

(8) For all models of the McDonnell Douglas DC-8, the flight cycle implementation time is 30,000 flights.

(9) For all models of the McDonnell Douglas DC-9/MD-80, the flight cycle implementation time is 60,000 flights.

(10) For all models of the McDonnell Douglas DC-10, the flight cycle implementation time is 30,000 flights.

(11) For all models of the Lockheed L-1011, the flight cycle implementation time is 27,000 flights.

(12) For the Fokker F-28 Mark, 1000, 2000, 3000, and 4000, the flight cycle implementation time is 60,000 flights.

(b) [Reserved]

[Doc. No. 29104, 65 FR 24126, Apr. 25, 2000; 65 FR 50744, Aug. 21, 2000, as amended by Amdt. 125-36, 66 FR 23131, May 7, 2001; Amdt. 125-40, 67 FR 72834, Dec. 9, 2002; Amdt. 125-46, 69 FR 45942, July 30, 2004. Redesignated by Amdt. 125-53, 72 FR 63412, Nov. 8, 2007]

**§ 125.507 Fuel tank system inspection program.**

(a) Except as provided in paragraph (g) of this section, this section applies to transport category, turbine-powered airplanes with a type certificate issued after January 1, 1958, that, as a result of original type certification or later increase in capacity, have—

(1) A maximum type-certificated passenger capacity of 30 or more, or

(2) A maximum payload capacity of 7500 pounds or more.

(b) For each airplane on which an auxiliary fuel tank is installed under a field approval, before June 16, 2008, the certificate holder must submit to the FAA Oversight Office proposed maintenance instructions for the tank that meet the requirements of Special Federal Aviation Regulation No. 88 (SFAR 88) of this chapter.

(c) After December 16, 2008, no certificate holder may operate an airplane identified in paragraph (a) of this section unless the inspection program for that airplane has been revised to include applicable inspections, procedures, and limitations for fuel tank systems.

(d) The proposed fuel tank system inspection program revisions must be based on fuel tank system Instructions for Continued Airworthiness (ICA) that have been developed in accordance with the applicable provisions of SFAR

88 of this chapter or § 25.1529 and part 25, Appendix H, of this chapter, in effect on June 6, 2001 (including those developed for auxiliary fuel tanks, if any, installed under supplemental type certificates or other design approval) and that have been approved by the FAA Oversight Office.

(e) After December 16, 2008, before returning an aircraft to service after any alteration for which fuel tank ICA are developed under SFAR 88, or under § 25.1529 in effect on June 6, 2001, the certificate holder must include in the inspection program for the airplane inspections and procedures for the fuel tank system based on those ICA.

(f) The fuel tank system inspection program changes identified in paragraphs (d) and (e) of this section and any later fuel tank system revisions must be submitted to the Principal Inspector for review and approval.

(g) This section does not apply to the following airplane models:

- (1) Bombardier CL-44
- (2) Concorde
- (3) deHavilland D.H. 106 Comet 4C
- (4) VFW-Vereinigte Flugtechnische Werk VFW-614
- (5) Ilyushin Aviation IL 96T
- (6) Bristol Aircraft Britannia 305
- (7) Handley Page Herald Type 300
- (8) Avions Marcel Dassault—Breguet Aviation Mercure 100C
- (9) Airbus Caravelle
- (10) Lockheed L-300

**APPENDIX A TO PART 125—ADDITIONAL EMERGENCY EQUIPMENT**

(a) *Means for emergency evacuation.* Each passenger-carrying airplane emergency exit (other than over-the-wing) that is more than 6 feet from the ground with the airplane on the ground and the landing gear extended must have an approved means to assist the occupants in descending to the ground. The assisting means for a floor level emergency exit must meet the requirements of § 25.809(f)(1) of this chapter in effect on April 30, 1972, except that, for any airplane for which the application for the type certificate was filed after that date, it must meet the requirements under which the airplane was type certificated. An assisting means that deploys automatically must be armed during taxiing, takeoffs, and landings. However, if the Administrator finds that the design of the exit makes compliance impractical, the Administrator may grant a deviation from the requirement of automatic deployment if

the assisting means automatically erects upon deployment and, with respect to required emergency exits, if an emergency evacuation demonstration is conducted in accordance with §125.189. This paragraph does not apply to the rear window emergency exit of DC-3 airplanes operated with less than 36 occupants, including crewmembers, and less than five exits authorized for passenger use.

(b) *Interior emergency exit marking.* The following must be complied with for each passenger-carrying airplane:

(1) Each passenger emergency exit, its means of access, and means of opening must be conspicuously marked. The identity and location of each passenger emergency exit must be recognizable from a distance equal to the width of the cabin. The location of each passenger emergency exit must be indicated by a sign visible to occupants approaching along the main passenger aisle. There must be a locating sign—

(i) Above the aisle near each over-the-wing passenger emergency exit, or at another ceiling location if it is more practical because of low headroom;

(ii) Next to each floor level passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign; and

(iii) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible the sign may be placed at another appropriate location.

(2) Each passenger emergency exit marking and each locating sign must meet the following:

(i) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, each passenger emergency exit marking and each locating sign must be manufactured to meet the requirements of §25.812(b) of this chapter in effect on April 30, 1972. On these airplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 100 microlamberts. The colors may be reversed if it increases the emergency illumination of the passenger compartment. However, the Administrator may authorize deviation from the 2-inch background requirements if the Administrator finds that special circumstances exist that make compliance impractical and that the proposed deviation provides an equivalent level of safety.

(ii) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, each passenger emergency exit marking and each locating sign must be manufactured to meet the interior emergency exit marking requirements under which the airplane was type certificated. On these airplanes, no sign may continue to be

used if its luminescence (brightness) decreases to below 250 microlamberts.

(c) *Lighting for interior emergency exit markings.* Each passenger-carrying airplane must have an emergency lighting system, independent of the main lighting system. However, sources of general cabin illumination may be common to both the emergency and the main lighting systems if the power supply to the emergency lighting system is independent of the power supply to the main lighting system. The emergency lighting system must—

(1) Illuminate each passenger exit marking and locating sign; and

(2) Provide enough general lighting in the passenger cabin so that the average illumination, when measured at 40-inch intervals at seat armrest height, on the centerline of the main passenger aisle, is at least 0.05 foot-candles.

(d) *Emergency light operation.* Except for lights forming part of emergency lighting subsystems provided in compliance with §25.812(g) of this chapter (as prescribed in paragraph (h) of this section) that serve no more than one assist means, are independent of the airplane's main emergency lighting systems, and are automatically activated when the assist means is deployed, each light required by paragraphs (c) and (h) must comply with the following:

(1) Each light must be operable manually and must operate automatically from the independent lighting system—

(i) In a crash landing; or

(ii) Whenever the airplane's normal electric power to the light is interrupted.

(2) Each light must—

(i) Be operable manually from the flightcrew station and from a point in the passenger compartment that is readily accessible to a normal flight attendant seat;

(ii) Have a means to prevent inadvertent operation of the manual controls; and

(iii) When armed or turned on at either station, remain lighted or become lighted upon interruption of the airplane's normal electric power.

Each light must be armed or turned on during taxiing, takeoff, and landing. In showing compliance with this paragraph, a transverse vertical separation of the fuselage need not be considered.

(3) Each light must provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing.

(e) *Emergency exit operating handles.* (1) For a passenger-carrying airplane for which the application for the type certificate was filed prior to May 1, 1972, the location of each passenger emergency exit operating handle and instructions for opening the exit must be shown by a marking on or near the exit that is readable from a distance of 30 inches. In

addition, for each Type I and Type II emergency exit with a locking mechanism released by rotary motion of the handle, the instructions for opening must be shown by—

(i) A red arrow with a shaft at least  $\frac{3}{4}$  inch wide and a head twice the width of the shaft, extending along at least 70 degrees of arc at a radius approximately equal to  $\frac{3}{4}$  of the handle length; and

(ii) The word "open" in red letters 1 inch high placed horizontally near the head of the arrow.

(2) For a passenger-carrying airplane for which the application for the type certificate was filed on or after May 1, 1972, the location of each passenger emergency exit operating handle and instructions for opening the exit must be shown in accordance with the requirements under which the airplane was type certificated. On these airplanes, no operating handle or operating handle cover may continue to be used if its luminescence (brightness) decreases to below 100 micro-lamberts.

(f) *Emergency exit access.* Access to emergency exits must be provided as follows for each passenger-carrying airplane:

(1) Each passageway between individual passenger areas, or leading to a Type I or Type II emergency exit, must be unobstructed and at least 20 inches wide.

(2) There must be enough space next to each Type I or Type II emergency exit to allow a crewmember to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in paragraph (f)(1) of this section. However, the Administrator may authorize deviation from this requirement for an airplane certificated under the provisions of part 4b of the Civil Air Regulations in effect before December 20, 1951, if the Administrator finds that special circumstances exist that provide an equivalent level of safety.

(3) There must be access from the main aisle to each Type III and Type IV exit. The access from the aisle to these exits must not be obstructed by seats, berths, or other protrusions in a manner that would reduce the effectiveness of the exit. In addition—

(i) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, the access must meet the requirements of § 25.813(c) of this chapter in effect on April 30, 1972; and

(ii) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, the access must meet the emergency exit access requirements under which the airplane was certificated.

(4) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway must not be obstructed. However, curtains may be used if they allow free entry through the passageway.

(5) No door may be installed in any partition between passenger compartments.

(6) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door must have a means to latch it in open position, and the door must be latched open during each takeoff and landing. The latching means must be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, listed in § 25.561(b) of this chapter.

(g) *Exterior exit markings.* Each passenger emergency exit and the means of opening that exit from the outside must be marked on the outside of the airplane. There must be a 2-inch colored band outlining each passenger emergency exit on the side of the fuselage. Each outside marking, including the band, must be readily distinguishable from the surrounding fuselage area by contrast in color. The markings must comply with the following:

(1) If the reflectance of the darker color is 15 percent or less, the reflectance of the lighter color must be at least 45 percent. "Reflectance" is the ratio of the luminous flux reflected by a body to the luminous flux it receives.

(2) If the reflectance of the darker color is greater than 15 percent, at least a 30 percent difference between its reflectance and the reflectance of the lighter color must be provided.

(3) Exits that are not in the side of the fuselage must have the external means of opening and applicable instructions marked conspicuously in red or, if red is inconspicuous against the background color, in bright chrome yellow and, when the opening means for such an exit is located on only one side of the fuselage, a conspicuous marking to that effect must be provided on the other side.

(h) *Exterior emergency lighting and escape route.* (1) Each passenger-carrying airplane must be equipped with exterior lighting that meets the following requirements:

(i) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, the requirements of § 25.812(f) and (g) of this chapter in effect on April 30, 1972.

(ii) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, the exterior emergency lighting requirements under which the airplane was type certificated.

(2) Each passenger-carrying airplane must be equipped with a slip-resistant escape route that meets the following requirements:

(i) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, the requirements of § 25.803(e) of this chapter in effect on April 30, 1972.

(ii) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, the slip-resistant escape route requirements under which the airplane was type certificated.

(i) *Floor level exits.* Each floor level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 44 or more inches high and 20 or more inches wide, but not wider than 46 inches, each passenger ventral exit (except the ventral exits on M-404 and CV-240 airplanes) and each tail cone exit must meet the requirements of this section for floor level emergency exits. However, the Administrator may grant a deviation from this paragraph if the Administrator finds that circumstances make full compliance impractical and that an acceptable level of safety has been achieved.

(j) *Additional emergency exits.* Approved emergency exits in the passenger compartments that are in excess of the minimum number of required emergency exits must meet all of the applicable provisions of this section except paragraph (f), (1), (2), and (3) and must be readily accessible.

(k) On each large passenger-carrying turbojet-powered airplane, each ventral exit and tailcone exit must be—

(1) Designed and constructed so that it cannot be opened during flight; and

(2) Marked with a placard readable from a distance of 30 inches and installed at a conspicuous location near the means of opening the exit, stating that the exit has been designed and constructed so that it cannot be opened during flight.

#### APPENDIX B TO PART 125—CRITERIA FOR DEMONSTRATION OF EMERGENCY EVACUATION PROCEDURES UNDER § 125.189

(a) *Aborted takeoff demonstration.* (1) The demonstration must be conducted either during the dark of the night or during daylight with the dark of the night simulated. If the demonstration is conducted indoors during daylight hours, it must be conducted with each window covered and each door closed to minimize the daylight effect. Illumination on the floor or ground may be used, but it must be kept low and shielded against shining into the airplane's windows or doors.

(2) The airplane must be in a normal ground attitude with landing gear extended.

(3) Stands or ramps may be used for descent from the wing to the ground. Safety equipment such as mats or inverted life rafts may be placed on the ground to protect participants. No other equipment that is not part of the airplane's emergency evacuation equipment may be used to aid the participants in reaching the ground.

(4) The airplane's normal electric power sources must be deenergized.

(5) All emergency equipment for the type of passenger-carrying operation involved must be installed in accordance with the certificate holder's manual.

(6) Each external door and exit and each internal door or curtain must be in position to simulate a normal takeoff.

(7) A representative passenger load of persons in normal health must be used. At least 30 percent must be females. At least 5 percent must be over 60 years of age with a proportionate number of females. At least 5 percent, but not more than 10 percent, must be children under 12 years of age, prorated through that age group. Three life-size dolls, not included as part of the total passenger load, must be carried by passengers to simulate live infants 2 years old or younger. Crewmembers, mechanics, and training personnel who maintain or operate the airplane in the normal course of their duties may not be used as passengers.

(8) No passenger may be assigned a specific seat except as the Administrator may require. Except as required by item (12) of this paragraph, no employee of the certificate holder may be seated next to an emergency exit.

(9) Seat belts and shoulder harnesses (as required) must be fastened.

(10) Before the start of the demonstration, approximately one-half of the total average amount of carry-on baggage, blankets, pillows, and other similar articles must be distributed at several locations in the aisles and emergency exit access ways to create minor obstructions.

(11) The seating density and arrangement of the airplane must be representative of the highest capacity passenger version of that airplane the certificate holder operates or proposes to operate.

(12) Each crewmember must be a member of a regularly scheduled line crew, must be seated in that crewmember's normally assigned seat for takeoff, and must remain in that seat until the signal for commencement of the demonstration is received.

(13) No crewmember or passenger may be given prior knowledge of the emergency exits available for the demonstration.

(14) The certificate holder may not practice, rehearse, or describe the demonstration for the participants nor may any participant have taken part in this type of demonstration within the preceding 6 months.

(15) The pretakeoff passenger briefing required by § 125.327 may be given in accordance with the certificate holder's manual. The passengers may also be warned to follow directions of crewmembers, but may not be instructed on the procedures to be followed in the demonstration.