



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0432; Project Identifier 2013-SW-074-AD; Amendment 39-21587; AD 2021-11-25]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (Type Certificate Previously Held by Eurocopter France)

Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus Helicopters (Type Certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters. This AD was prompted by a report of failure of an engine digital electronic control unit (DECU). This AD requires revising the existing Rotorcraft Flight Manual (RFM) for your helicopter. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at

<https://www.airbus.com/helicopters/services/technical-support.html>. For Safran

Turbomeca service information identified in this final rule, contact Safran Helicopter Engines, S.A., 64511 Bordes, France; phone: +33 (0) 5 59 74 45 11. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest

Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. The Airbus Helicopters service information is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0432.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0432; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, the EASA safety information bulletin (SIB), any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Jon Jordan, Rotorcraft Flight Test Pilot, Southwest Section, Flight Test Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email jon.jordan@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters (Type Certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters with an ARRIEL 2D engine and THALES full authority digital engine control (FADEC) part number (P/N) C13165DA00 without amendment A or P/N C13165FA00 without amendment B, installed. The NPRM published in the *Federal Register* on March 22, 2021 (86 FR 15140). In the NPRM, the FAA proposed to require revising the Emergency Procedures of the existing RFM for your helicopter by inserting Appendix 4. of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-01.00.67 or ASB No. EC130-04A004, each Revision 2 and dated February 17, 2014 (ASB AS350-01.00.67 and ASB EC130-04A004) or a different document with information identical to that in Appendix 4., as applicable to your helicopter model. As an optional terminating action

for the RFM revision, the NPRM proposed to allow installing amendment A on FADEC P/N C13165DA00 or amendment B on FADEC P/N C13165FA00.

The NPRM was prompted by EASA AD 2013-0287, dated December 5, 2013 (EASA AD 2013-0287), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Eurocopter (formerly Eurocopter France, Aerospatiale) Model AS 350 B3 and EC 130 T2 helicopters with an ARRIEL 2D engine and THALES FADEC P/N C13165DA00 or P/N C13165FA00 installed. EASA advises of a report of an in-flight event where the pilot noticed that the temporary amber governor (GOV) light had illuminated, followed by the failure of the vehicle engine monitoring display (VEMD) screens, and no availability of the automatic or auxiliary engine back-up control ancillary unit (EBCAU). Subsequent investigation identified an internal failure of the engine DECU, which led to loss of fuel flow regulation (frozen fuel metering unit). This failure was not indicated to the pilot by a red GOV warning light as expected, but with amber GOV indication and loss of VEMD display instead. EASA also advises that if this fuel metering unit is frozen in the open position, it may lead to a rotor overspeed, and if it is frozen in the closed position, it may lead to unavailability of engine power. EASA states that this condition, if not addressed, could result in the pilot identifying the type of failure condition incorrectly, possibly resulting in an improper response.

Accordingly, and pending the development of a DECU assembly design improvement, the EASA AD requires incorporating a new procedure into the Emergency Procedures section of the RFM and informing all flight crews of the RFM change. EASA considers its AD an interim action and states that further AD action may follow.

After EASA issued EASA AD 2013-0287, EASA issued SIB No. 2013-23, dated December 19, 2013, for Eurocopter AS 350 B3 and EC 130 T2 helicopters with a Turboméca ARRIEL 2D engine installed. The SIB recommends modifying certain electronic engine control units (EECUs).

Comments

The FAA received comments from an anonymous commenter. The commenter stated that the EECU or DECU is an engine component and requested this be reflected as

an engine AD and not an airframe AD. The commenter further stated that this AD is unnecessary because the flight manual revision is required as part of the certification of the aircraft and is already regulatory as the flight manual is an FAA approved manual. The FAA does not agree; EASA, as the state of design authority for Airbus Helicopters, determined that the unsafe condition exists only in the Model AS 350 B3 and EC 130 T2 helicopters. Additionally, one of the actions mitigating the unsafe condition is modification of the RFM. Consequently, EASA issued AD 2013-0287 against the airframe. As the validating authority, the FAA, in accordance with the bilateral agreement with the European Union, did not find just cause to change the effectivity for the FAA AD. Per 14 CFR Section 21.5, an approved RFM must be presented to the owner upon delivery of the rotorcraft. Unless required through an operational certificate or operational specification, the rotorcraft owner is not required by regulation to adopt flight manual revisions made after delivery of the rotorcraft. To mandate a change to the RFM to address the unsafe condition, the FAA must issue an AD.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Airbus Helicopters ASB AS350-01.00.67 and ASB EC130-04A004. ASB AS350-01.00.67 applies to Model AS350B3 helicopters and ASB EC130-04A004 applies to Model EC130T2 helicopters. This service information provides a new RFM procedure in the event of illumination of the amber GOV followed by the loss of the VEMD display.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Safran Turbomeca Mandatory Service Bulletin No. 292 73 2852, Revision B, dated February 12, 2014. This service information specifies replacing certain FADEC D EECUs with certain amended FADEC D EECUs.

Differences Between this AD and the EASA AD

The EASA AD applies to Model AS350B3 and EC130T2 helicopters, with an ARRIEL 2D engine and THALES FADEC P/N C13165DA00 or P/N C13165FA00 installed, whereas this AD applies to those helicopters except not those with THALES FADEC P/N C13165DA00 with amendment A or P/N C13165FA00 with amendment B installed. This AD also allows installing those amendments on the FADEC as an optional terminating action, whereas the EASA AD does not.

Costs of Compliance

The FAA estimates that this AD affects up to 628 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA

estimates the following costs to comply with this AD.

Revising the existing RFM for your helicopter takes about 0.25 work-hour for an estimated cost of \$21 per helicopter and up to \$13,188 for the U.S. fleet.

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.

The FAA is 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) Will not affect intrastate aviation in Alaska, 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.

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 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:

2021-11-25 Airbus Helicopters (Type Certificate Previously Held by Eurocopter France): Amendment 39-21587; Docket No. FAA-2017-0432; Project Identifier 2013-SW-074-AD.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Helicopters (Type Certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters, certificated in any category, with an ARRIEL 2D engine and THALES full authority digital engine control (FADEC) part number (P/N) C13165DA00 without amendment A or P/N C13165FA00 without amendment B, installed.

Note 1 to paragraph (c): Helicopters with an AS350B3e designation are Model AS350B3 helicopters.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 7321, Engine Fuel Control/Turbine Engines.

(e) Unsafe Condition

This AD was prompted by a report of failure of an engine digital electronic control unit. The FAA is issuing this AD to prevent incorrect indicator illumination, display failure, and loss of fuel flow regulation (frozen fuel metering unit). The unsafe condition, if not addressed, could result in misleading information to the pilot, rotor overspeed or unavailability of engine power, and subsequent loss of control of the

helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 25 hours time-in-service after the effective date of this AD, revise the Emergency Procedures of the existing Rotorcraft Flight Manual (RFM) for your helicopter by inserting Appendix 4. of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-01.00.67 or ASB No. EC130-04A004, each Revision 2 and dated February 17, 2014 (ASB AS350-01.00.67 or ASB EC130-04A004), as applicable to your helicopter model. Inserting a different document with information identical to that in Appendix 4. of ASB AS350-01.00.67 or ASB EC130-04A004, as applicable to your helicopter model, is acceptable for compliance with the requirement of this paragraph.

(2) As an optional terminating action for the requirement of paragraph (g)(1) of this AD, install amendment A on FADEC P/N C13165DA00 or amendment B on FADEC P/N C13165FA00.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Jon Jordan, Rotorcraft Flight Test Pilot, Southwest Section, Flight Test Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email jon.jordan@faa.gov.

(2) Safran Turbomeca Mandatory Service Bulletin No. 292 73 2852, Revision B, dated February 12, 2014, which is not incorporated by reference, contains additional information about the subject of this AD. Contact Safran Helicopter Engines, S.A., 64511 Bordes, France; phone: +33 (0) 5 59 74 45 11 for this service information. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2013-0287, dated December 5, 2013. You may view the EASA AD at <https://www.regulations.gov> in Docket No. FAA-2017-0432.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph 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) Airbus Helicopters Alert Service Bulletin No. AS350-01.00.67, Revision 2, dated February 17, 2014.

(ii) Airbus Helicopters Alert Service Bulletin No. EC130-04A004, Revision 2, dated February 17, 2014.

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 24, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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