[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-1099; Product Identifier 2018-SW-026-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Airbus Helicopters Model EC 155B and EC155B1 helicopters. This proposed AD would require modifying the wiring of the attitude and heading reference system (AHRS) connector. This proposed AD is prompted by a report of wiring of the AHRS contrary to approved design specifications. The actions of this proposed AD are intended to address an unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to https://www.regulations.gov. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-1099; 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 proposed AD, the European Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed 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. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: George Schwab, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email george.schwab@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments received.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2018-0069, dated March 26, 2018 (EASA AD 2018-0069), to correct an unsafe condition for Airbus Helicopters Model EC 155 B and EC 155 B1 helicopters. EASA advises that the AHRS1 and AHRS2 on Model EC 155-series helicopters use the same flight/ground signal contrary to the approved design

specification, which requires the AHRS1 and AHRS2 to use independent signals to ensure redundancy. EASA states that if AHRS1 and AHRS2 both receive an incorrect "ground" status due to a single failure while in flight, it will generate an error in the computation of the attitude and vertical speed and, as a result, an incorrect display of these indications to the flight crew. EASA advises that this condition, if not corrected, could lead to erroneous attitude and vertical speed indications, resulting in increased workload for the flight crew and reduced control of the helicopter during flight in instrument meteorological conditions (IMC).

Accordingly, EASA AD 2018-0069 requires modifying the connection of connector 11 ALPHA, and based on the helicopter configuration, also modifying the wiring to connector 11 ALPHA.

FAA's Determination

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 is proposing this AD after evaluating all known relevant information and determining that an unsafe condition is likely to exist or develop on other helicopters of the same type designs.

Related Service Information Under 1 CFR part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. EC155-34A033, Revision 2, dated January 30, 2018. This service information specifies re-allocating the electronic board output connections by modifying the wiring of connector 11 ALPHA for helicopters with modification (MOD) 0722B51 installed and modifying

the wiring to connector 11 ALPHA for those helicopters that also have a combined voice and flight data recording system (MOD 0731B89) installed.

The FAA also reviewed Airbus Helicopters ASB No. EC155-34A037, Revision 0, dated February 19, 2018. This service information specifies installing MOD 0722B51 by modifying the wiring of connector 11 ALPHA to separate the flight/ground information so the left-hand landing gear flight information is also used by the automatic pilot system as well as but separately from the right-hand landing gear flight information. This service information also specifies re-allocating the electronic board output connections by modifying the wiring of connector 11 ALPHA.

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 Airbus Helicopters ASB No. EC155-34A033, Revision 0, dated July 19, 2017, and Airbus Helicopters ASB No. EC155-34A033, Revision 1, dated October 9, 2017. Revisions 0 and 1 of this service information contain the same procedures for modifying the wiring as Revision 2. However, Revision 1 clarifies the applicable helicopter configurations and updates the post-modification testing procedures, and Revision 2 clarifies the post-modification test procedures and updates a figure.

Proposed AD Requirements

This proposed AD would require, before further flight in IMC or within 660 hours time-in-service (TIS), whichever occurs first, modifying the wiring at connector 11

ALPHA based on the helicopter configuration and in accordance with specified portions of the applicable ASB.

Differences between this Proposed AD and the EASA AD

The compliance time for the EASA AD is within 7 or 12 months depending on helicopter configuration. The compliance time for this proposed AD would be before further flight in IMC or within 660 hours TIS, whichever occurs first.

Costs of Compliance

The FAA estimates that this proposed AD affects 17 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at $85 per work-hour.

Modifying the wiring would take about 4 work-hours and parts would cost about $20 for an estimated cost of $360 per helicopter and $6,120 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 products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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, I certify this proposed regulation:

(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 Proposed Amendment

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

Airbus Helicopters: Docket No. FAA-2019-1099; Product Identifier 2018-SW-026-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model EC 155B and EC155B1 helicopters, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as incorrect wiring of an attitude and heading reference system (AHRS). This condition could result in the display of misleading attitude and vertical speed information, and subsequent loss of control of the helicopter in instrument meteorological conditions (IMC).

(c) Comments Due Date

The FAA must receive comments by [INSERT DATE 60 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

Before further flight in IMC or within 660 hours time-in-service, whichever occurs first:

(1) For helicopters with wiring change modification (MOD) 0722B51 installed, modify the wiring of connector 11 ALPHA as depicted in Figure 1 of Airbus Helicopters

Alert Service Bulletin (ASB) No. EC155-34A033, Revision 2, dated January 30, 2018 (ASB EC155-34A033). If a combined voice and flight data recording system (MOD 0731B89) is installed, also modify the wiring to connector 11 ALPHA as depicted in Figure 2 of ASB EC155-34A033.

(2) For helicopters without wiring change MOD 0722B51 installed, modify the wiring of connector 11 ALPHA as depicted in Figure 1 and Figure 2 of Airbus Helicopters ASB No. EC155-34A037, Revision 0, dated February 19, 2018.

(f) Special Flight Permits

A special flight permit may be issued for operation under visual flight rules only.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: George Schwab, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests 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.

(h) Additional Information

(1) Airbus Helicopters Alert Service Bulletin (ASB) No. EC155-34A033, Revision 0, dated July 19, 2017, and Airbus Helicopters ASB No. EC155-34A033,

Revision 1, dated October 9, 2017, which are not incorporated by reference, contain additional information about the subject of this AD. For 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. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2018-0069, dated March 26, 2018. You may view the EASA AD on the Internet at https://www.regulations.gov in the AD Docket.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 3420, Attitude and Direction Data System.

Issued in Fort Worth, Texas, on February 14, 2020.

Lance T. Gant,

Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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