

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Parts 21 and 29**

[Docket No. SW012; Special Condition No. 29-012-SC]

Special Conditions: ST 2017RC-R, Installation of Pratt & Whitney Canada PT6-67D on Global Helicopter Technology, Inc. (GHTI), Restricted Category Model UH-1H, TC R00002RC, With Full Authority Digital Engine Control (FADEC)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special condition; request for comments.

SUMMARY: This special condition is issued for Supplemental Type Certificate (STC), Project # ST2017RC-R, the installation of a Pratt and Whitney PT6-67D Turbine Engine on Global Helicopter Technology Inc. (GHTI), Restricted Category, U.S. Army military surplus helicopter, Model UH-1H, type certificated under TC R00002RC. The installation of the PT6-67D on the Restricted Category UH-1H will have a novel or unusual design feature associated with the installation of the Full Authority Digital Engine Control (FADEC). The applicable airworthiness regulations do not contain adequate or appropriate safety standards to protect systems that perform critical functions from the effects of a high-intensity radiated field (HIRF). This special condition contains the additional safety standards that the Administrator considers necessary to ensure that critical functions of systems will be maintained when exposed to HIRF.

DATES: The effective date of this special condition is January 8, 2003. Comments must be received on or before March 17, 2003.

ADDRESSES: Comments on this special condition may be mailed in duplicate to: Federal Aviation Administration (FAA), Office of the Regional Counsel, Attention: Rules Docket No. SW012, Fort Worth, Texas 76193-0007, or delivered in duplicate to the Office of the Regional Counsel at 2601 Meacham Blvd., Fort Worth, Texas 76137. Comments must be marked: Docket No. SW012. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 8:30 a.m. and 4 p.m. The Rules Docket for special conditions is maintained at the Federal Aviation Administration, Rotorcraft Directorate, 2601 Meacham Blvd., Room 448, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Bob McCallister, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110; telephone 817-222-5121, fax 817-222-5961.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because these procedures would significantly delay issuance of the approval design and thus delivery of the affected aircraft. In addition, the substance of this special condition has been subject to the public comment process in several prior instances with no substantive comments received. The FAA therefore finds that good cause exists for making this special condition effective upon issuance.

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, views, or data. Communications should identify the regulatory docket or special condition number and be submitted in duplicate to the address specified above. We will consider all comments we receive on or before the closing date for comments. We may change this special condition in light of the comments we receive. All comments received 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 rulemaking will be filed in the docket. If you want the FAA to acknowledge receipt of your mailed comments on this special condition, include a self-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On November 29, 2000, Global Helicopter Technology, Inc. (GHTI) applied for an STC for the installation of a Pratt & Whitney PT6-67D Turbine Engine on the GHTI, U.S. Army UH-1H, Restricted Category Helicopter, type certificated under Type Certificate R00002RC. The UH-1H Restricted Category helicopter is a utility/heavy lift helicopter with a two-bladed teetering main rotor system. It is to be powered by a single Pratt and Whitney PT6-67D engine that incorporates a full authority digital engine control (FADEC). The maximum gross weight of the aircraft is 9,500 pounds.

Type Certification Basis

Under the provisions of 14 CFR 21.101, GHTI must show that the Engine

Installation meets the applicable provisions of the regulations as listed below:

- 14 CFR part 29 as amended through and including Amendment 29-1, effective August 12, 1965.
- 14 CFR 29.1529, Instructions for Continued Airworthiness, Amendment Number 20, effective September 11, 1980.

In accordance with 14 CFR 36.1(a)(4), compliance with the noise requirements was not shown for the aircraft. Therefore, the engine installations under this supplemental type certificate are only eligible for external load operations excepted by 14 CFR 36.1(a)(4) and defined under section 133.1(b). Any alteration to the aircraft for Special Purpose not identified above will require further FAA approval and in addition, may require noise and/or flight testing.

In addition, the certification basis includes certain equivalent safety findings that are not relevant to this special condition.

If the Administrator finds that the applicable airworthiness regulations do not contain adequate or appropriate safety standards for this STC because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as appropriate, are defined in § 11.19 and issued in accordance with § 11.38 and become part of the STC certification basis in accordance with § 21.17(a)(2).

Special conditions are initially applicable to the model and/or modification for which they are issued. Should the type certificate or supplemental type certificate (STC) for that model or installation respectively, be amended later to include any other model that incorporates the same novel or unusual design feature, the special conditions would also apply to the other model or modification under the provisions of § 21.101(a)(1).

Novel or Unusual Design Features

The GHTI UH-1H Restricted Category Helicopter with a Pratt & Whitney PT6-67D engine installed will incorporate the following novel or unusual design features: Electrical, electronic, or a combination of electrical electronic (electrical/electronic) systems such as FADEC that will be performing functions critical to the continued safe flight and landing of the helicopter. FADEC is an electronic device that performs the functions of engine control during flight operations.