

Exemption No. 10016

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20591

In the matter of the petition of

CUB CRAFTERS, INC

for an exemption from § 23.562
of Title 14, Code of
Federal Regulations

Regulatory Docket No. FAA-2009-1161

GRANT OF EXEMPTION

By letter dated November 13, 2009, Mr. Eric Leaver, Program Manager/DER, Cub Crafters, Inc., 1918 S. 16th Avenue, Yakima, WA 98903 petitioned the Federal Aviation Administration (FAA) on behalf of Cub Crafters, Inc. for an exemption from § 23.562 of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would allow for type certification of the Model CC18-181 aircraft with seats that have not shown compliance with the emergency landing dynamic conditions. Cub Crafters, Inc. proposes the use of static tests on the seats.

The petitioner requests relief from the following regulation[s]:

Section 23.562 prescribes, in pertinent part, that each seat/restraint for use in a normal, utility, or acrobatic category airplane successfully complete dynamic seat tests, or otherwise demonstrate each seat/restraint system by rational analysis supported by dynamic tests, under the test conditions named in § 23.562, paragraphs (b)(1) and (b)(2).

The petitioner supports its request with the following information:

The petitioner states Cub Crafters proposes the use of static tests on the seat and harnesses and to equip the aircraft with a four-point harness by using a Technical Standards Order (TSO), and that the low stall speed and low head impact is also justification for the exemption.

A summary of the petition was published in the Federal Register on January 22, 2010 (75 FR 3783). No comments were received.

The FAA's analysis is as follows:

To obtain this exemption, the Petitioner must show, as required by § 11.81, paragraphs (d) and (e), respectively, that (1) granting the request is in the public interest and (2) the exemption will not adversely affect safety, or that a level of safety will be provided that is equal to that provided by the rules from which exemption is sought. The FAA has previously granted similar exemptions on other types with stall speeds of 45 knots or less. The other exemptions also provided similar types of safety-enhancing, mitigating features.

The FAA has accepted the information contained in the Petitioner's request for exemption, and agrees with the petitioner's arguments for no adverse safety effect:

- A low stall speed of 45 knots or less resulting in lower impact kinetic energy than an aircraft with a 61 knot stall speed;
- A seating system that is designed to the item of mass longitudinal load factor for a 170 pound occupant, which exceeds current part 23 requirements;
- The use of a four-point harness;
- A strike free head flail envelope;
- A maximum occupant count of two.

The FAA's Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest and will not adversely affect safety. Therefore, under the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator (14 CFR 11.61), Cub Crafters, Inc. is granted an exemption from § 23.562 of the Federal Aviation regulations to the extent necessary to allow type certification of the Model CC18-181 airplane without an exact showing of compliance with requirements of § 23.562. For the CC18-181, this exemption is subject to the following conditions and limitations:

Conditions and Limitations

1. Cub Crafters Model CC18-181 must maintain a stall speed of no more than 45 knots when in the landing configuration.
2. This exemption is limited to the Cub Crafters Model CC 18-181 as equipped with seats, restraints, attachments and other alterations, as described in the petitioner's request for exemption. Significant changes to any of these elements may require additional testing and substantiation.

Issued in Kansas City, Missouri on March 9, 2010.



Sandra J. Campbell
Acting Manager, Small Airplane Directorate
Aircraft Certification Service