VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 23 FLIGHT ATTENDANT TRAINING AND QUALIFICATION PROGRAMS

Section 6 Cabin Safety and Flight Attendant Training

3-1851 FIRE PREVENTION. This section addresses the need for certificate holders to review their approved training programs and flight attendant (F/A) manuals to ensure that the procedures used by air carriers properly address the concerns expressed in this section.

A. In-Flight Fire Hazards. Some reported in-flight fire incidents involved the storage of paper products, napkins, plastic or Styrofoam cups, plastic stir sticks, or manuals in galley ovens. In addition, other incidents have been reported involving an aerosol can or a heated can of soup exploding, which injured crewmembers. Using galley ovens for anything other than designated purposes poses a potential safety hazard.

1) Paper, plastic, or cloth products stored in ovens may easily ignite and are difficult to extinguish. Galley ovens used in this manner have been turned on, causing a fire with dense smoke.

2) Many types of plastic or Styrofoam cups and glasses are virtually fireproof. However, some are easily ignited and difficult to extinguish. Since many certificate holders serve beverages in throwaway plastic or Styrofoam cups and glasses, in-flight fire hazards can be reduced by discouraging the use of the highly flammable types.

3) Only food that is heated can be stored in ovens. To prevent fires, do not store galley equipment or any other items in ovens. Check ovens and remove any paper products, dry ice, or other materials before heating. Ensure ovens are off for taxi, takeoff, and landing. Turn off ovens before opening oven doors.

B. Galley Oven Hazards. The use of galley ovens as heaters has been reported and one incident resulted in a wide-body aircraft diversion due to a flight deck indication of a lower lobe galley fire. Postlanding inspection by maintenance personnel revealed no evidence of a fire and no malfunction of the smoke detection system. Further investigation indicated that all ovens were on and that the oven doors were open in an attempt to heat the lower lobe galley area. Some food particles that had been left in one of the ovens started to smoke and activated the alarm in the flight deck. In addition to the unnecessary diversion, schedule disruption, and consequent public inconvenience, the open oven doors and exposed hot ovens presented unnecessary safety hazards.

C. Smoking Materials. People dropping smoking materials into lavatory waste containers have caused a number of in-flight fires and smoke detector activations. Title 14 of the Code of Federal Regulations (14 CFR) parts 121 and 135 were amended in 2000, affecting smoking aboard aircraft. Some of the changes to these rules are:

1) Smoking is prohibited in any aircraft lavatory at all times.

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2) Aircraft lavatories must have placards that notify passengers that public law prohibits tampering with smoke detectors.

3) The required passenger briefing must include detailed instructions on smoking bans.

4) Certificate holders should have procedures in their crewmember manuals and training programs to ensure that all crewmembers are aware of the requirements and of what actions to take regarding the smoking ban regulations.

5) Certificate holders should have procedures in their crewmember manuals and training programs to ensure that the trash bin flapper door and waste bin access door are securely closed. Aircraft cleaners sometimes do not close the access door tightly after they empty the trash bin. If the access door is not closed tightly and a trash bin fire were to ignite, air could feed into the trash bin, lessening the effectiveness of the fire extinguisher in the waste bin. If the access door will not close, it must be properly recorded for corrective action.

3-1852 CABIN FLUORESCENT LIGHT BALLAST FIRES. An overweight landing of a wide-body aircraft fueled for a trans-Pacific flight was narrowly averted following successful handling of a cabin fluorescent light ballast fire which occurred immediately after liftoff.

A. Lack of Knowledge. An interview of the crew indicated that none had ever heard of a fluorescent light ballast fire and, thus, were totally unfamiliar with its relatively nonhazardous characteristics. This lack of knowledge nearly caused a greater emergency, which could have progressed to a disaster of unknown proportions because the pilot in command (PIC) was placed in a situation that required a decision to make an emergency return and landing, in spite of the inability to dump fuel and thus reduce weight much below the maximum authorized for landing.

B. Informing Flightcrew. Ballast fires, though spectacular, are understood to be brief and, for all practical purposes, self-extinguishing. While new ballasts all but eliminate the problem, it is unlikely that older aircraft will be retrofitted in view of the considerable expense involved. Since these conditions may therefore be expected to exist for some time, and since such incidents may become more numerous commensurate with aging of the aircraft fleet, the Principal Operations Inspectors (POI) should take the following steps:

1) Recommend that ground training and/or operations bulletins be initiated to inform flight deck crews and F/As of the causes, characteristics, and degree of hazard associated with fluorescent light ballast fires.

2) Recommend that aircraft Weight and Balance (W&B) data available to the flightcrew be sufficient to provide accurate approach and landing speeds following immediate turnback when an overweight landing is necessary.

3-1853 LITHIUM BATTERY FIRES. There are several lithium battery designs involving both rechargeable and nonrechargeable (disposable) batteries.

A. Lithium Ion Rechargeable Batteries. Under heavy loads or physical abuse, lithium ion batteries have been known to explode, releasing the considerable stored energy inside in the
form of heat, rather than electricity. This is the reason why hoverboards—which contain cheap batteries under pressure from the weight of the user—catch fire, and why all major air carriers have banned them. Lithium ion batteries are capable of overheating, leading to a process called thermal runaway, which can cause the sudden release of the contents of the battery as a flaming jet, heavy smoke, or unburned hydrocarbons, or the battery can explode or rocket in some cases. Once one cell in a battery pack goes into thermal runaway, it produces enough heat to cause adjacent cells to go into thermal runaway. The resulting fire can flare repeatedly as each cell ruptures and releases its contents.

B. Lithium Disposable Batteries. Lithium disposable batteries contain lithium metal and stand apart from other batteries in their high charge density (long life) and high cost per unit.

C. Training.

1) F/A Lithium Battery Training. Air carriers’ training programs must ensure that F/As are trained on lithium battery fires.

2) Firefighting Procedures. The recommended procedures for fighting a lithium battery fire in a lithium-type-battery-powered portable electronic device (PED) consist of two phases: extinguishing the fire and cooling the remaining cells to stop thermal runaway.

a) Utilize a Halon replacement or water extinguisher to extinguish the fire and prevent its spread to additional flammable materials.

b) After extinguishing the fire, douse the device with water, an aqueous-based extinguishing agent, or other nonalcoholic liquids to cool the device and prevent additional battery cells from reaching thermal runaway.

c) The procedure should state a warning for the crewmember not to pick up and move a smoking or burning device or to cover the device. Do not use ice to cool the device. Ice or other materials insulate the device, increasing the likelihood that additional battery cells will reach thermal runaway.

NOTE: An aqueous-based extinguishing agent is a foam that tends to float on flammable liquids to tame the fire and help prevent reflash. The Federal Aviation Administration (FAA) does not require aqueous-based extinguishing agents to be carried on board.

3-1854 TRAINING ON CONDITIONS OF AIRCRAFT FOLLOWING AN ACCIDENT.
In several accident investigations, the National Transportation Safety Board (NTSB) found that although F/As provided valuable assistance to passengers during emergency situations, they did not always follow their air carrier’s approved emergency procedures or perform their duties in accordance with training. The NTSB reviewed its investigations of accidents and incidents where information was available on F/A performance during emergency situations. The report, NTSB/SIR-92/02, Flight Attendant Training and Performance During Emergency Situations, resulted in recommendations to the FAA. They included Safety Recommendation A-92-69: “Ensure that flight attendant training programs provide detailed guidance on the relative

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probability of hazards associated with emergency situations such as fire, toxic smoke, and explosion.”

A. Post-Crash Topics. As the result of accident interviews with F/As, the NTSB concluded that F/A training courses need to emphasize the conditions of the aircraft following an impact. While most F/A training curriculums contain information about this subject, the NTSB believes that training should emphasize the following post-crash topics:

- Fire,
- Debris,
- Toxic fumes, and
- Low probability of explosion.

B. Aircraft Cabin Damage. Air carriers could show F/As visual presentations of aircraft cabins following a crash. They should emphasize the possibility of cabin floor and aircraft fuselage distortions and breaks. For example, in one accident, part of the cabin was upside down while another fuselage section was relatively level. The level fuselage section’s floor had a large break. In addition, debris in the form of carry-on baggage, galley supplies, and other items may dislodge and clutter the aisles. Survivors of accidents have reported climbing over debris and standing on “something” in order to climb out the top of the fuselage.

C. Fire and Toxic Fumes. Training courses should also address the presence of fire and toxic fumes during and following a crash. The training curriculum should address fire dynamics, including flashovers, other heat patterns associated with super-heated air, and the probability of explosion. There is also the problem of toxic fumes. Research and accident histories indicate that when toxic fumes and/or smoke are present, the “quality air” is about armrest level. Most air carriers use a diminished light environment coupled with simulated smoke when conducting evacuation drills, which is a good method for bringing crewmembers’ attention to the crash environment. This is especially true when it is followed by a discussion of accidents and incidents.

D. Passenger Management Procedures. Additional post-crash topics should include passenger management procedures immediately following an accident, such as gathering passengers together upwind of smoke/fire out of the path of emergency vehicles approaching the accident, trying to obtain a passenger count, and initially assessing passenger injuries.

3-1855 TRAINING ON THE CHEMICALLY GENERATED SUPPLEMENTAL OXYGEN SYSTEM. In several accident investigations, the NTSB found that although F/As provided valuable assistance to passengers during emergency situations, they did not always follow their air carrier’s approved emergency procedures or perform their duties in accordance with training. The NTSB reviewed its investigations of accidents and incidents where information was available on F/A performance during emergency situations. The report, NTSB/SIR-92/02, resulted in recommendations to the FAA. They included Safety Recommendation A-92-76: “Update and reissue ACOB 76-4 regarding the operational characteristics of chemically generated passenger supplemental oxygen systems.”
A. Crewmember Training Programs and Manuals. Air carriers should ensure that crewmember training programs and appropriate manuals include detailed information regarding the operational characteristics of the chemically generated passenger supplemental oxygen system. That information should include:

- Canister,
- Lanyard/safety pin,
- Flow initiation mechanism,
- Reservoir bag,
- Oxygen mask,
- Hose,
- Heat shield,
- Heat generation,
- Oxygen outlets, and
- Relocation of portable oxygen bottles away from the source of fire.

B. Passenger Briefings and Demonstrations. Passenger briefings and demonstrations describe the specific oxygen system used on a flight. Briefings should emphasize the location of passenger oxygen (e.g., overhead units, seat backs, and bulkheads), proper placing of the mask on the face, use of adjustment straps, and indications of oxygen flow (reservoir bag).

C. Passenger Briefing Cards. Printed instructions on the passenger briefing cards for the use of the passenger chemical supplemental oxygen system should be factual and contain sufficient information for proper use. These instructions should include donning techniques, adjustment requirements, and any action necessary to initiate oxygen flow. In addition, instructions should be provided that direct passengers to secure their own masks before assisting others.

F/A TRAINING ON THE USE OF FLIGHT DECK EMERGENCY EQUIPMENT. Air carriers should ensure that F/As are familiar with flight deck emergency equipment. Information about the location and operation of the following flight deck emergency equipment should be included in the air carrier’s F/A manuals:

- Flight deck door access,
- Flight deck exits,
- Emergency supplemental oxygen,
- Fire extinguishers,
- Crash axes,
- Protective Breathing Equipment (PBE),
- Any other emergency equipment located in the flight deck, and
- Operation of flight deck seats.

A. Flight Deck Emergency Equipment Training. During initial and transition training, F/As should receive familiarization training on flight deck emergency equipment. Air carriers do not have to require F/As to physically operate the flight deck emergency equipment. Training in
flight deck emergency equipment may be accomplished through audiovisual presentations, computer-based instruction (CBI), or other instructional media.

**B. Manuals and Training Programs.** Air carriers should include appropriate procedures regarding flight deck emergency equipment in their manuals and training programs.

### 3-1857 TRAINING IN FIRE CONTROL EQUIPMENT AND RELATED TRAINING DRILLS.

**A. The Nature and Value of Combating an Actual Fire.**

1) Many people confuse meeting training objectives of fighting an actual fire with the psychological benefits that one can gain through experiencing an actual fire. The psychological effect of facing an actual fire cannot be achieved through simulation. National Fire Protection Association (NFPA) 408, Standard for Aircraft Hand Portable Fire Extinguishers, states that live fire training provides crewmembers with psychological conditioning, firefighting techniques, and knowledge of extinguishing agent capabilities and limitations under actual fire situations. The bulletin also recommends that firefighting training with an actual fire be reinforced by classroom instruction using manipulative skills training (simulation). The recommended fire simulation scenarios include:

- Galley fires,
- Lavatory fires,
- Flight deck fires,
- Closed compartment fires, and
- Flammable liquid fires.

2) As defined in part 121, § 121.417(f)(1), an actual fire means an ignited combustible material in controlled conditions of a sufficient magnitude and duration to accomplish the training objectives set forth in the rule.

3) Industry practice shows that air carriers frequently contact local or airport fire departments. In some cases, fire department personnel are present during training. Many local fire departments provide training course outlines on the use of small, hand-held fire extinguishers, and they also typically provide training on the operation of hand-held fire extinguishers to employees of local businesses and organizations. Under fire department supervision, these employees are given the opportunity to extinguish an actual fire.

4) When creating actual fires, fire departments and air carriers often use, among other materials, kerosene or diesel fuel floating on water in a metal pan or drum. These fires are ignited outdoors in an open area. Some air carriers and fire departments have constructed indoor fire rooms or fire pits in which they ignite materials such as seat cushions and use exhaust fans to eliminate smoke following the firefighting training.
B. Simulation.

1) As defined in § 121.417(f)(8), a simulated fire means an artificial duplication of smoke or flames used to create various aircraft firefighting scenarios, such as lavatory, galley oven, and aircraft seat fires. For example, electric lights that the instructor controls by turning them on and off to show that the crewmember has extinguished the fire correctly.

2) Artificial smoke may be used to simulate smoke coming from a galley oven, under a lavatory door, or under a passenger seat.

C. Use of PBE. Crewmembers would not necessarily use PBE every time there is a fire. Crewmembers should use PBE whenever they determine that dense smoke and/or fumes are present that do not permit effective firefighting at close range or when the fire is of unknown origin. If a crewmember is at a door during an evacuation, the need to don PBE may not be great unless the crewmember is going back into the cabin. Air carrier manuals and training programs should contain procedures indicating the proper use of PBE.

3-1858 EVACUATIONS. Reports concerning warranted and unwarranted emergency evacuations reveal that there is a need for improvement in procedures and training.

A. Emergency Evacuation Procedures and Training Programs. Certificate holders should ensure their emergency evacuation procedures and training programs address the following:

1) Flightcrews and F/As are trained to recognize and act promptly in situations requiring an emergency evacuation.

2) F/As are trained to carry out an emergency evacuation on their own initiative in the event that the flightcrew is incapacitated or otherwise prevented from participating.

3) F/As are trained to recognize when evacuation equipment is inoperative or faulty, act promptly in preventing the use of such equipment, and quickly divert evacuating passengers to usable exits.

4) Flightcrew and F/A training emphasizes the ability to recognize the need to terminate an evacuation if conditions change and permit such action. F/As should be trained to immediately command passengers to stop the (unwarranted) passenger evacuation and immediately notify the flight deck of the situation. F/As should be made aware of the urgency to notify the flight deck so that the aircraft may be stopped, the engines shut down, air traffic control (ATC) notified (as necessary), etc.

5) Emergency alarm signal units, if installed in the cabin, are properly located and guarded to preclude inadvertent activation.

B. B727 Auxiliary Power Unit (APU) Torching Incidents. There have been several cases of passenger-initiated evacuations associated with the B727 APU torching starts. Some of these evacuations present significant potential for injury to participants. The Boeing Commercial Airplane Group (BCAG) has released a videotape, 727 APU Torching, and a Boeing Flight
Operations Review Bulletin to all B727 operators, which contain suggested air carrier actions to avoid APU torching incidents. (See Volume 3, Chapter 19, Section 5.)

C. B727 Emergency Evacuation Procedures and Training Programs. The FAA recommends that operators of B727 aircraft:

1) Review their training programs and emergency evacuation procedures to assure that the flightcrew and F/As are aware that B727 APU starts can result in a momentary orange flash from the vicinity of the APU exhaust near the right wing root.

2) Develop procedures that include an announcement from the flight deck before starting the APU on the B727.

3-1859 GUIDELINES FOR CREWMEMBER TRAINING ON AIRCRAFT TAILCONES AND APPROVAL OF TAILCONE TRAINING DEVICES.

A. Background. On February 19, 1996, a DC-9-32 landed wheels-up. The airplane slid 6,850 feet before coming to rest in the grass about 140 feet left of the runway centerline (RCL). The cabin began to fill with smoke and the PIC ordered the evacuation of the airplane. There were 82 passengers, 2 flightcrew members, and 3 F/As aboard the airplane. The NTSB investigation resulted in recommendations to the FAA, including Safety Recommendation A-97-10: “Amend Flight Standards Handbook Bulletin 96-02, ‘Guidelines for Crewmember Training on Aircraft Tailcones and Approval of Tailcone Training Devices,’ to include a requirement that if any portion of a restraint system is attached to the tailcone access plug door in the aircraft that might interfere with the opening of the door, the plug door training device must be equipped with the entire restraint system.” The report is available online at https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR9701.pdf.

1) Section 121.417 requires that each crewmember, during initial training and every 24 months, operate each type of emergency exit in the normal and emergency modes. This demonstration must include the actions and forces required in the opening of all exits including tailcones.

2) In addition, the NTSB determined that during the accident referenced above, the F/A seated on the aft jump seat was unable to completely remove the tailcone access plug door because one of the aft jump seat shoulder harness straps was buckled to the lap belt, which tied the plug door to the aft bulkhead. Fortunately, the lack of availability of the tailcone exit did not preclude a timely and successful evacuation.

3) When the NTSB investigators examined the DC-9 plug door training equipment at the air carrier’s F/A training facility, they found that seatbelts and shoulder harnesses were not installed in the training equipment. Therefore, it was not possible for F/As to train for the removal of the plug door with the shoulder harness straps buckled to the seatbelt and gain hands-on experience with the problem this creates.

4) In addition, the air carrier’s F/A manual, current at the time of the accident, did not mention the need to ensure that the jump seat shoulder harness straps are unbuckled from the lap belts before attempting to remove the plug door. The NTSB concludes that the F/As...
received inadequate information and training on the operation of the DC-9 tailcone access plug door.

5) Service Bulletin (SB) 53-257 required a modification to the assembly release handle, which resulted in a change to F/A evacuation procedures of the tailcone. A forward tailcone assembly release handle was installed and is located immediately to the F/A’s right-hand side (aircraft left) when opening the pressure bulkhead or plug hatch. Once the pressure bulkhead or plug hatch has been opened from inside the cabin, the F/A will pull the forward tailcone release handle located at the forward end of the catwalk (aircraft left) to jettison the tailcone and trigger slide inflation. If the tailcone jettisons and the slide inflates, the F/A may conduct the evacuation at the end of the catwalk. If the tailcone fails to jettison, the F/A must redirect the passengers to other usable exits. If passengers are unable to use other exits for evacuation, the F/A may use the aft tailcone release handle, but this is only as a last resort.

B. Tailcone Training. Tailcone training should meet the following criteria:

1) The various locations of the tailcone release handle for different models of the same aircraft must be addressed in differences training. Either the use of pictorial or audiovisual training aids, or a visual inspection of the aircraft, is an acceptable training method for these differences.

2) Crewmembers must be trained on appropriate actions if the restraint system interferes with the opening of the door.

3) The emergency lighting available in the tailcone area of certain types of aircraft provides a low level of illumination. During crewmember training, the illumination of the tailcone training equipment should be maintained at a comparable low level.

4) An air carrier may use tailcone exit training equipment of such high fidelity and/or conduct differences training using pictorial or audiovisual aids of such quality that no further training benefit would result from a familiarization tour of the aircraft. In such cases, the POI and/or cabin safety inspector (CSI) (if applicable) may permit the air carrier to meet the entire training requirement of a particular aircraft without using the actual aircraft.

   a) Air carriers that have ventral (or plug) door training equipment, but not tailcone training equipment, must conduct an aircraft familiarization tour of the tailcone area for initial and recurrent training. Each trainee will walk through the tailcone area. Instructors will ensure trainees are aware of the placement of the tailcone manual release handle on the aircraft and, as appropriate, other aircraft variations. When the air carrier has a method to operate the tailcone release handle without actually deploying the tailcone, then each trainee should operate the tailcone release handle. When the operation of the tailcone release handle releases the tailcone, then either the instructor or a trainee should operate the tailcone release handle while the other trainees observe. The instructor should ensure that each trainee understands the operation of the tailcone manual release handles.

   b) Air carriers that have neither tailcone training equipment nor door training equipment will conduct an aircraft familiarization tour as described in subparagraph a) above. In addition, for air carriers not possessing door training equipment, instructors must conduct plug
and/or ventral door training using an actual aircraft. Instructors will ensure that each trainee
operates the plug and/or ventral door and each trainee operates all handles, switches, knobs, or
other mechanisms necessary to ready the equipment for emergency evacuation. Air carriers may
not want to drop the tailcone mechanism; however, the air carriers may wish to “catch the
tailcone” so that it does not fall. Or the air carrier might ensure each trainee operates the
mechanism that drops the tailcone using approved training equipment. Regardless of the method
used, each trainee must actually operate the appropriate mechanisms to ensure evacuation
through the tailcone exit.

NOTE: See Volume 3, Chapter 23, Section 7 for information regarding tailcone
training equipment.

3-1860 USE OF TRAINING EQUIPMENT IN CREWMEMBER EMERGENCY
TRAINING. Whenever the motions needed to operate an emergency exit of the same type are
different, crewmember must be trained on the motions for each kind of emergency exit using
approved training equipment or the aircraft. For example, the different methods of operation for
the 2L/2R and 3L/3R doors on the Airbus A321 such as the 4–6 second delay between activation
of the opening mechanism and full opening of the aircraft door and the different procedures
regarding the use, as well as the actual placement, of the manual inflation handle.

3-1861 PART 121 F/A INDOCTRINATION TRAINING.

A. Indoctrination Training. Employee compensation/benefits and contracts, grooming,
uniform regulations, pass benefits, and other similar subjects are not appropriate in the
40 programmed hours of FAA-approved indoctrination training.

B. Curriculum Subjects. Subjects such as company organization and description should
be changed to company organization and operating philosophy as it relates to the way the
company controls its flight operations and the crewmembers’ role in those operations. An
example is provided by the subject of general forms, records, and administrative procedures.
This subject should be part of the 40 hours of indoctrination training only if the records are
related to the operation of the flight. For example, mechanical discrepancy forms would be
related to the operation of the flight and could be included in the course. Employee standards and
rules of conduct should be part of the 40 programmed hours only as this discussion relates to
safety.

C. Daily Training Hours. To ensure that students have adequate time to assimilate
subject material, attend to personal needs, and receive adequate rest, the daily hours of training
activity should be limited to 10 consecutive hours in any 24-hour period. Each hour of training
normally contains a reasonable “break time” of 10 minutes. Lunch hour, or other extended
breaks, may not be considered as part of programmed hours.

D. Training During Industry Crisis. POIs and/or CSIs (if applicable) should be aware
of the national attention usually focused on an air carrier during a period of labor unrest,
bankruptcy, or other newsworthy periods of stress for the air carrier. FAA approval for changes
during these periods may give the impression of bias toward the air carrier. See Volume 6,
Chapter 2, Section 18 for more information on air carriers experiencing significant change.
3-1862 TRAINING, QUALIFICATIONS, AND OPERATIONAL CONTROL OF F/As WHO HAVE SERVED OR MAY BE SERVING AT MORE THAN ONE AIR CARRIER.

This paragraph provides information regarding the approval of F/A training programs and other procedures for F/As who have had experience with another air carrier or are presently employed by another air carrier.

A. Past Practices. There are no explicit regulatory provisions for one air carrier to credit training previously conducted by another air carrier. In the past, certain certificated air carriers have requested credit toward the number of programmed hours of F/A training based on the fact that F/As had already served with another air carrier. This practice is no longer acceptable.

B. Learning Interference. Learning interference is increased when the F/As are assigned to duties on one type of airplane that is operated differently by two or more air carriers. Therefore, in some cases, it is possible that F/As experienced with one air carrier may actually need more training instead of less.

C. Air Carrier F/A Training. The F/As used by an air carrier should all complete the same training program. This training program should be sufficient for F/As to be fully qualified to operate on the aircraft for which they are to serve as an F/A in that certificated air carrier’s part 121 operation.

1) Additional training may be needed for reasons such as:
   a) Qualification on another aircraft;
   b) Qualification to operate in extended overwater operations;
   c) Additional security training; and
   d) Equipment differences.

2) POIs should not approve any F/A training programs or reductions in programmed hours to F/A training programs that differ from the F/A training program and programmed hours that are currently used for new-hire F/As.

3) POIs and/or CSIs (if applicable) assigned to certificate holders operating under part 121 should ensure:
   a) That their assigned certificate holders have one FAA-approved training program which all new F/As (regardless of experience level or present state of employment) complete before they serve as crewmembers in that air carrier’s operations.
   b) That additional training is provided if the POI and/or CSI (if applicable) finds it is necessary for F/As who have experience with another air carrier to receive additional training to satisfy the performance of their assigned duties.
   c) That the air carrier, the PIC, and the F/As understand that the F/As, including those employed by another air carrier, are under the operational control of the certificated
air carrier and the authority of the PIC if they are used as crewmembers in that certificated air carrier’s operations conducted under part 121.

d) That all F/As, including those employed by someone other than the air carrier, use only the procedures that are contained in the air carrier’s FAA-accepted F/A manual.

Table 3-101. Part 121 Summary of Flight Attendant Training

<table>
<thead>
<tr>
<th>TYPES OF TRAINING AND QUALIFICATION</th>
<th>PROGRAMMED HOURS</th>
<th>WHEN CONDUCTED</th>
<th>INCLUDES</th>
<th>14 CFR SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDOCTRINATION</td>
<td>40 hours – may be reduced.</td>
<td>Only safety-related subjects.</td>
<td>§ 121.415</td>
<td></td>
</tr>
<tr>
<td>INITIAL GROUND</td>
<td>8 hours for Group I airplanes and 16 hours for Group II airplanes – may be reduced (in addition to indoctrination training for new hires).</td>
<td>Before serving on aircraft of that type.</td>
<td>Emergency training plus competency check.</td>
<td>§ 121.421 § 121.433(a) § 121.417</td>
</tr>
<tr>
<td>TRANSITION GROUND</td>
<td>No hours stipulated.</td>
<td>Before serving on aircraft of that type.</td>
<td>Emergency training plus competency check.</td>
<td>§ 121.421 § 121.417</td>
</tr>
<tr>
<td>DIFFERENCES*</td>
<td>No hours stipulated.</td>
<td>Before serving on aircraft with those variations.</td>
<td>§ 121.418(a) § 121.433(b)</td>
<td></td>
</tr>
<tr>
<td>RECURRENT</td>
<td>4 hours for Group I reciprocating-powered airplanes, 5 hours for Group I turbopropeller-powered airplanes, 12 hours for Group II airplanes – may be reduced.</td>
<td>Every 12 months (hands-on must be given every 24 months).</td>
<td>Emergency training plus competency check.</td>
<td>§ 121.427 § 121.433(c) § 121.417</td>
</tr>
<tr>
<td>TYPES OF TRAINING AND QUALIFICATION</td>
<td>PROGRAMMED HOURS</td>
<td>WHEN CONDUCTED</td>
<td>INCLUDES</td>
<td>14 CFR SECTION</td>
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<tr>
<td>EMERGENCY</td>
<td>No hours stipulated.</td>
<td>During initial, transition, and recurrent training.</td>
<td>Methods include: 1) Drills. 2) Actual operational. 3) Individual instruction. 4) Overall instruction.</td>
<td>§ 121.417</td>
</tr>
<tr>
<td>OPERATING EXPERIENCE (OE)</td>
<td>5 hours – may be reduced to 2.5 hours.</td>
<td>When initial is completed and before transition.</td>
<td>§ 121.434</td>
<td></td>
</tr>
</tbody>
</table>

* Differences training may be included in initial, transition, and recurrent training, if applicable.

NOTE: There are usually two methods of aircraft training for new-hire F/As:

- Method 1: Initial training on each new aircraft type, followed by OE.
- Method 2: Initial training on one aircraft type followed by OE, and then transition training to the air carriers’ other aircraft in that group.

Table 3-102. Crewmember Survival Training

<table>
<thead>
<tr>
<th>TYPES OF TRAINING</th>
<th>SUBJECT AREAS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>THE WILL TO SURVIVE</td>
<td>Mental attitude required for successful survival. Priorities of life and their significance in survival. Actual examples of the will to survive being a factor.</td>
<td>The possibility of a survival situation occurring. Environmental conditions for consideration. Stresses that may be encountered. Enemies that must be overcome.</td>
</tr>
<tr>
<td><strong>AIRCRAFT ESCAPE</strong></td>
<td>Location and use of emergency exits. Passenger management outside the aircraft.</td>
<td>Availability and use of emergency equipment.</td>
</tr>
<tr>
<td><strong>OPERATIONAL USE OF EQUIPMENT</strong></td>
<td>Demonstration on use of all available survival equipment.</td>
<td></td>
</tr>
<tr>
<td><strong>ARCTIC SURVIVAL</strong></td>
<td>Hypothermia. Clothing required. Travel considerations.</td>
<td>Hazardous conditions. Signaling techniques.</td>
</tr>
</tbody>
</table>

**RESERVED.** Paragraphs 3-1863 through 3-1890.