

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
KANSAS CITY, MO 64106

In the matter of the petition of

**CIRRUS DESIGN
CORPORATION
(CIRRUS DESIGN)**

for an exemption from § 23.1419(a)
of Title 14, Code of
Federal Regulations

Regulatory Docket No. FAA-2009-1171

GRANT OF EXEMPTION

By letter dated September 14, 2009, Mr. Christopher Mitchell, Director, Airworthiness and Engineering Services, Cirrus Design Corporation (Cirrus Design), 4515 Taylor Circle, Duluth, Minnesota, 55811 petitioned the Federal Aviation Administration (FAA) on behalf of Cirrus Design for an exemption from § 23.1419(a) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would allow a stall speed above 61 knots in the landing configuration (V_{SO}), in icing conditions. V_{SO} means the stalling speed or the minimum steady flight speed obtained in a specific configuration, as defined in 14 CFR part 1, § 1.2.

The petitioner requests relief from the following regulation:

Section 23.1419(a) prescribes that airplane performance, controllability, maneuverability, and stability must not be less than that required in part 23, subpart B, in the icing conditions defined in part 25, Appendix C. Section 23.49 is included in subpart B performance, and § 23.49(c) requires V_{SO} to be 61 knots or less for the Cirrus Design model SR22T.

The petitioner supports its request with the following information:

The petitioner states that compensating features in support of the requested exemption are listed in FAA Advisory Circular (AC) 23.1419-2D, paragraph 13.a.(1)(c). Some of the compensating features include the following:

1. The airplane with no ice accretions meets the 61 knot stall speed requirement of § 23.49(c).
2. The airplane with critical ice accretions (as defined in paragraph 13b of AC 23.1419-2D) complies with the stall warning requirement of § 23.207.
3. The Airplane Flight Manual performance data in icing conditions reflects the higher stall and operating speeds.
4. The airplane with critical ice accretions has acceptable stall characteristics and is safely controllable with normal piloting skills.

The petitioner states that granting the exemption would benefit the public by increasing the safety of the airplane, since the model SR22T is primarily used for cross-country travel and has a high probability of encountering inclement weather, including icing conditions. Granting the exemption would allow the airplane to be certified for flight into known icing with a system that has increased redundancy and capability compared to the system currently certified. The utility of the airplane in icing would be reduced if the exemption were not granted because the payload would be reduced by approximately 302 pounds, or about 33 percent. The petitioner states safety is not adversely affected because the model SR22T has all the compensating features listed in the AC.

The Cirrus SR22T is a derivative of the Cirrus SR22. A similar exemption request was granted for the Cirrus SR22 (Exemption No. 9849) in 2009. A summary of the SR22 exemption petition was published in the FEDERAL REGISTER on February 17, 2009 (74 FR 7534). Also, the Diamond DA-42 was granted a similar exemption (Exemption No. 9623) in 2006. No comments were received for either exemption request. An Equivalent Level of Safety (No. ACE-02-10) was granted to the Extra 400 in 2002 prior to the FAA position that an exemption, not an ELOS, is appropriate. Since the exemption request on the model SR22T is the same as previous requests, and the model SR22T incorporates the compensating features listed in Advisory Circular 23.1410-2D, and granting the SR22T petition did not set a precedent, we determined that we should not delay action on it by publishing it for public comment. Therefore, we waived the requirement for FEDERAL REGISTER publication.

The FAA's analysis is as follows:

The FAA finds that the model SR22T, as modified by the type design change defined by FAA project AT6893CH-A, incorporates the compensating features listed in Advisory Circular 23.1419-2D, paragraph 13.a.(1)(c).

The FAA's Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator, Cirrus Design Corporation is granted an exemption from 14 CFR § 23.1419(a) to the extent necessary to allow Cirrus Design to certificate the ice protection system on the model SR22T, subject to the conditions and limitations listed below.

Conditions and Limitations

None.

Issued in Kansas City, MO on January 13, 2010.

s/

Kim Smith
Manager, Small Airplane Directorate
Aircraft Certification Service

Project No.:

Project Officer: Paul Pellicano
ACE-111:PPellicano:12/15/09:Doc#FAA-2009-1171

Mr. Christopher Mitchell
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