

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

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In the matter of the petition of *
*
AERO TWIN, INC. *
*
for an exemption from § 23.3(a) *
and Part 135, Appendix A, *
of the Federal Aviation Regulations *

Regulatory Docket No. 090CE

DENIAL OF EXEMPTION

By letter dated December 26, 1990, Mr. John Kuest, Aerospace Engineer, Aero Twin, Inc., 2404 Merrill Field Drive, Anchorage, Alaska 99501, petitioned for an exemption from compliance with § 23.3(a) and Part 135, Appendix A, of the Federal Aviation Regulations (FAR) to permit the modification of the single-engine Cessna Model 208B from a nine passenger to a thirteen passenger airplane by the use of Cessna Modification Kit No. CS8-014.

The Petitioner requires relief from the following regulations:

Section 23.3(a) requires, in part, that an airplane type certificated to the normal category will be limited to a seating configuration of nine or less, excluding pilots seats. Part 135, Appendix A, states the one-engine inoperative requirements for Air Taxi and Commercial Operators operating an airplane with 10 or more passenger seats.

The Petitioner's supports its request with the following information:

The petitioner contends that by granting an exemption, the public interest will be served. The increase in the number of seats, as allowed in numerous foreign countries, permits the aircraft to be operated at a significantly lower cost per passenger. This lowers passenger expenses, thus decreasing fares. The increased passenger capacity decreases the number of aircraft or flights required to service a given number of passengers. Therefore, it lowers net fuel consumption, conserves the environment, and decreases air traffic controller workload.

The petitioner further states the following reasons why the exemption would not adversely affect safety or that action taken would provide the level of safety equal to that provided by the rule from which the exemption is sought.

- a. "This change does not effect the center of gravity range of the aircraft."
- b. "This change will not be approved for flight into IFR conditions."
- c. "This change does not increase or alter the certified gross takeoff weight of the aircraft."
- d. "This change does not alter anything relating to the propulsive or propeller system."
- e. "This change does not require airframe modification."
- f. "The change uses Cessna Aircraft Corporation manufactured FAA certified seats, identical to the Cessna installation which is already in use in foreign countries."

Comments on published petition summary:

A summary of this petition was published in the FEDERAL REGISTER for public comment on February 6, 1991 (56 FR 4895). The comment period closed February 26, 1991. No comments were received.

The Federal Aviation Administration's (FAA) analysis is as follows:

To obtain the exemption, the petitioner must show, as required by § 11.25(b)(5), that: (1) granting the request is in the public interest, and (2) the exemption would not adversely affect safety, or that a level of safety will be provided that is equal to that provided by the rule from which the exemption is sought.

The petitioner claims that public interest will be served if the exemption is granted and yet little supportive evidence or technical data has been submitted to support this claim. The contention is that, by increasing the number of passenger seats from 9 to 13, it will significantly lower costs per passenger, passenger expenses and fares. This will decrease: the number of aircraft or flights required to service a given number of passengers, net fuel consumption, and air traffic controller workload and, therefore, conserve the environment. These claims are not supported by the data furnished in the request for exemption.

The petitioner further contends that safety will not be adversely affected and supports this claim by stating that the airplanes

C.G. range, certificated gross take-off weight, airframe, and propulsive system will remain unchanged after the modification. The FAA considers these conditions as being unique to the certification of the airplane in the normal category. The petitioner, however, does not show a level of safety will be provided equal to that of the applicable sections of the FAR. The existing Part 23 regulations require higher levels of safety, in terms of crashworthiness, number of exits, exit markings, etc., for airplanes certificated to carry more than 9 passengers.

The petitioner further requests relief from the one-engine inoperative requirements of Part 135, Appendix A, to the extent of becoming one-engine operative requirements, for the petitioners particular application. The petitioner, however, fails to offer any reason or argument why the petitioner is unique from the same general class of operator who is also subject to the same regulations.

In 1966, the FAA established an air taxi airworthiness program with the objective to provide a transition for air taxi airplanes from the small airplane requirements of Part 23 to the transport category airplane requirements of Part 25. That program resulted in the issuance of Special Federal Aviation Regulation No. 23 (34 FR 189, January 7, 1969). An additional step in the upgrading of airworthiness standards for reciprocating-engine and turbopropeller-powered small airplanes used in Part 135 operations was the adoption of Appendix A to Part 135 (35 FR 10098, July 19, 1970), which set forth additional airworthiness standards for airplanes with 10 seats or more.

In developing the additional performance requirements of Appendix A, the FAA drew upon the experience gained in the development of the airworthiness standards for transport category airplanes and the many years of operation of such airplanes. As sufficient exposure was accumulated with the affected airplanes, the need for a higher performance level for takeoff and landing would be demonstrated, as it was for transport category airplanes. In developing this rule, the FAA also considered the operating experience of certificated air taxi airplanes at that time. A review of the accident record with small multiengine air taxi airplanes revealed that there were 13 accidents in the 5 year period from the beginning of 1964 through the end of 1968 in which engine failures occurred in flight during takeoff. There were 6 injuries and 32 fatalities in those 13 accidents. During that same period, there were no accidents in transport category airplanes in air carrier operations in which engine failure occurred in flight during takeoff. The FAA, therefore, believed that the safety record of the transport category airplanes was due, to a large extent, to airplane performance requirements that provided continued airworthiness ability after the failure of an engine.

On July 7, 1970, the FAA issued Notice No. 70-25 (35 FR 10911) proposing to upgrade the level of airworthiness of small airplanes intended for operations under Part 135. In response to the comments received to the notice and after further consideration, the FAA determined to limit the future applicability of Part 23 to small normal, utility, and acrobatic category airplanes with a seating configuration (excluding pilot seats) of 9 or less. This action was based on a trend toward an increase in the number and types of airplanes designed to carry relatively large numbers of passengers. At that time, the FAA considered that continued applicability of Part 23 to small airplanes designed to carry 10 or more passengers was no longer in the interest of safety. Thus, Amendment 23-10, which limited the number of seats (excluding pilots' seats) to 9 or less, became effective March 13, 1971, and was applicable to normal, utility, and acrobatic category airplanes.

On November 15, 1983, the FAA issued Notice No. 83-17 (48 FR 52010). This notice proposed to amend, in part, the regulations of Part 23 to adopt certification procedures and airworthiness regulations for an additional category of airplane designated as the Commuter Category. It was at this time that the current § 23.3 was proposed, along with the introduction of a class of airplanes having a maximum certificated takeoff weight of 19,000 lbs. or less and having a seating capacity of up to and including 19 seats (excluding pilots' seats).

At this time, it was recommended that § 23.3(d) be changed to add single-engine, turbopropeller-powered airplanes to the commuter category, the contention being that turbopropeller-engines have a record of increased reliability over reciprocating engines. The FAA did not agree with this recommendation because the prospect of a single-engine failure does not provide the level of safety expected from the airworthiness standards for commuter category airplanes, which must have the ability for continued safe flight and landing after probable failures, including the failure of an engine. Notice No. 83-17 was adopted by Amendment 23-34 on January 8, 1987.

In consideration of the foregoing, I find that a grant of exemption, as requested, is not in the public interest nor maintains the level of safety required by the rule from which the exemption is sought. Therefore, pursuant to the authority of Sections 313(a) and 601(c) of the Federal Aviation Act of 1958, as amended, delegated to me by the Administrator (14 CFR 11.53), the petition of Aero Twin, Inc. for an exemption from § 23.3(a) and the one-engine inoperative requirements of Part 135, Appendix A, of the Federal Aviation Regulations is hereby denied.

Issued in Kansas City, Missouri on April 16, 1991.


Don C. Jacobsen
Acting Manager
Small Airplane Directorate