



[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0453; Directorate Identifier 2008-SW-16-AD;

Amendment 39-16942; AD 2012-03-01]

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland Model EC135 Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Eurocopter Deutschland (ECD) Model EC135 helicopters. This AD results from a mandatory continuing airworthiness information (MCAI) AD issued by the aviation authority of the Federal Republic of Germany, with which we have a bilateral agreement, to identify and correct an unsafe condition. The MCAI AD states that in the past, the FADEC FAIL caution light illuminated on a few EC135 T1 helicopters. It states that this was caused by a discrepancy in the parameters that was generated within the fuel main metering unit and transmitted to the FADEC. This discrepancy led to the display of the FADEC FAIL caution light and “freezing” of the fuel main metering valve at its position, resulting in loss of the automatic engine control in the affected system. With the MCAI AD, a synchronization procedure for pilots, which was already used in the past, is being reintroduced, which prevents the parameter discrepancy arising and thus sustains the automatic engine control.

The AD actions are intended to prevent failure of the FADEC to automatically meter fuel, indicated by a FADEC FAIL cockpit caution light, and subsequent loss of control of the helicopter.

DATES: Effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 a copy of 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, the economic evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 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: Eric Haight, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76137; telephone (817) 222-5204; email: eric.haight@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On April 28, 2011, we issued a Notice of Proposed Rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the Eurocopter Deutschland (ECD) Model EC135 helicopters. That NPRM was published in the Federal Register on May 13, 2011, at 76 FR 27956. That NPRM proposed to reintroduce a synchronization procedure for pilots to prevent a parameter discrepancy from arising and sustain the automatic engine control.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM.

FAA's Determination

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of the same type design, and that air safety and the public interest require adopting the AD requirements as proposed with the changes described previously and other minor editorial changes. These changes are consistent with the intent of the proposals in the NPRM and will not increase the economic burden on any operator nor increase the scope of the AD.

Differences Between this AD and the MCAI AD

We use a 50-hour time-in-service (TIS) compliance time rather than before further flight as used in the MCAI AD. Also, the MCAI AD states to follow the ASB and insert pages into the Rotorcraft Flight Manual (RFM). We did not follow the ASB, which requires the RFM information to be filed in the Section 4, Normal Procedures, of the

RFM. To make compliance with the information mandatory, we are requiring that it be inserted into the Section 2, Limitations Section of the RFM.

Related Service Information

ECD has issued Alert Service Bulletin No. EC135-71A-024, dated August 6, 2002 (ASB). The ASB contains copies of special information to be inserted into the RFM for synchronizing fuel control components for sustaining automatic engine control. The ASB specifies making copies of the RFM pages contained in the ASB, cutting them out, and filing them in the RFM. The actions described in the MCAI AD are intended to correct the same unsafe condition as that identified in this service information.

Costs of Compliance

We estimate that this AD will affect about 20 helicopters of U.S. registry. We also estimate that it will take about a half work-hour to copy and insert the synchronization procedure into the RFM. The average labor rate is \$85 per hour. We estimate the cost of the AD on U.S. operators to be \$850.

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.

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.

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 the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that a regulatory distinction is required; 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.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA will amend 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):

2012-03-01 **EUROCOPTER DEUTSCHLAND:** Amendment 39-16942. Docket No. FAA-2011-0453; Directorate Identifier 2008-SW-16-AD.

(a) **Applicability.** This AD applies to Model EC135 helicopters with Turbomeca Arrius 2B or 2B1 engines installed, certificated in any category.

(b) **Unsafe Condition.** This AD defines the unsafe condition as a discrepancy generated within the fuel main metering unit and transmitted to the FADEC, which could lead to the display of the FADEC FAIL caution light and “freezing” of the fuel main metering valve at its position. This condition could result in loss of the automatic engine control.

(c) **Effective Date.** This AD is effective [insert date 35 days after date of publication in the FEDERAL REGISTER].

(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 50 hours time-in-service (TIS), either insert the following procedure by making pen-and-ink changes to the Rotorcraft Flight Manual (RFM) or by inserting a copy of this AD into the Limitations Section of the RFM.

SPECIAL INFORMATION FOR OEI/AUTOROTATION TRAINING AND APPROACH/LANDING PREPARATION

In order to prevent a malfunction, which could lead to a FADEC FAIL indication, the following procedure is mandatory:

The procedure shown below must be performed while in a steady flight condition and at a safe altitude:

- before initiation of every approach (with or without landing)
- during training of OEI or Autorotation before every switch-over to IDLE

CAUTION: DURING THE RESET PROCEDURE DESCRIBED IN THE FOLLOWING, NO INPUTS ARE TO BE MADE TO THE COLLECTIVE LEVER OR TO THE TWIST GRIP FOR MANUAL ENGINE CONTROL, SINCE THIS CAN LEAD TO AN INEFFECTIVE SYNCHRONIZATION.

The reset procedure is identical for each of two systems and is to be applied for both engines, one after the other.

Procedure

1. ENG MODE SEL switch—Set from NORM TO MAN

After illumination of the ENG MANUAL caution:

2. ENG MODE SEL switch—Set from MAN to NORM:
ENG MANUAL caution must go off

Repeat procedure for second engine.

(f) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Safety Management Group, Rotorcraft Directorate, FAA, may approve AMOCs for this AD. Send your proposal to: Eric Haight, Aviation Safety Engineer, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5204, email: eric.haight@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under 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.

(1) Eurocopter Alert Service Bulletin EC135-71A-024, dated August 6, 2008, which is not incorporated by reference, contains additional information about the subject of this AD. 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 copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in Luftfahrt-Bundesamt (Germany) AD No. 2002-333, dated September 16, 2002.

(h) Subject. Air Transport Association of America (ATA) Tracking Code: 7600, Engine Controls.

Issued in Fort Worth, Texas, on January 27, 2012.

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

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