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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 95–SW–33–AD; Amdt. 39–9484; AD 96–01–08]

Airworthiness Directives; Bell Helicopter Textron, A Division of Textron Canada Ltd. Model 222, 222B, 222U, and 230 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing priority letter airworthiness directive (AD) 95–23–02, applicable to certain serial-numbered Bell Helicopter Textron, A Division of Textron Canada Ltd. (BHT) Model 222, 222B, 222U, and 230 helicopters, that currently requires an initial check of both surfaces of each tail rotor blade (blade) for cracks; an inspection of the blade skin if a crack of a specified size or location is found in the paint; and replacement of the blade if a crack is found in the blade skin. This AD requires the same actions as required by the priority letter AD, but corrects some affected serial numbers (S/N) that were incorrectly stated in that AD. This amendment is prompted by two incidents in which a crack developed in the stainless steel blade skins on BHT Model 230 helicopters, which are similar in design to the Models 222, 222B and 222U helicopters. The actions specified by this AD are intended to prevent failure of a blade due to a fatigue crack, loss of the tail rotor and tail rotor gear box, and subsequent loss of control of the helicopter.

DATES: Effective January 24, 1996.

Comments for inclusion in the Rules Docket must be received on or before March 11, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Assistant Chief Counsel, Attention: Rules Docket No. 95–SW–33–AD, 2601 Meacham Blvd., room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Mr. Charles Harrison, Aerospace Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, Fort Worth, Texas 76193–0170, telephone (817) 222–5447, fax (817) 222–5960.

SUPPLEMENTARY INFORMATION: On November 3, 1995, the FAA issued priority letter AD 95–23–02, applicable to certain serial-numbered BHT Models 222, 222B, 222U, and 230 helicopters, to require an initial check of both surfaces of each blade for cracks; an inspection of the blade skin if a crack of a specified size or location is found in the paint; and replacement of the blade if a crack is found in the blade skin. That action was prompted by two incidents in which a crack developed in the stainless steel blade skins on BHT Model 230 helicopters. In one of these incidents, the blade failed during flight. Subsequent investigation revealed fatigue cracks originating from sanding marks on the blade skin. The cracks were located just outboard of the stainless steel blade doubler. That condition, if not corrected, could result in failure of a blade due to a fatigue crack, loss of the tail rotor and tail rotor gear box, and subsequent loss of control of the helicopter.

Since the issuance of that AD, the FAA has discovered that an error was made in the applicability paragraph of the priority letter AD, which incorrectly stated the S/N of one of the affected models. The Model 230 helicopters affected by the AD include S/N 23001 through 23038. The priority letter AD incorrectly stated S/N 23001 through 23034.

Since the unsafe condition described is likely to exist or develop on other BHT Models 222, 222B, 222U, and 230 helicopters of the same type design, this AD supersedes priority letter AD 95–23–02 to require, before further flight, an initial visual check of both painted surfaces of each blade for cracks. If a crack of a specified size and location is found in the paint, removal of the paint and a visual inspection using a 10-power or higher magnifying glass is required before further flight. If this closer inspection reveals a crack in the blade skin, replacement of the blade with an airworthy blade is required. If no crack is found in the blade skin, the area from which the paint was removed is coated with a light-weight oil or an equivalent corrosion preventive compound, and then repetitive visual checks are required at intervals not to exceed 3 hours time-in-service (TIS). The initial visual check that is required before further flight and the repetitive checks may be performed by a pilot, but must be entered into the aircraft records showing compliance with paragraph (a) of this AD in accordance with sections 43.11 and 91.417(a)(2)(v) of the Federal Aviation Regulations. This AD allows a pilot to perform this check because it involves only a visual check for cracking in the painted surface of the blade skin, and can be performed equally well by a pilot or a mechanic.

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

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this 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 under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the 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 that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. 95–SW–33–AD.'' The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will 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 final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a ''significant regulatory action'' under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from 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.

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 the following new airworthiness directive (AD), Amendment 39–9484, to read as follows:

AD 96–01–08 Bell Helicopter Textron, a Division of Textron Canada Ltd.: Amendment 39–9484. Docket No. 95–SW–33–AD. Supersedes Priority Letter AD 95–23–02, issued November 3, 1995, Docket No. 95–SW–31–AD.

Applicability: Model 222 helicopters, serial numbers (S/N) 47006 through 47089, and Model 222B helicopters, S/N 47131 through 47156, with tail rotor blades, part numbers (P/N) 222–016–001–101, –107, –111, and –113; Model 222U helicopters, S/N 47501 through 47574, with tail rotor blades, P/N 222–016–001–107 and –111; and Model 230 helicopters, S/N 23001 through 23038, with tail rotor blades, P/N 222–016–001–111, 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 (g) 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 before further flight, unless accomplished previously. To prevent failure of a tail rotor blade (blade) due to a fatigue crack (see Figure 1), loss of the tail rotor and tail rotor gear box, and subsequent loss of control of the helicopter, accomplish the following:

(a) Clean the painted surfaces of the blades in an area approximately 6 inches spanwise on either side of the doubler tip. Visually check both surfaces of each blade for cracks by pushing the blade tip away from the surface being checked until it contacts the flapping stop and then holding the blade firmly against the stop. Pay particular attention to the area reaching from the doubler tip to 1 inch outboard, centering on an area 2 inches aft of the blade leading edge (see Figure 2).

(b) The visual check required by paragraph (a) may be performed by an owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with paragraph (a) of this AD in accordance with sections 43.11 and 91.417(a)(2)(v) of the Federal Aviation Regulations.

(c) If the visual check described in paragraph (a) reveals any crack outboard of the doubler tip (Station 14.250), or any chordwise crack inboard of the doubler tip that is longer than 1 inch (see Figure 3), accomplish the following:

(1) Remove the paint from the skin in the cracked area using the following procedures (see Figure 4):

Note 2: Paint cracking that follows the contour of the doubler is common and is of no concern.

(2) Using a 180 or 220 grit abrasion paper, sand by hand with spanwise strokes until greenish- or yellow-colored primer or bare metal begins to be exposed.

(3) Using spanwise or circular sanding motions, continue hand-sanding the remaining greenish- or yellow-colored primer in the cracked area using a 320 or 400 grit paper until sufficient metal has been exposed to allow inspection (see area indicated in Figure 4).

(d) Inspect the blade skin for cracks in the area that was exposed in accordance with paragraph (c) using a 10-power or higher magnifying glass.

(1) If no crack is found in the blade skin, coat the bare metal area with a lightweight oil or an equivalent corrosion preventive compound.

(2) If any crack is discovered, remove the blade and replace it with an airworthy blade.

(e) Perform the requirements of this AD upon installation of a replacement blade.

(f) Perform the visual checks of paragraph (a) of this AD and the subsequent inspections, if appropriate, at intervals not to exceed 3 hours TIS.

Note 3: A lightweight oil or equivalent corrosion preventive compound may be applied after accomplishing the repetitive requirements of paragraph (f) of this AD.

(g) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used when approved by the Manager, Rotorcraft Certification Office, Rotorcraft Directorate, FAA. 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 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Rotorcraft Certification Office.

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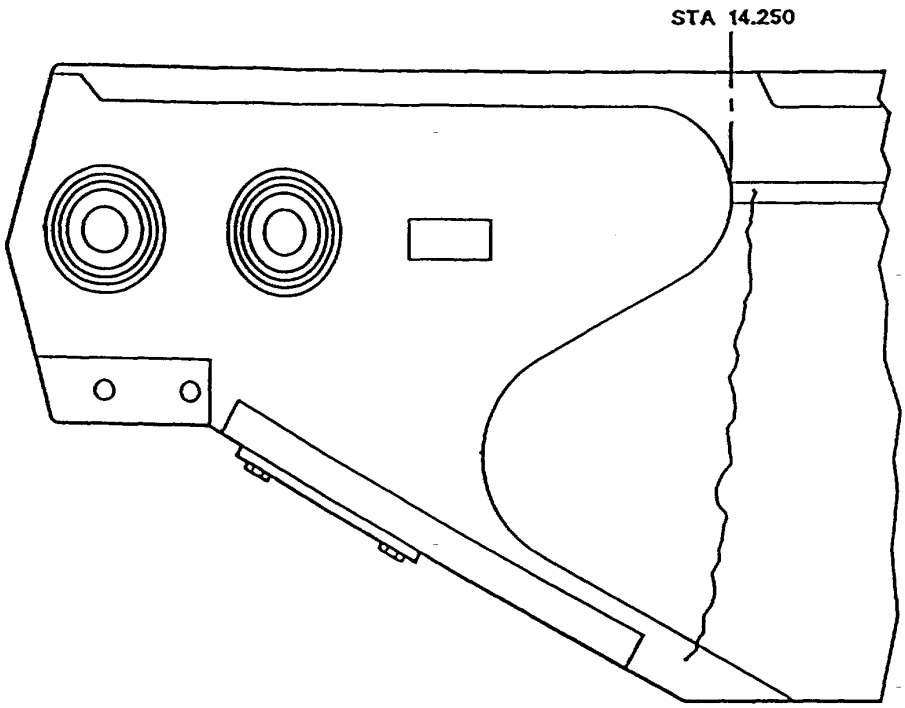

FIGURE 1. SKIN CRACK IN TAIL ROTOR BLADE

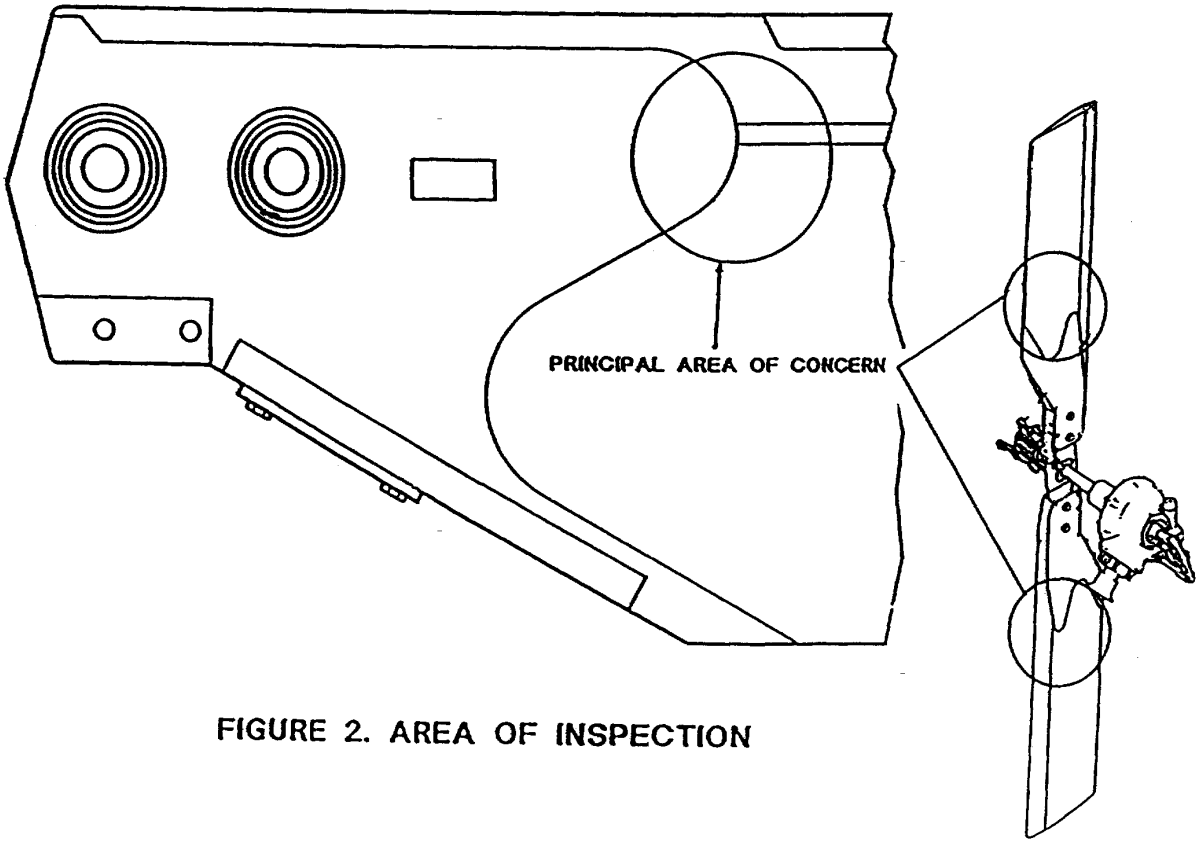

FIGURE 2. AREA OF INSPECTION

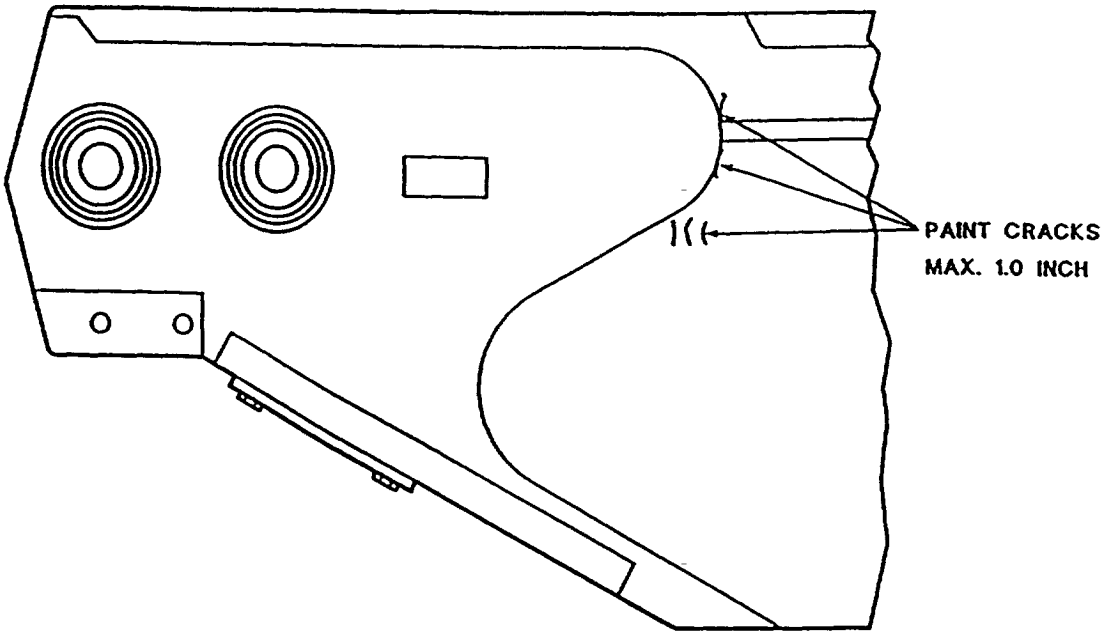

FIGURE 3.

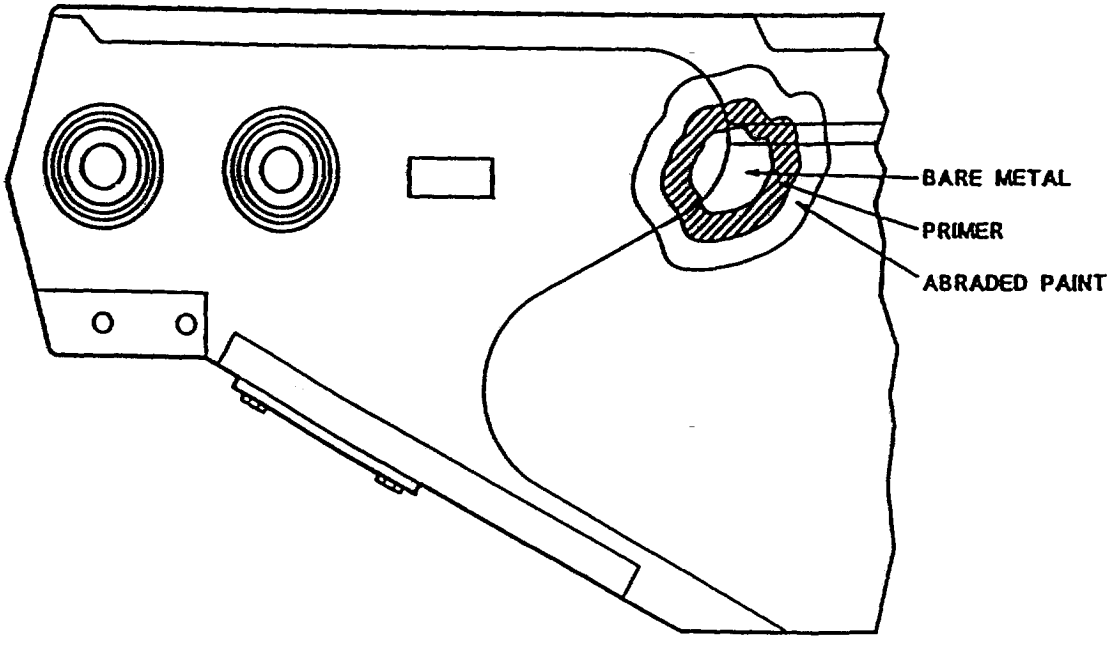

FIGURE 4.

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(h) Special flight permits to accomplish the requirements of this AD will not be issued.

(i) This amendment becomes effective on January 15, 1996.

Issued in Fort Worth, Texas, on December 21, 1995.

Eric Bries,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 96–259 Filed 1–8–96; 8:45 am]

BILLING CODE 4910–13–U

14 CFR Part 39

[Docket No. 95–ANE–73; Amendment 39–9477, AD 96–01–01]

Airworthiness Directives; Hamilton Standard Propellers Models 14RF–9, 14RF–19, 14RF–21; and 14SF–5, 14SF–7, 14SF–11, 14SFL11, 14SF–15, 14SF–17, 14SF–19, and 14SF–23; and Hamilton Standard/British Aerospace 6/5500/F

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Hamilton Standard Propeller Models 14RF–9, 14RF–19, 14RF–21; and 14SF–5, 14SF–7, 14SF–11, 14SFL11, 14SF–15, 14SF–17, 14SF–19, and 14SF–23; and Hamilton Standard/British Aerospace 6/5500/F. This action supersedes priority letter AD 95–18–06R1, that was issued on August 30, 1995, that currently requires ultrasonic shear wave inspection on all Hamilton Standard 14RF–9 propeller blades, and ultrasonic shear wave inspection on certain Hamilton Standard Propeller Models 14RF–19, 14RF–21; and 14SF–5, 14SF–7, 14SF–11, 14SFL11, 14SF–15, 14SF–17, 14SF–19, and 14SF–23; and Hamilton Standard/British Aerospace 6/5500/F propeller blades. This action requires that all blades of applicable Hamilton Standard propellers be calibrated for ultrasonic transmissibility before conducting the ultrasonic shear wave inspection. This action improves the crack detection capability of the ultrasonic shear wave inspection. This action also decreases the repetitive inspection interval for the 14RF–9, 14SF–5, –7, –11, –15, –17, –19, and –23 from 1,250 flight cycles to 500 flight cycles. This action also establishes a new ultrasonic shear wave inspection interval of 1,000 flight cycles for the 14RF–19 and 2,500 flight cycles for the 14RF–21 and the 6/5500/F. This AD also removes 14SFL11 propellers from service. This AD is prompted by reports that the existing ultrasonic shear wave inspection may not detect cracks as originally determined with some blades due to geometric differences. The actions specified by this AD are intended to prevent separation of a propeller blade due to cracks initiating in the blade taper bore, that can result in aircraft damage, and possible loss of the aircraft.

DATES: Effective January 19, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 19, 1996.

Comments for inclusion in the Rules Docket must be received on or before January 29, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 95–ANE–73, 12 New England Executive Park, Burlington, MA 01803–5299.

The service information referenced in this AD may be obtained from Hamilton Standard, One Hamilton Road, Windsor Locks, CT 06096–1010; telephone (203) 654–6876. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Frank Walsh, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803, telephone (617) 238–7152, fax: (617) 238–7199.

SUPPLEMENTARY INFORMATION: On August 30, 1995, the Federal Aviation Administration (FAA) issued priority letter airworthiness directive (AD) 95–18–06R1 applicable to Hamilton Standard Propeller Models 14RF–9, 14RF–19, 14RF–21; and 14SF–5, 14SF–7, 14SF–11, 14SFL11, 14SF–15, 14SF–17, 14SF–19, and 14SF–23; and Hamilton Standard/British Aerospace 6/5500/F propellers, which requires ultrasonic shear wave inspection on all Hamilton Standard 14RF–9 propeller blades, and ultrasonic shear wave inspection on certain Hamilton Standard Models 14RF–19, –21; and 14SF–5, –7, –11, L11, –15, –17, –19, and –23; and Hamilton Standard/British Aerospace 6/5500/F propeller blades. That AD action was prompted by a report of a Hamilton Standard 14RF–9 propeller blade installed on an Embraer EMB–120 aircraft that had separated inflight.

Since the issuance of that priority letter AD, the FAA and Hamilton Standard have been working to improve the crack detection capability of the ultrasonic inspection method as well as working to refine the crack growth rate prediction methodology. The results of this work form the basis for the new inspection method and the change in repetitive inspection interval. This AD will require that propeller blades be calibrated for ultrasonic transmissibility before conducting an ultrasonic shear wave inspection, thereby improving the detection capability of the ultrasonic shear wave inspection technique. This action will also decrease the repetitive inspection interval for the 14RF–9, 14SF–5, –7, –11, –15, –17, –19, and –23 from 1,250 flight cycles to 500 flight cycles. This action will further establish a new ultrasonic shear wave inspection interval of 1,000 flight cycles for the 14RF–19 and 2,500 flight cycles for the 14RF–21 and the 6/5500/F propeller models. This AD also requires removal of the life limited 14SFL11 propellers currently in service, approximately four propellers. These 14SFL11 propellers will be replaced with the Hamilton Standard Model 247F propellers. The actions specified by this AD are intended to prevent the separation of a propeller blade due to cracks initiating in the blade taper bore, that can result in aircraft damage, and possible loss of aircraft control.

This AD references two ultrasonic inspection methods, one that can be accomplished without removing the lead from the taper bore which permits an on wing inspection and a second inspection that requires the blade be removed and inspected at an FAA approved facility. The inspection that is conducted without removing the lead from the taper bore cannot be accomplished on some blades because of ultrasonic transmissibility problems caused by the lead wool absorbing the signal. These blades must be removed and inspected at an FAA approved facility where the lead wool will be extracted.

The FAA has reviewed and approved the technical contents of the following Hamilton Standard Alert Service Bulletins (ASB's): No. 14RF–9–61–A91, No. 14RF–19–61–A55, No. 14RF–21–61–A73, No. 14SF–61–A93, and No. 6/5500/F–61–A41, all dated December 7, 1995, and No. 14RF–9–61–A91, Rev 1, No. 14RF–19–61–A55, Rev 1, No. 14RF–21–61–A73, Rev 1, No. 14SF–61–A93, Rev 1, and No. 6/5500/F–61–A41, Rev 1, all dated December 15, 1995, that describe procedures for ultrasonic shear wave inspections of the blade taper bores for cracks after the lead wool has