

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

In the matter of the petition of

**Airbus Deutschland GmbH**

for exemption from §§ 25.855(a), 25.857(e)  
and 25.1447(c)(1) of Title 14, Code of  
Federal Regulations

**Regulatory Docket No. FAA-2005-23499**

**GRANT OF EXEMPTION**

By letter dated October 19, 2005, Dr. T. Scherer, Airbus Deutschland GmbH, Hünefeldstraße 1-5, D-28199 Bremen, Germany, petitioned for an exemption from §§ 25.855(a), 25.857(e) and 25.1447(c)(1) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would allow the carriage of up to 16 additional non-crewmembers, (in this case, animal handlers, or groomers) commonly referred to as supernumeraries, on the main deck of Airbus Model A310 series airplanes, to attend to live animal cargo.

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

**Section 25.855(a)**, Amendment 25-72, requires that cargo compartments must meet one of the class requirements of § 25.857.

**Section 25.857(e)**, Amendment 25-60, defines the attributes of a Class E cargo compartment, and requires that a Class E cargo compartment may not be on any airplane other than one utilized exclusively for the carriage of cargo.

**Section 25.1447(c)(1)**, Amendment 25-41, requires, in pertinent part, that oxygen masks must be immediately available to each seated occupant, be automatically deployed with manual backup, and must exceed in number the quantity of seats by ten percent, with the extra units distributed evenly throughout the cabin.

**Related regulations:**

**Section 121.583(a)** contains a listing of categories of the people who may be carried aboard an airplane in part 121 service without complying with all the passenger-carrying airplane requirements of part 121.

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

**“Summary**

“In accordance with the provisions of 14 CFR part 11, § 11.25, Airbus Deutschland GmbH of Hamburg, Germany, hereafter designated “Airbus,” hereby petitions the Federal Aviation Administration (FAA) for an exemption from compliance with the requirements of 14 CFR part 25, §§ 25.855(a), 25.857(e), and 25.1447(c)(1). The grant of this petition would allow the installation of a “groom station” with palletized seating provisions for up to sixteen (16) supernumerary occupants in the aft portion of the main deck cargo compartment of what would otherwise be a Class E main deck cargo compartment. This installation will be accomplished in conjunction with the conversion of Airbus A310-300 series aircraft from passenger to freighter configuration per STC [supplementary type certificate] ST00100NY-T. Airbus proposes to limit the occupancy of the groom station seats to animal handlers either accompanying a shipment of live animals as allowed by 14 CFR part 121, § 121.583(a)(4)(ii), or on an otherwise empty flight to or from a destination where live animal cargo is delivered as allowed by § 121.583(a)(5). An AFM [airplane flight manual] limitation will prohibit occupancy of these seats under any other conditions.

**“Sections Of 14 CFR Affected**

“14 CFR PART 25, § 25.855 (a), Amendment 25-72 effective July 20, 1990

‘The compartment must meet one of the class requirements of § 25.857.’

“14 CFR part 25, § 25.857 (e), Amendment 25-60 effective May 16, 1986

‘A Class E cargo compartment is one on airplanes used only for the carriage of cargo....’

‘§ 25.857(e)(2) through (5) further define the specific requirements for a Class E cargo compartment. Exemption from compliance with these requirements is not requested.’

“14 CFR part, § 25.1447(c)(1), Amendment 25-41, effective July 18, 1977

‘There must be an oxygen dispensing system.... If certification for operation above 30,000 feet is requested, the dispensing units providing the required oxygen flow must be automatically presented to the occupants before the cabin pressure altitude exceeds 15,000 feet. The crew must be provided with a manual means of making the dispensing units immediately available in the event of failure of the automatic system.’

### **“Applicability**

“The FAA has issued the STC ST00100NY-T for Passenger to Freighter conversion of A310 Aircraft. Therefore the requested exemption should be applicable to the following types per TCDS [type certificate data sheet] A35EU:

- A310, Model 304
- A310, Model 308
- A310, Model 322
- A310, Model 324
- A310, Model 325

### **“Description Of The Airplane To Be Modified And Covered By The Requested Exemption**

“The Airbus A310 series are pressurized, transport category aircraft powered by two turbofan engines. These aircraft are specified on TCDS A35EU, first issued on May 30, 1974. The freighter conversion modifications to the subject aircraft include removal of the existing passenger interior, structural improvements to strengthen the floors and fuselage, revision of aircraft systems, and the installation of cargo handling equipment and other furnishings on the main deck to support all-cargo operations.

“As part of the freighter modification, provisions will be made for an optional ‘groom station’ to be located in the main deck cargo compartment. The installation will consist of provisions for seating up to sixteen (16) supernumerary “persons.” These accommodations will be equally distributed on two palletized seating units to be located in the most aft portion of the main deck cargo compartment. The two Type A cabin doors, one on either side of the aft fuselage, remain operable and will be equipped with escape slides to serve as emergency exits for the groom station seating area. An independent oxygen supply will be provided for the supernumerary occupants. Communication with the occupants of the groom station will be possible using the cabin interphone system and cabin address system. Appropriate lighted signs (‘exit’, ‘fasten seat belt’, etc.) and passenger information placards will be positioned in the cargo compartment so as to be visible to all occupants. The supernumerary occupants will be provided with emergency [equipment] including fire extinguishers, life vests, spare oxygen cylinders with masks, and smoke goggles. Emergency lighting of the groom station area will be provided.

“Up to three additional supernumerary persons may be carried in a ‘courier module’ located in the forward area of the main deck cargo compartment. The courier module installation has been previously FAA approved under STC ST00100NY-T. In support of this installation the FAA granted exemption No. 5983 [5938], filed in Regulatory Docket No. 27784, on July 13, 1994. Occupancy of these seat positions will continue to be open to all persons satisfying the requirements of § 121.583(a), independent of other limitations imposed with regard to occupancy of the groom station seats.

“The supernumerary occupants will perform a valuable function in support of live animal transport operations. It is proposed to limit the occupancy of the groom station seats to animal handlers accompanying a shipment of live animals, as allowed by 14 CFR part 121, § 121.583(a)(4)(ii). Airbus proposed that transport of supernumerary persons occupying these seats also be permitted on an otherwise empty flight to or from a destination where live animal cargo is delivered, as allowed by § 121.583(a)(5). The AFM will contain a definition of the conditions under which these supernumerary persons may be carried, and provide specific instruction for preflight briefings. Airbus believes that an equivalent level of safety with the sections of 14 CFR part 25 from which relief is sought will be achieved by these instructions and by the incorporation of appropriate features in the design.

#### **“Extent Of Requested Regulatory Relief**

“The purpose of the request for exemption is to permit the carriage of supernumerary persons on an all-cargo airplane. The requirements of 14 CFR part 25 for which exemption from compliance is sought are directly related to this request: Exemption from compliance with part 25 is sought to the following extent:

- “§ 25.855 (a); relief is sought to permit non-compliance of the cargo compartment with one of the class requirements of § 25.857, due to the presence of seating for supernumerary persons in a cargo compartment.
- “§ 25.857 (e); relief is sought to permit the carriage of up to sixteen (16) supernumerary persons in groom station provisions in the main deck cargo compartment of an all-cargo airplane.
- “§ 25.1447 (c)(1) relief is sought to permit the use of non-automatically presented oxygen equipment at the groom station, in conjunction with lighted signs and aural warning, in lieu of the automatically presented equipment with manual backup required by the referenced Section.

## **“Supporting Arguments**

1. “Cargo operators have a requirement for a number of support personnel, necessary for the safe and/or proper handling of live animal cargo, in flight and during the loading and off-loading processes. Such personnel are obviously required at both the departure and destination of a cargo flight and efficient operations require that carriage of these persons be permitted on an otherwise empty aircraft to or from a destination where live animal cargo is delivered. The presence of specially trained personnel qualified to perform this function on the aircraft is necessary to ensure safe and efficient operations.
2. “International Air Transport Association (IATA) Live Animal Regulations (LAR) are the industry standard for transportation of animals by air. This standard is also enforced as law in the European Union under EC Council Directive 91/628/EEC as well as by other countries. For equine transport, a common application for which on-board animal handlers would be required, the IATA LAR suggests that ‘one experienced groom is provided for each pallet of horses being shipped.’ It is noted that the IATA LAR further states that ‘when [more] than four pallets of horses are carried together, it is up to the discretion of the carrier in agreement with the shipper to determine the appropriate number of grooms (beyond 4) that are required.’ A maximum of twenty (20), 88" x 125" cargo pallets may be positioned in the main deck of the modified A300 series aircraft. Assuming that two [two] of these positions are to be occupied by the groom station seating provisions, eighteen (18) pallets of live animals may be loaded. Per the basic IATA guideline, 18 grooms could be considered an appropriate number and may be a requirement of a prospective shipper. The proposed groom station, in conjunction with the existing optional forward ‘courier module’, will provide an adequate number of seats to satisfy this foreseeable requirement.
3. “Except for the Sections from which exemption is requested, all design criteria of part 25 applicable to the carriage of passengers have been taken into account in the design of the groom station seating arrangement. The presence of the supernumerary does not preclude compliance with § 25.857(e)(2) through (5), which contain the specific requirements for the cargo compartment.
4. “The requirements of part 25 take into account the carriage aboard commercial flights of:
  - “Crewmembers, including flight crew and cabin attendants, who are each assigned duties associated with the operation of the airplane.
  - “Passengers, some of whom have no expected ability to use the emergency provisions and therefore must be attended.

“The persons who would occupy the groom station supernumerary seating area on the modified A310 series aircraft are trained aviation professionals. Furthermore, these personnel will be briefed in autonomous use of the emergency equipment, emergency exit operation, and evacuation. The operator will be required to limit access to these seats to those personnel who can perform these functions without assistance.

**“Action Taken To Ensure Equivalent Level Of Safety**

“In order to guarantee compliance with the conditions provided in support of this petition, Airbus will include an operating limitation in the FAA approved Airplane Flight Manual Supplement for the modified A310 series aircraft that restricts the total occupancy of the groom station. Seating will be permitted for up to sixteen (16) supernumerary occupants, designated by the operator, who satisfy the following requirements as delineated by 14 CFR part 121, § 121.583;

“(a)(4) A person necessary for –

“(ii) The safe handling of animals;

“(a)(5) A person described in paragraph (a)(4) of this section, when traveling to or from his assignment

“The AFM limitation will further clarify that under no conditions will occupancy of the groom station seating area be permitted when any cargo other than live animals is being transported. Persons may occupy these seats on an otherwise empty flight to or from a destination where live animal cargo is delivered. Additionally, each occupant must be found by the operator to have demonstrated the physical ability to autonomously use the emergency provisions. All occupants must be instructed by the operator, in accordance with FAA approved procedures, on the autonomous use of the emergency provisions. All occupants will be orally briefed before each takeoff by an appropriate crewmember as to the location and use of the emergency exits and emergency equipment.

“Full compliance shall be maintained with all requirements of part 25 relative to Class E cargo compartment and the carriage of passengers, except as proposed in this petition for exemption. The following requirements will be met:

1. “The seats installed and the attachment of the pallets must meet CFR 25.561.
2. “All seats and seatbelts must be approved (CFR 25.785).
3. “All items installed on the pallets must meet the applicable sections of CFR 25.853.
4. “Regarding the emergency provisions, the groom station area must comply with CFR 25.801, 25.803, 25.807, 25.809, 25.811, 25.812, 25.813, 25.815. Compliance may be demonstrated by use of the aft emergency exits to be

operable as for the A310-300 passenger version.

5. "The aircraft passenger address system must be capable of providing announcements throughout the main deck area.
6. "Interphone capability must be provided between the flight deck and the groom station seating area.
7. "An evacuation signaling system must be installed in the aft main deck cabin to provide emergency egress notification to the occupants of the groom station seating area.
8. "Lighted 'Fasten Seat Belt' signs operable by a flight crew member must be installed in a manner to be visible under all probable conditions of cabin illumination to all persons throughout the main deck area where supernumerary persons permitted.
9. "Smoking must be prohibited at all times and in all locations in the main deck. "No Smoking" placards must be located so as to be visible throughout the main deck.
10. "Fire extinguishers must comply with CFR 25.851. A minimum of two fire extinguishers must be provided at the groom station.
11. "Suitable fire fighting procedures must be established for the supernumeraries in the groom station.
12. "The oxygen equipment for the seated occupants in the groom station must meet CFR 25.1447. Unless an automatic presentation of the units providing the required oxygen flow in the case that the cabin pressure altitude exceeds 15000ft is not possible, there must be an aural and visual alarm to inform the occupants when the use of oxygen is required. This function must be automatically actuated, with manual backup, in accordance with CFR 25.1447 (c)(1). The aural alert must be audible and recognizable in flight throughout the main deck area.
13. "Protective breathing equipment must be provided at the groom station for fire fighting and must meet CFR 25.1439.
14. "The additional stowage for emergency equipment and/or other items must meet CFR 25.787.
15. "For ditching equipment CFR 25.1415 is applicable

16. “The number of main deck occupants is limited to 19, when the groom station is in use and occupied. This limitation must be placed in to the AFM.
17. “At least one occupant of the groom station must be trained in the emergency procedures e.g. door operation, slide/raft handling, internal communication, etc.
18. “When the groom station is installed and occupied the main deck must be limited to the transport of life animals and grooms only. This limitation must be placed in to the AFM.
19. “All occupants of the groom station must be informed prior to each flight according to the emergency procedures and the handling of emergency equipment e.g. oxygen dispensing units. Airbus must provide all necessary information in order to allow the operator to establish the related briefing procedure.

#### **“Public Interest**

“The public stands to benefit from the granting of the requested exemption. The carriage of supernumerary persons aboard the modified A310 series all-cargo airplane will lead to increased efficiency and a higher level of operational safety. The utility of the cargo airplane will be improved and the operators will benefit from substantial cost savings in the transportation of personnel in support of live animal transport operations. The content of this exemption is similar to those for which the FAA has previously granted exemptions. Hence, precedent would not be established by granting the requested exemption.

“Therefore, the granting of the requested exemption will be in the public interest, as required by CFR 11.27(e).”

#### **Federal Register publication**

The FAA has determined that good cause exists for waiving the requirement for Federal Register publication. Any delay in acting on this petition would be detrimental to Airbus Deutschland GmbH. A summary of this petition was not published in the Federal Register, as the nature of this exemption is similar to those of previous petitions for which no public comments were received.

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

By allowing the carriage of the supernumerary persons aboard cargo flights operators will be able to optimize the utility of the airplanes and the airports. The FAA considers the petitioner’s proposal to be in the public interest for the following reasons:

The FAA has granted several exemptions for the carriage of supernumeraries on cargo airplanes;

These supernumeraries are seen as a benefit to airplane safety and efficient operations of air cargo; and

A significant disruption of air commerce could occur if the petition were not granted.

Airbus is requesting an exemption to allow supernumerary seating in the most aft portion of the main deck cargo compartment, independent of existing exemptions which allow supernumerary seating immediately behind the flightdeck. The seating location in the most aft portion of the main deck cargo compartment denies the supernumeraries the benefit of immediately available flightcrew or flight attendants. In considering Airbus' petition, the FAA's primary concern is addressing any potentially adverse impact by permitting supernumeraries within a cargo compartment that was intended, by part 25, to be an all-cargo compartment.

The certification regulations for transport category airplanes address airplane occupants as being either "crew" or "passengers." Due to differences in training, physical capabilities, and other factors (such as familiarity with the airplane), the means required by part 25 to address emergency evacuation and emergency equipment differ for passengers and crewmembers.

Because supernumeraries are not crewmembers, they are considered "passengers" by default. However, supernumeraries do hold a special status because of their training and other factors. The FAA, therefore, has granted certain exemptions to allow the carriage of supernumeraries on cargo airplanes without compliance with all of the part 25 standards for passengers, provided that certain other conditions are met. Those conditions have varied, depending on the airplane design, the nature of the proposals under consideration, and the number and location of persons to be carried.

Airbus' petition is considered with reference to the passenger safety criteria of part 25 and the safety criteria traditionally given to the special status of "persons," beyond that of passengers. These "persons" have certain knowledge and abilities attributed to them through certain training and special equipment requirements.

In noting obvious differences between cabin configurations envisioned by part 25 and the configuration proposed by the petitioner, as well as between the normal activities associated with passengers as compared with supernumeraries, the FAA wants to make sure that supernumeraries have a supplemental oxygen system that is comparable to the automatically presented mask system that is required for passengers. To that end, comparison is made of the likely response of normally seated passengers observing the automatic presentation of masks throughout the cabin, with that of possibly working supernumeraries who may not notice a "decompression signal." However, requiring supernumeraries who leave the vicinity of the pallet-installed seats to carry portable

oxygen generator devices in addition to the automatically activated aural and visual decompression signal is considered to provide an acceptable equivalency to the readily available, automatically presented, and uniformly distributed requirement of § 25.1447(c)(1). These portable oxygen devices are shown to be equivalent to those normally installed and approved in passenger service units.

As a part of assuring a compensating level of safety for the main deck occupants, nominal fire extinguisher and protective breathing equipment should be provided in accordance with the intent of §§ 25.851(a)(3), 25.851(a)(4), and 25.1439, respectively. In this particular regard, the main deck cargo compartment shall be considered a Class E cargo compartment, a lower-lobe galley, or an isolated compartment, whichever requires the most conservative quantity and location of this equipment.

The petitioner indicates that it will retain all required attributes of a Class E cargo compartment, as addressed in §§ 25.855 and 25.857(e), with the single exception of allowing supernumeraries to be accommodated in this cargo compartment. Supernumeraries must be trained in the location and use of the oxygen equipment and the signals for its use. Additionally, the oxygen units must be adequately sized for continuous and uninterrupted use during worst-case flight duration following decompression.

The petitioner states that the only intended operation is the carriage of supernumeraries to attend to live animals. Any contemplated operations that include the carriage of any non-live-animal cargo, either exclusively or in combination with live animals, is beyond the scope of this analysis, and must be considered in a separate exemption.

In conclusion, the FAA has determined that the existing regulations for type certification do not address occupants that are neither crew nor passengers, and an exemption is warranted to permit carriage of these supernumerary individuals.

### **FAA's decision**

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, Airbus Deutschland GmbH is hereby granted an exemption from 14 CFR 25.785(j), 25.857(e) and 25.1447(c)(1). The petition is granted to the extent required to permit type certification of Airbus Model A310-304, -308, -322, -324 and -325 series airplanes, with provisions for the carriage of supernumeraries. The following additional requirements apply:

1. A maximum of 3 supernumeraries may occupy the area just aft of the flightdeck (previously certified), with an additional 16 supernumeraries occupying the seating area in the aft section of the airplane. The total maximum occupancy of the airplane is limited to 19 persons in addition to the flightcrew.
2. Occupants are limited to the categories specified in §§ 121.583(a)(4)(ii) and 121.583(a)(5).

3. Each occupant must be briefed by a flight crewmember on the use of the exits and emergency equipment prior to each flight.
4. The operator must determine that each occupant is physically able to accomplish the necessary emergency procedures.
5. Emergency Equipment:

In providing for an equivalent level of safety to a normal passenger arrangement for the main deck occupants, fire extinguishers, a first aid kit, and any other required equipment must be provided in accordance with the relevant provisions of 14 CFR part 25. For emergency egress assistance, an axe must be provided to assist in the case of a jammed or stuck exit door as required by § 121.309(e).

6. A minimum of two fire extinguishers must be provided in the supernumeraries' seating area. The fire extinguishers are required to comply with § 25.851.
7. A minimum of two protective breathing equipment units complying with § 25.1415 must be provided and located adjacent to the fire extinguishers installed in the supernumeraries' seating area.
8. Emergency egress must be provided in accordance with § 25.810 with the following additions:
  - a. The aft two Type A exits are to remain activated to serve as emergency exits.
  - b. Approved and certified slides must be installed at all emergency exit doors to provide emergency egress from the aircraft.
  - c. Flotation for the occupants must be provided by the slides, or by rafts.
9. Supernumeraries Emergency Oxygen:

Each supernumerary must be provided with a portable oxygen source with protective breathing masks that must be carried whenever the supernumerary is not in the vicinity of the seats. The portable oxygen units may be located in a common area.

In addition to the portable oxygen units, there must be a fixed oxygen source available at each supernumerary seat.

10. Decompression Signal:

In lieu of the requirement of § 25.1447(c)(1) for automatic presentation of the oxygen dispensing units, an automatically activated aural and visual decompression signal immediately recognizable throughout the cabin area must be provided to notify supernumeraries when to don oxygen.

11. Emergency Lighting System:

The supernumeraries' seating areas must be equipped with an emergency lighting system designed to meet the requirements of § 25.812 and must include, but not be limited to, the following:

- a. Emergency lighting illumination of the seating area, passageways, door signs, instructions, etc., must be provided.
- b. Exit identifier signs.
- c. Floor proximity lighting.

12. Lighted Fasten Seat Belt Signs, § 25.791:

Flightcrew activated lighted "Fasten Seat Belt" signs must be provided that are visible while seated.

13. Lighted Return to Seat Signs:

Flightcrew activated "Return to Seat" signs must be provided throughout the cabin area.

14. An evacuation signaling system must be installed throughout the cabin area to provide the emergency egress notification to the occupants of the supernumeraries seating area.

15. Flight Deck Communications, § 25.1423:

A standard aircraft intercom/public address (PA) system must be installed. The PA system must be audible throughout the cabin area and must be activated from either the flightdeck, or from the supernumerary seating area.

16. Flight Phone, § 121.319:

Two way communication from the supernumerary seating area to the flightdeck must be provided by means of a flight phone installed within reach of at least one of the seated supernumeraries.

17. Placards:

The following signs and placards must be provided:

- a. No Smoking Signs.
- b. Door Operating Instructions.
- c. Slide Operating Instructions.
- d. Raft Operating Instructions.
- e. External Door Exit Markings.

18. Airplane Flight Manual (AFM) Supplement:

The FAA approved AFM must be supplemented to contain operating limitations restricting the carriage of occupants to supernumeraries under specified conditions, as well as the training required for supernumeraries.

- a. The AFM supplement must limit the seats to being occupied by supernumeraries only. They may be similarly occupied during operations in which cargo is not being carried, but not during operations in which cargo, other than live animals, is being carried.
- b. The AFM supplement must have a pro-rated scale for the number of supernumeraries based on less than full utilization of the aircraft to carry livestock.

19. FAA Approved Training Plan:

An FAA approved training plan to instruct the supernumeraries in the prohibition against smoking, procedures, and equipment use relating to ditching, fire fighting and emergency evacuation must be developed and provided to each operator.

This exemption will remain in effect unless superseded or rescinded.

Issued in Renton, Washington, on February 28, 2006.

/s/

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Kalene C. Yanamura  
Acting Manager  
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