



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0827; Product Identifier 2019-SW-014-AD]**

**RIN 2120-AA64**

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

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2011-12-07 for Eurocopter France (now Airbus Helicopters) Model SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters. AD 2011-12-07 currently requires repetitively inspecting the adhesive bead between the bushings and the Starflex star (Starflex) arms and the Starflex arm ends. Since the FAA issued AD 2011-12-07, Airbus Helicopters has developed an improved Starflex. This proposed AD would retain the requirements of AD 2011-12-07 and revise the Applicability paragraph by omitting helicopters with the improved Starflex installed. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0827; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [http://www.helicopters.airbus.com/website/en/ref/Technical-Support\\_73.html](http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html). You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments that the FAA receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments received.

**Discussion**

The FAA issued AD 2011-12-07, Amendment 39-16714 (76 FR 35346, June 17,

2011) (“AD 2011-12-07”) for Eurocopter France (now Airbus Helicopters) Model SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters. AD 2011-12-07 requires repetitively inspecting the adhesive bead between the bushings and the Starflex arms for a crack, a gap, and loss of the adhesive bead, inspecting the Starflex arm ends for delamination, and replacing the Starflex if any of these conditions are found. AD 2011-12-07 was prompted by three cases of deterioration of a Starflex arm end. In two of these cases, the deterioration caused high amplitude vibrations in flight, compelling the pilot to make a precautionary landing. The requirements of AD 2011-12-07 are intended to prevent failure of the Starflex, high-amplitude vibrations in flight, and subsequent loss of control of the helicopter.

#### **Actions Since AD 2011-12-07 Was Issued**

Since the FAA issued AD 2011-12-07, Airbus Helicopters has developed new part-numbered Starflex, 365A31-1212-00 and 365A31-1213-00, with different material. This change in material improves the reliability and technical performance of the Starflex, improves temperature-related behavior in the area of the Starflex arm ends, and increases dimension margins. Subsequently, Airbus Helicopters has extended the inspection interval of Starflex arm ends with these Starflex installed. Airbus Helicopters identifies helicopters with Starflex part number 365A31-1212-00 or 365A31-1213-00 installed as Modification (MOD) 0762C37.

Accordingly, EASA, which is the Technical Agent for the Member States of the European Union, issued AD No. 2008-0165R1, dated June 30, 2017 (EASA AD 2008-0165R1), to address this unsafe condition for Airbus Helicopters Model SA 365 N, SA 365 N1, AS 365 N2, AS 365 N3, SA 365 C, SA 365 C1, SA 365 C2, SA 365 C3 and SA

366 G1 helicopters, except helicopters with MOD 0762C37 installed in production. EASA advises that the Airbus Helicopters Starflex manufactured with improved materials make the 10-hour repetitive inspections specified in the original issue of EASA AD 2008-0165R1 unnecessary. EASA AD 2008-0165R1 retains the repetitive inspections from the original issue but does not apply to helicopters with the new Starflex.

Also since the FAA issued AD 2011-12-07, Eurocopter France changed its name to Airbus Helicopters. This proposed AD reflects that change and updates the contact information to obtain service documentation.

#### **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determined that an unsafe condition is likely to exist or develop on other helicopters of the same type designs.

#### **Related Service Information Under 1 CFR part 51**

The FAA reviewed one document that co-publishes four Airbus Helicopters Emergency Alert Service Bulletin (EASB) identification numbers: No. 05.00.51 for Model 365N-series helicopters, No. 05.35 for Model 366G1 helicopters, No. 05.28 for Model 365C-series helicopters, and No. 05.00.21 for non FAA-type certificated military helicopters, all Revision 4 and dated November 20, 2014. EASB Nos. 05.00.51, 05.35, and 05.28 are proposed for incorporation by reference in this proposed AD. EASB No.

05.00.21 is not proposed for incorporation by reference in this proposed AD.

This service information specifies visually inspecting the adhesive bead on the bushes of the Starflex arm ends for bonding failure of the bushes and distortion of the Starflex arm ends. This service information also specifies inspecting the leading edges and the trailing edges of the Starflex arm ends for delamination.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Other Related Service Information**

The FAA reviewed Airbus Helicopters Master Servicing Manual (MSM) AS 365 N for Model SA-365N helicopters, MSM AS 365 N1 for Model SA-365N1 helicopters, MSM AS 365 N2 for Model AS-365N2 helicopters, and MSM AS 365 N3 for Model AS 365 N3 helicopters, all Revision 7 and dated October 9, 2017. This service information provides a schedule of maintenance tasks for the helicopters.

The FAA also reviewed one document that co-publishes four Eurocopter EASB identification numbers: No. 05.00.51 for Model 365N-series helicopters, No. 05.35 for Model 366G1 helicopters, No. 05.28 for Model 365C-series helicopters, and No. 05.00.21 for non FAA-type certificated military helicopters, all Revision 3 and dated August 18, 2008. This service information specifies the same Accomplishment Instructions as Revision 4, which is issued under the name Airbus Helicopters, although Revision 4 excludes helicopters that have MOD 0762C37 installed.

#### **Proposed AD Requirements**

This proposed AD would retain the requirements of AD 2011-12-07 to

repetitively inspect the adhesive bead between the bushings and the Starflex arms for a crack, a gap, and loss of the adhesive bead, and repetitively inspect the Starflex arm ends for delamination. However, this proposed AD would not apply to helicopters with MOD 0762C37 installed.

### **Differences Between this Proposed AD and the EASA AD**

The EASA AD uses the word “check,” whereas this proposed AD uses the word “inspect” instead. In some ADs, the FAA uses the word “check” to designate specific actions that may be performed by the owner/operator (pilot). An “inspection” is a maintenance action that must be performed by a certificated person as specified in 14 CFR 43.3.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 35 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Inspecting the Starflex would take about 0.25 work-hour for an estimated cost of \$21 per helicopter and \$735 for the U.S. fleet per inspection cycle. Replacing the Starflex would take about 10 work-hours and parts would cost about \$65,900 for an estimated cost of \$66,750.

### **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.

The FAA is 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**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, 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.

The FAA prepared an economic evaluation of the estimated costs to comply with this proposed 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.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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) 2011-12-07, Amendment 39-16714 (76 FR 35346, June 17, 2011), and adding the following new AD:

#### **Airbus Helicopters (Type Certificate Previously Held by Eurocopter France):**

Docket No. FAA-2019-0827; Product Identifier 2019-SW-014-AD.

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

This AD applies to Airbus Helicopters (Type Certificate previously held by Eurocopter France) Model SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters, certificated in any category, without Airbus Helicopters Modification 0762C37 (starflex arm part number (P/N) 365A31-1212-00 or P/N 365A31-1213-00) installed.

##### **(b) Unsafe Condition**

This AD defines the unsafe condition as failure of the Starflex star (Starflex) arm. This condition could result in high amplitude vibrations in flight and subsequent loss of control of the helicopter.

**(c) Affected ADs**

This AD replaces AD 2011-12-07, Amendment 39-16714 (76 FR 35346, June 17, 2011).

**(d) Comments Due Date**

The FAA must receive comments by [INSERT DATE 60 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**

Within 10 hours time-in-service (TIS) and thereafter at intervals not to exceed 10 hours TIS:

(1) Visually inspect the adhesive bead between the bushing and the Starflex arm for a crack, a gap, and loss of the adhesive bead, and inspect the Starflex arm ends for delamination in accordance with the Accomplishment Instructions, paragraphs 2.B.1. and 2.B.2. of Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 05.00.51, Revision 4, dated November 20, 2014 (EASB 05.00.51), EASB No. 05.35, Revision 4, dated November 20, 2014 (EASB 05.35), or EASB No. 05.28, Revision 4, dated November 20, 2014 (EASB 05.28), as applicable to your model helicopter.

(2) If there is a crack in the shockproof paint around the entire adhesive bead where the Starflex arm joins the bushing (as shown in Figure 2 of EASB 05.00.51, EASB 05.35, or EASB 05.28, as applicable to your model helicopter), a gap between the adhesive bead and the bushing (as shown in Figure 3 of EASB 05.00.51, EASB 05.35, or

EASB 05.28, as applicable to your model helicopter), delamination of a Starflex arm end (as shown in Figure 4 of EASB 05.00.51, EASB 05.35, or EASB 05.28, as applicable to your model helicopter), or loss of adhesive bead (as shown in Figure 5 of EASB 05.00.51, EASB 05.35, or EASB 05.28, as applicable to your model helicopter), replace the Starflex before further flight.

**(g) Credit for Previous Actions**

Actions accomplished before the effective date of this AD in accordance with the procedures specified in Eurocopter Emergency Alert Service Bulletin Nos. 05.00.51, 05.35, or 05.28, all Revision 3 and dated August 18, 2008, as applicable to your model helicopter, are considered acceptable for compliance with the corresponding actions specified in paragraph (f) of this AD as long as the last inspection was accomplished within the prior 10 hours TIS.

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

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests 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.

**(i) Additional Information**

(1) Airbus Helicopters Master Servicing Manual (MSM) AS 365 N, MSM AS 365 N1, MSM AS 365 N2, and MSM AS 365 N3, all Revision 7 and dated October 9, 2017; and Eurocopter Emergency Alert Service Bulletin Nos. 05.00.51, 05.35, 05.28, and 05.00.21, all Revision 3 and dated August 18, 2008, 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, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [http://www.helicopters.airbus.com/website/en/ref/Technical-Support\\_73.html](http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html). You may view a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2008-0165R1, dated June 30, 2017. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

**(j) Subject**

Joint Aircraft Service Component (JASC) Code: 6200, Main Rotor System.

Issued in Fort Worth, Texas, on October 21, 2019.

Lance T. Gant,

Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.

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