



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0894; Product Identifier 2017-SW-044-AD;**

**Amendment 39-19160; AD 2018-02-07]**

**RIN 2120-AA64**

**Airworthiness Directives; Various Restricted Category Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Model TH-1F, UH-1B, UH-1F, UH-1H, and UH-1P helicopters with a Helicopter Technology Company (HTC) main rotor (M/R) blade installed. This AD requires cleaning and visually inspecting the M/R blades and, depending on the outcome of the inspection, repairing or replacing the M/R blades. This AD is prompted by a report of an M/R blade with a fatigue crack in the grip plate and doublers at the blade retention bolt hole. The actions of this AD are intended to correct an unsafe condition on these products.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this 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-2017-0894; 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 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 final rule, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone (817) 280-3391; fax (817) 280-6466; or at <http://www.bellcustomer.com/files/>. 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:** Galib Abumeri, Aerospace Engineer (Structures), Los Angeles ACO Branch, Compliance and Airworthiness Division, FAA,

3960 Paramount Blvd., Lakewood, California 90712; telephone 562-627-5324; email galib.abumeri@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 restricted category Model TH-1F, UH-1B, UH-1F, UH-1H, and UH-1P helicopters with an HTC M/R blade part number (P/N) 204P2100-101 installed. This AD requires repetitive inspections of the exposed areas of the lower grip pad and upper and lower grip plates of each M/R blade for a crack, corrosion, an edge void, loose or damaged adhesive squeeze-out, and an edge delamination. The type

certificate holders for these model helicopters are: Arrow Falcon Exporters Inc.; AST, Inc.; California Department of Forestry; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; International Helicopters, Inc.; JJASPP Engineering Services, LLC; Northwest Rotorcraft, LLC; OAS Parts LLC; Red Tail Flying Services, LLC; Richards Heavylift Helo, Inc.; Robinson Air Crane, Inc.; Rotorcraft Development Corporation; San Joaquin Helicopters; Southwest Florida Aviation International, Inc.; and Tamarack Helicopters, Inc.

The actions of this AD are the same as those required by AD 2016-23-09 (81 FR 83660, November 22, 2016), which applies to various restricted category helicopters with an M/R blade P/N 204-011-250-005 or P/N 204-011-250-113 installed. AD 2016-23-09 was prompted by a report of an M/R blade with multiple fatigue cracks around the retention bolt hole.

This AD is prompted by a report that during a ground inspection, a crack was discovered in the grip plate and doublers at the blade retention bolt hole of a UH-1B helicopter model. The blade, which HTC produced for restricted category and commercial model helicopters, had 926 hours TIS and is of the same design as the M/R blades in AD 2016-23-09. We are issuing this AD to detect or prevent a crack, which could lead to failure of an M/R blade and subsequent loss of helicopter control.

#### **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 products of these same type designs.

## **Related Service Information**

We reviewed Bell Helicopter Alert Service Bulletin (ASB) No. UH-1H-13-09, dated January 14, 2013, for the Model UH-1H helicopter. ASB No. UH-1H-13-09 specifies a one-time visual inspection, within 10 hours time-in-service (TIS), of the lower grip pad and upper and lower grip plates for cracks, edge voids, and loose or damaged adhesive squeeze-out. ASB No. UH-1H-13-09 also specifies a repetitive and more detailed visual inspection, daily and at every 150 hours TIS, of the lower grip pad, upper and lower grip plates, and all upper and the lower doublers for cracks, corrosion, edge voids, and loose or damaged adhesive squeeze-out.

We also reviewed HTC Service Notice No. 204-2100-1, dated July 5, 2017, for affected helicopters with M/R blade P/N 204P2100-101, serial numbers A099 through A119 installed. This service notice specifies cleaning and visually inspecting the M/R blades and depending on the outcome, repairing or replacing the blades, in accordance with AD 2016-23-09.

## **AD Requirements**

This AD requires within 25 hours time-in-service (TIS) or 2 weeks, whichever occurs first, and thereafter at intervals not to exceed 25 hours TIS or 2 weeks, whichever occurs first, cleaning the upper and lower exposed surfaces of each M/R blade from an area starting at the butt end of the blade to three inches outboard of the doublers. Using a 3X or higher power magnifying glass and a light, this AD also requires inspecting the M/R blade parts for a crack or corrosion. If there is a crack, corrosion, an edge void, loose or damaged adhesive squeeze-out, or an edge delamination, before further flight,

this AD requires repairing the M/R blade or replacing it with an airworthy M/R blade, depending on whether the condition is within maximum repair damage limits.

This AD also requires reporting information about any cracks found during the inspection to the FAA within 10 days.

### **Differences between this AD and the Service Information**

ASB No. UH-1H-13-09 specifies a one-time inspection and then a second repetitive inspection daily and at every 150 hours TIS. This AD requires all inspections at intervals not to exceed 25 hours TIS or two weeks, whichever occurs first. This AD contains more detailed inspection requirements and a more specific inspection area than the instructions in ASB No. UH-1H-13-09. Lastly, ASB No. UH-1H-13-09 applies to Model UH-1H helicopters with M/R blade P/N 204-011-250-113, while this AD applies to Model UH-1H, TH-1F, UH-1B, UH-1F, and UH-1P helicopters with HTC M/R blade part number (P/N) 204P2100-101.

### **Interim Action**

We consider this AD to be an interim action. The notification of a crack in the M/R blade that is required by this AD may enable us to obtain better insight into the cause of the M/R blade cracking. This information may help us develop additional action to address this unsafe condition. Once this action is developed, approved, and available, we might consider additional rulemaking.

### **Costs of Compliance**

We estimate that this AD affects 10 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Cleaning and performing all inspections of a set of M/R blades (2 per helicopter) requires 0.5 work-hour for a cost of \$43 per helicopter and \$430 for the U.S. fleet per inspection cycle.

- Replacing an M/R blade requires 12 work-hours and parts cost \$86,000 for a total cost of \$87,020 per blade.

- Reporting the inspection results required by this AD will require about 0.5 work-hour for a cost of \$43 per helicopter and \$430 for the U.S. fleet.

### **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting required by this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES-200.

### **FAA's Justification and Determination of the Effective Date**

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known

unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the required corrective actions must be accomplished within two weeks.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for prior public comment before issuing this AD are impracticable and that good cause exists to make this AD 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):

2018-02-07 **Various Restricted Category Helicopters:** Amendment 39-19160; Docket No. FAA-2017-0894; Product Identifier 2017-SW-044-AD.

**(a) Applicability**

This AD applies to the following helicopters, certificated in the restricted category, with a Helicopter Technology Company (HTC) main rotor (M/R) blade part number 204P2100-101 installed:

(1) Arrow Falcon Exporters Inc.; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; JJASPP Engineering Services, LLC; Northwest Rotorcraft, LLC; OAS Parts, LLC; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; Southwest Florida Aviation International, Inc.; and Tamarack Helicopters, Inc., Model UH-1H helicopters;

(2) International Helicopters, Inc.; OAS Parts, LLC; Red Tail Flying Services, LLC; Richards Heavylift Helo, Inc.; Rotorcraft Development Corporation; San Joaquin Helicopters; and Southwest Florida Aviation International, Inc., Model UH-1B helicopters;

(3) Robinson Air Crane, Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc., Model TH-1F helicopters;

(4) AST, Inc.; California Department of Forestry, Robinson Air Crane, Inc.; Rotorcraft Development Corporation; and Tamarack Helicopters, Inc., Model UH-1F helicopters; and

(5) Robinson Air Crane, Inc., and Rotorcraft Development Corporation, Model UH-1P helicopters.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in an M/R blade, which could result in failure of the M/R blade and subsequent loss of helicopter control.

**(c) Effective Date**

This AD becomes effective [INSERT DATE 15 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**

(1) Within 25 hours time-in-service (TIS) or 2 weeks, whichever occurs first, and thereafter at intervals not to exceed 25 hours TIS or 2 weeks, whichever occurs first, clean the upper and lower exposed surfaces of each M/R blade from an area starting at the butt end of the blade to three inches outboard of the doublers. Using a 3X or higher power magnifying glass and a light, inspect as follows:

(i) Visually inspect the exposed areas of the lower grip pad and upper and lower grip plates of each M/R blade for a crack and any corrosion.

(ii) On the upper and lower exposed surfaces of each M/R blade from blade stations 24.5 to 35 for the chord width, visually inspect each layered doubler and blade skin for a crack and any corrosion. Pay particular attention for any cracking in a doubler or skin near or at the same blade station as the blade retention bolt hole (blade station 28).

(iii) Visually inspect the exposed areas of each bond line at the edges of the lower grip pad, upper and lower grip plates, and each layered doubler (bond lines) on the upper

and lower surfaces of each M/R blade for the entire length and chord width for an edge void, any corrosion, loose or damaged adhesive squeeze-out, and an edge delamination. Pay particular attention to any crack in the paint finish that follows the outline of a grip pad, grip plate, or doubler, and to any loose or damaged adhesive squeeze-out, as these may be the indication of an edge void.

(2) If there is a crack, any corrosion, an edge void, loose or damaged adhesive squeeze-out, or an edge delamination during any inspection in paragraph (e)(1) of this AD, before further flight, do the following:

(i) If there is a crack in a grip pad or any grip plate or doubler, replace the M/R blade with an airworthy M/R blade.

(ii) If there is a crack in the M/R blade skin that is within maximum repair damage limits, repair the M/R blade. If the crack exceeds maximum repair damage limits, replace the M/R blade with an airworthy M/R blade.

(iii) If there is any corrosion within maximum repair damage limits, repair the M/R blade. If the corrosion exceeds maximum repair damage limits, replace the M/R blade with an airworthy M/R blade.

(iv) If there is an edge void in the grip pad or in a grip plate or doubler, determine the length and depth using a feeler gauge. Repair the M/R blade if the edge void is within maximum repair damage limits or replace the M/R blade with an airworthy M/R blade.

(v) If there is an edge void in a grip plate or doubler near the outboard tip, tap inspect the affected area to determine the size and shape of the void. Repair the M/R blade if the edge void is within maximum repair damage limits or replace the M/R blade with an airworthy M/R blade.

(vi) If there is any loose or damaged adhesive squeeze-out along any of the bond lines, trim or scrape away the adhesive without damaging the adjacent surfaces or parent material of the M/R blade. Determine if there is an edge void or any corrosion by lightly sanding the trimmed area smooth using 280 or finer grit paper. If there is no edge void or corrosion, refinish the sanded area.

(vii) If there is an edge delamination along any of the bond lines or a crack in the paint finish, determine if there is an edge void or a crack in the grip pad, grip plate, doubler, or skin by removing paint from the affected area by lightly sanding in a span-wise direction using 180-220 grit paper. If there are no edge voids and no cracks, refinish the sanded area.

(viii) If any parent material is removed during any sanding or trimming in paragraphs (e)(2)(vi) or (e)(2)(vii) of this AD, repair the M/R blade if the damage is within maximum repair damage limits or replace the M/R blade with an airworthy M/R blade.

(3) If there is a crack during any inspection in paragraph (e)(1) of this AD, within 10 days after completing the inspection, report the information requested in Appendix 1 to this AD by mail to the Los Angeles ACO Branch, Compliance and Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, California 90712; attn. Galib Abumeri; or by email to [galib.abumeri@faa.gov](mailto:galib.abumeri@faa.gov).

**(f) Special Flight Permits**

Special flight permits are prohibited.

**(g) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 30 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Galib Abumeri, Aerospace Engineer (Structures), Airframe Section, Los Angeles ACO Branch, Compliance and Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone 562-627-5324; email galib.abumeri@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.

**(i) Additional Information**

HTC Service Notice No. 204-2100-1, dated July 5, 2017, and Bell Alert Service Bulletin No. UH-1H-13-09, dated January 14, 2013, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone (817) 280-3391; fax (817) 280-6466; or at <http://www.bellcustomer.com/files/>. You may review this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**(j) Subject**

Joint Aircraft Service Component (JASC) Code: 6210, Main Rotor Blades.

Issued in Fort Worth, Texas, on January 9, 2018.

James A. Grigg,

Acting Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.

**Appendix 1 to AD 2018-02-07**

Please report the following by mail to the Los Angeles ACO Branch, Compliance and Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, California 90712; attn. Galib Abumeri; or by email to galib.abumeri@faa.gov.

- (1) Date of inspection:
- (2) Aircraft N-number:
- (3) M/R blade serial number:
- (4) M/R blade hours of time-in-service:
- (5) Location of each crack:
- (6) Dimension of each crack:
- (7) Primary operating location of the M/R blade:

[FR Doc. 2018-00658 Filed: 1/16/2018 8:45 am; Publication Date: 1/17/2018]