

**Exemption No. 9506**

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

In the matter of the petition of

**DASSAULT AVIATION**

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

**Regulatory Docket No. FAA-2007-27848**

**GRANT OF EXEMPTION**

By letter dated March 13, 2007, Mr. G. Garrouste, Director of Certification, DASSAULT AVIATION, 78, quai Marcel Dassault, 92214 St Cloud Cédex - France, 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 on DASSAULT AVIATION Falcon 7X airplanes that have been designated as not operated for hire or offered for common carriage (commonly referred to as “private use”).

**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:**

On behalf of Falcon 7X owners/operators, DASSAULT AVIATION petitions for an exemption from 14 CFR 25.813(e) to allow the installation of a latchable sliding door which can be stored in a cabin partition during takeoffs, landings and emergency conditions. When latched the door permits totally free access to the cabin aisle and emergency exits.

DASSAULT AVIATION is proposing alternative design requirements to provide a level of safety appropriate to the operation of such aircraft which are equipped with cabin partitions with doors. DASSAULT AVIATION recognizes that previous exemptions

issued by the FAA permit installation of doors between passenger compartments provided that certain limitations are met on those aircraft.

## **Background**

The Falcon 7X is designed to meet the requirements of 14 CFR part 25 for Transport Category aircraft. These rules basically address transport category airplanes used for the carriage of fare paying passengers from the general public in aircraft with a large passenger seating capacity (up to 555 passengers). In contrast, the Falcon 7X will be type certified for a maximum of 19 passengers (average capacity of 12).

Business aircraft generally carry passengers who are used to traveling in smaller aircraft. Also, unlike a large airliner, the crew of a business aircraft have day-to-day contact with their passengers, thus simplifying and reinforcing communication about safety concerns.

Additionally, the fact that these aircraft are generally operated by a limited number of crewmembers who are very familiar with the specific aircraft involved further enhances the safety environment. Therefore, these factors provide a level of safety that is not easily achieved in commercial carrier aircraft. In order to maintain a high level of safety, we have incorporated mechanical features in our cabin door design which will enhance the safety of the Falcon 7X aircraft equipped with a partition and door dividing the passenger seating area.

Considering latest grant of exemptions dealing with § 25.813(e), DASSAULT AVIATION understands that the notification “each passenger must be informed that the airplane does not comply with occupant safety requirements mandated for the airplane type in general” has become unnecessary in accordance with FAA exemptions No. °8123 and 8199.

## **Description of the partition and door**

1. The cabin of the Falcon 7X is approximately 7 feet wide (similarity with Mystere Falcon 900 /Falcon 900EX). Thus, some customers request dividing the cabin full width laterally to produce a private area because a side corridor is impractical. The doors to be installed would be sliding pocket doors retracting into the partition on one side of the aircraft, and would be frangible.
2. Only one partition of the passenger seating area with a door installed would be permitted. The proposed door would have a placard requiring it to be open for take-off and landing. Any other partitions of the passenger area would be closed with a curtain.
3. The door would also be equipped with redundant means of locking it in the open position, such that the probability of unlocking due to distortion of the fuselage in an emergency landing would be minimized. Either means will be capable of supporting the inertia loads specified in § 25.561.

4. By similarity to the lavatory-door, the door between passenger compartments will allow persons on either side of the door to unlock or unlatch the door without the use of tools (regardless of where it is located in relation to the emergency exits).

5. Furthermore, lighted signs will be installed on the forward and aft face of the partition stating that the door must be open for takeoff and landing. An amber light will be installed in the cockpit. The lighted signs and warning will be controlled by the cockpit “No Smoking” switch and will be on whenever the “No Smoking” signs are on and the door is closed.

### **Public Interest**

DASSAULT AVIATION believes that the installation of the combination latchable sliding door and cabin partition is in the public's best interest. It will permit the conduct of important business meetings, which because of their sensitivity, require an atmosphere of complete privacy.

It is a well established fact that an enormous amount of commercial activity occurs on board the United States business aviation fleet. Such commercial activity, including private business meetings where important commercial decisions are made, are vital to maintaining the competitiveness and overall strength of the U.S. economy (*Business Aircraft Utilization Strategy - NBAA*).

The granting of this exemption will permit the most efficient use of the aircraft cabin for business meetings and other commercial activities. Further, the granting of the petition will allow better and more comfortable rest area accommodations for busy executives and physically challenged passengers. In addition, note that sick or infirmed passengers could be more comfortably transported with the divided cabin configuration.

According to the FAA web site, other business use jets have received an exemption from § 25.813(e). For example, BD700-IA10 reference FAA Docket 29819, and other exemptions to models with larger passenger capacity and more complicated floor plans than the DASSAULT Falcon 7X. Granting DASSAULT AVIATION’s petition for exemption from § 25.813(e) would give DASSAULT AVIATION and its subsidiary DASSAULT Falcon Jet the same advantage in the competitive aviation marketplace for executive aircraft as other aircraft manufacturers.

A grant of exemption from § 25.813(e) would continue to keep workforce employed. We have almost 2000 employees in Little Rock, Arkansas, and Teterboro, New Jersey. In addition, DASSAULT AVIATION would continue purchasing from the hundred of vendors across the country who supply parts and labor in connection with the sales of our aircraft.

### **Reasons why granting the exemption will not adversely affect safety**

The effect of the safety features described above will ensure that there is always a clear path through the partition to an emergency exit. The frangibility feature will be tested using a 5th percentile female, and the resulting aperture demonstrated to be large enough to allow for a 95th percentile male to escape.

Because the basic issues concerning a passenger finding and reaching an exit in an emergency are addressed by the above features as well as the previously described safety parameters, it is our position that the exemption as requested would provide a level of safety for the passengers in a Falcon 7X which is equivalent to that required for commercial carrier aircraft.

For these reasons, we believe the exemption requested is clearly warranted.

### **Operation outside the United States**

Considering the multitude of countries in which Falcon 7X should be will be sold and operated, it is very likely that this exemption will be recognized by some other countries that usually agree with the FAA position.

### **Public interest**

The FAA acknowledged that while a grant of exemption is clearly in the interest of the segment of the public for which it is requested, the FAA agrees that the public at large has the potential to benefit by granting increased flexibility to the manufacture and modification of the Dassault Falcon 7X.

DASSAULT AVIATION's 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-2007-27848.

### **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:**

As more and more transport category airplanes have been configured (or re-configured) for private 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 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. We recently published a Notice of proposed rulemaking, Notice No. 07-13, Special Requirements for Private Use Transport Category Airplanes (72 FR 38732, July 13, 2007), which, if promulgated, would obviate the need for case-by-case review of individual petitions for exemption.

The FAA considers the petitioner's proposal to be in the public interest. The use of doors to create separate "rooms" within the passenger cabin allows sensitive and important meetings to be conducted during air travel in a manner that would not be possible without the placement of doors between passenger areas. Such rooms allow efficient and safe carriage of executives in an environment that would not be possible otherwise. In addition, the smaller number of passengers and the familiarity of the flight and cabin crews with this airplane and its interior ensure that there is an adequate level of safety. For these reasons, there is considerable demand for this configuration of the passenger cabin for private use airplanes. 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 an exit and the passenger compartment.

Until recently, only the first type of door was prohibited (reference § 25.813(e)). However, part 25, as amended by Amendment 25-116, now prohibits interior doors between an exit and the passenger compartment. In addition, Amendment 121-306 prohibits these doors in airplanes operated under 14 CFR part 121 that were manufactured after November 27, 2006. Amendments 25-116 and 121-306, titled "Miscellaneous Cabin Safety Changes," were published in the Federal Register on October 27, 2004 (69 FR 62778).

In terms of airplanes configured for private use, there are four different categories of doors in the passenger cabins.

**Category 1** — A door in a room that 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.

**Category 2** — A door in a room less than the full width of the airplane and the same as a Category 1 door except there is a single emergency exit or pair of emergency exits within the room.

**Category 3** — A door or doors in a room that 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 room. The room does not have any emergency exits. This type of room may be occupied during takeoff and landing.

**Category 4** — A door in a room the full width of the airplane and the same as a Category 3 door except there is a pair of emergency exits at one end of the room. 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 maintain an acceptable 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 case 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 break it open and escape in either direction and emergency equipment can be moved. Frangibility may be demonstrated in either of the following ways:
  - A 5<sup>th</sup> percentile female can break through the door, creating a large enough opening that a 95<sup>th</sup> percentile (or larger) male can pass through. (See Advisory Circular 25-17, “Transport Airplane Cabin Interiors Crashworthiness Handbook,” paragraph 43b(2)).
  - A 5<sup>th</sup> percentile female can break a hinge on the door or a hinge on a smaller door within the door so that the door can swing enough to allow a 95<sup>th</sup> (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 not sufficient 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, DASSAULT AVIATION is granted an exemption from 14 CFR 25.813(e), Amendment 25-46. The petition is granted to the extent necessary to allow DASSAULT AVIATION to install an interior door on private use DASSAULT AVIATION Falcon 7X airplanes. The exemption allows 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 Category 1 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, 3, or 4 must be in the open position during taxi, takeoff and landing, regardless of occupancy.
5. Each door between passenger compartments must have a means to signal to the flightcrew when the door is closed. Appropriate procedures/limitations must be established to ensure that takeoff and landing is prohibited when such compartments are occupied and the door is closed.

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 September 27, 2007.

/s/

Ali Bahrami

Manager

Transport Airplane Directorate

Aircraft Certification Service