SUMMARY: This action proposes special conditions for the Cirrus Design Corporation SF50 airplane. This airplane will have a novel or unusual design feature(s) associated with the complex design and performance features consistent with larger airplanes. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional 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 June 28, 2010.

ADDITIONAL INFORMATION:

FOR FURTHER INFORMATION CONTACT: J. Lowell Foster, Federal Aviation Administration, Small Airplane Directorate, Aircraft Certification Service, 901 Locust, Room 301, Kansas City, MO 64106; telephone (816) 329–4125; facsimile (816) 329–4090.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite interested persons to take submit such written data, views, or arguments as they desire. 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 may 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 7:30 a.m. and 4 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 wish to let you know we received your comments on these special conditions, 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 April 29, 2010, Cirrus Design Corporation applied for a type certificate for their new Model SF 50 “Vision” Jet. The SF50 is a low-wing, five-plus-two-place (2 children), single-engine turbofan-powered aircraft. It incorporates an Electronic Flight Information System (EFIS), pressurized cabin, retractable gear, and a V-tail. The turbofan engine is mounted on the upper fuselage/tail cone along the aircraft centerline. It is constructed largely of carbon and fiberglass composite materials. Like other Cirrus products, the SF50 includes a ballistically deployed airframe parachute.

The model SF50 has a maximum operating altitude of 28,000 feet, where it cruises at speeds up to 300 KTAS. Its V_{MACH} will not exceed 0.62 Mach. The maximum takeoff weight will be at or below 6000 pounds with a range at economy cruise of roughly 1000 nm. Cirrus intends for the model SF50 to be certified for single-pilot operations under 14 CFR part 91 and 14 CFR part 135 operating rules. The following operating conditions will be included:

- Day and Night VFR
- IFR
- Flight into Known Icing

Discussion

Before Amendment 3–4, Section 3.19 of Civil Air Regulation (CAR) part 3 required service testing of all airplanes type certificated on or after May 15, 1947. The purpose of the testing was to “ascertain whether there is reasonable assurance that the airplane, its components, and equipment are reliable, and function properly.” Amendment 3–4 to CAR part 3 became effective January 15, 1951, and deleted the service test requirements in Section 3.19 for airplanes of 6,000 pounds maximum weight or less. The introductory text published in Amendment 3–4 explained that most of the significant changes in the amendment stemmed from “the desire for simplification of the rules in this part with respect to the smaller airplanes, specifically those of 6,000 pounds maximum weight or less, which would be expected to be used mainly as personal airplanes.” The introductory material also stated the service test requirement was removed for airplanes...
of 6,000 pounds maximum weight or less because “experience seems to indicate that this rule imposes a burden upon the manufacturers not commensurate with the safety gained.” The requirement for Function and Reliability (F&R) testing, and the exception for airplanes of 6,000 pounds or less, is now found in 14 CFR part 21, section 21.35(b)(2).

The decision to exempt airplanes of 6,000 pounds maximum weight or less from F&R testing was based on the state of technology envisioned in 1951. At that time, airplanes of 6,000 pounds maximum weight or less were expected to be used mainly as personal airplanes. They used simple, “stand-alone” systems whose failure was more likely to be an inconvenience than an accident. The situation is different today. Technological advances allow airplanes weighing less than 6,000 pounds to be more complex and integrated than some transports. New part 23 airplanes can incorporate sophisticated equipment not previously used in a part 23 aircraft. Additionally, part 23 airplanes are being used for business and commercial transportation. They should no longer be envisioned mainly as personal airplanes. Therefore, a special condition to require F&R testing for airplanes weighing 6,000 pounds or less is needed where the level of sophistication is beyond evaluating failures by inspection.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Cirrus Design Corporation must show that the SF50 meets the applicable provisions of part 23, as amended by Amendment 23–1 through 23–59 thereto.

If the Administrator finds that the applicable airworthiness regulations (i.e., part 23) do not contain adequate or appropriate safety standards for the SF50 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the SF50 must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36; and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the “Noise Control Act of 1972.”

The FAA issues special conditions, as defined in § 11.19, under § 11.38 and they become part of the type certification basis under § 21.17(a)(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 any other model that incorporates the same novel or unusual design feature, the special conditions would also apply to the other model.

Novel or Unusual Design Features

The SF50 will incorporate the following novel or unusual design features: Complex design and performance features consistent with technologically advanced aircraft over 6,000 pounds.

Applicability

As discussed above, these special conditions are applicable to the SF50. Should Cirrus Design Corporation apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on model SF50 airplanes. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

The authority citation for these special conditions is as follows:


The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following Special conditions as part of the type certification basis for Cirrus Design Corporation model SF50 airplanes.

1. Function and Reliability Testing

Flight tests: In place of 14 CFR part 21.35(b)(2), the following applies:

(a) Upon showing compliance with paragraph (a) of 14 CFR part 21.35(a), the applicant must make all flight tests that the Administrator finds necessary—

(2) For aircraft to be certified under this subchapter to determine whether there is reasonable assurance that the aircraft, its components, and its equipment are reliable and function properly.

Additionally the provisions of 14 CFR part 21.35(c) and 21.35(f) then apply:

(c) Each applicant must, if practicable, make the tests described in paragraph (b)(2) of this section upon the aircraft that was used to show compliance with—

(1) Paragraph (b)(1) of this section; and

(2) —.

(f) The flight tests prescribed in paragraph (b)(2) of this section must include—

(1) For aircraft incorporating turbine engines of a type not previously used in a type certificated aircraft, at least 300 hours of operation with a full complement of engines that conform to a type certificate; and

(2) For all other aircraft, at least 150 hours of operation.

Issued in Kansas City, Missouri on May 18, 2010.

John Colomy, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[Docket No. FAA–2010–0387; Airspace Docket No. 10–ANM–1]

Proposed Revocation of Class E Airspace; Eastsound, WA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to remove Class E surface airspace at Orcas Island Airport, Eastsound, WA. Controlled airspace already exists in the Eastsound, WA, area to accommodate the safety and management of aircraft operations at Orcas Island Airport.

DATES: Comments must be received on or before July 12, 2010.


FOR FURTHER INFORMATION CONTACT:

Elidon Taylor, Federal Aviation Administration, Operations Support Group, Western Service Center, 1601 Lind Avenue, SW, Renton, WA 98057; telephone (425) 203–4537.