

**Exemption No. 7489**

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
RENTON, WASHINGTON 98055-4056**

In the matter of the petition of

**Airbus Industrie**

for an exemption from §§ 25.785(h)(2),  
25.807(d)(7), and 25.813(e) of Title 14,  
Code of Federal Regulations

**FAA Regulatory Docket  
No. FAA-2000-8262**

**PARTIAL GRANT OF EXEMPTION**

By letter 413.0814/00, dated July 7, 2000, Messrs. Jean-Philippe Tarres, Single Aisle Aircraft Certification Programme Manager, and Francis Guimera, Single Aisle Aircraft Chief Airworthiness Engineer, Airbus Industrie, 1 Rond-Point Maurice Bellonte, 31707, Blagnac, Cedex, France, petitioned the Federal Aviation Administration (FAA) for an exemption from §§ 25.785(h)(2), 25.807(d)(7), and 25.813(e) of Title 14, Code of Federal Regulations (14 CFR). This request, if granted, would allow flight attendant seats that do not provide a direct view of the passenger cabin, permit a distance greater than sixty feet between passenger exits, and allow installation of interior doors between passenger compartments on the Airbus A319 CJ.

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

**Section 25.785(h)(2)** - Requires that flight attendant seats be located to provide a direct view of the passenger cabin.

**Section 25.807(d)(7)** - Limits the distance between passenger emergency exits to sixty feet.

**Section 25.813(e)** - Prohibits installation of interior doors in between passenger compartments.

**The petitioner's supportive information is as follows:**

“Following our letter ref. 413.0742/00 by which we applied for the FAA approval of a set of Major Changes associated with the so called ‘A319 Corporate Jet,’ we would like to draw your attention on the fact that most of these aircraft will be operated as ‘private, transports.’

“Because of the particularity of cabin configuration and customer requests for such aircraft, the U.S. outfitters performing the cabin installation will then possibly apply, aircraft per aircraft, for an exemption from some FAR 25 requirements concerning the cabin interiors, typically not compatible with a VIP layout.

“This will by the end lead to a flow of requests, all of them very similar as they are covering the same kind of layout, and which may be easily prevented by incorporating from the beginning such exemptions in the A319 U.S. TCDS.

“As a consequence and in accordance with the requirements of FAR Section 11.25, Airbus Industrie hereby applies for a permanent exemption from the following requirements:

- FAR 25.785(h)(1) Flight Attendant Seat locations which do not provide a Direct View of the Cabin
- FAR 25.807(c)(7) Distance between exits
- FAR 25.813(e) Installation of Interior Doors in between passenger compartments

“This request for exemption, which should be applicable to all A319 ‘Corporate Jet’ operated as ‘Private-not-for hire’ transports, is substantiated by the attached justification summaries.

“By granting this exemption, FAA will allow US outfitters to compete on a fair basis with foreign outfitters who already got similar exemptions from their own authorities.”

**JUSTIFICATION SUMMARIES**

**“FAR 25.785(h)(1)[sic]**

**- Requirement**

‘To the extent possible, without compromising their proximity to required floor level emergency exits, flight attendant seats must be located to provide a direct view of the cabin area for which the flight attendant is individually responsible.’ ”

## “Background

This requirement was incorporated into the FAA rules through amendment 25.51. Out of the comments submitted to the FAA during the NPRM comment period, two said that, if galley doors were used as emergency exits, the placement of an attendant seat near the exit could preclude compliance with the requirement that the attendant be provided with a direct view of the cabin area. To cover this situation, it was suggested that the requirement be conditioned to apply insofar as practicable and without compromising the proximity to required floor level exits.

The FAA concurred and further stated in the preamble to the final rule that ‘location of the flight attendant seats near the floor level exits in this case is more important than the requirement to have a direct view of the cabin.’ The final rule was revised from the NPRM proposal to address this relative importance.

### **- Impact on A319 CJ cabin**

As galleys located near floor level exits are an essential part of the operation and interior configuration of a commercial airplane in revenue service, so are partitions and interior walls essential to the interior configuration of a business airplane in a private, not-for-hire service operation. These features may in effect interfere with the flight attendants direct view.

### **- Airbus Industrie position**

Considering

- on one side the smaller number of occupants in the business, private airplane, usually less than 30% of that of a traditional commercial configuration, and the familiarity of the flight and cabin crews with the specific airplane, its passengers and its interior arrangement,
- on the other side the wording of the existing rule that places the emphasis for safety on the proximity of the attendant seat to the exit rather than the direct view of the cabin area,

Exemption from FAR 25.785(h)(1) is not in this case degrading the passenger safety.”

## **“FAR 25.807(c)(7)**

### **- Requirement**

‘For an airplane that is required to have more than one passenger emergency exit for each side of the fuselage, no passenger emergency exit shall be more than 60 feet from any adjacent passenger emergency exit on the same side of the fuselage, as measured parallel to the airplane's longitudinal axis between the nearest exit edges.’ ”

## “Background

Basic purpose of this requirement as introduced by Amendment 25-67, is to address two issues:

- the number of passengers in the way of an individual trying to get to an exit
- the possible disruption/blockage in egress paths due to debris.

### **- Impact on A319 CJ cabin**

While it is not possible to specifically define all possible variations in business airplanes interior arrangement that may be created in support of owner/operators requirements, it is known that many of these variations will include fixed furnishings such as bed or divans mounted against the sidewall of the airplane. Such furnishings will cover and make inaccessible the overwing type III exits of the aircraft. These exits, close to the airplane center of gravity, are in the most favored location for a comfortable ride and will therefore be in the best location for a bedroom, office or other use where comfort is a prime consideration.

### **- Airbus position**

As a general justification for the exemption from FAR 25.807(c)(7), the following considerations should be taken into account:

- the airplane is operated as a private transport for use by the owner and the owners associates.
- this means that the same passengers often take this same airplane and are becoming very familiar with the crew and the aircraft emergency evacuation systems.
- Even without the type III overwing exits, the aircraft still provides emergency exits uniformly distributed along the length of the fuselage and with an emergency evacuation capacity far above the number of passengers (typically less than 30% of that of a traditional commercial configuration).

As a consequence of the above, the flight attendants will be able to carry out a rapid and safe evacuation of the airplane in case of an emergency.

### Additional safety measures

The two basic issues of FAR 25.807(c)(7) can also be covered by the following restrictions:

1/ Configuration where both type III overwing exits are deactivated:

- each passenger seat (used for take-off and landing) should be longitudinally within 30 feet of an emergency exit, on each side of the fuselage.  
This limitation will provide an equivalent level for the issue of disruption/blockage in egress path. ”
- “no more than 41 passenger seats should be located within 30 feet of either pair of floor level exits.

This limitation will provide an equivalent safety level for the number of passengers in the way toward the exits.

The rationale for this equivalence is to consider in a very conservative way the forward part and the rear part of the cabin as being separated. In this case, each part representing a "dead end zone" as defined by the A.C. 25.807, the allowed number of passenger seats is 75% of the Type C door rating, i.e. 41 seats.

2/ Configuration where only one type III exit is deactivated on one side of the fuselage:

- each passenger seat should be longitudinally within 30 feet of an exit on one side of the fuselage, within 60 feet on the opposite side.

By taking into account the low number of passengers, their good knowledge of the aircraft and the crew and the above restrictions for the installation of the passenger seats, exemption from FAR 25.807(c)(7) is not degrading the passenger safety. ”

#### **“FAR 25.813(e)**

##### **- Requirement**

‘No door may be installed in any partition between passenger compartments.’

##### **- Impact on A319CJ cabin**

In the case of a private, not-for-hire airplane, a portion of the interior cabin may be configured with privacy areas that are intended to exclude persons not seated within the room from being aware of conversations taking place within the room.

The only valid method of providing for such privacy requirements is through the use of separate rooms consisting of walls and doors within the passenger cabin.

This requirement for doors between different areas of the airplane is definitively inherent to business airplanes. Despite the width of A319CJ cabin, private rooms covering the full width of the cabin are also basically part of the owners/operators requirements (bedroom, meeting room etc.

##### **- Airbus position**

The basic purpose of FAR 25.813(e) being to avoid any obstruction of the evacuation path after an emergency landing, the following equivalent safety measures can be applied, when doors are existing between a passenger compartment and the emergency exits: ”

“1/ For the case of a room covering the total width of the cabin, the doors at the front and at the aft of the compartment should be latched open during taxi, takeoff and landing, whether the

compartment is occupied or not. This will allow the compartment to be a part of the evacuation route between different parts of the cabin.

2/ For the case of a room that does not cover the total width of the cabin, the door of the compartment should be latched open if the compartment is occupied during taxi, takeoff and landing, and latched closed in the contrary case. This last case would preclude passengers from entering the compartment inadvertently during an evacuation should the compartment be empty.

In both cases, the latch system should be redundant and the door and latch system should be designed for crash loads.

By taking into account above restrictions, exemption from FAR 25.813(e) is not degrading the passenger safety. ”

A summary of the petition was published in the Federal Register on February 23, 2001 (66 FR 11353). No comments were received.

**The FAA's analysis/summary is as follows:**

The FAA is giving great attention to the issue of transport category airplanes operated in private use. There are several regulatory requirements, including some of those identified by the petitioner, that lend themselves to consideration for modification when looking at the differences between commercial and private use operations. The FAA intends to summarize its views on these regulations and, ultimately, propose modifications to the requirements, where appropriate. It may be that the regulations that are the subject of this petition are included in the proposed modifications, and that additional design flexibility can be offered, when certain circumstances are met. This issue is not resolved at this time, however, and the particular airplane in question must be addressed on its own merits.

While it is true that the major impetus for most of the requirements referenced in this petition is commercial use, it is incumbent upon the FAA to upgrade design safety as the state of the art progresses, irrespective of the type of operation. The FAA notes that the differences in type of operation summarized by the petitioner imply that the airplane will be exclusively used in private operation. The FAA believes that any reliance on type of operations as justification for relief requires that the type of operation be a limitation in granting such relief.

The FAA agrees that it makes sense to address these issues at one time as part of the type certificate, rather than for each modification program that arises. This will simplify subsequent certification programs, and reduce the administrative burden on both the FAA and modifiers.

The FAA will discuss each of the petitioner's requests, and proposed limitations, in the order presented.

## Direct View

The petitioner has identified the requirement for flight attendant seats to be located to provide a direct view of the passenger cabin as not practical for compliance with the executive type interior to be used on the A319 CJ. The complexity of the interior arrangement, coupled with the need to retain proximity to emergency exits, is cited as the primary reason that compliance is impractical. The petitioner notes that the FAA has previously gone on record as stating that direct view should not compromise the need to provide flight attendant seats in close proximity to exits.

The FAA has considered the requirement for direct view in the context of private use airplanes, and agrees that much of the justification for the requirement is based on air carrier-type operations. The practicality of locating flight attendant seats near emergency exits while at the same time providing a direct view of occupants inside of rooms is questionable at best, regardless of the type of operation. In this regard, the FAA does believe that some relief may be appropriate for airplanes intended for private use. The FAA notes that the justification for the requirement for direct view is not limited to observation of passengers that are not familiar with the interior, however. Flight attendant seats should be located so that there is a direct view provided for the area of the cabin where it is practical to do so. Flight attendant seats should not face away from the cabin, for example. In those areas of the airplane where traditional seating arrangements are used, the FAA believes that direct view should be provided.

In considering the need for direct view, the FAA agrees that the restricted nature of the operation of a private use airplane mitigates much of the need. That is, the operator has control of, and can restrict, the population of passengers, unlike an air carrier. The risk of passengers engaging in hazardous or malicious activity is essentially eliminated, and the need for direct view is limited to those cases where a passenger might need assistance. We consider that this objective is met by requiring that a majority of flight attendant seats face the cabin.

## Distance Between Exits

The FAA is also considering the issue of distance between exits as part of its overall review of private use airplanes. Amendment 25-67 was adopted in order to establish quantitative limits on the distance that could exist between passenger exits, and to address what appeared to be a trend of increasing distance between exits. The FAA disagrees with the petitioner's assertion that the rule was put into place only to deal with the number of passengers between a person and an exit, and debris in the egress path. The rule is intended to address a particular aspect (namely distance between exits) of the evacuation process so that it would *not* be a factor in successful evacuation.

As noted by the petitioner, there are two main differences between this airplane and a typical A319 for commercial operation. First, the A319CJ is not to be operated in commercial service. It is intended for private use, and not for carriage of persons for

hire. Second, the passenger capacity permitted by the available exits will greatly exceed the actual number of seats on the airplane.

For the first consideration, the FAA acknowledges that the persons flying on the airplane will not be fare-paying passengers, and therefore might not expect an equivalent level of safety to that afforded in commercial operation. Such passengers must be afforded an adequate level of safety however, so the status of the passengers is not entirely relevant to determine whether an exemption should be granted.

Regarding the second point, as noted above, the number of passengers is not the paramount concern when addressing the distance between exits, although it is relevant in determining the type and number of exits required.

The FAA notes that it is only the deactivation of the type III overwing exits that necessitates an exemption from the regulations. That is, either the forward or aft pair of type I exits could be deactivated and the airplane would still be in compliance with the regulations. In that case, the evacuation capability (in terms of exit capacity) of the airplane would be diminished over what is proposed, but would be in compliance. Nonetheless, the type III exits are probably the easiest exit type to accommodate in an interior arrangement, and the FAA considers that this should be the first option when designing the interior.

The FAA has previously approved interior arrangements for mixed cargo/passenger airplanes incorporating a single pair of Type I exits for up to 34 passengers. These approvals were granted through the exemption process, since the regulations did not address that specific exit arrangement. Therefore, it is reasonable to assume that the A319CJ would be eligible for 34 passengers with only the aft or only the forward pair of exits active. In fact, the petitioner has proposed a higher limitation on the basis of the forward and aft doors being Type C exits, which have a passenger rating of 55/pair. For the A319CJ, Airbus intends to retain the forward and aft exits, but deactivate the overwing exits. In so doing, a distance of greater than 60' between exits is created. It would actually be possible to deactivate additional exits in some arrangements, and thereby eliminate the non-compliance with the 60' requirement. Because of the generally low passenger capacity of the A319 CJ, the resultant exit arrangement would still be acceptable in many cases. Based on the work done to develop alternative standards for private use airplanes, the FAA has determined that the level of safety can be maintained, provided the following limitations are applied.

In order to maintain reasonable proximity of passengers to exits, each passenger seat should be longitudinally within 30' of an emergency exit, on each side of the fuselage, when both overwing exits are deactivated. When only one overwing exit is deactivated, each passenger seat should be within 30' of an exit on one side of the fuselage, and within 60' on the side opposite. Generally, the FAA has determined that limitations on the absolute passenger capacity are appropriate where the distance to exits exceeds 60'. However, because of other limitations in this exemption, and the exit configuration of the airplane, additional limitations are not considered necessary.

Since the remaining exits could be greater than 60' apart, and since the seating arrangements will not be typical of commercial operation, it is also considered necessary to limit the density of seating near the exits. In this case, and in keeping with other approvals for airplanes with a single pair of floor level exits, no more than 34 passenger seats should be located with 30' of either pair of floor level exits, when both overwing exits are deactivated. As noted earlier, the petitioner has suggested that this limit be 41 passenger seats, which would give the same relationship to the Type C exit as 34 passengers does to the Type I exit. The FAA disagrees that this is appropriate, since the basis for the approval is the rating of an airplane with a single pair of exits, and not a dead end zone as indicated by the petitioner. Type C exits cannot be installed as a single pair for full passenger credit. Therefore, using the full rating of the Type C to determine this limitation is not appropriate, and the more conservative rating of the Type I exit is used. This will prevent overloading a single pair of exits. When only one Type III exit of the pair is deactivated, no restrictions on seating density are applied.

Note that in granting the exemption, the FAA is not making a judgment about the validity of the requirement for distance between exits in general but, rather, has determined that the particular arrangement described herein warrants an exemption. In this case, the arrangement could be modified to deactivate even more exits and, with a small reduction in passenger capacity, be approvable. The FAA does not consider that such an approach would be in the interest of safety.

### Interior Doors

As noted by the petitioner, the regulations regarding interior doors did not necessarily consider "rooms" when they were adopted. Nonetheless, the concerns with the doors that were the target of the regulation (namely, the potential to obstruct access to emergency exits as well as creating a potential for lack of recognition of exits beyond the door) apply to other types of doors as well. In fact, the current regulations do allow the installation of interior doors, provided passengers are not seated on both sides of the door for takeoff and landing. The FAA is concerned that doors not be located between passengers and exits, and has proposed to prohibit such installations in the future in Notice of Proposed Rulemaking 96-9.

The petitioner proposes that doors will either be open or closed for takeoff and landing, based on whether persons would need to pass through them in an emergency evacuation. Clearly, this is an important consideration, but the FAA does not consider it sufficient. Jamming of doors, however, is not limited to doors that have been properly positioned. Neither does it exclude the potential for the door to jam before it can be properly positioned (due to mechanical failure, for example). The doors envisioned by the current regulations are more limited, more likely to be under direct crewmember control, and thus not as subject to these concerns.

There is also the potential that a door will remain closed when it should not be, and the FAA believes that a higher level of awareness is required to address this issue. Due to

the relative complexity of the cabin interior, the FAA does not believe that inspection by flight attendants prior to takeoff and landing is sufficient to verify that interior doors are in their 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.

With respect to the integrity of the means used to latch doors open for takeoff and landing, the FAA considers that redundant means are necessary, as proposed. Each latching means should have the capability of retaining the door in the takeoff and landing position under the inertia forces of § 25.561. In addition, the FAA believes that the door must be frangible, in the event that it is closed, or closes during an emergency landing. Frangibility may be demonstrated in accordance with the criteria set forth in Advisory Circular 25-17, paragraph 43.b(2).

As noted in other exemptions dealing with this issue, the FAA does not agree that all interior doors are equivalent, and has specifically made a distinction between doors where the failure of the door affects only the occupants of a room, and doors where other occupants are also affected. This issue is clearly quite significant to the segment of the public that will operate these airplanes. The flexibility to partition the airplane essentially arbitrarily is regarded as paramount to an acceptable interior. The FAA acknowledges the desirability of this feature from the operators' point of view. In the petition, the petitioner argues that the level of safety is not degraded. However, it continues to be the FAA's position that an equivalent level of safety cannot be provided when doors span the main cabin aisle. The FAA has concluded that the installation of interior doors, with certain limitations, can be extended to doors that span the main cabin aisle. In order to maximize the level of safety, the FAA will require that doors installed across the main cabin aisle 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.

While these grants of exemption cannot be said to provide the same level of safety that would be afforded were there strict compliance with the regulations, the resultant level of safety is consistent with other private use airplanes. For example, the majority of transport category airplanes used in private operation are not required to comply with the heat release and smoke emissions regulations, by virtue of their earlier certification bases. With respect to interior doors, if the compartments separated by doors are looked at individually, the resultant interior arrangements are typically (although not exclusively) quite similar to small private use airplanes that only require a single pair of exits. In addition, the level of safety that results from this exemption is specifically requested and desired by that segment of the public, namely the owners, that will fly on these airplanes. The FAA also notes that no other parties have expressed an interest in this petition.

Nonetheless, there exists the possibility that persons will be carried as passengers on these airplanes who, by virtue of their employment or some other relationship to the airplane's owner, may be compelled to fly. These persons will not be aware of the

specific grants of exemption, and might assume that these airplanes were effectively equivalent to a commercial operator. For this reason, the FAA considers that it is necessary for each passenger to be made aware that the particular airplane does not comply with all of the occupant safety standards mandated for the airplane type in general. The FAA will allow each operator to determine how best to accomplish this notification, but will require that procedures be developed whereby each passenger is so informed, prior to flying on the airplane for the first time. The notification to any individual need only be accomplished once.

In consideration of the foregoing, I find that a partial 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, the petition of Airbus Industrie for an exemption for the A319CJ airplane from §§ 25.785(h)(2), 25.807(d)(7), and 25.813(e) to allow the installation of flight attendant seats that do not provide direct view of the cabin, to exceed a distance of 60' between adjacent exits, and to allow installation of interior doors between passenger compartments, is hereby granted, with the following provisions:

1. The airplane is not to be operated for hire, nor offered for common carriage. (This provision does not preclude the operator from receiving remuneration to the extent consistent with 14 CFR part 125 and 14 CFR part 91, subpart F, as applicable.)
2. A majority of flight attendant seats must be oriented to face the passenger cabin.
3. Each door between passenger compartments must be frangible
4. Each door between passenger compartments must have a means to signal to the flightcrew when the door is improperly configured for taxi, takeoff, and landing. Appropriate procedures/limitations must be established to ensure that taxi, takeoff, and landing is prohibited when such compartments are occupied and the door is closed.
5. Each door between passenger compartments must have dual means to retain it in the open position, each of which must be capable of reacting the inertia loads specified in 14 CFR 25.561.
6. Doors installed across a longitudinal aisle must translate laterally to open and close.
7. When the distance between adjacent exits exceeds 60', each passenger seat must be located:
  - a. within 30' of an emergency exit, on each side of the airplane when both overwing exits are deactivated. In addition, no more than 34 passenger seats shall be located within 30' of either pair of Type C emergency exits.

- b. within 30' of an emergency exit on one side of the airplane, and within 60' of an emergency exit on the opposite side of the airplane, when only one of the overwing exits is deactivated.

8. When doors are installed in specified egress paths, 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 that a person is a passenger on the airplane.

Issued in Renton, Washington, on April 9, 2001.

/s/ Ali Bahrami  
Acting Manager, Transport Airplane Directorate  
Aircraft Certification Service