

14 CFR Part 39**[Docket No. 94-SW-26-AD]****Airworthiness Directives; Bell Helicopter Textron, Inc. Model 214B, 214B-1, and 214ST Helicopters****AGENCY:** Federal Aviation Administration, DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the superseding of an existing airworthiness directive (AD), applicable to Bell Helicopter Textron, Inc. (BHTI) Model 214B, 214B-1, and 214ST helicopters, that currently establishes a mandatory retirement life of 60,000 high-power events for the main transmission upper planetary carrier (carrier). This action would require changing the method of calculating retirement life for the carrier from high-power events to a maximum accumulated Retirement Index Number (RIN) of 120,000. This proposal is prompted by fatigue analyses and tests that show certain carriers fail sooner than originally anticipated because of the unanticipated high number of lifts or takeoffs (torque events) performed with those carriers in addition to the time-in-service (TIS) accrued under other operating conditions. The actions specified by the proposed AD are intended to prevent fatigue failure of the carrier, which could result in failure of the main transmission and subsequent loss of control of the helicopter.

DATES: Comments must be received by March 17, 1997.**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-SW-26-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, Texas 76101.

FOR FURTHER INFORMATION CONTACT: Mr. Uday Garadi, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, Fort Worth, Texas 76193-0170, telephone (817) 222-5157, fax (817) 222-5959.**SUPPLEMENTARY INFORMATION:****Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as

they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 94-SW-26-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-SW-26-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Discussion

On June 6, 1994, the FAA issued AD 94-02-05, Amendment 39-8803, (59 FR 32325, June 23, 1994), to require changing the method of calculating the retirement life for the carrier, part number (P/N) 214-040-077-007 and -101, from flight hours to high-power events calculated using the number of takeoffs and external load lifts, removing the 2,500 hours TIS magnetic particle inspection for the carrier, and making the requirements applicable to the Model 214ST as well as the Model 214B and 214B-1 helicopters. That action was prompted by fatigue analyses and tests that show certain carriers fail sooner than originally anticipated because of the unanticipated high number of lifts and takeoffs (torque events) performed with those carriers in addition to the TIS accrued under other operating conditions. The requirements of that AD are intended to prevent fatigue failure of the carrier, which could result in failure of the main transmission and subsequent loss of control of the helicopter.

Since the issuance of that AD, BHTI has issued BHTI Information Letter GEN-94-54, dated April 15, 1994, Subject: Retirement Index Number (RIN) For Cycle Lived Components, which introduces a different method of accounting for fatigue damage on components that have shortened service lives as a result of frequent torque events. Additionally, BHTI has issued BHTI Alert Service Bulletin (ASB) 214-94-52, which is applicable to Model 214B helicopters, and ASB 214ST-94-66, which is applicable to Model 214ST helicopters, both of which are dated November 7, 1994, and describe procedures for converting flight hours and total number of torque events into a RIN for the carrier, P/N214-040-077-007 and -101. Although ASB 214-94-52 does not state that it applies to Model 214B-1 helicopters, this was an oversight by the manufacturer. That ASB was intended to apply to both Model 214B and 214B-1 helicopters.

Since an unsafe condition has been identified that is likely to exist or develop on other BHTI Model 214B, 214B-1, and 214ST helicopters of the same type design, the proposed AD would supersede AD 94-02-05 to require creation of a component history card using the RIN system and a system for tracking increases to the accumulated RIN, and establish a maximum accumulated RIN for the carrier of 120,000 at which it must be retired.

The FAA estimates that 11 helicopters of U.S. registry would be affected by this proposed AD, that it would take approximately (1) 48 work hours per helicopter to replace the affected part due to the new method of determining the retirement life required by this AD; (2) 2 work hours per helicopter to create the component history card or equivalent record (record); and (3) 10 work hours per helicopter to maintain the record each year, and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$29,516 per helicopter. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$61,813 for the first year and \$60,713 for each subsequent year. These costs assume replacement of the spider in one-sixth of the fleet each year, creation and maintenance of the records for all the fleet the first year, and creation of one-sixth of the fleet's records and maintenance of the records for all the fleet each subsequent year.

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed 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) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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 removing Amendment 39-8803 (59 FR 32325, June 23, 1994), and by adding a new airworthiness directive (AD), to read as follows:

Bell Helicopter Textron, Inc. (BHTI): Docket No. 94-SW-26-AD. Supersedes AD 94-02-05, Amendment 39-8803.

Applicability: Model 214B, 214B-1, and 214ST helicopters with main transmission upper planetary carrier (carrier), part number (P/N) 214-040-077-007 or -101, installed, certificated in any category.

Note 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (e) to request approval

from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any helicopter from the applicability of this AD.

Compliance: Required within 25 hours time-in-service (TIS) after the effective date of this AD, unless accomplished previously.

To prevent fatigue failure of the carrier, which could result in failure of the main transmission and subsequent loss of control of the helicopter, accomplish the following:

(a) Create a component history card or equivalent record for the upper planetary carrier (carrier), P/N 214-040-077-007 or -101.

(b) Determine and record the accumulated Retirement Index Number (RIN) to date on the carrier as follows (if the multiplication results in a fraction, round the results up to the next whole number):

- (1) For Model 214B or B-1 helicopters:
 - (i) Multiply the high-power event total to date by 2, or
 - (ii) If the actual operating hours are *known*, and:

(A) If the type of operation is internal load lift operations only, multiply each operating hour by 7;

(B) If the type of operation involves any external load lift operations and the number of external load lift operations is known, use the table below and multiply the appropriate factor for the average number of external load lift operations by the number of actual operating hours:

Average number of external load lift operations per hour	Factor *
0-2.00	7
2.01-5.00	7
5.01-16.00	14
16.01-27.00	21
Above 27.00	28

* RIN = Factor × Actual Operating Hours.

(C) If the type of operation involves any external load lift operations and the number of external load lift operations is unknown, multiply each actual operating hour by 21;

(D) If the type of operation is unknown, multiply each actual operating hour by 21.

(iii) If the actual operating hours are *unknown*, assume 900 operating hours per calendar year. Prorate the assumed operating hours for partial years.

(A) If the type of operation is internal only, multiply the assumed operating hours by 7.

(B) If the type of operation involves any external load lift operations and the number of external load lift operations is known, use the table in paragraph (ii)(B) above and multiply the appropriate factor for the average number of external load lift operations by the number of assumed operating hours;

(C) If the type of operation involves any external load lift operations and the number of external load lift operations is unknown, multiply each assumed operating hour by 21.

(D) If the type of operation is unknown, multiply each assumed operating hour by 21.

(2) For Model 214ST helicopters:

- (i) Multiply the high-power event total to date by 2, or
- (ii) Multiply the factored flight hour total to-date by 12.

Note 2: BHTI Alert Service Bulletin (ASB) 214-94-52, which is applicable to Model 214B helicopters, and ASB 214ST-94-66, which is applicable to Model 214ST helicopters, both of which are dated November 7, 1994, pertain to this subject.

(c) After compliance with paragraphs (a) and (b) of this AD, and during each operation thereafter, maintain a count of each lift or takeoff performed and at the end of each day's operations, increase the accumulated RIN on the component history card or equivalent record as follows:

- (1) For Model 214B and 214B-1 helicopters,
 - (i) Increase the RIN by 1 for each takeoff.
 - (ii) Increase the RIN by 1 for each external load lift operation; or, increase the RIN by 2 for each external load lift operation in which the load is picked up at a higher elevation and released at a lower elevation, and the difference in the elevation between the pick up point and the release point is 200 feet or greater.

(2) For Model 214ST helicopters,

- (i) Increase the RIN by 2 for each takeoff.
- (ii) Increase the RIN by 2 for each external load lift operation; or, increase the RIN by 4 for each external load lift in which the load is picked up at a higher elevation and released at a lower elevation and the difference in elevation between the pick up point and the release point is 200 feet or greater.

(d) Remove the carrier, P/N's 214-040-077-007 or -101, from service on or before attaining an accumulated RIN of 120,000. The carrier is no longer retired based upon flight hours. This AD revises the Airworthiness Limitations section of the maintenance manual by establishing a new retirement life for the carrier of 120,000 RIN.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Rotorcraft Certification Office, FAA, Rotorcraft Directorate. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Rotorcraft Certification Office.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Rotorcraft Certification Office.

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

Issued in Fort Worth, Texas, on January 7, 1997.

Eric Bries,

*Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.*

[FR Doc. 97-879 Filed 1-13-97; 8:45 am]

BILLING CODE 4910-13-U

14 CFR Part 39

[Docket No. 96-NM-185-AD]

RIN 2120-AA64

Airworthiness Directives; Fokker Model F28 Mark 0100 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Fokker Model F28 Mark 0100 series airplanes. This proposal would require repetitive inspections of certain flanges and finger strips at rib 5.0 of the vertical stabilizer to detect fatigue cracking, and repairs, if necessary. It also would require modifications that would strengthen the torsion box at rib 5.0 and prevent fatigue cracking; one of these modifications would be terminating action for the repetitive inspections. This proposal is prompted by reports indicating that, during full-scale fatigue testing, cracking has been found on the vertical stabilizer of the test article. The actions specified by the proposed AD are intended to detect and prevent fatigue cracking in the subject area, which, if not corrected, could reduce the structural integrity of the vertical stabilizer.

DATES: Comments must be received by February 24, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 96-NM-185-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Fokker Services B.V., Technical Support Department, P.O. Box 75047, 1117 ZN Schiphol Airport, The Netherlands. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Tim Dulin, Aerospace Engineer, Standardization Branch, ANM-113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-2141; fax (206) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 96-NM-185-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-103, Attention: Rules Docket No. 96-NM-185-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The Rijksluchtvaartdienst (RLD), which is the airworthiness authority for the Netherlands, has notified the FAA that an unsafe condition may exist on certain Fokker Model F28 Mark 0100 series airplanes. The RLD advises that it has received reports indicating that cracks have been found on the vertical stabilizer during the manufacturer's full-scale fatigue tests on the Fokker Model F28 Mark 0100 test article. These fatigue cracks were detected at the bolt holes of the right-hand flange of the torsion box,

and in the finger strip on the left-hand flange at rib 5.0 of the vertical stabilizer.

The RLD also advises that it has received reports indicating that subsequent full-scale fatigue tests have detected additional cracks in rib 5.0 of the vertical stabilizer after a stiffener had been added to the torsion box in accordance with Fokker Service Bulletin SBF100-55-018. Although this modification was performed to strengthen this area against fatigue cracking, investigation has shown that the stiffener produces a too-rapid change in the structural strength of the torsion box, which may lead to fatigue cracking in an adjacent area.

Fatigue cracking in the subject area, if not prevented, could reduce structural integrity of the vertical stabilizer.

Explanation of Relevant Service Information

Fokker has issued Service Bulletin SBF100-55-019, Revision 1, dated May 19, 1993, which describes procedures for conducting repetitive eddy current inspections of the flanges and finger strips at rib 5.0 of the vertical stabilizers to detect fatigue cracking, and repair, if necessary.

Fokker also has issued Service Bulletin SBF100-55-018, Revision 1, dated December 27, 1993, which describes procedures for modifying the torsion box at rib 5.0 of the vertical stabilizer by installing stiffening to the rib web and flanges for added strength. This service bulletin also describes procedures for a pre-modification eddy current inspection of the vertical stabilizer to detect cracking, and repair, if necessary, in accordance with Fokker Service Bulletin SBF100-55-019. Accomplishment of this modification eliminates the need for repetitive inspections to detect fatigue cracking.

Additionally, Fokker has issued Service Bulletin SBF100-55-023, dated January 3, 1995, which describes procedures for another modification to strengthen rib 5.0 of the vertical stabilizer. This modification, which entails the cold expansion of holes in the torsion box at rib 5.0, is intended to prevent additional fatigue cracking that could be caused by the earlier installation of the torsion box stiffener.

The RLD classified these service bulletins as mandatory and issued Netherlands airworthiness directives (BLA) 93-069 (A), dated June 1, 1993, and BLA 1995-017 (A), dated February 28, 1995, in order to assure the continued airworthiness of these airplanes in the Netherlands.