

[Federal Register: March 16, 2010 (Volume 75, Number 50)]
[Rules and Regulations]
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From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr16mr10-2]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-1090; Directorate Identifier 2009-SW-31-AD; Amendment 39-16227; AD 2010-06-03]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Model AS355E, AS355F, AS355F1, AS355F2, and AS355N Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Eurocopter France (Eurocopter) Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. This AD results from a mandatory continuing airworthiness information (MCAI) AD issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community. The MCAI AD states that a metallurgical non-conformity was discovered on a flange of the forward shaft section of the tail rotor drive shaft (drive shaft). The MCAI AD also states that stress analysis has shown that this non-conformity can significantly reduce the strength of the drive shaft and thereby its service life. The AD actions are intended to remove non-conforming drive shafts from service and prevent failure of the drive shaft and subsequent loss of control of the helicopter.

DATES: This AD becomes effective on April 20, 2010.

ADDRESSES: You may examine the AD docket on the Internet at <http://regulations.gov> or in person at the Docket Operations office, U.S. Department of Transportation, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>.

EXAMINING THE AD DOCKET: The AD docket contains the Notice of proposed rulemaking (NPRM), the economic evaluation, any comments received, and other information. The street address and operating hours for the Docket Operations office (telephone (800) 647-5527) are in the

ADDRESSES section of this AD. Comments will be available in the AD docket shortly after they are received.

FOR FURTHER INFORMATION CONTACT: Uday Garadi, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5123; fax (817) 222-5961.

SUPPLEMENTARY INFORMATION:

Discussion

We issued an NPRM on November 23, 2009 to amend 14 CFR part 39 to include an AD that would apply to the Eurocopter Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. That NPRM was published in the Federal Register on December 10, 2009 (74 FR 65492). That NPRM proposed to remove non-conforming drive shafts from service to prevent failure of the drive shaft and subsequent loss of control of the helicopter. You may obtain further information by examining the MCAI AD and any related service information in the AD docket.

Comments

By publishing the NPRM, we gave the public an opportunity to participate in developing this AD. However, we received no comment on the NPRM or on our determination of the cost to the public. Therefore, based on our review and evaluation of the available data, we have determined that air safety and the public interest require adopting the AD as proposed.

Relevant Service Information

Eurocopter has issued Alert Service Bulletin No. 01.00.51, Revision 1, dated February 9, 2006. The actions described in the MCAI AD are intended to correct the same unsafe condition as that identified in the service information.

Differences Between This AD and the MCAI AD

This AD differs from the MCAI AD as follows:

- We refer to the compliance time as "hours time-in-service" rather than "flying hours" and
- We do not require returning spares to the manufacturer.

Costs of Compliance

We estimate that this AD will affect about 96 helicopters of U.S. registry. We also estimate that it will take about 2 work-hours per helicopter to complete the compliance actions. The average labor rate is \$85 per work-hour. Required parts will cost about \$8,335 per helicopter. Based on these figures, we estimate that the cost of this AD on U.S. operators is \$816,480, or \$8,505 per helicopter assuming that the drive shaft is replaced on each helicopter.

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 product(s) identified in this rulemaking action.

Regulatory Findings

We 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.

Therefore, I certify this AD:

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 and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new AD:



2010-06-03 EUROCOPTER FRANCE: Amendment 39-16227; Docket No. FAA-2009-1090; Directorate Identifier 2009-SW-31-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective on April 20, 2010.

Other Affected ADs

- (b) None.

Applicability

(c) This AD applies to Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters with tail rotor drive shaft forward shaft section, part number 355A 34-1090-00, serial number 858 through 873 (inclusive) with a prefix "M," certificated in any category. This AD does not apply to helicopters manufactured after January 1, 2005.

Reason

(d) The mandatory continuing airworthiness information (MCAI) AD states that a metallurgical non-conformity was discovered on a flange of the forward shaft section of the tail rotor drive shaft (drive shaft). The MCAI AD also states that stress analysis has shown that this non-conformity can significantly reduce the strength of the drive shaft and thereby its service life. This AD is intended to remove non-conforming drive shafts from service and prevent failure of the drive shaft and subsequent loss of control of the helicopter.

Actions and Compliance

- (e) Unless already accomplished, do the following:
 - (1) For any drive shaft that has less than 2,400 hours time-in-service (TIS), on or before reaching 2,500 hours TIS, remove the drive shaft and replace it with an airworthy drive shaft that is not included in the applicability of this AD.
 - (2) For any drive shaft with 2,400 or more hours TIS, within the next 100 hours TIS, remove the drive shaft and replace it with an airworthy drive shaft that is not included in the applicability of this AD.

Differences Between This AD and the MCAI AD

- (f) This AD differs from the MCAI AD as follows:
 - (1) We refer to the compliance time as "hours time-in-service" rather than "flying hours" and
 - (2) We do not require returning spares to the manufacturer.

Other Information

(g) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, FAA, ATTN: Uday Garadi, Aviation Safety Engineer, Regulations and Policy Group, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5123, fax (817) 222-5961, has the authority to approve AMOCs for this AD, if requested, using the procedures found in 14 CFR 39.19.

Related Information

(h) European Aviation Safety Agency (EASA) AD No. 2006-0100, dated April 24, 2006, and Eurocopter Alert Service Bulletin No. 01.00.51, Revision 1, dated February 9, 2006, contain related information.

Joint Aircraft System/Component (JASC) Code

(i) The JASC Code is 6510: Tail rotor drive shaft.

Issued in Fort Worth, Texas, on February 22, 2010.

Lance T. Gant,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.