

[Federal Register Volume 78, Number 217 (Friday, November 8, 2013)]  
[Rules and Regulations]  
[Pages 67009-67011]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2013-26043]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2013-0514; Directorate Identifier 2012-SW-068-AD; Amendment 39-17647; AD 2013-22-15]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Sikorsky Aircraft Corporation (Sikorsky) Helicopters**

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

**ACTION:** Final rule.

---

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Sikorsky Model S-76A, B, and C helicopters to require certain inspections of each spindle cuff assembly or blade fold cuff assembly for a crack. If there is a crack, this AD requires replacing the cracked part. If there is no crack, this AD requires applying white paint to the inspection area to enhance the existing inspection procedure. This AD was prompted by discovery of cracks in the spindle cuffs. The actions are intended to prevent failure of a spindle cuff assembly or blade fold cuff assembly, loss of a rotor blade, and subsequent loss of control of the helicopter.

**DATES:** This AD is effective December 13, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of December 13, 2013.

**ADDRESSES:** For service information identified in this AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT 06614; telephone (800) 562-4409; email [tsslibrary@sikorsky.com](mailto:tsslibrary@sikorsky.com); or at <http://www.sikorsky.com>. <http://www.eurocopter.com/techpub>. You may review a copy of 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, 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:** Nicholas Faust, Aviation Safety Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email [nicholas.faust@faa.gov](mailto:nicholas.faust@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On June 20, 2013, at 78 FR 37160, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Sikorsky Model S-76A, B, and C helicopters. The NPRM proposed either a one-time nondestructive inspection (NDI) or a visual inspection of each spindle cuff assembly or blade fold cuff assembly for a crack and replacing any cracked part. If there was no crack in the part, the NPRM proposed applying white paint to a portion of each spindle cuff assembly or blade fold cuff assembly lower cuff plate to enhance the existing inspection procedure. The NPRM was prompted by the discovery of five cracked spindle cuffs found during aircraft overhaul. The proposed requirements were intended to prevent failure of a spindle cuff assembly or blade fold cuff assembly, loss of a rotor blade, and subsequent loss of control of the helicopter.

### **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 37160, June 20, 2013).

### **FAA's Determination**

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Related Service Information**

Sikorsky issued S-76 Alert Service Bulletin ASB 76-65-67A, Revision A, dated July 18, 2012 (ASB), which specifies performing an NDI of the upper and lower cuff plate on each spindle cuff assembly or blade fold cuff assembly for a crack, either by eddy current, fluorescent penetrant, or ultrasonic inspection. If a crack indication is detected and not verified, the ASB specifies performing a different NDI to verify a crack. If there is a crack, the ASB specifies removing the spindle cuff assembly or blade fold cuff assembly from service. If a crack cannot be verified, the ASB specifies contacting Sikorsky for further instruction. Finally, if no crack is found, the ASB specifies applying white paint to a portion of the spindle cuff assembly or blade fold cuff assembly lower cuff plate to enhance the existing inspection procedure.

### **Differences Between This AD and the Service Information**

The ASB specifies contacting the manufacturer if suspect cracks are not confirmed in the spindle cuff assembly or blade fold cuff assembly; this AD does not require contacting the manufacturer. This AD applies to spindle cuff assembly, part number (P/N) 76102-08001-043, which was

inadvertently omitted in the ASB. The manufacturer has since revised the ASB to apply to this spindle cuff assembly. The ASB applies to spare parts; this AD does not.

### **Costs of Compliance**

We estimate that this AD will affect 181 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD, based on an average labor cost of \$85 per work hour: It will take 2.5 work hours to do an NDI and 2 work hours to apply the white paint. It will cost \$15 in materials for the paint for each helicopter. Based on these estimates, it will cost a total of \$398 per helicopter and \$72,038 for the fleet.

If it is necessary to replace a spindle cuff assembly or a blade cuff assembly, it will take 2.5 work hours and an estimated parts cost of \$54,000, for a total cost of \$54,212 for each 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**

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):



---

**2013-22-15 Sikorsky Aircraft Corporation:** Amendment 39-17647; FAA-2013-0514; Directorate Identifier 2012-SW-068-AD.

**(a) Applicability**

This AD applies to Model S-76A, S-76B, and S-76C helicopters with a serial number up to and including 760822 and with a spindle cuff assembly, part number (P/N) 76102-08001-043, -045 or -046, or a blade fold cuff assembly, P/N 76150-09601-041, installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a spindle cuff assembly or blade fold cuff assembly. This condition could result in failure of a spindle cuff assembly or blade fold cuff assembly, loss of a rotor blade, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective December 13, 2013.

**(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**

Within 150 hours time-in-service (TIS):

(1) For each spindle cuff assembly or blade cuff assembly with 1,900 or more hours TIS, conduct a nondestructive inspection (NDI) by following the Accomplishment Instructions, paragraph 3.B., of Sikorsky S-76 Alert Service Bulletin ASB 76-65-67A, Revision A, dated July 18, 2012 (ASB), except this AD does not require you to contact Sikorsky Aircraft Corporation. This inspection must be done by a level 2 or higher technician with National Aerospace Standard 410 or equivalent certification.

(2) For each spindle cuff assembly or blade cuff assembly with less than 1,900 hours TIS, visually inspect the area indicated in Figure 4 of the ASB as "white paint application area" for a crack by using a 5x or higher power magnifying glass.

(3) If there is a crack, before further flight, replace the cracked part.

(4) If there is no crack, apply white paint by following the Accomplishment Instructions, paragraph 3.D., of the ASB.

(5) Do not install an affected spindle cuff assembly or blade fold cuff assembly on any helicopter unless it has been inspected in accordance with paragraphs (e)(1) through (e)(4) of this AD.

**(f) Special Flight Permit**

Special flight permits will not be issued.

**(g) Alternative Methods of Compliance (AMOC)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Nicholas Faust, Aviation Safety Engineer, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email nicholas.faust@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) Subject**

Joint Aircraft Service Component (JASC) Code: 6220 Main Rotor Head.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference 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) Sikorsky S-76 Alert Service Bulletin ASB 76-65-67A, Revision A, dated July 18, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT 06614; telephone (800) 562-4409; email [tsslibrary@sikorsky.com](mailto:tsslibrary@sikorsky.com); or at <http://www.sikorsky.com>.

(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 October 24, 2013.

Kim Smith,  
Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.