[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0947; Product Identifier 2017-SW-059-AD]

RIN 2120-AA64

Airworthiness Directives; Robinson Helicopter Company Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Robinson Helicopter Company (Robinson) Model R44 and R44 II helicopters. This proposed AD would require visually checking each tail rotor blade for a crack. This proposed AD is prompted by a report of cracking in certain tail rotor blades. The actions of this proposed AD are intended to address an unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 by searching for and locating Docket No. FAA-2017-0947; 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 Robinson Helicopter Company, 2901 Airport Drive, Torrance, CA 90505; telephone (310) 539-0508; fax (310) 539-5198; or at http://www.robinsonheli.com/servelib.htm. You may review the referenced 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: James Guo, Aerospace Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5357; email james.guo@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 propose to adopt a new AD for Robinson R44 and R44 II helicopters with a tail rotor blade part number (P/N) C029-1 or P/N C029-2 installed. This proposed AD would require checking the tail rotor blades for cracks within 50 hours time-in-service (TIS) and thereafter before each flight.

This proposed AD is prompted by reports of P/N C029-1 and P/N C029-2 tail rotor blades with fatigue cracks at the leading edge. The cracks were caused by high fatigue stresses due to resonance when the blades were at high pitch angles from large left pedal inputs. Robinson consequently issued R44 Service Bulletin SB-83, dated May 30, 2012 (SB-83). At the time SB-83 was issued, the reports of cracking on the tail rotor blade were isolated and infrequent. Since 2015, five events have been reported of

helicopters with cracking on tail rotor blades. Therefore, we are proposing actions that are intended to detect a cracked tail rotor blade and prevent loss of the blade and subsequent loss of directional control.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Related Service Information

We have reviewed Robinson SB-83 which specifies, within 10 flight hours or by June 30, 2012, whichever occurs first, inserting a caution page into the Pilot's Operating Handbook. The caution page specifies inspecting the leading edges of each tail rotor blade for a crack before each flight. The caution page also advises that to reduce fatigue stress damage to the tail rotor blades, pilots should avoid maneuvers that require large left pedal inputs. SB-83 specifies that the caution page may be removed when the tail rotor blades are replaced with tail rotor blade P/N C029-3.

Proposed AD Requirements

This proposed AD would require within 50 hours TIS and thereafter before each flight, visually checking each tail rotor blade for a crack in the tail leading edge, paying particular attention to the most inboard white paint stripe. An owner/operator (pilot) may perform the required visual check and must enter compliance with the applicable paragraph of the AD into the helicopter maintenance records in accordance with 14 CFR 43.9(a)(1) through (4) and 91.417(a)(2)(v). A pilot may perform this check because it

involves only a visual check and can be performed equally well by a pilot or a mechanic. This check is an exception to our standard maintenance regulations.

This proposed AD also would require before further flight, replacing any cracked tail rotor blade.

Differences Between this Proposed AD and the Service Information

Robinson SB SB-83 requires compliance within 10 flight hours or by June 30, 2012, whichever occurs first. This proposed AD would require compliance within 50 hours TIS. Given the helicopter's history and the type of operations conducted by the current fleet, we determined that this compliance time is adequate to reduce the risk of a crack on the tail rotor blade to an acceptable level.

Costs of Compliance

We estimate that this proposed AD would affect 1,631 helicopters of U.S. Registry and that labor costs average $85 per work-hour. Visually checking the tail rotor blades for a crack would require 0.2 hour for a cost of $17 per helicopter and $27,727 for the U.S. fleet per check cycle. Replacing a tail rotor blade, if required, would require 2 work-hours and parts would cost $3,080 for a cost of $3,250 per blade.

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 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 adding the following new airworthiness directive (AD):

Robinson Helicopter Company: Product No. FAA-2017-0947; Product Identifier 2017-SW-059-AD.

(a) Applicability

This AD applies to Robinson Helicopter Company (Robinson) Model R44 and R44 II helicopters, certificated in any category, with a tail rotor blade part number (P/N) C029-1 or P/N C029-2 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a tail rotor blade. This condition could result in the loss of the tail rotor and subsequent loss of control of the helicopter.

(c) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(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 Actions

Within 50 hours TIS after the effective date of this AD and thereafter before each flight:

(1) Visually check each tail rotor blade for a crack in the tail leading edge, paying particular attention to the area in the most inboard white paint stripe. Wipe the blades clean, if necessary, to ensure any potential crack is visible. The actions required by this paragraph may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

(2) If there is a crack, before further flight, replace the tail rotor blade.

(f) Alternative Methods of Compliance (AMOC)

(1) The Manager, Los Angeles ACO Branch, FAA, may approve AMOCs for this AD. Send your proposal to: James Guo, Aerospace Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5357; email james.guo@faa.gov.

(2) For operations conducted under a 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.

(g) Additional Information

Robinson Helicopter Company R44 Service Bulletin SB-83, dated May 30, 2012, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Robinson Helicopter Company, 2901 Airport Drive, Torrance, CA 90505; telephone (310) 539-0508; fax (310) 539-5198; or at http://www.robinsonheli.com/servelib.htm. You may review a copy of information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

Issued in Fort Worth, Texas, on May 14, 2018.

Scott A. Horn,

Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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