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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2007-28971; Directorate Identifier 2007-SW-32-AD; Amendment 39-15163; AD 2007-17-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Sikorsky Aircraft Corporation Model S92-A Helicopters**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S92-A helicopters. This action requires, within a specified time, borescope inspecting a certain part-numbered tail rotor pitch change shaft and bearing assembly (shaft and bearing assembly) and also inspecting after any installation. This amendment is prompted by an incident involving failure of a shaft and bearing assembly and servo clevis shaft resulting in loss of tail rotor control. The actions specified in this AD are intended to prevent failure of a shaft and bearing assembly, loss of tail rotor pitch and yaw control, and subsequent loss of control of a helicopter.

**DATES:** Effective August 21, 2007.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 21, 2007.

Comments for inclusion in the Rules Docket must be received on or before October 22, 2007.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically;
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically;
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590;
- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays; or
- Fax: 202-493-2251.

You may get the service information identified in this AD from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, Connecticut, phone (203) 383-4866, e-mail address [tsslibrary@sikorsky.com](mailto:tsslibrary@sikorsky.com).

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information on the Internet at <http://dms.dot.gov>, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the DMS receives them.

**FOR FURTHER INFORMATION CONTACT:** Wayne Gaulzetti, Aviation Safety Engineer, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7156, fax (781) 238-7170.

**SUPPLEMENTARY INFORMATION:** This amendment adopts a new AD for Sikorsky Model S92-A helicopters. This action requires, within a specified time, borescope inspecting a certain part-numbered shaft and bearing assembly and also inspecting after any installation. This amendment is prompted by an incident involving failure of a shaft and bearing assembly and servo clevis shaft resulting in loss of tail rotor control. This condition, if not detected, could result in loss of tail rotor pitch and yaw control and subsequent loss of control of a helicopter.

We have reviewed Sikorsky Alert Service Bulletin No. 92-64-002, dated August 3, 2007 (ASB), which describes procedures for doing a one-time borescope inspection of the shaft and bearing assembly.

The ASB requires inspecting the shaft and bearing assembly within 50 hours time-in-service (TIS). This AD requires the inspection within 20 hours TIS based on the ease of the inspection, the availability of borescopes, the flight hours per day for the high time helicopters (about 8 hours), and the potential for a helicopter to ditch while servicing the oil rig industry. Also, this AD requires this inspection between 10 and 15 hours TIS following any installation of a shaft and bearing assembly.

The inspections required by this AD are interim actions; the manufacturer continues to investigate failure of the shaft and bearing assembly and we may either develop follow-on actions or a terminating action for the requirements of this AD.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD is being issued to prevent failure of a shaft and bearing assembly, loss of tail rotor pitch and yaw control, and subsequent loss of control of a helicopter. This AD requires, within 20 hours TIS, inspecting each affected shaft and bearing assembly at the tail rotor side and on the servo side through the oil filler cap. This AD also requires borescope inspecting each shaft and bearing assembly that is installed as a replacement. This inspection must be done between 10 and 15 hours TIS after installation. Replacing any unairworthy shaft and bearing assembly is required before further flight.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability or structural integrity of the helicopter. Therefore, borescope inspecting the affected shaft and bearing assembly within 20 hours TIS and before further flight following any installation of an affected shaft and bearing assembly are required, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

We estimate that this AD will affect 34 helicopters, and the borescope inspection of the shaft and bearing assembly will take about 2 work hours to do at an average labor rate of \$80 per work hour. Required parts will cost about \$30,864 per helicopter. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$1,054,816.

## **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2007-28971; Directorate Identifier 2007-SW-32-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

## **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 the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the DMS to examine the economic evaluation.

## **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.

## **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 adding a new airworthiness directive to read as follows:



**2007-17-05 Sikorsky Aircraft Corporation:** Amendment 39-15163. Docket No. FAA-2007-28971; Directorate Identifier 2007-SW-32-AD.

### **Applicability**

Model S-92A helicopter, with a tail rotor pitch change shaft and bearing assembly (shaft and bearing assembly) part number 92358-06303-041, installed, certificated in any category.

### **Compliance**

Required as indicated, unless accomplished previously.

To prevent failure of a shaft and bearing assembly, loss of tail rotor pitch and yaw control, and subsequent loss of control of a helicopter, do the following:

(a) Within 20 hours time-in-service (TIS), borescope inspect as follows:

(1) Inspect each affected shaft and bearing assembly at tail rotor side by following the Accomplishment Instructions, paragraphs 3.A.(1) through (7) and Figure 4 of Sikorsky Aircraft Corporation Alert Service Bulletin No. 92-64-002, dated August 3, 2007 (ASB). If the shaft bearing fails the inspection, replace the shaft and bearing assembly before further flight.

(2) Inspect each shaft and bearing assembly on the servo side through the oil filler cap by following the Accomplishment Instructions, paragraphs B.(1) through (9) and Figures 2 and 3, of the ASB. If the shaft bearing fails the inspection, replace the shaft and bearing assembly before further flight.

Note: Maintenance Manual SA S92A-ANM-000 pertains to the subject of this AD.

(b) Between 10 and 15 hours TIS after installing a shaft and bearing assembly, borescope inspect it by following paragraph (a) of this AD.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Boston Aircraft Certification Office, FAA, ATTN: Wayne Gaulzetti, Aviation Safety Engineer, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7156, fax (781) 238-7170, for information about previously approved alternative methods of compliance.

(d) The inspections of the shaft and bearing assembly shall be done by following Sikorsky Alert Service Bulletin No. 92-64-002, dated August 3, 2007. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, Connecticut, phone (203) 383-4866, e-mail address [tsslibrary@sikorsky.com](mailto:tsslibrary@sikorsky.com). 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 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(e) This amendment becomes effective on August 21, 2007.

Issued in Fort Worth, Texas, on August 9, 2007.

Mark R. Schilling,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. E7-15980 Filed 8-20-07; 8:45 am]