

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

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the GVI airplanes.

In lieu of compliance with § 25.349(a), Gulfstream must comply with the following special conditions.

The following conditions, speeds, and cockpit roll control motions (except as the motions may be limited by pilot effort) must be considered in combination with an airplane load factor of zero and of two-thirds of the positive maneuvering factor used in design. In determining the resulting control surface deflections, the torsional flexibility of the wing must be considered in accordance with § 25.301(b):

1. Conditions corresponding to steady rolling velocities must be investigated. In addition, conditions corresponding to maximum angular acceleration must be investigated for airplanes with engines or other weight concentrations outboard of the fuselage. For the angular acceleration conditions, zero rolling velocity may be assumed in the absence of a rational time history investigation of the maneuver.

2. At V_A , sudden movement of the cockpit roll control up to the limit is assumed. The position of the cockpit roll control must be maintained until a steady roll rate is achieved and then must be returned suddenly to the neutral position.

3. At V_C , the cockpit roll control must be moved suddenly and maintained so as to achieve a roll rate not less than that obtained in paragraph 2.

4. At V_D , the cockpit roll control must be moved suddenly and maintained so as to achieve a roll rate not less than one third of that obtained in paragraph 2.

Issued in Renton, Washington, on February 3, 2011.

Ali Bahrami,

*Manager, Transport Airplane Directorate,
Aircraft Certification Service.*

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 33

[Docket No. NE130; Notice No. 33-10-01-SC]

Special Conditions: Pratt and Whitney Canada Model PW210S Turboshaft Engine

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This action proposes special conditions for the Pratt and Whitney Canada (PWC) model PW210S turboshaft engine. This engine model will have a novel or unusual design feature associated with engine operation in auxiliary power unit (APU) mode. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the added safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: We must receive your comments by March 16, 2011.

ADDRESSES: You must mail two copies of your comments to: Federal Aviation Administration, Engine and Propeller Directorate, *Attn:* Marc Bouthillier, Rules Docket (ANE-111), Docket No. NE130, 12 New England Executive Park, Burlington, Massachusetts 01803-5299. You may deliver two copies to the Engine and Propeller Directorate at the above address. You must mark your comments: Docket No. NE130. You can inspect comments in the Rules Docket weekdays, except Federal holidays, between 7:30 am. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this proposed rule contact Marc Bouthillier, ANE-111, Engine and Propeller Directorate, Aircraft Certification Service, 12 New England Executive Park, Burlington, Massachusetts 01803-5299, telephone (781) 238-7120; facsimile (781) 238-7199; e-mail marc.bouthillier@faa.gov. For legal questions concerning this proposed rule contact Vincent Bennett, ANE-7 Engine and Propeller Directorate, Aircraft Certification Service, 12 New England Executive Park, Burlington, Massachusetts 01803-5299; telephone (781) 238-7044; facsimile (781) 238-7055; e-mail vincent.bennett@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel about these special conditions. You can inspect the docket before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 9 am. and 5 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive by the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive.

If you want us to let you know we received your comments on this proposal, send us a pre-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 December 5, 2005, PWC applied for a type certificate for the model PW210S turboshaft engine. The engine is a free turbine turboshaft designed for a transport category helicopter. This engine incorporates a two stage compressor driven by a single stage turbine and a two stage free power turbine driving a two stage reduction gearbox and main output shaft. The control system includes a dual channel digital electronic control. The engine will incorporate a novel or unusual design feature associated with engine operation in auxiliary power unit (APU) mode. The helicopter will incorporate a main rotor brake what will allow the engine main output shaft and power turbine to be brought to a stop and to remain stationary, while the gas generator portion of the engine continues to operate as an APU while on the ground.

The applicable airworthiness standards do not contain adequate or appropriate airworthiness standards to address this design feature.

These special conditions contain the additional airworthiness standards necessary to establish a level of safety equivalent to the level that would result

from compliance with the applicable standards of airworthiness in effect on the date of application.

Type Certification Basis

Under the provisions of 14 CFR 21.17, PWC must show that the model PW210S turboshaft engine meets the provisions of the applicable regulations in effect on the date of application. The application date is December 5, 2005, which corresponds to 14 CFR part 33 Amendment 20. However, PWC has elected to demonstrate compliance to later amendments of part 33 for this model. Therefore, the certification basis for the PW210S model turboshaft engine will be part 33, effective February 1, 1965, as amended by Amendments 33–1 through 33–24.

If the Administrator finds that the applicable airworthiness regulations in part 33, as amended, do not contain adequate or appropriate safety standards for the PWC model PW210S turboshaft engine, because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

The FAA issues special conditions, as defined by 14 CFR 11.19, in accordance with 14 CFR 11.38, which become part of the type certification basis in accordance with § 21.17(b)(2).

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 another related model that incorporates the same or similar novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same or similar novel or unusual design feature, the special conditions would also apply to the other model.

Novel or Unusual Design Features

The Pratt and Whitney Canada (PWC) model PW210S turboshaft engine will incorporate a novel or unusual design feature associated with engine operation in auxiliary power unit (APU) mode. Special conditions for APU mode are proposed to address the novel and unusual design feature. The special conditions are discussed below.

Discussion

The proposed special conditions are similar to those requirements that currently exist in 14 CFR part 33, § 33.96 Engine Tests in Auxiliary Power Unit (APU) Mode. However the current rule only applies to turboprop type engines, therefore special conditions are needed to apply appropriate requirements to turboshaft type engines.

Also, the type certification considerations for function and reliability are common between these two engine types in this regard, making requirements similar to current § 33.96 generally applicable to turboshaft engine types. Future rulemaking may occur to expand the applicability of § 33.96 to include turboshaft type engines.

Applicability

As discussed above, these special conditions are applicable to PWC model PW210S turboshaft engines. If Pratt and Whitney Canada applies later for a change to the type certificate to include another related model incorporating the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of engine. 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 engine.

List of Subjects in 14 CFR Part 33

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 Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for Pratt and Whitney Canada (PWC) model PW210S turboshaft engines.

1. PART 1 DEFINITION. Unless otherwise approved by the Administrator and documented in the appropriate manuals and certification documents, the following definition applies to this special condition: “Auxiliary Power Unit Mode” Engine operation with the main output shaft and power turbine locked and stationary, while the gas generator portion of the engine continues to operate, for the purpose of supplying the rotorcraft with electric/hydraulic/pneumatic power (as applicable) while on the ground.

2. PART 33 REQUIREMENTS:

(a) Ground locking: A total of 45 hours with the engine output shaft locked to simulate rotor brake engagement, in a manner which clearly demonstrates the complete engine’s ability to function without adverse affect while operating in the APU mode under the maximum conditions of

engine rotor speed, torque, temperature, air bleed and power extraction as specified by the applicant.

(b) Dynamic braking: A total of 400 application-release cycles of simulated brake engagements must be made in a manner which clearly demonstrates the complete engine’s ability to function without adverse affect under the maximum conditions of engine acceleration and deceleration rate, rotor speed, torque and temperature as specified by the applicant. The engine output shaft must be stopped prior to brake-release.

(c) One hundred engine starts and stops with the output shaft locked in a manner simulating rotor brake engagement.

(d) The tests required by paragraphs (a), (b) and (c) of this section must be performed on the same engine, but this engine need not be the same engine used for the tests required by § 33.87 of 14 CFR part 33.

(e) The tests required by paragraphs (a), (b) and (c) of this section must be followed by engine disassembly to the extent necessary to show that each engine part conforms to the type design and is eligible for incorporation into an engine for continued operation in accordance with information submitted in compliance with § 33.4, Instructions for Continued Airworthiness.

(f) Brake engagement and release: The effects on the engine of braking and releasing the output shaft, including partial or sudden events while the engine is running, must be determined.

Issued in Burlington, Massachusetts, on January 30, 2011.

Peter A. White,

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

[FR Doc. 2011–3068 Filed 2–11–11; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2010–1264; Airspace Docket No. 10–AWP–23]

Proposed Amendment of Class D and Class E Airspace; Livermore, CA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to amend Class E airspace at Livermore, CA, to accommodate aircraft using new Instrument Landing System (ILS)