[Federal Register: December 24, 2008 (Volume 73, Number 248)]
[Rules and Regulations]
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[DOCID:fr24de08-5]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-1250; Directorate Identifier 2008-SW-49-AD; Amendment 39-15755; AD 2008-17-51]

RIN 2120-AA64

Airworthiness Directives; MD Helicopters, Inc. Model MD900 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This document publishes in the Federal Register an amendment adopting Airworthiness Directive (AD) 2008-17-51, which was sent previously to all known U.S. owners and operators of MD Helicopters, Inc. (MDHI) Model MD900 helicopters by individual letters. This AD requires, before further flight, fluorescent magnetic particle inspecting the aft threads of the forward directional control cable (control cable) for a crack and replacing the control cable with an airworthy part if you find a crack. If you do not find a crack, this AD requires that you demagnetize the cable threads until you reach a certain gauss level. This AD also requires visually inspecting the aft cable attach bracket for a crack and for interference with movement of the control cable or for deformation of the aft cable attach bracket. If a crack or interference with movement of the control cable or deformation of the aft cable attach bracket exists, this AD requires replacing the bracket with an airworthy part. This AD also requires modifying the control cable conduit and the rotating cone control rod and identifying the rotating cone control rod with a certain part number. This amendment is prompted by three reports of in-flight failure of the control cable and loss of yaw control resulting in emergency landings and subsequent damage to the helicopter. The actions specified by this AD are intended to prevent loss of yaw control and subsequent loss of control of the helicopter.

DATES: January 8, 2009, to all persons except those persons to whom it was made immediately effective by Emergency AD 2008-17-51, issued on August 14, 2008, which contained the requirements of this amendment.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 8, 2009.

Comments for inclusion in the Rules Docket must be received on or before February 23, 2009.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service bulletin identified in this AD from MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at http://www.mdhelicopters.com. You may purchase the American Society for Testing and Material standard from ASTM International on the Web at http://www.astm.org/.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information on the Internet at http://www.regulations.gov, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Eric D. Schrieber, FAA, Los Angeles Aircraft Certification Office, Aviation Safety Engineer, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone 562-627-5348, fax 562-627-5210.

SUPPLEMENTARY INFORMATION: On August 14, 2008, we issued Emergency AD 2008-17-51 for the specified MDHI model helicopters. The Emergency AD requires fluorescent magnetic particle inspecting the aft threads of the control cable for a crack and replacing the control cable with an airworthy part if you find a crack. If you do not find a crack, the Emergency AD requires that you demagnetize the cable threads until you reach a certain gauss level. The Emergency AD also requires visually inspecting the aft cable attach bracket for a crack and for interference with movement of the control cable or for deformation of the aft cable attach bracket. If a crack or interference with movement of the control cable or deformation of the aft cable attach bracket exists, the Emergency AD requires replacing the bracket with an airworthy part. The Emergency AD also requires modifying the control cable conduit and the rotating cone control rod and identifying the rotating cone control rod with part number "900C2010582-105." The Emergency AD was prompted by three reports of in-flight failure of the control cable and loss of yaw control resulting in emergency landings and subsequent damage to the helicopter. This condition, if not corrected, could result in loss of yaw control and subsequent loss of control of the helicopter.

MDHI has issued Service Bulletin SB900-108R1, dated August 13, 2008, which describes procedures for magnetic particle inspecting and modifying the control cable and rotating cone control rod installation.

Since the unsafe condition described is likely to exist or develop on other MDHI model helicopters of the same type design, we issued Emergency AD 2008-17-51 to prevent loss of yaw control and subsequent loss of control of the helicopter. The Emergency AD requires the following, before further flight:

- Remove the rotating cone, the thruster extension, and the rotating cone control rod, and NAS1193K4CP lock device (2 parts).
- Do a fluorescent magnetic particle inspection for a crack in the aft threads of the control cable. If you find a crack, replace the control cable with an airworthy part. If you do not find a crack, demagnetize the cable threads until you reach a gauss level of +/-3.

• Visually inspect the aft cable attach bracket for a crack. Inspect for interference with the movement of the control cable or for deformation of the aft cable attach bracket. If a crack or interference with the movement of the control cable or deformation of the aft cable attach bracket exists, replace the bracket with an airworthy part.
• Cut and modify the aft end of the control cable conduit.
• Modify the rotating cone control rod by drilling lock wire holes. Using permanent ink, identify the rotating cone control rod with part number 900C2010582-105.
• Inspect the control cable for proper adjustment.
• Install the rotating cone control rod.
• Install the thruster extension.
• Install the rotating cone. If you adjust the control cable at the attach brackets, inspect for interference with the movement of the control cable or for deformation of the aft cable attach bracket. If interference with the movement of the control cable or deformation of the aft cable attach bracket exists, replace the bracket with an airworthy part.
• Rerig the antitorque directional control system.

The actions must be done by following specified portions of the service bulletin described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability of the helicopter. Therefore, the actions described previously are required before further flight, and this AD must be issued immediately.

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual letters issued on August 14, 2008, to all known U.S. owners and operators of MDHI Model MD900 helicopters. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to 14 CFR 39.13 to make it effective to all persons.

The FAA estimates that this AD will affect 33 helicopters of U.S. registry. It will take about 5.5 work hours to remove, modify, visually inspect, and install parts, and 2 work hours to fluorescent magnetic particle inspect the aft threads in the control cable per helicopter at an average labor rate of $80 per work hour. The kits required to modify the control cable cost about $8,603 for the entire fleet. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be $28,403.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2008-1250; Directorate Identifier 2008-SW-49-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that the 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. 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.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

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 a new airworthiness directive to read as follows:

2008-17-51 MD Helicopters, Inc.: Amendment 39-15755. Docket No. FAA-2008-1250; Directorate Identifier 2008-SW-49-AD.

Applicability: Model MD900 helicopters, serial numbers 900-00008 through 900-00128, with part number (P/N) 900C3010045-105 forward directional control cable (control cable), P/N 900C2010582-103 rotating cone control rod, and P/N 9000F2318021 (all dash numbers) tailboom assembly, installed, certificated in any category.

Compliance: Before further flight, unless done previously.

To prevent loss of yaw control and subsequent loss of control of the helicopter, do the following:

(a) Remove the rotating cone, the thruster extension, the rotating cone control rod, and the NAS1193K4CP lock device (2 parts). Do not reinstall the lock device. Use your hand and turn the telescopic part on the aft end of the control cable until it is fully forward on the control cable.

Note: The MDHI maintenance manuals CSP-900RMM-2, Sections 67-20-00, 29-00-00, 53-40-00; CSP-SPM, Section 20-30-00; and CSP-900IPL-4 Illustrated Parts pertain to the subject of this AD.

(b) Do a fluorescent magnetic particle inspection for a crack in the aft threads of the control cable as depicted in Figure 2 and by following MD Helicopters, Inc. (MDHI) Service Bulletin SB900-108R1, dated August 13, 2008, Section 2, Accomplishment Instructions (SB), paragraphs (5)(a) through 5(j). The inspection must be done by an inspector qualified under the guidelines established by MIL-STD-410E, ATA Specification 105, AIA-NAS-410, or an FAA-accepted equivalent for qualification standards of NDT Inspection/Evaluation Personnel. The inspector that accepts or rejects the inspected part must be certified to a Non-Destructive Testing (NDT) UT minimum Level II. The part must be inspected to the inspection facilities written procedure approved by a person certified to a Level III. For the magnetic particle examination process and qualifications, follow the American Society for Testing and Material (ASTM) E 1444-93 ε_1.

(1) If you find a crack, replace the control cable with an airworthy part.

(2) If you do not find a crack, demagnetize the cable threads by following paragraphs (6)(a) or (6)(b) of the SB until you reach a gauss level of +/-3.

(c) Visually inspect the aft cable attach bracket, depicted in Figure 3 of the SB, for a crack. Inspect for interference with the movement of the control cable or for deformation of the aft cable attach bracket by following paragraphs (9)(a) through (9)(c) of the SB. If a crack or interference with the movement of the control cable or deformation of the aft cable attach bracket exists, replace the bracket with an airworthy part.

(d) Cut and modify the aft end of the control cable conduit as depicted in Figure 4 of the SB by following paragraphs (10)(a) through (10)(g) of the SB.

(e) Modify the rotating cone control rod by drilling lock wire holes as depicted in Figure 5 of the SB by following paragraphs (11)(a) through (11)(g) of the SB. Using permanent ink, mark the rotating cone control rod with "900C2010582-105."

(f) Inspect the control cable for proper adjustment by following paragraphs (12)(a) through (12)(c), of the SB.

(g) Install the rotating cone control rod as depicted in Figure 6 of the SB by following paragraphs (13)(a) through (13)(c) of the SB. Make sure the control cable threads are past the witness hole in the rotating cone control rod.

(h) Install the thruster extension.

(i) Install the rotating cone. If you adjust the control cable at the attach brackets, inspect for interference with the movement of the control cable or for deformation of the aft cable attach bracket by following paragraph (15) of the SB. If interference with the movement of the control cable or deformation of the aft cable attach bracket exists, replace the bracket with an airworthy part.

(j) Rerig the antitorque directional control system.

(k) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Los Angeles Aircraft Certification Office, FAA, ATTN: Eric D. Schrieber, Aviation Safety Engineer, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone 562-627-5348, fax 562-627-5210, for information about previously approved alternative methods of compliance.

(l) Special flight permits will not be issued.

(m) The inspections and modification must be done by following the specified portions of MD Helicopters, Inc. Service Bulletin SB900-108R1, dated August 13, 2008. Copies of this service bulletin may be obtained from MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at http://www.mdhelicopters.com. The inspection must also be done by following the magnetic particle examination process and qualifications found in American Society for Testing and Material (ASTM) E 1444-93 [egr]1, approved February 15, 1993, Standard Practice for Magnetic Particle Examination. Copies of this information may be purchased from AMST International on the Web at http://www.astm.org/. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(n) This amendment becomes effective on January 8, 2009, to all persons except those persons to whom it was made immediately effective by Emergency AD 2008-17-51, issued August 14, 2008, which contained the requirements of this amendment.

Issued in Fort Worth, Texas, on November 19, 2008.
Scott A. Horn,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.