

## Volume 3. Air Operator Technical Administration

### CHAPTER 16. CABIN SAFETY AND FLIGHT ATTENDANT MANAGEMENT

#### SECTION 6. FLIGHT OPERATIONS

**2355. SERVICE OF ALCOHOLIC BEVERAGES.** The boarding of a passenger who appears to be intoxicated is a violation of Title 14 of the Code of Federal Regulations (14 CFR).

A. Further, passenger non-compliance with Federal Aviation Administration (FAA) safety regulations may result in interference with a crewmember. This is a violation of 14 CFR part 121 and may also be a criminal violation under 49 United States Code (U.S.C.) section 46318(a). Air Carriers should have procedures in their manuals to ensure that crewmembers know what actions to take if a passenger does not comply with the safety regulations and/or interferes with a crewmember.

B. 14 CFR part 121 requires air carriers to report passenger disturbances associated with alcohol within 5 working days. Due to safety implications, 14 CFR part 135 air carriers should also report these disturbances to the FAA within 5 days. The appropriate air carrier manuals should contain the crewmember procedures used to report these occurrences. The FAA suggests the following procedures:

(1) The pilot-in-command (PIC) and/or the flight attendant in charge of the cabin should fill out a report that, if feasible, both of them should sign.

(2) The report should include:

- The name and address of the individual
- A physical description of the individual, individual's seat number
- The location of the individual's boarding and destination
- Names, addresses, and phone numbers of witnesses
- Names, addresses, and domiciles of the other crewmembers
- A brief narrative of the incident, the airline, flight number, and date

(3) This report should be sent to the designated personnel, which will be in the air carrier's and crewmember's manuals.

C. Air carriers should have adequate procedures

contained in crewmember manuals and training programs outlining the specific duties of crewmembers and ground personnel regarding the use and service of alcohol. For example:

- Procedures to handle disturbances that may occur involving the service of alcoholic beverages
- Procedures regarding the removal of a passenger who appears to be intoxicated
- Procedures to handle passengers who may have brought their own alcoholic beverages onboard

**2357. CARRY-ON BAGGAGE.** As a result of the September 11, 2001 terrorist attacks, the U.S. Congress passed The Aviation and Transportation Security Act. Section 122 of the Act, entitled "Sense of Congress," clearly states its desire for the FAA to maintain its current restriction on carry-on baggage of one bag and one personal item. The Transportation Security Administration (TSA) web site has information as to items that are permitted and prohibited in carry-on baggage as well as provides examples of what constitutes a personal item. The TSA web site is [www.tsa.dot.gov](http://www.tsa.dot.gov).

A. 14 CFR part 121 prohibits an air carrier from closing the passenger entry door in preparation for taxi or pushback, takeoff, or landing an airplane unless each article of carry-on baggage is stowed in a suitable baggage or storage compartment under a passenger seat.

B. An air carrier may not allow the following:

(1) The boarding of carry-on baggage unless each passenger's baggage has been scanned to control the size and amount carried on board in accordance with an approved carry-on baggage program. Additionally, no passenger may board an airplane if his/her carry-on baggage exceeds the baggage allowance prescribed in the air carrier's approved program.

(2) All passenger entry doors of an airplane to be closed in preparation for taxi or pushback unless at least one crewmember verifies that each article of carry-on baggage is properly stowed. Baggage is neither properly stowed nor restrained unless the over-head bin door is closed and

latched. The same requirements apply for stowing carry-on baggage before takeoff and landing.

(3) Stowage of carry-on baggage or cargo that could hinder the use of any emergency equipment. Air carriers should provide suitable storage space for all required emergency equipment.

C. When air carriers allow the stowage of cargo and baggage in passenger seats, they should include this information in their FAA-approved carry-on baggage program. The information about this practice should include:

- The types of cargo that may be restrained in the seat
- Location of the seat(s) where it may be stowed

D. Carry-on baggage may be stowed against a passenger class divider or bulkhead if both are stressed for inertia loads and the baggage is restrained from shifting by FAA-approved tiedown straps or cargo nets. A principal operations inspector (POI) must approve the stowage of carry-on baggage against the bulkhead or divider. The POI will coordinate this approval with the Aircraft Evaluation Group (AEG) and other elements within the FAA, as needed. Carry-on baggage may be stowed in coat closets or other compartments that the FAA approves.

E. The operation of an airplane with carry-on baggage, cargo, or trash stowed in uncertified receptacles, such as lavatories, is contrary to 14 CFR part 121 and the certification basis of the aircraft. If a receptacle in the cabin of the airplane, including the lavatory, is intended for the stowage of carry-on baggage, cargo, or trash, it must be shown to meet the applicable requirements in the airplane certification basis. These requirements include:

- The structural requirements pertaining to the restraint of the receptacle's contents for flight, ground, and emergency landing load conditions
- Requirements pertaining to fire containment

**NOTE: The certification requirements are contained in 14 CFR part 25.**

F. Part 121 § 121.589 stipulates that each air carrier must have a carry-on baggage program approved by the Federal Aviation Administration (FAA). Carry-on baggage programs must comply with existing regulations.

(1) A description of carry-on baggage articles must be in the program. This description shall provide information about the types of articles which could be exempt from the carry-on baggage count. This could include such things as child restraints, canes, assist devices for people who are physically challenged, articles of personal clothing, etc. Some air carriers believe that "exempted articles" do not have to be restrained. Therefore, information that all articles (including those exempt from the carry-on baggage count)

must be properly restrained shall also be stipulated in the carry-on baggage program.

(2) Proper stowage of carry-on baggage is a major safety issue. AC 121-29, as amended, asks the airlines to include in their carry-on baggage programs a definition of "properly stowed." Ensuring that baggage does not interfere with emergency equipment is an important part of the information about proper stowage. In addition, nothing can be stowed in the seat pockets except magazines and passenger information cards. It is not a good safety practice to stow meals, either brought onto the airplane by passengers or served by the air carrier, in seat back pockets. The FAA considers meals carried on by passengers to be carry-on baggage. Even though meals may be exempt by the air carrier from the number of bags permitted, they still must be stowed in accordance with the regulations pertaining to carry-on baggage. Nothing may be stowed in the lavatories, unless lavatories meet all the requirements for approved cargo stowage areas.

(3) The program should specify the crewmember position responsible for ensuring that carry-on baggage is properly stowed. While each crewmember should ensure carry-on baggage procedures are followed, it is important that a specific crewmember be identified to be responsible for insuring carry-on baggage is properly stowed for each cabin or each cabin area. Specific and clear crew assignments are an important part of safety.

(4) The air carriers shall provide information to passengers about their carry-on baggage programs. This information should include advice about the types of articles that should not be carry-on baggage. Many air carriers do this as part of their telephone announcements when reservations are made. In addition, some air carriers provide this information through public address announcements and signs at the airport. A variety of methods used by the air carrier are acceptable, but the public should be able to readily obtain the information.

(5) Carry-on baggage programs should:

- Comply with existing regulations and applicable programs such as the FAA approved weight and balance program
- Provide information about preventing baggage, which cannot be stowed as carry-on baggage, from reaching the aircraft as carry-on baggage
- Ensure that carry-on baggage which is brought to the airplane, but not carried in the cabin, is assigned the same weight as other baggage carried in the cargo compartment
- Define carry-on baggage, including those items that might be exempt
- Provide information about size and number accepted

- Define properly stowed, to include overhead bin stowage and under seat stowage. For proper under seat stowage of carry-on baggage, there must be forward and side restraints to prevent bags from sliding into the aisle.
- Ensure that carry-on baggage does not interfere with emergency equipment, and that nothing is placed in front of or directly on top of emergency equipment
- Address stowage of unusual articles such as musical instruments
- Prohibit the stowage of carry-on baggage and other items in the lavatories and seat back pockets (the only items allowed in seat back pockets should be magazines and passenger information cards)
- Provide specific crewmember assignments for the verification that carry-on baggage is properly stowed
- Address procedures in appropriate manuals
- Provide crewmember training on carry-on baggage, and
- Ensure that information is available to the public about the air carrier's carry-on baggage program

(6) Air carriers should use approved procedures to ensure compliance with their carry-on baggage program. These procedures should include the following items:

- Preboarding scanning to ensure that size and amount of passenger carry-on baggage is in accordance with the allowances prescribed in the approved carry-on baggage program
- Closing and latching each overhead bin before all passenger doors are closed in preparation for taxi or pushback and before takeoff and landing
- Closing, latching, or installing each restraint device for each cargo compartment located in the passenger cabin before all passenger doors are closed and before takeoff and landing
- Stowing each piece of "under seat" carry-on baggage
- Removing all carry-on baggage that cannot be stowed properly in the passenger cabin, before closing all passenger entry doors in prepara-

tion for taxi or pushback, and reloading it as checked luggage in a cargo compartment

(7) Each air carrier may decide if they will allow passengers to travel with their pets in the passenger cabin. If an airline does allow cabin pets, then the pet container is considered to be carry-on baggage and must conform to all carry-on baggage regulations.

- The pet container must be small enough to fit underneath the seat without blocking any person's path to the main aisle of the airplane
- The pet container must be stowed properly before the last passenger entry door to the airplane is closed in order for the airplane to leave the gate
- The pet container must remain properly stowed the entire time the airplane is moving on the airport surface, and for take off and landing
- Passengers must follow flight attendant instructions regarding the proper stowage of the pet container
- Additional information on traveling with pets in the passenger cabin can be found on the FAA Cabin Safety web site ([www.faa.gov/avr/afs/cabinsafety](http://www.faa.gov/avr/afs/cabinsafety))

**2359. STOWAGE OF NON-COLLAPSIBLE FLEXIBLE TRAVEL CANES.** The Department of Transportation (DOT) issued an Order of Dismissal to certain complainants against a U.S. air carrier dismissing the complainant's allegation that the air carrier violated 14 CFR 382, which prohibits discrimination against qualified handicapped persons. The complainants, who are legally blind, alleged that the carrier's failure to allow them to stow their long white flexible canes at their seat constituted unlawful discrimination under DOT's rules.

A. The current rules require air carriers to allow stowage of flexible canes near passengers in a manner consistent with FAA safety regulations.

B. Part 121 requires all carry-on items, other than articles of loose clothing, to be stowed in a suitable closet, baggage or cargo stowage compartment, including an overhead rack having doors or restraints, or under a passenger seat that is fitted with a means to prevent stowed articles from sliding forward in the passenger compartment or sideward into the aisle. In addition, part 121 allows

flexible travel canes to be stowed:

(1) Laterally under two or more connected passenger seats in the same row, if the cane does not protrude into an aisle and is flat on the floor.

(2) Longitudinally between a non-emergency exit window seat and the fuselage, if the cane is flat on the floor.

(3) Longitudinally beneath any two non-emergency exit row window seats, if the cane is flat on the floor.

(4) In accordance with any other method the Administrator approves.

C. The thrust of part 121 is to ensure that all carry-on items are properly restrained in the event of an emergency. The FAA requires that passenger seats, under which baggage is allowed to be stowed, must be equipped with underseat restraints sufficient to prevent articles of baggage, including flexible travel canes and other thin profile items of baggage, from sliding forward. Also, aisle seats, under which the FAA allows baggage to be stowed, must be equipped with underseat restraints to prevent baggage from sliding forward. POIs and/or CSIs (as applicable) shall contact their assigned air carriers to:

- Inform them of these thin profile baggage restraint problems
- Require them to take action to ensure that the FAA approved carry-on baggage program of each air carrier operating under part 121 has policies that ensure proper restraint of all carry-on baggage, including non-collapsible flexible travel canes

**2361. STOWAGE OF GALLEY SERVICE ITEMS.** Part 121 § 121.577, prohibits an air carrier from moving on the surface, taking off, or landing an airplane when any food, beverage, or tableware, furnished by the air carrier, is located at any passenger seat. In an emergency situation requiring evacuation, litter from food service of any kind (including coffee and rolls) can be hazardous due to poor footing. Accordingly, part 121 prohibits serving any food or beverage, regardless of the type of containers used, during movement on the surface, takeoff, and landing. In addition, any food item or container that the passenger carries on board the aircraft would be considered carry-on baggage and must be properly stowed, in accordance with part 121, for movement on the surface, takeoff, and landing.

A. Part 121 also states that, during movement on the surface, takeoff, and landing, the following items must be secured in their stored positions (i.e., correctly positioned and fastened in their storage compartment and restraint means, if any):

- Passenger food and beverage trays
- Serving carts
- Each movie screen that extends into an aisle

**NOTE: If there is a question regarding the stowage of a particular item, and it must be stowed for take-off and landing, then that item must also be stowed for movement on the surface.**

B. Air carriers may arrange to provide limited beverage and food service to their passengers when the aircraft is no longer moving on the surface (e.g., while the aircraft is stationary on a taxiway in a long queue awaiting takeoff.) In such cases, the air carrier should have specific procedures for flight crewmembers and flight attendants to follow, including coordination and communication between the flight deck and the passenger cabin(s), to ensure that these requirements are met before aircraft movement on the surface resumes.

C. In addition, the FAA considers that galley supplies stowed outside the galley are cargo. These supplies must be stowed in accordance with part 121. If galley supplies or other cargo, weighing over 20 pounds, are placed under a seat, the FAA must approve the container or restraint usually, through a supplemental type certificate.

**2363. RETENTION OF ITEMS OF MASS.** Part 121 refers to galley equipment, serving carts, and crew baggage. However, the FAA did not intend to list all items of mass. Crewmembers must restrain any item that can become a hazard by shifting under the load factors of an emergency landing.

A. Particular attention should be given to compliance with part 121 regarding restraints for any baggage carried on the flightdeck. Flightcrew flight-kits are not items of crew baggage. This policy also applies to aviation safety inspectors (ASI) and additional flight crewmembers. While it is logical that flight kits be placed so that movement is restricted, the FAA does not intend that they be restrained in a manner that would interfere with the needs and functions of the flightcrew.

**NOTE: This is only applicable to flight kits.**

B. It is recommended that air carriers include instructions to flight attendants that all serving carts, in addition to being stowed for takeoff and landing and when it is not in use, be properly restrained when in use but not being moved from one location to another. Air carriers should expand this policy to require restraint of all galley equipment (including supplies) that are not being used, so they will not become hazards during periods of inflight turbulence.

**2365. POTENTIAL PROBLEMS ASSOCIATED WITH FOOD AND BEVERAGE SERVICE.**

A. Reports are received regarding passengers and flight attendants burned by the spillage of hot liquids. Air carriers should have procedures discontinuing service of hot liquids when turbulent air is encountered that is not severe

enough for the flight attendants to discontinue all service. In addition, containers for hot liquids should have lids that can be securely closed. Additional service items and areas of concern that could cause injuries are:

- Carts with sharp corners or projections that may cause injury
- Brakes on the carts that are hard to operate, inadequate, or non-existent
- When flight attendants carry food and beverage containers (bottles, glasses, trays, hot water and coffee containers, etc.) loosely on the cart and in turbulence, they may become dislodged and strike or scald passengers and crewmembers

*B.* Flight attendants should not leave carts unattended. Air carriers should have procedures which ensure that flight attendants are no more than 10 feet (3 rows) away from the carts left in the aisles. Flight attendants should not park carts out of their normal galley take off/landing positions unless they can be properly restrained. Some aircraft are equipped with restraint devices such as mushrooms, which will properly hold carts in other areas. When this is the case, flight attendants may leave them unattended. However, most items should be cleared from the top of the carts. During a sudden directional change of the aircraft, items left unrestrained on the top of the carts can become dislodged and cause injuries.

*C.* Air carriers should have procedures for reporting cart and cart restraint deficiencies. Flight attendant manuals should contain information about the procedure for cart stowage and restraint.

### **2367. PROBLEMS WITH LOWER LOBE GALLEYS.**

*A.* The FAA requires air carriers to provide instruction to flight attendants on electrical equipment and related circuit breakers located in the cabin area of aircraft, which includes all galleys, service centers, and lifts. A good understanding of the function of these circuit breakers could eliminate a problem before it becomes a safety hazard. Air carriers should assure that this subject is adequately covered in flight attendant training for all aircraft so equipped.

*B.* The FAA received information concerning passengers having access to the lower lobe galleys. They either let themselves down in the lifts or the flight attendant took them down. There is no justifiable reason for passengers to be in the galley where they would interfere with the flight attendant duties. In addition, there is no provision for oxygen masks and safety belts for extra persons. Air carriers should incorporate into their manuals and training programs prohibition against passengers being allowed in the lower lobe. Hence, they should placard each lift.

*C.* Some air carriers have conducted training and/or instructions in the lower lobe during flight with five or six flight attendant trainees. They have also allowed

deadheading crewmembers to occupy or visit the lower lobe during flight. Due to the number of oxygen masks and seatbelts, only two flight attendants should be allowed in the lower lobe at any time during flight. One additional person may be allowed for instruction, evaluation, or inspection duties.

*D.* It is very difficult to hear the public address (PA) system announcements in the lower galley because of aerodynamic noise and other noise emitting from nearby systems. The flight attendant working in the galley cannot hear the captain's warning of clear air turbulence or 10-minute warning of descent. In addition, there have been reports of numerous failures of the intercom systems. Sometimes, flight attendants in the galleys rely on the other flight attendants to pass the warning. Air carriers should incorporate flight attendant procedures to assure that all warnings are passed to and acknowledged by persons in lower galleys.

*E.* En route inspections have revealed a nonconformity throughout the aviation industry in training and procedures for flight attendants who have to work in lower lobe galleys. Air carriers' emergency procedures pertaining to the lower lobe should include procedures and training on the location and use of emergency equipment. The emergency procedures should also include the removal of an injured flight attendant in the lower section.

*F.* Minimum Equipment Lists (MEL) between different aircraft (DC-10, L-1011, and B-747) are not always compatible. In one instance, if the personnel lift is inoperable, the flight attendant will not perform food servicing during flight. In another instance, if the personnel lift is inoperable, the flight attendant may go down to the lower galley, but the service is limited to a number of carts that can be delivered and stowed in the passenger cabin. In addition, flight attendants have sustained serious injuries caused by certain lift malfunctions that occurred during flight. Air carriers should include procedures in their flight attendant manuals and training programs to assure that there are adequate instructions throughout their system on dispatching aircraft with inoperable personnel or cart lifts. Additionally, they should have procedures in the event these lifts become inoperable during flight. Further, assurance should be sought to determine that each air carrier is keeping flight attendants informed on conditions and procedures, which are set forth in the MELs, that affect them.

*G.* Some airlines do not have a sufficient number of mushrooms in the cabin in order for crewmembers to "tie down" each serving cart in the event of turbulence. These carts can weigh up to 250 pounds and should be anchored when not being transferred to or from the cart lifts. Air carriers' procedures and training should include instructions to the flight attendants that all carts must be properly stowed

for:

- Movement on the surface
- Takeoff
- Landing
- Whenever they are not being moved from one location to another

*H.* The FAA has found some retractable mushrooms in lower galleys inoperable. They are either jammed in the down position or, when lifted to the up position, will fall back down when the cart is placed over it. The automatic brakes are insufficient to keep the carts from moving about during takeoff and landing. Air carriers should conduct inspections periodically in the lower lobe to see that the mushrooms are operable and that crewmembers adhere to procedures requiring each cart to be tied down or stowed. Air carrier maintenance programs should ensure that mushroom restraints and other types of floor tie downs are not worn down. The thickness and circular diameter must be maintained in order for the mushroom-type of restraints to properly secure the cart.

**2369. PREDEPARTURE CABIN EQUIPMENT CHECKS BY FLIGHT ATTENDANTS.** Some air carriers assign flight attendant tasks for making a predeparture check of the normal and emergency equipment in the passenger cabin.

*A.* In reviewing this situation, we found that in most cases the flight attendants on the wide-body aircraft have predeparture equipment check assignments. On other aircraft, the flight crewmembers and flight attendants sometimes share the predeparture check of passenger cabin normal and emergency equipment. In each case, the POI and/or CSI (as applicable) indicated that the flight attendants received training on the equipment and the operations manual contained appropriate procedures.

*B.* When an air carrier elects to have the flight attendants accomplish a predeparture check of normal and emergency equipment in the cabin, the POI and/or CSI (as applicable) should be fully aware of the specific tasks assigned to the flight attendants. These tasks should be reviewed to ensure that they are not in the areas which require an airman certificate. Generally, the predeparture assignments of the flight attendants should be relative to the type of equipment used in connection with their regular and emergency duties. Appropriate initial and recurrent training is required to ensure the flight attendants are properly qualified. Air carriers must also include adequate procedures and instructions in their manuals so that the applicable personnel will be able to properly perform their assigned tasks.

*C.* The assignment of the flight attendants by an air carrier to conduct a predeparture check of the cabin does not relieve the air carrier from training flight crewmembers on

normal and emergency equipment in the passenger cabin.

**2371. PASSENGER BRIEFING ON FLOOR PROXIMITY LIGHTING.** Briefing airline passengers regarding the presence of floor proximity lighting is a good safety practice and should be encouraged. Part 121 requires the installation of floor proximity emergency escape path marking. The purpose of this lighting is to provide emergency evacuation guidance for passengers when all sources of illumination, more than 4 feet above the cabin aisle floor, are totally obscured.

*A.* Many airline passengers are not aware of this lighting. Therefore, many air carriers include a statement about the lighting in the passenger briefing required by part 121 and depict it on the passenger information cards.

*B.* Information that should be included in the passenger briefing includes the actual location of the lights, such as floor level or seat level. In addition, the briefing should include the change in pattern, such as color and/or design of the lights, that indicate the location of emergency exits.

**2373. CABIN DOOR OPERATING MECHANISMS.**

*A.* At times, passengers have consciously or inadvertently moved door operating mechanisms, even when the mechanisms are located under protective plastic covers. In at least one case, a passenger removed a plastic cover before the door operating handle was moved. A handle that is moved during flight could accidentally cause an aircraft door to open during landing. In one situation, when a door opened, the slide was deployed. This was unsafe and caused considerable expense to the air carrier.

*B.* POIs and/or CSIs (as applicable) should ensure that their assigned air carriers:

(1) Inform crewmembers of the potential problem of and the need to be alert to the possibility of passengers moving an exit mechanism.

(2) Have procedures for crew members to check the position of the door handles periodically during flight.

**2375. FOKKER 28-4000 PASSENGER SAFETY INFORMATION CARDS.**

*A.* The National Transportation Safety Board (NTSB) believes that there may be a problem with the door operation depiction on some Fokker 28-4000 passenger information cards. The NTSB requested that the FAA review the Fokker 28-4000 passenger information cards to ensure the following:

- That the cards accurately show the procedure for operation of the two forward doors
- That the cards show the procedure for the removal of the overwing emergency exit handle cover

- That the cards contain a warning to passengers that the plastic cover should only be removed in emergency situations

*B.* Even though the passenger information cards are supplementary to the oral briefings required by part 121, POIs and/or CSIs (as applicable) assigned to air carriers operating the Fokker 28-4000 should review pertinent passenger safety information cards to ensure that they show the correct information. In the event that the cards are deficient, the proper information should be displayed when the cards are replaced.

**2377. MISCELLANEOUS OPERATIONAL AMENDMENTS, AIR CARRIER CABIN SAFETY OPERATIONS PROVISIONS.** In this rule, there are several amendments to parts 121 and 135 that affect the following areas of air carrier cabin safety operations:

- Safety belt security during movement on the surface
- Stowage of service items during movement on the surface
- Passenger information and passenger briefing provisions
- Passenger compliance with signs, placards, and crewmember instruction
- Emergency evacuation assisting means readiness

*A. Passenger Information.*

(1) Parts 121 and 135 require passenger information signs to be illuminated during any movement on the surface. In addition, these regulations require passengers to obey the instructions of signs and placards and the instructions of crewmembers regarding these signs and placards.

(2) Regulations require that:

- Passengers be briefed on prohibitions against smoking and
- A statement be added to the pre-takeoff announcements stating that passengers must comply with the instructions conveyed by lighted passenger information signs and placards and of crewmembers regarding the signs and placards

*B. Arming Doors.* Part 121 requires that any time there are passengers on board, one door must be ready for evacuation. If the jetway or stairs are pulled back, then at least one door must be armed (for example, for certain door slide/raft installations, the girt bar must be in place).

*C. Movement on the Surface.*

(1) Parts 121 and 135 require that all service items (including food, beverage, tableware, beverage trays, serving carts and movie screens) are in their stowed position for movement on the surface. If there is a question regarding

the stowage of a particular item, and it must be stowed for takeoff and landing, then it must also be stowed for movement on the surface. It should be noted that air carriers may arrange to provide limited beverage and food service to its passengers when the aircraft is no longer moving on the surface (e.g., when the aircraft is stationary on a taxiway in a long queue awaiting takeoff or in the airport penalty box). In such cases, the air carrier should have specific procedures for flight crewmembers and flight attendants to follow, including coordination and communication between the flight deck and the passenger cabin. This will ensure that these new requirements are met before aircraft movement on the surface resumes.

**NOTE: AFS-200 is reviewing the implications for operations of the requirement that air carriers delay taxiing on a flight to prevent aircraft movement while food and beverages are being stowed. AFS-200 is considering changes to this requirement. POIs and/or CSIs (if applicable) should inform their assigned air carriers that picking up food and beverages before movement on the surface will not be part of the compliance schedule at this time.**

(2) Parts 121 and 135 now require all occupants of an aircraft to be seated with their safety belts fastened during movement on the surface.

**2379. USE OF CHILD/INFANT RESTRAINT SYSTEMS IN AIRCRAFT.** This paragraph provides additional information on the use of child/infant restraint systems in aircraft. The FAA and the National Highway Traffic Safety Administration (NHTSA) have agreed upon a single government performance standard that will satisfy both aviation and highway safety requirements for child/infant restraint systems. Information regarding most CRS manufacturers is maintained at the NHTSA web site ([www.nhtsa.dot.gov/people/injury/childps/csr2001/csrhtml/csmanufacturers.html](http://www.nhtsa.dot.gov/people/injury/childps/csr2001/csrhtml/csmanufacturers.html)).

*A.* Part 121 requires that “during takeoff, landing, and movement on the surface of an airplane, each person on board shall occupy an approved seat or berth with a separate safety belt properly secured about him/her. However, a person who has not reached his/her second birthday may be held by an adult who is occupying a seat or berth.”

*B.* A person under the age of two may be held in an adult’s lap or placed in a regular passenger seat for takeoff and landing. However, because of the safety benefits, the FAA encourages the use of approved child/infant restraints aboard aircraft (for more information, see: [www.faa.gov/index.cfm/apa/1268](http://www.faa.gov/index.cfm/apa/1268)).

*C.* Air carriers are encouraged to allow the use of empty seats to accommodate CRSs. However, air carriers are under no obligation to allow unticketed children to occupy empty passenger seats, regardless of whether the child is to be

placed in a CRS.

D. Air carrier personnel, specifically flight attendants, should be aware of the following items pertaining to CRSs:

- The CRS should have a solid back and seat
- The CRS should have internal restraint straps installed to securely hold the child to the CRS
- The CRS should be labeled stating that it has been approved for aviation use, and
- The CRS should have instructions on the label which must be followed; (labels for approval from other countries are allowed and therefore may vary)

E. Federal Motor Vehicle Safety Standard (FMVSS) 213 defines booster seats as seats NOT having backs. Based on this definition, the use of such automotive booster seats are not authorized in air carrier operation. Unfortunately, some manufacturers market and label their approved aviation child restraint seats as “booster seats,” even though these seats have backs. Thus, aviation “booster seats” with backs and labeled “approved for aviation use” can be used for all phases of flight provided the label instructions are followed.

**NOTE: Children who fit in an automotive booster seat usually can be properly restrained in an airline passenger seat without a CRS.**

F. Belly belts and vest type devices are not approved for use during take-off, landing, and movement on the surface. These devices usually attach the child to the accompanying adult and could contribute to injuries when the adult rotates over his/her seat belt during deceleration. Other such devices tie the child to the passenger seat and since a solid back is not provided, the child may be injured when the back of the aircraft seat back rotates forward. Although some foreign airlines have approved the use of “belly belts” and other devices that do not have solid backs and solid seats, they are not approved for take-off, landing, or movement on the surface.

G. Child restraint systems must be installed in forward facing aircraft seats, and in accordance with instructions on the label. This includes placing the child restraint in either a forward or aft facing direction in the passenger seat. The CRS should not be installed in the same row of an emergency exit nor in the row forward or aft of an emergency exit. A window seat is the preferred location; however, other locations may be acceptable, provided the CRS does not block any passenger’s (including the parent or guardian of the child) egress to the aisle used to evacuate the aircraft. A responsible adult should occupy a seat next to the child.

H. Parts 121 and 135 require air carriers to accept approved CRSs when the parent/guardian/attendant has

purchased a ticket for their use.

(1) These regulations require air carriers to ensure that the child is properly secured in the CRS, the CRS is properly secured in a forward facing seat, the child does not exceed the weight limits of the CRS, and the CRS is approved and has the proper labels.

(2) These regulations do not permit the use of safety belt extensions (commonly referred to as belly belts), the use of vest and harness type devices that attach to the parent or to the parent’s restraint system or the use of booster-type child restraint systems (even though certain of these type devices bear appropriate labels showing that they meet applicable United Nations standards or are approved by a foreign government).

(3) If the approved CRS is supplied by the parent or guardian, they are primarily responsible for ensuring that the CRS is approved, the child is the right size and weight for the CRS, and the CRS is properly installed in a forward facing passenger seat. In this case, flight attendant responsibility is limited to checking with the child’s parent or guardian to ensure that the above conditions have been met, that the child appears to be properly restrained in the CRS, and that the CRS appears to be properly installed in the passenger seat. Finally, it is the responsibility of the parent or guardian to ensure that the CRS is free of any obvious defects and that it functions properly.

(4) In cases where the approved CRS is supplied by the air carrier, properly trained personnel should ensure that the CRS is free of any obvious defects and functions properly. The trained personnel should also ensure that the child does not exceed the weight limits of the CRS, is properly restrained in the CRS, and the CRS is properly installed in a forward facing passenger seat.

I. To improve emergency evacuation capabilities, the FAA recommends the following precautions:

- The air carrier’s training program should cover the use of child restraint systems
- The CRS should be secured to a regular passenger seat at all times or, if not in use, stowed as carry-on baggage
- The CRS should not be located in an aisle seat or in a row of seats immediately forward of, aft of, or in the same row as an emergency exit
- During an emergency evacuation the CRS should remain attached to the passenger seat, and only the child should be removed from the aircraft
- No other passenger may occupy the same passenger seat with the CRS
- CRSs are not approved for use in sideward facing passenger seats

- The child should always be properly secured in the CRS whenever other passengers are required to have their safety belts fastened

*J.* In the event that a parent/guardian is traveling with more than one child in a CRS or is traveling with several small children, only one of whom is occupying a CRS, good judgment should be used regarding placement of the CRS. At a minimum:

- The CRS should be placed so that it does not block any passenger's (including the parent/guardian's) egress to the aisle used to evacuate the airplane
- The CRS should be placed so that the parent/guardian can reach the child in the CRS to release and evacuate with the child, should an emergency evacuation be necessary

**NOTE: As long as the above conditions are met, this may result in the CRS being placed between a passenger (including the parent/guardian) and the aisle and/or the CRS being placed in a seat other than a window seat.**

*K.* The majority of individuals who use CRSs on commercial aircraft are young children who typically weigh 40 pounds or less. However, there are some individuals who, because of physical challenges, need the support and security that a restraint system provides in order to travel safely on aircraft. The scope of the CRS regulations that are contained in 14 CFR parts 91, 121, 125, and 135 apply to any individual who is a child (i.e., under age 18) who does not exceed the specified weight limit for the CRS, is properly secured in the CRS, and is in a CRS that bears the proper labels. Air carriers should ensure that flight attendants are aware that larger children (who have not reached their eighteenth birthday) may use a properly approved CRS that is appropriate for that child's size and weight. In this case the air carrier may not prohibit the use of the CRS. There are several companies that manufacture CRSs approved for use on aircraft that are specifically designed for larger children who are physically challenged. Information regarding some of those manufacturers is posted on a list maintained by NHTSA ([www.nhtsa.dot.gov/people/injury/childps/csr2001/csrhtml/safetyFeatures.html](http://www.nhtsa.dot.gov/people/injury/childps/csr2001/csrhtml/safetyFeatures.html)).

**NOTE: No air carrier may prohibit the use of a CRS by any child under the age of 18 as long as the CRS is properly labeled, the child does not exceed the specified weight limit of the CRS, and the child is properly secured in the CRS.**

*L.* In the case of an adult (i.e., 18 years old or older) who because of physical challenges needs the support and security that a restraint system provides in order to travel safely on aircraft, the individual or the air carrier (on the individual's behalf) may request an exemption to § 121.311(b). There are several companies that manufacture

restraint systems that may be used by adults.

(1) To find out how to submit a petition for exemption, go to [www.faa.gov/avr/arm/index.cfm](http://www.faa.gov/avr/arm/index.cfm).

(2) Exemption information is available for your review on the FAA's Automated Exemption System web site. To review a previously granted exemption regarding this issue, go to <http://aes.faa.gov> and type "12485" in the blank "Docket Search" field.

*M.* On July 16, 2002, the FAA published Technical Standard Order (TSO) C100b, Child Restraint Systems, which contains minimum performance standards that a child restraint system must meet in order to obtain approval and be identified with the applicable TSO marking. The TSO was published for review and comment prior to its adoption. This TSO can be accessed at <http://av-info.faa.gov/tso/Tsocur/current.htm>.

*N.* Current operating rules in part 91, 121, 125, and 135 require that child restraint systems used on aircraft bear two labels: "This child restraint system conforms to all applicable Federal motor vehicle safety standards" and "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT," in red lettering, or must bear either a label showing approval of a foreign government or a label showing that the seat was manufactured under the standards of the United Nations. However, under current operating rules, a CRS that is specifically designed for use on aircraft under the performance standards of TSO-C100b, as amended, and is not certified under the standards of FMVSS 213, will not have the labeling required by current regulations to be used on aircraft.

*O.* In order to use a CRS that has been marked in compliance with TSO C100b, as amended, on any aircraft, the CRS must also bear the labeling required by current regulations. In order to use the CRS without the proper labeling, an exemption from the regulations would be required. The exemption process is discussed in paragraph K above.

**2380. THE USE OF NON-APPROVED CHILD/INFANT RESTRAINT SYSTEMS IN AIRCRAFT.** The regulations that are contained in 121.311 prohibit the use of certain types of child restraint systems during ground movement, takeoff, and landing.

*A.* During the cruise portion of the flight, however, there is no regulatory prohibition regarding the use of any type of child restraint, including those that are prohibited from use during ground movement, takeoff, and landing.

*B.* There is also no regulatory requirement that an air carrier permit the use of "non-approved" CRS during the cruise portion of flight. If an air carrier decides to implement an operational policy that is not inconsistent with the regulations,

they have the operational flexibility to do so.

**2381. DOOR/SLIDE ARMING.** Crewmembers should be able to evacuate passengers from an aircraft whether it is moving on the surface or parked at the gate.

*A.* In accordance with existing regulations, air carriers must have procedures to ensure that immediately after the stairs or jetway are pulled back from the airplane, at least one floor level exit is armed. At least one air carrier has expressed concern that this practice could result in an evacuation where the slide would inflate and perhaps hit someone on the ground. If this concern is of primary importance to an air carrier, then the air carrier should have a policy that ensures that all ground vehicles are out of the possible “slide strike” area before the jetway or stairs are pulled back.

*B.* In the past, the requirement stipulated that the crewmembers must arm doors before the pilot taxied the aircraft. However, the present requirements mandate that crewmembers arm each floor level exit be armed before movement on the surface. The ideal time to arm the doors is immediately before the aircraft begins to move. Procedures to arm doors simultaneously with the start of pushback are also acceptable.

**2383. PASSENGER SEATBELT DISCIPLINE.** Passengers unfastening their seatbelts when the seatbelt sign is illuminated concerns the FAA. The Regulations require air carriers to illuminate the seatbelt sign:

- Before movement on the surface
- During takeoff and landing
- At any other time when considered necessary by the pilot in command

*A.* Regulations also require all passengers to occupy their seat with their seatbelt fastened when the seatbelt sign is illuminated and to comply with crewmember instructions regarding the “Fasten Seat Belt” sign.

*B.* When the seatbelt sign is turned on, crewmembers should make an announcement. The announcement should emphasize that when the seatbelt sign is illuminated, regulations require passengers to fasten their seatbelts. In addition, as long as the sign is illuminated, crewmembers should periodically remind passengers that the seatbelt sign is lighted. Crewmembers should make additional and forceful announcements if passengers stand and the seatbelt sign is illuminated, especially during turbulent air operations.

*C.* Many passengers regard the illumination of the seatbelt sign prior to landing as a signal to prepare for landing by going to the lavatory, standing, or stowing baggage. This is not a safe practice. Some crewmembers have adopted the desirable practice of making an announcement before turning on the seatbelt sign for

landing. They announce that:

- The flight will be landing shortly, now is the time to go to the lavatory or move about the cabin
- Once the seatbelt sign is illuminated, passengers should be in their seats with their belts fastened

*D.* Historically, most airlines ensured passengers were seated during movement on the surface. However, during the 1980's, at least one airline allowed its aircraft to be taxied with passengers standing. The FAA Administrator defined this practice as a careless and reckless operation. The FAA filed violations and the courts upheld them. Therefore, the FAA incorporated into the FAR the requirement that the seatbelt sign must be turned on prior to movement on the surface. This does not mean that pilots must stop an aircraft when a passenger stands. Pilots must weigh the safety alternatives before determining if it is appropriate to stop an airplane because a passenger stands up during taxi. Pilots may elect to stop the aircraft when it is pulling up to a gate and several passengers stand. However, there may be other times when stopping the aircraft could cause a more serious safety problem.

*E.* The regulations do not require all passengers to be seated before the passenger loading door is closed. Requiring passengers to be seated before the passenger loading door is closed is one way air carriers have chosen to obtain passenger compliance with the lighted seatbelt sign. This is a good practice, but not one that the FAA requires.

*F.* Crewmembers must give an announcement when the seatbelt sign is turned off inflight that passengers should keep their seatbelts fastened when seated. The POI and/or CSI (as applicable) should emphasize the requirement for this announcement. In addition, POIs and/or CSIs (as applicable) should encourage air carriers to establish additional procedures to emphasize the importance of passengers wearing their seatbelts at all times when seated. These procedures could include:

- Additional announcements
- Video presentations
- Articles in air carrier publications or pamphlets in seat pockets

*G.* POIs and/or CSIs (as applicable) should encourage air carriers to use announcement techniques that serve to forewarn passengers of pending situations that will require them to comply with the seatbelt sign when it is illuminated. Examples of these situations include expected turbulence and approaching destination. These techniques should be designed to preclude any passenger movement once the seatbelt sign is illuminated.

*H.* Standup bars on wide-bodied air carrier aircraft have caused considerable concern for the safety of passengers when turbulence is encountered. On occasion, both passengers and flight attendants have disregarded the

seatbelt sign when it was turned on and continued to congregate near the bar. This results in a potentially hazardous situation, not only for those passengers standing, but also for others seated in the area adjacent to the bar. From a safety viewpoint, whenever the seatbelt signs are on, all passengers, including those in the vicinity of the standup bar, should be secured in their seats. Air carriers having standup bars installed in their aircraft should issue suitable instructions for the flight attendants regarding seatbelt discipline procedures.

**2385. FLIGHT AND CABIN CREWMEMBER COORDINATION AND COMMUNICATION AND SAFETY DURING POTENTIALLY HAZARDOUS CONDITIONS OF FLIGHT.** A review of aircraft accidents/incidents and cabin en route inspections reports indicates that there is a need for better communication between flight and cabin crewmembers. Also, there is a need for better seatbelt discipline by passengers and flight attendants.

*A.* Due to the nature of their cabin duties, flight attendants are susceptible to turbulence-related injuries. Close coordination between cabin and flight crewmembers can facilitate the timely completion of cabin services and preclude the exposure of flight attendants to potential injury during known or anticipated encounters with turbulence.

*B.* During flight, the PIC is responsible for the safety of passengers and crewmembers. Therefore, the PIC should ensure that:

- The cabin crewmembers complete their safety duties as appropriate for each phase of flight
- During takeoff and landing, the flight attendants are seated at their duty station with safety belts and shoulder harnesses fastened
- During movement on the surface, unless performing safety-related duties, flight attendants must sit with safety belts and shoulder harnesses fastened

*C.* During emergency conditions, the flightcrew is primarily responsible for maintaining control of the airplane. However, as conditions permit, the flightcrew should brief the flight attendants on the nature of the emergency, the approximate amount of time for cabin preparation, and the contemplated course of action. This will enable the flight attendants to more effectively carry out their duties.

*D.* Air carriers should be reminded that it is advisable to make a public address announcement to remind passengers that Federal regulations require them to fasten their seatbelts

when the seatbelt sign is turned on. Additionally, part 121, sections 121.415 and 121.417 specify that training programs must ensure that each crewmember remains adequately trained. The training program should include:

- Instruction on coordination among crewmembers in abnormal/emergency situations
- Review and discuss previous aircraft accidents and incidents pertaining to actual emergency situations

*E.* Coordination and communication between the flight and cabin crewmembers during all phases of flight concerns the FAA. The FAA requests that POIs review their assigned air carrier's training program and operational manuals to ensure that the air carrier establishes a safe and effective means of coordination and communication between the flight and cabin crewmembers. POIs should address the operation, coordination, and communication procedures.

- Guidance to flight crewmembers on the importance of a predeparture briefing of the senior flight attendant, which includes forecast turbulence related weather conditions, scheduling of cabin services, clean up, securing of galley and cabin, carry-on baggage, and passengers
- Use of the public address system to alert flight attendants and passengers of anticipated inflight turbulence
- Guidance for notifying flight attendants when they are to cease inflight services, secure the galley, sit with their restraints fastened, and/or resume duties
- Standardization notification to the flightcrew from the cabin crew when the cabin crew completes all pretakeoff and prelanding duties and the cabin has been secured
- Standardized pretakeoff and prelanding signals from the flightcrew, which the flightcrew uses to allow sufficient time for flight attendants to be seated

**2387. BRACE FOR IMPACT POSITIONS.**

*A.* The Aeromedical Research Branch of the Civil Aerospace Medical Institute (CAMI), Protection and Survival Laboratory, has conducted research and tests with respect to establishing "brace for impact" positions for passengers and flight attendants.

*B.* In order to establish a best brace for impact position for each person, it would be necessary to know the size and physical limitations of the individual, the seating configuration, the type of emergency, and many other

factors.

C. There are two primary reasons for bracing for impact.

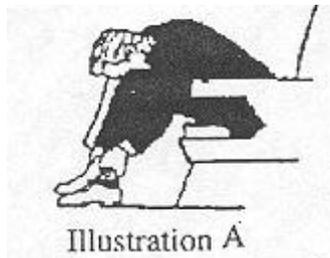
(1) *To reduce flailing.* Having the occupant flex, bend, or lean forward over their legs can reduce flailing.

(2) *To reduce secondary impact.* Repositioning the body (particularly the head) against the surface it would strike during impact can reduce secondary impact.

D. Today's aircraft may have seating arrangements that result in very small seat pitches (the space between seats) or a combination of small and large seat pitch spacing (i.e., an aircraft with a first class/coach seating arrangement). Also, amendments to part 121 have upgraded the airworthiness standards for flight attendant seats, including the requirement for shoulder harnesses. In view of this information, this provides the best possible information for most emergency situations.

E. Passengers should take a brace position in one of several ways. In all cases, the seatbelt should be worn, as tight and as low on the torso as possible.

(1) In aircraft with low-density seating or seats spaced relatively far apart, passengers should, as depicted in Illustration A or B, rest their head and chests against their legs. Passengers can reduce flailing by grasping their ankles or legs, as depicted in Illustration A, or if they are unable to do that, wrapping their arms under their legs, as depicted in Illustration B. Their heads should be face down in their laps and not turned to one side.



(2) In aircraft with high-density seating or in cases where passengers are physically limited and are unable to place their heads in their laps, they should position their heads and arms against the seat (or bulkhead) in front of them, as depicted in Illustration C.



(3) Passengers in aft facing seats should rest their heads on the seat back (or bulkhead) behind them as depicted in Illustration D. The passengers should not place their hands in back of their heads, as has been recommended in the past. Rather, passengers should either place their hands in their laps or grasp the side of their seats.



(4) The passengers should place their feet flat on the floor and slightly in front of the edge of the seat.

(5) Passengers should not use pillows or blankets between their bodies and the object they are bracing against (either a seat back or their own body). Pillows and blankets provide little, if any, energy absorption and increase the possibility of secondary impact injury. Also, pillows and blankets could create additional clutter in the aisles which could be a detriment in an emergency evacuation.

(6) Children that occupy approved child restraint devices should be braced in accordance with the manufacturer's instructions. Children in passenger seats should utilize the same brace position as adults. Adults holding infants should provide uniform support to the infant's head,

neck, and body and lean over the infant to minimize the possibility of injury due to flailing.

(7) Pregnant or handicapped passengers may or may not need the assistance of another person in taking a brace position, but should, in general, attempt to take the same brace position as the other passengers. If aft facing passenger seats are available, these passengers may benefit from being located to those seats.

F. The brace positions for flight attendants will depend on the direction their seats face and type of restraint system those seats are equipped with.

(1) In forward facing seats equipped with an inertial reel shoulder harness, the flight attendants should sit back in the seat, as depicted in Illustration D, and rest their chin on their sternum, as depicted in Illustration E. If the seats are equipped with noninertial reel-type shoulder harnesses, the flight attendants should fasten their shoulder harnesses as tight as possible, lean against them, and rest their chins on their sternums as depicted in Illustration E. The flight attendants should position their arms and hands in their laps or hold on to the side of their seats, but should not be holding onto their restraint systems.



Illustration E

(2) In rear facing flight attendant seats, the flight attendants should sit back in their seats, rest their heads against their seat backs or headrests, and have the restraint systems, inertial or noninertial type, as tight as possible, as depicted in Illustration D. They should not clasp their hands behind their heads, but position them as in a forward facing seat.

G. Helicopter “brace for impact” positions are the same as those for airplanes. Flight attendants, if present, should utilize either the brace position for passengers or flight attendants depending on their seats and restraint systems.

H. In the case of an anticipated emergency landing, the passengers should be briefed on the above information. In the case of an unanticipated emergency, the flight attendants may only have enough time to give a short command, such as “lean over” or “grab your ankles.” Experience has shown that in an attempt to take a brace position of some sort, the

passengers will end up in a position that could result in less injury than if they make no attempt at all.

I. The air carrier's crewmember emergency training program should contain bracing information appropriate to the aircraft and seat spacing used by that air carrier.

### **2389. EMPHASIS ON TIME MANAGEMENT AND CREW COORDINATION IN PREPARATION OF CABIN FOR IMPENDING EMERGENCY LANDING.**

A. On July 19, 1989, a DC-10-10 experienced a catastrophic failure of the number 2 tail-mounted engine during cruise flight. The separation, fragmentation, and forceful discharge of stage one fan rotor assembly parts from the number two engine led to the loss of the three hydraulic systems that powered the airplane's flight controls. The flightcrew experienced severe difficulties controlling the airplane, which subsequently crashed during an attempted landing at Sioux Gateway Airport, Iowa. There were 285 passengers and 11 crewmembers onboard. One flight attendant and 110 passengers were killed.

B. The NTSB investigation resulted in recommendations to the FAA. They included recommendation A-90-172: Issue an Air Carrier Operations Bulletin for all air carrier flightcrew training departments to review this accident scenario and reiterate the importance of time management in the preparation of the cabin for an impending emergency landing.

C. POIs and/or CSIs (if applicable) should ensure that their assigned air carrier's training department reviews the accident scenario of United Airlines, Inc., Flight 232. Emphasis should be on time management and crew coordination and/or communication in emergency cabin preparation. “Lessons learned” in this accident may be very useful for developing air carrier's training curriculums. In any case, each emergency training program should provide flight attendants, who may be required to act in rapidly changing emergency conditions, with a knowledge of the air carrier's policies and procedures. CRM training, with practice and feedback sessions, is recommended for building communication, situational awareness, problem solving, and stress management skills.

### **2391. FLIGHT ATTENDANT RESTRAINT DURING A CRASH AND EMERGENCY EVACUATION SECOND CHOICE EXIT DETERMINATION.**

A. On February 1, 1991, a B-737-300 collided with a Fairchild Metroliner while the B-737 was landing. The Metroliner was positioned on the same runway awaiting clearance for takeoff. As a result of the collision, both airplanes were destroyed. All 10 passengers and 2 crewmembers aboard the Metroliner and 20 passengers and 2 crewmembers aboard the B-737 were killed.

B. The NTSB investigation resulted in recommendations

to the FAA. They included recommendation A-91-117: Direct the emergency evacuation subcommittee of the Aviation Rulemaking Advisory Committee to examine flight attendant emergency procedures regarding the “2nd choice” exit assignments to ensure that such assignments provide for use of the nearest appropriate exit point. They also included recommendation A-91-118: Issue an Air Carrier Operations Bulletin directing principal operations inspectors to emphasize that during a crash sequence, flight attendants must remain properly restrained and seated in their crew seats until the airplane has come to a complete stop.

C. The NTSB believes that POIs and/or CSIs (as applicable) should ensure that air carriers emphasize the following:

(1) During flight attendant training, the air carriers that have a second choice exit assignment for flight attendants (e.g., overwing Type III exits) should emphasize the need to evaluate personal risk in a decision to use a closer escape path rather than using the assigned second choice exit. For example, another door or any opening in the fuselage may be more acceptable and more appropriate.

(2) That during a crash sequence, flight attendants must remain properly restrained and seated in their crew seats until the airplane has come to a complete stop.

D. Procedures in flight attendant manuals and training programs that provide for “second choice” exit assignments for aircraft emergency evacuation should be reviewed. This review should ensure that such assignments also provide for the use of the nearest available exit or fuselage opening when appropriate.

E. Air carrier training programs often emphasize the need for rapid evacuation following takeoff and landing accidents. On the other hand, it is often difficult for flight attendants involved in such accidents to determine when an aircraft comes to a complete stop. This lack of a combination of cues (e.g., motion, deceleration, etc.) can result in flight attendants releasing their seatbelts prematurely. If the aircraft experiences a sudden deceleration while a crewmember is unsecured, the result may be incapacitation to that crewmember and an increase of passenger evacuation time. Therefore, crewmember training should emphasize the importance of crewmembers remaining seated and properly restrained until the aircraft comes to a complete stop. It should also identify techniques to aid crewmembers in making that determination.

F. During training in a crash scenario, air carriers should emphasize the following to their flight attendants:

- The need for them to evaluate personal risk in a decision to go to a second choice exit
- The need for them to remain seated and properly secured until the aircraft comes to a complete stop

### 2395. ACCIDENT NOTIFICATION AND MANIFEST ACCOUNTING PROCEDURES.

A. On September 20, 1989, a B-737-400 was an “extra section” passenger flight to replace the regularly scheduled but cancelled flight from New York City’s LaGuardia Airport. As the first officer began the takeoff on runway 31, he felt the airplane drift left. The captain noticed the left drift also and used the nosewheel tiller to help steer. As the takeoff run progressed, the aircrew heard a “bang” and a continual rumbling noise. The captain then took over and rejected the takeoff but did not stop the airplane before running off the end of the runway into Bowery Bay. The accident occurred in darkness. Both pilots and the four cabin crewmembers had minor injuries. Two of the 57 passengers were killed and 15 had minor or serious injuries.

B. The NTSB investigation resulted in recommendations to the FAA. They included recommendation A-90-105: Require airlines to provide airport crash/fire rescue personnel accurate and timely numbers of all persons aboard an accident/incident aircraft, and to provide assistance in determining the disposition of persons who have been recovered from the scene of an accident.

C. The problems associated with the recovery efforts involving an air carrier accident, in which a night take off was aborted and the airplane ended up running off the end of the runway and into a body of water, were compounded because rescue personnel did not know exactly how many persons were onboard the airplane. This situation was detrimental to the rescue effort because it created an uncertainty as to how many persons the rescuers had to account for during the rescue operation. The NTSB recommended that the FAA require air carriers:

- Provide airport rescue personnel accurate and timely numbers of all persons aboard an aircraft involved in an accident or incident
- Assist in determining the whereabouts of persons who have been recovered from the scene of an accident

D. The FAA agrees with the NTSB that air carriers should be able to provide accurate and timely information to an appropriate and/or Government authority with respect to the total number of persons on an aircraft and that air carriers should assist the appropriate authorities in determining the whereabouts of persons who have been recovered from the scene of an accident. The sum of the persons on board an aircraft includes:

- Crewmembers
- Revenue passengers
- Non-revenue passengers
- Children being held in the lap of an adult
- Persons occupying cabin or flightdeck jumpseats

E. Part 121 requires that all air carriers prepare a load manifest that includes, at the time of takeoff, the names of passengers (unless the passenger names are maintained by some other means). Part 135 requires, for multiengine aircraft, a load manifest that includes, at the time of takeoff, the number of passengers. On December 30, 1988, the FAA issued Action Notice 8430.29, the primary purpose of which was to provide guidance concerning a recent legal interpretation of part 121 regarding the manifest accounting for all non-crewmembers and the recording of passenger names.

(1) Part 121 requires that air carriers include, as part of the load manifest, the names of passengers, unless such information is maintained by other means by the air carrier. Other means could be ticket stubs or a computer source. The principal reason for this regulation is to facilitate the rapid and accurate determination of how many passengers are on board an aircraft and who they are in the event of an emergency situation, such as an accident or hijacking. Not having an accurate record of all passengers could, for example, hamper the efforts of rescue workers during a post-accident rescue operation.

(2) The word “passenger”, as used throughout the Regulations, means any passenger regardless of age. That interpretation also states that the word passenger, as used in part 121, is not qualified and means “any passenger.” A crewmember, as defined in 14 CFR part 1, means “a person assigned to perform duty in an aircraft during flight time.”

(3) Any person provided transportation on an air carrier aircraft, who is not a crewmember assigned by the air carrier to perform duties during flight time, must be recorded as a passenger and listed.

(a) Crewmembers include:

- The pilot-in-command
- The second in-command (SIC)
- Other required flight crewmembers [such as flight engineers, navigators, relief pilots, required and non-required flight attendants (who are assigned duties by the air carrier)]
- Any other persons (e.g., pursers, customer service agents, etc.) assigned duties during flight time

(b) All other persons are passengers. The following are examples.

- Non-revenue passengers
- Children (regardless of their age and whether they occupy a seat)
- Deadheading crewmembers or other company employees not assigned duties during flight time

- FAA or NTSB safety inspectors
- Law enforcement officials

F. In addition to the load manifest required by these regulations, the air carrier should also have a procedure that ensures that the total number of persons on board any aircraft, including the total number of crewmembers, is available at the time of takeoff. The procedures should, as a part of the manual requirements of parts 121 and 135 (accident notification procedures) contain guidance, instructions, and procedures regarding the local authorities (e.g., airport police, management, and/or fire department), who the air carrier's personnel should contact in the event of an accident or incident. The procedures should also include what information to give in the notification, including the total number of persons on board the aircraft. The air carrier should also have a procedure that provides assistance to those authorities in determining the whereabouts of persons that the air carrier knows have been recovered from the scene of an accident.

G. If an airport is certificated in accordance with 14 CFR part 139, it must have an airport emergency plan. Air carriers and commercial air carriers should review the plans of those certificate airports to which they operate to ensure that the procedures they develop, in accordance with the Regulations, are consistent with the airport emergency plan that the airport air carriers developed. FAA ACs in the 150 series (e.g., 150/5210-14, Airport Emergency Plans) contain additional information concerning airport emergency plans.

**2397. POLICY FOR PASSENGER AND FLIGHT ATTENDANT USE OF SEATBELTS DURING TURBULENCE.** This paragraph provides guidance about passenger and crewmember use of seat belts during turbulence. Additionally, air carriers should include procedures regarding communication and coordination in all crewmember manuals and training programs.

A. Regulations require the air carrier to ensure the following:

- That each passenger has an approved safety belt properly fastened around him/her during movement on the surface, takeoff, and landing
- Passengers have their seatbelt fastened any time the seatbelt sign is illuminated
- Signs are installed so they are visible (usually on the back of passenger seat), advising each passenger to keep their seatbelts fastened when seated

B. In 1993, the FAA issued an air carrier operations bulletin emphasizing the importance of passenger seatbelt discipline and asking air carriers to establish special emphasis programs to highlight the importance of this issue. Many airlines cooperated by making innovative changes to announcements and placing articles in publications informing passengers of the dangers associated with sitting

in a seat without their seatbelts fastened. In spite of all these efforts, passengers and flight attendants continue to sustain injuries in flight during turbulence, evasive maneuvers, or other inflight disturbances. Many of these injuries are serious and result in broken bones (especially ankle bones) and head injuries.

C. Part 121 requires that a crewmember give an announcement after each takeoff, immediately before or immediately after turning the seatbelt sign off, that passengers should keep their seatbelts fastened, while seated, even when the seatbelt sign is off. POIs and/or CSIs (as applicable) should emphasize the requirement for this announcement. POIs and/or CSIs (as applicable) should also remind air carriers that making a public address announcement to remind passengers that Federal regulations require them to fasten their seatbelts when the seatbelt sign is turned on is advisable. POIs and/or CSIs (as applicable) should encourage their assigned air carriers to establish additional procedures to emphasize the importance of passengers wearing their seatbelts at all times while seated. These procedures could include additional announcements, video presentations, and articles in air carrier publications or pamphlets in seat pockets.

D. Coordination and communication between the flight crewmembers and the flight attendants during all phases of flight concerns the FAA. POI's should ensure that their assigned air carrier's training programs and operational manuals contain the safe and effective procedures for coordination and communication between all crewmembers. These procedures should address:

(1) Guidance to flight crewmembers on the importance of a predeparture briefing of the flight attendants, which includes:

- Forecast turbulence related weather conditions
- Securing the galley and cabin
- Carry-on baggage
- Passengers
- Scheduling of cabin service and pick up

(2) Use of the public address system or other signal to alert flight attendants and passengers of anticipated inflight turbulence.

(3) Guidance and specific signals to notify flight attendants when they are to cease inflight services, secure galley, sit with their restraints fastened, and/or resume duties.

(4) Guidance for flight attendants regarding flight attendant determination that turbulence is too severe for the continuing of service and taking their seats with their

restraints fastened and that they are to notify the flight crewmembers regarding this action.

(5) Standardized notification to the flightcrew from the flight attendants when they complete all pretakeoff and prelanding duties and have secured the cabin.

(6) Standardized signals from the flightdeck crew before takeoff and before landing, which they use to allow sufficient time for the flight attendants to be seated.

**2399. GALLEY SECURITY.** Reported incidents of galley carts not properly secured or galley service items not properly managed have caused concern that there is a need to have additional guidance regarding galley carts and galley supplies. Notwithstanding the "Miscellaneous Operational Amendments" final rule, effective on October 15, 1992, the compliance schedule for enforcing Section 121.577 regarding the pick up of PAPER cups and PLASTIC glasses prior to movement of the aircraft, has not been established at this time. Inspectors have reported finding that proper restraints were no longer available for galley equipment and that galley components could not be restrained by the existing latches. Inspectors have also reported finding latching devices that did not work properly for stowage compartments or drawers. The only latches available or the latches that were identified as the primary latches were not long enough to keep the doors properly closed. Certificated air carriers should have procedures to address the following areas:

A. *Responsibility for Galley Restraint.* A specified crewmember should be responsible for each galley. However, all crewmembers are responsible for ensuring galley security. Crewmembers have been known to enter a secured galley and open a compartment and inadvertently forget to resecure the galley. Therefore, crewmembers should:

(1) Ensure that the galley and restraints are available and function properly.

(2) Report malfunctioning galley equipment and restraints by following the specific procedures; and

(3) Check the proper stowage of "items of mass," as referenced in § 121.576, and equipment in the galley.

B. *Availability of Proper Restraint.*

(1) The primary restraint should be identified.

(2) The primary restraint should be in good working order and available for use during each take-off and landing.

(3) Air carriers should have procedures to ensure that the primary restraint performs the function for which it was intended.

**NOTE: Not all latches required to be in the locked position provide the primary restraint.**

*C. Malfunction in Galley Equipment.* The air carrier should have specific procedures for reporting galley equipment and restraints that have malfunctions. These procedures should include a method identifying the person (or position) who will receive the report. The procedures should be a part of the required flight attendant manual.

*D. Checking Galley Restraints.* The responsible flight attendant should check the galley and galley components to ensure proper restraints, including:

(1) Actions such as pulling vigorously on carts, oven doors, drawers, and other components. This is a good method of ensuring that they are secured.

(2) Ensuring the safe and correct parking of carts on mushrooms.

(3) Ensuring that brakes are operational on carts that use brakes.

(4) If keys are applicable to the container then ensuring that the key is in the locked position should be part of the actual checking procedures;

(5) Galley curtains are secured open for take-off and landing; and

(6) Visual checking of galley, galley components, and galley cart security when possible.

*E. Phases of Flight.* The procedures should include, at least, the following information for each phase of flight.

(1) *Prior to movement on the surface.* Prior to movement on the surface the responsible flight attendant should ensure that all primary galley restraints are available and are in working order.

(2) *Movement on the surface.*

(a) All galley items with the exception of paper cups and plastic glasses should be picked up and properly stowed prior to movement on the surface. Extension of the compliance schedule for the pick up of paper cups and plastic glasses should not result in the safety problem of having galley components unrestrained. When an air carrier wishes to serve food or beverages while the airplane is stationary, the air carrier should ensure that this service will not affect galley security.

(b) The air carrier should either serve beverages in containers which can be thrown in a garbage receptacle or ensure that all items which are not disposable are picked up prior to movement on the surface. Pick up of service items is considered safety related and therefore all flight attendants assigned duties on that flight may pick up galley service items during movement on the surface.

(3) *Prior to Take-off.* Flight attendants should ensure that the galley and galley components are properly stowed and restrained.

(4) *Procedures for Galley Security Inflight.* Procedures for galley security inflight include the following:

(a) Carts are not to be left unattended.

(b) Air carriers should have procedures which ensure that flight attendants are no more than 10 feet away (approximately three rows) from the carts left in the aisles.

(c) Flight attendants should not park carts out of their normal galley takeoff/landing positions unless they can be properly restrained. Some aircraft are equipped with restraint devices such as mushrooms which will properly hold carts in other areas. When this is the case, they may be left unattended; however, most items should be cleared from the top of the carts. If left unrestrained, items on the top of the carts can become dislodged and cause injuries should there be a sudden directional change of the aircraft. It is recommended that all cart restocking should be done in the galley as this is a good safety practice.

(d) During service, other than when the cart is being moved, the brake (if applicable) must be engaged. If the cart is parked out of the galley during the flight, then it should be on the mushroom.

(e) Galley carts and the galley itself should be maintained in an orderly fashion because of the possibility of turbulence or evasive actions. This means that as many supplies as possible should be stowed or left in their containers. It is recommended that the top of the carts be kept as clear as possible. During light turbulence, when service can continue, it is still advisable to discontinue the service of hot liquids and these liquids should be removed from the top of the cart.

(5) *Pre-landing.* Flight attendants should ensure that all galleys are properly restrained and that galley components are properly stowed and secured.

(6) *Post-landing.* Flight attendants should ensure that all reports of malfunctioning galley restraints, galley components, and galley carts are properly recorded and/or reported.

#### **2401. ENSURING THAT CHILDREN WHO HAVE REACHED THEIR SECOND BIRTHDAY ARE PROPERLY RESTRAINED.**

A. On June 8, 1995, a DC-9-32 was operated as a scheduled, domestic passenger flight under the provisions of part 121. The flight was cleared for takeoff on runway 27R. Five crewmembers and 57 passengers were on board.

B. As the airplane began its takeoff roll, the airplane occupants and air traffic control heard a "loud bang." The right engine fire warning light illuminated, the flightcrew of the following airplane reported to the crew that the right engine was on fire, and the takeoff was rejected. Shrapnel from the right engine penetrated the fuselage and the right engine main fuel line, and a cabin fire erupted. The airplane

was stopped on the runway, and the captain ordered the evacuation of the airplane.

C. The flight attendant seated in the aft flight attendant jumpseat received puncture wounds from shrapnel and thermal injuries. Another flight attendant and five passengers received minor injuries. The pilots, the third flight attendant, and 52 passengers were not injured. The airplane's fuselage was destroyed.

D. The NTSB investigation of this accident resulted in recommendations to the FAA. These recommendations included A-96-84: Provide guidance on how to implement the requirement that occupants who are more than 24 months old are restrained during takeoffs, landings, and during turbulence.

E. During this NTSB investigation, it was determined that one child who had reached its second birthday was listed as a lap child, despite regulations that require all passengers who have reached their second birthday to be restrained during takeoffs and landings. The Safety Board has long been concerned about the inadequacy and enforcement of this regulation, and in the last several years, has identified at least six accidents and one enforcement action, in which children who had reached their second birthday, were unrestrained because they were held in someone's lap. The ages of these children ranged from 26 months to 5 years old.

F. Present regulations allow parents/guardians of children who have not reached their second birthday the option of holding these children in their laps. Children who have reached their second birthday must be restrained in an approved restraint system. As pointed out in the background to the NTSB recommendation, the problem appears to be that some parents/guardians want to hold children who have reached their second birthday in their lap. This is not an acceptable procedure.

G. In order to preclude this occurrence, many air carriers ask the age of the lap-held child when the child is presented to be placed on the load manifest. In addition, many air carriers instruct crewmembers to ask parents the age of lap held children. These procedures complement each other and are recommended.

### **2403. FLIGHT ATTENDANT APPAREL WHILE PERFORMING DUTIES ASSOCIATED WITH FLIGHT**

A. On June 8, 1995, a DC-9-32 was operated as a scheduled, domestic passenger flight under the provisions of part 121. The flight was cleared for takeoff on runway 27R. Five crewmembers and 57 passengers were on board.

B. As the airplane began its takeoff roll, the airplane occupants and air traffic control heard a "loud bang." The right engine fire warning light illuminated, the flightcrew of the following airplane reported to the crew that the right

engine was on fire, and the takeoff was rejected. Shrapnel from the right engine penetrated the fuselage and the right engine main fuel line, and a cabin fire erupted. The airplane was stopped on the runway, and the captain ordered the evacuation of the airplane.

C. The flight attendant seated in the aft flight attendant jumpseat received puncture wounds from shrapnel and thermal injuries. Another flight attendant and five passengers received minor injuries. The pilots, the third flight attendant, and 52 passengers were not injured. The airplane's fuselage was destroyed.

D. The NTSB investigation of this accident resulted in recommendations to the FAA. These recommendations included A-96-88: Issue an operations bulletin recommending that POIs advise their air carriers to disseminate FAA safety guidance on airline passenger attire to their flight attendants.

E. The NTSB investigation of this accident disclosed that the flight attendant who received the most serious injuries was wearing shorts and a short-sleeved shirt. Safety experts agree that in order to decrease the chance of sustaining burns, it is better to wear long sleeves and pants, than it is to wear short sleeves and short pants. In addition, fabrics such as wool and cotton are better than synthetic fabrics. Also, it is better to have low heeled shoes which are enclosed. Straps or laces are encouraged while sandals are discouraged.

F. Air carriers should ensure that those charged with developing the criteria for the attire crewmembers wear while performing duties associated with flight are aware of these safety considerations.

G. Air carriers should ensure that crewmembers are aware of the information regarding the safety considerations for the apparel they wear during flights.

**2405. ADOPTION OF FLIGHT CREWMEMBER FLIGHT TIME LIMITATION RULES TO ESTABLISH FLIGHT ATTENDANT DUTY AND FLIGHT TIME LIMITATIONS AND REST RESTRICTIONS.** The flight attendant duty period limitations and rest requirements final rule allows air carriers to adopt the flight crewmember rules for their flight attendants. This rule provides additional scheduling flexibility and eliminates the need for an air carrier to have two sets of scheduling requirements for its flight crewmembers and flight attendants. This provision also will permit flight attendants on such operations to be scheduled with the same limitations as the flight crewmembers. This option appears in 14 CFR §§ 121.467(c) and 135.273(c) of the final rule.

A. In order to adopt the flight crewmember's flight, duty, and rest requirements for its flight attendants, the air carrier must establish written procedures which are approved by the Administrator and referenced in the air carrier's operations

specifications. (A sample is attached.) The procedure as written must comply with the following guidelines and contain at least the following information:

(1) Air carriers wishing to apply the flight crewmember flight, duty, and rest requirements to flight attendants may obtain approval by submitting their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the FAA FSDO that is charged with the overall inspection of their operations. The approval process is similar to those used for exit seating and passenger carry-on baggage required to ensure that flight crewmember rules are adequately applied to flight attendants.

(2) The written procedures must apply to all flight attendants used in the air carrier's operation.

(3) The written procedures must be applied to the air carrier's entire operations.

(4) The written procedures must show that the flight crewmember rules are adequately applied to the flight attendants. They must clearly show that when the flight crewmembers are following the rules for an operation, for example, domestic, the flight attendants will also be following those rules. Another example would be if the flight crewmembers are using the Flag rules then the flight attendants also be following these rules and the written procedures would clearly show this is the case.

(5) The written procedures for establishing duty period limitations and rest requirements for air carriers certificated under part 135 must include the limitations contained in Subpart F except for provisions for on-board rest facilities, as appropriate to the operation being conducted.

(6) The written procedures must provide information about augmenting the flight attendant crew complement. Part 121 and 135 air carriers are required to provide flight attendants on aircraft with certain passenger seating configurations in accordance with §§ 121.391, 135.107, or the air carrier's operations specifications, as appropriate. The number of flight attendants required on an aircraft to meet the provisions of §§ 121.391, 135.107, or the air carrier's operations specifications, whichever is greater, is referred to as the minimum flight attendant crew complement.

**NOTE: Any air carrier that elects the options to apply flight crewmember flight, duty, and rest requirements of flight attendants and has established written procedures for augmenting the minimum flight crewmember complement must establish procedures for augmenting the minimum flight attendant complement. The augmenting procedures must be based on the number of flight crewmembers assigned to the flight that is in addition to**

**the minimum flight crewmember complement as specified in the aircraft type certificate data sheet. For example, if the minimum flight crewmember complement on a Boeing 747-200 is three, as specified in the aircraft type certificate data sheet, an air carrier that schedules four flight crewmembers for an extended long-range flight will be required to schedule one flight attendant in addition to the minimum flight attendant crew complement that is required by §§ 121.391, 135.107, or the air carrier's operations specifications. For example, if the operations specifications for a certain airplane requires 8 flight attendants, and if the air carrier adds one flight crewmember, that air carrier would be required to add one additional flight attendant, for a total of nine flight attendants.**

(7) In addition, in the written procedures each air carrier must show how they will ensure that the definition of "rest period" in the final rule is applied to flight attendants. (See the detailed discussion on "Rest Period Requirements" and "Reserve Status, Stand-by Status, or Similar Assignments" in the final rule.)

(8) Under the provisions for applying flight crewmember flight, duty, and rest requirements to flight attendants, if the Administrator finds that revisions to the written procedures are necessary for the continued adequacy of the procedures for applying flight crewmember flight, duty, and rest requirements to flight attendants, the Administrator will require the air carrier to make necessary changes within 30 days after being notified by the Administrator. In addition, an air carrier may petition the Administrator to reconsider the notice to change the procedures.

**NOTE: This procedure for requiring changes is consistent with the current regulatory language for aircraft inspection programs and pilot training programs contained in §§ 91.415 and 121.405, respectively, as well as a number of other regulations.**

(9) Any air carrier that establishes written procedures to apply the flight crewmember flight, duty, and rest requirements to flight attendants and that subsequently wishes to revise this practice and schedule flight attendants according to the duty period limitations and rest requirements in §§ 121.467 or 135.273 must amend their operations specifications in accordance with §§ 121.79(c) and 135.17(b). These sections require an air carrier to file an application for an amendment of operations specifications at least 15 days before the effective date proposed by the applicant for the amendment, unless a shorter filing period is approved by the FSDO charged with the overall inspection of the air carrier. See Order 8400.10, volume 3, chapter 1, section 3, for information regarding the issuance of OpSpec A032, Adoption of flight crewmember flight time

limitation rules to establish flight attendant duty and flight time limitations and rest restrictions.

**2407. EXIT SEATING PROGRAM.** The applicable air carriers must comply with the appropriate parts of 14 CFR pertaining to exit seating: sections 121.585 and/or 135.129. The following information provides guidance and clarification on the development of the exit seating program and defines the applicability.

*A. Applicability.*

(1) Exit row regulations apply to the following air carriers:

(a) *Part 121 certificated air carriers.* This includes air carriers who carry passengers pursuant to §121.583, because § 121.585 is not on the list of part 121 regulations from which those air carriers are exempt.

(b) Part 135 on-demand air carriers with aircraft having more than 19 passenger seats.

(2) The exclusion of part 135 on-demand aircraft having 19 or fewer passenger seats and part 135 commuter aircraft having 9 or fewer seats was based on typical passenger seating configurations and exit availability of these aircraft.

*B. Exit Seat.* An exit seat is defined as each seat in a row of seats through which passengers would have to pass to gain access to an exit from the first seat inboard of the exit to the first aisle inboard of the exit. A passenger seat having direct access means a seat from which a passenger can proceed directly to the exit without having to enter an aisle or pass around an obstruction (such as a bulkhead, lavatory, closet, galley, etc.).

(1) The air carrier's manual procedures must contain a listing of designated exit seats for each type of passenger seating configuration in its fleet.

(2) "Exit seat" is a more accurate term than "exit row." In some configurations involving a row of two seats at an exit, only one seat is behind a partition. (For example, the forward most row on the left side of the Dash-8.) The window seat, obstructed by the partition, is not considered an exit seat because the passenger does not have direct access to the forward left exit. However, the passenger seated next to that seat on the aisle has direct access because that passenger does not have to pass around the bulkhead to reach the exit. This is one of the rare exceptions whereby the entire row is not an exit row.

*C. Selection Criteria.*

(1) As applicable to the exit seating rule, the required selection criteria for an occupant of an exit seat is listed in sections 121.585(b) and 135.129(b). The selection criteria is a listing of capabilities and conditions to be

applied to determine the suitability of persons to occupy an exit seat.

(2) The selection criteria should be contained in its entirety in the air carrier's manuals, including the flight attendant manual, and the exit seating passenger information card. The selection criteria must also be available for inspection by the public at all passenger loading gates. *Air carriers should avoid paraphrasing the selection criteria, as it may change the meaning of the neutral selection criteria and result in unwarranted discrimination.* An example of such paraphrasing whereby the meaning of the criteria is changed would be if an air carrier misrepresented 121.585(b)(4) as follows:

(a) "The person lacks sufficient visual capacity to perform one or more of the applicable functions."

(b) The omission of "without the assistance of visual aids beyond contact lenses or eyeglasses" (as stated in the regulation) significantly changes the meaning of the criteria and could result in unwarranted removal of passengers with eyeglasses seated at exit seats. However, in some instances the regulatory language could be changed for simplification purposes without changing the meaning of the criteria. For example, "to exit expeditiously" could be restated as "to exit quickly."

(3) The airline employee, designated to make determinations as to whom may be assigned to an exit seat, must make this assessment in a non-discriminatory manner by consistent application of the neutral criteria.

(a) If, for example, a passenger is being evaluated for assignment to an exit seat, age (with the exception of those younger than 15 years of age) or the size of a person alone should not be the determining factors. The airline employee must evaluate the individual's physical and mental capabilities, and other conditions, as clearly outlined in the selection criteria. If that individual meets all the selection criteria, then age or size alone should not be a disqualifying factor.

(b) However, if that individual has difficulty walking and lifting his/her own carry-on luggage, then the application of the neutral criteria would exclude this individual from being assigned an exit seat because it would appear by observation that the individual would not be able to move expeditiously and perform the tasks involved in the emergency evacuation.

*D. Functions.* As applicable to the exit seating rule, sections 121.585(d) and 135.129(d) list the functions which a passenger, seated at an exit seat, must be willing and able to perform in the event of an emergency. The functions must appear on the exit seating passenger information card, but can be in written form or graphically displayed. The functions must also be contained in the written airport information available at the passenger loading gates and in the air carrier's manual procedures.

*E. Seat Selection/Assessment/Verification Process.*

Each air carrier, using the selection criteria, is required to determine the suitability of each person who occupies an exit seat. Regulations require that persons responsible for making this determination be identified in the air carrier's manual. The air carrier is further responsible for developing procedures concerning this passenger selection process. The procedures should address:

- Who is responsible for making these determinations (prior to boarding and the final verification on board the aircraft)
- How they will make this determination
- When the process will be performed
- Where the process will be performed
- Identification of each designated exit seat (for each passenger seating configuration in its fleet)

*(1) Advanced Seating.*

*(a)* To the maximum extent feasible, exit seats should be assigned prior to boarding the aircraft. This would reduce the confusion or requests for re-seating and possible delays after the aircraft is boarded. This does not preclude an air carrier from having an open seating policy, advance seat selection, self check-in kiosks, or other type of computer/internet technologies which allows advance seating selection and check-in at airports where passengers may be permitted to select and be assigned an exit seat at check-in without screening by air carrier personnel. However, when these types of check-ins are in place, additional procedures should be developed and implemented for screening, verifying, and re-seating passengers onboard the aircraft to ensure compliance with exit seat assignment requirements.

*(b)* For example, menu prompts which appear at the point of exit seat selection could assist in preliminary verification of passenger eligibility. When a passenger has chosen an exit seat by means of a self check-in kiosk, the ground agent at the ticket lift point could make determinations and assessments at the time of the required verification of positive ID to meet TSA security requirements. In order to safeguard the screening process, other carriers may select a "see agent" prompt at the point of passenger selection of exit seating via self check-in. POIs and/or CSIs (if applicable) should ensure that when air carriers offer these methods of advanced seat selection, check-in, and open seating that approved exit seating programs provide ample information detailing the methods of screening and procedural safeguards in place to ensure compliance with exit seat assignment requirements.

*(2)* The air carrier is responsible for identifying those persons who will make the determination as to the suitability of the person assigned to an exit seat. The responsibility can be assigned to a customer service agent, a crew-

member, or other persons specified by the air carrier in its company's manual procedures.

*(3)* Should air carriers choose to use electronic media that allows passengers to select exit seats and print out a boarding pass without going through an employee of the company, they must have procedures in place for screening those passengers. The individuals and the procedures used to accomplish this should be identified in the appropriate air carrier manuals.

*(4)* While the regulation specifically defines the criteria for persons occupying an exit seat, the method by which the airline employee assesses the person assigned to an exit seat should be defined by the air carrier in its company's manual. This process generally requires a physical observation of the person and should require additional processes such as conversation with the person, to determine if he or she meets the selection criteria (ability to hear, understand, impart information, not distracted by other responsibilities such as caring for small children or other traveling companions, etc.).

*(5)* Sections 121.585(g) and 135.129(g) state that the air carrier may not taxi or pushback unless at least one required crewmember has verified that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the emergency functions. The required crewmember and the method used to make this determination must be specified in the company's manual.

*F. Individual Exit Seat Briefings.*

*(1)* The NTSB recently examined 46 passenger aircraft evacuations that occurred between September 1997 and June 1999. The report, titled National Transportation Safety Board, Emergency Evacuation of Commercial Airplanes, Safety Study NTSB/SS-00/01 (Washington, DC: NTSB, 2000), resulted in recommendations to the FAA. They include recommendation A-00-77: Require air carriers to provide all passengers seated in exit rows in which a qualified crewmember is not seated a preflight personal briefing on what to do in the event the exit may be needed. To read the entire report, to to: [www.ntsb.gov/Recs/letters/letters.htm](http://www.ntsb.gov/Recs/letters/letters.htm).

*(2)* During the study, the NTSB examined passenger performance in exit rows for the six cases for which the Board received information on the overwing exit operation. In several evacuations, the passengers had trouble using the exits correctly and the Board determined that one reason for these difficulties was passenger inattention to the safety materials provided. The Board found that in one case, exit seats were occupied by two passengers older than age 70, one of whom was unable to open the exit. In addition, three passengers seated in exit rows did not speak the language in which briefings and oral commands were given by the crew.

*(a)* Of the six study cases, several of the air carriers had procedures in place to individually brief

passengers on exit row tasks. Passengers who received an individual briefing were more likely to read the safety card than those who did not receive an individual briefing.

(b) The Board found that 44.5 percent of the passengers who were individually briefed reported examining their safety cards and 16 percent of the passengers who did not receive an individual briefing reported examining their safety cards.

(c) In addition, those who received individual briefings performed better during actual evacuations and were better prepared to operate the overwing exits.

(3) Many air carriers have procedures which designate certain crewmembers to conduct additional structured personal conversations or briefings, beyond the oral briefing required by sections 121.585(h) and (i) and 135.129(h) and (i), to ensure that the passengers in exit seats can hear, understand, and speak the language of the air carrier. (However, fluency in the language of the air carrier is not required as long as the exit seat passengers can understand crew instructions, commands, the graphic illustrations related to exit seat functions, and are able to adequately impart information related to emergency functions.)

(4) Individual briefings that are given to passengers who occupy exit seats have a positive effect on the outcome of an aircraft evacuation. Individual briefings also assist flight attendants in assessing the suitability of passengers who occupy those seats. An individual briefing reminds passengers of their exit seat responsibilities, gives them the encouragement to review their safety information card and also gives passengers the opportunity to ask the flight attendant any questions they may have about exit operation or procedures. This briefing also presents an opportunity for the flight attendant to assess the passengers ability to understand oral crew commands.

(5) POIs and/or CSIs (if applicable) should strongly encourage their assigned air carriers to consider the safety benefits that are accomplished by individual exit seat briefings and to include such briefings in their predeparture procedures. In the absence of procedures that require individual briefings, POIs and/or CSIs (if applicable) should ensure that each air carrier has a method in place to ensure compliance with 121.585(g), which requires verification by a required crewmember that the passengers can perform all required functions, which includes the ability to follow oral directions.

*G. Assessment/Verification Prior To Landing.* Air carriers should also have procedures in place to ensure that exit seats are not occupied by persons who do not meet the exit seat criteria. Crewmembers should continue to monitor exit seat occupancy during flight, in the course of their normal duties, to ensure that persons who do not meet the criteria do not move into exit seats. In addition, crewmembers should recheck the exit seats before landing to make certain that passengers who met the criteria and occupied

exit seats prior to takeoff still meet the exit seat criteria for landing (e.g., intoxication during flight, panic attacks, passenger illness or injury).

*H. Exit Seating Passenger Information Card.* Sections 121.585(d) and 135.129(d) provide the requirement for the contents of the exit seating passenger information card. This exit seating passenger information card may be in addition to the standard passenger information card, which is required by sections 121.571(b) and 135.117(e) or it can be incorporated into the standard passenger information card. The exit seating passenger information card is required to be located at each designated exit seat. The exit seating passenger information card is to be presented in the primary language in which briefings and oral commands are given by the crew. It must contain the following information:

(1) The selection criteria, as found in sections 121.585(b) and 135.129(b);

**NOTE: The selection criteria are mobility, strength and dexterity standards that do not specify where exits should be deposited. Exits should be deposited in accordance with the airplane manufacturer's instructions. Air carriers must depict on their passenger information card the actual weight of the exit so that each potential exit seat passenger can make an assessment as to whether or not they meet the selection criteria. Therefore, air carriers must include the selection criteria on their passenger information card. However, there is no need to repeat the information verbatim from the regulation.**

(2) The emergency function, as found in sections 121.585(d) and 135.129(d);

**NOTE: The functions must be listed (as in the rule) and/or graphically displayed on the passenger information card. Either or both methods are acceptable. If a function can not be graphically depicted on the card (such as "Follow oral directions and hand signals given by a crewmember."), then it should be written on the exit seating information card.**

(3) The contents (to follow) found in 121.585(e) and 135.129(e):

(a) A request that passengers identify themselves for reseating if they cannot meet the selection criteria; have non discernible conditions that will prevent them from performing the applicable functions listed on the card; may suffer bodily harm as a result of performing one or more of the functions; and do not wish to perform the functions

(b) A request that passengers identify themselves to allow reseating if they lack the ability to read, speak, or understand the specified language in which crew commands will be given in an emergency. (*This request is to be written*

*in each language used by the air carrier for the passenger information card. If the card, for example, contains some safety instructions in several languages, then this request should be in each of those languages.)*

*I. Oral Briefing.* Sections 121.585(h) and (i) and 135.129(h) and (i) provide the specific requirements for the oral briefing. The content of the required oral briefing must be part of the air carrier's manual procedures. As per the rule, the oral briefing shall:

(1) Reference the exit seating passenger information card, along with the criteria and the functions. *(The required oral briefing only requires a reference, not a reading of the contents of the criteria and functions.)*

(2) In addition, the briefing must have a statement that requests the passenger to identify himself or herself for reseating if he or she:

- cannot meet the selection criteria
- has a non discernible condition that will prevent him or her from performing the applicable (emergency) functions
- may suffer bodily harm as the result of performing one or more of the functions
- does not wish to perform the functions

(3) This briefing should be conducted after all the passengers have boarded. If the required briefing is conducted several minutes before the entry door is closed and then several late passengers board after the briefing is completed, the briefing should be repeated in case one or more of the late passengers occupies an exit seat.

(4) It is beneficial when the air carrier incorporates into the required oral briefing the exit seat locations for that aircraft configuration so the passengers seated at the exit seats clearly understand that the briefing requirements are directed toward them. Some air carriers further identify exit seat locations to passengers and crew with placards in the cabin, or with an indication on the passenger boarding pass.

*J. Reseating/Full Booking.*

(1) Sections 121.585(k) and 135.129(k) require that in the event that a passenger assigned to an exit seat would be unable to perform the evacuation functions, or requests a non-exit seat, the air carrier shall expeditiously relocate the passenger to a non-exit seat. The air carrier's manual procedures should clearly outline how the reseating would be accomplished.

**NOTE: The air carrier, by regulation, shall not require the passenger to disclose his or her reason for needing reseating.**

(2) Sections 121.585(l) and 135.129(l) require that in the event a passenger assigned to an exit seat wishes to be relocated to a non-exit seat and all of the non-exit seat are

booked full, the air carrier must move a passenger from a non-exit seat to the exit seat who is willing and able to assume the evacuation functions. The air carrier's manual procedures should clearly outline how the reseating with a full load would be accomplished.

**NOTE: If a passenger is assigned to an exit seat but later has second thoughts about being seated at an exit seat, the passenger should be relocated prior to pushback. However, if taxiing has begun or take-off is already underway, the rule does not require that the passenger be moved. This would create dangers as great or greater than allowing the person to remain in place until the aircraft is airborne. The cabin crew has been alerted to the location of a potential problem in the event of an evacuation and can wait until airborne when it would be safe to relocate the passenger. This is not an excuse for a crewmember to be complacent in performing the required verification.**

*K. Denial Of Transportation.*

(1) Sections 121.585(m) and 135.129(m) state that an air carrier may deny transportation to any passenger under this section only because:

(a) The passenger refused to comply with instructions given by a crewmember or other authorized employee of the air carrier concerning the implementation of the approved exit seating procedures; and

(b) The only seat that will physically accommodate the person's disability is an exit seat.

(2) The air carrier's manual procedures must describe the reasons for denial of transportation. It should also describe how it will be handled and who is designated to handle the situation.

*L. Disputes.* Sections 121.585(n)(iv) and 135.129(n)(iv) require that the air carrier include procedures which address how to resolve disputes arising from the implementation of this rule, and identify the employee on the airport to whom complaints would be addressed for resolution. This person is commonly referred to as the Complaint Resolution Official or CRO.

*M. Airport Information.* Sections 121.585(f) and 135.129(f) require that each air carrier shall make available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts business, written procedures established for making determinations in regard to exit seating. The method of presentation of the airport information may vary, such as: a flyer, a card, a ticket jacket, a computer printout, a posted sign, etc. The air carrier's exit seating program should state the method in which this information will be presented to anyone who requests this information. This written airport information should contain:

(1) The selection criteria, as found in sections 121.585(b) and 135.129(b);

(2) The emergency functions, as found in sections 121.585(d) and 135.129(d);

(3) The requests for reseating, as found in sections 121.585(e) and 135.129(e);

(4) The reasons for denial of transportation, as found in sections 121.585(m) and 135.129(m);

*N. Program Content For Submission.* The air carrier should submit the following documents to the POI and/or CSI (if applicable):

(1) Manual Excerpts.

(a) Manual excerpts should be submitted from the operations, flight attendant, and passenger/ customer service portions of the air carrier's manuals, with procedures appropriate for the air carrier's employees to adequately perform their exit seating duties and responsibilities.

(b) The procedures should contain: the selection criteria, the emergency functions, location of designated exit seats, requirements for exit seating passenger information cards, crewmember verification of appropriate seating in exit seats, passenger oral briefings, seat assignments, requirements for written airport information, reseating, full bookings, assignment of exit seats, denial of transportation, resolving disputes arising from exit seating, and identification of the air carrier employee on the airport to whom complaints should be addressed for resolution.

(2) *Configuration Diagrams.* These should be submitted (for evaluation) and should display each passenger seating configuration in the air carrier's fleet. The diagram should highlight all exit seats, all passenger exits, any obstruction, such as: bulkheads, lavatories, closets, galleys, etc.

(3) *Exit Seating Passenger Information Cards.* Must be submitted for each type, make/model, and series aircraft. These cards may be submitted in draft form, pending final approval.

(4) *Airport Information.* The air carrier should identify the manner in which the written airport information is presented and submit a draft copy pending final approval.

*O. Approval Process.* The intent of the exit seating review and approval process is to ensure consistent application of the regulation, particularly when the rule was new and policy was being developed. (See Figure 3.16.6.1, Exit Seating Program Job Aid.) During the original approval process, the exit seating programs were sent for review first to the POI, then forwarded for a second review by the Exit Seating Coordinator at the Regional Office who approved the programs on behalf of the Director, Flight Standards Service (AFS-1). The POI no longer needs to forward exit seating programs to the Exit Seating Coordinator at the

Regional Office for approval. The POI is now considered to be the representative of AFS-1 in terms of compliance with 121.585 (p) and 135.129 (p).

(1) Once the air carrier has completed their exit seating program package, a copy of the program should be forwarded in draft format to their POI and/or CSI (if applicable). During the review process, the POI and/or CSI (if applicable) should use this guidance and complete the Exit Seating Program Job Aid (checklist), found in FAA Order 8400.10, Air Transportation Inspector Handbook, Volume 3, Chapter 15. If the POI and/or CSI (if applicable) is not satisfied with the package, the inspector will return it to the air carrier with an explanation of the changes/additions needed for the program. If the POI and/or CSI (if applicable) finds the program to be complete and satisfactory, the POI will then give the final approval to the air carrier and issue operations specifications A022.

(2) Any subsequent revisions to the approved exit seating program, such as a change in procedures, an addition of new aircraft, a change in the passenger seating configurations, a change to the exit seating passenger information card, etc., must be sent to the POI and/or CSI (if applicable). The certificate holding office should maintain a copy of an up-to-date version of their air carrier's exit seating program.

*P. Special Approvals.* There may be situations whereby an air carrier may conduct some operations entirely in a foreign country. Such a situation could occur during a wet lease operation. The entire airplane may be full of passengers who all speak one foreign language. The intent of the rule was not to exclude foreign speaking passengers from the exit seat, provided these passengers understand the commands given by the crewmembers in the event of an emergency, all the information on the approved exit seating passenger information card, and the required oral briefings. This may be accomplished in a number of ways. The crewmembers may be bilingual and trained in two languages - one of which is the language of the foreign passengers. The briefings may be conducted in two languages - one of the languages would be that of the foreign speaking passengers, the other would be in the primary language of the air carrier. The exit seating passenger information cards should also be in the two languages. An amendment to the existing exit seating program would be needed which details the manner in which the air carrier would address this type of operation.

(1) If the situation is such that the operation is conducted domestically and a large group of foreign speaking passengers board the aircraft speaking one particular foreign language, and board in such numbers that the only seats remaining for them are the exit seats, then the air carrier would need to develop special procedures for FAA review and approval which would address this type of operation in order to comply with the rule.

(2) If the air carrier cannot find any passengers who speak the language of the air carrier, then the air carrier

should attempt to find those passengers who have some understanding of the language used by the air carrier in the domestic operations. In this situation it would appear that an interpreter would have to be used who is fluent in both the air carrier's primary language and the language of the foreign speaking passengers. An exit seating passenger information card would have to be developed in that foreign language and the interpreter would have to thoroughly brief the foreign speaking passengers on the contents of that specially approved exit seating passenger information card. The interpreter would also have to provide the required exit seating oral briefing in the foreign language to ensure that the exit seating passengers are willing and able to perform the emergency functions. The interpreter would have to review the commands, which would be given by the crewmember in an emergency evacuation, in both the primary language of the air carrier and in the foreign language.

(3) A designated crewmember should oversee this special briefing and make the determination that those passengers understand their responsibilities, meet the criteria, and are willing and able to perform the emergency functions, if called upon to do so. This procedure requires more time to implement prior to departure and the necessary time must be allotted for this special briefing.

(4) In these and other similar situations, the air carrier would need to develop, in advance of the operation, and submit for approval specific procedures, special exit seating passenger information cards in the foreign language to be used, and crewmember training for that specific operation. The procedures must detail how the exit seating requirements would be met and who would be responsible for implementing the procedures and making the final determination as to the suitability of these passengers. The amended procedures must be sent to the POI and/or CSI (if applicable) for review. If the procedures satisfactorily meet the requirements, the exit seating program amendment for foreign speaking passengers can be approved by the POI.

**2409. EMERGENCY EVACUATION WITH INFANTS.** Researchers from the FAA Aerospace Medical Institute (CAMI), AAM-600, have completed two studies designed to determine the most favorable methods for the emergency evacuation of infants from aircraft (All CAMI publications may be accessed at: [www.cami.jccbi.gov/aam-400a/index.html](http://www.cami.jccbi.gov/aam-400a/index.html)). The following information is intended for use in developing passenger information materials and/or briefing.

A. The purpose of the first study, published in 2001, was to determine the most favorable methods for the evacuation of infants via an inflatable emergency evacuation slide. The results of this study strongly suggest that jumping onto the slide should be the favored boarding manner, as opposed to sitting down and sliding which slows the progress of the evacuation. The carrying position that provides the most protection for the child would include cradling the child's

head and neck with the hand (for a vertical position) or in the arm (for horizontal positions), keeping the child's arms, legs, and feet enfolded as much as possible by the adult's arms. Both positions emphasize the importance of cradling the infant to protect its head, arms, and legs.

B. The purpose of the second study, to be published in 2004, was to determine the most favorable methods for evacuation of infants through a Type III overwing exit. The results of this study suggest that carrying the infant vertically, cradling the infant to protect its head, arms, and legs, should be the favored egress maneuver through the Type III exit, as opposed to carrying the child horizontally or passing the child to another passenger on the outside of the Type III exit.

**2411. USE OF PORTABLE ELECTRONIC DEVICES.** POIs and principal avionics inspectors (PAI) should review the provisions contained in 14 CFR part 91, § 91.21, part 121, § 121.380, and AC 91.21-1, Use of Portable Electronic Devices Aboard Aircraft, with their assigned operators. POIs and PAIs shall ensure that their operators have adequate procedures in place to determine whether or not portable electronic devices are acceptable for passenger use on-board their aircraft. POIs shall ensure that their operators specify in their operations manuals those portable electronic devices that may not be operated on-board their aircraft. Although 14 CFR §121.571, part 125, § 125.327, and § 135.117 do not require the following briefing information to be given, POIs should encourage their assigned operators to include information regarding the operation of portable electronic devices in their operators' pre-takeoff passenger safety briefings. These briefings should include any specific restrictions that apply to passenger use of portable electronic devices. An example briefing might be the following: "Some portable electronic devices may interfere with the aircraft's communications and navigation systems. Please refrain from using any electronic device other than portable voice recorders, hearing aids, and *[the operator should add to this list of portable electronic devices, the generic identification of any device that it determines will not cause interference.]* For your safety and the safety of others, please stow all carry-on portable electronic devices during taxi, takeoff, and landing."

**2413. BRIEFINGS ON INDIVIDUAL FLOTATION DEVICES.** Individual flotation devices, for use by passengers, are not always identical on some aircraft. The differences in the equipment can be insignificant. For example, flotation cushions may have straps on the sides or straps across the bottom of the cushion. In either case, the instructions for use would be the same, "Insert your arms through the straps and hold the cushion to your chest." The straps are not in the same place, but the same instructions would work regardless of the location of the straps. However, there are cases when the differences in the flotation cushions or the life preservers are significant.

A. Significant differences in life preservers are:

(1) Some are donned by placing one part over the head;

(2) Others are worn like a coat; and

(3) Some have inflation handles that work differently.

B. Operators use various methods to inform passengers of using dissimilar flotation equipment, such as:

(1) Briefing passengers on the different types of flotation devices;

(2) Displaying the differences on passenger cards and alluding to them in the briefing;

(3) Using a combination of briefing and passenger cards; and

(4) Briefing passengers (in rare cases) on only one design.

C. *Policy.* When a passenger is informed about more than one type of flotation cushion or life preserver it can be confusing. One method for informing passengers is to give each passenger information about the piece of individual flotation equipment that is located at that individual passenger's seat. In some cases, this may mean different cards at different seats and individual briefings at certain seats. When two sections on the same aircraft are equipped differently, each section would need a different passenger briefing. Another method for informing passengers is to advise them during the oral briefing that there are different types of flotation cushions on the airplane and therefore, it is important that they study the card carefully and be aware of the differences in the flotation equipment. The different methods of donning and/or operating the individual flotation device should be depicted on the card and given in the oral briefing or demonstration (if extended over water flight).

**2414.-2420. RESERVED**

**FIGURE 3.16.6.1.  
EXIT SEATING PROGRAM JOB AID**

This preapplication phase job aid provides guidance for determining air carrier compliance with §§ 121.585 and 135.129, Exit Seating.

Certificate Holder Name:

Doing Business As (DBA):

Address:

Certificate Holder Certificate No.:

POI Name:

Office and Phone Number:

Review Completed

Signature and Date:

Date Program Approved:

Date AFS-500 Notified:

Comments:

**REQUIRED ATTACHMENTS:** Detailed on attached pages - Complete the lines with Y (for Yes) or N (for No):

Exit Seating Procedures

Airport Information

Passenger Seating Cards

Aircraft Floor Plans

**EXIT SEATING PROCEDURES.** Procedures should be submitted as manual section/training program sections/bulletins, etc. as appropriate to the individual carrier. Attach all applicable sections pertinent to exit seating only.

**NOTE:** The POI should check for applicability and manual format and ensure that all applicable publications are revised. THE PROCEDURES MUST ADDRESS THE FOLLOWING REGULATORY REQUIREMENTS, AND MUST ADDRESS WHEN, HOW, AND BY WHOM THE ITEMS WILL BE ADDRESSED.

**FIGURE 3.16.6.1. CONTINUED**  
**EXIT SEATING PROGRAM JOB AID**

<b>SELECTION CRITERIA:</b> Reference §§ 121.585(b) and 135.129(b).	
Do carrier procedures address when, how, and by whom the screening and/or selection will be accomplished?	
Do carrier procedures address the following selection criteria?	
1. Does a person lack sufficient strength, dexterity, or mobility in both arms and hands, and both legs to perform the following functions?	
a. Reach upward, sideways, and downward to the location of emergency exit and exit slide operating mechanisms.	
b. Grasp and push, pull, turn, or otherwise manipulate those mechanisms.	
c. Push, shove, pull, or otherwise open emergency exits.	
d. Lift out, hold, deposit on nearby seats, or maneuver over the seat backs to the next row objects the size and weight of overwing exit doors.	
e. Remove obstructions similar in size and weight of overwing exit doors.	
f. Reach the emergency exit expeditiously.	
g. Maintain balance while removing obstructions.	
h. Exit expeditiously.	
i. Stabilize an escape slide after deployment.	
j. Assist others in getting off an escape slide.	
2. Is the person less than 15 years of age or does the person lack the capacity to perform one or more of the functions listed in §§ 121.585(d) and 135.129(d) without the assistance of an adult companion, parent, or other relative?	
3. Does the person lack the ability to read and understand instructions related to emergency evacuation provided by the certificate holder in printed or graphic form or the ability to understand oral crew commands in the language used by the carrier?	
4. Does the person lack a sufficient visual capacity to perform one or more of the functions listed in §§121.585(d) and 135.129(d) without the assistance of visual aids beyond contact lens or eyeglasses?	
5. Does the person lack a sufficient aural capacity to hear and understand instructions shouted by crewmembers without assistance beyond a hearing aid?	
6. Does the person lack the ability to adequately impart information orally to other passengers?	
7. Does the person have either of the following?	
a. A condition or responsibility, such as caring for small children, that would prevent the person from performing one or more of the functions listed in §§ 121.585(d) and 135.129(d).	
b. A condition that might cause the person harm if he or she performs one or more of the listed functions.	
<b>SEATING ASSIGNMENTS/VERIFICATION PROCEDURES</b>	
Are exit seats identified for seat assignment purposes?	
Reference §§ 121.585(g) and 135.129(g). Does the certificate holder have a procedure that taxi or pushback will not be allowed until at least one required crewmember has verified that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the functions listed in §§ 121.585(d) and 135.129(d)?	
Are verifying crewmembers specifically identified?	

**FIGURE 3.16.6.1. CONTINUED**  
**EXIT SEATING PROGRAM JOB AID**

Reference §§ 121.585(j)(k) and 135.129(j)(k). Does the certificate holder have procedures to honor a passenger's request to be relocated and the procedures for relocation?	
Does the procedure note that a person does not need to disclose his or her reason for the request?	
Reference §§ 121.585(l) and 135.129(l). Does the certificate holder have procedures to move a passenger to accommodate a relocated passenger, in the event of full booking of non-exit seats?	
<b>DENIAL OF TRANSPORTATION/RESOLVING DISPUTES</b>	
Reference §§ 121.585(m) and 135.129(m). Does the certificate holder have procedures to deny transportation because of either or both of the following?	
1. The passenger refuses to comply with instructions.	
2. The only seat that will physically accommodate the person's handicap is an exit seat.	
Reference §§ 121.585(n) and 135.129(n). Does the certificate holder have procedures for resolving disputes, including identification of the employee at the airport to whom complaints should be addressed for resolution?	
<b>ORAL BRIEFING PROCEDURES</b>	
Reference §§ 121.585(i) and 135.129(i). Does the oral briefing reference the following?	
1. Passenger information cards.	
2. The selection criteria in §§ 121.585(b) or 135.129(b).	
3. The functions to be performed under §§ 121.585(d) or 135.129(d).	
4. A request for reseating if any of the following conditions are met:	
a. Cannot meet the selection criteria.	
b. Has a nondiscernible condition that would prevent him or her from performing the listed functions.	
c. May suffer bodily harm as a result of performing one or more of those functions.	
d. Does not wish to perform those functions.	
<b>AIRPORT INFORMATION</b>	
Reference §§ 121.585(f) and 135.129(f). Does the certificate holder have written procedures for making determinations regarding exit seating available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations?	
Is a copy of the information attached?	
Is the content complete and the method of inspection identified, such as flyers, signs, and so forth?	
<b>PASSENGER INFORMATION CARDS</b>	
Are copies of applicable cards attached?	
Are cards appropriate to carrier's aircraft and configurations?	
Do procedures address the use and location of cards?	

**FIGURE 3.16.6.1. CONTINUED  
EXIT SEATING PROGRAM JOB AID**

Reference §§ 121.585(d) and 135.129(d). Do the briefing cards contain the following functions?	
1. Locate the emergency exit.	
2. Recognize the emergency exit opening mechanism.	
3. Comprehend the instructions for opening the emergency exit.	
4. Operate the emergency exit.	
5. Assess whether opening the emergency exit will increase the hazards to passengers being exposed.	
6. Follow oral directions and hand signals given by a crewmember.	
7. Stow or secure the emergency exit door so that it will not impede the use of the exit.	
8. Assess the condition of the escape slide, activate the slide, and stabilize the slide after deployment to assist others in getting off the slide (where applicable to aircraft type).	
9. Explain how to pass expeditiously through the emergency exit.	
10. Explain how to assess, select, and follow a safe path away from the emergency exit.	
Does the briefing card contain the selection criteria listed in §§ 121.585(b) and 135.129(b)?	
Does the briefing card contain a request that a passenger identify himself or herself to allow reseating if he or she meets one of the following criteria?	
1. Cannot meet the selection criteria.	
2. Has a nondiscernible condition that would prevent him or her from performing the listed functions.	
3. May suffer bodily harm as a result of performing one or more of those functions.	
4. Does not wish to perform those functions.	
5. Lacks the ability to read, speak, or understand the language, or the graphic form specified by the carrier, or lacks the ability to understand oral crew commands (in every language used by the certificate holder for the card).	
<b>AIRCRAFT FLOOR PLANS</b>	
Are the aircraft passenger seating floor plans submitted for each aircraft make, model, and series, and for each passenger seating configuration used by the certificate holder?	
Are exits and exit seats identified?	
List aircraft operated:	
Aircraft Make/Model/Series	Configurations (same or show each configuration)

**[PAGES 3-2241 THROUGH 3-2274 RESERVED]**