

[Federal Register Volume 77, Number 221 (Thursday, November 15, 2012)]  
[Rules and Regulations]  
[Pages 68061-68062]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2012-26907]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2012-0216; Directorate Identifier 2010-SW-025-AD; Amendment 39-17245; AD 2012-22-09]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

---

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This AD requires inspecting the tail rotor (T/R) pylon for a loose or missing fastener, a crack, damage, or corrosion and adding an internal doubler to the aft shear deck tunnel assembly. This AD was prompted by the discovery of cracks in T/R pylons. The actions are intended to detect a loose or missing fastener, a crack, damage, or corrosion on the T/R pylon and, if present, to repair the T/R pylon and install a doubler on the aft shear deck tunnel assembly or to replace the T/R pylon and install a doubler on the aft shear deck tunnel assembly. The actions are intended to prevent failure of the T/R pylon or other T/R components, which could lead to the loss of control of the helicopter.

**DATES:** This AD is effective December 20, 2012.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of December 20, 2012.

**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>. 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, MA 01803; telephone (781) 238-7763; email [nicholas.faust@faa.gov](mailto:nicholas.faust@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On May 14, 2012, at 77 FR 28328, 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-92A helicopters with a T/R pylon, part number (P/N) 92000-06102-041. That NPRM proposed to require inspecting the T/R pylon for a loose or missing fastener, a crack, damage, or corrosion, and repairing or replacing the T/R pylon if any of these conditions exist. That NPRM also proposed adding an internal doubler to the aft shear deck tunnel assembly. That NPRM was prompted by the discovery of cracks in the forward lower spar region of the T/R pylons. The T/R pylon supports the T/R and the horizontal stabilizer, and a crack of the T/R pylon could alter vibration characteristics of the T/R pylon, which could adversely affect fatigue lives of T/R components. This condition, if not corrected, could result in failure of the T/R pylon or other T/R components and subsequent loss of control of the helicopter.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (77 FR 28328, May 14, 2012).

### **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**

We have reviewed Sikorsky Alert Service Bulletin (ASB) No. 92-53-001, dated June 23, 2008 (ASB No. 92-53-001), and ASB No. 92-53-004B, Revision B, dated June 21, 2011 (ASB No. 92-53-004B). ASB No. 92-53-001 specifies for a T/R pylon with more than 500 flight-hours a one-time inspection of the T/R pylon "components and structure for obvious damage, cracks, corrosion, and security." ASB No. 92-53-004B specifies a one-time replacement of the T/R pylon, P/N 92000-06102-041, with T/R pylon, P/N 92070-20058-042, and installation of a doubler on the aft shear deck tunnel assembly. The ASB specifies a replacement schedule based on the T/R pylon's hours for specified serial numbered helicopters.

### **Costs of Compliance**

We estimate that this AD will affect 20 helicopters of U.S. Registry and that labor rates average \$85 a work-hour. We also estimate that it will take about 1 work-hour per helicopter to inspect and 120 work-hours per helicopter to replace the T/R pylon and install the doubler. Required parts will cost about \$339,080. Based on these figures, we estimate the annual cost will total \$356,505 per

helicopter and \$7,130,100 for the U.S. fleet, assuming 85 inspections per year on each helicopter and assuming replacement of the T/R pylon and installation of a doubler on each helicopter.

According to the Sikorsky service information, some of the costs of this proposed AD may be covered under warranty, reducing the cost on affected individuals. We do not control warranty coverage. Accordingly, we have included all costs in our estimate.

### **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):



---

**2012-22-09 Sikorsky Aircraft Corporation Helicopters:** Amendment 39-17245; Docket No. FAA-2012-0216; Directorate Identifier 2010-SW-025-AD.

**(a) Applicability**

This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, with a tail rotor (T/R) pylon, part number (P/N) 92000-06102-041, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a loose or missing fastener, a crack, damage, or corrosion on the T/R pylon that could result in failure of the T/R pylon or other T/R components, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective December 20, 2012.

**(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**

(1) For helicopters with 500 or more hours time-in-service (TIS), within 25 hours TIS and thereafter at intervals not to exceed 10 hours TIS, inspect each T/R pylon for a crack, damage, corrosion, or a loose or missing fastener in accordance with the Accomplishment Instructions, paragraph 3.A.(4)(a) through paragraph 3.A.(4)(f), and referring to Figure 1 of Sikorsky Alert Service Bulletin (ASB) No. 92-53-001, dated June 23, 2008, except that you are not required to contact Sikorsky Customer Service Engineering per paragraph 3.A.(4)(c)1 of ASB 92-53-001, dated June 23, 2008.

(2) If there is a crack, damage, corrosion, or a loose or missing fastener, before further flight, either:

(i) If within allowable tolerances, repair each crack and each area of damage or corrosion and replace any loose or missing fastener; or

(ii) Replace the T/R pylon, (P/N) 92000-06102-041, with T/R pylon, P/N 92070-20058-042, as follows:

(A) Conduct the Total Indicated Run-out procedure on the No. 4 and No. 5 T/R drive shafts and remove the T/R pylon; and

(B) Install the doubler, P/N 92070-20087-101, as follows:

(1) For helicopters, serial numbers (S/Ns) 920006 through 920082, on the aft shear deck tunnel assembly, P/N 92204-05103-041 or -045, in accordance with the Accomplishment Instructions, paragraph 3.B.(1) through 3.B.(30) and while referring to Figures 1, 2, and 4 of Sikorsky ASB No. 92-53-004B, Revision B, dated June 21, 2011 (92-53-004B).

(2) For helicopters, S/Ns 920083 through 920124, on the aft shear deck tunnel assembly, P/N 92204-05103-043, in accordance with the Accomplishment Instructions, paragraph 3.C.(1) through 3.C.(21) and referring to Figures 3 and 4 of ASB 92-53-004B.

(3) If there is no crack in the T/R pylon, replace T/R pylon, P/N 92000-06102-041, with T/R pylon, P/N 92070-20058-042, and install doubler, P/N 92070-20087-101, on the aft shear deck tunnel assembly as specified in paragraphs (2)(ii)(A) through (2)(ii)(B) of this AD, according to the following:

(i) For a T/R pylon with 3,750 or more hours TIS, replace and install doubler within 12 months.

(ii) For a T/R pylon with 1,500 through 3,749 hours TIS, replace and install doubler within 24 months.

(iii) For a T/R pylon with 1,499 or less hours TIS, replace and install doubler within 36 months.

(4) Replacing T/R pylon, P/N 92000-06102-041, with T/R pylon, P/N 92070-20058-042, and installing internal tail cone doubler, P/N 92070-20087-101, on the aft shear deck tunnel assembly, constitutes terminating action for the requirements of this AD.

#### **(f) Alternative Methods of Compliance (AMOCs)**

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

#### **(g) Subject**

Joint Aircraft Service Component (JASC) Code: 5340, Fuselage Main, Attach Fittings.

#### **(h) Material Incorporated by Reference.**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 Alert Service Bulletin No. 92-53-001, dated June 23, 2008.

(ii) Sikorsky Alert Service Bulletin No. 92-53-004B, Revision B, dated June 21, 2011

(3) For Sikorsky Aircraft Corporation 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 25, 2012.  
Lance T. Gant,  
Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.