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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0339; Directorate Identifier 2011-SW-051-AD; Amendment 39-17259; AD 2012-23-03]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Eurocopter France (Eurocopter) Model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318 C-ALOUETTE ASTAZOU helicopters. This AD requires inspecting the cage of the free-wheel assembly for the correct alignment of the roller drive pocket recesses and replacing the free-wheel cage with an airworthy free-wheel cage if a defect exists. This AD was prompted by incorrect positioning of the roller drive pocket recesses on the tail rotor drive shaft free-wheel cage, which caused a pilot to experience a heavy jerk in the yaw control during in-flight autorotation training. The requirements of this AD are intended to prevent a loss of tail rotor drive and subsequent loss of control of the helicopter.

DATES: This AD is effective December 31, 2012.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of December 31, 2012.

ADDRESSES: For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Examining the AD Docket: You may examine the AD docket 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 AD docket contains this AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S.

Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Rao Edupuganti, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5110, email rao.edupuganti@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On March 29, 2012, at 77 FR 18967, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Eurocopter Model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318C-ALOUETTE ASTAZOU helicopters. That NPRM proposed to require inspecting the cage of the free-wheel assembly for the correct alignment of the roller drive pocket recesses and replacing the free-wheel cage with an airworthy free-wheel cage if a defect exists. The proposed requirements were intended to prevent a loss of tail rotor drive and subsequent loss of control of the helicopter.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2011-0143, dated July 26, 2011 (AD 2011-0143), to correct an unsafe condition for Eurocopter helicopters. EASA advises that during in-flight autorotation training, a pilot experienced a heavy jerk in the yaw control at the time of resynchronization. The free-wheel assembly of the helicopter had been replaced shortly before this flight. Internal inspection of the free-wheel assembly revealed incorrect positioning of the roller drive pocket recesses on the free-wheel cage. The subsequent off-setting restricts the travel of the roller on its ramp and can cause, under high torque conditions, free-wheel slippage.

This condition, if not corrected, could result in a temporary loss of rotor drive, jeopardizing flight safety, especially in phases of flight close to the ground.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (77 FR 18967, March 29, 2012).

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by the EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between This AD and the EASA AD

The EASA AD requires compliance within 110 flight hours or 5 months, whichever occurs first. This AD does not impose a calendar time requirement.

Related Service Information

Eurocopter has issued Alert Service Bulletin (ASB) No. Alouette-65.149, Revision 0, dated March 23, 2011, for model 3130, 313B, 3180, 318B, 318C, 3160, 316B, 316C, 319C and 319B helicopters; and ASB No. SA315-65.48, Revision 0, dated March 23, 2011, for model 315B helicopters, which specify removing and disassembling the free-wheel assembly to check the free-wheel cage for correct positioning. EASA classified these ASBs as mandatory and issued AD 2011-0143 to ensure the continued airworthiness of these helicopters.

Costs of Compliance

We estimate that this AD will affect 63 helicopters of U.S. Registry and that operators may incur the following costs to comply with this AD.

- Inspecting the free-wheel cage assembly will require 8 work-hours at an average labor rate of \$85 per hour, and required parts will cost \$13, for a total cost per helicopter of \$693, and a total cost to the U.S. operator fleet of \$43,659.
- Modifying any affected free-wheel cage assembly will require 8 work hours and required parts will cost \$1,986, for a total cost per helicopter of \$2,666.

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 helicopters identified in this rulemaking action.

Regulatory Findings

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 this AD:

- (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);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) 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, Incorporation by reference, 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 airworthiness directive (AD):



2012-23-03 Eurocopter France Helicopters: Amendment 39-17259; Docket No. FAA-2012-0339; Directorate Identifier 2011-SW-051-AD.

(a) Applicability

This AD applies to Model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318 C-ALOUETTE ASTAZOU helicopters with a free-wheel cage, part number (P/N) 3130S60-10-003 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as incorrect positioning of the roller drive pocket recesses on the cage of the tail-rotor driveshaft free-wheel assembly. This condition could result in loss of tail rotor drive and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective December 31, 2012.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 110 hours time-in-service:

- (1) Remove the free-wheel assembly and pull out the free-wheel driven head.
- (2) Inspect the free-wheel cage for correct alignment of the roller drive pocket recesses in accordance with Figure 2 of Eurocopter Alert Service Bulletin (ASB) No. SA315-65.48, Revision 0, or Eurocopter ASB No. ALOUETTE-65.149, Revision 0, both dated March 23, 2011, as appropriate for your model helicopter.
- (3) If the right edge of the tab is in line with the right edge of the pocket recess, before further flight, replace the free-wheel cage with an airworthy free-wheel cage.
- (4) Do not install an affected free-wheel assembly on any helicopter, unless the cage has passed inspection in accordance with paragraph (e)(2) through (e)(3) of this AD.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Rao Edupuganti, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5110, email rao.edupuganti@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2011-0143, dated July 26, 2011.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6700: Tail Rotor Drive System.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin (ASB) No. SA315-65.48, Revision 0, dated March 23, 2011.

(ii) Eurocopter ASB No. ALOUETTE-65-149, Revision 0, dated March 23, 2011.

(3) For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(5) You may also view this service information 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/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on November 5, 2012.

Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.