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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. 2002-SW-32-AD; Amendment 39-12943; AD 2002-22-16]**

**RIN 2120-AA64**

### **Airworthiness Directives; Eurocopter France Model AS355N Helicopters**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD) for the specified Eurocopter France (ECF) helicopters. The existing AD requires visually inspecting the four engine exhaust pipe ejector (ejector) attachment lugs (lugs), the starter-generator (S-G) attachment flange (flange) and attachment half-clamps (half-clamps) for cracks, and the S-G shaft for radial play. This amendment will retain the current requirements except will not require measuring the radial play. This amendment will also require measuring each S-G engine clamp torque and vibration level and recording the S-G vibration level on a component history card or equivalent record. If the S-G vibration level is equal to or higher than 0.5 inches per second (IPS), this superseding AD requires repairing or replacing the S-G, as necessary. This amendment is prompted by additional cases of S-G damage and the need for additional corrective actions. The actions specified by this AD are intended to prevent excessive S-G vibration, which could lead to separation of an ejector, impact with the main or tail rotor, and subsequent loss of control of the helicopter.

**DATES:** Effective December 17, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 17, 2002.

**ADDRESSES:** The service information referenced in this AD may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Ed Cuevas, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations Group, Fort Worth, Texas 76193-0110, telephone (817) 222-5355, fax (817) 222-5961.

**SUPPLEMENTARY INFORMATION:** A proposal to amend 14 CFR part 39 by superseding AD 2000-05-15, Amendment 39-11625 (65 FR 14209) for ECF Model AS355N helicopters was published in the Federal Register on July 15, 2002 (67 FR 46423). That action proposed determining the S-G clamp torque and the vibration level on both engines at specified intervals. That action also proposed recording each vibration level on the component history card or equivalent record. If the S-G vibration level is equal to or higher than 0.5 IPS (12.7 mm/s), that action proposed repairing or replacing the S-G, as necessary. Also, that action proposed retaining the requirement to visually inspect the four ejectors, the lugs, the two half clamps, and the S-G flange for a crack and replacing any cracked part with an airworthy part before further flight.

The Direction Generale De L'Aviation Civile (DGAC), the airworthiness authority for France, notified the FAA that an unsafe condition may exist on Eurocopter France Model AS355N helicopters. The DGAC advises of further cases of S-G deterioration, which may lead to failure of the engine exhaust pipe lugs and loss of the ejector.

ECF has issued Eurocopter Alert Telex (Telex) No. 01.00.45 Revision 3, dated November 22, 2001 that supersedes Alert Telex No. 01.00.45 Revision 2, dated August 24, 2000, and No. 01.00.15 Revision 2, dated April 3, 2000, that superseded Alert Telex No. 01.00.45, dated October 27, 1999. Alert Telex No. 01.00.45 Revision 3 specifies checking the S-G clamp torque and vibration levels and recording vibration levels. If the vibration level is equal to or above 0.5 IPS (12.7 mm/s), Telex 01.00.45 Revision 3 specifies repairing the S-G as well as conducting additional inspections and repairs. The Telex states that ECF is developing modifications to return to an acceptable maintenance program.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

The FAA estimates that this AD will:

- Affect 13 helicopters of U.S. registry;
- Require 5.5 work hours for the inspections and 5 work hours to replace the parts at an average labor rate of \$60 per work hour;
- Cost approximately \$6,346 for each S-G, \$12,148 for each exhaust pipe, \$500 for each flange, and \$175 for each clamp or \$38,338 per helicopter; and
- Result in a total cost impact of \$506,584, assuming one inspection and replacement of all parts per helicopter.

The regulations adopted herein 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, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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); 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

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

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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 removing Amendment 39-11625 (65 FR 14209, March 16, 2000), and by adding a new airworthiness directive (AD), Amendment 39-12943, to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rgl](http://www.airweb.faa.gov/rgl)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2002-22-16 Eurocopter France:** Amendment 39-12943. Docket No. 2002-SW-32-AD. Supersedes AD 2000-05-15, Amendment 39-11625, Docket No. 99-SW-87-AD.

**Applicability:** Model AS355N helicopters, certificated in any category.

**Note 1:** This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent excessive starter-generator (S-G) vibration, which may lead to separation of an engine exhaust pipe ejector (ejector), impact with the main or tail rotor, and subsequent loss of control of the helicopter, accomplish the following:

(a) Before further flight and at or between 10 and 15 hours time-in-service (TIS), inspect the torque on each S-G attachment clamp (clamp). If the torque is not within tolerances provided in the maintenance manual, adjust the torque accordingly.

(b) Measure and record on a component history card or equivalent record the vibration level for each S-G in accordance with the Accomplishment Instructions, paragraph 2.A.2., of Eurocopter France (ECF) Telex No. 01.00.45 Revision 3, dated November 22, 2001 (Telex), as follows:

(1) For each S-G with less than 10 hours TIS since initial installation, before further flight, and at or between the hours TIS as shown in Table 1 of this AD:

<b>Table 1.—S-G Vibration Level Measurement Intervals</b>
<b>Hours TIS</b>
A. 10 and 15
B. 24 and 35
C. 45 and 55
D. 70 and 80
E. 100 and 110

(2) For each S-G with 10 hours or more TIS but less than 110 hours TIS since initial installation, begin and continue the vibration level measurements at or between the applicable hours TIS shown in Table 1 of this AD.

(3) For each S-G with more than 110 hours TIS since initial installation, measure the vibration level before further flight.

(c) After doing paragraph (b) of this AD, thereafter, at intervals not to exceed 110 hours TIS, measure the vibration level in accordance with paragraph 2.A.2. of the Telex.

(d) If the vibration level of an S-G is equal to or greater than 0.5 inches per second (IPS) (12.7 mm/s):

(1) Remove the S-G and repair or replace it with an airworthy S-G.

(2) Visually inspect the four ejector attachment lugs (lugs) and the two clamps for a crack in accordance with the Accomplishment Instructions, paragraph 2.B.3.b.1B), of the Telex.

(3) Inspect the two half-clamps for a crack.

(4) Remove the S-G to engine attachment flange (flange). Clean and inspect the flange for a crack in accordance with the Accomplishment Instructions, paragraph 2.B.3.b.1D) of the Telex.

(5) If a crack is found, before further flight, repair or replace the cracked part with an airworthy part in accordance with the Accomplishment Instructions, paragraph 2.B.3.b.3 of the Telex, except you are not required to report your findings to the manufacturer.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(f) Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the requirements of this AD can be accomplished.

(g) Measuring the vibration level, inspecting the lugs or clamps, and replacing the parts shall be done in accordance with the Accomplishment Instructions, Eurocopter France Telex No. 01.00.45 Revision 3, dated November 22, 2001. This incorporation by reference was approved by the Director of the Federal Register 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, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on December 17, 2002.

**Note 3:** The subject of this AD is addressed in Direction Generale De L'Aviation Civile (France) AD Nos. 1999-469-058(A) Revision 1, dated August 9, 2000, and 1999-469-058(A) Revision 2, dated January 9, 2002.

Issued in Fort Worth, Texas, on October 29, 2002.

David A. Downey,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 02-28412 Filed 11-8-02; 8:45 am]

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