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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0758; Directorate Identifier 2013-SW-062-AD; Amendment 39-18202; AD 2015-14-04]

RIN 2120-AA64

Airworthiness Directives; Kaman Aerospace Corporation (Kaman) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Kaman Model K-1200 helicopters with certain main rotor blades (MRB) installed. This AD requires inspecting each MRB for a crack or damage. This AD was prompted by a report that a crack was found on an MRB during a tear-down inspection. The actions are intended to detect a crack in the MRB, which could lead to failure of the MRB and subsequent loss of control of the helicopter.

DATES: This AD is effective August 17, 2015.

ADDRESSES: For service information identified in this AD, contact Kaman Aerospace Corporation, Old Windsor Rd., P.O. Box 2, Bloomfield, Connecticut 06002-0002; telephone (860) 242-4461; fax (860) 243-7047; or at http://www.kamanaero.com. You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

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 (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nicholas Faust, Aviation Safety Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email nicholas.faust@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On October 3, 2014, at 79 FR 59697, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Kaman Model K-1200 helicopters with certain part-numbered MRBs installed. The NPRM proposed to require performing repetitive X-Ray and visual inspections of each wooden MRB for a crack, wood split, void, or delamination at intervals not exceeding 1,000 hours time-in-service (TIS). If there is a crack, wood split, void, or delamination, the NPRM proposed to require repairing or replacing the MRB before further flight. The NPRM also proposed accomplishing the required inspections and repairs by a method approved by the Manager of the Boston Aircraft Certification Office.

The NPRM was prompted by reports of cracks found in the MRB spar during X-ray and teardown inspections with the MRB removed from the helicopter. The proposed requirements were intended to detect a crack in the MRB, which could lead to failure of the MRB and subsequent loss of control of the helicopter.

Since we issued the NPRM, we discovered a typographical error in paragraph (a) of this AD, where we incorrectly stated the design approval holder's name as Kaman Aerospace Incorporated instead of Kaman Aerospace Corporation, as specified by the current FAA type certificate. We have corrected this error.

Comments

After our NPRM (79 FR 59697, October 3, 2014), was published, we received comments from one commenter.

Request

Kaman suggested, without explanation, clarifying the description of the cost to replace an MRB set in the Cost of Compliance section by adding the word "non-repairable" before "MRB set."

We disagree. Operators may elect to replace a repairable MRB set instead of having the MRBs repaired. The ability to repair a MRB set does not change the cost of replacement.

Kaman also suggested, without explanation, changing the compliance time in paragraph (e)(1) of this AD to state, "When the MRB reaches 3,000 hours TIS and before it reaches 3,050 hours TIS . . ."

We disagree. This AD requires an initial inspection before 3,000 hours TIS but allows an additional 50 hours TIS for any MRBs that have already accumulated 3,000 hours TIS as of the effective date of this AD. The suggested language would change two requirements. First, it would allow the additional 50 hours TIS for all affected helicopters and is inconsistent with Kaman's service information. Second, it would prohibit blades to be inspected before they accumulate 3,000 hours.

FAA's Determination

We have reviewed the relevant information, considered the comments received, and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed with minor editorial change described previously. This change is consistent with the intent of the

proposals in the NPRM (79 FR 59697, October 3, 2014) and will not increase the economic burden on any operator nor increase the scope of the AD.

Related Service Information

We reviewed Kaman Maintenance Manual 04-00-00, Continued Airworthiness, Revision 31, dated August 1, 2013, which establishes the airworthiness limitations for the Model K-1200 helicopter. The airworthiness limitations establish an MRB life limit of 8,000 hours TIS and also establish a recurring 1,000 hour Rotor Blade Spar Inspection for each MRB with 3,000 or more hours TIS.

We also reviewed Kaman Maintenance Manual 05-20-06, 1,000 Hour Rotor Blade Spar Inspection, Revision 31, dated August 1, 2013, which specifies returning each MRB to Kaman every 1,000 hours for inspection after the MRB accumulates 3,000 hours TIS.

Costs of Compliance

We estimate that this AD will affect 11 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 cost of $85 per work-hour, inspecting each matched pair of main rotor blades requires about 160 work-hours and required parts cost about $2,000, for a cost per MRB set of $15,600 and a cost per helicopter of $31,200 per inspection cycle. If required, repairing a cracked MRB requires about 335 work-hours and required parts cost about $15,000, for a cost per MRB of $43,475. Replacing an MRB set requires about 4 work-hours, and required parts cost about $495,000, for a cost per helicopter of $495,340.

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

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 above, 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):

2015-14-04 Kaman Aerospace Corporation: Amendment 39-18202; Docket No. FAA-2014-0758; Directorate Identifier 2013-SW-062-AD.

(a) Applicability

This AD applies to Kaman Aerospace Corporation (Kaman) Model K-1200 helicopters with a main rotor blade (MRB) part number K911001-009, K911001-010, K911001-109, or K911001-110 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in an MRB, which could lead to failure of the MRB and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective August 17, 2015.

(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) Before the MRB reaches 3,000 hours time-in-service (TIS) or within 50 hours TIS, whichever occurs later, and thereafter at intervals not exceeding 1,000 hours TIS:

(i) X-Ray inspect each MRB between station (STA) 30 and 289 for a crack, a wood split, a void, and delamination.

(ii) Using a 10X or higher power magnifying glass, inspect each spar plank between STA 33 and STA 78 for a wood split or a crack, and inspect each spar plank to plank glueline for a void or delamination.

(2) If there is a crack, wood split, void, or delamination within maximum repair damage limits in an MRB, before further flight, repair the MRB. If there is a crack, wood split, void, or delamination exceeding maximum repair damage limits in an MRB, before further flight, replace the MRB with an airworthy MRB.

(3) Each inspection and repair procedure required for compliance with Paragraphs (e)(1) and (e)(2) of this AD must be accomplished by a method approved by the Manager, Boston Aircraft Certification Office (ACO). For a repair method to be approved by the Manager, Boston ACO, as required by this AD, the Manager's approval letter must specifically refer to this AD.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Nicholas Faust, Aviation Safety Engineer, Boston Aircraft Certification

Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7763; email nicholas.faust@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

Kaman Aerospace Corporation Maintenance Manual 04-00-00, Continued Airworthiness, Revision 31, dated August 1, 2013, and Kaman Aerospace Corporation Maintenance Manual 05-20-06, 1,000 Hour Rotor Blade Spar Inspection, Revision 31, dated August 1, 2013, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Kaman Aerospace Corporation, Old Windsor Rd., P.O. Box 2, Bloomfield, Connecticut 06002-0002; telephone (860) 242-4461; fax (860) 243-7047; or at http://www.kamanaero.com. You may review a copy of 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: 6210, Main Rotor MRB.

Issued in Fort Worth, Texas, on June 29, 2015.
Lance T. Gant,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.