[Federal Register Volume 76, Number 66 (Wednesday, April 6, 2011)]
[Rules and Regulations]
[Pages 18865-18869]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2011-8133]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0323; Directorate Identifier 2011-SW-005-AD; Amendment 39-16651; AD 2011-08-01]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron, Inc. Model 212 Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding an existing emergency airworthiness directive (EAD) for the Bell Helicopter Textron, Inc. (Bell) Model 212 helicopters with a certain main rotor hub inboard strap fitting (fitting) installed. That EAD requires, before further flight, removing certain serial-numbered fittings and replacing them with airworthy fittings. It also requires performing a magnetic particle inspection (MPI) on fittings with certain serial numbers (S/Ns) to inspect for a crack. If a crack is found, the cracked fitting must be replaced with an airworthy fitting, and certain data must be reported to the FAA. This airworthiness directive (AD) retains the requirements of that EAD and expands the applicability to require performing an MPI for a crack on additional serial-numbered fittings. This AD is prompted by the determination that certain fittings were not manufactured in accordance with the approved manufacturing processes and controls. In total, eight fittings have been found that have cracks. We are issuing this AD to prevent failure of a fitting, loss of a main rotor blade, and subsequent loss of control of the helicopter.

DATES: This AD is effective April 21, 2011.

We must receive any comments on this AD by June 6, 2011.

ADDRESSES: You may send comments by any of the following methods:

- 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.

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/.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Michael Kohner, Aerospace Engineer, Rotorcraft Directorate, Rotorcraft Certification Office, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137, phone: (817) 222-5170; fax: (817) 222-5783; e-mail: mike.kohner@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

This AD supersedes EAD 2010-25-51, issued November 24, 2010 (EAD 2010-25-51), which superseded EAD 2010-24-52, issued November 19, 2010 (EAD 2010-24-52). EAD 2010-24-52 superseded EAD 2010-24-51, issued November 12, 2010 (EAD 2010-24-51). EAD 2010-24-51, EAD 2010-24-52, and EAD 2010-25-51 were all issued for the Bell Model 212 helicopters with a certain fitting installed.

EAD 2010-24-51, the initial EAD, was issued for all Bell Model 212 helicopters with a fitting, part number (P/N) 212-010-103-007, S/Ns 9956 through 10005 with a prefix of "A". That EAD required, before further flight, removing any affected fitting and replacing it with an airworthy fitting. That EAD also prohibited installing any affected fitting on any helicopter. That EAD was prompted by an accident that resulted in several fatalities. During the investigation of the accident, a crack was found on a fitting. Subsequently, four additional fittings from the same manufacturing lot were inspected, and two were found to exhibit the same type of cracking. We issued EAD 2010-24-51 to remove this lot from service to prevent failure of a fitting, loss of a main rotor blade, and subsequent loss of control of the helicopter.

After we issued EAD 2010-24-51, additional fittings from a different manufacturing lot were found to have the same type of crack as that found on the fitting involved in the accident. Therefore, we issued superseding EAD 2010-24-52 to require the same actions as EAD 2010-24-51, and to expand the applicability to include additional fittings. In addition to S/Ns 9956 through 10005 with a prefix of "A", EAD 2010-24-52 added S/Ns 52, 54, 55, 57 through 65, 67, 69, 70, 71, 73, 103, 112, 113, 137, and 139 with a prefix of "SH" to the applicability. EADs 2010-24-51 and 2010-24-52 were issued as interim actions to address a known unsafe condition, and Bell continued to investigate the cause of the cracking.

Because the root cause of the cracking had not been determined, and due to the severity of a fitting failure, we issued superseding EAD 2010-25-51 to require the same action as EAD 2010-24-52 and to also require performing an MPI on fittings with S/Ns 9911 through 9955, 10006 through 10049, 10075 through 10174, 10455 through 10460, 10581 through 10655, 10742 through 10791, and 10862 through 10946 with a prefix of "A" to detect a crack on those fittings. If you find a crack, you are required to replace the cracked fitting with an airworthy fitting, and within 24 hours, report the information specified in Appendix 1 of the EAD to the Manager, Rotorcraft Certification Office. If you do not find a crack, you are required to reidentify and refinish the fitting in accordance with the specified portion of Alert Service Bulletin (ASB) 212-10-142, dated November 24, 2010 (ASB 212-10-142).

Actions Since AD Was Issued

Since we issued EAD 2010-25-51, additional fittings with cracks were found using the MPI process. In response to these findings, Bell issued ASB 212-10-142, Revision A, dated March 21, 2011, that specifies performing an MPI for a crack on all serial-numbered fittings with the same part number in stock or in service. We have determined that certain fittings were not manufactured in accordance with the approved manufacturing processes and controls. Due to the severity of a fitting failure, this superseding AD is being issued to continue to require replacing certain serial-numbered fittings, and to expand the applicability to require performing an MPI for a crack on the remaining serial numbers of the fittings with the same part number. Serial-numbered fittings affected by this superseding AD are listed in Table 1 of the Applicability section of this AD. This superseding AD is being issued to prevent failure of a fitting, loss of a main rotor blade, and subsequent loss of control of the helicopter.

Relevant Service Information

We reviewed Bell Alert Service bulletin (ASB) No. 212-10-141, dated November 11, 2010 (ASB-212-10-141), which specified the immediate removal of the affected fittings, S/Ns A-9956 through A-10005, from service. We also reviewed ASB No. 212-10-141, Revision A, dated November 18, 2010 (ASB 212-10-141 Rev. A), which incorporates additional S/Ns of the affected fittings and specifies removing the affected serial-numbered fittings from service. In ASB 212-10-141, Bell states that they have determined that the fittings may not have been manufactured in accordance with the engineering design requirements and may fracture as a result of the nonconformance.

We have also reviewed Bell ASB 212-10-142, initial release, dated November 24, 2010 (ASB 212-10-142) which specifies performing an MPI on fittings with certain S/Ns to detect a crack on those fittings.

Finally, we have reviewed Bell ASB 212-10-142, Revision A, dated March 21, 2011 (ASB 212-10-142 Rev. A), which includes all serial-numbered fittings except those already inspected and marked with "FM". ASB 212-10-142 Rev. A specifies 1) within 25 hours time-in-service (TIS) or 15 days, whichever comes first, for all fittings with less than 400 hours TIS; or 2) within 100 hours TIS or 30 days, whichever comes first, for all fittings with 400 or more hours but less than 800 hours TIS; or 3) at the next main rotor teardown inspection or next tension-torsion strap replacement, whichever comes first, for all fittings with more than 800 hours TIS, performing a one-time MPI of the fitting, P/N 212-010-103-007, with all S/Ns in stock or in service. Finally, ASB 212-10-142 Rev. A states that all fittings, S/Ns A-11021 and subsequent, SH-053, SH-066, SH-072, SH-074 through SH-102, SH-104 through SH-111, SH-114 through SH-136, SH-138, and SH-140 and subsequent are not affected by ASB 212-10-142 Rev. A. Bell states that a one-time MPI of the affected fittings is required to ensure continued airworthiness of the fittings.

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 helicopters of this same type design.

AD Requirements

This AD supersedes EAD 2010-25-51 and requires the following:

- Before further flight, for any helicopter with a fitting, S/N 9956 through 10005, with a prefix of "A", and S/N 52, 54, 55, 57 through 65, 67, 69, 70, 71, 73, 103, 112, 113, 137, and 139

- Before further flight, for any helicopter with a fitting, S/N 9911 through 9955, 10006 through 10049, 10075 through 10174, 10455 through 10460, 10581 through 10655, 10742 through 10791, and 10862 through 10946, with a prefix of "A", perform an MPI of each fitting for a crack. If the fitting is cracked, replace it with an airworthy fitting. If the fitting is not cracked, reidentify and refinish the fitting.
- For any fitting with a serial number identified in paragraph (h) in the Compliance section of this AD, perform an MPI of each fitting for a crack:
    - For any fitting with 400 or less hours TIS, perform an MPI within 25 hours TIS or 15 days, whichever comes first.
    - For any fitting with more than 400 hours but less than 800 hours TIS, perform an MPI within 100 hours TIS or 30 days, whichever comes first.
    - For fittings with 800 hours or more TIS, perfrom an MPI at the next main rotor hub teardown inspection or tension-torsion strap replacement, whichever comes first.
    - If a fitting is cracked, replace it with an airworthy fitting. If a fitting is not cracked, reidentify and refinish the fitting.
- If a crack is found on any fitting, within 24 hours, report the information requested in Appendix 1 of this AD to the Manager, Rotorcraft Certification Office, FAA, 2601 Meacham Blvd, Fort Worth, Texas 76137, or e-mail 7-AVS-ASW-170@faa.gov.

Differences Between the AD and the Service Information

This AD differs from ASB 212-10-142 Rev. A as follows:

- We do not require returning parts to Bell.
- We require performing an MPI before further flight on certain S/N fittings included in the initial release of ASB 212-10-142.
- We require sending information to the Rotorcraft Certification Office and not to Bell.
- Bell uses the term "total time-in-service" to describe compliance times, and we use the term "time-in-service."
- We specify S/Ns in our AD, and Bell does not specify S/Ns in ASB 212-10-142 Rev. A.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA finds that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because we evaluated all the available information and determined the unsafe condition described is likely to exist or develop in other helicopters of this same type design. Therefore, we find that notice and opportunity for prior public comment are impracticable because of the short compliance times, and that good cause exists for making this amendment effective in less than 30 days.

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 before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the Docket Number FAA-2011-0323 and "Directorate Identifier 2011-SW-005-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because 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 we receive about this AD.

Costs of Compliance

We estimate that this AD affects 84 helicopters of U.S. registry. We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per helicopter	Cost on U.S. operators
(a) For any fitting, S/N 9956 through 10005 and a prefix of "A"; or a S/N of 52, 54, 55, 57 through 65, 67, 69, 70, 71, 73, 103, 112, 113, 137, 139 with a prefix of "SH"; replace the fitting with an airworthy fitting (assumes action affects 72 fittings)	40 work-hours X $85 per hour = $3,400	$2,367	$5,767	$415,224
(c) For any fitting affected by this AD with a S/N not identified in paragraph (a) of this table, perform an MPI on each fitting for a crack unless documentation exists of any previous MPI performed during regularly scheduled maintenance (assumes action affects 12 fittings)	40 work-hours X $85 per hour = $3,400	$ 0	$3,400	$ 40,800

We estimate a total cost of $456,024 to do the actions required by this AD.

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,

(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.

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 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. The FAA amends § 39.13 by adding the following new AD:

2011-08-01 Bell Helicopter Textron, Inc. (Bell): Amendment 39-16651; Docket No. FAA-2011-0323; Directorate Identifier 2011-SW-005-AD.

Effective Date

(a) This AD is effective on April 21, 2011.

Other Affected ADs

(b) This AD supersedes Emergency AD 2010-25-51, issued on November 24, 2010, Directorate Identifier 2010-SW-096-AD.

Applicability

(c) This AD applies to Model 212 helicopters certificated in any category, with a main rotor hub inboard strap fitting (fitting), part number (P/N) 212-010-103-007, installed, with the serial numbers (S/Ns) listed in the following Table 1:

Table 1

Serial Numbers with a Prefix of:
"A" or "A-FS": 7 through 10946
"A1": 430 through 7606
"DI": 22296 through 22681
"EA": 333 through 381
"LK": 4619 through 4631
"MB": 11908 through 11916
"SH": 52, 54, 55, 57 through 65, 67, 69, 70, 71, 73, 103, 112, 113, 137, and 139
"WR": 275 through 319

Unsafe Condition

(d) This AD is prompted by a recent accident that resulted in several fatalities. During the investigation of the accident, a crack was found on a fitting. We have determined that certain fittings were not manufactured in accordance with approved manufacturing processes and controls. Due to the severity of a fitting failure, we are requiring replacing certain serial-numbered fittings, and we are expanding the applicability to require performing a magnetic particle inspection (MPI) for a crack on the remaining serial numbers of the fittings with the same part number. The actions specified by this AD are intended to prevent failure of a fitting, loss of a main rotor blade, and subsequent loss of control of the helicopter.

Compliance

(e) Required as indicated, unless accomplished previously.

(f) Before further flight, for any helicopter with a fitting, serial number (S/N) 9956 through 10005 with a prefix of "A", and S/N 52, 54, 55, 57 through 65, 67, 69, 70, 71, 73, 103, 112, 113, 137, and 139 with a prefix of "SH" installed, replace the fitting with an airworthy fitting. Any fitting with a S/N identified in this paragraph is no longer eligible for installation on any helicopter.

(g) Before further flight, for any helicopter with a fitting, S/N 9911 through 9955, 10006 through 10049, 10075 through 10174, 10455 through 10460, 10581 through 10655, 10742 through 10791, and 10862 through 10946 with a prefix of "A", perform an MPI of each fitting for a crack. If a fitting is cracked, replace it with an airworthy fitting. If a fitting is not cracked, reidentify and refinish the fitting using a vibrating stylus (not to exceed 0.005 inch depth nor to extend within 0.10 inch of part edge) by adding "FM" at the end of the P/N. Touch up the reworked area with brush cadmium plating or zinc chromate primer. Reidentify the historical service records with "FM" at the end of the P/N.

Note 1: The Bell Model 212 Component, Repair, and Overhaul Manual, which is not incorporated by reference, contains additional information about MPI procedures.

(h) For any fitting with a S/N identified in Table 1 of the Applicability section of this AD, and not identified in paragraph (f) or (g) of this AD, perform an MPI of each fitting for a crack as follows:

(1) For a fitting with 400 or less hours time-in-service (TIS), perform an MPI within 25 hours TIS or 15 days, whichever comes first.

(2) For a fitting with more than 400 but less than 800 hours TIS, perform an MPI within 100 hours TIS or 30 days, whichever comes first.

(3) For a fitting with 800 or more hours TIS, perform an MPI at the next main rotor hub teardown inspection or tension-torsion strap replacement, whichever comes first.

(4) If a fitting is cracked, replace it with an airworthy fitting.

(5) If a fitting is not cracked, reidentify and refinish the fitting in accordance with the instructions in paragraph (g) of this AD.

(i) Within 24 hours after finding any cracked fitting, report the information requested in Appendix 1 of this AD to the Manager, Rotorcraft Certification Office, to the address, fax number, or email specified in the Appendix.

Paperwork Reduction Act Burden Statement

(j) 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 Office of Management and Budget (OMB) Control Number. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the OMB has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 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.

Subject

(k) The Joint Aircraft System Component/Air Transport Association of America Code is 6220: Main rotor hub.

Alternative Methods of Compliance (AMOCs)

(l) The Manager, Rotorcraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the "Additional Information" section of this AD.

Note 2: Before using any approved AMOC, we request that you notify your appropriate principal inspector, or if you have no principal inspector, your local Flight Standards District Office.

Additional Information

(m)(1) 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/.

(2) You may review copies of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas.

(3) Bell Helicopter Alert Service Bulletin No. 212-10-141, Revision A, dated November 18, 2010, and Alert Service Bulletin No. 212-10-142, Revision A, dated March 21, 2011, contain additional guidance pertaining to the subject of this AD but are not incorporated by reference. A picture of a crack indication on an actual fitting is shown in Figure 1 of Bell Alert Service Bulletin 212-10-142, Rev. A.

Appendix 1 to AD 2011-08-01

AD Compliance Inspection Report (Sample Format)

Provide the following information and mail, fax, or e-mail report to: Manager, Rotorcraft Certification Office, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137, fax (817) 222-5783, e-mail 7-AVS-ASW-170@faa.gov.

Aircraft Registration No.	
Helicopter Serial No.	
Helicopter Owner/Operator	
Contact Phone No.	
Fitting Part Number	
Fitting Serial Number	
Hours Time-in-Service on Fitting at Time of Inspection	
Description of Findings	
Who Performed the Inspection?	
Date and Location the Inspection was Performed	
Describe the crack size, location, orientation (provide a sketch or pictures with the fitting part and serial numbers).	
Provide any other comments.	

Issued in Fort Worth, Texas, on March 29, 2011.
Kim Smith,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.