

Volume 3. Air Operator Technical Administration

CHAPTER 16. CABIN SAFETY AND FLIGHT ATTENDANT MANAGEMENT

SECTION 2. SPECIAL AIRWORTHINESS REQUIREMENTS

2249. CREWMEMBER TRAINING FOR EMERGENCY EVACUATION DEMONSTRATIONS.

This section contains Federal Aviation Administration (FAA) policy regarding crewmember training for emergency evacuation demonstrations. The term regularly scheduled line crew, as used in Title 14 of the Code of Federal Regulations (14 CFR) part 25, is not defined in 14CFR, nor does 14 CFR prescribe prerequisites or qualifications for such persons. However, this section provides FAA safety policy regarding persons to be used as regularly scheduled line crew in performance of an actual emergency evacuation demonstration of an airplane's maximum seating capacity, in accordance with part 25 and for compliance with 14 CFR part 121.

A. Base Line Training. The training provided to crewmembers by the aircraft manufacturer in preparation for an emergency evacuation demonstration is considered base line training. All air carriers' emergency evacuation training must be compared to the base line training for flight attendants who serve in that aircraft. POIs and CSIs should review the Flight Standardization Board (FSB) report for each airplane to identify applicable base line training elements (www.opspecs.com/AFSDData/FSBRs/Final/). Each FSB report contains a section titled "FSB Specifications for Training." This section outlines special considerations for flight attendant training and also contains comments on differences training, as per the FSB.

B. Training. If successful completion of a demonstration requires or provides training that exceeds the baseline training, then the FSB report must include this information as well as a description of the additional training given. The training program of all air carriers using that demonstration for compliance with part 121 must also include this additional information or training. For example, if crewmembers are drilled ten times on opening a particular door during training for that demonstration, then training for crewmembers who are qualifying on that airplane must also include opening the door ten times.

C. Specific Duties. The air carriers should train crews in specific duties related to emergency evacuation in accordance with the FAA-approved training program (for the part 25 evacuation demonstration). This training program does not need to be a complete crewmember training

program, but should be similar in content and duration to the emergency evacuation portion of training programs approved under part 121 and should be FAA- approved for evacuation demonstration purposes, before the demonstration (reference part 25).

D. Additional Training. If the crew performing the demonstration has been previously trained under an air carrier's FAA-approved program, they may receive additional training when the make, model, and series of aircraft used in the demonstration is different from the one used by the air carrier. Crewmembers shall receive training in exit operation for the specific model of airplane. The air carrier should not train the crew in the conduct of a demonstration or in assigned duties that are not normally specified with an approved part 121 crewmember training program. This training should be similar in content and duration to the training a flight attendant receives when an air carrier adds a new airplane model to its operating certificate.

E. Crewmembers selected for the evacuation demonstration should be persons, who serve in air transportation operations on a regular basis and should not be instructors, supervisory personnel, worker organization safety representatives, or anyone else expected to have knowledge above that of an average crewmember. If the demonstration is not successful and the air carrier changes crew procedures to successfully complete a demonstration, then the air carrier should fully document and describe those changes in procedures in FAA Form 8430-1, Emergency Evacuation Report. This information should be included in the FSB report.

NOTE: See volume 3, chapter 10.

2251. PROCESSING EVACUATION DEMONSTRATION REPORTS. This section provides information about the processing and storage of Evacuation Demonstration Reports.

A. Federal Aviation Administration (FAA) Order 8400.10, volume 3, chapter 10 provides information about the requirements and conduct of partial and full emergency evacuation, and ditching demonstrations.

B. In addition, section 6 provides information regarding the completion of FAA Form 8430.1 which is the

emergency evacuation demonstration report form. The form should be completed in accordance with the instructions. Paragraph 1759 provides information regarding the distribution of this form which states; the original package shall be retained in the district office file. In addition, a copy shall be forwarded to the Regional Flight Standards Division. Once it is reviewed by the regional specialist, it will be sent to the Director of Flight Standards Service (AFS-1).

C. This section provides the background for the processing of the FAA Form 8430.1, after it has been returned to AFS-1. From AFS-1, the form is forwarded to the Air Transportation Division, AFS-200 where it is reviewed and entered into the operations specification (OpSpecs) subsystem database for emergency evacuation. AFS-200 then forward the form to the Protection and Survival Laboratory (PSL) at the Civil Aeromedical Institute (CAMI).

D. Appropriate material listed on the form is entered into the Emergency Evacuation Demonstration data base.

E. Further, the PSL is responsible for maintenance of the existing database in Microsoft Access software. At the beginning of each calendar quarter (i.e. January 1, April 1, July 1 and October 1), the PSL supplies the Flight Standards Safety Analysis Information Center with a file containing records added to the Emergency Evacuation Data Base. Personnel in the PSL maintain the information and supply AFS-900 with quarterly updates.

F. Upon written request to the manager of the PSL, information in the data base may be released. Files regarding requests for this information are maintained for a minimum of three years.

NOTE: See volume 3, chapter 10.

2253. AIR CARRIER MANUAL INSTRUCTIONS CONCERNING MINIMUM EQUIPMENT LIST CONDITIONS AND LIMITATIONS. The purpose of this section is to provide guidance to aviation safety inspectors (ASI) regarding the requirement for air carriers to include instructions, concerning the Minimum Equipment List (MEL) conditions and limitations, in operational documents: the Flightcrew Manual, Flight Operations Manual, and Flight Attendant Manual.

A. A recent sampling of selected air carriers' manuals revealed that there is a need to include additional instructions, necessary to clarify the actions to be taken under certain conditions and/or situations regarding the MEL.

B. Some items/systems listed in the MMEL/MEL contain standard phrases such as "provided alternate, normal and emergency procedures, and/or operating restrictions are established and used." The intent of such language is to prompt each air carrier to develop the necessary instructions

in the manual or its personnel so that appropriate action will be taken, resulting in an acceptable level of safety.

C. In accordance with the MEL, the communications equipment used between the flight deck and the flight attendants (whether inoperative or functional), requires that specific instructions be included in the appropriate air carrier's manuals: the Flightcrew Manual, Flight Operations Manual and Flight Attendant Manual. In some cases it may be appropriate to include such instructions in the air carrier's MEL(O) procedure. Instructions in these manuals concerning specific inoperative equipment situations must be consistent with instructions in the other manuals.

D. To ensure a clear understanding of the action to be taken in emergency or abnormal situations, the pilot-in-command (PIC) should brief the flightcrew, and at least the lead flight attendant on the procedures to be followed. Examples of methods of flight deck notification to cabin include various combinations such as cabin chimes to indicate various events, use of a separate evacuation signaling system, PA announcements, or others. The briefing is to ensure that when cabin/flight deck communication equipment becomes inoperative, procedures to be followed for each event listed can be carried out:

- (1) Fire and/or smoke in the flight deck or passenger cabin
- (2) Hijacking
- (3) Ditching
- (4) Emergency landing
- (5) Evacuation of the passenger cabin/Rejected Takeoff evacuation
- (6) Passenger medical problem

NOTE: It is not the FAA's intention to impose a requirement to preclude a flight attendant from opening the flight deck door to report an emergency situation.

E. ASIs should strongly recommend that each of their air carriers include adequate instructions, to specify actions to be taken in the case of emergency or abnormal situations, when MEL items are involved. ASIs should also inform their air carriers of the need for the PICs to brief the flightcrew, lead flight attendant and/or concerned flight attendants of the actions to be taken in emergency or abnormal situations, in preparations of the possible break down of cabin/flight deck communication equipment.

2255. OVERPRESSURIZED AIRPLANES.

A. Accidents Related to Overpressurized Airplanes.

(1) On November 20, 2000, a flight attendant/purser was killed during an emergency evacuation of an Airbus Industrie A300B4-605R (A300). The airplane was pressur-

ized until the flight attendant/purser opened the left front (1L) emergency exit door. He was then forcibly ejected from the airplane. There were 133 people on board. During the emergency evacuation:

- The flight attendant/purser who opened the emergency exit was killed.
- Three passengers sustained serious injuries.
- Eighteen passengers and one flight service director sustained minor injuries.

NOTE: The airplane sustained minor damage.

(2) The NTSB investigation resulted in recommendations to the FAA. They included recommendation A-02-22: Review all air carriers' flight and cabin crew training manuals and programs and require revisions, if necessary, to ensure that they contain information about the signs of an overpressurized airplane on the ground and the dangers of opening emergency exit doors while the airplane is overpressurized. They also included recommendation A-02-23: Require that cabin crew training manuals and programs contain procedures to follow during an emergency evacuation when the airplane is overpressurized. The report is available on-line at: www.nts.gov/Recs/letters/letters.htm.

(3) A similar accident occurred on October 20, 2001. In that accident, one flight attendant was killed and another flight attendant was seriously injured during the deplaning of an Airbus A300-605R. There were 2 flight crewmembers, 10 cabin crewmembers, and 134 passengers on board.

B. National Transportation Safety Board (NTSB) Concerns.

(1) The NTSB is concerned that, on airplanes like the A300 that do not have pressure relief systems for their

emergency exit doors, forcing open the doors when the airplane is overpressurized could result in accidents like those cited. The NTSB notes that if emergency exit doors on the airplanes had been equipped with pressure relief systems, the flight attendants would not likely have been able to open the doors without the pressure first having been relieved. In one such system, the emergency exit door handle is linked to a vent door that first relieves pressure before allowing the emergency exit door to open.

(2) The NTSB is concerned that crewmembers may be unfamiliar with the indications of an overpressurized airplane on the ground and the dangers associated with opening the emergency exit doors while the airplane is overpressurized. The NTSB considers a cabin to be overpressurized when it is pressurized at a level that is higher than the intended pressure level for the existing phase of flight.

(3) The NTSB is also concerned that training manuals and programs do not address procedures to follow during an emergency evacuation with an overpressurized airplane.

C. FAA Recommendation. Principal Operations Inspectors (POI) and Cabin Safety Inspectors (CSI) should recommend that air carriers review training manuals and programs and revise, if necessary, information about the signs of an overpressurized airplane on the ground and the dangers of opening emergency exit doors while the airplane is overpressurized. POIs and CSIs should also recommend that air carriers develop procedures to be followed in the event of an emergency evacuation in an overpressurized airplane and incorporate those procedures into their flightcrew and flight attendant training manuals.

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