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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2010-0065; Directorate Identifier 2009-SW-01-AD; Amendment 39-16186; AD 2010-03-03]

RIN 2120-AA64

#### Airworthiness Directives; Bell Helicopter Textron, Inc. Model 205B and 212 Helicopters

**AGENCY:** Federal Aviation Administration, DOT.

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

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for Bell Helicopter Textron, Inc. (Bell) Model 205B and 212 helicopters with certain main rotor (M/R) blade assemblies installed. This action requires inspecting the M/R blades paying particular attention to an area near the blade root for an edge void, corrosion, or a crack. This amendment is prompted by two reports of fatigue cracks on M/R blades installed on Model 212 helicopters. Both model helicopters use the same part-numbered M/R blades. The actions specified in this AD are intended to detect an edge void, corrosion, or a crack on a M/R blade, which could lead to loss of the M/R blade and subsequent loss of control of the helicopter.

**DATES:** Effective February 19, 2010.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 19, 2010.

Comments for inclusion in the Rules Docket must be received on or before April 5, 2010.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may get the service information identified in this AD from 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/>.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information 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 Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** DOT/FAA Southwest Region, Michael Kohner, ASW-170, Aviation Safety Engineer, Rotorcraft Directorate, Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5170, fax (817) 222-5783.

**SUPPLEMENTARY INFORMATION:** This amendment adopts a new AD for certain serial-numbered Bell Model 205B and 212 helicopters with a M/R blade, part number (P/N) 212-015-501-005, -111, -113, -115, -117, -119, or -121, installed. The AD requires, within 25 hours time-in-service (TIS), and thereafter at intervals not to exceed 100 hours TIS, washing the upper and lower surfaces of each M/R blade and visually inspecting the grip plates and doublers in the area between blade stations 24.5 and 40.0 for an edge void, corrosion, or a crack, using a 3x power or higher magnifying glass. It also requires visually inspecting the remaining surfaces of each M/R blade in the area between blade stations 24.5 and 40.0 for any corrosion or a crack using a 3x power or higher magnifying glass. If a crack is found in the paint finish, removing the paint and re-inspecting the M/R blade is required before further flight. If a crack is found in the M/R blade, replacing it with an airworthy M/R blade is required before further flight. If an edge void or any corrosion is found in the M/R blade, replacing it with an airworthy M/R blade, or repairing it if the damage is within the maximum repair damage limits, is required before further flight. This amendment is prompted by two reports of fatigue cracks on M/R blades installed on Model 212 helicopters. The cracks were located in the lower doublers and skin, and the box beam at the M/R blade attachment bolt hole, and in the lower grip plate at blade station (BS) 36. The M/R blades had accumulated 1,026 and 2,559 hours TIS. The cause of the cracks has been attributed to inadequate adhesive bonding during manufacture in the area between the grip plate and mating doubler surface. A crack first appears in the grip plate, which can be detected visually with the M/R blade installed on the helicopter. The actions specified in this AD are intended to detect an edge void, corrosion, or a crack on a M/R blade, which could lead to loss of the M/R blade and subsequent loss of control of the helicopter.

We have reviewed Bell Helicopter Alert Service Bulletin (ASB) No. 205B-08-51 and ASB No. 212-08-130, both Revision A, dated January 13, 2009, applicable to Model 205B and Model 212 helicopters, respectively, which describe procedures for initial and repetitive inspections of certain part-numbered M/R blades on certain serial-numbered helicopters for signs of an edge void, corrosion, or a crack, including a hair-line crack in the M/R blade paint finish.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD is being issued to detect an edge void, corrosion, or a crack on a M/R blade, which could lead to loss of the M/R blade and subsequent loss of control of the helicopter.

Accomplish the actions by following specified portions of the applicable ASB, described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the structural integrity and controllability of the helicopter. Therefore, the AD must be issued immediately to require the following actions within 25 hours TIS, and thereafter at intervals not to exceed 100 hours TIS:

- Washing the upper and lower M/R blade surfaces using a solution of cleaning compound (C-318) and water;
- Using a 3x or higher magnifying glass, visually inspecting the upper and lower grip plates and doublers of the M/R blade between blade station (BS) 24.5 to 40, and the whole width of the chord, for an edge void, any corrosion, or a crack;

- Using a 3x power or higher magnifying glass, visually inspecting the remaining upper and lower surfaces of the M/R blade between BS 24.5 and 40.0, and the whole width of the chord, for any corrosion or a crack;
- Applying a light coat of preservative oil (C-125) to all surfaces of the M/R blade;
- Removing paint from areas in which a crack is discovered in the M/R blade paint finish by sanding with 180-220 grit paper to determine if a crack exists in the M/R blade;
- Replacing any M/R blade that has a crack in any part of the M/R blade other than the paint finish with an airworthy M/R blade;
- Replacing any M/R blade that has any corrosion or an edge void with an airworthy M/R blade, or repairing the M/R blade if the damage is within the maximum repair damage limits. The maximum repair damage limitations are contained in the applicable Component and Repair Overhaul Manual; and
- Replacing any M/R blade that has any parent material removed during the sanding operation to remove paint from areas in which a paint crack is discovered, or repairing the M/R blade if the amount of parent removed material is within the maximum repair damage limits.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

We estimate that this AD will affect 87 helicopters of U.S. registry, and washing and visually inspecting each M/R blade will take approximately 1 work hour per helicopter at an average labor rate of \$80 per work hour. If an edge void, corrosion, or a crack is discovered, replacing the M/R blade with an airworthy blade will take approximately 6 work hours. Required parts will cost approximately \$97,500 for a replacement M/R blade. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$139,740, assuming that 6 inspections per year are conducted on each helicopter, and that one M/R blade will need to be replaced.

### Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2010-0065; Directorate Identifier 2009-SW-01-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

### Regulatory Findings

We have 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 above, I certify that the 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); and

3. 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. See the AD docket to examine the economic evaluation.

### **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.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:



2010-03-03 Bell Helicopter Textron, Inc.: Amendment 39-16186. Docket No. FAA-2010-0065; Directorate Identifier 2009-SW-01-AD.

**Applicability:** Serial-numbered Model 205B and Model 212 helicopters, with the specified part-numbered main rotor (M/R) blade that is listed in Table 1 of this AD installed, certificated in any category.

Table 1

Helicopter Model and Serial Number (S/N)	M/R Blade P/N
Model 205B: S/N 30066, 30166, 30188, or 30297	P/N 212-015-501-005, -111, -113, -115, -117, -119, or -121
Model 212: S/N 30502 through 30603, 30611 through 30999, 31101 through 31311, 32101 through 32262, or 35001 through 35103	P/N 212-015-501-005, -111, -113, -115, -117, -119, or -121

**Compliance:** Required as indicated.

To detect an edge void, corrosion, or a crack on a M/R blade, which could lead to loss of the M/R blade and subsequent loss of control of the helicopter, accomplish the following:

(a) Within 25 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 100 hours TIS:

(1) Wash the upper and lower surfaces of the M/R blade with a solution of cleaning compound (C-318) and water. Rinse thoroughly and wipe dry.

(2) Using a 3x power or higher magnifying glass, on each affected M/R blade, in an area from blade stations 24.5 to 40, including the entire width of the M/R blade chord, as depicted in Figure 1 in Bell Helicopter Alert Service Bulletin No. 205B-08-51 for the Model 205B helicopters, or No. 212-08-130 for the Model 212 helicopters, both Revision A, dated January 13, 2009 (ASBs), as applicable:

(i) Visually inspect the upper and lower grip plates and doublers of the M/R blade in the specified area for an edge void, corrosion, or a crack.

(ii) Visually inspect the remaining upper and lower surfaces of the M/R blade in the specified area for any corrosion or a crack.

Note 1: The inspections required by paragraphs (a)(2)(i) and (a)(2)(ii) of this AD can be accomplished with the M/R blade installed on the helicopter.

Note 2: Crack indications on an actual M/R blade are shown in Figure 2 of both ASBs.

(3) Apply a light coat of preservative oil (C-125) to all surfaces of the M/R blade in the specified area.

(b) Before further flight:

(1) If any corrosion or an edge void is found, replace the M/R blade with an airworthy M/R blade, or repair the M/R blade if the damage is within the maximum repair damage limits.

(2) If a crack is found in the M/R blade paint finish, remove the paint in the affected area by lightly sanding with 180-220 grit paper in a span wise direction to determine if the grip plate, doubler, or skin is cracked. Do not remove any parent material of the M/R blade during the sanding operation. Refinish the sanded area.

(3) If a crack is found in any part of the M/R blade other than the paint finish, replace the M/R blade with an airworthy M/R blade.

(4) If any parent material is removed during the sanding operation required by paragraph (b)(2) of this AD, replace the M/R blade with an airworthy M/R blade, or repair the M/R blade if the amount of parent material removed is within the maximum repair damage limits.

Note 3: The maximum repair damage limitations specified in paragraphs (b)(1) through (b)(4) of this AD are contained in the applicable Component and Repair Overhaul Manual.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Rotorcraft Certification Office, ATTN: Michael Kohner, Aviation Safety Engineer, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5170, fax (817) 222-5783, for information about previously approved alternative methods of compliance.

(d) The inspections and replacements, if necessary, shall be done in accordance with the specified portions of Bell Helicopter Alert Service Bulletin No. 205B-08-51 for Model 205B helicopters, or No. 212-08-130 for Model 212 helicopters, both Revision A, dated January 13, 2009, as applicable. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from 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/>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

#### **Joint Aircraft System/Component (JASC) Code**

(e) JASC Code 6210: Main Rotor Blades.

(f) This amendment becomes effective on February 19, 2010.

Issued in Fort Worth, Texas, on December 21, 2009.

Scott A. Horn,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.