

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION**CHAPTER 33 CABIN SAFETY AND FLIGHT ATTENDANT MANAGEMENT****Section 6 Safety Assurance System: Operations—Cabin Safety**

3-3546 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). This section is related to Safety Assurance System (SAS) Subsystems 5.1, Training and Qualifications, and 5.2, Cabin Operations.

A. Passenger Noncompliance. Passenger noncompliance with Federal Aviation Administration (FAA) safety regulations could result in interference with a crewmember. Certain passenger actions may be in noncompliance with 14 CFR part 121 and may also be a criminal violation under Title 49 of the United States Code (49 U.S.C.) § 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. Part 121 Requirements. Part 121 requires air carriers to report passenger disturbances associated with alcohol within 5 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 (F/A) 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;
- The 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; and
- A brief narrative of the incident, the airline, flight number, and date.

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

C. Air Carrier Procedures. 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; and
- Procedures to handle passengers who may have brought their own alcoholic beverages on board.

3-3547 CARRY-ON BAGGAGE. As a result of the 9/11 terrorist attacks, the U.S. Congress passed the Aviation and Transportation Security Act. Section 122 of the Act, Sense of the 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) website (www.tsa.gov) has information about items that are permitted and prohibited in carry-on baggage, as well as provides examples of what constitutes a personal item.

A. Carry-On Baggage Stowing Requirement. Part 121 prohibits an air carrier from closing the passenger entry door in preparation for taxi/pushback, or takeoff, unless each article of carry-on baggage is stowed in a suitable baggage or storage compartment or under a passenger seat.

B. Air Carrier Carry-On Baggage Restrictions. 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 or 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 overhead 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. Stowage of Cargo and Baggage in Passenger Seats. 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, and
- The location of the seat(s) where it may be stowed.

D. Stowage of Items in Seat Pockets. Seat pockets have been designed to restrain approximately 3 pounds of weight and not the weight of additional carry-on items. Seat pockets are not listed in the regulation as an approved stowage location for carry-on baggage. If a

seat pocket fails to restrain its contents, the contents of the seat pocket may impede emergency evacuation or may strike and injure a passenger. If small, lightweight items, such as eyeglasses or a cell phone, can be placed in the seat pocket without exceeding the total designed weight limitation of the seat pocket or so that the seat pocket does not block anyone from evacuating the row of seats, it may be safe to do so.

E. Stowing Carry-On Baggage Against a Passenger Class Divider or Bulkhead.

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.

F. Stowing Carry-On Baggage, Cargo, or Trash in Uncertified Receptacles. The operation of an airplane with carry-on baggage, cargo, or trash stowed in uncertified receptacles, such as lavatories, is contrary to 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; and
- Requirements pertaining to fire containment.

NOTE: Title 14 CFR part 25 contains the certification requirements.

G. Part 121, § 121.589. Section 121.589 stipulates that each air carrier must have an FAA-approved carry-on baggage program. Carry-on baggage programs must comply with existing regulations.

1) A description of carry-on baggage articles must be in the program. This description should 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, assistive devices for people who are physically challenged, articles of personal clothing, etc. Some air carriers believe that exempt 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 should also be stipulated in the carry-on baggage program.

2) Proper stowage of carry-on baggage is a major safety issue. The current edition of Advisory Circular (AC) 121-29, Carry-On Baggage, requests that airlines include a definition of "properly stowed" in their carry-on baggage programs. 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 that carry-on baggage procedures are followed, it is important that a specific crewmember be identified as responsible for ensuring that 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) Air carriers should 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 (PA) 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 (W&B) program;
- Provide information about preventing baggage that cannot be stowed as carry-on baggage from reaching the aircraft as carry-on baggage;
- Ensure that carry-on baggage that 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 underseat stowage. For proper underseat 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 underseat carry-on baggage; and
- Removing all carry-on baggage that cannot be stowed properly in the passenger cabin before closing all passenger entry doors in preparation 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;
- In order for the airplane to leave the gate, the pet container must be stowed properly before the last passenger entry door to the airplane is closed;
- The pet container must remain properly stowed the entire time the airplane is moving on the airport surface, and for takeoff and landing; and
- Passengers must follow F/A instructions regarding the proper stowage of the pet container.

NOTE: Additional information on traveling with pets in the passenger cabin can be found on the FAA Cabin Safety website at https://www.faa.gov/about/initiative/s/cabin_safety/pets_faq/ or in the Cabin Safety Subject Index at https://www.faa.gov/about/initiatives/cabin_safety/media/cabinsafetyindex.pdf.

3-3548 STOWAGE OF NONCOLLAPSIBLE FLEXIBLE TRAVEL CANES. The Department of Transportation (DOT) issued an order of dismissal to certain complainants against a U.S. air carrier dismissing the complainants' allegation that the air carrier violated 14 CFR part 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 rules.

A. Current DOT Rules. 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 Requirements. 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 nonemergency exit window seat and the fuselage, if the cane is flat on the floor.
- 3) Longitudinally beneath any two nonemergency exit row window seats, if the cane is flat on the floor.
- 4) In accordance with any other method the Administrator approves.

C. Proper Restraint of Items in the Event of an Emergency. The gist 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 cabin safety inspectors (CSI), as applicable, must contact their assigned air carriers to:

- Inform them of these thin profile baggage restraint problems; and
- 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 noncollapsible flexible travel canes.

3-3549 STOWAGE OF GALLEY SERVICE ITEMS. Section 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 is considered to be carry-on baggage and must be properly stowed in accordance with part 121 for movement on the surface, takeoff, and landing.

A. Items to Secure During Surface Movement, Takeoff, and Landing. 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, and
- 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 takeoff and landing, then that item must also be stowed for movement on the surface.

B. Beverage and Food Service Procedures. 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 flightcrew members and F/As 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. Galley Supplies Stowed Outside the Galley. In addition, the FAA considers galley supplies stowed outside the galley to be 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 (STC).

3-3550 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. Flightcrew Flight Kits. Particular attention should be given to compliance with part 121 regarding restraints for any baggage carried on the flight deck. Flightcrew flight kits are not items of crew baggage. This policy also applies to aviation safety inspectors (ASI) and additional flightcrew members. 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. Restraint of Serving Carts and Unused Galley Equipment. It is recommended that air carriers include instructions to F/As that all serving carts, in addition to being stowed for takeoff and landing and when 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 that they will not become hazards during periods of in-flight turbulence.

3-3551 POTENTIAL PROBLEMS ASSOCIATED WITH FOOD AND BEVERAGE SERVICE.

A. Hot Liquids Service Procedures. Reports are received regarding passengers and F/As 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 F/As 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, and
- Brakes on the carts that are hard to operate, inadequate, or nonexistent.

B. Food and Beverage Container Hazards. When F/As 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. Air carriers should have procedures for removing or securing loose items on the top of carts during turbulence.

C. Unattended Cart Regulations. F/As should not leave carts unattended. Air carriers should have procedures that ensure that F/As are no more than 10 feet (3 rows) away from the carts left in the aisles. F/As 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, F/As may leave them unattended. However, F/As should clear items 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.

D. Deficiency Reporting Procedures. Air carriers should have procedures for reporting cart and cart restraint deficiencies.

3-3552 PROBLEMS WITH LOWER LOBE GALLEYS.

A. Eliminating Electrical Equipment Safety Hazards. The FAA requires air carriers to provide instruction to F/As 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 F/A training for all aircraft so equipped.

B. Prohibition of Passengers in Lower Lobe Galleys. The FAA received information concerning passenger access to the lower lobe galleys. They either let themselves down in the lifts or an F/A took them down. There is no justifiable reason for passengers to be in the galley, where they would interfere with the F/A 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. Limit of Two F/As in Lower Lobe. Some air carriers have conducted training and/or instruction in the lower lobe during flight with five or six F/A 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 F/As should be allowed in the lower lobe at any time during flight. One additional person may be allowed for instruction, evaluation, or inspection

duties. In the event a third person is present in the lower lobe galley, oxygen must be available in the event of a decompression; this may require a portable oxygen bottle.

D. Communicating With Lower Lobe Galley Personnel. It is very difficult to hear the PA system announcements in the lower galley because of aerodynamic noise and other noise emitting from nearby systems. The F/A working in the galley may not hear the captain's warning of clear-air turbulence or a 10-minute warning of descent. In addition, there have been reports of numerous failures of the intercom systems. Sometimes, F/As in the galleys rely on the other F/As to pass the warning. Air carriers should incorporate F/A procedures to assure that all warnings are passed to and acknowledged by persons in lower galleys.

E. Lower Lobe Emergency Procedures. En route inspections have revealed a nonconformity throughout the aviation industry in training and procedures for F/As who have to work in lower lobe galleys. Air carrier 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 F/A in the lower section.

F. Minimum Equipment List (MEL) Incompatibility Between Aircraft. MELs between different aircraft (e.g., DC-10, L-1011, and B747) are not always compatible. In one instance, if the personnel lift is inoperable, the F/As will not perform food servicing during flight. In another instance, if the personnel lift is inoperable, the F/As 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, F/As have sustained serious injuries caused by certain lift malfunctions that occurred during flight.

1) Air carriers should include procedures in their F/A manuals and training programs to assure that there are adequate instructions throughout their system on dispatching aircraft with inoperable personnel or cart lifts.

2) Air carriers 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 F/As informed on conditions and procedures which are set forth in the MELs that affect them.

G. Proper Stowage of Carts. 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 carrier procedures and training should include instructions to F/As that all carts must be properly stowed:

- For movement on the surface,
- For takeoff,
- For landing, and
- Whenever they are not being moved from one location to another.

H. Maintaining Mushroom-Type Restraints. 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 tiedowns are not worn down. The thickness and circular diameter must be maintained in order for the mushroom-type restraints to properly secure the cart.

3-3553 PREDEPARTURE CABIN EQUIPMENT CHECKS BY F/As. Some air carriers assign F/A tasks for making a predeparture check of the normal and emergency equipment in the passenger cabin.

A. Predeparture Equipment Check Assignments. In reviewing this situation, the FAA found that in most cases, the F/As on wide-body aircraft have predeparture equipment check assignments. On other aircraft, flightcrew members and F/As 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 F/As received training on the equipment and the operations manual contained appropriate procedures.

B. Specific Tasks Assigned to F/As. When an air carrier elects to have F/As 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 F/As. These tasks should be reviewed to ensure that they are not in the areas which require an Airman Certificate. Appropriate initial and recurrent training is required to ensure F/As are properly qualified. Air carriers must also include adequate procedures and instructions in their manuals so that applicable personnel will be able to properly perform their assigned tasks.

C. Flightcrew Member Training. The assignment of F/As by an air carrier to conduct a predeparture check of the cabin does not relieve the air carrier from training flightcrew members on normal and emergency equipment in the passenger cabin.

3-3554 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. Informing Passengers of Proximity Lighting. 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. Lighting Information in Passenger Briefing. 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 indicates the location of emergency exits.

3-3555 CABIN DOOR OPERATING MECHANISMS.

A. Passengers Moving Door Operating Mechanisms. At times, passengers have consciously or inadvertently moved door operating mechanisms, even when the mechanisms were 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. POI/CSI Responsibilities. 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 crewmembers to check the position of the door handles periodically during flight.

3-3556 FOKKER 28-4000 PASSENGER SAFETY INFORMATION CARDS.

A. Door Operation Depiction on Passenger Information Cards. 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 that they:

- Accurately show the procedure for operation of the two forward doors,
- Show the procedure for the removal of the overwing emergency exit handle cover, and
- Contain a warning to passengers that the plastic cover should only be removed in emergency situations.

B. POI/CSI Review of Passenger Safety Information Cards. 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.

3-3557 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; and
- Readiness of emergency evacuation assisting means.

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 pretakeoff announcement stating that Federal aviation regulations require passenger compliance with lighted passenger information signs and crewmember instructions concerning the use of seatbelts.

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 (e.g., 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 food and beverage 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 flightcrew members and F/As 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.

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.

3-3558 USE OF A CHILD RESTRAINT SYSTEM (CRS) IN AIRCRAFT. This paragraph provides additional information on the use of a CRS in aircraft. This section is related to SAS Subsystems 5.1, Training and Qualifications, and 5.2, Cabin Operations. 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 CRSs (Federal Motor Vehicle Safety Standard (FMVSS) No. 213, and Title 49 of the Code of Federal Regulations (49 CFR) part 571, § 571.213). Information regarding most CRS manufacturers is maintained at the NHTSA website, <http://www.safercar.gov/parents/CarSeats/Car-Seat-Ratings-Ease-Of-Use.htm>. In addition, the

FAA may approve an “aviation-only” CRS through a Technical Standard Order (TSO), a type certificate (TC), or an STC, or under 14 CFR part 21, § 21.305(d) (2010 ed.) or § 21.8(d).

A. Seat Occupancy Regulations. 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 or 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. Children Under the Age of 2. For taxi, takeoff and landing, an adult may hold a child under the age of 2 in their lap. However, because of the safety benefits, the FAA encourages the use of approved child/infant restraints aboard aircraft (for more information, refer to https://www.faa.gov/travelers/fly_children or the Cabin Safety Subject Index).

C. Accommodation of a CRS in an Empty Seat. Air carriers are encouraged to allow the use of an empty seat to accommodate a CRS. However, air carriers are under no obligation to allow a nonticketed child to occupy an empty passenger seat, even if the child uses a CRS.

D. CRS Criteria. Air carrier personnel, specifically F/As, should be aware of the following items pertaining to CRSs meeting the criteria of 49 CFR § 571.213. The CRS should have:

- A solid back and seat;
- Internal restraint straps installed to securely hold the child to the CRS;
- A label stating that the FAA, a foreign government, or the United Nations (UN) has approved it for aviation use; and
- Instructions on the label that the user must follow (labels stating approval from a foreign government or the UN are allowed and therefore may vary).

E. Booster Seats. FMVSS No. 213 defines booster seats as seats not having backs. Based on this definition, the use of such automotive booster seats is 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, passengers can use aviation “booster seats” with backs and labeled “approved for aviation use” for all phases of flight, provided they follow the label instructions.

NOTE: Usually, parents and guardians can properly restrain children who fit in an automotive booster seat in an airline passenger seat without a CRS.

F. CRS Performance in Passenger Seats. In 1994, the FAA issued a study entitled “The Performance of Child Restraint Devices in Transport Airplane Seats.” The research for the study, conducted by the FAA Civil Aerospace Medical Institute (CAMI), involved dynamic impact tests with a variety of CRSs installed in transport category aircraft passenger seats. The FAA used the results of this study as the basis for prohibiting the use of the following devices during ground movement, takeoff, and landing. The CAMI study revealed the following observations:

1) Belly Belts. These devices attach the child to the accompanying adult. An abdominal belt attached to the adult's seatbelt restrains the child. During dynamic testing, the forward flailing of the adult and the child resulted in severe body impacts against the forward seat. The child Anthropomorphic Test Dummy (ATD) moved forward to impact the forward row seat back, followed by the adult ATD torso striking the child ATD. Then, the adult ATD torso continued to move forward after contact with the child ATD, crushing the child ATD against the seat back.

2) Harness Restraints. The devices that CAMI tested consisted of a torso harness for the child ATD placed in its own seat with the airplane seatbelt routed through a loop of webbing attached to the back of the harness. During dynamic testing, the devices allowed excessive forward body excursion, resulting in the test dummy sliding off the front of the seat with a high likelihood of the child's entire body impacting the back of the seat directly in front of him or her. Then, elasticity in the webbing of the harness and seatbelts pulled the ATD rearward and this rebound acceleration presented further risk of injury.

3) Booster Seats. A key concern for backless booster seats used in airplane seats is the combined effect of seat back breakover and impact of an adult seated behind the child. Booster seats may expose the child occupant to potential abdominal injury due to the combined effects of these forces.

G. Design of a CRS Approved Through a TC or STC, or Under § 21.305(d) (2010 ed.) or § 21.8(d). Typically, a CRS that the FAA approves through the TSO process would be similar in design to a CRS that meets FMVSS No. 213 requirements. However, a CRS approved by the FAA through a TC, STC, or under § 21.305(d) (2010 ed.) or § 21.8(d) may contain novel and unusual design features (e.g., a harness-type device currently approved under § 21.305(d) (2010 ed.) that provides upper torso restraint for children). The regulations allow the use of a CRS that is a booster-type or vest- and harness-type, if the FAA has approved it through a TC, STC, TSO, or under § 21.305(d) (2010 ed.) or § 21.8(d). The air carrier is responsible for ensuring that crewmembers have proper training and information regarding the use of a CRS approved for use on aircraft through a TC, STC, or TSO, or under § 21.305(d) (2010 ed.) or § 21.8(d).

NOTE: Except for a CRS approved by the FAA through a TC, STC, or TSO, or under § 21.305(d) (2010 ed.) or § 21.8(d), the following types of CRSs continue to be prohibited for use during ground movement, takeoff, and landing:

- Lap-held child restraint (commonly referred to as a belly belt);
- Vest- and harness-type device that attaches the child to the parent, the parent's restraint system, or to the aircraft seatbelt; and
- Booster-type child restraint (even though it may bear appropriate labels showing that it meets applicable UN standards or is approved by a foreign government).

H. CRS Installation. A parent or guardian must install a CRS in a forward-facing aircraft seat 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. 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/guardian's) access to the aisle used to evacuate the aircraft. A responsible adult should occupy a seat next to the child.

I. CRS Installation With Inflatable Seatbelts. A seatbelt extender must always be used with a CRS installed in a seat with an inflatable seatbelt. The seatbelt extender will deactivate the inflatable seatbelt. Not using a seatbelt extender with a child seat in a seat with an inflatable seatbelt can result in death or serious injury.

J. CRS Acceptance Regulations. Parts 121 and 135 require air carriers to accept an approved CRS when the parent or guardian has purchased a ticket for its 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 belly belts, vest- and harness-type devices that attach to the parent or to the parent's restraint system, or booster-type CRSs (even though some of these devices bear appropriate labels showing that they meet applicable UN standards or that a foreign government approved them).

3) If the parent or guardian supplies the approved CRS, the parent or guardian is primarily responsible for ensuring that the CRS is approved, that the child is the right size and weight for the CRS, and that the CRS is properly installed in a forward-facing passenger seat. In this case, F/A responsibility is limited to checking with the child's parent or guardian to ensure that the CRS and the child have met the above conditions, 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 functions properly.

4) In cases where the air carrier supplies the approved CRS, 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;
- The child is properly restrained in the CRS; and
- The CRS is properly installed in a forward-facing passenger seat.

5) No air carrier may prohibit a child from using an approved CRS when the parent or guardian purchases a seat for the child, a parent or guardian accompanies the child, and the child is within the weight limits for the CRS. If an approved CRS, for which a parent or guardian has purchased a seat, does not fit in a particular seat on the aircraft, the air carrier has the responsibility to accommodate the CRS in another seat in the same class of service. The following are examples of design variations where accommodation is required:

a) A crewmember can move a CRS with a base that is too wide to fit properly in a seat with rigid armrests to a seat with moveable armrests that can be raised to accommodate the CRS in the same class of service.

b) A crewmember can move an aft-facing CRS that cannot be installed properly because of minimal pitch (distance between seats) between rows to a bulkhead seat or a seat in a row with additional pitch in the same class of service.

c) A crewmember can move a harness-type CRS (approved under § 21.305(d) (2010 ed.) or § 21.8(d)) with an upper strap that is not able to encircle some sleeper seats or very large first class seats, to another seat that can accommodate the strap in the same class of service.

d) There are some aft-facing CRSs that have a detachable base that may keep the CRS from fitting properly in the seat. The following visual cues will assist the passenger and the aircraft operator to determine if the detachable base is necessary:

- If there is no belt path on the aft-facing CRS, then the passenger must use it with the detachable base on aircraft.
- If there is a belt path on the aft-facing CRS and the CRS is properly labeled, then the passenger does not need to use it with the detachable base on aircraft.
- FMVSS No. 213 labeling standards do not require labeling on the detachable base.

NOTE: F/A training and procedures should emphasize that the regulations require an air carrier to accommodate an approved CRS for which a parent or guardian has purchased a seat in the same class of service.

K. Effective Air Carrier Practices. The following are effective practices that an air carrier may consider in its training and procedures regarding CRSs:

- The air carrier's training program should cover the use of CRSs;
- The parent or guardian should secure the CRS to a regular passenger seat at all times or stow it as carry-on baggage, if not in use;
- 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;
- The regulations do not allow a passenger to use a CRS in sideward-facing passenger seats; and
- The child should always be properly secured in the CRS whenever other passengers are required to have their safety belts fastened.

L. CRS Placement for Passengers Traveling With Multiple Children. In the event that a parent or 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, crewmembers should use good judgment 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 or guardian's) access to the aisle used to evacuate the airplane; and
- The CRS should be placed so that the parent or 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 CRS meets the above conditions, this may result in the parent or guardian placing the CRS between a passenger (including himself or herself) and the aisle and/or placing the CRS in a seat other than a window seat.

M. CRS for Larger Children. 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. Title 14 CFR parts 91, 121, 125, and 135 contain the scope of the CRS regulations, which apply to any child (i.e., under age 18) who does not exceed the specified weight limit for a CRS and is properly secured in a CRS that bears the proper labels.

1) Air carriers should ensure that F/As are aware that larger children (who have not reached their 18th birthday) may use a properly approved CRS that is appropriate for the child's size and weight. In this case, the air carrier may not prohibit the use of the CRS.

2) There are several companies that manufacture CRSs approved for use on aircraft that are specifically designed for larger children who are physically challenged. The NHTSA maintains a list of information regarding some of those manufacturers (<http://www.safercar.gov/parents/CarSeats/Car-Seat-Ratings-Ease-Of-Use.htm>).

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.

N. CRS for Adults With Physical Challenges. 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 for adult use.

1) To find out how to submit a petition for exemption, go to https://www.faa.gov/regulations_policies/rulemaking/petition.

2) Exemption information is available for your review on the FAA's Automated Exemption System (AES) website. To review previously granted exemptions regarding this issue, go to <https://aes.faa.gov> and enter "121.311" in the search field under "Regulation."

O. TSO-C100c, Aviation Child Safety Device (ACSD). On April 6, 2012, the FAA published TSO-C100c, Aviation Child Safety Device (ACSD), which contains minimum performance standards that a CRS must meet in order to obtain approval and to be identified with the applicable TSO marking. The FAA published the TSO for review and comment prior to its

adoption. Access this TSO at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgTSO.nsf/0/14280BE2D4385A92862579E40047815B?OpenDocument.

P. Labeling/Marking Requirements. Current operating rules in parts 91, 121, 125, and 135 require that CRSs used on aircraft during ground movement, takeoff, and landing meet one of the following labeling or marking requirements:

- 1) The CRS must bear two labels, although the manufacturer typically merges the text for these two required labels onto one label. The labeling must include the text, “This CRS conforms to all applicable Federal Motor Vehicle Safety Standards” and “This Restraint is Certified for Use in Motor Vehicles and Aircraft” in red lettering.
- 2) The CRS must bear either a label showing approval of a foreign government or a label showing that the CRS was manufactured under the standards of the UN.
- 3) The CRS must bear a label or markings showing FAA approval through an STC.
- 4) The manufacturer must permanently and legibly mark CRSs approved under TSO-C100c, “TSO-C100c.”
- 5) CRSs showing FAA approval under § 21.305(d) must bear the label “FAA Approved in Accordance with 14 CFR 21.305(d)” or “FAA Approved in Accordance with 14 CFR 21.305(d) (Amdt. 21-50 9 Sept. 1980) or under § 21.305(d) (2010 ed.) or § 21.8(d).”

Q. Seat Dimensions Disclosure. Consistent with the FAA Modernization and Reform Act of 2012, § 121.311(k) requires air carriers conducting part 121 domestic, flag, and supplemental operations to make available on their websites the width of the narrowest and the widest passenger seats in each class of service for each airplane used in passenger-carrying operations. This rule facilitates the use of a CRS on board an airplane and provides greater information to assist a caregiver to determine whether a particular CRS will fit in an airplane seat.

- 1) “Class of service” is the most relevant break point for information disclosure as it remains the prevailing terminology used to distinguish seat products, including the seat size variations and amenities that are associated with those products. The DOT defines “class of service” to mean seating in the same cabin class such as First, Business, or Economy class, or in the same seating zone if the carrier has more than one seating product in the same cabin (e.g., Economy and Premium Economy class or seats that are wider or have more legroom that are available at a higher cost to passengers). Because no certificate holder may prohibit a child from occupying a CRS if the child holds a ticket for an approved seat, the agency has stated that the aircraft operator need only accommodate the CRS in another seat in the same class of service.
- 2) Based on safe operating practices, an operator may have policies that establish certain seat locations for passengers who use a CRS on specific aircraft. Even if a certain seat can accommodate an approved CRS, an operator does not have to permit the CRS in that location if the operator’s policies disallow the CRS in that seat. However, prohibiting the use of a CRS (if a ticket has been purchased) when there are seats on the aircraft where the CRS could be used safely is not consistent with the requirements stated in part 121. As an operator determines

how best to meet the requirement of § 121.311(k), it would be beneficial to the air carrier, and would help facilitate the use of a CRS on board an airplane, if the air carrier only provides seat widths for seats that an air carrier allows for CRS use.

3) In addition to the seat width information required by § 121.311(k), the FAA encourages air carriers to include information on their websites about their operational policies and limitations regarding the placement of a CRS in a specific seat or location on their aircraft. For example, if an air carrier prohibits a CRS in aisle seats, it would be beneficial to list this on the air carrier's website because it would provide greater information to a caretaker when choosing assigned seats and determining whether a particular CRS will fit in a particular airplane seat.

3-3559 USE OF NONAPPROVED CHILD/INFANT RESTRAINT SYSTEMS IN AIRCRAFT. Section 121.311 contains regulations that prohibit the use of certain types of CRSs during ground movement, takeoff, and landing.

A. CRS Regulations During the Cruise Portion of Flight. 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. Nonapproved CRS Use During the Cruise Portion of Flight. There is also no regulatory requirement that an air carrier permit the use of nonapproved CRSs 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.

3-3560 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. Arming an Exit After Retraction of Stairs or Jetway. 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. When to Arm Doors. In the past, the requirements 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 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.

3-3561 PASSENGER SEATBELT DISCIPLINE. Passengers unfastening their seatbelts when the seatbelt sign is illuminated concern the FAA. The regulations require air carriers to illuminate the seatbelt sign:

- Before movement on the surface;
- During takeoff and landing; and
- At any other time when considered necessary by the PIC.

A. “Fasten Seatbelt” Sign Regulations. 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 Seatbelt” sign.

B. Seatbelt Sign Announcement Requirements. 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. Seatbelt Sign Announcement Before Landing. 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; and
- Once the seatbelt sign is illuminated, passengers should be in their seats with their belts fastened.

D. Safety Problems Due to Passengers Standing During Taxi. Historically, most airlines ensured that passengers were seated during movement on the surface. However, during the 1980s, 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 14 CFR 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. Seating All Passengers Before the Loading Door Is Closed. 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. Announcement for Keeping Seatbelts Fastened While Seated. Crewmembers must make an announcement when the seatbelt sign is turned off in flight 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, and
- Articles in air carrier publications or pamphlets in seat pockets.

G. Announcement Techniques for Forewarning Passengers. 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 Bar Regulations. 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 F/As 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 sign is 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 F/As regarding seatbelt discipline procedures.

3-3562 FLIGHT AND CABIN CREWMEMBER COORDINATION, COMMUNICATION, AND SAFETY DURING POTENTIALLY HAZARDOUS CONDITIONS OF FLIGHT. A review of aircraft accidents/incidents and cabin en route inspection reports indicates that there is a need for better communication between flight and cabin crewmembers. Also, there is a need for better seatbelt discipline from passengers and F/As.

A. Potential F/A Injury. Due to the nature of their cabin duties, F/As are susceptible to turbulence-related injuries. Close coordination between flight and cabin crewmembers can facilitate an expeditious completion of cabin services and preclude the exposure of F/As to potential injury during known or anticipated encounters with turbulence.

B. PIC Responsibilities. 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 F/As are seated at their duty station with safety belts and shoulder harnesses fastened; and
- During movement on the surface, unless performing safety-related duties, F/As must sit with safety belts and shoulder harnesses fastened.

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

D. Crewmember Training. Air carriers should be reminded that it is advisable to make a PA announcement to remind passengers that Federal regulations require them to fasten their seatbelts when the seatbelt sign is turned on. Additionally, §§ 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, and
- Review and discussion of previous aircraft accidents and incidents pertaining to actual emergency situations.

E. Coordination and Communication Between Flight and Cabin Crewmembers. Coordination and communication between 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 following operation, coordination, and communication procedures:

- 1) Guidance to flightcrew members on the importance of a predeparture briefing of the senior F/As, which includes forecast turbulence-related weather conditions, scheduling of cabin services, cleanup, securing of galley and cabin, carry-on baggage, and passengers.
- 2) Use of the PA system to alert F/As and passengers of anticipated in-flight turbulence.
- 3) Guidance for notifying F/As when they are to cease in-flight services, secure the galley, sit with their restraints fastened, and/or resume duties.
- 4) Standardized notification from the cabin crew to the flightcrew when the cabin crew completes all pretakeoff and prelanding duties and the cabin has been secured.
- 5) Standardized pretakeoff and prelanding signals from the flightcrew, which the flightcrew uses to allow sufficient time for F/As to be seated.

3-3563 BRACE-FOR-IMPACT POSITIONS.

A. Background. In the event of an accident, one action that an occupant in the cabin can take to contribute to their survival is to assume an appropriate brace-for-impact position. This is an action in which a passenger or crewmember pre-positions their body against whatever they are most likely to be thrown against. The primary objective is to significantly reduce injuries from impact with a solid object and limbs flailing. The brace-for-impact position increases the probability of survival and expeditious escape from the aircraft.

B. NTSB Safety Recommendation A-10-78.

1) On January 15, 2009, US Airways Flight 1549, an Airbus A320, ditched in the Hudson River. All passengers and crewmembers survived; however, four passengers sustained serious injuries attributed to impact and the brace-for-impact position illustrated on the safety information card, and two sustained similar shoulder injuries. As a result of this accident, the NTSB issued Safety Recommendation A-10-78 to the FAA, which stated, "Conduct research to determine the most beneficial passenger brace position in airplanes with nonbreakover seats installed."

2) In 2015, the FAA issued a study entitled, Effect of Passenger Position on Crash Injury Risk in Transport-Category Aircraft (DOT/FAA/AM-15/17). The study, conducted by CAMI, involved dynamic sled impact tests in transport category aircraft passenger seats. Head, neck, and upper and lower leg injury risks were evaluated using advanced test dummies and injury criteria from current regulations, FMVSSs, European auto safety standards, and applicable research standards. This research led to the determination that as seat technology has evolved, the most effective brace position has as well. The research conclusions and analysis were used to update Figures 3-125 through 3-128 in this section and the current edition of AC 121-24, Passenger Safety Information Briefing and Briefing Cards, Figure 1, Forward-Facing Seat With Lap Belt, Figure 2, Forward-Facing Seat (High-Density Seating), Figure 3, Forward-Facing Jump Seat, and Figure 4, Aft-Facing Jump Seat.

NOTE: The technical report is available at http://www.faa.gov/data_research/research/med_humanfacs/oamtechreports/2010s/media/201517.pdf.

C. Establishing the Best Brace-for-Impact Position. An optimum brace position would be dependent on so many factors that it is impossible to describe a single position that would be best for every occupant in every case. Instead, the positions described in this section are based on general crash safety principles applicable to most occupants.

D. Reasons for Bracing for Impact. There are two primary reasons for bracing for impact:

1) **To Reduce Flailing.** Having the occupant of a forward-facing seat bend forward over their legs can reduce flailing. (Flailing is defined as limbs that wave or swing or cause to wave or swing wildly.)

2) **To Reduce Secondary Impact.** Pre-positioning the body (particularly the head) against the surface it would strike during impact can reduce secondary impact.

E. Seat Pitch Spacing. Today's aircraft may have seating arrangements that result in very small seat pitches (the space between seats), known as high-density seating, or a combination of small and large seat pitch spacing (i.e., an aircraft with first class or business class seating arrangements), where seat pitch spacing is known as low-density seating.

F. Passenger Brace-for-Impact Positions. 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) Forward-Facing Passenger Seat With Lap Belt.

a) If there is sufficient room, passengers should bend over forward as far as possible with their heads facedown, place their feet back as far as possible, and wrap their arms under their legs behind their knees, as shown in Figure 3-125.

b) If there is not enough room to bend over completely, then passengers should place their heads against the surfaces in front of them, their feet as far back as possible, and grasp their lower legs, as shown in Figure 3-126.

Figure 3-125. Forward-Facing Seat With Lap Belt



Figure 3-126. Forward-Facing Seat (High-Density Seating)



2) Forward-Facing Passengers Seats With a Shoulder Belt. Several air carriers have installed oblique seats (over an 18-degree angle and up to a 28-degree angle from the aircraft centerline) in their premium class cabins. Passengers should sit upright, place their chins on their sternums, their hands in their laps, and their feet flat on the floor with their knees bent at about 90 degrees, as shown in Figure 3-127.

3) Aft-Facing Passenger Seat With a Lap Belt or Shoulder Belt. Passengers should sit upright, place their heads against the headrests, their hands in their laps, and their feet flat on the floor with their knees bent at about 90 degrees, as shown in Figure 3-128, Aft-Facing Jump Seat.

Figure 3-127. Forward-Facing Jump Seat

NOTE: Figure 3-127 is applicable to forward-, side-, or oblique-facing passenger seats with shoulder harnesses.

4) Pillow and Blankets. Passengers should not use pillows or blankets between their bodies and the objects against which they are bracing (either a seat back, a bulkhead, 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. Refer to NTSB Safety Recommendations A-79-76, A-79-77, and A-79-78.

5) Children. A child who occupies an approved CRS 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 as uniform support as possible to the infant's head, neck, and body and lean over the infant to minimize the possibility of injury due to flailing.

6) Pregnant or Handicapped Passengers. 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 at those seats.

G. F/A Brace-for-Impact Positions. The brace positions for F/As will depend on the direction their seats face and the type of restraint system those seats are equipped with. In all brace-for-impact positions, F/As should wear their seatbelts as tightly and as low on the torso as possible.

1) Forward Facing F/A Jump Seat.

a) For seats with an with an inertial reel-type shoulder harness, the F/As should sit upright, place their chins on their sternums, their hands in their laps, and their feet flat on the floor with their knees bent at about 90 degrees, as shown in Figure 3-127.

b) For seats with a manually adjustable shoulder harness, the F/As should tighten their lap and shoulder harnesses as tight as possible, lean against them, place their chins on their

sternums, their hands in their laps, and their feet flat on the floor with their knees bent at about 90 degrees, as shown in Figure 3-127.

2) Aft-Facing F/A Jump Seats. The F/As should sit upright, place their heads against the headrests, their hands in their laps, and their feet flat on the floor with their knees bent at about 90 degrees, as shown in Figure 3-128.

Figure 3-128. Aft-Facing Jump Seat



NOTE: Figure 3-128 is applicable to aft-facing passenger seats with or without shoulder harnesses.

H. Helicopter Brace-for-Impact Positions. Helicopter brace-for-impact positions are the same as those for airplanes. F/As, if present, should utilize either the brace position for passengers or F/As depending on their seats and restraint systems. If possible, the occupants of all seat types should grip the edge of the seat pan to help maintain orientation in the event of a rollover.

I. Briefing Passengers on Brace-for-Impact Positions During Planned and Unplanned Emergency Landings. In the case of an anticipated emergency landing, passengers should be briefed on the above information. In the case of an unanticipated emergency, F/As may only have time to give short commands, such as “Brace! Brace! Brace!,” “Lean over,” or “Heads down! Stay down!” Experience has shown that in an attempt to take a brace position of some sort, passengers will end up in a position that could result in less injury than if they make no attempt at all.

J. Bracing Information in Crewmember Training. The air carrier’s crewmember emergency training program should contain bracing information appropriate to the aircraft and seat spacing used by that air carrier.

3-3564 EMPHASIS ON TIME MANAGEMENT AND CREW COORDINATION IN PREPARATION OF CABIN FOR IMPENDING EMERGENCY LANDING.

A. Background. On July 19, 1989, a DC-10-10, N1819U, operated by United Airlines, Inc. (UAL) as Flight 232, experienced a catastrophic failure of the number 2 tail-mounted engine during cruise flight. The separation, fragmentation, and forceful discharge of stage 1 fan rotor assembly parts from the number 2 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 on board. One F/A and 110 passengers were killed.

B. NTSB Recommendation A-90-173. The NTSB investigation resulted in recommendations to the FAA. They included recommendation A-90-173: "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. POI and CSI Training Responsibilities. POIs and/or CSIs (if applicable) should ensure that their assigned air carrier's training department reviews the accident scenario of UAL Flight 232. Emphasis should be on time management and crew coordination and/or communication in emergency cabin preparation. The lessons learned in this accident may be very useful for developing air carrier training curriculums. In any case, each emergency training program should provide F/As, who may be required to act in rapidly changing emergency conditions, with knowledge of the air carrier's policies and procedures. Crew Resource Management (CRM) training, with practice and feedback sessions, is recommended for building communication, situational awareness, problem-solving, and stress management skills.

3-3565 F/A RESTRAINT DURING A CRASH AND EMERGENCY EVACUATION SECOND CHOICE EXIT DETERMINATION.

A. Background. On February 1, 1991, a B737-300 collided with a Fairchild Metroliner while the B737 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 B737 were killed.

B. NTSB Recommendations A-91-117 and A-91-118. 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. NTSB-Recommended POI and/or CSI Responsibilities. The NTSB believes that POIs and/or CSIs (as applicable) should ensure that air carriers emphasize the following:

1) During F/A training, the air carriers that have a second choice exit assignment for F/As (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) During a crash sequence, F/As must remain properly restrained and seated in their crew seats until the airplane has come to a complete stop.

D. F/A Manual and Training Program Procedures. Procedures in F/A manuals and training programs that provide for 2nd 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. Crewmember Determination of Aircraft's Complete Stop. 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 F/As involved in such accidents to determine when an aircraft comes to a complete stop. This lack of a combination of cues (motion, deceleration, etc.) can result in F/As 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. F/A Evacuation Scenario Training. During training in a crash scenario, air carriers should emphasize the following to their F/As:

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

3-3566 ACCIDENT NOTIFICATION AND MANIFEST ACCOUNTING PROCEDURES.

A. Background. On September 20, 1989, a B737-400 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 also noticed the left drift 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. NTSB Recommendation A-90-105. 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.” The number of persons on board should include number of occupants on the flight deck (including the observer seat), F/A jump seats, occupants of passenger seats and any in-lap infants under the age of 2.

C. NTSB-Recommended Air Carrier Responsibilities. The problems associated with the recovery efforts involving an air carrier accident, in which a night takeoff 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 on board 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 to:

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

D. Providing Information About Number of Persons on Aircraft. The FAA agrees with the NTSB that air carriers should be able to provide accurate 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,
- Nonrevenue passengers,
- Lap-held children, and
- Persons occupying cabin or flight deck jump seats.

E. Load Manifest Requirements. 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 noncrewmembers 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, § 1.1, 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 PIC;
- The second in command (SIC);
- Other required flightcrew members, such as Flight Engineers (FE), navigators, relief pilots, and required and nonrequired F/As (who are assigned duties by the air carrier); and
- Any other persons (pursers, customer service agents, etc.) assigned duties during flight time.

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

- Nonrevenue 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; and
- Law enforcement officials.

F. Ensuring Total Number of Persons On Board is Available Upon Takeoff. 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. Airport Emergency Plans. 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., the current edition of

AC 150/5200-31, Airport Emergency Plan) contain additional information concerning airport emergency plans.

3-3567 POLICY FOR PASSENGER AND F/A USE OF SEATBELTS DURING TURBULENCE. This paragraph provides guidance about passenger and crewmember use of seatbelts during turbulence. Additionally, air carriers should include procedures regarding communication and coordination in all crewmember manuals and training programs.

A. Regulations for Air Carriers. Regulations require the air carrier to ensure the following:

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

B. Background. 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 F/As continue to sustain injuries in flight during turbulence, evasive maneuvers, or other in-flight disturbances. Many of these injuries are serious and result in broken bones (especially ankle bones) and head injuries.

C. Required Announcement for Keeping Seatbelts Fastened While Seated. 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 PA 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. Procedures for Coordination and Communication Between Flightcrew Members. Coordination and communication between the flightcrew members and the F/As during all phases of flight concerns the FAA. POIs 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 flightcrew members on the importance of a predeparture briefing of the F/As, which includes:

- Forecast turbulence-related weather conditions;
- Securing the galley and cabin;
- Carry-on baggage;
- Passengers; and
- Scheduling of cabin service and pickup.

2) Use of the PA system or other signals to alert F/As and passengers of anticipated in-flight turbulence.

3) Guidance and specific signals to notify F/As when they are to cease in-flight services, secure galley, sit with their restraints fastened, and/or resume duties.

4) Guidance for F/As regarding F/A determination that turbulence is too severe for the continuation of service and that they are to take their seats, fasten their restraints, and notify the flightcrew members regarding this action.

5) Standardized notification to the flightcrew from the F/As when they complete all pretakeoff or prelanding duties and have secured the cabin.

6) Standardized signals from the flight deck crew before takeoff and before landing, which they use to allow sufficient time for the F/As to be seated.

3-3568 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 FAA Miscellaneous Operational Amendments Final Rule (57 Federal Register (FR) 42666), effective on October 15, 1992, the compliance schedule for enforcing § 121.577, regarding the pickup 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 re-secure 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.

- 3) Check the proper stowage of items of mass, as referenced in § 121.576.
- 4) Check the proper stowage of 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 takeoff 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. Malfunctions 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 F/A manual.

D. Checking Galley Restraints. The responsible F/A should check the galley and galley components to ensure proper restraints, including:

- Actions such as pulling vigorously on carts, oven doors, drawers, and other components. This is a good method of ensuring that they are secured;
- Ensuring the safe and correct parking of carts on mushrooms;
- Ensuring that brakes are operational on carts that use brakes;
- 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;
- Ensuring that galley curtains are secured open for takeoff and landing; and
- 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 F/A 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 pickup 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 that 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. Pickup of service items is considered safety-related and therefore all F/As assigned duties on that flight may pick up galley service items during movement on the surface.

3) Prior to Takeoff. F/As should ensure that the galley and galley components are properly stowed and restrained.

4) Procedures for Galley Security in Flight. Procedures for galley security in flight include the following:

a) Carts are not to be left unattended.

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

c) F/As 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, F/As should clear most items 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 be done in the galley as this is a good safety practice.

d) During service, other than when a cart is being moved, the brake (if applicable) must be engaged. If a 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) Prelanding. F/As should ensure that all galleys are properly restrained and that galley components are properly stowed and secured.

6) Postlanding. F/As should ensure that all reports of malfunctioning galley restraints, galley components, and galley carts are properly recorded and/or reported.

3-3569 ENSURING THAT CHILDREN WHO HAVE REACHED THEIR SECOND BIRTHDAY ARE PROPERLY RESTRAINED.

A. Background. 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. As the airplane began its takeoff roll, the airplane occupants and air traffic control (ATC) 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. The F/A seated in the aft F/A jump seat received puncture wounds from shrapnel and thermal injuries. Another F/A and five passengers received minor injuries. The pilots, the third F/A, and 52 passengers were not injured. The airplane’s fuselage was destroyed.

B. NTSB Recommendation A-96-084. The NTSB investigation of this accident resulted in recommendations to the FAA. These recommendations included A-96-084: “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.”

C. Noncompliance With Restraint Regulations for Lap-Held Children. During this NTSB investigation, it was determined that one child who had reached his or her second birthday was listed as a lap-held child, despite regulations that require all passengers who have reached their second birthday to be restrained during takeoffs and landings. The NTSB has long been concerned about the inadequacy and enforcement of this regulation, it 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.

D. Present Regulations for Lap-Held Children. 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. This is not an acceptable procedure.

E. Recommendation for Air Carriers to Ask the Ages of Lap-Held Children. 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.

3-3570 F/A APPAREL WHILE PERFORMING DUTIES ASSOCIATED WITH FLIGHT.

A. Background. 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. As the airplane began its takeoff roll, the airplane occupants and ATC 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. The F/A seated in the aft F/A jump seat received puncture wounds from shrapnel and thermal injuries. Another F/A and five passengers received minor injuries. The pilots, the third F/A, and 52 passengers were not injured. The airplane’s fuselage was destroyed.

B. NTSB Recommendation A-96-088. The NTSB investigation of this accident resulted in recommendations to the FAA. These recommendations included A-96-088: “Issue an operations bulletin recommending that principal operations inspectors advise their air carriers to disseminate Federal Aviation Administration safety guidance on airline passenger attire to their flight attendants.”

C. Safety Considerations for Apparel to Decrease the Chance of Burns. The NTSB investigation of this accident disclosed that the F/A 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.

1) 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.

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

3-3571 ADOPTION OF FLIGHTCREW MEMBER FLIGHT TIME LIMITATION RULES TO ESTABLISH F/A DUTY, FLIGHT TIME LIMITATIONS, AND REST RESTRICTIONS.

A. F/A Duty Period Limitations and Rest Requirements Final Rule. The F/A duty period limitations and rest requirements final rule allows air carriers to adopt the flightcrew member rules for their F/As. This rule provides additional scheduling flexibility and eliminates the need for an air carrier to have two sets of scheduling requirements for its flightcrew members and F/As. This provision will also permit F/As on such operations to be scheduled with the same limitations as the flightcrew members. This option appears in § 121.467(c) and part 135, § 135.273(c) of the final rule.

B. Administrator-Approved Written Procedures. In order to adopt its flightcrew member flight, duty, and rest requirements for its F/As, the air carrier must establish written procedures that are approved by the Administrator and referenced in the air carrier’s operations

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

- 1) Air carriers wishing to apply flightcrew member flight, duty, and rest requirements to F/As may obtain approval by submitting their procedures for preliminary review and approval to the POIs assigned to them at the FAA Flight Standards District Office (FSDO) or certificate management office (CMO) 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 and is required to ensure that flightcrew member rules are adequately applied to F/As.
- 2) The written procedures must apply to all F/As used in the air carrier's operation.
- 3) The written procedures must be applied to the air carrier's entire operation.
- 4) The written procedures must show that the flightcrew member rules are adequately applied to the F/As. They must clearly show that when the flightcrew members are following the rules for an operation, for example, domestic, the F/As will also be following those rules. Another example would be if the flightcrew members are using the flag rules, then the F/As must also be following the flag 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 part 135 subpart F, except for provisions for onboard rest facilities, as appropriate to the operation being conducted.
- 6) The written procedures must provide information about augmenting the F/A crew complement. Parts 121 and 135 air carriers are required to provide F/As on aircraft with certain passenger seating configurations in accordance with § 121.391, § 135.107, or the air carrier's OpSpecs, as appropriate. The number of F/As required on an aircraft to meet the provisions of § 121.391, § 135.107, or the air carrier's OpSpecs, whichever is greater, is referred to as the "minimum F/A crew complement."

NOTE: Any air carrier that elects the options to apply flightcrew member flight, duty, and rest requirements to F/As and has established written procedures for augmenting the minimum flightcrew member complement, must establish procedures for augmenting the minimum F/A complement. The augmenting procedures must be based on the number of flightcrew members assigned to the flight that is in addition to the minimum flightcrew member complement as specified in the aircraft Type Certificate Data Sheet (TCDS). The following are examples:

- If the minimum flightcrew member complement on a Boeing 747-200 is three, as specified in the aircraft TCDS, an air carrier that schedules four flightcrew members for an extended, long-range flight will be required to schedule

one F/A in addition to the minimum F/A crew complement that is required by § 121.391, § 135.107, or the air carrier's OpSpecs.

- If the OpSpecs for a certain airplane require eight F/As, and if the air carrier adds one flightcrew member, that air carrier would be required to add one additional F/A, for a total of nine F/As.

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 F/As. (Refer to 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 flightcrew member flight, duty, and rest requirements to F/As, if the Administrator finds that revisions to the written procedures are necessary for the continued adequacy of the procedures for applying flightcrew member flight, duty, and rest requirements to F/As, 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 a number of air carrier programs.

9) Any air carrier that establishes written procedures to apply the flightcrew member flight, duty, and rest requirements to F/As and that subsequently wishes to revise this practice and schedule F/As according to the duty period limitations and rest requirements in § 121.467 or § 135.273, must amend their OpSpecs in accordance with 14 CFR part 119, § 119.51. These sections require an air carrier to file an application for an amendment of OpSpecs 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 or CMO charged with the overall inspection of the air carrier. See Volume 3, Chapter 18, Section 3 for information regarding the issuance of OpSpec A032.

3-3572 EXIT SEATING PROGRAM. The applicable air carriers must comply with the appropriate parts of 14 CFR pertaining to exit seating: §§ 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:

a) 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.

b) 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.

NOTE: 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 are listed in §§ 121.585(b) and 135.129(b). The selection criteria are 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 F/A manual, and the exit seating passenger information card. The selection criteria must also be available for inspection by the public at all passenger ticket counters and 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 determine who may be assigned to an exit seat must make this assessment in a nondiscriminatory manner by consistent application of the neutral criteria.

a) For example, if 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 or 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.

c) For example, if a passenger with a prosthesis is being evaluated for assignment to an exit seat, the presence of the prosthesis would not be the determinant for being able to meet the criteria but rather the physical ability to perform the exit seat duties.

d) During the screening, if the certificate holder determines that a passenger may not have full functionality of the prosthetic limb (e.g., the passenger has removed the prosthesis for comfort or their prosthesis is in a sling or arm brace), then they may not meet the “mobility” exit row criteria.

D. Functions. As applicable to the exit seating rule, §§ 121.585(d) and 135.129(d) list the functions that 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 ticket counters and 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; and
- 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 reseating 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 types of computer/internet technologies that allow 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 reseating passengers on board the aircraft to ensure compliance with exit seat assignment requirements.

b) For example, menu prompts that 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 identification 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, 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) Persons Who Will Determine Exit Seat Suitability. 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 crewmember, or other person specified by the air carrier in its company manual procedures.

3) Passenger Screening. 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) Passenger Assessment Process for Exit Seating. 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 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 (the person has the ability to hear, understand, and impart information, and is not distracted by other responsibilities such as caring for small children or other traveling companions, etc.).

5) Verification of Exit Seat Occupants Before Taxi/Pushback.

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 that 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 manual.

F. Individual Exit Seat Briefings.

1) The NTSB examined 46 passenger aircraft evacuations that occurred between September 1997 and June 1999. The NTSB Safety Study 00/01, Emergency Evacuation of Commercial Airplanes, resulted in recommendations to the FAA. They include recommendation A-00-077: "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, go to <https://www.nts.gov/safety/safety-studies/Documents/SS0001.pdf>.

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 NTSB determined that one reason for these difficulties was passenger inattention to the safety materials provided. The NTSB 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 NTSB 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 that designate certain crewmembers to conduct additional structured personal conversations or briefings, beyond the oral briefing required by §§ 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, and 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 F/As 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 F/A any questions they may have about exit operation or procedures. This briefing also presents an opportunity for the F/A 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, including 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. (Some situations that can cause passengers who met the criteria before takeoff to not meet the criteria for landing are intoxication during flight, panic attacks, and 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 §§ 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 §§ 121.585(b) and 135.129(b).
 - a) 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.
 - b) 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.
- 2) The emergency function, as found in §§ 121.585(d) and 135.129(d).
 - a) The functions must be listed (as in the rule) and/or graphically displayed on the passenger information card. Either or both methods are acceptable.

b) If a function cannot 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 following contents 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 indiscernible 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; or 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.

1) As per the rule, the oral briefing shall:

a) 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.)

b) Have a statement that requests the passenger to identify himself or herself for reseating if he or she:

- Cannot meet the selection criteria;
- Has an indiscernible 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; or
- Does not wish to perform the functions.

2) 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.

3) It is beneficial when the air carrier incorporates the exit seat locations for that aircraft configuration into the required oral briefing, 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 seats are booked full, the air carrier must move a passenger who is willing and able to assume the evacuation functions from a non-exit seat to the exit seat. 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 takeoff is already underway, the rule does not require that the passenger be moved. This would create dangers as great as 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:

- 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; or
- 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 the situation will be handled and who is designated to handle it.

L. Disputes. Sections 121.585(n)(1)(iv) and 135.129(n)(1)(iv) require that the air carrier include procedures that address how to resolve disputes arising from the implementation of this rule, and identify the employee on or at the airport property to whom complaints would be addressed for resolution. This person is commonly referred to as the Complaints Resolution Official (CRO) as described in part 382, § 382.151.

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 the:

- Selection criteria, as found in §§ 121.585(b) and 135.129(b);
- Emergency functions, as found in §§ 121.585(d) and 135.129(d);
- Requests for reseating, as found in §§ 121.585(e) and 135.129(e); and
- Reasons for denial of transportation, as found in §§ 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. Manual excerpts should be submitted from the operations, F/A, 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. The procedures should contain:

- Selection criteria;
- 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, and resolving disputes arising from exit seating; and
- Identification of the air carrier employee at 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, and 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 (M/M/S) 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. During the original approval process, the exit seating programs were first sent to the POI for review, and then forwarded for a second review by the Exit Seating Coordinator at the Air Transportation Division, Air Carrier Operations Branch point of contact (POC), who approved the programs on behalf of the Office of the Executive Director, Flight Standards Service. The POI no longer needs to forward exit seating programs to the Exit Seating Coordinator at the Air Carrier Operations Branch for approval. The POI is now considered to be the representative of the Office of the Executive Director in terms of compliance with §§ 121.585(p) and 135.129(p). (See Figure 3-129, Exit Seating Program Job Aid.)

NOTE: Current policy and guidance ensure that exit seat program approval will be issued when the operator complies with the requirements in the regulation (see Volume 3, Chapter 18, Section 3, OpSpec A022). When the FAA (POI) issues OpSpec A022, the operator has established procedures to ensure that seats with direct access to an exit are not occupied by passengers who are unlikely to be able to meet the regulatory requirements.

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 checklist in Figure 3-129. 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 OpSpec 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, the language of the foreign-speaking passengers and the primary language of the air carrier.
- The exit seating passenger information cards should also be in the two languages.

NOTE: An amendment to the existing exit seating program would be needed that 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 that 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 used by the air carrier in domestic operations, then the air carrier should attempt to find those passengers who have some understanding of the language. In this situation, it would appear that an interpreter who is fluent in both the air carrier's primary language and the language of the foreign-speaking passengers would have to be used. An exit seating passenger information card would have to be developed in the 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.

3-3573 EMERGENCY EVACUATION WITH INFANTS. Researchers from CAMI 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 http://www.faa.gov/data_research/research/med_humanfacs/oamtechreports. The following information is intended for use in developing passenger information materials and/or briefing.

A. Infant Evacuation Via Inflatable Emergency Evacuation Slides. 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), and 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. Infant Evacuation Via Type III Overwing Exits. The purpose of the second study 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, while cradling the infant to protect its head, arms, and legs, should be the favored evacuation 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.

3-3574 USE OF PORTABLE ELECTRONIC DEVICES (PED). POIs and Principal Avionics Inspectors (PAI) should review the provisions contained in part 91, § 91.21 and § 121.306, and the current edition of AC 91.21-1, Use of Portable Electronic Devices Aboard Aircraft, with their assigned operators. POIs and PAIs must ensure that their operators have adequate procedures in place to determine whether or not PEDs are acceptable for passenger use on board their aircraft. POIs must ensure that their operators specify in their operations manuals those PEDs that may not be operated on board their aircraft. Although §§ 121.571 and 135.117 and part 125, § 125.327 do not require that the following briefing information be given, POIs and CSIs should encourage their assigned operators to include information regarding the operation of PEDs in the pretakeoff passenger safety briefings. These briefings should include any specific restrictions that apply to passenger use of PEDs.

NOTE: Volume 3, Chapter 66, Section 1, Expanded Use of Passenger PEDs for Aircraft Operations Conducted Under Parts 91 Subpart K (Part 91K), 121, 125 (Including A125 LODA holders), and 135, provides guidance to expand the use of PEDs on board the aircraft. The Federal Communications Commission (FCC) governs cell phone use during flights. All devices using WiFi should be in airplane mode during taxi, takeoff, and landing. PEDs must be turned off when instructed by crewmembers. For passenger safety, all electronic devices should be stowed or secured during taxi, takeoff, and landing.

3-3575 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:

- Some are donned by placing one part over the head,
- Others are worn like a coat, and
- Some have inflation handles that work differently.

B. Operators Use Various Methods to Inform Passengers of Using Dissimilar Flotation Equipment, Such as:

- Briefing passengers on the different types of flotation devices;
- Displaying the differences on passenger cards and alluding to them in the briefing;
- Using a combination of briefing and passenger cards; and
- Briefing passengers (in rare cases) on only one design.

C. Policy. When the safety briefing includes more than one type of flotation cushion or life preserver, it can be confusing. The different methods of donning and/or operating the individual flotation device should be specific to the aircraft, depicted on the card, and provided in the oral briefing, video, or live demonstration (refer to §§ 121.571(a)(1)(iv) and 121.573). One method of delivering the passenger briefing is to describe the type, location, and operation of flotation equipment in each class of service during the oral briefing. For some operators, this may mean specialized safety information cards and individualized oral briefings for specific seating configurations. When two sections on the same aircraft are equipped differently, the operator shall provide a flotation equipment safety briefing with corresponding pictorial instructions on the safety information briefing card. Operators shall emphasize that it is important that passengers study the safety information briefing card carefully and be aware of the number, type, and instructions for the operation of flotation equipment available within reach of their seat.

D. Infant Life Vests and Overwater Departures. Section 121.340(a) requires that an airplane be equipped with a life preserver or approved flotation means for each occupant, that the device be within easy reach of each seated occupant and readily removable from the airplane. Section 121.311 permits an adult occupying an approved seat to hold a child fewer than 2 years of age. This child is commonly referred to as an “in-lap” child. Questions have been raised about the applicability and adequacy of existing regulations regarding flotation equipment for an in-lap child.

1) One purpose of § 121.340(a) is to ensure that a flotation means is provided for each occupant. The flotation means may be a life preserver, a seat cushion, or a combination of flotation means. The FAA’s long-standing reading of § 121.340(a) is that all cabin occupants, including in-lap children, must have an individual flotation means available for use. That reading was affirmed in 1996, when the FAA issued a legal interpretation regarding § 121.340(a). The Office of General Counsel (AGC) found that the rule requires a flotation means for all cabin occupants, including “in-lap” children.

2) As a practical matter, an adult would probably have trouble trying to control a child being buoyed by a typical full-sized life vest or seat cushion in the unlikely event of a landing in water. Survival factors research indicates that an in-lap child would benefit from specially designed flotation equipment that keeps the child's torso out of the water. Accordingly, the FAA encourages operators to consider providing appropriately designed flotation equipment, either life preservers or other approved equipment, for use by in-lap children.

3) If an operator should elect to provide specially sized flotation equipment for in-lap children, and if that equipment should be located differently from the typical flotation equipment for other occupants, or should operate differently, then additional information regarding that special equipment would be required in the briefing given to passengers. On the other hand, if that special equipment should differ only in respect to size (child size versus adult size) but not location or function (both life vests are stored and donned similarly) then no additional information would be required in the oral briefing.

4) Operators should not "invent" or "create" their own unique method of using an individual flotation device with an adult holding a lap child or infant. Operators should verify that the safety information card illustrations reflect the design specifications for the individual flotation cushion or life preserver (refer to manufacturer's specifications and TSO-C72c).

3-3576 LOCATION AND PLACEMENT OF SERVICE ANIMALS ON AIRCRAFT.

A. Background. As early as 1977, the FAA recognized the need for guidance regarding the placement and location of service animals on aircraft. The current edition of AC 120-32, Air Transportation of Handicapped Persons, discusses the placement of guide dogs and states they should sit in the first row of seats of a section next to the bulkhead where there is more room for the dog. In 1990, the DOT published part 382. On May 9, 2003, the DOT issued revised guidance regarding the carriage of service animals affecting all transportation modes, including aviation.

B. FAA Review of NTSB Part 121 Accident Reports. The FAA has reviewed all available NTSB accident reports for part 121 commercial aircraft accidents with at least one fatality occurring between January 1, 1990, and November 28, 2007. The FAA found no information that the presence of a service animal or its placement or location on an airplane negatively impacted an airplane evacuation or a particular individual's emergency exit from an airplane.

C. FAA Review of NTSB Safety Reports. The FAA also reviewed NTSB Safety Report 01/01, Survivability of Accidents Involving Part 121 U.S. Air Carrier Operations, 1983 Through 2000, and NTSB Safety Study 00/01, Emergency Evacuation of Commercial Airplanes, and again found no information that either the presence of a service animal or its placement or location on the airplane negatively impacted an airplane evacuation or a particular individual's emergency exit from an airplane.

D. Part 382 Requirements. The variety of service animals, as well as the services these animals perform, has become larger in scope since the FAA's policy was first published in 1977. However, a comprehensive review of available NTSB data does not identify a hazard that

compels the FAA to change its longstanding safety and compliance policy regarding placement and location of service animals on aircraft. Therefore, consistent with part 382 requirements:

1) Placement. A service animal may remain at the feet of a person with a disability at any bulkhead seat, or in any other seat, as long as when the animal is seated/placed/curled up on the floor, no part of the animal extends into the main aisle(s) of the aircraft, the service animal is not at an emergency exit seat, and the service animal does not extend into the foot space of another passenger seated nearby who does not wish to share foot space with the service animal.

2) Placement of Lap-Held Service Animals. The preamble to part 382, issued in 1990 (55 FR 8042), discusses lap-held service animals (such as a monkey used by a person with mobility impairments). They are service animals that need to be in a person's lap to perform a service for that person. This service animal may sit in that person's lap for all phases of flight including ground movement, takeoff, and landing, provided that the service animal is no larger than a lap-held child (a child who has not reached his or her second birthday).

3) Documentation. One type of service animal is an animal used for emotional support. The presence of such an animal is found to be medically necessary for the passenger traveling with the animal. Under DOT rules, and outlined clearly in DOT's Guidance Concerning Service Animals in Air Transportation, published on May 9, 2003, an air carrier may require documentation regarding the medical need for the presence of an emotional support animal as a condition of permitting the animal to accompany the passenger in the cabin as a service animal.

4) Unusual Service Animals. As stated in the DOT guidance issued on May 9, 2003, unusual service animals pose unavoidable safety and/or public health concerns and airlines are not required to transport them. Snakes, other reptiles, ferrets, rodents, and spiders fall within this category of animals. The release of such an animal in the aircraft cabin could result in a direct threat to the health or safety of passengers and crewmembers. For these reasons, airlines are not required to transport these types of service animals in the cabin, and carriage in the cargo hold will generally be in accordance with company policies on the carriage of animals.

5) Other Unusual Animals. Air carriers should evaluate unusual animals, such as miniature horses, pigs, and monkeys, on a case-by-case basis. Factors to consider are the animal's size and weight, state and foreign country restrictions, and whether or not the animal would pose a direct threat to the health or safety of others or cause a fundamental alteration (significant disruption) in the cabin service. If none of these factors apply, the animal may accompany the passenger in the cabin. In most other situations, the air carrier should carry the animal in the cargo hold, in accordance with company policy.

6) Policy Coordination. The FAA has coordinated this safety and compliance policy with the FAA Office of the Chief Counsel, Operations Law Branch (AGC-220).

E. Reference Materials. The current editions of the following reference materials provide additional information:

1) Part 382, Nondiscrimination on the Basis of Disability in Air Travel (http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title14/14cfr382_main_02.tpl).

2) DOT Guidance Concerning Service Animals in Air Transportation, May 9, 2003 (<https://www.transportation.gov/airconsumer/service-animal-guidance>).

3) AC 120-32, Air Transportation of Handicapped Persons (http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22755).

4) NTSB Accident Database & Synopses (http://www.nts.gov/_layouts/ntsb.aviation/index.aspx).

5) NTSB/SR-01/01, Survivability of Accidents Involving Part 121 U.S. Air Carrier Operations, 1983 Through 2000 (<https://www.nts.gov/safety/safety-studies/Documents/SR0101.pdf>).

6) NTSB/SS-00/01, Emergency Evacuation of Commercial Airplanes (<https://www.nts.gov/safety/safety-studies/Documents/SS0001.pdf>).

3-3577 USE OF ORTHOTIC POSITIONING DEVICES (OPD) BY PEOPLE WITH DISABILITIES IN AIRCRAFT SEATS.

A. Assistive Devices. To a limited degree, AC 120-32 discusses issues surrounding the use of assistive devices such as crutches, splints, casts, and braces by passengers on aircraft. However, the FAA issued this guidance well before the publication of part 382 in 1990. In addition, there have been many innovations in the scope and type of assistive devices since 1977. OPDs are one of the more recent examples of innovation in assistive devices.

B. Seatbelt as Primary Method of Restraint. This guidance addresses one type of OPD used by people with disabilities to position and support themselves in such a way that they can use the aircraft's seatbelt as an effective and primary method of restraint. Each OPD is specifically designed to meet the support needs of an individual and there are different manufacturers of OPDs.

C. Persons Supported by OPD. "Orthotic" means a support or brace for weak or ineffective joints or muscles. An OPD is a device or supportive brace that is designed and used to help support and position a person who has:

- Significant postural asymmetries of the pelvis, trunk, and/or hips that lack flexibility;
- Significant hypertonia or hypotonia, spasticity, or mixed athetoid dysfunctions;
- Absent or impaired sensation in an area of contact with a seating surface; or
- A past history of, or current, pressure ulcer(s) on an area of contact with a seating surface.

D. OPD-Assisted Disabilities. People who have difficulty controlling the movement of their body or have muscle spasms that cause their body to extend involuntarily may use an OPD. Some examples of this type of disability include, but are not limited to, cerebral palsy and spastic quadriplegia.

E. OPD Requirements. The type of OPD discussed in this guidance must be equipped with internal restraints to position a person in the device to provide that person security and support. The person sits in the OPD while they and the OPD are occupying an aircraft seat. The person is therefore properly positioned to use the existing aircraft seatbelt as his or her primary restraint device by securing it around them while using the OPD for support. The OPD must not attach to the seat. The OPD only provides support; the aircraft seatbelt provides restraint.

F. The Purpose of OPDs. The use of this type of OPD is similar to the use of any other medically required assistive/positioning device, such as a back brace or a neck brace. The purpose of an OPD is to ensure a person requiring this type of assistive device is positioned properly and safely in order to effectively use the aircraft seatbelt as his or her primary means of restraint. This type of OPD is not intended to be identified, sold, or used as a CRS. The use of this type of OPD is permitted on aircraft and is not prohibited by current regulations.

G. Where Persons May Use OPDs on Aircraft. A person may use an OPD in any seat on the aircraft, except an exit seat, provided the use of the OPD does not block any passenger's evacuation from the aircraft.

H. Crewmember Requirements. Crewmembers are not required to know how to operate the internal restraints of the OPD. This is the responsibility of the person who is using the OPD or his or her caregiver. Crewmembers are only responsible for ensuring that the person using the OPD or his or her caregiver properly uses the aircraft seatbelt (the primary method of restraint).

I. OPD Acceptance Criteria. Because each OPD is specifically designed to meet the support needs of an individual, the structure of the OPD and the internal harness system may vary. To assist crewmembers in evaluating whether the use of this type of assistive device is acceptable, it is important to keep two key points in mind:

1) The person must have a medical need to use the OPD. In most situations, the need to use an OPD will be readily apparent. In any case, observation of the person or obtaining credible verbal assurances from the person or his or her attendant will be considered sufficient to determine medical need.

2) When the person is using the OPD, the aircraft seatbelt secures around him or her and provides the primary method of restraint.

J. Guidance Limitations. This guidance is specific to one type of OPD used by a person with a disability to allow the aircraft seatbelt to be the primary method of restraint. This guidance does not mean that any type of restraint used by people with disabilities is exempt from the regulations regarding the use of restraint systems and it does not preclude the air carrier's responsibility from making a safety judgment based on specific compliance with applicable regulations. A petition for exemption is the appropriate course of action regarding a device that does not meet the criteria in this guidance or the requirements established in the pertinent regulations regarding restraint on aircraft. Information regarding the submission of a petition for exemption is available at http://www.faa.gov/regulations_policies/rulemaking/petition.

NOTE: While the FAA does not endorse a particular manufacturer's OPD, the following websites contain information regarding the general type of OPD described in this paragraph:

- <http://www.ridedesigns.com>.
- <http://www.r82.com/about-r82-inc/profile/our-vision-and-mission/>.

Figure 3-129. Exit Seating Program Job Aid

This preapplication phase job aid provides guidance for determining air carrier compliance with §§ 121.585 and 135.129.
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:
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 sections/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 3-129. Exit Seating Program Job Aid (Continued)

SELECTION CRITERIA: 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.	

Figure 3-129. Exit Seating Program Job Aid (Continued)

SEATING ASSIGNMENTS/VERIFICATION PROCEDURES	
Are exit seats identified for seat assignment purposes?	
Refer to §§ 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?	
Refer to §§ 121.585(k) and 135.129(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?	
Refer to §§ 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?	
DENIAL OF TRANSPORTATION/RESOLVING DISPUTES	
Refer to §§ 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.	
Refer to §§ 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?	
ORAL BRIEFING PROCEDURES	
Refer to §§ 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 an indiscernible 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.	

Figure 3-129. Exit Seating Program Job Aid (Continued)

AIRPORT INFORMATION	
Refer to §§ 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?	
PASSENGER INFORMATION CARDS	
Are copies of applicable cards attached?	
Are cards appropriate to carrier's aircraft and configurations?	
Do procedures address the use and location of cards?	
Refer to §§ 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 an indiscernible 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).	

Figure 3-129. Exit Seating Program Job Aid (Continued)

AIRCRAFT FLOOR PLANS		
Are the aircraft passenger seating floor plans submitted for each aircraft make, model, and series (M/M/S), and for each passenger seating configuration used by the certificate holder?		
Are exits and exit seats identified?		
List aircraft operated: Aircraft M/M/S	Configurations (same or show each configuration):	

RESERVED. Paragraphs 3-3578 through 3-3590.