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[Page 32787-32788]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20863; Directorate Identifier 2004-SW-36-AD; Amendment 39-15100; AD 2007-12-22]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Model AS350B, BA, B1, B2, B3, D, and AS355E Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for the specified Eurocopter France (ECF) model helicopters that requires replacing the hydraulic fluid at a specified time interval when operating in cold weather. This amendment is prompted by reports of ice forming due to condensation in some parts of the hydraulic system during cold weather operation. The actions specified by this AD are intended to prevent ice from forming in the hydraulic system resulting in an unintended movement of the flight controls and subsequent loss of control of the helicopter.

DATES: Effective July 19, 2007.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 19, 2007.

ADDRESSES: You may get the service information identified in this AD from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527.

Examining the Docket: You may examine the docket that contains this AD, any comments, and other information on the Internet at <http://dms.dot.gov>, or at the Docket Management System (DMS), U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, on the plaza level of the Nassif Building, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Ed Cuevas, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5355, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: A proposal to amend 14 CFR part 39 to include an AD for the specified model helicopters was published in the Federal Register on April 7, 2005 (70 FR 17621). That action proposed replacing the hydraulic fluid at a specified time interval when operating in cold weather.

The Direction Generale de l'Aviation Civile (DGAC), the airworthiness authority for France, notified the FAA that an unsafe condition may exist on the specified ECF Model AS350 and AS355 helicopters. The DGAC advises of the formation of ice in some parts of the hydraulic system during flights in cold weather and when the hydraulic fluid is highly contaminated by water.

ECF has issued Alert Service Bulletin Nos. 05.00.43 and 05.00.45, both dated April 8, 2004, which specify provisions for replacing hydraulic fluid in cold weather. The DGAC classified these service bulletins as mandatory and issued AD Nos. F-2004-055 and F-2004-056, both dated April 28, 2004, to ensure the continued airworthiness of these helicopters in France.

These helicopter models are manufactured in France and are type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, the DGAC has kept us informed of the situation described above. We have examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of these type designs that are certificated for operation in the United States.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the one comment received.

The one commenter states that the ASB is adequate until Eurocopter sorts out the moisture problem, and changing the fluid every 100 hours or 30 days is wasteful and not necessary, and such action will not get all the moisture out of the system. Therefore, an AD should not be issued.

The FAA does not agree. The ASB is not adequate until Eurocopter sorts out the moisture problem. Generally, part 91 operators are not required to follow an ASB; however, they are required to follow an AD. An AD is issued to address an unsafe condition. This AD requires replacing the hydraulic fluid at the specified intervals to prevent ice from forming in the hydraulic system resulting in an unintended movement of the flight controls and subsequent loss of control of the helicopter. The ASB was written in association with the airworthiness authority in France (DGAC) to address the problem of moisture in the hydraulic fluid resulting in feedback in the system during operations in cold temperatures in Canada. Moisture that is absorbed into the hydraulic fluid is not a function of the type of fluid. Moisture is absorbed into the hydraulic fluid due to heating and cooling of the fluid in the reservoir because the reservoir is vented to atmospheric pressure (humidity). It is not a closed system. Moisture may occur with either MIL-H-83282 or MIL-H-5606 fluid. Normally, there is not enough moisture in the system to cause any problems but occasionally there is enough to cause some feedback in the cyclic control (due to ice crystals forming in cold weather). MIL-H-83282 hydraulic fluid is the preferred fluid and MIL-H-5606 is an alternate. In many climates, the operator cannot use the MIL-H-5606 fluid because it has a lower flash point than the MIL-H-83282 fluid. Therefore, MIL-H-5606 fluid can only be used in colder environments. As a result, the option for the alternate fluid is limited to colder environments.

An ECF ASB is written in association with an AD issued by a foreign authority (European Aviation Safety Agency (EASA) or DGAC). The foreign ASB is in place when the AD is published to require that operators comply with the manufacturer's ASB. The FAA AD follows the requirements placed on other parts of the world by the foreign authority (state of design) if the FAA agrees with those requirements.

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 except for a change in paragraph (b) of the AD to add additional contact information and to revise the total cost impact; we have used a labor rate of \$80 instead of \$65. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

We estimate that this AD will affect 556 helicopters of U.S. registry, and the required actions will take about:

- 2 work hours to replace the hydraulic fluid per helicopter at an average labor rate of \$80 per work hour; and
- \$6 for hydraulic fluid each time it is changed.

Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$92,296, assuming two fluid replacements per year for 50 percent of the helicopter fleet.

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 DMS 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:



2007-12-22 Eurocopter France: Amendment 39-15100. Docket No. FAA-2005-20863; Directorate Identifier 2004-SW-36-AD.

Applicability

Model AS350B, BA, B1, B2, B3, D and AS355E helicopters, certificated in any category.

Compliance

Required as indicated.

To prevent ice from forming in the hydraulic system resulting in an unintended movement of the flight controls and subsequent loss of control of the helicopter, do the following:

(a) If the outside air temperature in an FAA weather briefing is forecast to be below negative 15 degrees Celsius (5 degrees Fahrenheit) at or below your planned flight altitude and the hydraulic fluid has not been replaced within the past 100 hours time-in-service or within the past 30 days, whichever occurred first, before further flight, replace the hydraulic fluid. Replace the hydraulic fluid by following the Accomplishment Instructions, paragraphs 2.A. and 2.B., of Eurocopter Alert Service Bulletin Nos. 05.00.43 or 05.00.45, both dated April 8, 2004, as applicable.

(b) 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 Safety Management Group, Rotorcraft Directorate, FAA, ATTN: Ed Cuevas, Aviation Safety Engineer, Fort Worth, Texas 76193-0111, telephone (817) 222-5355, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) Special flight permits will not be issued.

(d) Replacing the hydraulic fluid must be done by following Eurocopter Alert Service Bulletin Nos. 05.00.43 or 05.00.45, both dated April 8, 2004, as applicable. 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 obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. You may review copies at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 63, 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.

(e) This amendment becomes effective on July 19, 2007.

Note: The subject of this AD is addressed in Direction Generale de l'Aviation Civile (France) AD Nos. F-2004-055 and F-2004-056, both dated April 28, 2004.

Issued in Fort Worth, Texas, on May 25, 2007.
David A. Downey,
Manager, Rotorcraft Directorate, Aircraft Certification Service.
[FR Doc. E7-11410 Filed 6-13-07; 8:45 am]