

trim or servo tab inputs) that is transmitted back to flight deck controls. This term refers to flight deck controls connected to the pitch, roll, or yaw control surfaces by direct mechanical linkages, cables, or push-pull rods in such a way that pilot effort produces motion or force about the hinge line.

(2) *Simulated Icing Test.* Testing conducted in simulated icing conditions, such as in an icing tunnel or behind an icing tanker.

(3) *Simulated Ice Shape.* Ice shape fabricated from wood, epoxy, or other materials by any construction technique.

[Amdt. 25-140, 79 FR 65528, Nov. 4, 2014]

§ 25.1421 Megaphones.

If a megaphone is installed, a restraining means must be provided that is capable of restraining the megaphone when it is subjected to the ultimate inertia forces specified in § 25.561(b)(3).

[Amdt. 25-41, 42 FR 36970, July 18, 1977]

§ 25.1423 Public address system.

A public address system required by this chapter must—

(a) Be powerable when the aircraft is in flight or stopped on the ground, after the shutdown or failure of all engines and auxiliary power units, or the disconnection or failure of all power sources dependent on their continued operation, for—

(1) A time duration of at least 10 minutes, including an aggregate time duration of at least 5 minutes of announcements made by flight and cabin crewmembers, considering all other loads which may remain powered by the same source when all other power sources are inoperative; and

(2) An additional time duration in its standby state appropriate or required for any other loads that are powered by the same source and that are essential to safety of flight or required during emergency conditions.

(b) Be capable of operation within 3 seconds from the time a microphone is removed from its stowage.

(c) Be intelligible at all passenger seats, lavatories, and flight attendant seats and work stations.

(d) Be designed so that no unused, unstowed microphone will render the system inoperative.

(e) Be capable of functioning independently of any required crewmember interphone system.

(f) Be accessible for immediate use from each of two flight crewmember stations in the pilot compartment.

(g) For each required floor-level passenger emergency exit which has an adjacent flight attendant seat, have a microphone which is readily accessible to the seated flight attendant, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated flight attendants.

[Doc. No. 26003, 58 FR 45229, Aug. 26, 1993, as amended by Amdt. 25-115, 69 FR 40527, July 2, 2004]

MISCELLANEOUS EQUIPMENT

§ 25.1431 Electronic equipment.

(a) In showing compliance with § 25.1309 (a) and (b) with respect to radio and electronic equipment and their installations, critical environmental conditions must be considered.

(b) Radio and electronic equipment must be supplied with power under the requirements of § 25.1355(c).

(c) Radio and electronic equipment, controls, and wiring must be installed so that operation of any one unit or system of units will not adversely affect the simultaneous operation of any other radio or electronic unit, or system of units, required by this chapter.

(d) Electronic equipment must be designed and installed such that it does not cause essential loads to become inoperative as a result of electrical power supply transients or transients from other causes.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25-113, 69 FR 12530, Mar. 16, 2004]

§ 25.1433 Vacuum systems.

There must be means, in addition to the normal pressure relief, to automatically relieve the pressure in the discharge lines from the vacuum air