DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0791; Project Identifier AD-2020-00676-R]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This proposed AD was prompted by the manufacturer discovering non-conforming threads, resulting in a life limit reduction on multiple landing gear components including threaded hinge pins and main landing gear (MLG) and nose landing gear (NLG) actuator pins. This proposed AD would require a one-time inspection of the landing gear for components with non-conforming threads and removal of any nonconforming threaded hinge pin and MLG and NLG actuator pin. 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 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.
• 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 Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Sikorsky Aircraft Corporation, Commercial Systems and Services, 124 Quarry Road, Trumbull, CT, 06611, United States; phone: (203) 416-4000; email: product_safety.gr-sik@lmco.com. Operators may also log on to the Sikorsky 360 website at website: https://customerportal.sikorsky.com. You may view the related service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

Examining the AD Docket

You may examine the AD docket on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0791; 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 NPRM, 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 FURTHER INFORMATION CONTACT: Dorie Resnik, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7693; fax: (781) 238-7199; email: dorie.resnik@faa.gov.
SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0791; Project Identifier AD-2020-00676-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this proposal.

Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Dorie Resnik, Aerospace Engineer, Boston ACO, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which
is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Background**

The FAA proposes to adopt a new AD for Sikorsky Model S-92A helicopters, with serial numbers (S/Ns) 920006 through 920334, inclusive. The FAA learned of a quality escape involving the manufacture of landing gear components, including the threaded hinge pin and the MLG and NLG actuator pins, that were not made to specification and have non-conforming threads that reduce the fatigue life of the component. Failure of the threaded hinge pin or the actuator pins on the MLG or NLG may result in collapse of the landing gear and reduced ability of the flight crew to land the helicopter. This proposed AD would require the removal from service of certain serial-numbered threaded hinge pins part number (P/N) 92250-12281-101 and certain serial-numbered MLG and NLG actuator pins P/N 92250-12287-101 and 92250-12287-103 identified in this proposed AD. This condition, if not addressed, could result in failure of components on the MLG and NLG, collapse of the landing gear and damage to the helicopter, and reduced ability to control the helicopter during landing.

**FAA’s Determination**

The FAA is issuing this NPRM because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**Related Service Information under 1 CFR part 51**

The FAA reviewed Sikorsky Aircraft Corporation Alert Service Bulletin 92-32-008, Basic Issue, dated January 21, 2020 (“the ASB”). The ASB describes procedures for a one-time inspection and replacement of non-conforming components on the MLG and NLG. 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.

**Proposed AD Requirements**

This proposed AD would require a one-time inspection of the landing gear and
removal from service of threaded hinge pins and MLG and NLG actuator pins with non-
conforming threads.

**Differences Between this Proposed AD and the Service Information**

This proposed AD would require replacement of only affected hinge pins and
MLG and NLG actuator pins. The ASB requires replacement of additional parts, such as
the MLG and NLG crossbolt and the MLG and NLG upper nut. The FAA has determined
that the MLG and NLG crossbolt and the MLG and NLG upper nut fail in a safe and
contained manner and therefore are not subject to this AD.

In addition, this proposed AD would require this one-time inspection to occur
within 300 hours time in service after the effective date of this AD and any affected hinge
pins and MLG and NLG actuator pins be removed from service before further flight. The
ASB requires that the inspection and replacement of the affected hinge pins and MLG
and NLG actuator pins occur no later than January 21, 2021.

**Costs of Compliance**

The FAA estimates that this AD, as proposed, would affect 85 helicopters of U.S.
registry.

The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs**

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor Cost</th>
<th>Parts Cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visually inspect landing gear (right MLG assembly, left)</td>
<td>1 work-hour x $85 per hour = $85 (per landing gear)</td>
<td>$0</td>
<td>$255 (three landing gear installed on each helicopter)</td>
<td>$21,675</td>
</tr>
</tbody>
</table>
The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The FAA has no way of determining the number of helicopters that might need these replacements:

### On-condition costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor Cost</th>
<th>Parts Cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace threaded hinge pin, P/N 92250-12281-101</td>
<td>1 work-hour x $85 per hour = $85</td>
<td>$2,816</td>
<td>$2,901</td>
</tr>
<tr>
<td>Replace MLG/NLG actuator pin, P/N 92250-12287-101</td>
<td>1 work-hour x $85 = $85</td>
<td>$557</td>
<td>$642</td>
</tr>
<tr>
<td>Replace MLG/NLG actuator pin, P/N 92250-12287-103</td>
<td>1 work-hour x $85 = $85</td>
<td>$609</td>
<td>$694</td>
</tr>
</tbody>
</table>

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, The FAA has included all costs in its cost 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.

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 has 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 above, 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.

**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 adding the following new airworthiness directive (AD):
Sikorsky Aircraft Corporation: Docket No. FAA-2020-0791; Project Identifier AD-2020-00676-R.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, certificated in any category, with serial numbers (S/Ns) 920006 through 920334 inclusive.

(d) Subject

Joint Aircraft System Component (JASC) Code 3220, Nose/Tail Landing Gear; 3210, Main Landing Gear.

(e) Unsafe Condition

This AD was prompted by the manufacturer determining that because of non-conforming threads, due to a quality escape, the life limit of the threaded hinge pin and main landing gear (MLG) and nose landing gear (NLG) actuator pins is reduced. The FAA is issuing this AD to prevent failure of components on the MLG and NLG. The unsafe condition, if not addressed, could result in damage to the helicopter and reduced ability to control the helicopter during landing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within 300 hours time in service after the effective date of this AD, visually inspect the components of the right MLG assembly, left MLG assembly, and NLG kit for
threaded hinge pins, part number (P/N) 92250-12281-101, and actuator pins, P/N 92240-12287-101 and 92240-12287-103, with serial numbers (S/Ns) identified in Table 1 or 2 (threaded hinge pins) or in Table 1 (actuator pins), in Section 3, the Accomplishment Instructions, in the Sikorsky Aircraft Corporation Alert Service Bulletin (ASB) 92-32-008, Basic Issue, dated January 21, 2020 (“the ASB”).

Note 1 to paragraph (g) of this AD: See Figures 1 and 2 in Section 3, the Accomplishment Instructions, in the ASB for guidance on performing the visual inspection.

(1) If there is any threaded hinge pin, P/N 92250-12281-101, with an S/N listed in Table 1 or 2 in the ASB, before further flight, remove the threaded hinge pin from service.

(2) If there is any MLG or NLG actuator pin, P/N 92250-12287-101 or P/N 92250-12287-103, with an S/N listed in Table 1 in the ASB, before further flight, remove the actuator pin from service.

(h) Installation Prohibition

As of the effective date of this AD, do not install any threaded hinge pin, P/N 92250-12281-101, or actuator pin, P/N 92240-12287-101 or 92240-12287-103, with an S/N listed in Table 1 or 2 in Section 3, the Accomplishment Instructions, in the ASB, on any helicopter.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Boston ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD.
(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) Dorie Resnik, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7693; fax: (781) 238-7199; email: dorie.resnik@faa.gov.

(2) For service information identified in this AD, contact Sikorsky Aircraft Corporation, Commercial Systems and Services, 124 Quarry Road, Trumbull, CT, 06611; phone: (203) 416-4000; email: product_safety.gr-sik@lmco.com. Operators may also log on to the Sikorsky 360 website at website: https://customerportal.sikorsky.com. You may view the related service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

Issued on August 31, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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