



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2011-1158; Directorate Identifier 2010-SW-018-AD;**

**Amendment 39-17765; AD 2011-22-05 R1]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

**SUMMARY:** We are revising Airworthiness Directive (AD) 2011-22-05 for Eurocopter France (Eurocopter) Model AS350B, B1, B2, B3, BA, C, D, D1, AS355E, F, F1, F2, N, and NP helicopters with certain tail rotor (T/R) pitch control rods (control rods) installed. AD 2011-22-05 required checking the control rod for play before the first flight of each day. This new AD requires checking the control rod for play within 30 hours time-in-service (TIS) and, if no bearing play is detected, thereafter at intervals not to exceed 30 hours TIS. The actions in this AD are intended to prevent failure of a T/R control rod, loss of T/R control, and subsequent loss of control of the helicopter.

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

**ADDRESSES:** For service information identified in this AD, contact Airbus Helicopters, Inc., 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or

(800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>.

You may view this 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> in Docket No. FAA-2011-1158 or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference information, the economic evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, 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:** 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](mailto:robert.grant@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to revise AD 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011). AD 2011-22-05 applied to Eurocopter Model AS350B, B1, B2, B3, BA, C, D, D1; and Model AS355E, F, F1, F2, N, and NP helicopters with T/R control rod, part number

(P/N) 350A33-2100-00, -01, -02, -03, -04; P/N 350A33-2121-00, -01, -02; P/N 350A33-2143-00; or P/N 350A33-2145-00 or -01, installed. AD 2011-22-05 required checking the control rod for play before the first flight of each day. The NPRM, published in the Federal Register on September 26, 2013 (78 FR 59298), proposed to extend the required time to check control rod play to within 30 hours TIS and, if no bearing play is detected, thereafter at intervals not to exceed 30 hours TIS.

The NPRM was based on our determination that we can safely extend the compliance time for the initial bearing play check and the interval for recurring checks. We also clarified the requirements of that check and removed a previous requirement that if the Teflon cloth is coming out of its normal position within the bearing, or if there is discoloration or scoring on the bearing, that the control rod be replaced with an airworthy rod before further flight. These actions are intended to prevent failure of a control rod, loss of T/R control, and subsequent loss of control of the helicopter.

Since we issued the NPRM, Eurocopter France has changed its name to Airbus Helicopters. This AD reflects that change and updates the contact information to obtain service documentation.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (78 FR 59298, September 26, 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 except for the minor change previously described. This change is consistent with the intent of the proposals in the NPRM (78 FR 59298, September 26, 2013) and will not increase the economic burden on any operator nor increase the scope of the AD.

### **Related Service Information**

Eurocopter issued Alert Service Bulletin (ASB) No. 05.00.60 for the Model AS350 series helicopters, and ASB No. 05.00.56 for the Model AS355 series helicopters, both Revision 0, and both dated December 9, 2009. These ASBs specify performing an initial and recurring check for play in the pitch-change links. If axial play in the ball-joint is detectable, the ASBs specify removing the pitch-change link and measuring the bearing wear using a dial indicator. EASA classified these ASBs as mandatory and issued EASA AD No. 2010-0006, dated January 7, 2010, to ensure the continued airworthiness of these helicopters.

### **Costs of Compliance**

We estimate that this AD affects 936 helicopters of U.S. Registry. We estimate, per helicopter, it will take minimal work-hours to do the check, 1 work-hour to measure the bearing play, and 1 work-hour to replace 1 control rod. The average labor rate is \$85 per work-hour. Required parts cost about \$1,724 to replace a control rod per helicopter. Based on these figures, we estimate the cost of this AD on U.S. operators is minimal for

the check. Measuring the bearing play, if needed, costs \$85 per helicopter, and replacing 1 control rod costs \$1,809 per helicopter.

### **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.

### **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 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, 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.

### **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 removing Airworthiness Directive (AD) 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011), and adding the following new AD:

**2011-22-05 R1 Airbus Helicopters (Type Certificate Previously Held By Eurocopter France) (Airbus Helicopters):** Amendment 39-17765; Docket No. FAA-2011-1158; Directorate Identifier 2010-SW-018-AD.

#### **(a) Applicability**

This AD applies to Airbus Model AS350B, B1, B2, B3, BA, C, D, D1; and Model AS355E, F, F1, F2, N, and NP helicopters; with tail rotor (T/R) pitch control rod (control rod), part number (P/N) 350A33-2100-00, -01, -02, -03, -04; P/N 350A33-2121-00, -01,

-02; P/N 350A33-2143-00; or P/N 350A33-2145-00 or -01, installed; certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as excessive play in the control rod. This condition could result in failure of a T/R control rod, loss of T/R control, and subsequent loss of control of the helicopter.

**(c) Affected ADs**

This AD revises AD 2011-22-05, Amendment 39-16847 (76 FR 70046, November 10, 2011).

**(d) Effective Date**

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

**(e) 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.

**(f) Required Actions**

(1) Within 30 hours time-in-service (TIS) and, if no bearing play is detected, thereafter at intervals not to exceed 30 hours TIS, place the T/R pedals in the neutral position. If the helicopter is fitted with a T/R load compensator, discharge the accumulator as described in the rotorcraft flight manual. Check the control rod bearing (bearing) for play on the helicopter, by observation and feel, by slightly moving the T/R blade in the flapping axis while monitoring the bearing for movement. See the following Figure 1 to Paragraph (f) of this AD. The actions required by this paragraph may be

performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the helicopter maintenance records showing compliance with this AD in accordance with 14 CFR §§ 43.9(a)(1)-(4) and 14 §§ CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

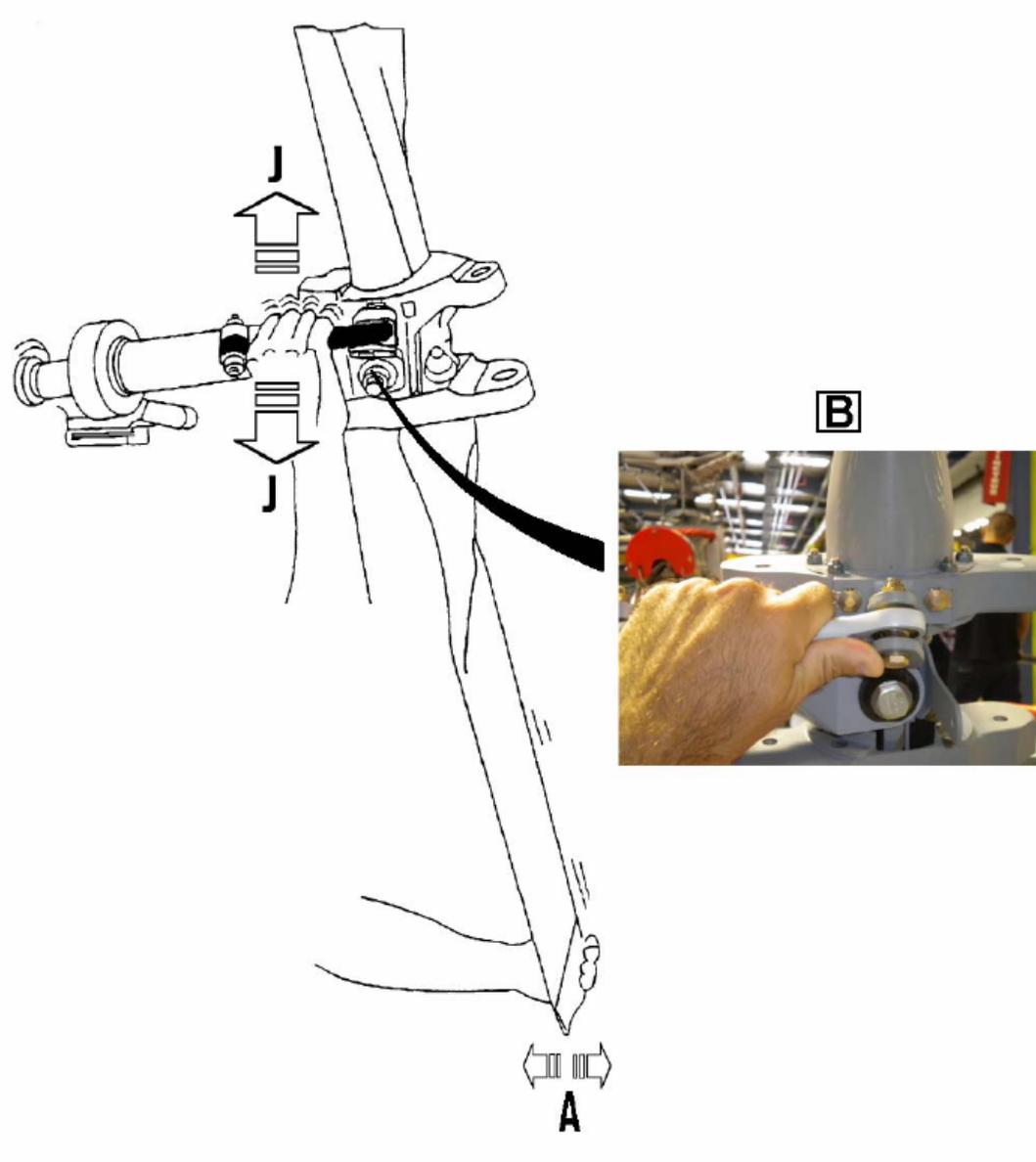


Figure 1 to Paragraph (f)  
Manual Check for Play of the Tail Rotor Pitch Control Rod

(2) If a pilot or mechanic detects play in the bearing, before the next flight, a mechanic must remove the control rod from the helicopter, and using a dial indicator, measure the bearing wear according to the following and as shown in Figures 2 and 3 to Paragraph (f) of this AD:

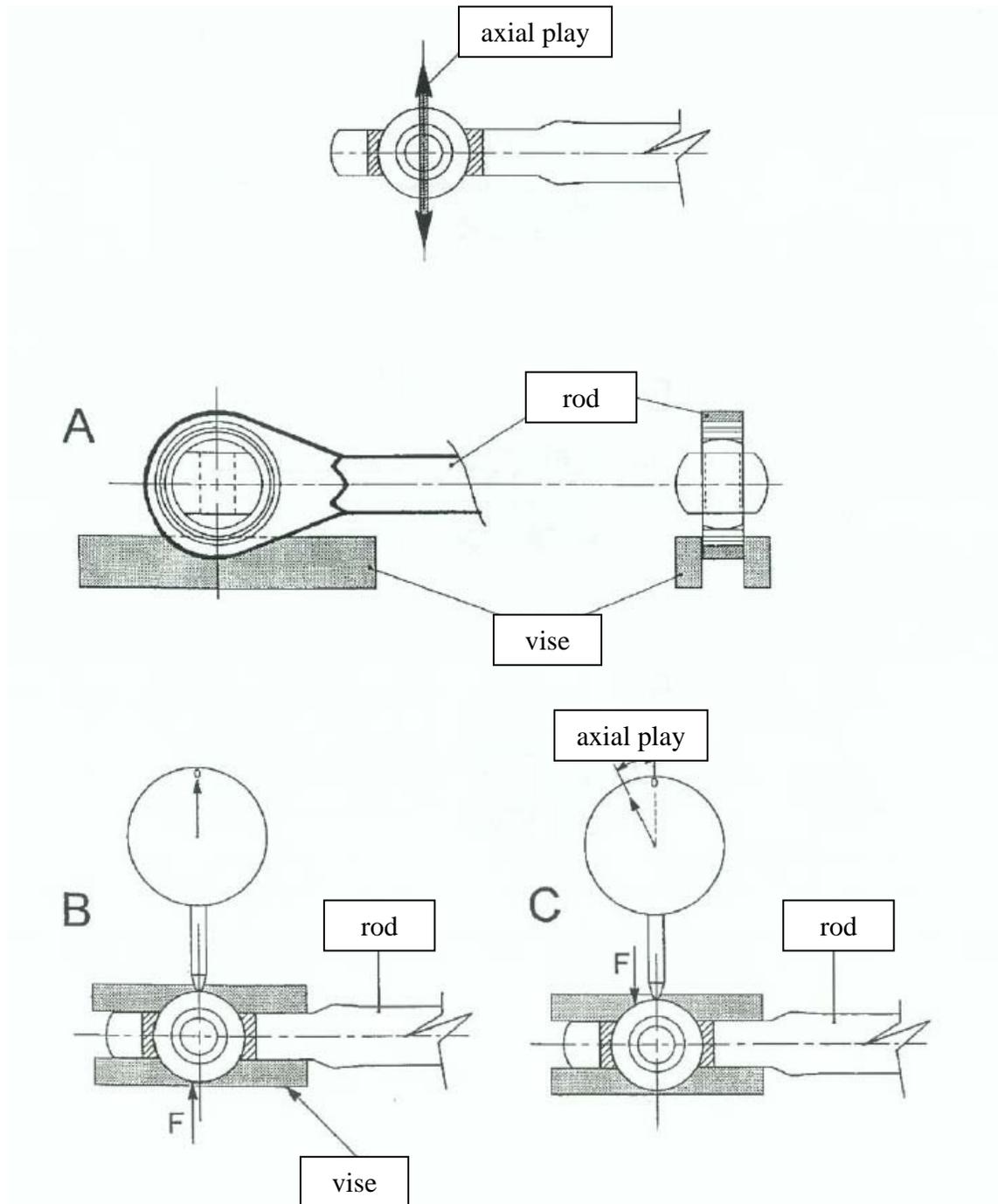


Figure 2 to Paragraph (f)  
Measurement of the Axial Play (A) of the Bearing

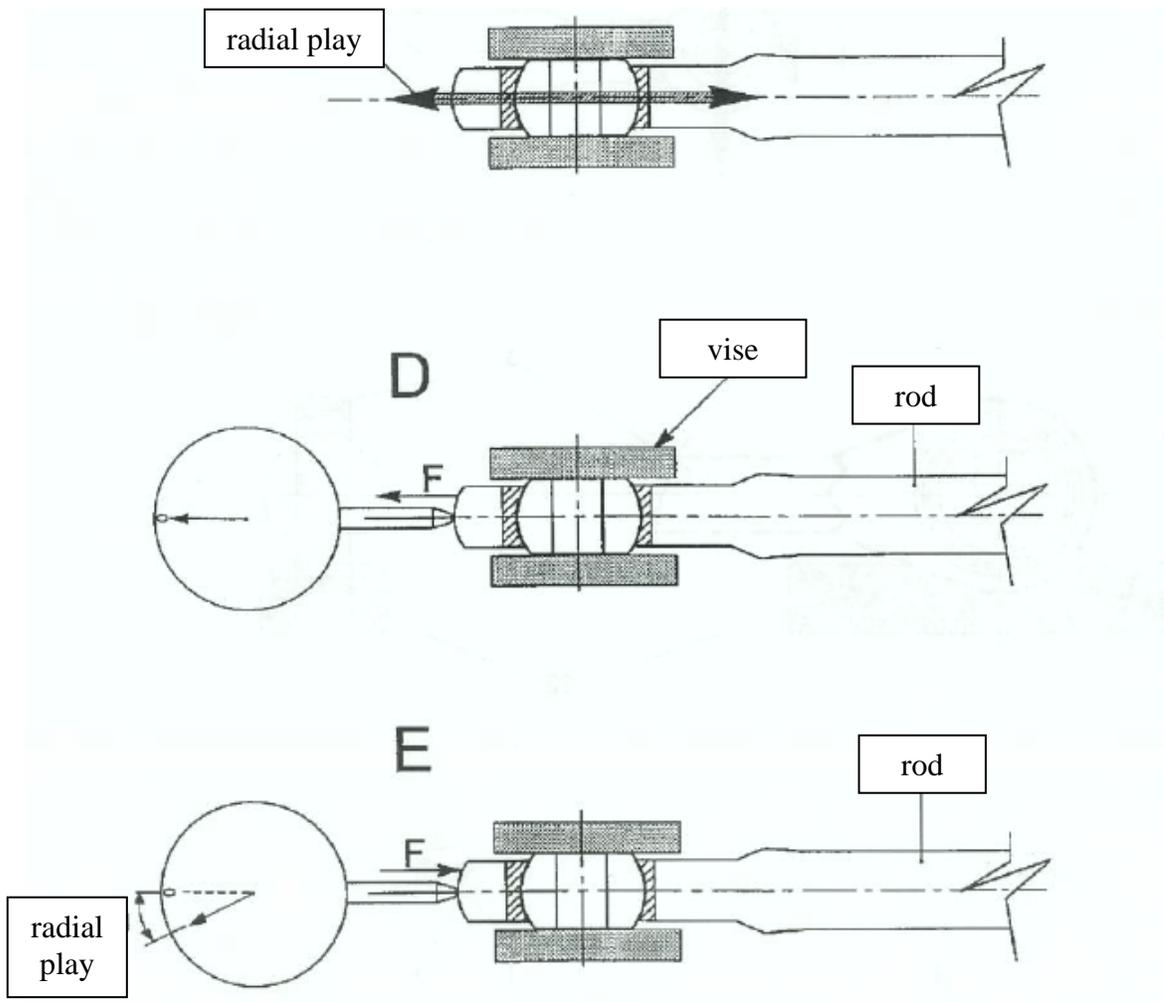


Figure (3) to Paragraph (f)  
 Measurement of the Radial Play (R) of the Bearing

(i) Remove the control rod from the helicopter.

(ii) Mount the control rod in a vise as shown in Figure 2 to Paragraph (f) of this AD.

(iii) Using a dial indicator, take axial play readings by moving the spherical bearing in the direction F (up and down) as shown in Figure 2 to Paragraph (f) of this AD.

(iv) Install a bolt through the bearing and secure it with a washer and nut to provide a clamping surface when the bearing is clamped in a vise.

(v) Mount the control rod and bearing in a vise as shown in Figure 3 to Paragraph (f) of this AD.

(vi) Using a dial indicator, take radial play measurements by moving the control rod in the direction F as shown in Figure 3 to Paragraph (f) of this AD.

(vii) Record the hours of operation on each control rod.

(viii) If the radial play exceeds 0.008 inch or axial play exceeds 0.016 inch, replace the control rod with an airworthy control rod before further flight.

(ix) If the radial and axial play are within limits, reinstall the control rod.

(x) Thereafter, at intervals not to exceed 30 hours TIS, remove the control rod and measure the bearing play with a dial indicator in accordance with paragraph (f)(2) of this AD.

**(g) 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](mailto:robert.grant@faa.gov).

(2) For operations conducted under a 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.

**(h) Additional Information**

(1) Eurocopter Alert Service Bulletin (ASB) No. 05.00.60 and ASB No. 05.00.56, both Revision 0, and both dated December 9, 2009, 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, Inc., 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review a copy of the 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 the European Aviation Safety Agency (EASA) AD No. 2010-0006, dated January 7, 2010. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2011-1158.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6720, Tail rotor control system.

Issued in Fort Worth, Texas, on January 31, 2014.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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