

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION**CHAPTER 23 FLIGHT ATTENDANT TRAINING AND QUALIFICATION PROGRAMS****Section 5 Safety Assurance System: Flight Attendant Aircraft Ground Training Curriculum Segment**

3-1826 GENERAL. This section specifies the objectives of a flight attendant (F/A) aircraft ground training curriculum segment and discusses the structure and content of aircraft ground training. Two distinct subject areas of aircraft ground training are identified: general operational subjects and aircraft-specific emergency training. These subject areas must contain training to satisfy the requirements of Title 14 of the Code of Federal Regulations (14 CFR) parts 121 and 135. This section is related to Safety Assurance System (SAS) Elements: 5.1.1, (OP) Training of Flight Attendants, 5.2.1, (OP) Crewmember Duties/Cabin Procedures, and 5.2.4, (OP) Passenger Handling.

A. Objective. The objective of aircraft ground training is to provide F/As with an understanding of the basic aircraft to which the F/A will be assigned. This knowledge is necessary for the F/A to perform required duties and procedures in routine, abnormal, and emergency situations. Aircraft ground training, as used in this section, is training for a specific aircraft. An operator may use many methods when conducting aircraft ground training, including classroom instruction, ground training devices, computer-based instruction (CBI), and static aircraft.

B. Scope and Content. The scope and content of the training module events and elements presented in this Chapter are examples for guidance and may be particularly useful for a new operator undergoing certification by the Federal Aviation Administration (FAA). Although the modular content provided in these examples exceeds FAA regulatory requirements, the FAA considers it to exemplify a good operating practice; however, the inspector should not require existing operators who are functioning under currently approved training programs to change their training solely to accommodate the examples presented in this chapter.

3-1827 AIRCRAFT GROUND TRAINING CURRICULUM SEGMENT. The outline for an aircraft ground training curriculum segment should include training that is appropriate to the operator's type of operation. The operator should outline the training in two distinct subject areas of aircraft ground training: general operational subjects training, and aircraft-specific emergency subjects training.

A. Module Outline. Modules are outlined under each subject area. The outline should provide a descriptive title of the module and list the related elements or events presented during instruction. The modules, elements, and events listed under the subject area should contain enough detail to ensure that they provide 14 CFR-required training.

B. Level of Detail. Operators do not have to include detailed descriptions of each element or event within a training module outline. Detailed descriptions are more appropriate when included in the operator's courseware. During the approval process, the principal

operations inspector (POI) should review courseware as necessary to ensure that the scope and depth of the training modules are adequate.

C. Operator's Flexibility. An operator has a certain amount of flexibility in the construction of the aircraft ground training modules, as follows:

1) Training Hours. The number of training hours must be specified on all aircraft ground training curriculum segment outlines. POIs must thoroughly study the operator's proposals. On the basis of experience with the operator, past experiences with other operators, as well as their own training experiences, POIs must use reasonable judgment when determining whether the operator can adequately accomplish training within the training hours specified in the curriculum segment. These training hours usually include periods, during instruction, for reasonable breaks.

2) Sequence of Training. The operator can determine the sequence of the actual training and may choose to put a training module in more than one curriculum segment; however, the operator should place that training module in the curriculum segment designated in this handbook. For example, part 121, § 121.421 requires that an electrical galley equipment training module be placed in the aircraft ground training curriculum segment. At the operator's discretion, however, the electrical galley equipment training module could also be covered in the aircraft general emergency training curriculum segment in conjunction with the firefighting training module.

D. Curriculum Segment Example. The following example illustrates a curriculum segment and one of many acceptable methods for presenting a module outline:

1) II. F/A Aircraft Ground Training Curriculum Training Segment Title of Curriculum Segment.

- a) Training Objective: Statement of Training Objectives.
- b) General Operational Subjects: Title of Subject Area.
 - Aircraft Familiarization.
 - Aircraft Equipment and Furnishings.
 - Aircraft Systems.
 - Aircraft Exits.
 - Crewmember Communication and Coordination.
 - Routine Crewmember Duties and Procedures.
 - Passenger Handling Responsibilities.
 - Training Modules within a Curriculum Segment Applicable to a Specific Aircraft in the General Subject Area.
- c) Elements within a Training Module.
 - Aircraft Familiarization.
 - Aircraft Description.

- Flightdeck Configuration.
- Cabin Configuration.
- Galleys.
- Lavatories.
- Stowage Areas.

3-1828 GENERAL OPERATIONAL SUBJECTS TRAINING MODULES. Modules in general operational subjects training consist of instruction in the general description of the aircraft, aircraft equipment, furnishings, and systems; routine crewmember communication and coordination procedures; routine crewmember duties and procedures as applicable to specific aircraft during each phase of flight; and passenger handling responsibilities that are specific to the aircraft the crewmember is qualifying for in the operator's fleet.

A. Minimum Training Requirements. General operational subjects training must include training in at least the following:

- The authority of the pilot in command (PIC).
- Passenger handling, including the procedures to be followed in the case of deranged persons or other persons whose conduct might jeopardize safety.
- A general description of the airplane, emphasizing physical characteristics that may have a bearing on ditching, evacuation, in-flight emergency procedures, and other related duties.
- The use of the public address (PA) system to communicate with passengers, and the means of communicating with other flightcrew members, including emergency means in the case of attempted hijacking or other unusual situations.
- The proper use of electrical galley equipment, the cabin environmental equipment (heat and ventilation), and the cabin electric circuit breakers.

B. Additional Information. Training modules for general operational subjects may also include information on operational requirements that are specific to the aircraft in which the training is being conducted. This information may include F/A assigned duties and procedures, crewmember coordination, and crewmember communication responsibilities during each phase of flight.

C. Training Module Content. The following are examples of training modules for the general operational subject area. These examples of training modules encompass different types of operations that may not be applicable to an operator's specific type of operation. There are elements and events contained in these training modules that are not specified in the 14 CFR but are intended to provide POIs with further examples of material that may be included in training modules. These examples do not indicate the sole acceptable method, sequence of instructional delivery, subject titles, or amount of detail.

1) Aircraft Familiarization.

a) Aircraft Characteristics and Description: Description of aircraft make, model, type, and series, including the following:

- Design.
- Principal dimensions.
- Interior configuration.
- Powerplant.
- Range.
- Speed.
- Altitude.

b) Flightdeck Configuration: Description and location of the following:

- Flightcrew member and observer stations.
- Portable emergency equipment.
- Stowage areas.
- Operation of cockpit door including emergency opening.

c) Cabin Configuration: Description and location of the following:

- F/A station(s).
- Passenger seating zone and aisle.
- Passenger seats.
- Galley.
- Lavatory.
- Stowage areas.
- Emergency exits.
- Oxygen mask compartments.
- Passenger service units.
- Passenger convenience panels.
- Passenger information signs.
- Required placards.
- Passenger-cargo configurations (combi aircraft).

d) Galleys: Description, location, function, and operation of galley equipment, such as the following:

- Ovens.
- Refrigeration units.
- Stowage compartments and latching devices.
- Carts and braking mechanisms and restraining devices.
- Electrical control panels and circuit breakers.
- Water system and water shutoff valves.
- Oxygen mask compartments.
- Lower lobe galleys including operation of escape exits and lifts.

e) Lavatories: Description and location of equipment, such as the following:

- Washbasins.
- Stowage compartments and latching devices.
- Oxygen mask compartments.
- Passenger information signs.
- Required placards.
- Automatic fire extinguishers.
- Smoke detectors.
- Water shutoff valves.
- Water heater switches and indicators.
- Interior door locking mechanism and signs.
- Exterior door locking and unlocking mechanisms.

f) Stowage Areas: Description, location, and function of stowage areas, such as the following:

- Overhead bins and racks.
- Coat closets.
- Stowage compartments.
- Weight restrictions.
- Restraint or latching requirements.
- Required placards.

2) Aircraft Equipment and Furnishings.

a) F/A Stations.

1. Procedures for preflight checks of an F/A jump seat, such as the following:

- Automatic seat retraction.
 - Jump seat headrest.
 - Restraint system integrity.
2. Description of the function and operation of restraint system.
 3. Securing restraint system when not in use.

b) F/A Panels:

1. Identification of and function of controls, switches, and indicators on F/A panels.

2. Preflight and use of controls and switches.

c) Passenger Seats: Description of passenger seats and surrounding area, such as the following:

- Seat belts.
- Armrests, footrests, and seat recline controls.
- Tray tables.
- Passenger service units.
- Passenger convenience panels on armrests (as applicable).
- Passenger information signs.
- Placards.
- Passenger entertainment and convenience systems.

d) Passenger Service Units and Convenience Panels: Description of function and use of the following:

- Controls on passenger service units, such as reading lights and reading light switches.
- Gasper air outlets.
- F/A call light indicator and F/A call light switch.
- NO SMOKING and FASTEN SEAT BELT signs.
- Emergency oxygen outlets.

e) Passenger Information Signs: Description of location, purpose, and chime indicator of the following passenger information signs:

- NO SMOKING signs.
- FASTEN SEAT BELT signs.
- LAVATORY OCCUPIED signs.
- RETURN TO SEAT signs in the lavatory.
- EXIT signs.

f) Aircraft Markings: Include description, location, and purpose of aircraft markings such as the following:

- Interior emergency exit markings indicating location of each passenger emergency exit.
- Emergency exit operating handle markings indicating location of operating handle and instructions for opening exit.
- Emergency equipment markings identifying equipment.
- Emergency equipment compartment or container markings identifying contents.

g) Aircraft Placards: Description, location, and purpose of aircraft placards, such as the following:

- Placards on each forward bulkhead and passenger seat back stating FASTEN SEAT BELT WHILE SEATED.

- Placards in each lavatory stating FEDERAL LAW PROVIDES FOR A PENALTY OF UP TO \$2,000 FOR TAMPERING WITH THE SMOKE DETECTOR INSTALLED IN THIS LAVATORY.

h) Bassinets and Bayonet Tables: Description of, and use of, bassinets and bayonet tables including the following:

- Means of securing while in use.
- Proper stowage when not in use.
- Applicable restrictions.

3) Aircraft Systems.

a) Air Conditioning and Pressurization System:

1. Description, location, function, and operation of temperature controls, such as the following:

- Gasper air outlets.
- Cabin pressurization indicators.

4) Location and Function of Decompression Vents.

a) Aircraft Communication Systems: Description, location, function, and operation of the following:

- Manual system controls.
- Cabin intercommunication data systems.

b) Communications—Call System: Description, location, function, and operation of the call system, such as the following:

- Call light switches.
- Chime and light indicators when call is initiated.
- Routine and emergency call light identification.
- Resetting procedures for call light indicators.

c) Communications—Interphone System: Description of interphone system, such as the following:

- Location of handset controls and indicators.
- Function and operation of routine and emergency controls and indicators.
- Interphone system inoperative procedures.

d) Communications—Passenger Address System: Description, function, and operation of passenger address system, including the following:

- Location of handset and microphone controls and indicators.
- Passenger address system inoperative procedures.

e) Lighting and Electrical Systems:

1. Description and location of interior and exterior lighting.
2. Function and operation of cabin lighting systems including the following:
 - Controls.
 - Switches.
 - Testing procedures.
3. Description and location of circuit breakers, including the following:
 - Means of access.
 - Switches.
 - Indicators.
 - Resetting procedures.

f) Oxygen—Flightcrew and Observer Oxygen System: Description and function of flightcrew and observer oxygen system, including the following:

- Location of oxygen regulators and quick-donning oxygen masks.
- Operation of oxygen regulator switches and indicators.
- Distinction between “on demand” and “under pressure” oxygen flow.
- Proper use of oxygen masks.

g) Oxygen—Passenger Oxygen System: Including the following:

1. Description and location of each type of oxygen mask and compartment.
2. Location of extra masks.
3. Description and location of oxygen mask compartment door latching indicators.
4. Instruction on manual opening of each type of oxygen mask compartment.
5. Restrictions for repacking oxygen mask compartments.
6. Function of passenger oxygen system, including the following:
 - Automatic and manual means of system activation.
 - Indicators of oxygen system activation.
 - Procedure for initiating oxygen flow to mask.

- Procedure for properly donning oxygen mask and testing for oxygen flow.
 - Procedure for resetting oxygen system in the event oxygen system is not designed to shut off automatically.
 - Procedure for activating aircraft system for first aid oxygen.
- a. Water System: Description of aircraft potable water system, such as the following:
- Location of quantity indicators.
 - Water supply preflight procedures.
 - Location and operation of individual or main water shutoff valves.
- b. Entertainment and Convenience Systems:
7. Description of aircraft entertainment and convenience system(s).
 8. Location and operation of controls and switches including system indicators.
 9. Problem identification including the following:
 - Probable causes.
 - Corrective action procedures.

5) Aircraft Exits.

- a) General Information: Description, location, and identification of each type of cabin and cockpit exit, including the following:
- Type and number.
 - Function.
 - Dimensions.
 - Basic components.
 - Controls.
- b) Exits with Slides or Slide Rafts—Preflight:
1. Identification and function of door opening controls and indicators.
 2. Procedures to preflight door seals.
 3. Integrity and condition of the following:
 - Girt bar and brackets.
 - Slide or slide raft connections and pressure indicators.
 - Slide or slide raft engaging and disengaging mechanisms.

- Accessible tail cone emergency access handle (as applicable).
 - Exit markings and placards.
 - Signs.
 - Lights.
 - Assist handles.
- c) Exits With Slides or Slide Rafts—Normal Operation:
1. Procedures for opening exit in normal mode, including the following:
 - Disarming door either manually or automatically.
 - Verifying girt bar disengagement.
 - Assuming correct body position for door opening.
 - Operating door controls correctly.
 - Securing exit in open and locked position.
 - Securing safety strap (if applicable).
 2. Procedures for closing exit in normal mode, including the following:
 - Removing safety strap (if applicable).
 - Releasing door latching mechanism.
 - Assuming correct body position for door closing.
 - Using door controls correctly.
 - Securing exit in closed and locked position.
- d) Exits without Slides—Preflight:
1. Identification and function of door opening controls and indicators.
 2. Procedures to preflight the following:
 - Door seals.
 - Airstair system (as applicable).
 - Exit markings and placards.
 - Signs.
 - Lights.
 - Assist handles.
- e) Exits Without Slides—Normal Operation:
1. Procedures for opening exit, including the following:
 - Assuming correct body position for door opening.
 - Operating door controls correctly.
 - Securing exit in open and locked position.

- Securing safety strap and using airstair system to lower stairs, as applicable.
2. Procedures for closing exit, including the following:
 - Removing safety strap and using airstair system to raise stairs (as applicable).
 - Releasing door latching mechanism.
 - Assuming correct body position for door closing.
 - Using door controls correctly.
 - Securing exit in closed and locked position.

f) Window Exits—Preflight:

1. Identification and function of window opening controls and indicators.
2. Procedures to preflight the following:
 - Window seals.
 - Markings.
 - Placards.
 - Signs.
 - Lights.
 - Tactile indicators for non-visual conditions.

6) Crewmember Communication and Coordination.

a) Captain's Authority: Description of the captain's authority on aircraft in routine and emergency conditions, including the chain of command as applicable to specific aircraft.

b) Routine Communication Signals and Procedures: Review of location, function, and operation of communication systems as applicable to specific aircraft, including specific procedures for cockpit and cabin chime and interphone signals for routine situations. The following are examples:

- F/A notification to be seated prior to movement on the surface.
- F/A notification of critical phases of flight.
- Flightcrew member notification when requesting access to cockpit.

c) Crewmember Briefing: Review the following:

- Importance of crew briefing and development of Crew Resource Management (CRM) concept.
- Description of crewmember responsibilities for crew briefing including any required paperwork.
- Content of crew briefing as applicable to specific aircraft.

7) Routine Crewmember Duties and Procedures.

a) Crewmember General Responsibilities:

- Crewmember communication and coordination while performing crewmember assignments, duties, and procedures as applicable to specific aircraft during each phase of flight.
- Description of all operator policies and 14 CFR pertinent to crewmember performance of assigned duties on specific aircraft.

b) Reporting Duties and Procedures for Specific Aircraft:

1. Identification of required crewmembers when specific aircraft is parked at the gate.

2. Description of preflight and in-flight duty assignments and responsibilities.

3. Description of passenger boarding procedures.

4. Description of carry-on baggage stowage procedures.

5. Assurance of exit seat program compliance.

6. Conduct of cockpit and cabin crew briefings.

7. Assurance of the possession of all required personal equipment, such as the following:

- F/A manuals.
- Flashlights.
- Cockpit keys (if applicable).

c) Predeparture Duties and Procedures Prior to Passenger Boarding:

1. Description of preflight safety check assignments and procedures.

2. Review of preflight responsibilities as applicable to specific aircraft. The following are examples:

- Checking jump seat restraint system, retraction, and emergency oxygen source.
- Locating and inspecting all assigned emergency equipment including switches and controls.
- Locating and ensuring that safety information and exit seating cards are applicable to make, model, type, and series of aircraft.
- Preparing demo equipment and safety briefing information videotape
- Ensuring that cockpit keys are secured per company policy.

d) Passenger Boarding Duties and Procedures: Ensure adherence to all regulatory and company requirements as applicable to specific aircraft. The following are examples:

- Ensuring that a minimum number of required F/As are at the assigned boarding station.
- Implementing security procedures.
- Monitoring passenger boarding and seating.
- Making required announcements.
- Assessing passengers to identify possible helpers.
- Identifying and handling any unruly passengers.
- Screening carry-on baggage.
- Screening exit seat occupants.
- Ensuring that infant and child restraint devices are approved for use on aircraft and secured properly.
- Conducting an individual briefing of any person who may need the assistance of another person to move expeditiously to an exit in the event of an emergency.

e) Prior-to-Movement-on-the-Surface Duties and Procedures:

1. Checking for stowaways.
2. Verifying the following:
 - That exit seat and carry-on baggage requirements as applicable to specific aircraft are met.
 - That all stowage compartments are secured properly.
 - That no carry-on baggage, cargo, or trash is in unauthorized receptacles.
 - That galley and service equipment is stowed and secured.
 - That galley doors, curtains, and dividers are secured open.
 - That galleys and lavatories are unoccupied.
 - The proper operation of the doors and airstairs including latching and arming prior to movement on the surface.

f) Prior-to-Takeoff Duties and Procedures: Description of prior-to-takeoff duties and procedures as applicable to specific aircraft. The following are examples:

1. Taking demo positions.
2. Making required safety briefing announcement and demonstration or safety briefing videotape.
3. Individually briefing passengers in seats with restricted view of F/A demonstration or screen.
4. Making passenger and cabin safety inspection to verify the following:

- No smoking.
- Seat belts fastened.
- Infants held properly or secured in approved infant seat.
- Seatbacks and tray tables in fully upright position.
- All carry-on baggage, including infant restraint devices, properly secured.

5. Coordinating with cockpit regarding the security of the cabin for takeoff.

g) In-Flight Duties and Procedures: Description of performance of routine in-flight assignments, duties, and procedures as applicable to specific aircraft. The following are examples:

- Following sterile cockpit procedures.
- Stowing the restraint system upon leaving F/A seat.
- Implementing appropriate procedures for the handling of any emergency or abnormal situations including turbulence.
- Restraining each item of galley equipment and each serving cart when not in use.
- Implementing safe lift and lower lobe galley procedures.

h) Prior-to-Landing Duties and Procedures: Description of duties and procedures as applicable to specific aircraft. The following are examples:

1. Reporting cabin discrepancies to cockpit.
2. Following sterile cockpit procedures except for safety-related communication.
3. Making passenger and cabin safety inspection to verify the following:
 - No smoking.
 - Seat belts fastened.
 - Infants held properly or secured in approved infant restraint devices.
 - Seatbacks and tray tables in fully upright position.
 - All carry-on baggage including infant restraint devices and loose objects stowed and secured properly.
 - All stowage compartments secured properly.
 - No carry-on baggage, cargo, or trash in unauthorized receptacles.
4. Stowing and securing galley and service equipment.
5. Securing galley doors, curtains, and dividers in open position, lifts in down position.

a. Movement-on-the-Surface and Arrival Duties and Procedures:

Description of movement-on-the-surface and arrival duties and responsibilities as applicable to specific aircraft. The following are examples:

- The use of the PA to inform passengers to remain seated with seat belt fastened until arrival at gate.
- Disarming the girt bar manually or automatically after jetway or stairs are positioned at aircraft.
- Verifying girt bar disengagement.
- Opening doors and airstairs.
- Verifying doors and airstairs opened properly and securely latched.

i) After Arrival Duties and Procedures:

1. Ensuring minimum number of required F/As at assigned arrival station.

2. Reviewing deplaning responsibilities as applicable to specific aircraft. The

following are examples:

- Implementing security procedures.
- Ensuring that F/As are uniformly distributed throughout cabin in accordance with the 14 CFR and company policy.
- Monitoring passenger deplaning to ensure adherence to all regulatory and company requirements.
- Ensuring that all cabin electrical equipment is turned off.
- Inspecting unique areas of the cabin and galley to ensure safety precautions specific to that aircraft.

j) Intermediate Stops:

- Determining minimum number of F/As required to remain on board at intermediate stops when passengers remain on board the aircraft.
- Ensuring that F/As are positioned at designated stations.
- Implementing procedures to ensure passenger safety during fueling and defueling including procedures for emergency evacuation while parked at gate or ramp.

8) Passenger-Handling Responsibilities.

a) Crewmember General Responsibilities: Description of crewmember duties and procedures for the handling of passengers applicable to the specific type of aircraft and operation.

b) Infants, Children, and Unaccompanied Minors: Specific procedures as applicable to specific aircraft. The following are examples:

- Designation of seating locations.

- Designation of additional oxygen masks and infant and child lifevest locations.
- Designation of infant and child carrier and bassinet seat locations.
- Description of reporting requirements.

c) Passengers Needing Special Assistance: Procedures as applicable to specific aircraft such as the following:

- Procedures for the handling of onboard wheelchairs and special aircraft accommodations, such as accessible lavatories and moveable armrests.
- Procedures for the carriage of stretchers and incubators.
- Method and procedures for the carriage of a passenger requiring oxygen for personal use.
- Description of recommended alternate locations for administering medical assistance.
- Description of escape paths and methods for the evacuation of passengers with physical limitations.

d) Passengers Needing Special Accommodation: Procedures as applicable to specific aircraft for the following:

- Armed passengers.
- Escorts.
- Prisoners.
- Couriers.
- VIPs.
- Deportees.
- Runaways.
- Persons traveling without visas.
- Other designated unescorted individuals.

e) Carry-On Stowage Requirements: Procedures as applicable for specific aircraft, such as the following:

- Location requirements for oversized items in the cabin.
- Designated areas for the carriage of pets and pet containers.
- Designated areas for the stowage of passenger assistance aids, such as wheelchairs, canes, and crutches.

f) Passenger Seating Requirements. Procedures as applicable to specific aircraft, such as the following:

- Location of exit seats.
- Location of seats for accommodating passengers who are unable to sit erect for a medical reason.
- Designated areas for passengers with trained assist animals.

g) Smoking and No Smoking Requirements: Procedures as applicable to specific aircraft, such as the location of no smoking areas and smoking areas, as applicable.

3-1829 AIRCRAFT-SPECIFIC EMERGENCY SUBJECTS TRAINING MODULES.

Modules for aircraft-specific emergency training consist of instruction in the location, function, and operation of emergency equipment; crewmember emergency assignments and procedures, including crew coordination and communication; the handling of emergency or other unusual situations; and emergency drills that are specific to the aircraft the crewmember is qualifying for in the operator's fleet.

A. Definition of Aircraft-Specific Emergency Training Area. The aircraft-specific emergency equipment and the aircraft-specific emergency training drills should be taught under the Aircraft-Specific Emergency Training Subject area if not previously taught under the General Emergency Training Curriculum Segment. For example, if all aircraft in an operator's fleet are equipped with the same type of halon fire extinguisher, this fire extinguisher would be taught as "general" to all aircraft in the F/A General Emergency Training Curriculum Segment. If, however, the specific aircraft in the operator's fleet is equipped with various types of halon fire extinguishers, each fire extinguisher would be taught as "aircraft-specific" in the F/A Aircraft Ground Training Curriculum Segment.

B. Minimum Requirements. Aircraft-specific training must include training in at least the following, with respect to each airplane make, model, type, series, and configuration; each required crewmember; and each kind of operation conducted:

- Instruction in emergency assignments and procedures, including coordination among crewmembers.
- Instruction in the location, function, and operation of emergency equipment.
- Instruction in the handling of emergency situations.
- Review of previous aircraft accidents and incidents.
- Required emergency drills.

1) Aircraft-specific emergency training modules may also include any additional information pertinent to the aircraft equipment and furnishings F/As need to be familiar with in order to perform assigned duties.

2) Aircraft-specific emergency training modules may also include instruction on procedures for an emergency situation that is specific to the aircraft on which training is being conducted.

NOTE: F/A Initial and Transition Ground Training under part 135 lists the same training requirements specified under part 121.

C. Training Module Content. The following are examples of training modules for the aircraft-specific emergency training. These examples of training modules encompass different types of operations and may not be applicable to a specific operator's type of operation. It should be noted that there are elements and events contained in these training modules that are not specified in 14 CFR, but are intended to provide POIs with further examples of material that may

be included in training modules. These are examples and are not intended to indicate the sole acceptable method, sequence of instructional delivery, subject titles, or amount of detail.

1) Emergency Equipment. The emergency equipment modules should be accomplished only if they have not been accomplished previously under the General Emergency Training Curriculum Segment. Only the training modules that are unique to the aircraft and type of operation need to be accomplished. Detailed elements pertaining to each of the Emergency Equipment Training Modules are located in the General Emergency Training—Emergency Equipment Training in Section 4 of this chapter.

a) Aircraft Exits: Location and description of emergency operation of exit including emergency escape system and backup procedures.

b) Exits with Slides or Slide rafts—Emergency Operation:

1. Procedures for arming exit in emergency mode including the following:

- Ensuring that door is fully closed and locked.
- Checking to see that threshold is free of debris.
- Arming door either manually or automatically.
- Verifying girt bar engagement.

2. Procedures for opening exit in emergency mode including the following:

- Assessing conditions prior to opening exit.
- Assuming correct body protective position for door opening.
- Operating door controls correctly.
- Ensuring that door is in open and in locked position.
- Using manual slide inflation system to accomplish or ensure slide or slide raft deployment and inflation.
- Assessing condition of and stabilizing slide or slide raft.
- Using slide as hand held escape device (if applicable).
- Operating exit under adverse conditions including impact of wind, weather, and fire on slide.
- Passing expeditiously through exit.
- Assessing and following a safe path away from exit.

c) Slides and Slide Rafts in a Ditching:

- Identification of exits and slides or slide rafts usable in ditching.
- Deactivation of unusable slides or slide rafts.
- Deployment, inflation, and detachment of slides or slide rafts from aircraft.
- Overwing evacuation procedures including slide or slide raft operation.
- Movement of slides or slide rafts from door to door; use of door mounted slides as raft boarding platforms.

- Use of door mounted slides as flotation devices; boarding techniques.
- Detachment of mooring line from aircraft.

d) Exits without Slides—Emergency Operation: Procedures for opening exit including the following:

- Assessing conditions before opening.
- Assuming correct body protective position for door opening, operating door controls correctly.
- Securing exit in open and locked position.
- Using emergency airstair system to lower stairs (as applicable).
- Operating exit under adverse conditions.
- Passing expeditiously through exit.
- Assessing and following a safe path away from exit.

e) Window Exits—Emergency Operation: Procedures for opening exit including the following:

- Assessing conditions prior to opening.
- Using tactile indicators to locate window exit.
- Assuming correct body protective position for window opening.
- Operating window controls correctly.
- Positioning window to preclude evacuation obstruction.
- Using escape ropes.
- Operating exit under adverse conditions.
- Passing expeditiously through exit.
- Assessing and following a safe path away from exit.

f) Exits With Tail Cones—Emergency Operation:

1. Procedures for arming exit in emergency mode, if applicable.
2. Procedures for opening exit including the following:
 - Assessing conditions prior to opening.
 - Removing emergency handle protective device (as applicable).
 - Assuming correct body protective position for door opening.
 - Operating door controls and emergency handle correctly.
 - Ensuring that door is in an open and locked position or positioning hatch to preclude evacuation obstruction, if applicable.
 - Walking on catwalk.
 - Locating and using jettison handle to accomplish tail cone jettison or as backup procedure.
 - Using manual slide inflation system to ensure slide deployment and inflation.
 - Assessing condition of and stabilizing slide.

- Operating exit under adverse conditions including impact of wind, weather, and fire on slide.
- Assuming correct body protective position on assist platform.
- Passing expeditiously through exit.
- Assessing and following a safe path away from exit.

g) Cockpit Exits—Emergency Operation: Procedures for opening exit including the following:

- Assessing conditions prior to opening.
- Assuming correct body position for exit opening.
- Operating exit controls correctly.
- Using escape ropes and inertial escape reels.
- Exit operation under adverse conditions.
- Passing expeditiously through exit.
- Assessing and following a safe path away from exit.

h) Ground Evacuation and Ditching Equipment: Description of the operation, function, preflight, removal (as applicable), and operation of the evacuation equipment including slide or slide rafts; aircraft emergency landing attitudes.

i) First Aid Equipment: Review of the location and number; description of the function, preflight, removal, and operation of the first aid equipment, emergency medical kit, and first aid kit.

j) Portable Oxygen Systems (Oxygen Bottles, Chemical Oxygen Generators, Protective Breathing Equipment (PBE)):

- Review of the location and number.
- Description of the function.
- Preflight, removal, and operation of the oxygen systems.

k) Firefighting Equipment: Review of the location and number; description of the function, preflight, removal (as applicable), and operation of the firefighting equipment.

l) Communications—Emergency Notification Systems: Description, location, function, and operation of evacuation alerting devices, smoke or fire detection warning systems, decompression alerting devices including controls and indicators; system inoperative procedures; system resetting procedures.

m) Emergency Lighting Systems: Description, location, function, and operation of emergency lighting including the following:

- Exit signs and arrows.
- Floor proximity escape path.
- Cabin lighting.
- Exterior lighting.

- Switches and testing procedures.

n) Additional Emergency Equipment: As applicable, the description of the location, function, preflight, removal, and operation of any additional unique emergency equipment, such as cargo barrier nets, smoke barriers, firefighting extension wands.

2) Emergency Assignments and Procedures. The following Emergency Assignments and Procedures Training Module should be accomplished in conjunction with the Emergency Situation Training Modules and Elements outlined in the General Emergency Training Curriculum Segment in Section 4 of this chapter. Only the training modules that are unique to the aircraft and type of operation need to be accomplished. For detailed elements pertaining to each of the Emergency Assignments and Procedures Training Modules, refer to the General Emergency Training Curriculum Segment—Emergency Situation Training Modules in Section 4 of this chapter.

a) General: Types of emergencies specific to aircraft including the following:

- Standardization of procedures among crewmembers.
- Crew coordination and communication.
- Utilization and implementation of emergency equipment and emergency assignments that are appropriate to the specific.

b) Emergency Communication Signals and Procedures:

1. Review of location, function, and operation of emergency communication systems on specific aircraft.

2. Description of specific cockpit including cabin chime and inter phone signals for emergency situations including the following:

- Flightcrew member notification of emergency situation.
- Flightcrew member notification of attempted hijacking.
- Flightcrew member notification that an evacuation is being initiated.
- Flightcrew member signal to evacuate or not to evacuate.

c) Rapid Decompression: Crewmembers' emergency duties, procedures, and commands for rapid decompression.

d) Insidious Decompression and Cracked Window and Pressure Seal Leaks: Crewmembers' emergency duties, procedures, and commands for insidious decompression and cracked window and pressure seal leaks.

e) Fires: Crewmembers' emergency duties, procedures, and commands for the extinguishing of cabin fires.

f) Ditching: Crewmembers' specific emergency assignments, procedures, and commands for an unanticipated water landing (prior to impact and after impact) and anticipated ditching (prior to impact and after impact).

g) **Ground Evacuation:** Crewmembers' specific emergency assignments, procedures, and commands for an unanticipated ground evacuation (prior to impact and after impact) and anticipated ground evacuation (prior to impact and after impact).

h) **Unwarranted Evacuation:** Crewmembers' duties, procedures, and commands for an unwarranted evacuation; for example, a passenger-initiated evacuation due to torching on a B-727.

1. **Illness or Injury:** Crewmembers' duties, procedures, and commands for the handling of passenger illness or injury.

2. **Abnormal Situations Involving Passengers or Crewmembers:** Crewmembers' duties, procedures, and commands for abnormal situations involving the following:

- Passenger abuse of F/As.
- Passengers who appear to be under the influence of intoxicating substances.
- Passengers who may jeopardize aircraft or passenger safety.

a. **Hijacking:** Crewmembers' duties, procedures, and commands for the handling of a hijacking (this may be part of the Security Training Curriculum).

b. **Bomb Threat:** Crewmembers' duties, procedures, and commands for the handling of a bomb threat (this may be part of the Security Training Curriculum).

c. **Turbulence:** Crewmembers' duties, procedures, and commands for severe turbulence (anticipated or unanticipated) and mild to moderate turbulence (anticipated or unanticipated).

d. **Other Unusual Situations:** Description of crewmembers' duties, procedures, and commands for other unusual situations.

e. **Previous Aircraft Accidents and Incidents:** Description of previous aircraft accidents and incidents.

3) Aircraft-Specific Emergency Drills. The following Aircraft-Specific Emergency Drills Training Modules should be accomplished only if they have not been accomplished previously under the General Emergency Training Curriculum Segment. Aircraft-Specific Emergency Drills Training Modules should be accomplished in conjunction with the Emergency Drills Training outlined in the General Emergency Training Curriculum Segment. For detailed elements pertaining to each of the Emergency Equipment Training Modules, refer to the General Emergency Training Curriculum Segment—Emergency Drills Training Modules in Section 4 of this chapter.

a) **Emergency Exit Drill:** During an emergency exit drill, each student must operate every type of emergency exit in the normal and emergency modes, including the actions and forces required for deployment of the emergency evacuation slides.

- b) Hand Fire Extinguisher Drill: During a hand fire extinguisher drill, each student must operate every type of installed hand fire extinguisher.
- c) Emergency Oxygen System Drill: During an emergency oxygen system drill, each student must operate every type of emergency oxygen system, including PBE.
- d) Flotation Device Drill: During a flotation device drill, each student must put on, use, and inflate (as applicable) one type of individual flotation device.
- e) Ditching Drill (if applicable): During a ditching drill, each student must perform the “prior to impact” and “after impact” procedures for a ditching, as appropriate to the operator’s specific type of operation.
- f) Life raft Removal and Inflation Drill (if applicable): During a liferaft removal and inflation drill, each student must observe the removal of a liferaft from the aircraft or training device, as well as the inflation of a liferaft.
- g) Slide raft Pack Transfer Drill (if applicable): During a slide raft transfer drill, each student must observe the transfer of each type of slide raft pack from an unusable door to a usable door.
- h) Slide or Slide raft Deployment, Inflation, and Detachment Drill (if applicable): During a slide or slide raft deployment, inflation, and detachment drill, students must observe the deployment, inflation, and detachment of the slide or slide raft pack from the aircraft or training device.
- i) Emergency Evacuation Slide Drill (if applicable): During an emergency evacuation slide drill, students must observe the deployment and inflation of an evacuation slide, including participants egressing from the cabin or approved training device via the evacuation slide.

3-1830 ADAPTATION OF FLIGHT ATTENDANT AIRCRAFT GROUND TRAINING CURRICULUM SEGMENT TO THE VARIOUS CATEGORIES OF TRAINING. The F/A Aircraft Ground Training curriculum segment is required for the following categories of training: initial new-hire, transition, recurrent and requalification. Differences training for all variations of a particular type airplane may be included in the F/A Aircraft Ground Training curriculum segment for initial, transition, and recurrent training for the airplane. Differences training is required when the Administrator finds that the variant make, model, or series airplane varies so much that training on the differences is necessary. An example of this could be when the cabin doors on different airplanes operate in the same manner but are located in significantly different places on the airplane. The appropriate differences training would emphasize this variance in location. When differences training is required, the programmed hours should be specified.

3-1831 CURRICULUM SEGMENT COMPLETION REQUIREMENTS. Completion of the F/A Aircraft Ground Training Curriculum Segment must be certified by an instructor or supervisor indicating that the trainee has successfully completed the course. This certification is usually based on the satisfactory evaluation of a trainee’s performance. With some training

methods, such as CBI, the certification may be based on the trainee's progress checks, which are administered during the course.

3-1832 EVALUATION OF TRAINING HOURS.

A. Part 121. Section 121.421 specifies 8 programmed hours of instruction for initial aircraft ground training for Group I airplanes, including reciprocating powered airplanes and turbopropeller-powered airplanes. Section 121.421 specifies 16 programmed hours of instruction for initial aircraft ground training for Group II airplanes. When approving the F/A Aircraft Ground Training Curriculum Segment, the POI should consider the following:

- 1) The complexity of the type of operation to be conducted and the complexity of the aircraft to be used should be reviewed.
- 2) Training for a complex type of operation may require that the published training hours be exceeded, while there may be an acceptable reduction in training hours for a less complex type of operation.
- 3) Training modules with corresponding elements and events that have been satisfactorily completed in previous aircraft training may not need to be repeated.

B. Part 135. Part 135 does not specify a minimum number of programmed hours for F/A aircraft ground training. Aircraft ground training for F/As in a part 135 operation, however, requires training in the same scope and depth of aircraft-specific information as required for F/As in a part 121 operation. For example, part 135 F/As must be trained on the specific aircraft equipment, systems, and duties, both routine and emergency. Therefore, the training hours for part 135 F/A aircraft ground training are equivalent to part 121 training hours. When approving the F/A Aircraft Ground Training Curriculum Segment, the POI should consider the following:

- 1) The complexity of the type of operation to be conducted and the complexity of the aircraft to be used should be reviewed.
- 2) Training for a complex type of operation may require that the minimum training hours be exceeded, while there may be an acceptable reduction in training hours for a less complex type of operation.
- 3) Training modules with corresponding elements and events that have been satisfactorily completed in previous aircraft training may not need to be repeated.

3-1833 CREDITING DISTANCE LEARNING AS A COMPONENT OF GROUND TRAINING FOR F/As.

A. Background. In the so-called Information Age, many new information-sharing systems have been developed. Those systems have been centered largely on digital technology involving desktop computers and the Internet. Those systems include modern training products, many of which are being used effectively today in aviation courses conducted by accredited universities and in air carrier training programs approved by the FAA. Collectively, those products fall under a relatively new heading that has been called distance learning. As the quality

of those products continues to improve, the training/learning process stands to benefit even more. Previous FAA guidance seemed to presume that traditional classroom training was inherently superior to other ground training. That presumption was reflected in this handbook and elsewhere. Besides the proven effectiveness of modern training products, distance learning affords a low-cost alternative to classroom ground training, an alternative that is timely and appropriate in today's challenging economic environment. The updated guidance that follows should promote wider implementation of modern ground training methods apart from the traditional classroom.

B. Applicability. This paragraph applies to F/A training programs subject to FAA approval under parts 121 and 135. It may also be useful to inspectors who oversee training related to operations under 14 CFR part 91K (Fractional Ownership Programs), part 125, and 14 CFR part 142 (Training Centers). Creditability of hours spent in distance learning activities applies to the programmed hours of ground training specified in part 121 regulations and to the national norms shown in this order.

NOTE: Currently-approved training programs that integrate distance learning under the guidance provided in HBAT 98-09 continue to be acceptable. However, major revision of current training programs or approval of new training programs should follow the guidance in this document.

C. Distance Learning Definition. Distance learning is a term currently not used in FAA regulations. It is a term used in the FAA and in the aviation industry with various meanings depending on context. For the purposes of this order, distance learning means learning that is accomplished by any training method not including an instructor and a gathering of trainees collocated in a traditional classroom. (Distance learning is known by other terms such as e-learning, home study, self-guided training, virtual classroom, distributed training, computer-based training (CBT), Web-based training (WBT), and others.)

D. Interim Guidance. Experts continue to develop a systematic approach for using the many effective training methods and products now available. It is unlikely that the last word will be written in the foreseeable future, if ever, since there is apparently no end to the prospects. The guidance contained in this paragraph applies until superseded, and should be used to help implement and standardize distance learning among air carriers.

E. Training Objectives and Proficiency. A training objective is a desired performance or behavior demonstrated under certain conditions with respect to specific standards. One way to identify training objectives, and to verify that they have been met (also known as validation), is by a three-tier scheme comprising knowledge, skill, and performance.

1) Knowledge. Specific information required to enable a student to develop the skills and attitudes to effectively recall facts, identify concepts, apply rules or principles, solve problems, and think creatively. Because knowledge is covert, students must be assigned overt activities to demonstrate their knowledge base.

- a) May be validated through written, electronic, or oral testing.

b) Examples: Learning facts by rote, such as the regulatory requirements regarding carry-on baggage, preflight requirements for emergency equipment or function of controls, switches, and indicators on F/A panels.

2) Skill. An ability enabled by knowledge to perform an activity or action. Skills are often grouped into cognitive skill and psychomotor skill categories.

a) Cognitive skill.

1. Ability to perform a task requiring the manipulation of words, numbers, and symbols.

2. Requires the application of knowledge. Usually involves classification, the application of (mental) rules, procedures, or principles, the solution of problems, or the application of creative thinking.

a. May be validated through written, electronic, or oral testing or through task performance.

b. Examples: Challenging a flight attendant to apply knowledge of regulatory requirements for carry-on baggage in an interactive exercise, or to perform a preflight inspection of emergency equipment, or to operate the systems on a F/A panel in an actual or simulated cabin environment.

b) Psychomotor skill.

1. Ability to perform a task requiring dexterity, coordination and muscular activity.

2. Requires the application of knowledge. Usually involves the manipulation of objects or materials and the use of fine and gross muscular movement in a coordinated manner.

a. May be validated through performance of a task.

b. Examples: Operation of a floor-level exit in the normal and emergency modes, firefighting equipment and medical oxygen equipment for passengers.

3. Performance. Ability to accomplish useful work by combining knowledge, skill, and intangibles such as inference and judgment (sometimes called “soft skills”).

a. May be validated through performance of related tasks, sometimes called event sets.

b. Example: Demonstrating competence as a F/A during a performance drill that requires preparing the cabin for a land evacuation.

F. Scope of Creditability of Distance Learning. Distance learning credit is appropriate for knowledge objectives and for cognitive skill objectives. Creditability of distance learning is more complicated in regard to psychomotor skills and performance, and is not addressed in this order.

G. Limits on Creditability of Distance Learning. The FAA recognizes the great training potential of distance learning that is well-planned and effectively validated. That potential is already being exploited under the Advanced Qualification Program (AQP).

1) Ground training developed in accordance with an implementation plan (described below) is subject to FAA approval. In the past, credit for distance learning for F/A training was limited to recurrent and requalification training and there were limits to the number of program hours that could be initially credited. Distance learning may now be as much 50 percent creditable toward the knowledge and cognitive skill training objectives in all ground training, including the following training categories:

- Initial New-Hire.
- Transition.
- Recurrent.
- Requalification.

H. Training Media. The general nature and specific characteristics of training media used for distance learning vary widely. Examples include paper media, videotape, CBT, CDs, WBT, and virtual classroom. The media used should meet the requirements of the respective training objective. Validation of training effectiveness is one of the most important components of the implementation plan described below.

I. Implementation Plan. Any proposal for ground training to be accomplished by distance learning should include a plan for startup, validation, operation, and maintenance of that training. This plan should include at least the following elements:

- 1) **Startup.** Identification of knowledge and cognitive training objectives.
 - a) Training objectives can be reduced to simple terms such as being able:
 - To recall.
 - To recognize.
 - To comprehend.
 - To apply.
 - b) Identification of the media to be used for training and testing.
 - c) A validation strategy that addresses (1) the effectiveness of the ground training itself, and (2) the learning accomplished by each person trained. Key features of a validation strategy are shown below.
 - d) Effectiveness of the ground training being conducted.

- Setting a reference. One validation method is to establish a performance baseline from which to measure the effectiveness of the ground training proposed. Baselines exist in most ongoing air carrier training programs. Examples of performance baselines include average ground training hours a trainee spends in learning a certain subject, average pass-fail rates for tests of ground training content, median scores, average pass-fail rates for flight checks, and many others. A performance baseline may be set by using an existing baseline or by referring to some other existing standard.
- Maintaining currency. Validation depends upon maintaining the currency of the ground training to be conducted. A reliable method to do so is an essential part of a ground training proposal.
- Tracking. A method for keeping test results and tracking overall performance.

e) Learning accomplished by each person trained.

- A strategy for testing. Testing should be designed to determine that training objectives are being met by each trainee.
- Integrity of tests. A method should be developed to ensure integrity of tests, including integrity of test questions and test answers, and controlled access to tests and test results.
- Tracking. A method for keeping test results and tracking each individual's performance.

2) Validation. Validation of ground training is a determination that the training proposed actually succeeds in meeting the performance objectives for that training. Two essential assessments comprise validation of ground training.

a) Knowledge Validation.

b) Assessment of a student's technical knowledge, accomplished by written or oral test.

c) Cognitive Skill Validation.

d) Assessment of an individual's practical application of knowledge, which may be accomplished by written or oral test, or by a more subjective evaluation by a F/A instructor.

3) Passing Grade – 80 Percent. The F/A should satisfactorily accomplish the knowledge test (oral, written, computer based), minimum passing score should be 80 percent. Any incorrect test answers should be addressed at the time of the test, and should be corrected to 100 percent. A score of less than 80 percent would require retraining in all substandard areas, and retesting.

4) Integrity of test questions depends on several factors.

a) **Scope.** A test for an initial trainee should include at least one question for each element contained in each training module. Ground training and testing for trainees may be less comprehensive, but should cover significant and timely subjects, particularly new material and changes since one's previous recurrent ground training.

NOTE: An element is a subgroup of related content within a training module. It is the fourth level of curriculum detail—curriculum, curriculum segment, training module, element. For example, B-737 (Aircraft Familiarization) is a training module; aircraft description, cabin configuration, and galleys are elements.

b) **Library.** A library of questions should be developed that thoroughly cover the training objectives.

c) **Multiple Questions.** Where possible, multiple questions should be developed for each training objective.

d) **Uniqueness.** Tests should be generated by random selection of questions from the library, so that no two tests are alike.

e) **Currency.** Test questions should be reviewed as often as necessary to assure their relevancy, and to incorporate new or changed material.

5) Integrity of Test Answers. Trainers should develop measures by which the identity of a person taking the test may be confirmed, and printed or electronic test answers may not be reproduced and distributed among trainees so as to beat the test.

6) Operations and Maintenance includes quality control (QC) procedures for the collection, protection, and analysis of data for tracking ground training effectiveness; also, a strategy for equipment upgrade, program update, and program adjustments driven by data and feedback from trainers and trainees.

J. Interactivity. Training developers should provide for interactivity between trainees and instructors, and between the trainees themselves.

1) When in the Field.

2) In particular, a trainee should have ready access to an authorized ground instructor on weekdays during normal business hours to resolve questions encountered during distance learning and pertinent testing.

3) When at a Centralized Training Location. Before any phase of training that incorporates practice, application, and demonstration, trainees should be convened in a proctored classroom setting with an instructor to resolve any remaining issues arising during distance learning. This interactivity is particularly beneficial in respect to standardization of trainees in initial new-hire and initial equipment curricula.

3-1834 EVALUATION OF F/A AIRCRAFT GROUND TRAINING CURRICULUM SEGMENT OUTLINE FOR INITIAL APPROVAL. When evaluating an Aircraft Ground Training Curriculum Segment Outline for initial approval, POIs should determine whether the training modules contain the information required for F/As to perform all routine and emergency duties and procedures for a specific aircraft without supervision. POIs should use the job aid in Section 2 of this chapter as a guideline when evaluating the proposed curriculum segment outline. This section is related to SAS Element 5.1.1 (OP).

RESERVED. Paragraphs 3-1835 through 3-1850.