

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98057-3356

In the matter of the petition of

MAV Aircraft Services

for an exemption from § 25.813(e) of Title 14,
Code of Federal Regulations

Regulatory Docket No. FAA-2006-26149

GRANT OF EXEMPTION

By letter dated October 18, 2006, Mr. Rocky Howard, Agent for MAV Aircraft Services, 4601 North Main Street, Hanger 39 North, Fort Worth, Texas 76106, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of § 25.813(e) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would permit relief from the requirement that prohibits the installation of interior doors between passenger compartments. The proposed exemption is specifically for the installation of an executive interior on a Boeing Model 767-200 airplane, serial number 23402, that has been designated as “private, not-for-hire.”

The petitioner requests relief from the following regulations:

Section 25.813(e), Amendment 25-46 - Prohibits installation of interior doors between passenger compartments.

The petitioner's supportive information is as follows:

Background

Title 14 CFR part 25 governs design certification of transport category airplanes. The primary intent of these regulations is to be certain that airplane manufacturers provide the appropriate design features to meet the standards necessary to protect the traveling public. However, these regulations are intended to regulate the certification of commercial airplanes, which are for hire to the general public. When a transport category airplane is operated under 14 CFR part 91 or part 125, and not operated for hire or offered for common carriage, a portion of the part 25 rules have acceptance criteria that are not compatible with the type of operations and the intended use of this airplane.

The FAA recognizes these differences by the issuance of Exemption numbers 6820 and 6820A that apply to “private use, not-for-hire” operations under 14 CFR part 91 and part 125.

Occupant Safety Considerations

The risk for occupants due to the use of doors between passenger compartments should be considered acceptable for the following reasons:

- The doors will be frangible,
- There will be a signal to the flightcrew when the doors are closed. The Airplane Flight Manuals will provide procedures and limitations to ensure that the doors are in the proper position for takeoff and landing,
- The doors will have dual means to retain them in the open position, each of which will be capable of withstanding the inertia loads specified in 14 CFR 25.561,
- All pocket doors are installed across a longitudinal aisle and translate laterally to open and close,
- The airplane will be operated under 14 CFR part 125 and will not be operated for hire or offered for common carriage.

Public Interest

In its list of reasons why this petition is in the public interest, MAV Aircraft Services cited the economic benefits to the country in being better able to compete in the global market, increasing profitability of the manufacturing and supporting companies, providing stable employment, which in turn generates tax revenue, enabling investment in research and development, efficiently and safely carry of Head of State and executives, and increasing sales to foreign clients, thus improving the balance of trade. In addition, the petitioner says that the smaller number of passengers and the familiarity of the flight and cabin crews with this specific airplane and its interior ensure that there is no degradation of safety.

MAV Aircraft Services’ complete petition for exemption is available on the Department of Transportation’s docket website. Go to <http://dms.dot.gov>. The docket number is FAA-2006-26149. The petitioner’s complete supportive information is contained in its petition.

Public Comment

A summary of this petition was not published in the Federal Register. The nature of this exemption is effectively identical to those of previous petitions for which there were no public comments received.

The FAA's analysis/summary is as follows:

The FAA considers the petitioner's proposal to be in the public interest for the same reasons as those previously stated by the petitioner.

As more and more transport category airplanes have been configured (or re-configured) for "private, not-for-hire" use, the FAA has given considerable attention to the issue of appropriate regulation of such airplanes. Some of the current regulations governing design certification of transport category airplanes are not compatible with private, not-for-hire use of such airplanes. Given this situation, the FAA has received a number of petitions for exemption from certain regulations. The FAA has granted such exemptions when it finds that to do so is in the public interest and does not adversely affect the level of safety provided by the regulations. In the future, the FAA intends to propose regulations governing transport category airplanes in private use, obviating the need for case-by-case review of individual petitions for exemption.

The placement of interior doors is clearly quite significant to the owner/operator of the airplane. The flexibility to partition the airplane into individual rooms, such as private meeting rooms or bedrooms, is paramount to an acceptable interior. The availability of private meeting rooms and bedrooms is essential. The FAA acknowledges the desirability of these features from the operator's point of view.

When the regulations pertaining to interior doors were adopted, they did not necessarily consider "rooms." They considered two possible types of interior doors in a passenger compartment. The first type is an interior door between passenger compartments. The second type is an interior door between the exit and the passenger compartment.

Until recently, only the first type of door was prohibited by § 25.813(e). However, part 25, as amended by Amendment 25-116, prohibits interior doors between the exit and the passenger compartment. In addition, Amendment 121-306 prohibits these doors in airplanes manufactured after November 27, 2006, operated under 14 CFR part 121. Amendments 25-116 and 121-306, titled "Miscellaneous Cabin Safety Changes," were published in the Federal Register on October 27, 2004.

In terms of airplanes configured for "private, not-for-hire" use, there are four different categories of doors in the passenger cabins.

1. Category 1 is a door in a room and the room is less than the full width of the airplane. There will be an aisle on the outside of the room. This type of room may be occupied

during takeoff and landing, and only the occupants of the room must use the door to reach an exit.

2. Category 2 is a door in a room and is the same as Category 1 except there is a single emergency exit or pair of emergency exits within the room.
3. Category 3 is a door or doors in a compartment and the compartment is the full width of the airplane. There are passengers seated on both sides of the door(s) and the main aisle leads out of or passes through the compartment. The compartment does not have any emergency exits. This type of compartment may be occupied during takeoff and landing.
4. Category 4 is a door in a room and the room is the full width of the airplane. Passengers are seated on both sides of the door, and there is a pair of emergency exits at one end. This type of room may be occupied during takeoff and landing.

After considerable deliberation, the FAA has concluded that, in regard to the installation of interior doors between passenger compartments, not all interior doors are equivalent. With respect to such interior doors, the FAA has determined that the following requirements will produce an adequate level of safety:

1. In order to maximize the level of safety, doors in Category 2, 3, or 4 installed across the main cabin aisle must open and close in a transverse direction. That is, the direction of motion of the door must be at a right angle to the longitudinal axis of the airplane. A “pocket door” is one example of such a design. This will tend to minimize the chance that the inertia forces of an accident could force the door closed.
2. Redundant means are necessary to latch doors open for takeoff and landing. Each latching means must have the capability of retaining the door in the takeoff and landing position under the inertia forces of § 25.561.
3. Each interior door must be frangible, in the event that it is jammed in the closed position in flight or during taxi, takeoff, or landing. Frangibility is intended to ensure that if a door is jammed closed occupants can escape in either direction and emergency equipment can be moved. Frangibility may be demonstrated in either of the following ways:
 - A 5th percentile female can break through the door, creating a large enough opening that a 95th percentile (or larger) male can pass through. (See Advisory Circular 25-17, “Transport Airplane Cabin Interiors Crashworthiness Handbook,” paragraph 43b(2)).
 - A 5th percentile female can break a hinge on the door or a hinge on a smaller door within the door such that the door can swing, so as to allow a 95th (or larger) percentile male to pass through the opening with the door swung open. This evaluation must be made with any cabin furnishing or equipment that could limit

the swing arc of the door installed and then placed in the most adverse position. In using this approach, one must consider the possibility that the door is physically jammed in the closed position by distortion of the fuselage or furnishings. This possibility must be considered even if the door normally translates into the open and closed positions.

4. Doors which fall into Category 1 must be in the open position during taxi, takeoff and landing only when the room is occupied.
5. Doors which fall into Categories 2, 3, or 4 must be in the open position during taxi, takeoff and landing, regardless of occupancy.
6. With respect to the possibility that a door will remain closed when it should not be, the FAA has determined that a higher level of awareness is required to address this issue. Due to the relative complexity of the cabin interior, the FAA has determined that inspection by flight attendants prior to takeoff and landing is insufficient to verify that interior doors are in the proper position. Consequently, some type of remote indication is considered necessary. The petitioner's proposal to provide remote indication to the flightcrew is considered adequate.

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, MAV Aircraft Services, is hereby granted an exemption from 14 CFR § 25.813(e), Amendment 25-46. The petition is granted to the extent necessary to allow MAV Aircraft Services, to install an executive interior on a "private, not-for-hire" Boeing Model 767-200 airplane, serial number 23402. Specifically, the exemption allows relief from the requirement for interior doors to be installed between passenger compartments. This exemption is subject to the following conditions. Provisions 1 and 5 must be documented as operating limitations in the limitations section of the Airplane Flight Manual.

1. The airplane is not operated for hire or offered for common carriage. This provision does not preclude the operator from receiving remuneration to the extent consistent with 14 CFR parts 125 and 91, subpart F, as applicable.
2. Each door between passenger compartments must be frangible.
3. Doors that fall into Categories 1 and 3 must be in the open position during taxi, takeoff and landing only when the room is occupied or when passengers must pass through the room to reach an emergency exit.
4. Doors that fall into Categories 2 or 4 must be in the open position during taxi, takeoff and landing, regardless of occupancy.
5. Appropriate procedures and means must be established to signal the flightcrew that any door between passenger compartments is closed and to prohibit takeoff or landing when a door between passenger compartments is not in the proper position.

6. Doors between passenger compartments must have dual means to retain them in the open position, each of which means must be capable of withstanding the inertia loads specified in § 25.561.
7. Doors in Categories 2, 3, or 4, which are installed across a longitudinal aisle, must translate laterally to open and close.

Issued in Renton Washington, on February 7, 2007.

/s/

Ali Bahrami

Manager, Transport Airplane Directorate
Aircraft Certification Service