

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

In the matter of the petition of

Associated Air Center

for an exemption from §§ 25.785(d),
25.785(h)(1), 25.813(e), and 25.815 of
Title 14, Code of Federal Regulations

Regulatory Docket No. FAA-2015-1773

PARTIAL GRANT OF EXEMPTION

By letter dated July 23, 2015, Mr. Jose Mora-Vargas, Certification Director, Associated Air Center, 8321 Lemmon Avenue, Dallas, Texas, 75209, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of §§ 25.785(d), 25.785(h)(1), 25.813(e), and 25.815 of Title 14, Code of Federal Regulations (14 CFR). This exemption, if granted, would permit relief from the requirements for firm handholds in the passenger compartment, flight attendant direct view, interior doors between passenger compartments, and in-flight aisle width. The proposed exemption is specifically for the installation of an executive interior on an Airbus Model A320-232 airplane, serial number 6659, designated as “private use, not for hire, not for common carriage.”

The petitioner requests relief from the following regulation(s):

Section 25.785(d) at Amendment 25-51, requires, in pertinent part, that there must be a firm handhold along each aisle.

Section 25.785(h)(1) at Amendment 25-51, requires, in pertinent part, that flight attendant seats must be located to provide a direct view of the cabin area.

Section 25.813(e) at Amendment 25-46, requires that no door may be installed in any partition between passenger compartments.

Section 25.815 at Amendment 25-38, requires minimum aisle widths in the passenger compartment.

The petitioner supports its request with the following information:

This section quotes the relevant information from the petitioner's request, with minor edits for clarity. The 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-2015-1773.

Background

Associated Air Center requests that the relief provided for the airplanes covered by previously granted exemptions, relative to the subject requirements, be expanded to include the Airbus A320-232, S/N 6659:

1. Exemption No. 8460, Docket No. FAA-2004-18913, Grant of Exemption from §§ 25.785(d), and 25.813(e) for Boeing Model 747-400 airplane.
2. Exemption No. 10809, Docket No. FAA-2013-0277, Partial Grant of Exemption from §§ 25.785(h)(2), 25.785(j), 25.813(e), 25.815, and 25.853(d) for Boeing Model 747-8 airplane.
3. Exemption No. 10686, Docket No. FAA-2012-0707, Partial Grant of Exemption from §§ 25.785(h)(2), 25.785(j), 25.791(a), 25.795, 25.813(e), 25.815, and 25.853(d) for Boeing Model 747-8 airplane.
4. Exemption No. 10879, Docket No. FAA-2013-0015, Grant of Exemption from §§ 25.813(e) for Boeing Model 787-8 and -9 airplane.
5. Exemption No. 7489, Docket No. FAA-2000-8262, Partial Grant of Exemption from §§ 25.785(h)(2), 25.807(d)(7), and 25.813(e) for Airbus Model A319CJ airplane.

Note: 14 CFR 25.785(h)(1), at Amendment 25-51 and 14 CFR 25.785(d), at Amendment 25-51 are the same as 14 CFR 25.785(h)(2) and 14 CFR 25.785(j) at Amendment 25-72.

Discussion

The Federal Aviation Regulations (FARs) do not consider the situation of private use, not for hire, transport category airplanes, in the 14 CFR part 25 requirements. Those requirements are predicated on airline common carrier, commercial passenger operations, carrying fare paying passengers from the general public. Associated Air Center believes that the design of an airplane for private use, and the associated operation of the airplane in private use, should justify an exemption, based on the fact that 14 CFR part 25 regulations do not currently cover or consider such a design and operation.

The FAA position of previous exemptions listed above for the Boeing Models 747-400, 747-8, 787-8/-9, and Airbus A319 not requiring flight attendant direct view, firm handhold along each aisle, interior doors permitted with provisions, and minimum aisle

width during non-critical flight phases, should also be granted to the Airbus Model A320-232, Serial Number 6659.

14 CFR 25.785(h)(1): Flight attendant direct view.

The requirement for flight attendant seats to be located to provide a direct view of the passenger cabin is not practical for compliance with executive type interior to be installed on the Airbus A320-232 airplane. The complexity of the interior arrangement, coupled with the need to retain proximity to emergency exits is impractical to demonstrate compliance. Reference Exemption No. 10809, 10686, and 7489 for compliance method to the requirements identified in these exemptions.

14 CFR 25.785(d): Firm handholds along each aisle.

The requirement for a firm handhold along aisles cannot be met for certain areas in the passenger cabin due to wide open spaces between individual seat backs which typically provide an adequate handhold. This is prevalent in dining rooms, lounges, offices, bedrooms, and lavatories. With the cabin spaciousness, there is a readily identifiable “aisle” throughout. Any feature hanging down from the ceiling would diminish the appearance of the high quality interior and is not acceptable to the customer. Reference Exemption No. 8460, 10809, and 10686 for compliance method to the requirements identified in these exemptions.

14 CFR 25.813(e): Prohibits installation of interior doors between passenger compartments and emergency exits.

Private areas or dining rooms will often need to span the whole cabin or a portion of the cabin in order to be practical. For such arrangements, privacy can only be provided by means of doors, and therefore, an exemption is needed to allow full use of airplane capabilities without compromising safety for those onboard. Interior doors between passenger compartments and between the exits will be compliant with the requirements previously identified in Exemption No. 8460, 10809, 10686, 7489, and 10879.

14 CFR 25.815: Prohibits aisle width reduction during all phases of flight.

Unlike typical commercial aircraft, private use airplanes (i.e., not for hire or common carriage) have seats that can be moved or rotated during flight operations. The seating can be reconfigured to accommodate meetings and other arrangements. Some of these arrangements can reduce the aisle widths below those specified in 14 CFR 25.815. Advisory Circular (AC) 25-17A contains a “private use” provision which provided aisle width reduction acceptability only during en-route flight and only if clear instructions are provided requiring that the seats be positioned for taxi, takeoff, and landing in an arrangement that meets the required aisle width. AAC proposes to be compliant with the criteria established in AC 25-17A for private use aircraft. Reference Exemption No. 10809 and 10686 for compliance method to the requirements identified in these exemptions.

Basis for Exemption

As stated in Exemption No. 8460, 10809, 10686, 10879, and 7489, [Associated Air Center asserts] the FAA is aware that the precedent has been established for other private use narrow/wide body airplanes to be exempted from the subject requirements.

Exemption will be in the American public interest.

Approval of this request for certain exemptions for the Airbus Model A320-232 when configured for executive application, and operated under FAR part 91 or part 125, is in the public interest of the people of the United States of America.

1. Given the proliferation of executive configured transport category airplanes currently taking place, and anticipated in the near future, approval of these exemptions will enable the United States manufacturers of transport category airplanes to effectively compete in this expanding market.
2. Additional sales of United States manufactured airplanes outside of the traditional airline market, and completion of many of them at United States owned and operated aircraft completion facilities, will serve to increase the profitability of these manufacturers and their supplying/supporting companies.
3. Stability and improved financial performance of these United States companies gives greater job stability to the workers employed by the companies, causing a stabilizing influence to the United States economy, due to the consumer spending activities associated with stable workers.
4. Improved financial performance of United States owned and operated corporations and increased work force stability translates to continued and improved local, state, and federal tax revenues which in turn adds to the stability of the total United States economy.
5. Improved financial performance allows United States corporations to continue to invest in research and development allowing the United States to maintain or improve its competitive position in the world economy.
6. A large number of these types of airplanes will probably be sold to “offshore” clients, improving the United States balance of trade.
7. Since the passengers aboard these airplanes will not be revenue paying customers of the airlines, there can be no degradation to airline passenger safety, and therefore no detrimental impact on the public at large.

Conclusion

As reference to the previously noted partial/granted exemptions, Associated Air Center seeks similar relief with the same provisions for the Airbus Model A320-232, S/N 6659

airplane. In addition, AAC requests that the privileges of this exemption be extended outside of the United States.

Federal Register publication

The FAA has determined that good cause exists for waiving the requirement for *Federal Register* publication for public comment because the request is identical in all material respects to previously granted exemptions; including, in pertinent part, those exemptions the petitioner lists in their petition; and the exemption, if granted, would not set a precedent. Any delay in acting on this petition would be detrimental to Associated Air Center.

The FAA's analysis

The FAA considers that granting this petition is in the public interest for the reasons stated by the petitioner and because the FAA is directed to take into account the type of operation when establishing standards under Title 49 of the United States Code (49 U.S.C. 44701(d)).

As more transport category airplanes have been configured (or reconfigured) 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 a number of 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. Our analysis of this petition considered each of the following design features proposed by the petitioner.

1. Firm Handholds

We have considered the requirement for firm handholds in the context of private-use airplanes, and have determined that it would be impractical for this type of operation and interior configuration with meeting rooms, offices, bedrooms, lavatories, and lounges rather than traditional airline-type seating. However, in those areas of the airplane where traditional seating arrangements are used, the FAA believes that firm handholds should be provided.

2. 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 this Airbus A320 airplane. 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 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 so that there is a direct view of occupants inside the rooms is questionable, at best. In this regard, we believe that some relief may be appropriate for airplanes intended for private use. However, we note

that the justification for the requirement for direct view is not limited to observation of passengers that are not familiar with the interior. Flight attendant seats should be located so that a direct view is provided for the cabin area whenever practical. For example, flight attendant seats should not face away from the cabin. In those areas of the airplane where traditional seating arrangements are used, the FAA believes that a 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.

3. Interior Doors

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 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-use, not-for-hire, and not-for-common-carriage typically use any of five different door categories 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 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:

- a. 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 minimizes the chance that the inertia forces of an accident could force the door closed.
- b. Redundant means are necessary to latch doors open for takeoff and landing. Each latching device must have the capability of retaining the door in the takeoff and landing position under the inertia forces of § 25.561.
- c. 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 25-17A, *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 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.
- d. Doors that fall into Category 1 must be in the open position during taxi, takeoff, and landing, only when the room is occupied.

- e. Doors that fall into Categories 2, 3, or 4 must be in the open position during taxi, takeoff, and landing, regardless of occupancy.
- f. 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. Therefore, some type of remote indication is necessary. The petitioner's proposal to provide remote indication to the flightcrew that these doors are in the open position during taxi, takeoff, and landing is considered adequate for doors that fall into Categories 1, 2, 3, and 4. Doors in Category 5 do not need to comply with this requirement. For Category 5 doors, placards located on or near the door that indicate that the door must be closed for taxi, takeoff, and landing are acceptable.

4. In-flight Aisle Width

The FAA has considered the requirement for in-flight width of the aisle in the context of private-use airplanes and installed cabin furnishings (e.g., seat, table, or divider) that are movable during in-flight operations and would reduce the width of the aisle. This issue is clearly quite significant to the owner/operator of the airplane. Policy Statement No. PS-ANM-25.815-01, *Compliance with the Aisle Width Requirements of § 25.815*, dated December 17, 2012, addresses this issue. However, that policy is limited to airplanes with 19 or fewer passenger seats. The airplane that is the subject of this exemption has more than 19 passenger seats. The petitioner has stated that the airplane is intended for private-use only, not-for-hire, and not-for-common-carriage service. We have determined that because the airplane is limited to this type of operation, in-flight reduction of the aisle width is acceptable.

The FAA's decision

In consideration of the foregoing, I find that a partial 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, I grant Associated Air Center an exemption from 14 CFR §§ 25.785(d), 25.785(h)(1), 25.813(e), and 25.815. The exemption is granted to the extent necessary to allow Associated Air Center to install an executive interior on a private-use, not-for-hire, not-for-common-carriage, Airbus Model A320-232 airplane, Serial Number 6659. Specifically, the exemption allows relief from the requirements for:

- Firm handholds in the passenger compartment in areas such as meeting rooms, offices, bedrooms, lavatories, lounges, etc.; except that firm handholds are required in hallways and areas of the airplane where traditional airline seating is installed.

- Flight attendant direct view in the passenger compartment in areas such as meeting rooms, offices, bedrooms, lavatories, lounges, etc.; except that, in areas of the airplane where traditional seating arrangements are used, direct view should be provided.
- Interior doors between passenger compartments.
- In-flight minimum aisle width.

This exemption is subject to the following conditions and limitations. Items 1, 4, 5 and 6 below, must be documented in the limitations section of the airplane flight manual.

1. The airplane must not be 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. A majority of flight attendant seats must be oriented to face the passenger cabin.
3. Each door between passenger compartments must be frangible.
4. Doors that fall into Category 1 must be in the open position during taxi, takeoff, and landing 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 of the room.
6. Doors that fall into Category 5 must be in the closed position during taxi, takeoff, and landing.
7. Appropriate procedures must be established to both signal the flightcrew in the event a door between passenger compartments is not in the proper position, and prohibit taxi, takeoff, and landing. Doors in Category 5 do not need to comply with this requirement. For Category 5 doors, placards located on or near the door that indicate the door must be closed for taxi, takeoff, and landing, is acceptable.
8. 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 taxi, takeoff, and landing.
9. A means to signal the flightcrew must be in place in the event of a fire in an isolated passenger compartment, and the detection system must meet the requirements of § 25.858(a) through (d).

10. Compliance is required with § 25.815, except that aisle width may be reduced to zero inches between any cabin furnishing (e.g., seat, table, or divider) during in-flight operations only, provided that all areas of the cabin remain easily accessible in the event of an emergency (e.g., in-flight fire or decompression) with interior furnishings in the most adverse positions. Accessibility must be demonstrated to the FAA by test, analysis supported by test data, or, in circumstances agreed to by the FAA, by inspection.
11. Aisle-width requirements of § 25.815 must be maintained during taxi, takeoff, and landing.
12. Any cabin furnishing (e.g., seat, table, or divider) that can be positioned to intrude into the aisle must be clearly placarded to be in the proper location (i.e., not intruding into the minimum required aisle width) during taxi, takeoff, and landing.

Issued in Renton, Washington, on September 3, 2015.

/s/

Jeffrey E. Duven
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