

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 48284 No. 171 09/03/99]

[Docket No. 98-NM-69-AD; Amendment 39-11289; AD 99-18-23]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-90-30 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all McDonnell Douglas MD-90-30 series airplanes, that requires revising the Airworthiness Limitations Section of the Instructions for Continued Airworthiness [MD-90-30 Airworthiness Limitations Instructions (ALI)] to incorporate certain replacement times for safe-life limited parts. This amendment is prompted by analysis of data that identified reduced replacement times for certain safe-life limited parts. The actions specified by this AD are intended to prevent fatigue cracking of various safe-life limited parts; such fatigue cracking could adversely affect the structural integrity of these airplanes.

DATES: Effective October 8, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 8, 1999.

ADDRESSES: The service information referenced in this AD may be obtained from The Boeing Company, Douglas Products Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). 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, Transport Airplane Directorate, 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: Brent Bandley, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5237; 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 all McDonnell Douglas MD-90-30 series airplanes was published in the

Federal Register on March 2, 1999 (64 FR 10113). That action proposed to require revising the Airworthiness Limitations Section of the Instructions for Continued Airworthiness [MD-90-30 Airworthiness Limitations Instructions (ALI)] to incorporate certain replacement times for safe-life limited parts.

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.

Support for the Proposal

One commenter supports the proposed rule.

Request to Withdraw Proposed AD

One commenter states that timely incorporation of revisions to the ALI may be secured by processes other than the issuance of an AD. The commenter contends that the proposed AD places an unnecessary burden on engineering and maintenance personnel and defeats the regulatory mandates that are currently in place by standing Federal Aviation Regulations (FAR). The ALI is currently monitored and revised as new revisions are issued and made available by the manufacturer. This practice is duplicated with other similar maintenance and operational documents, including, but not limited to, aircraft maintenance manuals, flight manuals, pilot's operating handbooks, and aircraft service bulletins. The commenter also states that Model MD-90 series airplanes are operated in accordance with the Type Certificate (TC) of the aircraft. In order to adhere to operation of the aircraft in accordance with the TC, the commenter asserts that it is clear to operators that the ALI and its subsequent revisions must be considered and accomplished concurrent with any other requirement specified within the parameters of the TC.

From this comment, the FAA infers that the commenter is requesting that the proposed AD be withdrawn. The FAA does not concur. In accordance with the airworthiness standards requiring "damage tolerance assessments" (current Section 1529 of 14 CFR parts 23, 25, 27, and 29; Section 4 of 14 CFR parts 33 and 35; Section 82 of 14 CFR part 31; and the Appendices referenced in those sections), all products certificated to comply with those sections must have Instructions for Continued Airworthiness (or, for some products, maintenance manuals), that include an Airworthiness Limitations Section (ALS).

Based on in-service data or post certification testing and evaluation, the manufacturer may revise the ALS to include new or more restrictive life limits and inspections, or it may become necessary for the FAA to impose new or more restrictive life limits and structural inspections, in order to ensure continued structural integrity and continued compliance with damage tolerance requirements. However, in order to require compliance with these new inspection requirements and life limits for previously certificated airplanes, the FAA must engage in rulemaking. Because loss of structural integrity would constitute an unsafe condition, it is appropriate to impose these requirements through the AD process. Although prudent operators may already have incorporated the latest revisions of the ALI, issuance of this AD ensures that all operators take appropriate action to correct the identified unsafe condition. It should be noted that, simultaneously with the issuance of the AD, the

responsible Aircraft Certification Office (ACO) will revise the TC data sheet for the product to indicate the change in the airworthiness limitations.

The practice of mandating ALS revisions has been used for several years and is not a novel or unique procedure. The FAA finds that requiring ALS revisions has the advantage of keeping all airworthiness limitations, whether imposed by original certification or by AD, in one place within the operator's maintenance program, thereby reducing the risk of non-compliance because of oversight or confusion. In some cases where there is a large fleet of airplanes with several small operators, it is possible that operators may not receive revisions to the ALS documents. The AD process ensures that these operators are aware of the revisions to the ALS.

Request to Delete Paragraph (b) of the Proposed AD

One commenter states that the restriction imposed by paragraph (b) of the proposed AD does not take into consideration: (1) any individual part with safe-life limits imposed by special analysis and approved by the manufacturer on an individual basis; or (2) future revision of the safe-life limits section of the ALI. The commenter also states that the proposed AD would ultimately requires that each part be analyzed by the manufacturer (and subsequently approved with a safe-life limit deviation from the ALI) and submitted to the FAA for approval as an alternative method of compliance (AMOC).

From this comment, the FAA infers that the commenter is requesting that paragraph (b) of the proposed AD be deleted. The FAA does not concur. Paragraph (b) is necessary because section 91.403 of the FAR would otherwise permit operation in accordance with alternative inspection intervals set forth in approved operations specifications or inspection programs, which might conflict with the intervals referenced in this AD. However, under the provisions of paragraph (c) of the final rule, the FAA may approve requests for AMOC's or adjustments to the compliance time if data are submitted to substantiate that such a method or adjustment would provide an acceptable level of safety.

In addition, the FAA agrees with the commenter that any reduction or expansion to the safe-life limits has to be coordinated between the operator, manufacturer, and the FAA. However, the FAA finds that this will not impose a significant burden because such changes must already be FAA-approved.

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 150 airplanes of the affected design in the worldwide fleet. The FAA estimates that 100 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 actions, 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 \$6,000, 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.

Regulatory Impact

The regulations adopted herein will 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 final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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.

§ 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**

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, 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 FAR Subpart 39.3).

99-18-23 MCDONNELL DOUGLAS: Amendment 39-11289. Docket 98-NM-69-AD. Issued August 27, 1999.

Applicability: All Model MD-90-30 airplanes, 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 (c) 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 fatigue cracking of various safe-life limited parts, which could adversely affect the structural integrity of these airplanes, accomplish the following:

(a) Within 180 days after the effective date of this AD, revise the Airworthiness Limitations Section of the Instructions for Continued Airworthiness [Airworthiness Limitations Instructions (ALI), McDonnell Douglas Report No. MDC-94K9000, dated November 1994] to incorporate the Part Number, Item, and Mandatory Replacement Time of certain safe-life limited parts by inserting a copy of Revision 3, dated November 1997, into the ALI.

(b) Except as provided by paragraph (c) of this AD: After the actions specified in paragraph (a) of this AD have been accomplished, no alternative replacement times may be approved for the safe-life limited parts specified in McDonnell Douglas ALI Report No. MDC-94K9000, Revision 3, dated November 1997.

Alternative Methods of Compliance

(c) 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, the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office. 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 2: 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

(d) 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

(e) The ALI revision shall be done in accordance with McDonnell Douglas Airworthiness Limitations Instructions Report No. MDC-94K9000, Revision 3, dated November 1997, which contains the following list of effective pages:

Page Number	Revision Level Shown on Page	Date Shown on Page
List of Effective Pages	Not Shown	November 1997

(NOTE: The revision level is indicated only on the Title page; no other page contains this information.)

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 The Boeing Company, Douglas Products Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, 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.

(f) This amendment becomes effective on October 8, 1999.

FOR FURTHER INFORMATION CONTACT:

Brent Bandle, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5237; fax (562) 627-5210.