

(b) Initial ground training for pilots and flight engineers must consist of at least the following programmed hours of instruction in the required subjects specified in paragraph (a) of this section and in § 121.415(a) unless reduced under § 121.405:

- (1) Group I airplanes—
  - (i) Reciprocating powered, 64 hours; and
  - (ii) Turbopropeller powered, 80 hours.
- (2) Group II airplanes, 120 hours.

[Doc. No. 9509, 35 FR 90, Jan. 3, 1970, as amended by Amdt. 121-199, 53 FR 37696, Sept. 27, 1988; Amdt. 121-250, 60 FR 65949, Dec. 20, 1995; Amdt. 121-333, 72 FR 31682, June 7, 2007]

**§ 121.420 Flight navigators: Initial and transition ground training.**

(a) Initial and transition ground training for flight navigators must include instruction in the subjects specified in § 121.419(a) as appropriate to his assigned duties and responsibilities and in the following with respect to the particular type airplane:

- (1) Limitations on climb, cruise, and descent speeds.
- (2) Each item of navigational equipment installed including appropriate radio, radar, and other electronic equipment.
- (3) Airplane performance.
- (4) Airspeed, temperature, and pressure indicating instruments or systems.
- (5) Compass limitations and methods of compensation.
- (6) Cruise control charts and data, including fuel consumption rates.
- (7) Any other instruction as necessary to ensure his competence.

(b) Initial ground training for flight navigators must consist of at least the following programmed hours of instruction in the subjects specified in paragraph (a) of this section and in § 121.415(a) unless reduced under § 121.405:

- (1) Group I airplanes—
  - (i) Reciprocating powered, 16 hours; and
  - (ii) Turbopropeller powered; 32 hours.
- (2) Group II airplanes, 32 hours.

**§ 121.421 Flight attendants: Initial and transition ground training.**

(a) Initial and transition ground training for flight attendants must in-

clude instruction in at least the following:

- (1) General subjects—
  - (i) The authority of the pilot in command;
  - (ii) Passenger handling, including the procedures to be followed in the case of deranged persons or other persons whose conduct might jeopardize safety; and
  - (iii) Approved crew resource management initial training.
- (2) For each airplane type—
  - (i) A general description of the airplane emphasizing physical characteristics that may have a bearing on ditching, evacuation, and inflight emergency procedures and on other related duties;
  - (ii) The use of both the public address system and the means of communicating with other flight crewmembers, including emergency means in the case of attempted hijacking or other unusual situations; and
  - (iii) Proper use of electrical galley equipment and the controls for cabin heat and ventilation.

(b) Initial and transition ground training for flight attendants must include a competence check to determine ability to perform assigned duties and responsibilities.

(c) Initial ground training for flight attendants must consist of at least the following programmed hours of instruction in the subjects specified in paragraph (a) of this section and in § 121.415(a) unless reduced under § 121.405.

- (1) Group I airplanes—
  - (i) Reciprocating powered, 8 hours; and
  - (ii) Turbopropeller powered, 8 hours.
- (2) Group II airplanes, 16 hours.

[Doc. No. 9509, 35 FR 90, Jan. 3, 1970, as amended by Amdt. 121-250, 60 FR 65949, Dec. 20, 1995]

**§ 121.422 Aircraft dispatchers: Initial and transition ground training.**

(a) Initial and transition ground training for aircraft dispatchers must include instruction in at least the following:

- (1) General subjects—
  - (i) Use of communications systems including the characteristics of those