PROPOSED RULES

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


Airworthiness Directives; Sikorsky Aircraft Corporation

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede airworthiness directive (AD) 2017–14–03 for Sikorsky Aircraft Corporation (Sikorsky) Model S–92A helicopters. AD 2017–14–03 requires an inspection and reduces the retirement lives of certain landing gear components. This proposed AD would retain the requirements of AD 2017–14–03, reduce the retirement lives of additional landing gear components, and require repeating the inspection. The actions of this proposed AD are intended to prevent an unsafe condition on these products.

DATES: We must receive comments on this proposed AD by July 16, 2018.

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.
- 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 by searching for and locating Docket No. FAA–2018–0439; 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 proposed AD, the economic evaluation, any comments received and other information. The street address for Docket Operations (telephone 800–647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1–800–Winged-S or 203–416–4299; email: wcs_cust_service_eng_gr-sik@lmco.com. You may review service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N–321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT:
Dorie Resnik, Aviation Safety Engineer, Boston ACO Branch, Compliance and Airworthiness Division, 1200 District Avenue, Burlington, Massachusetts 01803; telephone (781) 238–7693; email dorie.resnik@faa.gov.

SUPPLEMENTARY INFORMATION:
Comments Invited

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 might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, 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 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 proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

We issued AD 2017–14–03, Amendment 39–18947 (82 FR 34838, July 27, 2017), for Sikorsky Model S–92A helicopters. AD 2017–14–03 was prompted by Sikorsky’s updated fatigue analysis of the nose and main landing gear, which revealed that certain components require a reduced service life. Therefore, AD 2017–14–03 requires reducing the retirement lives of main landing gear (MLG) wheel axle part number (P/N) 2392–2334–001, MLG and nose landing gear (NLG) threaded hinge pin P/N 2392–2311–003, NLG cylinder P/N 2392–4006–005, NLG hinge pin P/N 2392–4312–003, and landing gear actuator rod end P/N 2392–8076–091. AD 2017–14–03 also requires a one-time visual and ultrasonic inspection of NLG airframe fitting assembly P/N 92209–01101–041 once it has accumulated 31,600 landing cycles. Those actions are intended to detect and prevent cracks or failure of any landing gear component, which could result in damage and loss of control of the helicopter.

When we issued AD 2017–14–03, we determined it would be an interim action. Because Sikorsky’s updated airworthiness limitations schedule included a repetitive inspection of the NLG airframe fitting assemblies P/N 92209–01101–041 every 1,989 landing cycles, we determined that the planned compliance time for these inspections would allow enough time to provide notice and opportunity for prior public comment on the merits of the repetitive inspection. Also, the reduced retirement lives for MLG cylinder P/N 2392–2006–005, MLG pin outboard P/N 2392–2312–003, MLG bulkhead left-hand side (LHS) P/N 92201–08111–105, −107, and −109, and MLG bulkhead right-hand side (RHS) P/N 92201–08111–106, −108, and −110 were not included in AD 2017–14–03. We determined the age of the existing Model S–92A fleet would also allow enough time to provide notice and opportunity for public comment on the merits of the reduced life limits. This proposed AD would require these inspections and reduced life limits.

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FAA’s Determination
We are proposing this AD because we 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 61
We reviewed Ultrasonic Inspection Technique No. UT 5077, Revision 0, dated July 25, 2014 (UT 5077). UT 5077 contains the inspection method, equipment and materials, calibration, and inspection procedure for performing an ultrasonic inspection of nose gear actuator fitting P/N 92209–01101–01.

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.

Other Related Service Information
We also reviewed Sikorsky S–92 Helicopter Alert Service Bulletin 92–32–004, Basic Issue, dated January 30, 2015 (ASB). The ASB describes procedures for conducting a visual inspection of the NLG airframe fitting assembly and an ultrasonic inspection by following the procedures in UT 5077.

Proposed AD Requirements
This proposed AD would require removing the following components from service:
• Any MLG wheel axle P/N 2392–2334–001 that has 22,300 or more landing cycles.
• Any NLG or NLG threaded hinge pin P/N 2392–2311–003 that has 26,100 or more landing cycles.
• Any NLG cylinder P/N 2392–4006–005 that has 26,300 or more landing cycles.
• Any NLG hinge pin P/N 2392–4312–003 that has 26,700 or more landing cycles.
• Any landing gear actuator rod end P/N 2392–0876–901 that has 41,700 or more landing cycles.
• Any MLG cylinder P/N 2392–2006–005 that has 76,300 or more landing cycles.
• Any MLG pin outboard P/N 2392–2312–003 that has 50,300 or more landing cycles.
• Any MLG bulkhead LH P/N 92201–08111–105, –107, and –109 that has 58,400 or more landing cycles.
• Any MLG bulkhead RHS P/N 92201–08111–106, –108, and –110 that has 58,400 or more landing cycles.
• Inspect the NLG airframe fitting assembly P/N 92209–01101–041 installed, this proposed AD would also require, before further flight and thereafter at intervals not exceeding 1,989 landing cycles:
  • Using a 10X or higher power magnifying glass, inspecting each bushing and all visible surfaces of mating lug fittings adjacent to each bushing for fretting, corrosion, wear, and scratches.
  • Replacing the NLG airframe fitting assembly before further flight if there is fretting, corrosion, wear, or a scratch more than 0.0005 inch deep.
  • Ultrasonic inspection the NLG actuator fitting and replacing the NLG actuator fitting before further flight if there are any anomalies.

Costs of Compliance
We estimate that this AD will affect 80 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. At an average labor rate of $85 per hour:
• Replacing a wheel axle P/N 2392–2334–001 would require 2 work-hours and required parts cost $22,000, for a cost per helicopter of $22,170.
• Replacing a MLG or NLG threaded hinge pin P/N 2392–2311–003 would require 1 work-hour and required parts cost $3,800, for a cost per helicopter of $3,885.
• Replacing a NLG cylinder P/N 2392–4006–005 would require 1 work-hour and required parts cost $27,200, for a cost per helicopter of $27,285.
• Replacing a NLG hinge pin P/N 2392–4312–003 would require 1 work-hour and required parts cost $4,400, for a cost per helicopter of $4,485.
• Replacing a landing gear actuator rod end P/N 2392–0876–901 would require 1 work-hour and required parts cost $900, for a cost per helicopter of $985.
• Replacing a MLG cylinder P/N 2392–2006–005 would require 2 work-hours and required parts cost $33,100, for a cost per helicopter of $33,270.
• Replacing a MLG pin outboard P/N 2392–2312–003 would require 1 work-hour and required parts cost $4,300, for a cost per helicopter of $4,385.
• Replacing a MLG bulkhead LH P/N 92201–08111–105, –107, and –109 would require 70 work-hours and required parts would cost $12,550, for a cost per helicopter of $12,600.
• Replacing a MLG bulkhead RHS P/N 92201–08111–106, –108, and –110 would require 70 work-hours and required parts would cost $12,550, for a cost per helicopter of $12,600.

We also reviewed Sikorsky S–92 Helicopter Alert Service Bulletin 92–32–004, Basic Issue, dated January 30, 2015 (ASB). The ASB describes procedures for conducting a visual inspection of the NLG airframe fitting assembly and an ultrasonic inspection by following the procedures in UT 5077.

Ultrasonic inspecting the NLG actuator fitting before further flight if there is fretting, corrosion, wear, or a scratch more than 0.0005 inch deep.

Authorization 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 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, I certify this proposed 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);
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 proposed 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,
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 removing Airworthiness Directive (AD) 2017–14–03, Amendment 39–18947 (82 FR 34838, July 27, 2017) and adding the following new AD:

Sikorsky Aircraft Corporation (Sikorsky):

(a) Applicability

This AD applies to Sikorsky Model S–92A helicopters, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as fatigue failure of the landing gear. This condition could result in failure of the landing gear and subsequent damage to and loss of control of the helicopter.

(c) Affected ADs


(d) Comments Due Date

We must receive comments by July 16, 2018.

(e) 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.

(f) Required Actions

(1) Before further flight, remove from service any part that has accumulated the number of landing cycles listed in Table 1 to paragraph (f)(1) of this AD. Thereafter, remove from service any part before accumulating the number of landing cycles listed in Table 1 to paragraph (f)(1) of this AD. For purposes of this AD, a landing cycle is counted anytime the helicopter lifts off into the air and then lands again regardless of the duration of the landing and regardless of whether the engine is shut down. If the number of landing cycles in unknown, multiply the number of hours time-in-service by 4.5 to determine the number of landing cycles.

(2) For helicopters with 31,600 or more landing cycles and an NLG airframe fitting assembly P/N 92209–01101–041 installed, before further flight and thereafter at intervals not to exceed 1,989 landing cycles:

(i) Using a 10X or higher power magnifying glass, inspect each bushing (P/N 92209–01101–102 and P/N 92209–01101–103) and all visible surfaces of mating lug fittings adjacent to each bushing for fretting, corrosion, wear, and scratches. If there is fretting, corrosion, wear, or a scratch more than 0.0005 inch deep, replace the NLG airframe fitting assembly before further flight.

Note 1 to paragraph (f)(2)(i) of this AD: A copy of UT 5077 is attached to Sikorsky S–92 Helicopter Alert Service Bulletin 92–32–004, Basic Issue, dated January 30, 2015.

(ii) Ultrasonic inspect each NLG actuator fitting P/N 92209–01101–101 in accordance with Sikorsky Ultrasonic Inspection Technique No. UT 5077, Revision 0, dated July 25, 2014 (UT 5077), except you are not required to report to or contact Sikorsky. If there are any anomalies or suspect indications, replace the NLG actuator fitting before further flight.

(b) Additional Information

Sikorsky S–92 Helicopter Alert Service Bulletin 92–32–004, Basic Issue, dated January 30, 2015, which is not incorporated by reference, contains additional information about the subject of this AD. For service

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Part Number (P/N)</th>
<th>Life Limit</th>
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</thead>
<tbody>
<tr>
<td>Main landing gear (MLG) wheel axle</td>
<td>2392-2334-001</td>
<td>22,300 landing cycles</td>
</tr>
<tr>
<td>MLG or nose landing gear (NLG) threaded hinge pin</td>
<td>2392-2311-003</td>
<td>26,100 landing cycles</td>
</tr>
<tr>
<td>NLG cylinder</td>
<td>2392-4006-005</td>
<td>26,300 landing cycles</td>
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<tr>
<td>NLG hinge pin</td>
<td>2392-4312-003</td>
<td>26,700 landing cycles</td>
</tr>
<tr>
<td>Landing gear actuator rod end</td>
<td>2392-0876-901</td>
<td>41,700 landing cycles</td>
</tr>
<tr>
<td>MLG cylinder</td>
<td>2392-2006-005</td>
<td>76,300 landing cycles</td>
</tr>
<tr>
<td>MLG pin outboard</td>
<td>2392-2312-003</td>
<td>50,300 landing cycles</td>
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<td>MLG bulkhead (left-hand side)</td>
<td>92201-08111-105</td>
<td>58,400 landing cycles</td>
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<td>92201-08111-107</td>
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<td>92201-08111-109</td>
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<tr>
<td>MLG bulkhead (right-hand side)</td>
<td>92201-08111-106</td>
<td>58,400 landing cycles</td>
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<td>92201-08111-108</td>
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<td></td>
<td>92201-08111-110</td>
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</table>

Table 1 to Paragraph (f)(1) of this AD
We propose to adopt a new airworthiness directive (AD) for Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. This proposed AD would require measuring a vibration level in the tail rotor (T/R) drive. This proposed AD is prompted by reports of bearing degradation. The actions of this proposed AD are intended to prevent an unsafe condition on these helicopters. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

**Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2017–0159, dated August 25, 2017, to correct an unsafe condition for Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. EASA advises of two occurrences on AS355 military helicopters in which the main gearbox (MGB) oil cooler fan bearing (bearing) installed on the TR drive shaft experienced significant degradation. EASA states that while investigation has not determined the cause of the failures, this condition may also occur on other AS355 helicopters due to design commonality. According to EASA, this condition, if not detected and corrected, could result in loss of MGB and engine oil cooling function, loss of the rear transmission, and subsequent loss of control of the helicopter. To address this unsafe condition and as an interim measure, the EASA AD requires two vibration level measurements of the forward portion of the tail rotor drive line, one before and one after cleaning the MGB oil cooler fan, and replacing the bearings if excessive level or level trends are detected. The EASA AD also specifies that after the effective date of the AD, only those MGB oil cooler fan assembly bearings that are new or that have passed the vibration level measurements may be installed.

**FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

**Related Service Information**

We reviewed Airbus Helicopters Alert Service Bulletin No. AS355–05.00.77, Revision 0, dated July 3, 2017, which contains procedures for checking the condition of the fan assembly bearings by measuring the vibration levels of the first section of the T/R drive.