

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0553; Directorate Identifier 2011-SW-041-AD; Amendment 39-17502; AD 2013-13-14]

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 various restricted category Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters with certain main rotor hub inboard strap fittings (fittings) installed. This AD requires a magnetic particle inspection (MPI) of the fittings for a crack, and if there is a crack, replacing the fitting with an airworthy fitting. This AD is prompted by reports of cracked fittings on Bell model helicopters and the determination that these same part-numbered fittings may be installed on various restricted category helicopters. These actions are intended to detect a crack in a fitting, which may lead to failure of a fitting, loss of a main rotor blade, and subsequent loss of helicopter control.

DATES: This AD becomes effective July 24, 2013.

We must receive comments on this AD by September 9, 2013.

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> or in person at the Docket Operations Office 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 the Docket Operations Office (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 AD, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101, telephone (817) 280-3391, fax (817) 280-6466, or at www.bellcustomer.com. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Michael Kohner, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas, 76137, phone: (817) 222-5170; fax: (817) 222-5783; email: 7-AVS-ASW-170@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

On January 28, 2013, we issued AD 2013-03-16, Amendment 39-17339 (78 FR 9793, February 12, 2013), for Bell Model 204B, 205A, 205A-1, 205B, 210, and 212 helicopters with certain part-numbered fittings installed. AD 2013-03-16 requires a one-time MPI of the fittings for a crack, replacing the fittings with airworthy fittings if there is a crack, and re-identifying the fitting by adding "FM" to the end of its part-number (P/N) if there is no crack. The AD was prompted by reports of cracks in the fittings. The cracking was determined to have been caused by the manufacturer's failure to follow approved manufacturing processes and controls during the quenching operation from the heat treating of the fittings.

After AD 2013-03-16 was issued, we determined that the same part-numbered Bell fittings may be installed on various restricted category Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters and are susceptible to the same type of cracking. Therefore, we are mandating the inspection requirements for the applicable restricted category helicopters. While Bell is the manufacturer of these helicopters, the type certificates are held by other entities. The type certificate holders for the Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters are: Arrow Falcon Exporters Inc.; AST, Inc.; Bell Helicopter Textron, Inc.; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; JJASPP

Engineering Services, LLC; Northwest Rotorcraft, LLC; Overseas Aircraft Support, Inc.; Richards Heavylift Helo, Inc.; Robinson Air Crane, Inc.; Rotorcraft Development Corporation; San Joaquin Helicopters; Southern Helicopter, Inc.; and Tamarack Helicopters, Inc. Southwest Florida Aviation International, Inc. is the type certificate holder for the UH-1B (SW204 and SW204HP) and UH-1H (SW205) helicopters.

The actions specified in this AD are intended to detect a crack in a fitting, leading to a failure of the fitting, loss of a main rotor 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 have reviewed Bell Alert Service Bulletin (ASB) No. UH-1H-11-07 for Model UH-1H helicopters, dated May 31, 2011. The procedures provided in this ASB concern all applicable helicopters. This ASB specifies:

- For fittings with less than 400 hours time-in-service (TIS), performing an MPI within 100 flight hours but before the fitting reaches 425 flight hours or before November 26, 2011, whichever occurs first.
- For fittings with more than 400 hours, performing an MPI within 25 flight hours or before November 26, 2011, whichever occurs first.
- If cracks are found, replacing the fitting.
- If no cracks are found, visually inspecting all edges for raised material. If raised material is found, removing the material by hand using an India stone, repeating the MPI inspection, and re-identifying the fitting as described below. If the raised material cannot be removed within specified limits, replacing the fitting.
- If no cracks and no raised material are found, re-identifying the fitting and historical service records by adding an "FM" at the end of the part number and marking a record entry.

AD Requirements

This AD requires:

- Within 25 hours TIS or 15 days, whichever comes first, performing an MPI of each fitting for a crack.
- If a fitting has a crack, before further flight, replacing the fitting with an airworthy fitting.
- If a fitting has no crack, re-identifying the fitting and its component history card or equivalent record by adding "FM" at the end of the P/N.

Differences Between This AD and the Service Information

This AD differs from the ASBs in that we require an MPI within 25 hours TIS or 15 days, whichever comes first, of any fitting with an applicable P/N and S/N. Bell requires different compliance times based on the hours TIS of the fitting. We also do not require returning parts to Bell. Finally, we do not require visually inspecting all edges for raised material (shot peen rollover) on fittings with a certain P/N.

Interim Action

We consider this AD to be an interim action. Bell is investigating the safety risks regarding the raised material at the fittings' edges. Depending on the outcome of the investigation, we might consider additional rulemaking.

Costs of Compliance

We estimate that this AD affects 300 helicopters of U.S. registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs to comply with this AD:

- MPI of each set of fittings (two per helicopter) requires 40 work-hours for a labor cost of \$3,400 per helicopter, \$1,020,000 for the fleet. No parts are needed.
- If a fitting is cracked, replacement parts will cost \$2,367 per fitting. Labor costs will not be an additional expense as they can be absorbed as part of the inspection.

FAA's Justification and Determination of the Effective Date

We find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because of the short compliance time of 25 hours TIS or 15 days, whichever comes first, to magnetic particle inspect for a crack in the fitting. As these helicopters are often used in the timber industry and for firefighting, they may accrue 25 hours TIS within a week. Failure of these fittings could result in a catastrophic accident.

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



2013-13-14 Various Restricted Category Helicopters: Amendment 39-17502; Docket No. FAA-2013-0553; Directorate Identifier 2011-SW-041-AD.

(a) Applicability

This AD applies to Arrow Falcon Exporters Inc.; AST, Inc.; Bell Helicopter Textron, Inc.; Global Helicopter Technology, Inc.; Hagglund Helicopters, LLC; JJASPP Engineering Services, LLC; Northwest Rotorcraft, LLC; Overseas Aircraft Support, Inc.; Richards Heavylift Helo, Inc.; Robinson Air Crane, Inc.; Rotorcraft Development Corporation; San Joaquin Helicopters; Southern Helicopter, Inc.; and Tamarack Helicopters, Inc. Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters, and Southwest Florida Aviation International, Inc., Model UH-1B (SW204 and SW204HP) and UH-1H (SW205) helicopters, certificated in any category, with a main rotor hub inboard strap fitting (fitting) with a part number (P/N) and serial number (S/N) listed in Table 1 to paragraph (a) of this AD.

Table 1 to Paragraph (a)

Fitting P/Ns	Fitting S/Ns
204-012-102-001	All.
204-012-102-005	All.
204-012-102-009	All, except 7500 or larger with a prefix of "A" or "A-FS."

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in the fitting and the determination that the applicable fittings may not have been manufactured in accordance with approved manufacturing processes and controls. This condition could result in failure of a fitting, loss of a main rotor blade, and loss of helicopter control.

(c) Effective Date

This AD becomes effective July 24, 2013.

(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 25 hours time-in-service or 15 days, whichever occurs first:

(1) Perform a magnetic particle inspection (MPI) of each fitting for a crack. If an MPI was already performed on a fitting resulting in re-identifying the fitting with "FM" at the end of the P/N or

at the end of the P/N on the fitting's component history card or equivalent record, then the requirements of this AD have been met.

(2) If a fitting is cracked, before further flight, replace it with an airworthy fitting.

(3) If a fitting is not cracked, before further flight, re-identify the fitting by adding "FM" at the end of the P/N using a vibrating stylus. The depth of the "FM" must not exceed 0.005 inches or extend within 0.10 inch of the part's edge. Also, add "FM" at the end of the P/N on the fitting's component history card or equivalent record.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Kohner, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas, 76137, phone: (817) 222-5710; fax: (817) 222-5783; email: 7-AVS-ASW-170@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

Bell Alert Service Bulletin (ASB) No. UH-1H-11-07, dated May 31, 2011, which is not incorporated by reference, contain additional information about the subject of this AD. For this service information, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101, telephone (817) 280-3391, fax (817) 280-6466, or at www.bellcustomer.com. You may review this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6220, Main Rotor Head.

Issued in Fort Worth, Texas, on June 18, 2013.

Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.