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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1206; Directorate Identifier 2012-SW-021-AD; Amendment 39-17269; AD 2012-23-13]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation (Sikorsky) Model Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for Sikorsky Model S-70, S-70A, and S-70C helicopters, which are restricted category helicopters derived from the military Model UH-60 helicopter. This AD would require reducing or establishing life limits for certain listed helicopter parts. This AD is prompted by a review of the United States Army's analysis of their Model UH-60 fleet, which determined it necessary to establish or reduce the life limits of certain parts. The actions are intended to prevent fatigue failure of a part and subsequent loss of control of the helicopter.

DATES: This AD becomes effective December 14, 2012.

We must receive comments on this AD by January 28, 2013.

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> 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, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Michael Davison, Flight Test Engineer, New England Regional Office, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7156, email: michael.davison@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, 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 them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

We are adopting a new AD for Sikorsky Model S-70, S-70A and S-70C helicopters. This AD requires reducing or establishing life limits for the main rotor blade, tail rotor blade, planetary carrier assembly, tail rotor servo, elastomeric sleeve bearing, main landing gear shock strut piston cylinder, crossfeed valve, oil cooler axial fan ball bearing assembly, dowel pins, main rotor hub, and right tie rod attach bolt. This AD is prompted by the need to reduce life limits on the specified parts. This determination is based on a review of analysis by the U.S. Army of certain parts installed on the military Model UH-60 helicopters, which shows that the life limits of those parts need to be reduced. The Sikorsky Model S-70, S-70A and S-70C helicopters are restricted category helicopters derived from the military Model UH-60 helicopter. The actions are intended to establish life limits for certain parts to prevent fatigue failure of a part and subsequent loss of control of the helicopter.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other helicopters of these same type designs.

AD Requirements

This AD requires, before further flight, establishing or reducing life limits for certain parts and removing from service each part that has reached its life limit.

Costs of Compliance

We estimate that this AD will affect nine helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD.

It will take about 4.7 work hours at \$85 per work hour to replace each part plus the required costs per helicopter as follows:

- \$70,000 for the main rotor blade,
- \$30,000 for the tail rotor blade,
- \$490 for the elastomeric sleeve bearing,
- \$233 for the right tie rod attach bolt,
- \$40,000 for the main rotor hub,
- \$12,000 for the main landing gear shock strut piston system,
- \$44,000 for the tail rotor servo,
- \$200 for the crossfeed breakaway valve,
- \$59,000 for the main module planetary carrier assembly, and
- \$3,700 for the dowel pins (11 total).

Based on these figures, the total estimated cost is \$2,372,607 to replace all the parts for the entire U.S. fleet.

FAA's Justification and Determination of the Effective Date

Since a part must be replaced before further flight if it has reached its life limit and some of the parts may have exceeded or be close to reaching the life limit, this AD must be issued immediately.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in less than 30 days.

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

We 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, 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):



2012-23-13 Sikorsky Aircraft Corporation: Amendment 39-17269; Docket No. FAA-2012-1206; Directorate Identifier 2012-SW-021-AD.

(a) Applicability

This AD applies to Model S-70, S-70A, and S-70C helicopters, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as fatigue failure of a main rotor blade, tail rotor blade, planetary carrier assembly, tail rotor servo, elastomeric sleeve bearing, main landing gear shock strut piston cylinder, crossfeed valve, oil cooler axial fan ball bearing assembly, dowel pin, main rotor hub, or right tie attach bolt remaining in service beyond its life limit. This condition could result in loss of control of the helicopter.

(c) Effective Date

This AD becomes effective December 14, 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 Action

Before further flight:

(1) Establish or reduce the retirement life of the following parts listed in Table 1-1 of the Sikorsky Technical Manual TM 1-70-23AW-2, change 3, section 1.1, Airworthiness Limitations, by inserting a copy of Table 1-1 into the Airworthiness Limitations section of TM 1-70-23AW-2 or by making the following pen and ink changes to the Airworthiness Limitations of the maintenance manual:

(i) For each dowel pin on the main transmission housing, part number (P/N) NAS607-10-12P, NAS607-12-14P, and NAS607-12-18P, establish a life limit of 3,000 hours time-in-service (TIS).

(ii) For elastomeric sleeve bearing, P/N SB5203-202, establish a life limit of 720 hours TIS.

(iii) For right tie rod attach bolt, P/N SS5025-04H010, establish a life limit of 3,500 hours TIS.

(iv) For right tie rod attach bolt, P/N SS5025-04H10, establish a life limit of 5,000 hours TIS.

(v) For oil cooler axial fan ball bearing, P/N 210SFFC, installed in oil cooler axial fans, P/N 70361-03005-103 through -106, establish a life limit of 2,000 hours TIS; and for bearings installed in oil cooler axial fan, P/N 70361-03005-107, establish a life limit of 2,500 hours TIS.

(vi) For oil cooler axial fan ball bearing, P/N 210SFFC-0129, installed in oil cooler axial fan, 70361-03005-103 through -106, establish a life limit of 2,000 hours TIS; and for bearings installed in oil cooler axial fan, P/N 70361-03005-107, establish a life limit of 2,500 hours TIS.

(vii) For main rotor hub, P/N 70070-10046-055, establish a life limit of 5,100 hours TIS.

(viii) For main rotor blade, P/N 70080-15001-041, establish a life limit of 5,000 hours TIS.

- (ix) For tail rotor blade, P/N 70080-15002-041, establish a life limit of 5,000 hours TIS.
 - (x) For main rotor blade, P/N 70080-15003-041, establish a life limit of 5,000 hours TIS.
 - (xi) For tail rotor blades, P/N 70080-15004-041 and P/N 70080-15005-041, establish a life limit of 5,000 hours TIS.
 - (xii) For main landing gear shock strut piston assembly, P/N 70250-12067-102, establish a life limit of 9,000 hours TIS.
 - (xiii) For Number 2 crossfeed breakaway valve, P/N 70307-03600-103, establish a life limit of 1,500 hours TIS;
 - (xiv) For main module planetary carrier assembly, P/N 70351-08175-043, -044, and -045, establish a life limit of 1,400 hours TIS; and for P/N 70351-08175-046 establish a life limit of 12,000 hours TIS.
 - (xv) For dowel pins, P/N 70351-08404-101, -102, and -103 on main transmission housings, P/N 70351-08110-044 and -045, establish a life limit of 3,000 hours TIS; for dowel pins, P/N 70351-08404-101, -102, -103, and -104 on main transmission housings, P/N 70351-28110-043 and -044, establish a life limit of 7,300 hours TIS; for dowel pins, P/N 70351-08404-101, -103, and -104, on main transmission housings, P/N 70351-38110-043, -044, and -045, establish a life limit of 11,000 hours TIS.
 - (xvi) For dowel pin, flight control support mounting to main transmission housing, P/N 70531-04805-101, 70531-04805-102, and 70531-08405-103, establish a life limit of 3,000 hours TIS.
 - (xvii) For dowel pin, flight control support mounting to transmission case, P/N 70351-28404-101, on main transmission housings, P/N 70351-08110-044 and -045, reduce the life limit from 4,300 hours TIS to 3,000 hours TIS.
 - (xviii) For main module planetary carrier assembly, P/N 70351-38175-041, establish a life limit of 6,500 hours TIS.
 - (xvix) For dowel pin, flight control support mounting to transmission case, P/N 70351-38404-101, on main transmission housings, P/N 70351-38110-043, -044, and -045, reduce the life limit from 20,000 hours TIS to 11,000 hours TIS.
 - (xx) For the tail rotor servo, P/N 70410-06520-044, -045, and -046, establish a life limit of 15,000 hours TIS.
- (2) Remove from service any part with a number of hours time-in-service equal to or greater than the part's retirement life as stated in paragraph (e)(1) of this AD.

(f) Special Flight Permit

Special flight permits to allow flight in excess of life limits 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: Michael Davison, Flight Test Engineer, New England Regional Office, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7156; email: michael.davison@faa.gov.

(2) For operations conducted under 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) Codes: 7921 Engine Oil Cooler, 6210 Main Rotor Blades, 6320 Tail Rotor Head, 6410 Tail Rotor Blades, 6720 Tail Rotor Control System, 3213 Main Landing Gear Strut/Axle/Truck, 2824 Fuel Transfer Valve, and 1430 Fasteners.

Issued in Fort Worth, Texas, on November 2, 2012.
Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.