment@faa.gov). Comments sent via fax or the Internet must contain "Docket No. 2002-NM-168-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

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:** Technical Information: Ronald Atmur, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5224; fax (562) 627-5210.

Other Information: Sandi Carli, Airworthiness Directive Technical Editor/Writer; telephone (425) 687-4243, fax (425) 227-1232. Questions or comments may also be sent via the Internet using the following address: [sandi.carli@faa.gov](mailto:sandi.carli@faa.gov). Questions or comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

**SUPPLEMENTARY INFORMATION:** The FAA has received a report of an incident involving a McDonnell Douglas Model MD-11 airplane on which a loud bang was heard when the airplane was on approach with gear down and flaps set at 50 degrees. The airplane shuddered and then rolled left. The flightcrew applied full right-hand aileron to level the wings, missed the approach, and declared an emergency. During landing, the tail of the airplane scraped the runway. Reports indicate that the left-hand inboard flap outboard hinge pulled away from the wing structure where it attaches with two upper and two lower bolts. It was determined that the lower bolts likely failed first. This condition, if not corrected, could result in reduced controllability of the airplane.

The design of the subject area of the airplane is the same on Model DC-10 and MD-11 airplanes. The DC-10 is subjected to lower loads and is less likely to experience this failure. However, Model MD-11 airplanes experience higher loads. In addition, current parts availability only supports the MD-11 fleet. In light of these factors, we have determined that it is appropriate at this time to address the airplane model that has higher loads and has experienced the failure. After additional investigation into the cause of the incident on Model MD-11 airplanes, we may consider related rulemaking for Model DC-10 airplanes.

### **Explanation of Relevant Service Information**

The FAA has reviewed and approved Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002, which describes various procedures for different groups of airplanes, based on the composition of the nuts on the lower bolts of the inboard flap outboard hinge.

Group 1 airplanes have alloy steel nuts, and Group 2 airplanes have Inconel nuts. The procedures for these airplane groups include removing sealant from the head and nut sides of both bolt assemblies, using a wiggle tool to detect looseness of the preload-indicating (PLI) washers, and visually inspecting the nut for corrosion and cracking. Based on the results of the inspection, follow-on and corrective actions include doing a magnetic particle inspection of the bolt to detect cracking and corrosion, replacing discrepant parts with new Inconel and/or alloy steel bolts and nuts and new PLI washers, and applying sealant.

## **Explanation of the Requirements of the Rule**

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to detect and correct loose PLI washers or cracked or corroded nuts of the lower bolts of the inboard flap outboard hinge, which could result in separation of the inboard flap outboard hinge from the wing structure and consequent reduced controllability of the airplane. This AD requires a one-time inspection to detect loose PLI washers or cracked or corroded nuts of the lower bolts of the inboard flap outboard hinge, and replacement with new parts if necessary. This AD also requires that operators report results of inspection findings to the FAA.

## **Differences Between AD and Service Bulletin**

The alert service bulletin specifies that operators may test for looseness of the PLI washers by use of a wiggle tool, "or equivalent." However, this AD requires that any alternative to the wiggle-tool test be accomplished in accordance with a method approved by the FAA. Use of an equivalent tool or test procedure is allowed only if approved as an alternative method of compliance in accordance with the requirements of paragraph (e) of this AD.

Further, although the alert service bulletin specifies that the manufacturer may be contacted for disposition of "additional examination recommendations," this AD requires that such actions be accomplished in accordance with a method approved by the FAA.

## **Interim Action**

This is considered to be interim action until final action is identified, at which time the FAA may consider further rulemaking. Because the cause of the unsafe condition is not currently known, the intent of the required inspection reports is to enable the FAA to determine the extent of the problem in the affected fleet. Based on the results of these reports, further corrective action may be warranted.

## **Determination of Rule's Effective Date**

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

## **Comments Invited**

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this 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 under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the 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 that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-168-AD." The postcard will be date stamped and returned to the commenter.

## **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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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 "[www.airweb.faa.gov/rg1](http://www.airweb.faa.gov/rg1)"*

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).

**2002-14-03 McDonnell Douglas:** Amendment 39-12803. Docket 2002-NM-168-AD.

**Applicability:** Model MD-11 and -11F airplanes listed as Group 1 or Group 2 airplanes in Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002; 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 detect and correct loose preload-indicating (PLI) washers or cracked or corroded nuts of the lower bolts of the inboard flap outboard hinge, which could result in separation of the inboard flap outboard hinge from the wing structure and consequent reduced controllability of the airplane, accomplish the following:

## Inspection

(a) At the applicable time specified in paragraph (a)(1) or (a)(2) of this AD, do a detailed inspection (including removing sealant from the head and nut sides of both bolt assemblies) of the nuts and PLI washers of the lower bolts of the inboard flap outboard hinge to detect discrepancies (including loose PLI washers or cracked or corroded nuts, as applicable), in accordance with Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002, except as required by paragraphs (b) and (c) of this AD. Before further flight thereafter, do applicable follow-on and corrective actions (including performing a magnetic particle inspection of the bolt to detect cracking and corrosion, replacing discrepant parts with new Inconel and/or alloy steel bolts and nuts and new PLI washers, and applying sealant, as applicable); and, within 600 flight cycles, replace discrepant bolts, nuts, and washers with new parts, as applicable; in accordance with the alert service bulletin.

(1) For Group 1 airplanes: Inspect within 30 days after the effective date of this AD.

(2) For Group 2 airplanes: Inspect within 60 days after the effective date of this AD.

**Note 2:** For the purposes of this AD, a detailed 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."

### **Exceptions to Paragraph (a) Requirements**

(b) Where Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002, specifies that testing for looseness of the PLI washers may be accomplished by the use of a wiggle tool, "or equivalent": Either the wiggle tool must be used, or the test must be accomplished in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA.

(c) Where Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002, specifies to contact Boeing for "additional examination recommendations": Before further flight, these actions, if accomplished, must be performed in accordance with a method approved by the Manager, Los Angeles ACO. For such a method to be approved by the Manager, Los Angeles ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

### **Reporting Requirement**

(d) At the applicable time specified in paragraph (d)(1) or (d)(2) of this AD: Send a report of the results (both positive and negative) of the inspection nuts and PLI washers of the lower bolts of the inboard flap outboard hinge to the Manager, Los Angeles ACO, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712-4137, fax (562) 627-5210. The report must include the factory serial number of the airplane; inspection results for all four bolts; a description of any discrepancies found; the part numbers for the bolt, nut, and PLI washers; and the total number of landings and flight hours accumulated on the airplane. Information collection requirements contained in this AD have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(1) For airplanes on which the inspection is accomplished after the effective date of this AD: Submit the report within 10 days after performing the inspection required by paragraph (a) of this AD.

(2) For airplanes on which the inspection has been accomplished prior to the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

### **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 ACO. 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**

(f) Special flight permits may be issued in accordance with Secs. 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) Except as required by paragraphs (b) and (c) of this AD: The actions must be done in accordance with Boeing Alert Service Bulletin MD11-57A067, including Appendices A and B, dated July 10, 2002. 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 August 2, 2002.

Issued in Renton, Washington, on July 10, 2002.

Vi Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-18024 Filed 7-17-02; 8:45 am]

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