

set-aside programs pursuant to written policies adopted by the Bank's board of directors. A Bank's board of directors shall not delegate to Bank officers or other Bank employees the responsibility for adopting such policies.

\* \* \* \* \*

#### **§ 951.4 [Amended]**

4. Amend § 951.4 by:
  - a. In paragraph (a), after the term "housing", adding the words ", and community and not-for-profit organizations actively involved in providing or promoting community lending,";
  - b. In paragraph (b), after the term "housing", adding the term "and community lending";
  - c. In paragraph (f)(1), removing the term "community investment" wherever it appears and adding, in its place, the term "community lending"; and
  - d. In paragraph (f)(3), removing the term "community development" and adding, in its place, the term "community lending".

#### **§ 951.5 [Amended]**

5. Amend § 951.5 by removing paragraph (a)(7)(iii).

#### **§ 951.8 [Amended]**

6. Amend § 951.8(c)(3) by:
    - a. Removing the heading for paragraph (c)(3)(i);
    - b. Removing paragraph designation (c)(3)(i); and
    - c. Redesignating paragraph (c)(3)(ii) as paragraph (c)(4); and removing the paragraph heading "Reconciliation of AHP fund" and adding, in its place, the revised heading "AHP outlay adjustment".
  7. Amend § 951.10 by:
    - a. Revising paragraph (a)(1)(ii);
    - b. In paragraph (a)(2)(ii), removing the words "the member and" and the words "the member or" wherever they appear; and
    - c. In paragraph (b)(2), removing paragraph (b)(2)(ii), and removing paragraph designation (b)(2)(i).
- The revision reads as follows:

#### **§ 951.10 Initial monitoring requirements.**

- (a) \* \* \*
  - (1) \* \* \*
  - (ii) Where AHP subsidies are used to finance the purchase of owner-occupied units, the project sponsor must maintain household income verification documentation available for review by the member or the Bank.
- \* \* \* \* \*
8. Amend § 951.15(a)(2) by:
    - a. In paragraph (a)(2)(ii), removing the period and adding a semicolon in its place;

- b. Adding a paragraph (a)(2)(iii); and
- c. Redesignating the last sentence of the section as paragraph (a)(3) and revising it.

The addition and revisions read as follows:

#### **§ 951.15 Affordable Housing Reserve Fund.**

- (a) \* \* \*
  - (2) \* \* \*
  - (iii) Project modifications approved by the Bank pursuant to the requirements of this part.
  - (3) *Carryover of insufficient amounts.* Such insufficient amounts as described in paragraph (a)(2) of this section shall be carried over for use or commitment in the following year in the Bank's competitive application program or homeownership set-aside programs.
- \* \* \* \* \*

Dated: September 26, 2001.

By the Board of Directors of the Federal Housing Finance Board.

**J. Timothy O'Neill,**  
Chairman.

[FR Doc. 01-24586 Filed 10-2-01; 8:45 am]

BILLING CODE 6725-01-P

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 35**

**[Docket No. NE124; Special Conditions No. 35-002-SC]**

#### **Special Conditions: Hartzell Propeller Incorporated, Model HC-E5A-2/E8991 Propeller**

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

**ACTION:** Final special conditions; request for comments.

**SUMMARY:** The FAA is issuing special conditions for the Hartzell Propeller Incorporated model HC-E5A-2/E8991 constant speed propeller. This five-bladed propeller has blades constructed of composite materials. This design feature is novel and unusual. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards for propeller blades constructed of composite materials that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

**DATES:** The effective date of these special conditions is December 1, 2001. Comments must be received on or before November 19, 2001.

**ADDRESSES:** Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Office of the Regional Counsel, Attn: Rules Docket No. NE124, 12 New England Executive Park, Burlington, Massachusetts, 01803-5299. Comments must be marked: Docket No. NE124. Comments may be inspected in the Rules Docket between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Jay Turnberg, FAA, Engine and Propeller Standards Staff, Engine and Propeller Directorate, Aircraft Certification Service, ANE-110, 12 New England Executive Park, Burlington, Massachusetts, 01803-5229; telephone: (781) 238-7116; fax: (781) 238-7199; e-mail: [jay.turnberg@faa.gov](mailto:jay.turnberg@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

The FAA has determined that good cause exists for making these special conditions effective December 1, 2001; however, the FAA invites interested parties to submit comments on the special conditions. Comments should identify the Rules Docket and special conditions number and be submitted in duplicate to the address specified above. The FAA will consider all comments received by the closing date. These special conditions may be changed in light of the comments received. All comments submitted will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this proposal will be filed in the docket. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. NE124." The postcard will be date-stamped and returned to the commenter.

##### **Background**

On May 3, 2000, Hartzell Propeller Incorporated applied for an amendment to type certificate (TC) number P20NE to add a new model HC-E5A-2/E8991 propeller. The HC-E5A-2/E8991 propeller, which is a derivative of the HC-E5 propeller currently approved under TC P20NE, has blades constructed of composite material. These special conditions address the following airworthiness issues for the Hartzell Propeller Incorporated model HC-E5A-2/E8991 propeller:

1. Centrifugal load tests;
2. Fatigue limits and evaluation;
3. Bird impact; and
4. Lightning strike.

The Hartzell Propeller Incorporated model HC-E5A-2/E8991 propeller incorporates blades constructed of composite material. This material has fibers that are woven or aligned in specific directions to give the material directional strength properties. These properties depend on the type of fiber, the orientation and concentration of fiber, and the resin matrix material that binds the fibers together. Composite materials introduce fatigue characteristics and failure modes that differ from metallic materials.

#### **Type Certification Basis**

Under the provisions of 14 CFR 21.101, Hartzell Propeller Incorporated must show that the model HC-E5A-2/E8991 propeller meets the applicable provisions of the regulations incorporated by reference in TC P20NE or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the TC are commonly referred to as the "original type certification basis." The original type certification basis for the HC-E5 series propeller is 14 CFR part 35, effective October 14, 1980, as amended by Amendments 35-1 through 35-5. Effective August 18, 1990, the HC-E5B-5 propeller was added to the type certificate, using Amendments 35-1 through 35-6 as the certification basis.

Section 21.16 authorizes the FAA to issue special conditions, using the procedure prescribed in 14 CFR part 11, when the applicable airworthiness regulations do not contain adequate or appropriate safety standards. Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of § 21.101(a)(1). Special conditions become part of the type certification basis for that product in accordance with § 21.17(a)(2).

#### **Novel or Unusual Design Features**

The FAA finds that the HC-E5A-2/E8991 propeller incorporates blades constructed of composite materials, a novel and unusual design feature for which the airworthiness regulations in part 35 do not contain adequate or

appropriate safety standards. Special conditions for centrifugal load tests, fatigue limits and evaluation, bird impact, and lightning strike address this novel and unusual design feature.

#### **Centrifugal Load Tests**

Section 35.35 currently requires that the hub and blade retention arrangement of propellers with detachable blades be tested to a centrifugal load of twice the maximum centrifugal force to which the propeller would be subjected during operation. This requirement is limited to the blade and hub retention hardware and does not address composite materials and composite construction of the propeller assembly or changes in materials due to service degradation and environmental factors.

#### **Fatigue Limits and Evaluation**

The current requirement does not adequately address composite materials, as it is limited to metallic hubs and blades and primary load-carrying metal components of non-metallic blades. The special conditions expand the requirements to include all materials and to account for material degradation expected in service, material property variations, manufacturing variations, and environmental effects. The special conditions clarify that the fatigue limits may be determined by tests or analysis based on tests.

The special conditions require the applicant to conduct fatigue evaluation on a typical aircraft or on an aircraft used during aircraft certification to conduct the vibration tests and evaluation required by either §§ 23.907 or 25.907. The typical aircraft may be one used to develop design criteria for the propeller or another appropriate aircraft.

#### **Bird Impact**

Currently there are no bird impact requirements in part 35. The existing requirements only address the airworthiness considerations associated with propellers that use wood or metal blades. Propeller blades of this type have demonstrated good service experience following a bird strike. Propeller blade and spinner construction now uses composite materials that have a higher potential for damage from bird impact.

The need for bird impact requirements was recognized when composite blades were introduced in the 1970s; the safety issue has been addressed by special tests and special conditions for composite blade certifications. These special conditions were unique for each propeller and

effectively stated that the propeller must be able to withstand a four pound bird impact without contributing to a hazardous propeller effect. These special tests and special conditions have been effective for over forty million flight hours. There have not been any accidents attributed to bird impact on composite propellers. The selection of a four pound bird has been substantiated by the extensive service history of blades that have been designed using the four pound bird criteria.

#### **Lightning Strike**

Currently there are no lightning strike requirements in part 35. The need for lightning strike requirements was recognized when composite blades were first introduced in the 1970s; the safety issue has been addressed by special tests and special conditions for each design using composite blades. The special tests and special conditions, which were unique for each propeller, effectively stated that the propeller must be able to withstand a lightning strike without contributing to a hazardous propeller effect. These special tests and special conditions have been effective for over forty million flight hours. There have not been any accidents attributed to a lightning strike on composite propellers.

#### **Applicability**

These special conditions are applicable to the Hartzell Propeller Incorporated model HC-E5A-2/E8991 propeller. Should Hartzell Propeller Incorporated apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design features, the special conditions would apply to that model as well under the provisions of § 21.101(a)(1).

#### **Conclusion**

This action affects only certain novel or unusual design features on one model of propellers. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the propeller.

The substance of these special conditions has been subjected to the notice and comment period in several prior instances and has been derived without substantive change from those previously issued. The FAA has determined that prior public notice and comment are unnecessary and that good cause exists for adopting these special conditions immediately. Therefore, these special conditions are being made effective December 1, 2001. The FAA is, however, requesting comments to allow

interested parties to submit views that may not have been submitted in response to the prior opportunities for comment described above.

#### List of Subjects in 14 CFR Part 35

Air transportation, Aircraft, Aviation safety, Safety.

The authority citation for these special conditions is as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701–44702, 44704.

#### The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for the Hartzell Propeller Incorporated model HC–E5A–2/E8991 propeller.

In addition to the requirements of part 35, the following requirements apply to the propeller:

(a) *Definitions.* Unless otherwise approved by the Administrator and documented in the appropriate manuals and certification documents, for the purpose of these special conditions the following definitions apply to the propeller:

(1) Hazardous propeller effects. The following are regarded as hazardous propeller effects:

- (i) Significant overspeed of the propeller.
- (ii) Development of excessive drag.
- (iii) Thrust in the direction opposite to that commanded by the pilot.
- (iv) Release of the propeller or any major portion of the propeller.
- (v) Failure that results in excessive unbalance.
- (vi) Unintended movement of the propeller blades below the established minimum in-flight low pitch position.

(2) Major propeller effects. The following are regarded as major propeller effects:

- (i) Inability to feather the propeller (for feathering propellers).
- (ii) Inability to command a change in propeller pitch.
- (iii) Significant uncommanded change in pitch.
- (iv) Significant uncontrollable torque or speed fluctuation.

(b) *Centrifugal load tests.* It must be demonstrated that a propeller, accounting for environmental degradation expected in service, complies with paragraphs (b)(1), (b)(2) and (b)(3) of these special conditions without evidence of failure, malfunction, or permanent deformation that would result in a major or hazardous propeller effect. Environmental degradation may be

accounted for by adjustment of the loads during the tests.

(1) The hub, blade retention system, and counterweights must be tested for a period of one hour to a load equivalent to twice the maximum centrifugal load to which the propeller would be subjected during operation at the maximum rated rotational speed.

(2) If appropriate, blade features associated with transitions to the retention system (e.g., a composite blade bonded to a metallic retention) may be tested either during the test required by paragraph (b)(1) or in a separate component test.

(3) Components used with or attached to the propeller (e.g., spinners, de-icing equipment, and blade erosion shields) must be subjected to a load equivalent to 159 percent of the maximum centrifugal load to which the component would be subjected during operation at the maximum rated rotational speed. This must be performed by either:

(i) Testing at the required load for a period of 30 minutes; or

(ii) Analysis based on test.

(c) *Fatigue limits and evaluation.*

(1) Fatigue limits must be established by tests or analysis based on tests, for propeller:

- (i) Hubs;
- (ii) Blades; and
- (iii) Blade retention components.

(2) The fatigue limits must take the following into account:

(i) All known and reasonably foreseeable vibration and cyclic load patterns that are expected in service; and

(ii) Expected service deterioration, variations in material properties, manufacturing variations, and environmental effects.

(3) A fatigue evaluation of the propeller must be conducted to show that hazardous propeller effects due to fatigue will be avoided throughout the intended operational life of the propeller on either:

(i) The intended aircraft, by complying with §§ 23.907 or 25.907 as applicable; or

(ii) A typical aircraft.

(d) *Bird impact.* It must be demonstrated, by tests or analysis based on tests or experience on similar designs, that the propeller is capable of withstanding the impact of a four pound bird at the critical location(s) and critical flight condition(s) of the intended aircraft without causing a major or hazardous propeller effect.

(e) *Lightning strike.* It must be demonstrated, by tests or analysis based on tests or experience on similar designs, that the propeller is capable of

withstanding a lightning strike without causing a major or hazardous propeller effect.

Issued in Burlington, Massachusetts on September 17, 2001.

**Jay J. Pardee,**

*Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 01–24429 Filed 10–2–01; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2000–SW–37–AD; Amendment 39–12449; AD 2001–20–03]

**RIN 2120–AA64**

#### **Airworthiness Directives; Bell Helicopter Textron Canada Model 206L–4 Helicopters**

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

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for Bell Helicopter Textron Canada (BHTC) Model 206L–4 helicopters that requires installing a high altitude tail rotor static stop yield indicator (indicator) to allow operators to detect excessive bending loads sustained by the tail rotor yoke. A preflight check of the indicator is also required. This amendment is prompted by a determination that a tail rotor yoke with a high altitude rotor system is susceptible to a static and dynamic overload. Static overload could occur after the tail rotor yoke sustains an excessive bending load due to a strike from a ground vehicle. Dynamic overload could occur as a result of a hard landing. The actions specified by this AD are intended to prevent failure of the tail rotor yoke in flight and subsequent loss of control of the helicopter.

**DATES:** Effective November 7, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 7, 2001.

**ADDRESSES:** The service information referenced in this AD may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437–2862 or (800) 363–8023, fax (450) 433–0272. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or