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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2015-0365; Directorate Identifier 2014-SW-049-AD; Amendment 39-18106; AD 2015-04-04]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bell Helicopter Textron Inc. Helicopters**

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

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

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for Bell Helicopter Textron Inc. (Bell) Model 412 and 412EP helicopters with certain static inverters (inverters) installed. This AD requires revising the Rotorcraft Flight Manual (RFM) and installing a placard in full view of the pilot to limit flight to visual flight rules (VFR) only and prohibit night operations. This AD is prompted by failures of certain inverters, most of which resulted in smoke in the cockpit. The actions specified by this AD are intended to restrict flight to VFR only and prohibit night operations to allow safe operation in the event of failure of an affected inverter. This failure would increase pilot workload during instrument flight rules (IFR) and could result in loss of certain pilot information displays and subsequent loss of control of the helicopter.

**DATES:** This AD becomes effective March 11, 2015.

We must receive comments on this AD by April 27, 2015.

**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 <http://www.bellcustomer.com/files/>. 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:** Ife Ogunleye, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5927; 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**

We are adopting a new AD for Bell Model 412 and 412EP helicopters with an inverter part number (P/N) 412-375-079-101 or P/N 412-375-079-103 with a serial number 29145 or larger. This AD limits operations to VFR and prohibits night operations by adding a restriction to the RFM and installing a placard in full view of the pilots. This AD is prompted by at least 30 failures of certain inverters; most have resulted in smoke in the cockpit. The root cause of the failures is still under investigation by Bell and Avionics Instruments LLC, the manufacturer of the inverters. The consequence of one failed inverter has the potential of allowing smoke in the cockpit, making it difficult to find a safe landing site at night or in instrument meteorological conditions. If both inverters fail, the pilot will lose primary flight and navigation displays, alternating current powered engine and transmission indicators, and autopilot. The RFM emergency procedure for dual inverter failure is to land as soon as practicable or fly VFR. The RFM emergency procedure for smoke in the cabin is to land as soon as possible. Until a new design is available, restricting flight operations to VFR and daytime increases the likelihood of a prompt safe landing.

## **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**

Bell issued Alert Service Bulletin 412-13-156, dated April 25, 2013 (ASB), which specifies inspecting part-numbered 412-375-079-101 inverters and either repairing each inverter or replacing it with inverter P/N 412-375-079-103 to prevent failure. This ASB does not correct the unsafe condition identified in this AD. The specific cause of the inverter failures has not been verified, and since Bell issued the ASB, the failures have continued.

## **AD Requirements**

This AD requires, within 5 hours time-in-service, limiting operations to VFR and prohibiting night operations by revising the Limitations section of the RFM and by installing a placard in the cockpit in full view of the pilots.

## **Interim Action**

We consider this AD to be an interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

## **Costs of Compliance**

We estimate that this AD will affect 88 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are \$85 per work hour. We estimate a minimal amount of time to revise the RFM and to install a placard. The required parts are \$10 for a placard. Based on these requirements, the cost will be \$10 per helicopter and \$880 for the U.S. fleet.

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

Providing an opportunity for public comments before 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 before adopting this rule because the required corrective actions must be done within 5 hours time-in-service.

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 contrary to the public interest 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):



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**2015-04-04 Bell Helicopter Textron Inc.:** Amendment 39-18106; Docket No. FAA-2015-0365; Directorate Identifier 2014-SW-049-AD.

**(a) Applicability**

This AD applies to Model 412 and 412EP helicopters with a static inverter (inverter) part number (P/N) 412-375-079-101 or 412-375-079-103 with a serial number 29145 or larger installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as failure of an inverter(s) under instrument meteorological conditions or night flight. This condition could result in smoke in the cockpit, increased pilot workload due to the loss of primary flight and navigation displays, alternating current powered engine and transmission indicators, and autopilot, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective March 11, 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**

Within 5 hours time-in-service:

(1) Add the statement "Flight is restricted to VFR, and night operations are prohibited" to the Limitations section of the Rotorcraft Flight Manual by making pen and ink changes or by inserting a copy of this AD.

(2) Install a placard stating "LIMITED TO VFR ONLY; NIGHT OPERATIONS PROHIBITED" on the instrument panel in full view of the pilots.

**(f) Special Flight Permits**

Special flight permits are prohibited.

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

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Ife Ogunleye, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5927; 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.

**(h) Additional Information**

Bell Helicopter Alert Service Bulletin 412-13-156, dated April 25, 2013, which is not incorporated by reference, contains 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/>.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 2422 AC Inverter.

Issued in Fort Worth, Texas, on February 10, 2015.

Lance T. Gant,  
Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.