

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

In the matter of the petition of

**JetCorp Technical Services**

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

Regulatory Docket No. FAA-2008-1209

**GRANT OF EXEMPTION**

By letter dated October 27, 2008, Mr. Stephen Forness, Acting Agent for JetCorp Technical Services, Spirit of St. Louis Airport, 18500 Edison Avenue Chesterfield, MO, 63005, petitioned for exemption from the requirements of § 25.813(e) of Title 14, Code of Federal Regulations (14 CFR). The petitioner has requested the exemption in order to permit installation of interior doors between passenger compartments on a Bombardier Aerospace, Inc CL-600-2B19 model airplane, which would be designated as private use, not for hire, not for common carriage.

**The petitioner requests relief from the following regulation:**

**Section 25.813(e)**, which prohibits installation of doors between passenger compartments.

**The petitioner supports their request with the following information:**

This section quotes the relevant information from the petitioner's request. Their complete petition is available at the Department of Transportation's Federal Docket Management System, on the Internet at <http://regulations.gov>, in Docket No. FAA-2008-1209.

#### **14 CFR 11.81(e) Extent of Relief and Reason for Seeking Relief**

Relief from 14 CFR 25.813(e) is being requested for all Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) aircraft altered by JetCorp Technical Services with a passenger configuration of 19 passengers or less. This relief is being sought because "private" areas in corporate aircraft have been and are continuing to be requested by a number of aircraft operators. This particular interior arrangement in Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) aircraft compare with similar types of aircraft outfitted at completion-and-modification centers in the U.S.A. and abroad that are able to offer this feature.

The cabin of the Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) is approximately 8 feet, 4 inches wide with a maximum cabin height of approximately 6 feet, 1 inch. To provide a private area in the cabin, the passenger cabin must be divided full width (laterally) using sliding pocket doors that extend from the cabin partitions because a side corridor is impractical.

#### **14 CFR 11.81(d) Reason Why Granting Relief Would be in Public Interest**

In response to Exemption No. 7590 previously granted to Dassault Falcon Jet Corporation for Mystere-Falcon 900 and Falcon 900EX aircraft, the FAA acknowledged that:

While the FAA is not aware of any specific incidents of economic harm as a result of different standards being applied to different private-use airplanes, the FAA recognizes that significant upgrading of the occupant-safety standards in recent years has made this a distinct possibility. Further, as more airplanes are used in executive operations, differences in certification basis will become more significant in terms of the burden of compliance. This issue is generally not a factor for commercial operation, because the operation rules are typically upgraded along with the type-design standards, making the requirements effectively the same for all manufacturers. For privately operated airplanes, however, this is not the case. Thus, 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 Jet Airplane models Mystere-Falcon 900 and Falcon 900EX.

It is the contention of JetCorp Technical Services that the above-referenced FAA argument is general in nature and is applicable to all private-use airplanes, including the Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) for which this petition is being requested.

## **14 CFR 11.81(e) Reasons Why Exemption Would Not Adversely Affect Safety**

While a grant of exemption, as requested by this petition, could not be said to provide the same level as that which would be afforded through strict compliance with the regulations, the resultant level of safety would be consistent with other private airplanes. In addition, the level of safety that would result from this exemption is specifically requested and desired by that segment of the public, namely, the owners who fly on these airplanes.

It is noted that the FAA has previously granted exemptions to this regulation for the Dassault Aviation Mystere-Falcon 900 and Falcon 900EX (Exemptions No. 7590, 7668, and 8123) as well as for several other models of private-use aircraft with larger passenger capacity and more complicated floor plans than the Dassault Aviation Mystere-Falcon 900 and Falcon 900EX. It is also noted that the FAA has previously published other petitions for exemption on this same issue and received no adverse comments.

It is the intent of this petition that, whether or not operations are “scheduled,” this exemption will not permit fares to be collected in exchange for transportation. It is also the intent of this petition that the airplane will not be used to transport the general public (common carriage) even if fares are not collected. This exemption, if granted, should not restrict one party from collecting fees from another party, as long as the airplane is operated for private use. That is, the airplane's owner may lease the airplane to another party, who, in turn, operates it as a private, not-for-hire, not-for-common-carriage airplane.

Where flight-deck annunciation is provided to indicate improper position of the door(s), the petitioner proposes that amber lights (as opposed to white or blue) be used. This is consistent with FAA responses to earlier exemptions from this regulation.

Previous exemptions have required an additional limitation when an interior door is installed aft of the mid-cabin exit. The limitation is such that persons seated aft of the door can enter the compartment forward of it, even if the door is latched from the forward side. This petition also recognizes that a cabin door (regardless of where it is located in relation to the emergency exits) must not prevent the crew from gaining access to the aft section of the cabin. This is necessary to allow the crew to render assistance to passengers who may have become incapacitated in the aft section of the cabin as well as to allow the crew to investigate and extinguish small fires that may occur in those areas. This additional requirement would be similar to existing requirements for lavatory doors and doors to Class B baggage compartments. Requiring that the interior door could be unlocked or

unlatched from either side without the use of tools would ensure that the door does not prevent access in any condition.

In consideration of the preceding discussions and those contained within the referenced exemptions, JetCorp Technical Services is requesting relief from the requirements of 14 CFR 25.813(e) to allow the installation of interior doors between passenger compartments on the Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) airplanes with the following provisions:

1. The airplane is not operated for hire or offered for common carriage. This provision does not preclude the operator from receiving payment to the extent consistent with 14 CFR part 135 and 14 CFR part 91, subpart F, as applicable.
2. Each door between passenger compartments must be frangible.
3. Each door between passenger compartments must have a means to signal the flight crew when the door is closed. Appropriate procedures must be established to ensure that takeoff and landing are prohibited when such compartments are occupied and the door is closed.
4. Each door between passenger compartments must have a dual means to retain it in the open position, each of which must be capable of reacting to the inertia load specified in 14 CFR 25.561.
5. When doors are installed in a transverse partition, they must translate laterally to open and close.
6. When doors are installed in a specified egress path, each passenger must be informed that the airplane does not comply with the occupant-safety requirements mandated for the airplane type in general. This notification is only required the first time a person is a passenger on the airplane.
7. Each door between passenger compartments (regardless of where it is located in relations to the emergency exits) must allow persons on either side of the door to unlock or unlatch the door without the use of tools.

#### **14 CFR 11.81(g) Additional Information to Support Request**

Exemption No. 7590 (Regulatory Docket No. FAA-2001-9619-3) issued to Dassault Falcon Jet Corporation on August 10, 2001; Exemption No. 7668 (Regulatory Docket No. FAA-2001-10870-2) issued to Garrett Aviation Services on November 27, 2001; and Exemption No. 8123 (Regulatory Docket No. FAA-2003-15585) are provided as evidence that the FAA has previously granted

exemption from the same regulation, with the same provisions, to similar type and size aircraft as that which is being requested by this petition.

#### **14 CFR 11.87 Good Cause for Not Publishing in Federal Register**

JetCorp Technical Services believes that there is good cause for not publishing this petition for exemption for public comment in the Federal Register for the following reasons:

1. Granting this petition would not set a precedent since the FAA has previously granted exemptions to this regulation for similar aircraft models (e.g., Exemption No. 7455 for Bombardier Model BD-700- 1A10) as well as several other models of private-use aircraft (e.g., Exemption No. 6820A for Boeing Model 737-700 IGW; Exemption No. 7107 for Boeing Model 757; and Exemption No. 7590 for Dassault Aviation Mystere-Falcon 900 and Falcon 900EX). The FAA previously published other petitions for exemption on this same issue and received no adverse comments.
2. The relief being requested is identical to the other exemptions that are listed in item 1 above.
3. Delaying action on this petition would have significant adverse affect on JetCorp Technical Services by causing delay in certification which, in turn, would delay the delivery and collection of revenue from Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) aircraft customers who have already requested the installation of doors dividing their passenger cabin.

JetCorp Technical Services believes that the above arguments fully support an exemption to permit doors to be installed in partitions which divide the passenger cabin in Bombardier Aerospace, Inc. (Model CL-600-2B19 - TC A21EA) aircraft. JetCorp Technical Services respectfully requests that you review the above and consider this petition for exemption from 14 CFR 25.813(e) on behalf of JetCorp Technical Services.

#### **Federal Register publication**

The FAA has determined that good cause exists for waiving the requirement for Federal Register publication and comment because the exemption, if granted, would not set a precedent and any delay in acting on this petition would be detrimental to JetCorp Technical Services.

## The FAA's analysis

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. Because of this, we have received several petitions for exemption from certain regulations. We have granted such exemptions when we find 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 issued, would significantly reduce the need for case-by-case review of individual petitions for exemption for private-use airplanes.

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. 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 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 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.

Airplanes configured for private, not-for-hire, not-for-common-carriage typically use any of five different categories of door in the passenger cabins:

**Category 1.** A door in a room and the room is less than the full width of the airplane. An aisle is outside 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 and that is the same as Category 1, except a single emergency exit or pair of emergency exits is within the room.

**Category 3.** A door or doors in a compartment and the compartment is the full width of the airplane. Passengers are seated on both sides (fore and aft) of the door(s), and the main aisle leads out of, or passes through, the compartment. The compartment does not have emergency exits. This type of compartment may be occupied during takeoff and landing.

**Category 4.** A door in a room and the room is the full width of the airplane. Passengers are seated on both sides (fore and aft) of the door, and a pair of emergency exits is at one end of the room. This type of room may be occupied during takeoff and landing.

**Category 5.** A door in a room that may be the full width of the airplane. This type of room is not occupied during takeoff and landing. This room is only occupied during flight. Passengers are not seated on both sides of the door during taxi, takeoff, and landing. Passengers seated in taxi, takeoff, and landing seats must not need to pass through this door to get to any emergency exits.

Because not all interior doors between passenger compartments are equivalent, the FAA has determined that the following requirements will produce an adequate level of safety:

1. 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 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 such that the door can swing, so as to allow a 95<sup>th</sup> percentile (or larger) male to pass through the opening with the door swung open. This evaluation must be made with any cabin furnishing or equipment installed that could limit the swing arc of the door and 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 that fall into Category 1 must be in the open position during taxi, takeoff, and landing only when the room is occupied.
  5. Doors that fall into Categories 2, 3, or 4 must be in the open position during taxi, takeoff, and landing, regardless of occupancy.
  6. Doors that fall into Category 5 must be in the closed position during taxi, takeoff, and landing.

With respect to the possibility that a door remains closed when it should not be, we have determined that a higher level of awareness is required to address this issue. Due to the relative complexity of the cabin interior, we have determined that inspection by flight attendants prior to takeoff and landing is not sufficient to verify that interior doors are in a required open position. Consequently, some type of remote indication is considered necessary. The petitioner's proposal to provide remote indication to the flight crew is considered adequate.

After considerable deliberation, we conclude that installation of interior doors, with certain limitations, can be accepted. To maximize the level of safety, we require that certain limitations, including some proposed by the petitioner, be made mandatory to permit such installations. As noted previously, precedents have been set for this decision and which apply to other private-use airplanes.

### **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 the level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701, delegated to me by the Administrator, I grant the petition of JetCorp Technical Services for an exemption from the requirements of 14 CFR 25.813(e) to allow installation of interior doors between passenger compartments on a Bombardier Aerospace, Inc., Model CL-600-2B19 airplane. This exemption is subject to the

following conditions. Conditions 1, 3, 4, 5, and 6 must be documented as operating limitations in the Limitations section of the Airplane Flight Manual (AFM). Refer to Categories 1 – 5, listed earlier in this document, where conditions reference categories.

1. The airplane must not be operated for hire or offered for common carriage. This provision does not preclude the operator from receiving payment 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 when the room is occupied.
4. Doors that fall into Categories 2, 3, or 4 must be in the open position during taxi, takeoff, and landing, regardless of occupancy of the room.
5. Doors that fall into Category 5 must be in the closed position during taxi, takeoff, and landing.
6. Appropriate procedures must be established to both signal the flight crew in the event a door between passenger compartments is not in the proper position, and prohibit takeoff or landing. Doors in Category 5 do not need to comply with this requirement. For Category 5 doors, placards located on or near the door, and indicating that the door must be closed for takeoff and landing, is acceptable.
7. Doors between passenger compartments must have dual means to retain them in the open position. Each means must be capable of withstanding the inertia loads specified in § 25.561. Doors in Category 5 do not need to comply with this requirement because they are required to be closed for takeoff and landing.
8. A means to signal the flight crew must be in place in the event of a fire in an isolated passenger compartment, and which meets the requirements of § 25.858(a) through (d).

Issued in Renton Washington, on March 5, 2009.

/s/

Linda Navarro  
Acting Manager  
Transport Airplane Directorate  
Aircraft Certification Service