



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2026-3488; Project Identifier AD-2024-00583-R]

RIN 2120-AA64

Airworthiness Directives; Various Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2015-20-12, which applies to certain Sikorsky Aircraft Corporation Model S-61A, D, E, L, N, NM serial number (S/N) 61454, R, and V; Croman Corporation Model SH-3H; Carson Helicopters, Inc., Model S-61L and SH-3H; Glacier Helicopter, Inc., Model CH-3E; Robinson Air Crane, Inc., Model CH-3E, CH-3C, HH-3C and HH-3E; and Siller Helicopters Model CH-3E and SH-3A helicopters. AD 2015-20-12 requires calculating or recalculating the hours time-in-service (TIS) of the main rotor shaft (MRS), determining whether the MRS is repetitive external lift (REL) or non-REL, performing a nondestructive inspection (NDI) for cracks, replacing any MRS that has cracks, replacing parts before their life limits and removing from service any parts that have exceeded their life limits. This proposed AD would also require establishing retirement lives for each REL MRS, including reducing life limits and allowing for modification of life limits based on service information, and removing any MRS with oversized dowel pin bores. Since the FAA issued AD 2015-20-12, a design re-evaluation shows that the MRS on certain helicopter models requires a lower life limit. This proposed AD would retain some of the requirements of AD 2015-20-12, and would also lower the retirement life for a certain MRS installed on certain helicopters and would update the type certificate holder name for some of the affected helicopter models. 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 [regulations.gov](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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2026-3488; 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.

Material Incorporated by Reference:

- For Sikorsky material identified in this proposed AD, contact a Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email: wcs_cust_service_eng.gr-sik@lmco.com; website: [sikorsky360.com](https://www.sikorsky360.com).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 10101 Hillwood Parkway, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2026-3488.

FOR FURTHER INFORMATION CONTACT: Isabel Saltzman, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (781) 238-7649; email: ECB-COS@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 using a method listed under ADDRESSES. Include “Docket No. FAA-2026-3488; Project Identifier AD-2024-00583-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 revise this proposal 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 regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

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 Isabel Saltzman, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337. 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 issued AD 2015-20-12, Amendment 39-18291 (80 FR 63422, October 20, 2015) (AD 2015-20-12), for Sikorsky Aircraft Corporation; Sikorsky

Aircraft; Croman Corporation; Carson Helicopters, Inc.; Glacier Helicopter, Inc.; Robinson Air Crane, Inc.; and Siller Helicopters Model S-61A, D, E, L, N, NM (S/N 61454), R, V, CH-3C, CH-3E, HH-3C, HH-3E, SH-3A, and SH-3H helicopters with a MRS, part number S6135-20640-001, S6135-20640-002, or S6137-23040-001, installed. AD 2015-20-12 was prompted by the manufacturer's re-evaluation of the retirement life for the MRS based on torque, ground-air-ground (GAG) cycle, and fatigue testing. AD 2015-20-12 requires recording the number of external lift cycles (lift cycles) performed and the hours TIS, determining whether the MRS is REL or Non-REL (see paragraph (h) of this AD for calculation), performing an NDI for any MRS used in REL operations and replacing a cracked MRS, and marking any REL MRS at the time of the NDI. AD 2015-20-12 also requires, when recording the number of hours TIS, using either the helicopter's hours TIS or the helicopter's transmission hours TIS if both the shaft and transmission were installed new at the same time where there is no record of the hours TIS on an individual MRS. AD 2015-20-12 also requires calculating a 250-hour TIS moving average of lift cycles to determine whether the MRS is an REL MRS (see paragraph (h) of this AD for calculation); determining a new retirement life for each MRS based on hours TIS and lift cycles; removing from service any MRS with oversized dowel pin bores; extending the hours TIS required for identifying the MRS as an REL MRS to coincide with the NDI to prevent repeated disassembly of the shaft; and extending the time required to replace the MRS and revising calculations for establishing the retirement life. The FAA issued AD 2015-20-12 to prevent MRS structural failure, loss of power to the main rotor, and subsequent loss of control of the helicopter.

Actions Since AD 2015-20-12 Was Issued

Since the FAA issued AD 2015-20-12, another design re-evaluation of the MRS was performed and the re-evaluation showed that further reducing the retirement life for Non-REL MRS is required to address the unsafe condition.

Additionally, this proposed AD would update the current type certificate holder information for Model USAF CH-3C, HH-3C, CH-3E, and HH-3E helicopters from Robinson Air Crane, Inc. to Reynolds Aviation, as reflected in Type Certificate Data Sheet R00007AT Revision 1, dated August 25, 2015.

AD 2015-20-12 describes life limits as retirement lives. Retirement lives and life limits are used interchangeably throughout this AD. While life limit is the 14 CFR part 43 terminology, the FAA uses retirement life and life limit in this AD because some of the initial requirements of this AD have been in place for over a decade.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Sikorsky Alert Service Bulletin (ASB) No. 61B-35-69 Revision A, dated October 10, 2023, which specifies procedures for determining the total number of accumulated cycles since new for the MRS, determining REL and Non-REL status, assigning new REL and Non-REL MRS retirement lives, marking the REL MRS, and annotating the retirement life of the MRS in the existing helicopter logbook.

This material 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 in this NPRM

This proposed AD would retain the requirements of AD 2015-20-12, except the retirement life of a Non-REL MRS. This proposed AD would require reducing the retirement life of a Non-REL MRS currently assigned a 13,000-hour TIS retirement life to 7,300 hours TIS. If the hours TIS on a Non-REL MRS are greater than 7,300 hours TIS and the MRS is installed, this proposed AD would require removing it from service at the next main gearbox overhaul. If the hours TIS on a Non-REL MRS are greater than 7,300 hours TIS, and the MRS is uninstalled or in overhaul, this proposed AD would require removing it from service. If the hours TIS on a Non-REL MRS are less than 7,300 hours TIS, this proposed AD would require removing the MRS from service before exceeding 7,300 hours TIS.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 76 helicopters of U.S. registry.

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

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
NDI of an REL MRS	3 work-hours x \$85 per hour = \$255	\$50	\$305	\$23,180
Replace/ remove an MRS	3 work-hours x \$85 per hour = \$255	\$81,216	\$81,471	\$6,191,796
Revise the log card	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$6,460

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 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 that the proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would 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:

a. Removing Airworthiness Directive 2015-20-12, Amendment 39-18291 (80 FR 63422, October 20, 2015); and

b. Adding the following new airworthiness directive:

Various Helicopters: Docket No. FAA-2026-3488; Project Identifier AD-2024-00583-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2015-20-12, Amendment 39-18291 (80 FR 63422, October 20, 2015).

(c) Applicability

This AD applies to various helicopters, certificated in any category, identified in paragraphs (c)(1) through (7) of this AD, with a main rotor shaft (MRS) part number S6135-20640-001, S6135-20640-002, or S6137-23040-001, installed.

(1) Model CH-3E helicopters; current type certificate holders include but are not limited to, Glacier Helicopter, Inc. and Siller Helicopters.

(2) Sikorsky Aircraft Corporation Model S-61A, S-61D, S-61E, and S-61V helicopters.

(3) Sikorsky Aircraft Model S-61L, S-61N, S-61NM (serial number (S/N) 61454), and S-61R helicopters.

(4) Model S-61L helicopters; current type certificate holders include but are not limited to, Carson Helicopters.

(5) Model SH-3A helicopters; current type certificate holders include but are not limited to, Siller Helicopters.

(6) Model SH-3H helicopters; current type certificate holders include but are not limited to, Carson Helicopters and Croman Corporation.

(7) Model USAF CH-3C, CH-3E, HH-3C, and HH-3E helicopters; current type certificate holders include but are not limited to, Reynolds Aviation.

(d) Subject

Joint Aircraft System Component (JASC) Code/Air Transport Association (ATA) of America Code 6320, Main Rotor Gearbox.

(e) Unsafe Condition

This AD was prompted by a design re-evaluation that shows that the MRS on certain helicopter models requires a lower life limit based on torque, ground-air-ground (GAG) cycle, and fatigue testing. The FAA is issuing this AD to detect and correct a fatigue crack in the MRS. The unsafe condition, if not addressed, could result in a MRS structural failure, loss of power to the main rotor, and subsequent loss of control of the helicopter.

(f) Compliance

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

(g) Required Actions

(1) Within 10 hours time-in-service (TIS) after November 24, 2015 (the effective date of AD 2015-20-12):

(i) Create a component history card or equivalent record for each MRS.

(ii) If there is no record of the hours TIS on an individual MRS, substitute the helicopter's hours TIS or the helicopter's transmission hours TIS if both the shaft and transmission were installed new at the same time.

(iii) If the record of external lift cycles (lift cycles) on an individual MRS is incomplete, add the known number of lift cycles to a number calculated by multiplying the number of hours TIS of the individual MRS by the average lift cycles calculated according to the instructions in paragraph (h)(1) of this AD or by a factor of 13.6, whichever is higher. An external lift cycle is defined as a flight cycle in which an external load is picked up, the helicopter is repositioned (through flight or hover), and the helicopter hovers and releases the load and departs or lands and departs.

(iv) At the end of each day's operations, record the number of lift cycles performed and the hours TIS.

(2) Within 250 hours TIS after November 24, 2015 (the effective date of AD 2015-20-12), determine whether the MRS is a repetitive external lift (REL) or Non-REL MRS.

(i) Calculate the first moving average of lift cycles by following the instructions in paragraph (h)(1) of this AD.

(A) If the calculation results in 6 or more lift cycles per hour TIS, the MRS is an REL MRS.

(B) If the calculation results in less than 6 lift cycles per hour TIS, the MRS is a Non-REL MRS.

(ii) If the MRS is a Non-REL MRS based on the calculation performed in accordance with paragraph (g)(2)(i) of this AD, thereafter at intervals of 50 hours TIS, recalculate the average lift cycles per hour TIS by following the instructions in paragraph (h)(2) of this AD.

(iii) Once an MRS is determined to be an REL MRS, you no longer need to perform the 250-hour TIS moving average calculation, but you must continue to count and record the lift cycles and number of hours TIS.

(iv) If an MRS is determined to be an REL MRS, it remains an REL MRS for the rest of its service life and is subject to the retirement times for an REL MRS.

(3) Within 1,100 hours TIS after November 24, 2015 (the effective date of AD 2015-20-12):

(i) Conduct a Non-Destructive Inspection for a crack on each MRS. If there is a crack in an MRS, before further flight, replace it with an airworthy MRS.

(ii) If an MRS is determined to be an REL MRS, identify it as an REL MRS by etching "REL" on the outside diameter of the MRS near the part S/N by following the

Accomplishment Instructions, paragraph 3.C., of Sikorsky Alert Service Bulletin

No. 61B-35-69 Revision A, dated October 10, 2023.

(4) Replace each MRS with an airworthy MRS on or before reaching the revised retirement life as follows:

(i) For an REL MRS that is not modified by following Sikorsky Customer Service Notice (CSN) No. 6135-10, dated March 18, 1987, and Sikorsky Service Bulletin (SB) No. 61B35-53, dated December 2, 1981 (unmodified REL MRS), the retirement life is 30,000 lift cycles or 1,500 hours TIS, whichever occurs first.

(ii) For an REL MRS that is modified by following Sikorsky CSN No. 6135-10, dated March 18, 1987, and Sikorsky SB No. 61B35-53 dated December 2, 1981; or Sikorsky CSN No. 6135-10A and Sikorsky SB No. 61B35-53A, both Revision A, and both dated April 19, 2004 (modified REL MRS), the retirement life is 30,000 lift cycles or 5,000 hours TIS, whichever occurs first.

(iii) For a Non-REL MRS, within 5 days after the effective date of this AD, revise the 13,000-hour TIS retirement life to 7,300 hours TIS by recording the new or revised retirement life on the MRS component history card or equivalent record.

(A) If the hours TIS on the MRS are 7,300 hours TIS or greater as of the effective date of this AD, and the MRS is installed, at the next main gearbox overhaul, remove it from service.

(B) If the hours TIS on the MRS are 7,300 hours TIS or greater as of the effective date of this AD, and the MRS is uninstalled or in overhaul, before further flight, remove it from service.

(C) If the hours TIS on the MRS are less than 7,300 hours TIS as of the effective date of the AD, remove the MRS from service before exceeding 7,300 hours TIS.

(5) Within 5 days after the effective date of this AD, establish or revise the retirement lives of the MRS as indicated in paragraphs (g)(4)(i) through (g)(4)(ii) of this

AD by recording the new or revised retirement life on the MRS component history card or equivalent record.

(6) Within 50 hours TIS after November 24, 2015 (the effective date of AD 2015-20-12), remove from service any MRS with oversized (0.8860" or greater diameter) dowel pin bores.

(h) Calculating Average Lift Cycles per Hour TIS

(1) Calculating the first moving average of lift cycles per hour TIS. The first moving average calculation is performed on the MRS assembly when the external lift component history card record reflects that the MRS assembly has reached its first 250 hours TIS. To perform the calculation, divide the total number of lift cycles performed during the first 250 hours TIS by 250. The result will be the first moving average calculation of lift cycles per hour TIS.

(2) Calculating subsequent moving average of lift cycles per hour TIS. Subsequent moving average calculations are performed on the MRS assembly at intervals of 50 hours TIS after the first moving average calculation. Subtract the total number of lift cycles performed during the first 50-hour TIS interval used in the previous moving average calculation from the total number of lift cycles performed on the MRS assembly during the previous 300 hours TIS. Divide this result by 250. The result will be the next or subsequent moving average calculation of lift cycles per hour TIS. (See Note 1 to paragraph (h)(2) of this AD for a sample calculation of subsequent 50-hour TIS intervals).

Note 1 to paragraph (h)(2) of this AD: Sample calculation for subsequent 50-hour TIS intervals. Assume the total number of lift cycles for the first 50-hour TIS interval used in the previous moving average calculation = 450 lift cycles and the total number of lift cycles for the previous 300 hours TIS = 2,700 lift cycles. The subsequent

moving average of lift cycles per hour TIS = (2,700 - 450) divided by 250 = 9 lift cycles per hour TIS.

(i) Credit for Previous Actions

This paragraph provides credit for the actions identified in paragraph (g)(3)(ii) of this AD if they were completed before the effective date of this AD using Sikorsky Alert Service Bulletin No. 61B-35-69, dated April 19, 2004.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, East Certification 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 East Certification Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD and email to: AMOC@faa.gov.

(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.

(k) Additional Information

(1) For more information about this AD, contact Isabel Saltzman, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (781) 238-7649; email: ECB-COS@faa.gov.

(2) Material identified in this AD that is not incorporated by reference contains additional information about the subject of this AD and is available at the address specified in paragraph (l)(3) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Sikorsky Alert Service Bulletin No. 61B-35-69 Revision A, dated October 10, 2023.

(ii) [Reserved]

(3) For Sikorsky material identified in this AD, contact a Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email: wcs_cust_service_eng.gr-sik@lmco.com; website: sikorsky360.com.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 10101 Hillwood Parkway, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on April 16, 2026.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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