

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-337-AD; Amendment 39-12476; AD 2001-21-05]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-11 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain McDonnell Douglas Model MD-11 series airplanes, that currently requires a revision of the Airplane Flight Manual (AFM) to alert the flightcrew that both flight management computers (FMC) must be installed and operational. That AD also requires an inspection to determine the serial number of the FMC's; and follow-on corrective actions, if necessary, which terminate the AFM revision. This amendment requires an inspection to verify if a certain modification is on the front and rear identification plates of the FMC's; and applicable follow-on and corrective actions. This amendment is prompted by the FAA's determination that further rulemaking action is necessary to ensure that all affected airplanes are inspected for suspected defective multiplexers. The actions specified by this AD are intended to prevent loss of airspeed and altitude indications on both primary flight displays in the cockpit, and/or loss or degradation of the autopilot functionality, and consequent failure of the data busses.

DATES: Effective November 26, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 26, 2001.

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 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: Brett Portwood, Aerospace Engineer, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5350; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 98-15-14, amendment 39-10665 (63 FR 38464, July 17, 1998), which is applicable to certain McDonnell Douglas Model MD-11 series airplanes, was published in the Federal Register on April 19, 2001 (66 FR 20116). The action proposed to continue to require a revision of the Airplane Flight Manual to alert the flightcrew that both flight management computers (FMCs) must be installed and operational. This action also proposed to require an inspection to determine whether McDonnell Douglas Modification "AS" had been incorporated and applicable follow-on and corrective actions.

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.

Commenter Concurs

One operator indicates that it has no objections to the proposed actions, which it has already completed.

Request To Allow Verification of Prior Re-identification

One operator states that "if the Mod AS accomplishes the corrective action of the data bus failure condition, and was satisfactorily demonstrated and approved by the FAA, then the terminating action should be to `verify that the FMCs installed have Mod AS incorporated and are software updated to the -912 P/N.' There should be no need to confirm that a data bus failure condition does not exist."

The same commenter states that it has already accomplished the proposed terminating action by modifying all of its FMCs with Mod "AS", and has accomplished the Honeywell and the McDonnell Douglas/Boeing service bulletins to ensure that the software was updated to the -912 P/N. The FAA concurs that if the requirements of the applicable service bulletin have already been accomplished, this AD does not require that those actions be repeated. As a result, no change to the AD 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 as proposed.

Cost Impact

There are approximately 174 Model MD-11 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 59 airplanes of U.S. registry will be affected by this AD.

The actions that are currently required by AD 98-15-14 and retained in this AD 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 the currently required actions on U.S. operators is estimated to be \$3,540, or \$60 per airplane.

The new actions that are required by this AD will 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 the new requirements of this AD on U.S. operators is estimated to be \$3,540 or \$60 per airplane.

The cost impact figures discussed above are 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 removing amendment 39-10665 (63 FR 38464, July 17, 1998), and by adding a new airworthiness directive (AD), amendment 39-12476, to read as follows:

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).

2001-21-05 McDonnell Douglas: Amendment 39-12476. Docket 2000-NM-337-AD. Supersedes AD 98-15-14, Amendment 39-10665.

Applicability: Model MD-11 series airplanes having manufacturer's fuselage numbers 0447 through 0552 inclusive, and 0554 through 0621 inclusive; 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 loss of airspeed and altitude indications on both primary flight displays in the cockpit, and/or loss or degradation of the autopilot functionality, and consequent failure of the data busses, accomplish the following:

Restatement of Requirements of AD 98-15-14 Airplane Flight Manual (AFM) Revision

(a) Within 5 days after May 20, 1998 (the effective date of AD 98-10-01, amendment 39-10512), revise Section 1, page 5-1, of the Limitations Section of the FAA-approved AFM to include the following statement. This may be accomplished by inserting a copy of this AD into the AFM.

"Prior to dispatch of the airplane, both Flight Management Computer 1 (FMC-1) and FMC-2 must be installed and operational."

New Actions Required by This AD Inspection

(b) Within 90 days after the effective date of this AD, do an inspection to verify that modification "AS" is on the front and rear identification plates of flight management computer 1 (FMC-1) and FMC-2, per McDonnell Douglas Service Bulletin MD11-34-085, Revision 01, dated September 20, 1999. After the inspection has been done, the AFM revision required by paragraph (a) of this AD may be removed from the AFM.

Condition 1 (Modification "AS" Is Installed)

(c) If modification "AS" is found installed during the inspection required by paragraph (b) of this AD, before further flight, do the actions specified in paragraphs (c)(1) and (c)(2) of this AD, per McDonnell Douglas Service Bulletin MD11-34-085, Revision 01, dated September 20, 1999.

(1) Do a test of the FMC's in the flight compartment to ensure that modification "AS" is operational, and do applicable corrective actions, if necessary. Both FMC's must have modification "AS" installed and pass the test before loading new software per paragraph (c)(2) of this AD.

(2) Install new software and reidentify FMC-1 and FMC-2 as part number (P/N) 4059050-912.

Note 2: McDonnell Douglas Service Bulletin MD11-34-085, Revision 01, dated September 20, 1999, references Honeywell Service Bulletin 4059050-34-6020, Revision 1, dated April 30, 1999, as an additional source of service information for the installation and reidentification requirements of paragraphs (c)(2) and (d)(2) of this AD.

Condition 2 (Modification "AS" Is Not Installed)

(d) If modification "AS" is NOT found installed during the inspection required by paragraph (a) of this AD, before further flight, do the actions specified in paragraphs (d)(1), (d)(2), and (d)(3) of this AD, per McDonnell Douglas Service Bulletin MD11-34-085, Revision 01, dated September 20, 1999.

(1) Remove FMC-1 and FMC-2.

(2) Install modification "AS" and new software, and reidentify FMC-1 and FMC-2 as P/N 4059050-912.

(3) Install modified and reidentified FMC-1 and FMC-2.

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 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 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) Except as required by paragraph (a) of this AD, the actions shall be done in accordance with McDonnell Douglas Service Bulletin MD11-34-085, Revision 01, dated September 20, 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 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 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 November 26, 2001.

Issued in Renton, Washington on October 15, 2001.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01-26472 Filed 10-19-01; 8:45 am]

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