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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0212; Directorate Identifier 2010-SW-055-AD; Amendment 39-16632; AD 2011-06-07]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France (Eurocopter) Model EC130 B4 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Eurocopter Model EC130 B4 helicopters. This action requires identifying and inspecting a certain emergency flotation gear unit "1G" (1G unit). This action also requires modification of certain affected 1G units. This amendment is prompted by an uncommanded in-flight deployment of the emergency flotation gear when it was not armed by the crew. The actions specified in this AD are intended to prevent an uncommanded in-flight deployment of the emergency flotation gear, unexpected deceleration and pitch down movement of the helicopter, and subsequent loss of control of the helicopter.

DATES: Effective April 6, 2011.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 6, 2011.

Comments for inclusion in the Rules Docket must be received on or before May 23, 2011.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, 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 Docket

You may examine the docket that contains the AD, any comments, and other information 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 Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: George Schwab, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5114, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD No. 2010-0088-E, dated May 6, 2010, to correct an unsafe condition for the Model EC130 B4 helicopters. EASA advises that an uncontrolled in-flight deployment of the emergency flotation gear (not armed) on an EC130 B4 helicopter has been reported. The flight crew heard a detonation followed by heavy vibrations and noticed the emergency flotation gear floats were inflating. Investigations on the emergency flotation gear control system revealed that a wire was damaged inside the 1G unit. This wire was damaged, due to interference with the screw securing cable 1GR19E lug to the bus bar, causing a short circuit in the emergency flotation gear deployment activation circuit and the consequent deployment of the emergency flotation gear. EASA further states the possibility of interference of the 1G unit's internal wire harnesses with a fuselage metal structure member (stringer) has been identified, which could have the same consequences.

Related Service Information

Eurocopter has issued Emergency Alert Service Bulletin No. 25A037, dated April 27, 2010, for the Model EC130 B4 helicopters, which specifies inspecting 1G units without an "*" displayed on the 1G unit panel after the part number (P/N) and taking various corrective actions at various times pending installation of a conforming 1G unit. EASA classified this EASB as mandatory and issued AD No. 2010-0088-E, dated May 6, 2010, to ensure the continued airworthiness of these helicopters.

FAA's Evaluation and Unsafe Condition Determination

This helicopter has been approved by the aviation authority of France and is approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, their technical representative, has notified us of the unsafe condition described in the MCAI AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of this same type design.

Differences Between This AD and the EASA AD

This AD does not require the actions to be completed at the compliance times of 3 months and 8 months, nor does it require the repetitive actions specified in the EASA AD. This AD requires the actions to be done within 15 hours time-in-service (TIS). Also, this AD refers to flight hours as hours TIS.

FAA's Determination and Requirements of This AD

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD is being issued to prevent an uncommanded in-flight deployment of the emergency flotation gear, unexpected deceleration and pitch down movement of the helicopter, and subsequent loss of control of the helicopter.

This AD requires determining if the 1G unit has an asterisk after the P/N displayed on the 1G unit panel. If an asterisk follows the P/N, the AD requires inspecting for a rubber extrusion installed on the stringer. If no rubber extrusion is installed on the stringer, the AD requires removing the 1G unit, bonding a rubber extrusion on the stringer, reinstalling the 1G unit, and functionally testing the emergency flotation gear control system. If no asterisk follows the P/N, the AD requires removing the 1G unit and inspecting the 1G unit for interference between the harness wires and the stringer and between internal parts. Also, the AD requires if no rubber extrusion is installed on the stringer, protecting the stringer by bonding a rubber extrusion on the stringer. The AD also requires inspecting for interference between the attachment screw and the wires of the nearby harness and for damage to the wires of the harness. The AD also requires modifying the 1G unit as necessary to protect the 1G unit from interference. Also, the AD requires identifying the modified 1G unit by marking an asterisk after the P/N. The AD also requires reinstalling and functionally testing the 1G unit. Installing a conforming 1G unit is terminating action for the requirements of this AD. Do the actions by following specified portions of the service bulletin described previously.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability of the helicopter. This AD requires, within 15 hours TIS, determining whether a conforming 1G unit is installed, and if not, modifying the 1G unit within 15 hours TIS. Fifteen hours TIS is a very short compliance time; therefore, this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Costs of Compliance

We estimate that this AD will affect about 119 helicopters of U.S. registry. Determining whether an asterisk is present on the 1G unit panel will require a minimal amount of time. We estimate that it will take about 8 work-hours per helicopter to remove, modify, and replace a 1G unit. The average labor rate is \$85 per work-hour. Required parts will cost about \$25 per helicopter. Based on these figures, we estimate the cost of this AD on U.S. operators is \$8,460, assuming 12 helicopters will require modification of the 1G unit per this AD.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES. Include "Docket No. FAA-2011-0212; Directorate Identifier 2010-SW-055-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Regulatory Findings

We have 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 the regulation:

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. See the AD docket to examine the economic evaluation.

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.

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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:



2011-06-07 Eurocopter France: Amendment 39-16632; Docket No. FAA-2011-0212; Directorate Identifier 2010-SW-055-AD.

Applicability: Model EC130 B4 helicopters with a flotation gear unit "1G" (1G unit), part number (P/N) 350A63256300, installed, certificated in any category.

Compliance: Within 15 hours time-in-service, unless accomplished previously.

To prevent an uncommanded in-flight deployment of the emergency flotation gear, unexpected deceleration and pitch down movement of the helicopter, and subsequent loss of control of the helicopter, do the following:

(a) Determine whether the 1G unit has an asterisk (*) after the P/N displayed on the 1G unit panel as shown in Figure 4 of Eurocopter Emergency Alert Service Bulletin No. 25A037, dated April 27, 2010 (EASB).

(b) If there is an asterisk after the P/N displayed on the 1G unit panel, determine if there is a rubber extrusion installed on the stringer as shown in Figure 6 of the EASB.

(1) If no rubber extrusion is installed on the stringer, remove the 1G unit by following the Accomplishment Instructions, paragraph 2.B.2.a. of the EASB.

(2) Bond a rubber extrusion onto the stringer using Bostik 1400 or an equivalent adhesive. Bostik 1400 is ready for use; if using an equivalent adhesive, follow the manufacturer's directions for preparation and application.

(i) Thoroughly clean the bonding surfaces of the stringer; remove all traces of grease.

(ii) Apply a uniform adhesive film on the bonding surfaces.

(A) For Bostik 1400, allow to dry until tack free (about 15 minutes).

(B) For equivalent adhesive, follow the manufacturer's procedures.

(iii) After adhesive application, assemble the bonding faces and press firmly to eliminate air bubbles. Maintain the pressure throughout the hardening period as described for the adhesive being used. For Bostik 1400, the adhesive hardens in about 48 hours at room temperature.

(3) Reinstall the 1G unit by following the Accomplishment Instructions, paragraph 2.B.2.b., of the EASB. Functionally test the emergency flotation gear control system.

(c) If there is no asterisk displayed after the P/N on the 1G unit panel, remove the 1G unit by following the Accomplishment Instructions, paragraph 2.B.2.a., of the EASB.

(1) Inspect the 1G unit for interference:

(i) If you find interference between the harness wires and the stringer, install a sheath, P/N EN6049-006-08-5, on all the harnesses in the area of the interference, and secure the sheath with cable ties as depicted in Figure 5 of the EASB.

(ii) If you find interference between the harness wires and the inside surface of the 1G unit or with any of the 1G unit's internal components, remove the installed cable ties, P/N E0043-1A0P, and spacer(s), P/N E0688-01, as required, to allow repositioning or routing of the harness to eliminate interference. Secure repositioned harnesses using new cable ties, P/N E0043-1A0P, and new spacers, P/N E0688-01.

(iii) If you find interference between the harness and the helicopter structural stringer, install a sheath, P/N EN6049-006-08-5, on all the harnesses located at the stringer as depicted in Figures 5 and 6 of the EASB. Secure the sheath with cable ties, P/N E0043-1A0P, so that no interference between the sheathed harness and the structural stringer exists.

(iv) Bond a black rubber extrusion, P/N BT4, on the stringer as shown in Figure 6 by following the requirements of paragraph (b)(2) of this AD.

(2) Inspect the attachment screw of cable 1GR19E for orientation and arrangement that matches the Post EASB detail, as shown in insert D of Figure 5 of the EASB, and determine if it is covered with heat shrink, P/N VG95343T05E004A, or equivalent. If orientation and arrangement of the attachment screw cable 1GR19E are not as shown in insert D of Figure 5 or the attachment screw is not covered with heat shrink, modify the attachment screw by following the Accomplishment Instructions, paragraph 2.B.5.b., of the EASB.

Note 1. Figure 5 of the EASB does not show the heat shrink installed for clarity of screw head and lug detail.

(3) Inspect for damage to a wire of the harness inside the 1G unit as depicted in Figure 7 of the EASB. Replace any damaged wire using the correct wire and contact information listed in the Appendix, paragraph 4, of the EASB.

(4) Mark an asterisk "*" after P/N 350A63256300 on the 1G unit panel using indelible ink to indicate compliance with this AD.

(5) Reinstall the 1G unit by following the Accomplishment Instructions, paragraph 2.B.2.b., of the EASB, and functionally test the emergency flotation gear control system.

(d) Installing an airworthy 1G unit that has been modified and identified as required by this AD is terminating action for the requirements of this AD.

(e) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, Attn: George Schwab, Aviation Safety Engineer, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5114, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(f) The Joint Aircraft System/Component (JASC) Code is 2497: Electrical Power System Wiring.

(g) Remove and install the 1G unit, determine the correct wire and contact information, and do the inspections by following the specified portions of Eurocopter Emergency Alert Service Bulletin No. 25A037, dated April 27, 2010. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained 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>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, or 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/code_of_federal_regulations/ibr_locations.html.

(h) This amendment becomes effective on April 6, 2011.

Note 2: The subject of this AD is addressed in European Aviation Safety Agency No. 2010-0088-E, dated May 6, 2010.

Issued in Fort Worth, Texas, March 7, 2011.

Lance T. Gant,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

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