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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2013-0679; Directorate Identifier 2009-SW-015-AD; Amendment 39-17733; AD 2014-02-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Eurocopter France (Eurocopter) Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for Eurocopter Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters. This AD requires measuring the distance between the end of the main rotor collective pitch lever (collective) locking stud (locking stud) and the locking strip and repairing the locking stud if the clearance is insufficient. This AD was prompted by a report that insufficient distance between the locking stud and the locking strip may cause the collective to become inadvertently locked in the low pitch (low) position. The actions of this AD are intended to prevent the collective from becoming inadvertently locked in the low position and subsequent loss of control of the helicopter.

**DATES:** This AD is effective March 7, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of March 7, 2014.

**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, the foreign authority's 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:** Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email robert.grant@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On August 5, 2013, at 78 FR 47230, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Eurocopter Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters. The NPRM proposed to require measuring the distance between the end of the collective locking stud and the locking strip and repairing the locking stud if the clearance is insufficient. The proposed requirements were intended to prevent the collective from becoming inadvertently locked in the low position and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2009-0019, dated February 3, 2009, issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for the Eurocopter Model AS350 helicopters. EASA advises that the clearance between the collective locking stud and the locking strip may be insufficient when the collective is positioned in the low pitch stop. During an autorotation test flight, the collective rubbed against the locking strip in the low pitch position. The rubbing was due to inadequate clearance and could result in the collective being inadvertently locked in the low pitch position.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (78 FR 47230, August 5, 2013).

### **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 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 does not apply to Model AS350C or AS350D1 helicopters, and this AD applies to these models because they have a similarly-designed collective pitch lock. The EASA AD applies to the Model AS350BB, and this AD does not because that model does not have a U.S. type certificate. This AD requires an initial inspection within 100 hours time-in-service, while the EASA AD requires this inspection "after the last flight of the day."

## **Related Service Information**

Eurocopter issued Service Bulletin No. 67.00.37, Revision 2, dated December 2, 2008, originally issued on September 27, 2007, and also identified as modification (MOD) 073237, which contains procedures for replacing the locking stud on the collective levers with a new locking stud with higher wear resistance. The new locking stud is longer than the previous one and has reduced the distance between the locking stud and the locking strip. In some cases, the reduced distance is insufficient when the collective is positioned in the low pitch position causing the collective to lock in that position. As a result, Eurocopter has issued one Emergency Alert Service Bulletin (EASB), Revision 0, dated January 12, 2008, with two numbers. EASB No. 05.00.58 is for civil Model AS350B, BA, BB, B1, B2, B3, and D helicopters and military Model AS350L1 helicopters. EASB No. 05.00.35 is for military Model AS550A2, C2, C3, and U2 helicopters. The EASB specifies measuring to ensure a required minimum distance between the locking stud and the locking strip and specifies a repair solution in case the distance is insufficient. As a precaution, Eurocopter extended the measure and repair to helicopters with locking studs before MOD 073237. Eurocopter also revised Service Bulletin No. 67.00.37 to include these procedures.

## **Costs of Compliance**

We estimate that this AD will affect 651 helicopters of U.S. Registry. We estimate that operators may incur the following costs to comply with this AD. We estimate 1 work hour to measure the clearance and repair the locking stud and locking strip at \$85 per work hour. Required parts will cost \$95 per helicopter. Based on these estimates, the total cost per helicopter will be \$180, and the total cost for the fleet will be \$117,180.

## **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):



**2014-02-05 Eurocopter France Helicopters:** Amendment 39-17733; Docket No. FAA-2013-0679; Directorate Identifier 2009-SW-015-AD.

**(a) Applicability**

This AD applies to Eurocopter Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters, certificated in any category, without modification (MOD) 073175 installed; with MOD 073237 installed in accordance with Eurocopter Service Bulletin No. 67.00.37, Revision 0, dated September 27, 2007, or Revision 1, dated February 6, 2008; or with one of the following serial numbers: 3972, 3973, 3982, 3987, 4003, 4023, 4046, 4050, 4086, 4120, 4122, 4132, 4143, 4152, 4172, 4194, 4259, 4314, 4324, 4378, 4392, 4447, 4452, 4477, 4489, 4490, 4501, 4523, 4546, 4560, 4589, 4594, 4599, 4632, 4659, 4666, or 4671.

**(b) Unsafe Condition**

This AD defines the unsafe condition as the main rotor collective pitch lever (collective) locking stud (locking stud) inadvertently locking in the low pitch (low) position, which could result in subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective March 7, 2014.

**(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**

(1) For helicopters with MOD 073237 installed, within 100 hours time-in-service (TIS):

(i) With the collective (item b) in the low position but not locked on the locking strip (item a), measure the distance between the end of the locking stud (item c) and the locking strip as indicated by dimension "J" in Figure 2 of Eurocopter Emergency Alert Service Bulletin No. 05.00.58, Revision 0, dated January 12, 2008 (EASB 05.00.58).

(ii) If the distance between the end of the locking stud and the locking strip is equal to or more than 3 millimeters (mm), no further action is required.

(iii) If the distance between the end of the locking stud and the locking strip is less than 3 mm and MOD 073175 is not installed, inspect to determine whether the grommet in the locking strip is seated against the console as shown in Figure 2 of EASB 05.00.58.

(A) If the grommet is not seated against the console, restore the original profile of the locking strip by doing the following:

(1) Clamp the locking strip in a vice with soft jaws and apply load progressively to the locking strip to restore the original profile of the locking strip.

(2) With the collective in the low position but not locked on the locking strip, measure the distance between the end of the locking stud and the locking strip as indicated by dimension "J" in Figure 2 of EASB 05.00.58.

(3) If the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm, no further action is required.

(4) If the distance between the end of the locking stud and the locking strip is less than 3 mm, adjust the length of the locking stud and re-identify the locking stud by following the Accomplishment Instructions, paragraph 2.B.2.c., of EASB 05.00.58, except you are not required to comply with paragraph 2.B.4 of EASB 05.00.58.

(B) If the grommet is seated against the console, adjust the length of the locking stud and re-identify the locking stud by following the Accomplishment Instructions, paragraph 2.B.2.c, of EASB 05.00.58, except you are not required to comply with paragraph 2.B.4 of EASB 05.00.58.

(iv) If the distance between the end of the locking stud and the locking strip is less than 3 mm and MOD 073175 is installed, adjust the length of the locking stud and re-identify the locking stud by following the Accomplishment Instructions, paragraph 2.B.2.c., of EASB 05.00.58, except you are not required to comply with paragraph 2.B.4 of EASB 05.00.58.

(v) After adjusting the length of the locking stud in accordance with paragraph 2.B.2.c of the EASB, determine whether the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm.

(A) If the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm, no further action is required.

(B) If the distance between the end of the locking stud and the locking strip is less than 3 mm, do not approve the helicopter for return to service until the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm.

(2) For helicopters without MOD 073237 installed, within 100 hours TIS:

(i) With the collective in the low position but not locked on the locking strip, measure the distance between the end of the locking stud and the locking strip as indicated by dimension "J" in Figure 2 of EASB 05.00.58.

(ii) If the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm, no further action is needed.

(iii) If the distance between the end of the locking stud and the locking strip is less than 3 mm and MOD 073175 is not installed, inspect to determine whether the grommet in the locking strip is seated against the console as shown in Figure 2 of EASB 05.00.58.

(A) If the grommet is not seated against the console, restore the original profile of the locking strip by doing the following:

(1) Clamp the locking strip in a vice with soft jaws and apply load progressively to the locking strip.

(2) With the collective in the low position but not locked on the locking strip, measure the distance between the end of the locking stud and the locking strip as indicated by dimension "J" in Figure 2 of the EASB 05.00.58.

(3) If the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm, no further action is required.

(4) If the distance between the end of the locking stud and the locking strip is less than 3 mm, do not approve the helicopter for return to service until the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm.

(B) If the grommet is seated against the console, do not approve the helicopter for return to service until the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm.

(iv) If the distance between the end of the locking stud and the locking strip is less than 3 mm and MOD 073175 is installed, do not approve the helicopter for return to service until the distance between the end of the locking stud and the locking strip is equal to or more than 3 mm.

(3) Repeat the measurement requirement in paragraphs (e)(1) or (e)(2) of this AD as applicable to your helicopter each time the collective, locking stud, or locking strip is replaced; each time the locking strip setting is readjusted; or at intervals not exceeding 660 hours TIS or 2 years, whichever occurs first.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email robert.grant@faa.gov.

(2) For operations conducted under 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**

(1) Eurocopter Service Bulletin (SB) No. 67.00.21, Revision 1, dated June 21, 2006, and SB No. 67.00.37, Revision 2, dated December 2, 2008, which are not incorporated by reference, contain 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 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 European Aviation Safety Agency (EASA) AD No. 2009-0019, dated February 3, 2009. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2013-0679.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6710 Main Rotor Control.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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) Eurocopter Emergency Alert Service Bulletin No. 05.00.58, Revision 0, dated January 12, 2008.

(ii) Reserved.

Note 1 to paragraph (i)(2): Eurocopter Emergency Alert Service Bulletin (EASB) No. 05.00.58, Revision 0, dated January 12, 2008, is co-published in one document with Eurocopter EASB No. 05.00.35, Revision 0, dated January 12, 2008, which is not incorporated by reference in this AD.

(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.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. 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, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on January 16, 2014.

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