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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2009-0453; Directorate Identifier 2008-SW-63-AD; Amendment 39-15911; AD 2009-11-01]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Eurocopter Deutschland GmbH (ECD) Model MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1 Helicopters**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are superseding an existing airworthiness directive (AD) for the specified ECD model helicopters that currently requires initial and repetitive inspections of the main rotor blade (blade) upper and lower surfaces for bulging. This AD results from mandatory continuing airworthiness information (MCAI) issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, based on reported incidents in which a balance weight migrated toward the tip of the blade. The MCAI states that new blades have become available that are not fitted with lead balance weights. The MCAI states that only blades equipped with a lead balance weight may result in the unsafe condition. This AD retains the requirements of the current AD but limits the applicability to those part-numbered blades that are fitted with lead balance weights. The actions are intended to limit the applicability to those blades fitted with lead balance weights that could detach, migrate, and cause severe vibrations leading to blade failure and subsequent loss of control of the helicopter.

**DATES:** This AD becomes effective on June 12, 2009.

We must receive comments on this AD by July 27, 2009.

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

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting your comments electronically.
- 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 (972) 641-3460, fax (972) 641-3527, or at <http://www.eurocopter.com>.

Examining the 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 stated in the ADDRESSES section of this AD. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Sharon Miles, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2008-0156, dated August 19, 2008, to supersede Luftfahrt-Bundesamt (LBA) Germany AD D-1994-280R3 (EASA approval 2005-6229) issued on September 19, 2005. Since the LBA AD was issued, new blades have become available that do not have lead balance weights. The LBA AD was issued following reports of two flight incidents involving balance weights detaching from the blade structure and migrating toward the tip of the blade causing severe vibrations. The centrifugal force on the blades can bring about creep deformation of the lead balance weight resulting in bulging of the blade skin. The height of such bulges is the criteria for assessing the extent of possible damage to the structure around the lead balance weight and the possibility of blade failure. The EASA AD states, "only MR blades equipped with a lead balance weight are affected by this unsafe condition." The EASA AD also states that current requirements are retained but limits the applicability to those part-numbered blades that are fitted with lead balance weights. The actions are intended to limit the applicability to those blades with lead balance weights that could detach, migrate, and cause severe vibrations leading to blade failure and subsequent loss of control of the helicopter.

You may obtain further information by examining the MCAI and any related service information in the AD docket.

### **Related Service Information**

ECD has issued Alert Service Bulletin MBB-BK117-10-108, Revision 3, dated August 7, 2008 (ASB). This ASB limits the applicability to certain part-numbered blades with a lead balance weight. This ASB replaces Revision 2. Revision 3 of the ASB states that if one of the previous revisions has been done, no further work is required due to Revision 3. The ASB notes that "the inspection interval was incorporated in the MBB-BK117 Maintenance Manual (MM) with Revision No. 24 (for MBB-BK117 A-1 through B-2) and with Revision No. 5 (for MBB-BK117 C-1)." The ASB also notes that "provided that the first inspection has been accomplished during 5 flight hours and upon availability of these changes in the MM, the ASB-MBB-BK117-10-108 will no longer be effective." The ASB further states that if one of the editions of this ASB before Revision 3 has been done, you should inspect the blades for bulging by following the MM and at the intervals stated in the MM with the first inspection for bulging to be done after 1,800 flight hours time since new. The actions described

in the MCAI are intended to correct the same unsafe condition as that identified in the service information.

### **FAA's Evaluation and Unsafe Condition Determination**

These ECD model helicopters have been approved by the aviation authority of the Federal Republic of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with the Federal Republic of Germany, their Technical Agent has notified us of the unsafe condition described in the MCAI. 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 ECD model helicopters of these same type designs.

### **Differences Between This AD and the MCAI AD**

We refer to flight hours as hours time-in-service. We retained the compliance time from the current AD and the Eurocopter ASB, dated August 18, 1994, and did not include the option of accumulating 1,800 flight hours since the first flight as stated in the MCAI. We do not incorporate ASB, Revision 3, damage inspection. We do not require that you contact ECD for instructions for corrective action. This AD requires that you contact the FAA for an Alternate Method of Compliance.

### **Costs of Compliance**

We estimate that this AD will affect about 30 helicopters of U.S. registry. We also estimate that it will take about 1/2 work-hour per helicopter to inspect each blade. The average labor rate is \$80 per work-hour. Required parts will cost about \$87,000 per blade. Based on these figures, we estimate the cost of this AD on U.S. operators will be \$102,600, assuming 1 initial and 12 recurring inspections of the blade during the first year and 1 blade replacement.

### **FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD. We find that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the initial inspection time is within 5 hours TIS. There is a significant unjustified burden on operators who have replaced their blades with redesigned part numbered blades because the inspection need not apply to those blades. Therefore, we have determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

### **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. However, we invite you to send us any written data, views, or arguments concerning this AD. Send your comments to an address listed under the ADDRESSES section of this AD. Include "Docket No. FAA-2009-0453; Directorate Identifier 2008-SW-63-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 we receive about this AD.

## **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 product(s) 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.

Therefore, I certify 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); 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 and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, 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 removing Amendment 39-9399 (60 FR 53507, October 16, 1995) and by adding the following new AD:



**2009-11-01 Eurocopter Deutschland GmbH:** Amendment 39-15911. Docket No. FAA-2009-0453; Directorate Identifier 2008-SW-63-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective on June 12, 2009

**Other Affected ADs**

(b) Supersedes AD 95-21-12, Amendment No. 39-9399, Docket Number 94-SW-19-AD (60 FR 53507, October 16, 1995).

**Applicability**

(c) This AD applies to Model MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1 helicopters, certificated in any category, with the following main rotor blade (blade) installed:

<b>Blade Part Number (P/N)</b>
117-15001
117-150021
117-150061
117-151321
117-151341, 117-151341V001
117-151351, 117-151351V001
117-151361, 117-151361V001
117-151421V001
117-151441, 117-151441V001
117-151441V002, 117-151441V003
117-151451, 117-151451V001
117-151451V002, 117-151451V003
117-151461, 117-151461V001

**Reason**

(d) Redesigned blades have become available that are not fitted with lead balance weights. Only a blade equipped with a lead balance weight may contain the unsafe condition. This AD retains the requirements of the current AD but limits the applicability to those part-numbered blades that are

fitted with lead balance weights. The actions are intended to detect the blades fitted with lead balance weights that could move and cause severe vibrations leading to blade failure and subsequent loss of control of the helicopter.

## **Actions and Compliance**

(e) Required as indicated:

(1) Within 5 hours time-in-service (TIS), unless already done, and thereafter at intervals not to exceed 50 hours TIS, visually inspect the upper and lower surfaces of each affected main rotor blade (blade) in the area of the outboard lead balance weight in the marked inspection area for bulging.

(i) If a marked inspection area is not visible, mark the area using a water-resistant and indelible marking pencil and then inspect the upper and lower surfaces of each blade in the area of the outboard lead balance weight for bulging.

Note: For guidance, the current MBB-BK117 Maintenance Manual at Figure 14-5A contains the dimensions and placement of the inspection area.

(ii) If bulging exceeds 1 millimeter (mm) (0.040 inch) in height, before further flight, remove the blade and replace it with an airworthy blade that is not listed in the applicability of this AD.

(2) Replacing the affected blade with an airworthy blade that is not listed in the applicability of this AD is terminating action for the requirements of this AD.

## **Differences Between This AD and the MCAI AD**

(f) We refer to flight hours as hours TIS. We retained the compliance time from the current AD and the Eurocopter ASB, dated August 18, 1994, and did not include the option of accumulating 1,800 flight hours since the first flight as stated in the MCAI. We do not incorporate ASB, Revision 3, damage inspection. We do not require that you contact ECD for instructions for corrective action. This AD requires that you contact the FAA for an Alternate Method of Compliance.

## **Other Information**

(g) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, FAA, ATTN: Sharon Miles, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

## **Related Information**

(h) European Aviation Safety Agency (EASA) AD No. 2008-0156, dated August 19, 2008, and Eurocopter Alert Service Bulletin MBB-BK117 No. ASB-MBB-BK117-10-108, Revision 3, dated August 7, 2008, contains related information.

## **Air Transport Association of America (ATA) Tracking Code**

(i) ATA Code No. 6210 Main Rotor Blades.

Issued in Fort Worth, Texas, on May 7, 2009.  
Mark R. Schilling,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.