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(a) Each person operating an aircraft in operations under this part shall--
(1) While operating inside the United States, comply with the applicable rules of this chapter; and
(2) While operating outside the United States, comply with Annex 2, Rules of the Air, to the Convention on International Civil Aviation or the regulations of any foreign country, whichever applies, and with any rules of parts 61 and 91 of this chapter and this part that are more restrictive than that Annex or those regulations and that can be complied with without violating that Annex or those regulations. Annex 2 is incorporated by reference in Sec. 91.703(b) of this chapter.

(b) After March 19, 1997, each certificate holder that conducts commuter operations under this part with airplanes in which two pilots are required by the type certification rules of this chapter shall comply with subparts N and O of part 121 of this chapter instead of the requirements of subparts E, G, and H of this part. Each affected certificate holder must submit to the Administrator and obtain approval of a transition plan (containing a calendar of events) for moving from its present part 135 training, checking, testing, and qualification requirements to the requirements of part 121 of this chapter. Each transition plan must be submitted by March 19, 1996, and must contain details on how the certificate holder plans to be in compliance with subparts N and O of part 121 on or before March 19, 1997.

(c) If authorized by the Administrator upon application, each certificate holder that conducts operations under this part to which paragraph (b) of this section does not apply, may comply with the applicable sections of subparts N and O of part 121 instead of the requirements of subparts E, G, and H of this part, except that those authorized certificate holders may choose to comply with the operating experience requirements of Sec. 135.244, instead of the requirements of Sec. 121.434 of this chapter.

Sec. 135.4 Applicability of rules for eligible on-demand operations.

(a) An ``eligible on-demand operation'' is an on-demand operation conducted under this part that meets the following requirements:
(1) Two-pilot crew. The flight crew must consist of at least two qualified pilots employed or contracted by the certificate holder.
(2) Flight crew experience. The crewmembers must have met the applicable requirements of part 61 of this chapter and have the following experience and ratings:
(i) Total flight time for all pilots:
(A) Pilot in command--A minimum of 1,500 hours.
(B) Second in command--A minimum of 500 hours.

(ii) For multi-engine turbine-powered fixed-wing and powered-lift aircraft, the following FAA certification and ratings requirements:
(A) Pilot in command--Airline transport pilot and applicable type ratings.
(B) Second in command--Commercial pilot and instrument ratings.

(iii) For all other aircraft, the following FAA certification and rating requirements:
(A) Pilot in command--Commercial pilot and instrument ratings.
(B) Second in command--Commercial pilot and instrument ratings.

(3) Pilot operating limitations. If the second in command of a fixed-wing aircraft has fewer than 100 hours of flight time as second in command flying in the aircraft make and model and, if a type rating is required, in the type aircraft being flown, and the pilot in command is not an appropriately qualified check pilot, the pilot in command shall make all takeoffs and landings in any of the following situations:

(i) Landings at the destination airport when a Destination Airport Analysis is required by Sec. 135.385(f); and

(ii) In any of the following conditions:
(A) The prevailing visibility for the airport is at or below \(3/4\) mile.
(B) The runway visual range for the runway to be used is at or below 4,000 feet.
(C) The runway to be used has water, snow, slush, ice, or similar contamination that may adversely affect aircraft performance.
(D) The braking action on the runway to be used is reported to be less than "good."
(E) The crosswind component for the runway to be used is in excess of 15 knots.
(F) Windshear is reported in the vicinity of the airport.
(G) Any other condition in which the pilot in command determines it to be prudent to exercise the pilot in command's authority.

(4) Crew pairing. Either the pilot in command or the second in command must have at least 75 hours of flight time in that aircraft make or model and, if a type rating is required, for that type aircraft, either as pilot in command or second in command.

(b) The Administrator may authorize deviations from paragraphs (a)(2)(i) or (a)(4) of this section if the Flight Standards District Office that issued the certificate holder's operations specifications finds that the crewmember has comparable experience, and can effectively perform the functions associated with the position in accordance with the requirements of this chapter. The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph. Grants of deviation under this paragraph may be granted after consideration of the size and scope of the operation, the qualifications of the intended personnel and the following circumstances:

(1) A newly authorized certificate holder does not employ any pilots who meet the minimum requirements of paragraphs (a)(2)(i) or (a)(4) of this section.
(2) An existing certificate holder adds to its fleet a new category and class aircraft not used before in its operation.
(3) An existing certificate holder establishes a new base to which it assigns pilots who will be required to become qualified on the aircraft operated from that base.
(4) An eligible on-demand operation may comply with alternative requirements specified in Sec. Sec. 135.225(b), 135.385(f), and 135.387(b) instead of the requirements that apply to other on-demand operations.

Sec. 135.12 Previously trained crewmembers.

A certificate holder may use a crewmember who received the certificate holder's training in accordance with subparts E, G, and H of this part before March 19, 1997 without complying with initial training and qualification requirements of subparts N and O of part 121 of this chapter. The crewmember must comply with the applicable recurrent training requirements of part 121 of this chapter.
Sec. 135.19 Emergency operations.

(a) In an emergency involving the safety of persons or property, the certificate holder may deviate from the rules of this part relating to aircraft and equipment and weather minimums to the extent required to meet that emergency.

(b) In an emergency involving the safety of persons or property, the pilot in command may deviate from the rules of this part to the extent required to meet that emergency.

(c) Each person who, under the authority of this section, deviates from a rule of this part shall, within 10 days, excluding Saturdays, Sundays, and Federal holidays, after the deviation, send to the FAA Flight Standards District Office charged with the overall inspection of the certificate holder a complete report of the aircraft operation involved, including a description of the deviation and reasons for it.

Sec. 135.21 Manual requirements.

(a) Each certificate holder, other than one who uses only one pilot in the certificate holder's operations, shall prepare and keep current a manual setting forth the certificate holder's procedures and policies acceptable to the Administrator. This manual must be used by the certificate holder's flight, ground, and maintenance personnel in conducting its operations. However, the Administrator may authorize a deviation from this paragraph if the Administrator finds that, because of the limited size of the operation, all or part of the manual is not necessary for guidance of flight, ground, or maintenance personnel.

(b) Each certificate holder shall maintain at least one copy of the manual at its principal base of operations.

(c) The manual must not be contrary to any applicable Federal regulations, foreign regulation applicable to the certificate holder's operations in foreign countries, or the certificate holder's operating certificate or operations specifications.

(d) A copy of the manual, or appropriate portions of the manual (and changes and additions) shall be made available to maintenance and ground operations personnel by the certificate holder and furnished to--

(1) Its flight crewmembers; and

(2) Representatives of the Administrator assigned to the certificate holder.

(e) Each employee of the certificate holder to whom a manual or appropriate portions of it are furnished under paragraph (d)(1) of this section shall keep it up to date with the changes and additions furnished to them.

(f) Except as provided in paragraph (h) of this section, each certificate holder must carry appropriate parts of the manual on each aircraft when away from the principal operations base. The appropriate parts must be available for use by ground or flight personnel.

(g) For the purpose of complying with paragraph (d) of this section, a certificate holder may furnish the persons listed therein with all or part of its manual in printed form or other form, acceptable to the Administrator, that is retrievable in the English language. If the certificate holder furnishes all or part of the manual in other than printed form, it must ensure there is a compatible reading device available to those persons that provides a legible image of the information and instructions, or a system that is able to retrieve the information and instructions in the English language.

(h) If a certificate holder conducts aircraft inspections or maintenance at specified stations where it keeps the approved inspection program manual, it is not required to carry the manual aboard the aircraft en route to those stations.

Sec. 135.23 Manual contents.
Each manual shall have the date of the last revision on each revised page. The manual must include:

(a) The name of each management person required under Sec. 119.69(a) of this chapter who is authorized to act for the certificate holder, the person's assigned area of responsibility, the person's duties, responsibilities, and authority, and the name and title of each person authorized to exercise operational control under Sec. 135.77;

(b) Procedures for ensuring compliance with aircraft weight and balance limitations and, for multiengine aircraft, for determining compliance with Sec. 135.185;

(c) Copies of the certificate holder's operations specifications or appropriate extracted information, including area of operations authorized, category and class of aircraft authorized, crew complements, and types of operations authorized;

(d) Procedures for complying with accident notification requirements;

(e) Procedures for ensuring that the pilot in command knows that required airworthiness inspections have been made and that the aircraft has been approved for return to service in compliance with applicable maintenance requirements;

(f) Procedures for reporting and recording mechanical irregularities that come to the attention of the pilot in command before, during, and after completion of a flight;

(g) Procedures to be followed by the pilot in command for determining that mechanical irregularities or defects reported for previous flights have been corrected or that correction has been deferred;

(h) Procedures to be followed by the pilot in command to obtain maintenance, preventive maintenance, and servicing of the aircraft at a place where previous arrangements have not been made by the operator, when the pilot is authorized to so act for the operator;

(i) Procedures under Sec. 135.179 for the release for, or continuation of, flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route;

(j) Procedures for refueling aircraft, eliminating fuel contamination, protecting from fire (including electrostatic protection), and supervising and protecting passengers during refueling;

(k) Procedures to be followed by the pilot in command in the briefing under Sec. 135.117;

(l) Flight locating procedures, when applicable;

(m) Procedures for ensuring compliance with emergency procedures, including a list of the functions assigned each category of required crewmembers in connection with an emergency and emergency evacuation duties under Sec. 135.123;

(n) En route qualification procedures for pilots, when applicable;

(o) The approved aircraft inspection program, when applicable;

(p)(1) Procedures and information, as described in paragraph (p)(2) of this section, to assist each crewmember and person performing or directly supervising the following job functions involving items for transport on an aircraft:

   (i) Acceptance;

   (ii) Rejection;

   (iii) Handling;

   (iv) Storage incidental to transport;

   (v) Packaging of company material; or

   (vi) Loading.

(2) Ensure that the procedures and information described in this paragraph are sufficient to assist a person in identifying packages that are marked or labeled as containing hazardous materials or that show signs of containing undeclared hazardous materials. The procedures and information must include:

   (i) Procedures for rejecting packages that do not conform to the Hazardous Materials Regulations in 49 CFR parts 171 through 180 or that appear to contain undeclared hazardous materials;

   (ii) Procedures for complying with the hazardous materials incident reporting requirements of 49 CFR 171.15 and 171.16 and discrepancy reporting requirements of 49 CFR 175.31.

   (iii) The certificate holder's hazmat policies and whether the certificate holder is authorized to carry, or is prohibited from carrying, hazardous materials; and
iv) If the certificate holder's operations specifications permit the transport of hazardous materials, procedures and information to ensure the following:

(A) That packages containing hazardous materials are properly offered and accepted in compliance with 49 CFR parts 171 through 180;
(B) That packages containing hazardous materials are properly handled, stored, packaged, loaded and carried on board an aircraft in compliance with 49 CFR parts 171 through 180;
(C) That the requirements for Notice to the Pilot in Command (49 CFR 175.33) are complied with; and
(D) That aircraft replacement parts, consumable materials or other items regulated by 49 CFR parts 171 through 180 are properly handled, packaged, and transported.

(q) Procedures for the evacuation of persons who may need the assistance of another person to move expeditiously to an exit if an emergency occurs; and

(r) If required by Sec. 135.385, an approved Destination Airport Analysis establishing runway safety margins at destination airports, taking into account the following factors as supported by published aircraft performance data supplied by the aircraft manufacturer for the appropriate runway conditions--
(1) Pilot qualifications and experience;
(2) Aircraft performance data to include normal, abnormal and emergency procedures as supplied by the aircraft manufacturer;
(3) Airport facilities and topography;
(4) Runway conditions (including contamination);
(5) Airport or area weather reporting;
(6) Appropriate additional runway safety margins, if required;
(7) Airplane inoperative equipment;
(8) Environmental conditions; and
(9) Other criteria affecting aircraft performance.

Sec. 135.25 Aircraft requirements.

(a) Except as provided in paragraph (d) of this section, no certificate holder may operate an aircraft under this part unless that aircraft--
(1) Is registered as a civil aircraft of the United States and carries an appropriate and current airworthiness certificate issued under this chapter; and
(2) Is in an airworthy condition and meets the applicable airworthiness requirements of this chapter, including those relating to identification and equipment.

(b) Each certificate holder must have the exclusive use of at least one aircraft that meets the requirements for at least one kind of operation authorized in the certificate holder's operations specifications. In addition, for each kind of operation for which the certificate holder does not have the exclusive use of an aircraft, the certificate holder must have available for use under a written agreement (including arrangements for performing required maintenance) at least one aircraft that meets the requirements for that kind of operation. However, this paragraph does not prohibit the operator from using or authorizing the use of the aircraft for other than operations under this part and does not require the certificate holder to have exclusive use of all aircraft that the certificate holder uses.

(c) For the purposes of paragraph (b) of this section, a person has exclusive use of an aircraft if that person has the sole possession, control, and use of it for flight, as owner, or has a written agreement (including arrangements for performing required maintenance), in effect when the aircraft is operated, giving the person that possession, control, and use for at least 6 consecutive months.

(d) A certificate holder may operate in common carriage, and for the carriage of mail, a civil aircraft which is leased or chartered to it without crew and is registered in a country which is a party to the Convention on International Civil Aviation if--
(1) The aircraft carries an appropriate airworthiness certificate issued by the country of registration and meets the registration and identification requirements of that country;
(2) The aircraft is of a type design which is approved under a U.S. type certificate and complies with all of the requirements of this chapter (14 CFR chapter I) that would be applicable to that aircraft were it registered in the United States, including the requirements which must be met for issuance of a U.S. standard airworthiness certificate (including type design conformity, condition for safe operation, and the noise, fuel venting, and engine emission requirements of this chapter), except that a U.S. registration certificate and a U.S. standard airworthiness certificate will not be issued for the aircraft;

(3) The aircraft is operated by U.S.-certificated airmen employed by the certificate holder; and

(4) The certificate holder files a copy of the aircraft lease or charter agreement with the FAA Aircraft Registry, Department of Transportation, 6400

Subpart B_Flight Operations

Sec. 135.61 General.

This subpart prescribes rules, in addition to those in part 91 of this chapter, that apply to operations under this part.

Sec. 135.65 Reporting mechanical irregularities.

(a) Each certificate holder shall provide an aircraft maintenance log to be carried on board each aircraft for recording or deferring mechanical irregularities and their correction.

(b) The pilot in command shall enter or have entered in the aircraft maintenance log each mechanical irregularity that comes to the pilot's attention during flight time. Before each flight, the pilot in command shall, if the pilot does not already know, determine the status of each irregularity entered in the maintenance log at the end of the preceding flight.

(c) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, powerplant, propeller, rotor, or appliance, shall record the action taken in the aircraft maintenance log under the applicable maintenance requirements of this chapter.

(d) Each certificate holder shall establish a procedure for keeping copies of the aircraft maintenance log required by this section in the aircraft for access by appropriate personnel and shall include that procedure in the manual required by Sec. 135.21.

Sec. 135.67 Reporting potentially hazardous meteorological conditions and irregularities of communications or navigation facilities.

Whenever a pilot encounters a potentially hazardous meteorological condition or an irregularity in a ground communications or navigational facility in flight, the knowledge of which the pilot considers essential to the safety of other flights, the pilot shall notify an appropriate ground radio station as soon as practicable.

Sec. 135.71 Airworthiness check.

The pilot in command may not begin a flight unless the pilot determines that the airworthiness inspections required by Sec. 91.409 of this chapter, or Sec. 135.419, whichever is applicable, have been made.

Sec. 135.73 Inspections and tests.
Each certificate holder and each person employed by the certificate holder shall allow the Administrator, at any time or place, to make inspections or tests (including en route inspections) to determine the holder's compliance with the Federal Aviation Act of 1958, applicable regulations, and the certificate holder's operating certificate, and operations specifications.

Sec. 135.75 Inspectors credentials: Admission to pilots' compartment: Forward observer's seat.

(a) Whenever, in performing the duties of conducting an inspection, an FAA inspector presents an Aviation Safety Inspector credential, FAA Form 110A, to the pilot in command of an aircraft operated by the certificate holder, the inspector must be given free and uninterrupted access to the pilot compartment of that aircraft. However, this paragraph does not limit the emergency authority of the pilot in command to exclude any person from the pilot compartment in the interest of safety.

(b) A forward observer's seat on the flight deck, or forward passenger seat with headset or speaker must be provided for use by the Administrator while conducting en route inspections. The suitability of the location of the seat and the headset or speaker for use in conducting en route inspections is determined by the Administrator.

Sec. 135.77 Responsibility for operational control.

Each certificate holder is responsible for operational control and shall list, in the manual required by Sec. 135.21, the name and title of each person authorized by it to exercise operational control.

Sec. 135.79 Flight locating requirements.

(a) Each certificate holder must have procedures established for locating each flight, for which an FAA flight plan is not filed, that--

(1) Provide the certificate holder with at least the information required to be included in a VFR flight plan;

(2) Provide for timely notification of an FAA facility or search and rescue facility, if an aircraft is overdue or missing; and

(3) Provide the certificate holder with the location, date, and estimated time for reestablishing radio or telephone communications, if the flight will operate in an area where communications cannot be maintained.

(b) Flight locating information shall be retained at the certificate holder's principal place of business, or at other places designated by the certificate holder in the flight locating procedures, until the completion of the flight.

(c) Each certificate holder shall furnish the representative of the Administrator assigned to it with a copy of its flight locating procedures and any changes or additions, unless those procedures are included in a manual required under this part.

Sec. 135.81 Informing personnel of operational information and appropriate changes.

Each certificate holder shall inform each person in its employment of the operations specifications that apply to that person's duties and responsibilities and shall make available to each pilot in the certificate holder's employ the following materials in current form: (a) Airman's
Sec. 135.83 Operating information required.

(a) The operator of an aircraft must provide the following materials, in current and appropriate form, accessible to the pilot at the pilot station, and the pilot shall use them:
   (1) A cockpit checklist.
   (2) For multiengine aircraft or for aircraft with retractable landing gear, an emergency cockpit checklist containing the procedures required by paragraph (c) of this section, as appropriate.
   (3) Pertinent aeronautical charts.
   (4) For IFR operations, each pertinent navigational en route, terminal area, and approach and letdown chart.
   (5) For multiengine aircraft, one-engine-inoperative climb performance data and if the aircraft is approved for use in IFR or over-the-top operations, that data must be sufficient to enable the pilot to determine compliance with Sec. 135.181(a)(2).

(b) Each cockpit checklist required by paragraph (a)(1) of this section must contain the following procedures:
   (1) Before starting engines;
   (2) Before takeoff;
   (3) Cruise;
   (4) Before landing;
   (5) After landing;
   (6) Stopping engines.

(c) Each emergency cockpit checklist required by paragraph (a)(2) of this section must contain the following procedures, as appropriate:
   (1) Emergency operation of fuel, hydraulic, electrical, and mechanical systems.
   (2) Emergency operation of instruments and controls.
   (3) Engine inoperative procedures.
   (4) Any other emergency procedures necessary for safety.

Sec. 135.85 Carriage of persons without compliance with the passenger-carrying provisions of this part.

The following persons may be carried aboard an aircraft without complying with the passenger-carrying requirements of this part:
   (a) A crewmember or other employee of the certificate holder.
   (b) A person necessary for the safe handling of animals on the aircraft.
   (c) A person necessary for the safe handling of hazardous materials (as defined in subchapter C of title 49 CFR).
   (d) A person performing duty as a security or honor guard accompanying a shipment made by or under the authority of the U.S. Government.
   (e) A military courier or a military route supervisor carried by a military cargo contract air carrier or commercial operator in operations under a military cargo contract, if that carriage is specifically authorized by the appropriate military service.
   (f) An authorized representative of the Administrator conducting an en route inspection.
   (g) A person, authorized by the Administrator, who is performing a duty connected with a cargo operation of the certificate holder.
   (h) A DOD commercial air carrier evaluator conducting an en route evaluation.

Sec. 135.87 Carriage of cargo including carry-on baggage.

No person may carry cargo, including carry-on baggage, in or on any aircraft unless--
(a) It is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft;
(b) It is secured by an approved means; or
(c) It is carried in accordance with each of the following:
   (1) For cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence.
   (2) It is packaged or covered to avoid possible injury to occupants.
   (3) It does not impose any load on seats or on the floor structure that exceeds the load limitation for those components.
   (4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.
   (5) It is not carried directly above seated occupants.
   (6) It is stowed in compliance with this section for takeoff and landing.
   (7) For cargo only operations, paragraph (c)(4) of this section does not apply if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aircraft if an emergency occurs.
(d) Each passenger seat under which baggage is stowed shall be fitted with a means to prevent articles of baggage stowed under it from sliding under crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing condition regulations under which the aircraft was type certificated.
(e) When cargo is carried in cargo compartments that are designed to require the physical entry of a crewmember to extinguish any fire that may occur during flight, the cargo must be loaded so as to allow a crewmember to effectively reach all parts of the compartment with the contents of a hand fire extinguisher.

Sec. 135.89 Pilot requirements: Use of oxygen.

(a) Unpressurized aircraft. Each pilot of an unpressurized aircraft shall use oxygen continuously when flying--
   (1) At altitudes above 10,000 feet through 12,000 feet MSL for that part of the flight at those altitudes that is of more than 30 minutes duration; and
   (2) Above 12,000 feet MSL.
(b) Pressurized aircraft. (1) Whenever a pressurized aircraft is operated with the cabin pressure altitude more than 10,000 feet MSL, each pilot shall comply with paragraph (a) of this section.
   (2) Whenever a pressurized aircraft is operated at altitudes above 25,000 feet MSL through 35,000 feet MSL, unless each pilot has an approved quick-donning type oxygen mask--
      (i) At least one pilot at the controls shall wear, secured and sealed, an oxygen mask that either supplies oxygen at all times or automatically supplies oxygen whenever the cabin pressure altitude exceeds 12,000 feet MSL; and
      (ii) During that flight, each other pilot on flight deck duty shall have an oxygen mask, connected to an oxygen supply, located so as to allow immediate placing of the mask on the pilot's face sealed and secured for use.
   (3) Whenever a pressurized aircraft is operated at altitudes above 35,000 feet MSL, at least one pilot at the controls shall wear, secured and sealed, an oxygen mask required by paragraph (b)(2)(i) of this section.
   (4) If one pilot leaves a pilot duty station of an aircraft when operating at altitudes above 25,000 feet MSL, the remaining pilot at the controls shall put on and use an approved oxygen mask until the other pilot returns to the pilot duty station of the aircraft.

Sec. 135.91 Oxygen for medical use by passengers.
(a) Except as provided in paragraphs (d) and (e) of this section, no certificate holder may allow
the carriage or operation of equipment for the storage, generation or dispensing of medical
oxygen unless the unit to be carried is constructed so that all valves, fittings, and gauges are
protected from damage during that carriage or operation and unless the following conditions are
met--

(1) The equipment must be--

(i) Of an approved type or in conformity with the manufacturing, packaging, marking, labeling,
and maintenance requirements of title 49 CFR parts 171, 172, and 173, except Sec. 173.24(a)(1);
(ii) When owned by the certificate holder, maintained under the certificate holder's approved
maintenance program;
(iii) Free of flammable contaminants on all exterior surfaces; and
(iv) Appropriately secured.

(2) When the oxygen is stored in the form of a liquid, the equipment must have been under the
certificate holder's approved maintenance program since its purchase new or since the storage
container was last purged.

(3) When the oxygen is stored in the form of a compressed gas as defined in title 49 CFR
173.300(a)--

(i) When owned by the certificate holder, it must be maintained
under its approved maintenance program; and
(ii) The pressure in any oxygen cylinder must not exceed the rated cylinder pressure.

(4) The pilot in command must be advised when the equipment is on board, and when it is
intended to be used.

(5) The equipment must be stowed, and each person using the equipment must be seated, so
as not to restrict access to or use of any required emergency or regular exit, or of the aisle in the
passenger compartment.

(b) No person may smoke and no certificate holder may allow any person to smoke within 10
feet of oxygen storage and dispensing equipment carried under paragraph (a) of this section.

(c) No certificate holder may allow any person other than a person trained in the use of medical
oxygen equipment to connect or disconnect oxygen bottles or any other ancillary component
while any passenger is aboard the aircraft.

(d) Paragraph (a)(1)(i) of this section does not apply when that equipment is furnished by a
professional or medical emergency service for use on board an aircraft in a medical emergency
when no other practical means of transportation (including any other properly equipped certificate
holder) is reasonably available and the person carried under the medical emergency is
accompanied by a person trained in the use of medical oxygen.

(e) Each certificate holder who, under the authority of paragraph (d) of this section, deviates
from paragraph (a)(1)(i) of this section under a medical emergency shall, within 10 days,
excluding Saturdays, Sundays, and Federal holidays, after the deviation, send to the certificate-
holding district office a complete report of the operation involved, including a description of the
deviation and the reasons for it.

Sec. 135.93  Autopilot: Minimum altitudes for use.

(a) Except as provided in paragraphs (b), (c), (d), and (e) of this section, no person may use
an autopilot at an altitude above the terrain which is less than 500 feet or less than twice
the maximum altitude loss specified in the approved Aircraft Flight Manual or equivalent for a
malfunction of the autopilot, whichever is higher.

(b) When using an instrument approach facility other than ILS, no person may use an
autopilot at an altitude above the terrain that is less than 50 feet below the approved minimum
descent altitude for that procedure, or less than twice the maximum loss specified in the
approved Airplane Flight Manual or equivalent for a malfunction of the autopilot under
approach conditions, whichever is higher.

(c) For ILS approaches, when reported weather conditions are less than the basic weather
conditions in Sec. 91.155 of this chapter, no person may use an autopilot with an approach
coupler at an altitude above the terrain that is less than 50 feet above the terrain, or the maximum altitude loss specified in the approved Airplane Flight Manual or equivalent for the malfunction of the autopilot with approach coupler, whichever is higher.

(d) Without regard to paragraph (a), (b), or (c) of this section, the Administrator may issue operations specifications to allow the use, to touchdown, of an approved flight control guidance system with automatic capability, if--

(1) The system does not contain any altitude loss (above zero) specified in the approved Aircraft Flight Manual or equivalent for malfunction of the autopilot with approach coupler; and

(2) The Administrator finds that the use of the system to touchdown will not otherwise adversely affect the safety standards of this section.

(e) Notwithstanding paragraph (a) of this section, the Administrator issues operations specifications to allow the use of an approved autopilot system with automatic capability during the takeoff and initial climb phase of flight provided:

(1) The Airplane Flight Manual specifies a minimum altitude engagement certification restriction;

(2) The system is not engaged prior to the minimum engagement certification restriction specified in the Airplane Flight Manual, or an altitude specified by the Administrator, whichever is higher; and

(3) The Administrator finds that the use of the system will not otherwise affect the safety standards required by this section.

(f) This section does not apply to operations conducted in rotorcraft.

Sec. 135.95 Airmen: Limitations on use of services.

No certificate holder may use the services of any person as an airman unless the person performing those services--

(a) Holds an appropriate and current airman certificate; and

(b) Is qualified, under this chapter, for the operation for which the person is to be used.

Sec. 135.97 Aircraft and facilities for recent flight experience.

Each certificate holder shall provide aircraft and facilities to enable each of its pilots to maintain and demonstrate the pilot's ability to conduct all operations for which the pilot is authorized.

Sec. 135.99 Composition of flight crew.

(a) No certificate holder may operate an aircraft with less than the minimum flight crew specified in the aircraft operating limitations or the Aircraft Flight Manual for that aircraft and required by this part for the kind of operation being conducted.

(b) No certificate holder may operate an aircraft without a second in command if that aircraft has a passenger seating configuration, excluding any pilot seat, of ten seats or more.

Sec. 135.100 Flight crewmember duties.

(a) No certificate holder shall require, nor may any flight crewmember perform, any duties during a critical phase of flight except those duties required for the safe operation of the aircraft. Duties such as company required calls made for such nonsafety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air carrier or pointing out sights of interest, and filling out company payroll and related records are not required for the safe operation of the aircraft.

(b) No flight crewmember may engage in, nor may any pilot in command permit, any activity during a critical phase of flight which could distract any flight crewmember from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties.
Activities such as eating meals, engaging in nonessential conversations within the cockpit and nonessential communications between the cabin and cockpit crews, and reading publications not related to the proper conduct of the flight are not required for the safe operation of the aircraft.

(c) For the purposes of this section, critical phases of flight includes all ground operations involving taxi, takeoff and landing, and all other flight operations conducted below 10,000 feet, except cruise flight.

Note: Taxi is defined as “movement of an airplane under its own power on the surface of an airport.”

Sec. 135.101 Second in command required under IFR.

Except as provided in Sec. 135.105, no person may operate an aircraft carrying passengers under IFR unless there is a second in command in the aircraft.

Sec. 135.105 Exception to second in command requirement: Approval for use of autopilot system.

(a) Except as provided in Sec. Sec. 135.99 and 135.111, unless two pilots are required by this chapter for operations under VFR, a person may operate an aircraft without a second in command, if it is equipped with an operative approved autopilot system and the use of that system is authorized by appropriate operations specifications. No certificate holder may use any person, nor may any person serve, as a pilot in command under this section of an aircraft operated in a commuter operation, as defined in part 119 of this chapter unless that person has at least 100 hours pilot in command flight time in the make and model of aircraft to be flown and has met all other applicable requirements of this part.

(b) The certificate holder may apply for an amendment of its operations specifications to authorize the use of an autopilot system in place of a second in command.

(c) The Administrator issues an amendment to the operations specifications authorizing the use of an autopilot system, in place of a second in command, if--

(1) The autopilot is capable of operating the aircraft controls to maintain flight and maneuver it about the three axes; and

(2) The certificate holder shows, to the satisfaction of the Administrator, that operations using the autopilot system can be conducted safely and in compliance with this part.

The amendment contains any conditions or limitations on the use of the autopilot system that the Administrator determines are needed in the interest of safety.

Sec. 135.107 Flight attendant crewmember requirement.

No certificate holder may operate an aircraft that has a passenger seating configuration, excluding any pilot seat, of more than 19 unless there is a flight attendant crewmember on board the aircraft.

Sec. 135.109 Pilot in command or second in command: Designation required.

(a) Each certificate holder shall designate a--

(1) Pilot in command for each flight; and

(2) Second in command for each flight requiring two pilots.

(b) The pilot in command, as designated by the certificate holder, shall remain the pilot in command at all times during that flight.

Sec. 135.111 Second in command required in Category II operations.

No person may operate an aircraft in a Category II operation unless there is a second in command of the aircraft.
Sec. 135.113 Passenger occupancy of pilot seat.

No certificate holder may operate an aircraft type certificated after October 15, 1971, that has a passenger seating configuration, excluding any pilot seat, of more than eight seats if any person other than the pilot in command, a second in command, a company check airman, or an authorized representative of the Administrator, the National Transportation Safety Board, or the United States Postal Service occupies a pilot seat.

Sec. 135.115 Manipulation of controls.

No pilot in command may allow any person to manipulate the flight controls of an aircraft during flight conducted under this part, nor may any person manipulate the controls during such flight unless that person is--
(a) A pilot employed by the certificate holder and qualified in the aircraft; or
(b) An authorized safety representative of the Administrator who has the permission of the pilot in command, is qualified in the aircraft, and is checking flight operations.

Sec. 135.117 Briefing of passengers before flight.

(a) Before each takeoff each pilot in command of an aircraft carrying passengers shall ensure that all passengers have been orally briefed on--
(1) Smoking. Each passenger shall be briefed on when, where, and under what conditions smoking is prohibited (including, but not limited to, any applicable requirements of part 252 of this title). This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with the lighted passenger information signs (if such signs are required), posted placards, areas designated for safety purposes as no smoking areas, and crewmember instructions with regard to these items. The briefing shall also include a statement (if the aircraft is equipped with a lavatory) that Federal law prohibits: tampering with, disabling, or destroying any smoke detector installed in an aircraft lavatory; smoking in lavatories; and, when applicable, smoking in passenger compartments.
(2) The use of safety belts, including instructions on how to fasten and unfasten the safety belts. Each passenger shall be briefed on when, where, and under what conditions the safety belt must be fastened about that passenger. This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with lighted passenger information signs and crewmember instructions concerning the use of safety belts.
(3) The placement of seat backs in an upright position before takeoff and landing;
(4) Location and means for opening the passenger entry door and emergency exits;
(5) Location of survival equipment;
(6) If the flight involves extended overwater operation, ditching procedures and the use of required flotation equipment;
(7) If the flight involves operations above 12,000 feet MSL, the normal and emergency use of oxygen; and
(8) Location and operation of fire extinguishers.
(b) Before each takeoff the pilot in command shall ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft.
(c) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a crewmember.
(d) Notwithstanding the provisions of paragraph (c) of this section, for aircraft certificated to carry 19 passengers or less, the oral briefing required by paragraph (a) of this section shall be given by the pilot in command, a crewmember, or other qualified person designated by the certificate holder and approved by the Administrator.
(e) The oral briefing required by paragraph (a) of this section must be supplemented by printed cards which must be carried in the aircraft in locations convenient for the use of each passenger. The cards must--

(1) Be appropriate for the aircraft on which they are to be used;
(2) Contain a diagram of, and method of operating, the emergency exits;
(3) Contain other instructions necessary for the use of emergency equipment on board the aircraft; and
(4) No later than June 12, 2005, for scheduled Commuter passenger-carrying flights, include the sentence, "Final assembly of this aircraft was completed in [INSERT NAME OF COUNTRY]."

(f) The briefing required by paragraph (a) may be delivered by means of an approved recording playback device that is audible to each passenger under normal noise levels.

Sec. 135.119 Prohibition against carriage of weapons.

No person may, while on board an aircraft being operated by a certificate holder, carry on or about that person a deadly or dangerous weapon, either concealed or unconcealed. This section does not apply to--

(a) Officials or employees of a municipality or a State, or of the United States, who are authorized to carry arms; or
(b) Crewmembers and other persons authorized by the certificate holder to carry arms.

Sec. 135.120 Prohibition on interference with crewmembers.

No person may assault, threaten, intimidate, or interfere with a crewmember in the performance of the crewmember's duties aboard an aircraft being operated under this part.

Sec. 135.121 Alcoholic beverages.

(a) No person may drink any alcoholic beverage aboard an aircraft unless the certificate holder operating the aircraft has served that beverage.
(b) No certificate holder may serve any alcoholic beverage to any person aboard its aircraft if that person appears to be intoxicated.
(c) No certificate holder may allow any person to board any of its aircraft if that person appears to be intoxicated.

Sec. 135.122 Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing.

(a) No certificate holder may move an aircraft on the surface, take off, or land when any food, beverage, or tableware furnished by the certificate holder is located at any passenger seat.
(b) No certificate holder may move an aircraft on the surface, take off, or land unless each food and beverage tray and seat back tray table is secured in its stowed position.
(c) No certificate holder may permit an aircraft to move on the surface, take off, or land unless each passenger serving cart is secured in its stowed position.
(d) Each passenger shall comply with instructions given by a crewmember with regard to compliance with this section.

Sec. 135.123 Emergency and emergency evacuation duties.

(a) Each certificate holder shall assign to each required crewmember for each type of aircraft as appropriate, the necessary functions to be performed in an emergency or in a situation requiring emergency evacuation. The certificate holder shall ensure that those functions can be practicably accomplished, and will meet any reasonably anticipated emergency including incapacitation of individual crewmembers or their inability to reach the passenger cabin because of shifting cargo in combination cargo-passenger aircraft.
(b) The certificate holder shall describe in the manual required under Sec. 135.21 the functions of each category

Sec. 135.125 Aircraft security.

Certificate holders conducting operators conducting operations under this part must comply with the applicable security requirements in 49 CFR chapter XII.

Sec. 135.127 Passenger information requirements and smoking prohibitions.

(a) No person may conduct a scheduled flight on which smoking is prohibited by part 252 of this title unless the "No Smoking" passenger information signs are lighted during the entire flight, or one or more "No Smoking" placards meeting the requirements of Sec. 25.1541 of this chapter are posted during the entire flight. If both the lighted signs and the placards are used, the signs must remain lighted during the entire flight segment.

(b) No person may smoke while a "No Smoking" sign is lighted or while "No Smoking" placards are posted, except as follows:

(1) On-demand operations. The pilot in command of an aircraft engaged in an on-demand operation may authorize smoking on the flight deck (if it is physically separated from any passenger compartment), except in any of the following situations:
   (i) During aircraft movement on the surface or during takeoff or landing;
   (ii) During scheduled passenger-carrying public charter operations conducted under part 380 of this title;
   (iii) During on-demand operations conducted interstate that meet paragraph (2) of the definition "On-demand operation" in Sec. 119.3 of this chapter, unless permitted under paragraph (b)(2) of this section; or
   (iv) During any operation where smoking is prohibited by part 252 of this title or by international agreement.

(2) Certain intrastate commuter operations and certain intrastate on-demand operations. Except during aircraft movement on the surface or during takeoff or landing, a pilot in command of an aircraft engaged in a commuter operation or an on-demand operation that meets paragraph (2) of the definition of "On-demand operation" in Sec. 119.3 of this chapter may authorize smoking on the flight deck (if it is physically separated from the passenger compartment, if any) if—
   (i) Smoking on the flight deck is not otherwise prohibited by part 252 of this title;
   (ii) The flight is conducted entirely within the same State of the United States (a flight from one place in Hawaii to another place in Hawaii through the airspace over a place outside Hawaii is not entirely within the same State); and
   (iii) The aircraft is either not turbojet-powered or the aircraft is not capable of carrying at least 30 passengers.

(c) No person may smoke in any aircraft lavatory.

(d) No person may operate an aircraft with a lavatory equipped with a smoke detector unless there is in that lavatory a sign or placard which reads: "Federal law provides for a penalty of up to $2,000 for tampering with the smoke detector installed in this lavatory."

(e) No person may tamper with, disable, or destroy any smoke detector installed in any aircraft lavatory.

(f) On flight segments other than those described in paragraph (a) of this section, the "No Smoking" sign required by Sec. 135.177(a)(3) of this part must be turned on during any movement of the aircraft on the surface, for each takeoff or landing, and at any other time considered necessary by the pilot in command.

(g) The passenger information requirements prescribed in Sec. 91.517 (b) and (d) of this chapter are in addition to the requirements prescribed in this section.

(h) Each passenger shall comply with instructions given him or her by crewmembers regarding compliance with paragraphs (b), (c), and (e) of this section.

Sec. 135.128 Use of safety belts and child restraint systems.
(a) Except as provided in this paragraph, each person on board an aircraft operated under this part shall occupy an approved seat or berth with a separate safety belt properly secured about him or her during movement on the surface, takeoff, and landing. For seaplane and float equipped rotorcraft operations during movement on the surface, the person pushing off the seaplane or rotorcraft from the dock and the person mooring the seaplane or rotorcraft at the dock are excepted from the preceding seating and safety belt requirements. A safety belt provided for the occupant of a seat may not be used by more than one person who has reached his or her second birthday. Notwithstanding the preceding requirements, a child may:

(1) Be held by an adult who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or

(2) Notwithstanding any other requirement of this chapter, occupy an approved child restraint system furnished by the certificate holder or one of the persons described in paragraph (a)(2)(i) of this section, provided:

(i) The child is accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight;

(ii) Except as provided in paragraph (a)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:

(A) Seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear the label: "This child restraint system conforms to all applicable Federal motor vehicle safety standards";

(B) Seats manufactured to U.S. standards on or after February 26, 1985, must bear two labels:

(1) "This child restraint system conforms to all applicable Federal motor vehicle safety standards"; and

(2) "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT" in red lettering;

(C) Seats that do not qualify under paragraphs (a)(2)(ii)(A) and (a)(2)(ii)(B) of this section must bear a label or markings showing:

(1) That the seat was approved by a foreign government;

(2) That the seat was manufactured under the standards of the United Nations;

(3) That the seat or child restraint device furnished by the certificate holder was approved by the FAA through Type Certificate, Supplemental Type Certificate, or applicable Technical Standard Order.

(D) Except as provided in Sec. 135.128(a)(2)(ii)(C)(3), notwithstanding any other provision of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle Safety Standard No. 213 (49 CFR 571.213)), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft; and

(iii) The certificate holder complies with the following requirements:

(A) The restraint system must be properly secured to an approved forward-facing seat or berth;

(B) The child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and

(C) The restraint system must bear the appropriate label(s).

(b) Except as provided in paragraph (b)(3) of this section, the following prohibitions apply to certificate holders:

(1) No certificate holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system, or a lap held child restraint system during take off, landing, or movement on the surface.

(2) Except as required in paragraph (b)(1) of this section, no certificate holder may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant provided:

(i) The child holds a ticket for an approved seat or berth or such seat or berth is otherwise made available by the certificate holder for the child's use;

(ii) The requirements of paragraph (a)(2)(i) of this section are met;

(iii) The requirements of paragraph (a)(2)(ii) of this section are met; and

(iv) The child restraint system has one or more of the labels described in paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(C) of this section.
This section does not prohibit the certificate holder from providing child restraint systems authorized by this or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

Sec. 135.129 Exit seating. (does not apply to 310)

(a)(1) Applicability. This section applies to all certificate holders operating under this part, **except for on-demand operations with aircraft having 19 or fewer passenger seats** and commuter operations with aircraft having 9 or fewer passenger seats.

(2) Duty to make determination of suitability. Each certificate holder shall determine, to the extent necessary to perform the applicable functions of paragraph (d) of this section, the suitability of each person it permits to occupy an exit seat. For the purpose of this section--

(i) Exit seat means--

(A) Each seat having direct access to an exit; and

(B) Each seat in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit.

(ii) A passenger seat having direct access means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

(3) Persons designated to make determination. Each certificate holder shall make the passenger exit seating determinations required by this paragraph in a non-discriminatory manner consistent with the requirements of this section, by persons designated in the certificate holder's required operations manual.

(4) Submission of designation for approval. Each certificate holder shall designate the exit seats for each passenger seating configuration in its fleet in accordance with the definitions in this paragraph and submit those designations for approval as part of the procedures required to be submitted for approval under paragraphs (n) and (p) of this section.

(b) No certificate holder may seat a person in a seat affected by this section if the certificate holder determines that it is likely that the person would be unable to perform one or more of the applicable functions listed in paragraph (d) of this section because--

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:

(i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(ii) To grasp and push, pull, turn, or otherwise manipulate those mechanisms;

(iii) To push, shove, pull, or otherwise open emergency exits;

(iv) To lift out, hold, deposit on nearby seats, or maneuver over the seatbacks to the next row objects the size and weight of over-wing window exit doors;

(v) To remove obstructions of size and weight similar over-wing exit doors;

(vi) To reach the emergency exit expeditiously;

(vii) To maintain balance while removing obstructions;

(viii) To exit expeditiously;

(ix) To stabilize an escape slide after deployment; or

(x) To assist others in getting off an escape slide;

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed in paragraph (d) of this section without the assistance of an adult companion, parent, or other relative;

(3) The person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the certificate holder in printed or graphic form or the ability to understand oral crew commands.

(4) The person lacks sufficient visual capacity to perform one or more of the applicable functions in paragraph (d) of this section without the assistance of visual aids beyond contact lenses or eyeglasses;

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by flight attendants, without assistance beyond a hearing aid;

(6) The person lacks the ability adequately to impart information orally to other passengers; or,

(7) The person has:
(i) A condition or responsibilities, such as caring for small children, that might prevent the
person from performing one or more of the applicable functions listed in paragraph (d) of this
section; or (ii) A condition that might cause the person harm if he or she performs one or more
of the applicable functions listed in paragraph (d) of this section.

(c) Each passenger shall comply with instructions given by a crewmember or other authorized
employee of the certificate holder implementing exit seating restrictions established in
accordance with this section.

(d) Each certificate holder shall include on passenger information cards, presented in the
language in which briefings and oral commands are given by the crew, at each exit seat affected
by this section, information that, in the event of an emergency in which a crewmember is not
available to assist, a passenger occupying an exit seat may use if called upon to perform the
following functions:

(1) Locate the emergency exit;
(2) Recognize the emergency exit opening mechanism;
(3) Comprehend the instructions for operating the emergency exit;
(4) Operate the emergency exit;
(5) Assess whether opening the emergency exit will increase the hazards to which passengers
may be exposed;
(6) Follow oral directions and hand signals given by a crewmember;
(7) Stow or secure the emergency exit door so that it will not
impede use of the exit;
(8) Assess the condition of an escape slide, activate the slide, and stabilize the slide after
deployment to assist others in getting off the slide;
(9) Pass expeditiously through the emergency exit; and
(10) Assess, select, and follow a safe path away from the emergency exit.

(e) Each certificate holder shall include on passenger information cards, at each exit seat--
(1) In the primary language in which emergency commands are given by the crew, the
selection criteria set forth in paragraph (b) of this section, and a request that a passenger identify
himself or herself to allow reseating if he or she--
(i) Cannot meet the selection criteria set forth in paragraph (b) of this section;
(ii) Has a nondiscernible condition that will prevent him or her from performing the applicable
functions listed in paragraph (d) of this section;
(iii) May suffer bodily harm as the result of performing one or more of those functions; or
(iv) Does not wish to perform those functions; and,
(2) In each language used by the certificate holder for passenger information cards, a request
that a passenger identify himself or herself to allow reseating if he or she lacks the ability to read,
speak, or understand the language or the graphic form in which instructions required by this
section and related to emergency evacuation are provided by the certificate holder, or the ability
to understand the specified language in which crew commands will be given in an emergency;
(3) May suffer bodily harm as the result of performing one or more of those functions; or,
(4) Does not wish to perform those functions.

A certificate holder shall not require the passenger to disclose his or her reason for needing
reseating.

(f) Each certificate holder shall make available for inspection by the public at all passenger
loading gates and ticket counters at each airport where it conducts passenger operations, written
procedures established for making determinations in regard to exit row seating.

(g) No certificate holder may allow taxi or pushback unless at least one required crewmember
has verified that no exit seat is occupied by a person the crewmember determines is likely to be
unable to perform the applicable functions listed in paragraph (d) of this section.

(h) Each certificate holder shall include in its passenger briefings a reference to the passenger
information cards, required by paragraphs (d) and (e), the selection criteria set forth in paragraph
(b), and the functions to be performed, set forth in paragraph (d) of this section.

(i) Each certificate holder shall include in its passenger briefings a request that a passenger
identify himself or herself to allow reseating if he or she--
(1) Cannot meet the selection criteria set forth in paragraph (b) of this section;
(2) Has a nondiscernible condition that will prevent him or her from

...
performing the applicable functions listed in paragraph (d) of this section;
(3) May suffer bodily harm as the result of performing one or more of those functions; or,
(4) Does not wish to perform those functions.

A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(j) [Reserved]

(k) In the event a certificate holder determines in accordance with this section that it is likely that a passenger assigned to an exit seat would be unable to perform the functions listed in paragraph (d) of this section or a passenger requests a non-exit seat, the certificate holder shall expeditiously relocate the passenger to a non-exit seat.

(l) In the event of full booking in the non-exit seats and if necessary to accommodate a passenger being relocated from an exit seat, the certificate holder shall move a passenger who is willing and able to assume the evacuation functions that may be required, to an exit seat.

(m) A certificate holder may deny transportation to any passenger under this section only because--
(1) The passenger refuses to comply with instructions given by a crewmember or other authorized employee of the certificate holder implementing exit seating restrictions established in accordance with this section, or
(2) The only seat that will physically accommodate the person's handicap is an exit seat.

(n) In order to comply with this section certificate holders shall--
(1) Establish procedures that address:
   (i) The criteria listed in paragraph (b) of this section;
   (ii) The functions listed in paragraph (d) of this section;
   (iii) The requirements for airport information, passenger information cards, crewmember verification of appropriate seating in exit seats, passenger briefings, seat assignments, and denial of transportation as set forth in this section;
   (iv) How to resolve disputes arising from implementation of this section, including identification of the certificate holder employee on the airport to whom complaints should be addressed for resolution; and,
   (2) Submit their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the certificate-holding district office.

(o) Certificate holders shall assign seats prior to boarding consistent with the criteria listed in paragraph (b) and the functions listed in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (n) of this section will not become effective until final approval is granted by the Director, Flight Standards Service, Washington, DC. Approval will be based solely upon the safety aspects of the certificate holder's procedures.

Subpart C_Aircraft and Equipment

Sec. 135.141 Applicability.

This subpart prescribes aircraft and equipment requirements for Operations under this part. The requirements of this subpart are in addition to the aircraft and equipment requirements of part 91 of this chapter. However, this part does not require the duplication of any equipment required by this chapter.

Sec. 135.143 General requirements.
(a) No person may operate an aircraft under this part unless that aircraft and its equipment meet the applicable regulations of this chapter.

(b) Except as provided in Sec. 135.179, no person may operate an aircraft under this part unless the required instruments and equipment in it have been approved and are in an operable condition.

(c) ATC transponder equipment installed within the time periods indicated below must meet the performance and environmental requirements of the following TSO's:

1. Through January 1, 1992: (i) Any class of TSO-C74b or any class of TSO-C74c as appropriate, provided that the equipment was manufactured before January 1, 1990; or
2. After January 1, 1992: The appropriate class of TSO-C112 (Mode S).

Sec. 135.144 Portable electronic devices.

(a) Except as provided in paragraph (b) of this section, no person may operate, nor may any operator or pilot in command of an aircraft allow the operation of, any portable electronic device on any of the following U.S.-registered civil aircraft operating under this part.

(b) Paragraph (a) of this section does not apply to:

1. Portable voice recorders;
2. Hearing aids;
3. Heart pacemakers;
4. Electric shavers; or
5. Any other portable electronic device that the part 119 certificate holder has determined will not cause interference with the navigation or communication system of the aircraft on which it is to be used.

(c) The determination required by paragraph (b)(5) of this section shall be made by that part 119 certificate holder operating the aircraft on which the particular device is to be used.

Sec. 135.145 Aircraft proving and validation tests.

(a) No certificate holder may operate an aircraft, other than a turbojet aircraft, for which two pilots are required by this chapter for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including:

1. Five hours of night time, if night flights are to be authorized;
2. Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
3. Entry into a representative number of en route airports as determined by the Administrator.

(b) No certificate holder may operate a turbojet airplane if it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including:

1. Five hours of night time, if night flights are to be authorized;
2. Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
3. Entry into a representative number of en route airports as determined by the Administrator.

(c) No certificate holder may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the Administrator to observe the tests. However, pilot flight training may be conducted during the proving tests.
(d) Validation testing is required to determine that a certificate holder is capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:

1. The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part.
2. Operations outside U.S. airspace.
3. Class II navigation authorizations.
4. Special performance or operational authorizations.

(e) Validation tests must be accomplished by test methods acceptable to the Administrator. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.

(f) Proving tests and validation tests may be conducted simultaneously when appropriate.

(g) The Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary.

Sec. 135.145 Aircraft proving and validation tests.

(a) No certificate holder may operate an aircraft, other than a turbojet aircraft, for which two pilots are required by this chapter for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including:

1. Five hours of night time, if night flights are to be authorized;
2. Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
3. Entry into a representative number of en route airports as determined by the Administrator.

(b) No certificate holder may operate a turbojet airplane if it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including:

1. Five hours of night time, if night flights are to be authorized;
2. Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
3. Entry into a representative number of en route airports as determined by the Administrator.

(c) No certificate holder may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the Administrator to observe the tests. However, pilot flight training may be conducted during the proving tests.

(d) Validation testing is required to determine that a certificate holder is capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:

1. The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part.
2. Operations outside U.S. airspace.
3. Class II navigation authorizations.
4. Special performance or operational authorizations.

(e) Validation tests must be accomplished by test methods acceptable to the Administrator. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.

(f) Proving tests and validation tests may be conducted simultaneously when appropriate.

(g) The Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary.

Sec. 135.147 Dual controls required.
No person may operate an aircraft in operations requiring two pilots unless it is equipped with functioning dual controls. However, if the aircraft type certification operating limitations do not require two pilots, a throwover control wheel may be used in place of two control wheels.

**Sec. 135.149 Equipment requirements: General.**

No person may operate an aircraft unless it is equipped with--

(a) A sensitive altimeter that is adjustable for barometric pressure;

(b) Heating or deicing equipment for each carburetor or, for a pressure carburetor, an alternate air source;

(c) For turbojet airplanes, in addition to two gyroscopic bank-and-pitch indicators (artificial horizons) for use at the pilot stations, a third indicator that is installed in accordance with the instrument requirements prescribed in Sec. 121.305(j) of this chapter.

(d) [Reserved]

(e) For turbine powered aircraft, any other equipment as the Administrator may require.

**Sec. 135.150 Public address and crewmember interphone systems.**

No person may operate an aircraft having a passenger seating configuration, excluding any pilot seat, of more than 19 unless it is equipped with--

(a) A public address system which--

(1) Is capable of operation independent of the crewmember interphone system required by paragraph (b) of this section, except for handsets, headsets, microphones, selector switches, and signaling devices;

(2) Is approved in accordance with Sec. 21.305 of this chapter;

(3) Is accessible for immediate use from each of two flight crewmember stations in the pilot compartment;

(4) For each required floor-level passenger emergency exit which has an adjacent flight attendant seat, has 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;

(5) Is capable of operation within 10 seconds by a flight attendant at each of those stations in the passenger compartment from which its use is accessible;

(6) Is audible at all passenger seats, lavatories, and flight attendant seats and work stations; and

(7) For transport category airplanes manufactured on or after November 27, 1990, meets the requirements of Sec. 25.1423 of this chapter.

(b) A crewmember interphone system which--

(1) Is capable of operation independent of the public address system required by paragraph (a) of this section, except for handsets, headsets, microphones, selector switches, and signaling devices;

(2) Is approved in accordance with Sec. 21.305 of this chapter;

(3) Provides a means of two-way communication between the pilot compartment and--

(i) Each passenger compartment; and

(ii) Each galley located on other than the main passenger deck level;

(4) Is accessible for immediate use from each of two flight crewmember stations in the pilot compartment;

(5) Is accessible for use from at least one normal flight attendant station in each passenger compartment;

(6) Is capable of operation within 10 seconds by a flight attendant at each of those stations in each passenger compartment from which its use is accessible; and

(7) For large turbojet-powered airplanes--

(i) Is accessible for use at enough flight attendant stations so that all floor-level emergency exits (or entryways to those exits in the case of exits located within galleys) in each passenger compartment are observable from one or more of those stations so equipped;

(ii) Has an alerting system incorporating aural or visual signals.
for use by flight crewmembers to alert flight attendants and for use by flight attendants to alert
flight crewmembers;
   (iii) For the alerting system required by paragraph (b)(7)(ii) of this section, has a means for the
recipient of a call to determine whether it is a normal call or an emergency call; and
   (iv) When the airplane is on the ground, provides a means of two-way communication between
ground personnel and either of at least two flight crewmembers in the pilot compartment. The
interphone system station for use by ground personnel must be so located that personnel using
the system may avoid visible detection from within the airplane.

Sec. 135.155 Fire extinguishers: Passenger-carrying aircraft.

   No person may operate an aircraft carrying passengers unless it is equipped with hand fire
extinguishers of an approved type for use in crew and passenger compartments as follows--
   (a) The type and quantity of extinguishing agent must be suitable for the kinds of fires likely to
occur;
   (b) At least one hand fire extinguisher must be provided and conveniently located on the flight
deck for use by the flight crew; and
   (c) At least one hand fire extinguisher must be conveniently located in the passenger
compartment of each aircraft having a passenger seating configuration, excluding any pilot seat,
of at least 10 seats but less than 31 seats.

Sec. 135.157 Oxygen equipment requirements.

   (a) Unpressurized aircraft. No person may operate an unpressurized aircraft at altitudes
prescribed in this section unless it is equipped with enough oxygen dispensers and oxygen to
supply the pilots under Sec. 135.89(a) and to supply, when flying--
      (1) At altitudes above 10,000 feet through 15,000 feet MSL, oxygen to at least 10 percent of
the occupants of the aircraft, other than the pilots, for that part of the flight at those altitudes that
is of more than 30 minutes duration; and
      (2) Above 15,000 feet MSL, oxygen to each occupant of the aircraft
other than the pilots.
   (b) Pressurized aircraft. No person may operate a pressurized aircraft--
      (1) At altitudes above 25,000 feet MSL, unless at least a 10-minute supply of supplemental
oxygen is available for each occupant of the aircraft, other than the pilots, for use when a descent
is necessary due to loss of cabin pressurization; and
      (2) Unless it is equipped with enough oxygen dispensers and oxygen to comply with paragraph
(a) of this section whenever the cabin pressure altitude exceeds 10,000 feet MSL and, if the cabin
pressurization fails, to comply with Sec. 135.89 (a) or to provide a 2-hour supply for each pilot,
whichever is greater, and to supply when flying--
         (i) At altitudes above 10,000 feet through 15,000 feet MSL, oxygen to at least 10 percent of
the occupants of the aircraft, other than the pilots, for that part of the flight at those altitudes that is
of more than 30 minutes duration; and
         (ii) Above 15,000 feet MSL, oxygen to each occupant of the aircraft, other than the pilots, for
one hour unless, at all times during flight above that altitude, the aircraft can safely descend to
15,000 feet MSL within four minutes, in which case only a 30-minute supply is required.
   (c) The equipment required by this section must have a means--
      (1) To enable the pilots to readily determine, in flight, the amount of oxygen available in each
source of supply and whether the oxygen is being delivered to the dispensing units; or
      (2) In the case of individual dispensing units, to enable each user to make those
determinations with respect to that person’s oxygen supply and delivery; and
      (3) To allow the pilots to use undiluted oxygen at their discretion at altitudes above 25,000 feet
MSL.

Sec. 135.158 Pitot heat indication systems.
(a) Except as provided in paragraph (b) of this section, after April 12, 1981, no person may operate a transport category airplane equipped with a flight instrument pitot heating system unless the airplane is also equipped with an operable pitot heat indication system that complies with Sec. 25.1326 of this chapter in effect on April 12, 1978.

(b) A certificate holder may obtain an extension of the April 12, 1981, compliance date specified in paragraph (a) of this section, but not beyond April 12, 1983, from the Director, Flight Standards Service if the certificate holder--

(1) Shows that due to circumstances beyond its control it cannot comply by the specified compliance date; and

(2) Submits by the specified compliance date a schedule for compliance, acceptable to the Director, indicating that compliance will be achieved at the earliest practicable date.

Sec. 135.159 Equipment requirements: Carrying passengers under VFR at night or under VFR over-the-top conditions.

No person may operate an aircraft carrying passengers under VFR at night or under VFR over-the-top, unless it is equipped with--

(a) A gyroscopic rate-of-turn indicator except on the following aircraft:

(1) Airplanes with a third attitude instrument system usable through flight attitudes of 360 degrees of pitch-and-roll and installed in accordance with the instrument requirements prescribed in Sec. 121.305(j) of this chapter.

(2) Helicopters with a third attitude instrument system usable through flight attitudes of <PLUS-MINUS80 degrees of pitch and <PLUS-MINUS120 degrees of roll and installed in accordance with Sec. 29.1303(g) of this chapter.

(3) Helicopters with a maximum certificated takeoff weight of 6,000 pounds or less.

(b) A slip skid indicator.

(c) A gyroscopic bank-and-pitch indicator.

(d) A gyroscopic direction indicator.

(e) A generator or generators able to supply all probable combinations of continuous in-flight electrical loads for required equipment and for recharging the battery.

(f) For night flights--

(1) An anticollision light system;

(2) Instrument lights to make all instruments, switches, and gauges easily readable, the direct rays of which are shielded from the pilots' eyes; and

(3) A flashlight having at least two size "D" cells or equivalent.

(g) For the purpose of paragraph (e) of this section, a continuous in-flight electrical load includes one that draws current continuously during flight, such as radio equipment and electrically driven instruments and lights, but does not include occasional intermittent loads.

(h) Notwithstanding provisions of paragraphs (b), (c), and (d), helicopters having a maximum certificated takeoff weight of 6,000 pounds or less may be operated until January 6, 1988, under visual flight rules at night without a slip skid indicator, a gyroscopic bank-and-pitch indicator, or a gyroscopic direction indicator.

Sec. 135.161 Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over-the-top.

(a) No person may operate an aircraft carrying passengers under VFR at night, or under VFR over-the-top, unless it has two-way radio communications equipment able, at least in flight, to transmit to, and receive from, ground facilities 25 miles away.

(b) No person may operate an aircraft carrying passengers under VFR over-the-top unless it has radio navigational equipment able to receive radio signals from the ground facilities to be used.
(c) No person may operate an airplane carrying passengers under VFR at night unless it has radio navigational equipment able to receive radio signals from the ground facilities to be used.

Sec. 135.161 Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over-the-top.

(a) No person may operate an aircraft carrying passengers under VFR at night, or under VFR over-the-top, unless it has two-way radio communications equipment able, at least in flight, to transmit to, and receive from, ground facilities 25 miles away.

(b) No person may operate an aircraft carrying passengers under VFR over-the-top unless it has radio navigational equipment able to receive radio signals from the ground facilities to be used.

(c) No person may operate an airplane carrying passengers under VFR at night unless it has radio navigational equipment able to receive radio signals from the ground facilities to be used.

Sec. 135.163 Equipment requirements: Aircraft carrying passengers under IFR.

No person may operate an aircraft under IFR, carrying passengers, unless it has--
(a) A vertical speed indicator;
(b) A free-air temperature indicator;
(c) A heated pitot tube for each airspeed indicator;
(d) A power failure warning device or vacuum indicator to show the power available for gyroscopic instruments from each power source;
(e) An alternate source of static pressure for the altimeter and the airspeed and vertical speed indicators;
(f) For a single-engine aircraft:
(1) Two independent electrical power generating sources each of which is able to supply all probable combinations of continuous inflight electrical loads for required instruments and equipment; or
(2) In addition to the primary electrical power generating source, a standby battery or an alternate source of electric power that is capable of supplying 150% of the electrical loads of all required instruments and equipment necessary for safe emergency operation of the aircraft for at least one hour;
(g) For multi-engine aircraft, at least two generators or alternators each of which is on a separate engine, of which any combination of one-half of the total number are rated sufficiently to supply the electrical loads of all required instruments and equipment necessary for safe emergency operation of the aircraft except that for multi-engine helicopters, the two required generators may be mounted on the main rotor drive train; and
(h) Two independent sources of energy (with means of selecting either) of which at least one is an engine-driven pump or generator, each of which is able to drive all required gyroscopic instruments powered by, or to be powered by, that particular source and installed so that failure of one instrument or source, does not interfere with the energy supply to the remaining instruments or the other energy source unless, for single-engine aircraft in all cargo operations only, the rate of turn indicator has a source of energy separate from the bank and pitch and direction indicators. For the purpose of this paragraph, for multi-engine aircraft, each engine-driven source of energy must be on a different engine.
(i) For the purpose of paragraph (f) of this section, a continuous inflight electrical load includes one that draws current continuously during flight, such as radio equipment, electrically driven instruments, and lights, but does not include occasional intermittent loads.
Sec. 135.165 Radio and navigational equipment: Extended overwater or IFR operations.

(a) No person may operate a turbojet airplane having a passenger seating configuration, excluding any pilot seat, of 10 seats or more, or a multiengine airplane in a commuter operation, as defined in part 119 of this chapter, under IFR or in extended overwater operations unless it has at least the following radio communication and navigational equipment appropriate to the facilities to be used which are capable of transmitting to, and receiving from, at any place on the route to be flown, at least one ground facility:
(1) Two transmitters, (2) two microphones, (3) two headsets or one headset and one speaker, (4) a marker beacon receiver, (5) two independent receivers for navigation, and (6) two independent receivers for communications.

(b) No person may operate an aircraft other than that specified in paragraph (a) of this section, under IFR or in extended overwater operations unless it has at least the following radio communication and navigational equipment appropriate to the facilities to be used and which are capable of transmitting to, and receiving from, at any place on the route, at least one ground facility:
(1) A transmitter, (2) two microphones, (3) two headsets or one headset and one speaker, (4) a marker beacon receiver, (5) two independent receivers for navigation, (6) two independent receivers for communications, and (7) for extended overwater operations only, an additional transmitter.

(c) For the purpose of paragraphs (a)(5), (a)(6), (b)(5), and (b)(6) of this section, a receiver is independent if the function of any part of it does not depend on the functioning of any part of another receiver. However, a receiver that can receive both communications and navigational signals may be used in place of a separate communications receiver and a separate navigational signal receiver.

(d) Notwithstanding the requirements of paragraphs (a) and (b) of this section, installation and use of a single long-range navigation system and a single long-range communication system, for extended overwater operations, may be authorized by the Administrator and approved in the certificate holder's operations specifications. The following are among the operational factors the Administrator may consider in granting an authorization:
(1) The ability of the flightcrew to reliably fix the position of the airplane within the degree of accuracy required by ATC,
(2) The length of the route being flown, and
(3) The duration of the very high frequency communications gap.

Sec. 135.165 Radio and navigational equipment: Extended overwater or IFR operations.

(a) No person may operate a turbojet airplane having a passenger seating configuration, excluding any pilot seat, of 10 seats or more, or a multiengine airplane in a commuter operation, as defined in part 119 of this chapter, under IFR or in extended overwater operations unless it has at least the following radio communication and navigational equipment appropriate to the facilities to be used which are capable of transmitting to, and receiving from, at any place on the route to be flown, at least one ground facility:
(1) Two transmitters, (2) two microphones, (3) two headsets or one headset and one speaker, (4) a marker beacon receiver, (5) two independent receivers for navigation, and (6) two independent receivers for communications.

(b) No person may operate an aircraft other than that specified in paragraph (a) of this section, under IFR or in extended overwater operations unless it has at least the following radio communication and navigational equipment appropriate to the facilities to be used and which are capable of transmitting to, and receiving from, at any place on the route, at least one ground facility:
(1) A transmitter, (2) two microphones, (3) two headsets or one headset and one speaker, (4) a marker beacon receiver, (5) two independent receivers for navigation, (6) two independent receivers for communications, and (7) for extended overwater operations only, an additional transmitter.

(c) For the purpose of paragraphs (a)(5), (a)(6), (b)(5), and (b)(6) of this section, a receiver is independent if the function of any part of it does not depend on the functioning of any part of another receiver. However, a receiver that can receive both communications and navigational signals may be used in place of a separate communications receiver and a separate navigational signal receiver.

(d) Notwithstanding the requirements of paragraphs (a) and (b) of this section, installation and use of a single long-range navigation system and a single long-range communication system, for extended overwater operations, may be authorized by the Administrator and approved in the certificate holder's operations specifications. The following are among the operational factors the Administrator may consider in granting an authorization:

(1) The ability of the flightcrew to reliably fix the position of the airplane within the degree of accuracy required by ATC,
(2) The length of the route being flown, and
(3) The duration of the very high frequency communications gap.

Sec. 135.167 Emergency equipment: Extended overwater operations.

(a) Except where the Administrator, by amending the operations specifications of the certificate holder, requires the carriage of all or any specific items of the equipment listed below for any overwater operation, or, upon application of the certificate holder, the Administrator allows deviation for a particular extended overwater operation, no person may operate an aircraft in extended overwater operations unless it carries, installed in conspicuously marked locations easily accessible to the occupants if a ditching occurs, the following equipment:

(1) An approved life preserver equipped with an approved survivor locator light for each occupant of the aircraft. The life preserver must be easily accessible to each seated occupant.
(2) Enough approved liferafts of a rated capacity and buoyancy to accommodate the occupants of the aircraft.

(b) Each liferaft required by paragraph (a) of this section must be equipped with or contain at least the following:

(1) One approved survivor locator light.
(2) One approved pyrotechnic signaling device.
(3) Either—
(i) One survival kit, appropriately equipped for the route to be flown; or
(ii) One canopy (for sail, sunshade, or rain catcher);
(iii) One radar reflector;
(iv) One liferaft repair kit;
(v) One bailing bucket;
(vi) One signaling mirror;
(vii) One police whistle;
(viii) One raft knife;
(ix) One CO2 bottle for emergency inflation;
(x) One inflation pump;
(xi) Two oars;
(xii) One 75-foot retaining line;
(xiii) One magnetic compass;
(xiv) One dye marker;
(xv) One flashlight having at least two size `D` cells or equivalent;
(xvi) A 2-day supply of emergency food rations supplying at least 1,000 calories per day for each person;
(xvii) For each two persons the raft is rated to carry, two pints of water or one sea water desalting kit;
(xviii) One fishing kit; and
(xix) One book on survival appropriate for the area in which the aircraft is operated.
(c) No person may operate an airplane in extended overwater operations unless there is attached to one of the life rafts required by paragraph (a) of this section, an approved survival type emergency locator transmitter. Batteries used in this transmitter must be replaced (or recharged, if the batteries are rechargeable) when the transmitter has been in use for more than 1 cumulative hour, or, when 50 percent of their useful life (or for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval. The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter. The battery useful life (or useful life of charge) requirements of this paragraph do not apply to batteries (such as water-activated batteries) that are essentially unaffected during probable storage intervals.

Sec. 135.169 Additional airworthiness requirements.

(a) Except for commuter category airplanes, no person may operate a large airplane unless it meets the additional airworthiness requirements of Sec. Sec. 121.213 through 121.283 and 121.307 of this chapter.
(b) No person may operate a reciprocating-engine or turbopropeller-powered small airplane that has a passenger seating configuration, excluding pilot seats, of 10 seats or more unless it is type certificated--
(1) In the transport category;
(2) Before July 1, 1970, in the normal category and meets special conditions issued by the Administrator for airplanes intended for use in operations under this part;
(3) Before July 19, 1970, in the normal category and meets the additional airworthiness standards in Special Federal Aviation Regulation No. 23;
(4) In the normal category and meets the additional airworthiness standards in appendix A;
(5) In the normal category and complies with section 1.(a) of Special Federal Aviation Regulation No. 41;
(6) In the normal category and complies with section 1.(b) of Special Federal Aviation Regulation No. 41; or
(7) In the commuter category.
(c) No person may operate a small airplane with a passenger seating configuration, excluding any pilot seat, of 10 seats or more, with a seating configuration greater than the maximum seating configuration used in that type airplane in operations under this part before August 19, 1977. This paragraph does not apply to--
(1) An airplane that is type certificated in the transport category; or
(2) An airplane that complies with--
   (i) Appendix A of this part provided that its passenger seating configuration, excluding pilot seats, does not exceed 19 seats; or
   (ii) Special Federal Aviation Regulation No. 41.
(d) Cargo or baggage compartments:
(1) After March 20, 1991, each Class C or D compartment, as defined in Sec. 25.857 of part 25 of this chapter, greater than 200 cubic feet in volume in a transportcategory airplane type certificated after January 1, 1958, must have ceiling and sidewall panels which are constructed of:
   (i) Glass fiber reinforced resin;
   (ii) Materials which meet the test requirements of part 25, appendix F, part III of this chapter; or
   (iii) In the case of liner installations approved prior to March 20, 1989, aluminum.
(2) For compliance with this paragraph, the term ``liner'' includes any design feature, such as a joint or fastener, which would affect the capability of the liner to safely contain a fire.

Sec. 135.171 Shoulder harness installation at flight crewmember stations.

(a) No person may operate a turbojet aircraft or an aircraft having a passenger seating configuration, excluding any pilot seat, of 10 seats or more unless it is equipped with an approved shoulder harness installed for each flight crewmember station.
(b) Each flight crewmember occupying a station equipped with a shoulder harness must fasten the shoulder harness during takeoff and landing, except that the shoulder harness may be unfastened if the crewmember cannot perform the required duties with the shoulder harness fastened.

Sec. 135.179 Inoperable instruments and equipment.

(a) No person may take off an aircraft with inoperable instruments or equipment installed unless the following conditions are met:
   (1) An approved Minimum Equipment List exists for that aircraft.
   (2) The certificate-holding district office has issued the certificate holder operations specifications authorizing operations in accordance with an approved Minimum Equipment List. The flight crew shall have direct access at all times prior to flight to all of the information contained in the approved Minimum Equipment List through printed or other means approved by the Administrator in the certificate holders operations specifications. An approved Minimum Equipment List, as authorized by the operations specifications, constitutes an approved change to the type design without requiring recertification.
   (3) The approved Minimum Equipment List must:
      (i) Be prepared in accordance with the limitations specified in paragraph (b) of this section.
      (ii) Provide for the operation of the aircraft with certain instruments and equipment in an inoperable condition.
   (4) Records identifying the inoperable instruments and equipment and the information required by (a)(3)(ii) of this section must be available to the pilot.
   (5) The aircraft is operated under all applicable conditions and limitations contained in the Minimum Equipment List and the operations specifications authorizing use of the Minimum Equipment List.
   (b) The following instruments and equipment may not be included in the Minimum Equipment List:
      (1) Instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the airplane is type certificated and which are essential for safe operations under all operating conditions.
      (2) Instruments and equipment required by an airworthiness directive to be in operable condition unless the airworthiness directive provides otherwise.
      (3) Instruments and equipment required for specific operations by this part.
   (c) Notwithstanding paragraphs (b)(1) and (b)(3) of this section, an aircraft with inoperable instruments or equipment may be operated under a special flight permit under Sec. Sec. 21.197 and 21.199 of this chapter.

Sec. 135.180 Traffic Alert and Collision Avoidance System.

(a) Unless otherwise authorized by the Administrator, after December 31, 1995, no person may operate a turbine powered airplane that has a passenger seat configuration, excluding any pilot seat, of 10 to 30 seats unless it is equipped with an approved traffic alert and collision avoidance system. If a TCAS II system is installed, it must be capable of coordinating with TCAS units that meet TSO C-119.
   (b) The airplane flight manual required by Sec. 135.21 of this part shall contain the following information on the TCAS I system required by this section:
      (1) Appropriate procedures for--
         (i) The use of the equipment; and
         (ii) Proper flightcrew action with respect to the equipment operation.
      (2) An outline of all input sources that must be operating for the TCAS to function properly.
Sec. 135.181 Performance requirements: Aircraft operated over-the-top or in IFR conditions.

(a) Except as provided in paragraphs (b) and (c) of this section, no person may--
   (1) Operate a single-engine aircraft carrying passengers over the-top; or
   (2) Operate a multiengine aircraft carrying passengers over the-top or in IFR conditions at a weight that will not allow it to climb, with the critical engine inoperative, at least 50 feet a minute when operating at the MEAs of the route to be flown or 5,000 feet MSL, whichever is higher.

(b) Notwithstanding the restrictions in paragraph (a)(2) of this section, multiengine helicopters carrying passengers offshore may conduct such operations in over-the-top or in IFR conditions at a weight that will allow the helicopter to climb at least 50 feet per minute with the critical engine inoperative when operating at the MEA of the route to be flown or 1,500 feet MSL, whichever is higher.

(c) Without regard to paragraph (a) of this section, if the latest weather reports or forecasts, or any combination of them, indicate that the weather along the planned route (including takeoff and landing) allows flight under VFR under the ceiling (if a ceiling exists) and that the weather is forecast to remain so until at least 1 hour after the estimated time of arrival at the destination, a person may operate an aircraft over the-top.

(d) Without regard to paragraph (a) of this section, a person may operate an aircraft over-the-top under conditions allowing--
   (1) For multiengine aircraft, descent or continuance of the flight under VFR if its critical engine fails; or
   (2) For single-engine aircraft, descent under VFR if its engine fails.

Sec. 135.183 Performance requirements: Land aircraft operated over water.

No person may operate a land aircraft carrying passengers over water unless--
(a) It is operated at an altitude that allows it to reach land in the case of engine failure;
(b) It is necessary for takeoff or landing;
(c) It is a multiengine aircraft operated at a weight that will allow it to climb, with the critical engine inoperative, at least 50 feet a minute, at an altitude of 1,000 feet above the surface; or
(d) It is a helicopter equipped with helicopter flotation devices.

Sec. 135.185 Empty weight and center of gravity: Currency requirement.

(a) No person may operate a multiengine aircraft unless the current empty weight and center of gravity are calculated from values established by actual weighing of the aircraft within the preceding 36 calendar months.

(b) Paragraph (a) of this section does not apply to--
   (1) Aircraft issued an original airworthiness certificate within the preceding 36 calendar months; and
   (2) Aircraft operated under a weight and balance system approved in the operations specifications of the certificate holder.

Subpart D_VFR/IFR Operating Limitations and Weather Requirements

Sec. 135.201 Applicability.

This subpart prescribes the operating limitations for VFR/IFR flight operations and associated weather requirements for operations under this part.

Sec. 135.203 VFR: Minimum altitudes.
Except when necessary for takeoff and landing, no person may operate under VFR--
(a) An airplane--
(1) During the day, below 500 feet above the surface or less than 500 feet horizontally from any obstacle; or
(2) At night, at an altitude less than 1,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown or, in designated mountainous terrain, less than 2,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown; or

Sec. 135.205 VFR: Visibility requirements.

(a) No person may operate an airplane under VFR in uncontrolled airspace when the ceiling is less than 1,000 feet unless flight visibility is at least 2 miles.
(b) No person may operate a helicopter under VFR in Class G airspace at an altitude of 1,200 feet or less above the surface or within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport unless the visibility is at least--
(1) During the day--\frac{1}{2} mile; or
(2) At night--1 mile.

Sec. 135.209 VFR: Fuel supply.

(a) No person may begin a flight operation in an airplane under VFR unless, considering wind and forecast weather conditions, it has enough fuel to fly to the first point of intended landing and, assuming normal cruising fuel consumption--
(1) During the day, to fly after that for at least 30 minutes; or
(2) At night, to fly after that for at least 45 minutes.
(b) No person may begin a flight operation in a helicopter under VFR unless, considering wind and forecast weather conditions, it has enough fuel to fly to the first point of intended landing and, assuming normal cruising fuel consumption, to fly after that for at least 20 minutes.

Sec. 135.211 VFR: Over-the-top carrying passengers: Operating limitations.

Subject to any additional limitations in Sec. 135.181, no person may operate an aircraft under VFR over-the-top carrying passengers, unless--
(a) Weather reports or forecasts, or any combination of them, indicate that the weather at the intended point of termination of over-the-top flight--
(1) Allows descent to beneath the ceiling under VFR and is forecast to remain so until at least 1 hour after the estimated time of arrival at that point; or
(2) Allows an IFR approach and landing with flight clear of the clouds until reaching the prescribed initial approach altitude over the final approach facility, unless the approach is made with the use of radar under Sec. 91.175(f) of this chapter; or
(b) It is operated under conditions allowing--
(1) For multiengine aircraft, descent or continuation of the flight under VFR if its critical engine fails; or
(2) For single-engine aircraft, descent under VFR if its engine fails.

Sec. 135.213 Weather reports and forecasts.

(a) Whenever a person operating an aircraft under this part is required to use a weather report or forecast, that person shall use that of the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator. However, for operations under VFR, the pilot in command may, if such a report is not available, use weather information based on that pilot's own observations or on those of other persons competent to supply appropriate observations.
(b) For the purposes of paragraph (a) of this section, weather observations made and furnished to pilots to conduct IFR operations at an airport must be taken at the airport where those IFR operations are conducted, unless the Administrator issues operations specifications allowing the use of weather observations taken at a location not at the airport where the IFR operations are conducted. The Administrator issues such operations specifications when, after investigation by the U.S. National Weather Service and the certificate-holding district office, it is found that the standards of safety for that operation would allow the deviation from this paragraph for a particular operation for which an air carrier operating certificate or operating certificate has been issued.

Sec. 135.215 IFR: Operating limitations.

(a) Except as provided in paragraphs (b), (c) and (d) of this section, no person may operate an aircraft under IFR outside of controlled airspace or at any airport that does not have an approved standard instrument approach procedure.

(b) The Administrator may issue operations specifications to the certificate holder to allow it to operate under IFR over routes outside controlled airspace if--

1. The certificate holder shows the Administrator that the flight crew is able to navigate, without visual reference to the ground, over an intended track without deviating more than 5 degrees or 5 miles, whichever is less, from that track; and
2. The Administrator determines that the proposed operations can be conducted safely.

(c) A person may operate an aircraft under IFR outside of controlled airspace if the certificate holder has been approved for the operations and that operation is necessary to--

1. Conduct an instrument approach to an airport for which there is in use a current approved standard or special instrument approach procedure; or
2. Climb into controlled airspace during an approved missed approach procedure; or
3. Make an IFR departure from an airport having an approved instrument approach procedure.

(d) The Administrator may issue operations specifications to the certificate holder to allow it to depart at an airport that does not have an approved standard instrument approach procedure when the Administrator determines that it is necessary to make an IFR departure from that airport and that the proposed operations can be conducted safely. The approval to operate at that airport does not include an approval to make an IFR approach to that airport.

Sec. 135.217 IFR: Takeoff limitations.

No person may takeoff an aircraft under IFR from an airport where weather conditions are at or above takeoff minimums but are below authorized IFR landing minimums unless there is an alternate airport within 1 hour’s flying time (at normal cruising speed, in still air) of the airport of departure.

Sec. 135.219 IFR: Destination airport weather minimums.

No person may take off an aircraft under IFR or begin an IFR or over-the-top operation unless the latest weather reports or forecasts, or any combination of them, indicate that weather conditions at the estimated time of arrival at the next airport of intended landing will be at or above authorized IFR landing minimums.

Sec. 135.221 IFR: Alternate airport weather minimums.

No person may designate an alternate airport unless the weather reports or forecasts, or any combination of them, indicate that the weather conditions will be at or above authorized alternate airport landing minimums for that airport at the estimated time of arrival.

Sec. 135.223 IFR: Alternate airport requirements.
(a) Except as provided in paragraph (b) of this section, no person may operate an aircraft in IFR conditions unless it carries enough fuel (considering weather reports or forecasts or any combination of them) to--

(1) Complete the flight to the first airport of intended landing;
(2) Fly from that airport to the alternate airport; and
(3) Fly after that for 45 minutes at normal cruising speed or, for helicopters, fly after that for 30 minutes at normal cruising speed.

(b) Paragraph (a)(2) of this section does not apply if part 97 of this chapter prescribes a standard instrument approach procedure for the first airport of intended landing and, for at least one hour before and after the estimated time of arrival, the appropriate weather reports or forecasts, or any combination of them, indicate that--

(1) The ceiling will be at least 1,500 feet above the lowest circling approach MDA; or
(2) If a circling instrument approach is not authorized for the airport, the ceiling will be at least 1,500 feet above the lowest published minimum or 2,000 feet above the airport elevation, whichever is higher; and
(3) Visibility for that airport is forecast to be at least three miles, or two miles more than the lowest applicable visibility minimums, whichever is the greater, for the instrument approach procedure to be used at the destination airport.

Sec. 135.225  IFR: Takeoff, approach and landing minimums.

(a) Except to the extent permitted by paragraph (b) of this section, no pilot may begin an instrument approach procedure to an airport unless--

(1) That airport has a weather reporting facility operated by the U.S. National Weather Service, a source approved by U.S. National Weather Service, or a source approved by the Administrator; and
(2) The latest weather report issued by that weather reporting facility indicates that weather conditions are at or above the authorized IFR landing minimums for that airport.

(b) A pilot conducting an eligible on-demand operation may begin an instrument approach procedure to an airport that does not have a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator if--

(1) The alternate airport has a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator; and
(2) The latest weather report issued by the weather reporting facility includes a current local altimeter setting for the destination airport. If no local altimeter setting for the destination airport is available, the pilot may use the current altimeter setting provided by the facility designated on the approach chart for the destination airport.

(c) If a pilot has begun the final approach segment of an instrument approach to an airport under paragraph (b) of this section, and the pilot receives a later weather report indicating that conditions have worsened to below the minimum requirements, then the pilot may continue the approach only if the requirements of Sec. 91.175(l) of this chapter, or both of the following conditions, are met--

(1) The later weather report is received when the aircraft is in one of the following approach phases:
   (i) The aircraft is on an ILS final approach and has passed the final approach fix;
   (ii) The aircraft is on an ASR or PAR final approach and has been turned over to the final approach controller; or
   (iii) The aircraft is on a nonprecision final approach and the aircraft--
      (A) Has passed the appropriate facility or final approach fix; or
      (B) Where a final approach fix is not specified, has completed the procedure turn and is established inbound toward the airport on the final approach course within the distance prescribed in the procedure; and
(2) The pilot in command finds, on reaching the authorized MDA or DH, that the actual weather conditions are at or above the minimums prescribed for the procedure being used.
(d) If a pilot has begun the final approach segment of an instrument approach to an airport under paragraph (c) of this section and a later weather report indicating below minimum conditions is received after the aircraft is--
   (1) On an ILS final approach and has passed the final approach fix; or
   (2) On an ASR or PAR final approach and has been turned over to the final approach controller; or
   (3) On a final approach using a VOR, NDB, or comparable approach procedure; and the aircraft--
      (i) Has passed the appropriate facility or final approach fix; or
      (ii) Where a final approach fix is not specified, has completed the procedure turn and is established inbound toward the airport on the final approach course within the distance prescribed in the procedure; the approach may be continued and a landing made if the pilot finds, upon reaching the authorized MDA or DH, that actual weather conditions are at least equal to the minimums prescribed for the procedure.
   (e) The MDA or DH and visibility landing minimums prescribed in part 97 of this chapter or in the operator's operations specifications are increased by 100 feet and 1/2 mile respectively, but not to exceed the ceiling and visibility minimums for that airport when used as an alternate airport, for each pilot in command of a turbine-powered airplane who has not served at least 100 hours as pilot in command in that type of airplane.
   (f) Each pilot making an IFR take-off or approach and landing at a military or foreign airport shall comply with applicable instrument approach procedures and weather minimums prescribed by the authority having jurisdiction over that airport. In addition, no pilot may, at that airport--
      (1) Take off under IFR when the visibility is less than 1 mile; or
      (2) Make an instrument approach when the visibility is less than 1/2 mile.
   (g) If takeoff minimums are specified in part 97 of this chapter for the take-off airport, no pilot may take off an aircraft under IFR when the weather conditions reported by the facility described in paragraph (a)(1) of this section are less than the takeoff minimums specified for the takeoff airport in part 97 or in the certificate holder's operations specifications.
   (h) Except as provided in paragraph (i) of this section, if takeoff minimums are not prescribed in part 97 of this chapter for the takeoff airport, no pilot may take off an aircraft under IFR when the weather conditions reported by the facility described in paragraph (a)(1) of this section are less than that prescribed in part 91 of this chapter or in the certificate holder's operations specifications.
   (i) At airports where straight-in instrument approach procedures are authorized, a pilot may take off an aircraft under IFR when the weather conditions reported by the facility described in paragraph (a)(1) of this section are equal to or better than the lowest straight-in landing minimums, unless otherwise restricted, if--
      (1) The wind direction and velocity at the time of takeoff are such that a straight-in instrument approach can be made to the runway served by the instrument approach;
      (2) The associated ground facilities upon which the landing minimums are predicated and the related airborne equipment are in normal operation; and
      (3) The certificate holder has been approved for such operations.

Sec. 135.227 Icing conditions: Operating limitations.

(a) No pilot may take off an aircraft that has frost, ice, or snow adhering to any rotor blade, propeller, windshield, wing, stabilizing or control surface, to a powerplant installation, or to an airspeed, altimeter, rate of climb, or flight attitude instrument system, except under the following conditions:
   (1) Takeoffs may be made with frost adhering to the wings, or stabilizing or control surfaces, if the frost has been polished to make it smooth.
   (2) Takeoffs may be made with frost under the wing in the area of the fuel tanks if authorized by the Administrator.
(b) No certificate holder may authorize an airplane to take off and no pilot may take off an airplane any time conditions are such that frost, ice, or snow may reasonably be expected to
adhere to the airplane unless the pilot has completed all applicable training as required by Sec. 135.341 and unless one of the following requirements is met:

1. A pretakeoff contamination check, that has been established by the certificate holder and approved by the Administrator for the specific airplane type, has been completed within 5 minutes prior to beginning takeoff. A pretakeoff contamination check is a check to make sure the wings and control surfaces are free of frost, ice, or snow.

2. The certificate holder has an approved alternative procedure and under that procedure the airplane is determined to be free of frost, ice, or snow.

3. The certificate holder has an approved deicing/anti-icing program that complies with Sec. 121.629(c) of this chapter and the takeoff complies with that program.

(3) Except for an airplane that has ice protection provisions that meet section 34 of appendix A, or those for transport category airplane type certification, no pilot may fly--

1. Under IFR into known or forecast light or moderate icing conditions; or

2. Under VFR into known light or moderate icing conditions; unless the aircraft has functioning deicing or anti-icing equipment protecting each rotor blade, propeller, windshield, wing, stabilizing or control surface, and each airspeed, altimeter, rate of climb, or flight attitude instrument system.

(d) No pilot may fly a helicopter under IFR into known or forecast icing conditions or under VFR into known icing conditions unless it has been type certificated and appropriately equipped for operations in icing conditions.

(e) Except for an airplane that has ice protection provisions that meet section 34 of appendix A, or those for transport category airplane type certification, no pilot may fly an aircraft into known or forecast severe icing conditions.

(f) If current weather reports and briefing information relied upon by the pilot in command indicate that the forecast icing condition that would otherwise prohibit the flight will not be encountered during the flight because of changed weather conditions since the forecast, the restrictions in paragraphs (c), (d), and (e) of this section based on forecast conditions do not apply.

Sec. 135.229 Airport requirements.

(a) No certificate holder may use any airport unless it is adequate for the proposed operation, considering such items as size, surface, obstructions, and lighting.

(b) No pilot of an aircraft carrying passengers at night may takeoff from, or land on, an airport unless--

1. That pilot has determined the wind direction from an illuminated wind direction indicator or local ground communications or, in the case of takeoff, that pilot's personal observations; and

2. The limits of the area to be used for landing or takeoff are clearly shown--

(i) For airplanes, by boundary or runway marker lights;

(ii) For helicopters, by boundary or runway marker lights or reflective material.

(c) For the purpose of paragraph (b) of this section, if the area to be used for takeoff or landing is marked by flare pots or lanterns, their use must be approved by the Administrator.

Subpart E_Flight Crewmember Requirements

Sec. 135.241 Applicability.

Except as provided in Sec. 135.3, this subpart prescribes the flight crewmember requirements for operations under this part.

Sec. 135.243 Pilot in command qualifications.

(a) No certificate holder may use a person, nor may any person serve, as pilot in command in passenger-carrying operations--
(1) Of a turbojet airplane, of an airplane having a passenger-seat configuration, excluding each
crewmember seat, of 10 seats or more, or of a multiengine airplane in a commuter operation as
defined in part 119 of this chapter, unless that person holds an airline transport pilot certificate
with appropriate category and class ratings and, if required, an appropriate type rating for that
airplane.

(2) Of a helicopter in a scheduled interstate air transportation operation by an air carrier within
the 48 contiguous states unless that person holds an airline transport pilot certificate, appropriate
type ratings, and an instrument rating.

(b) Except as provided in paragraph (a) of this section, no certificate holder may use a person,
or may any person serve, as pilot in command of an aircraft under VFR unless that person--
(1) Holds at least a commercial pilot certificate with appropriate category and class ratings and,
if required, an appropriate type rating for that aircraft; and
(2) Has had at least 500 hours time as a pilot, including at least 100 hours of cross-country
flight time, at least 25 hours of which were at night; and
(3) For an airplane, holds an instrument rating or an airline transport pilot certificate with an
airplane category rating; or
(4) For helicopter operations conducted VFR over-the-top, holds a helicopter instrument rating,
or an airline transport pilot certificate with a category and class rating for that aircraft, not limited
to VFR.

(c) Except as provided in paragraph (a) of this section, no certificate holder may use a person,
or may any person serve, as pilot in command of an aircraft under IFR unless that person--
(1) Holds at least a commercial pilot certificate with appropriate category and class ratings and,
if required, an appropriate type rating for that aircraft; and
(2) Has had at least 1,200 hours of flight time as a pilot, including 500 hours of cross country
flight time, 100 hours of night flight time, and 75 hours of actual or simulated instrument time at
least 50 hours of which were in actual flight; and
(3) For an airplane, holds an instrument rating or an airline transport pilot certificate with an
airplane category rating; or
(4) For a helicopter, holds a helicopter instrument rating, or an airline transport pilot certificate
with a category and class rating for that aircraft, not limited to VFR.

(d) Paragraph (b)(3) of this section does not apply when--
(1) The aircraft used is a single reciprocating-engine-powered airplane;
(2) The certificate holder does not conduct any operation pursuant to a published flight
schedule which specifies five or more round trips a week between two or more points and places
between which the round trips are performed, and does not transport mail by air under a contract
or contracts with the United States Postal Service having total amount estimated at the beginning
of any semiannual reporting period (January 1–June 30; July 1–December 31) to be in excess of
$20,000 over the 12 months commencing with the beginning of the reporting period;
(3) The area, as specified in the certificate holder's operations specifications, is an isolated
area, as determined by the Flight Standards district office, if it is shown that--
(i) The primary means of navigation in the area is by pilotage, since radio navigational aids are
largely ineffective; and
(ii) The primary means of transportation in the area is by air;
(4) Each flight is conducted under day VFR with a ceiling of not less than 1,000 feet and
visibility not less than 3 statute miles;
(5) Weather reports or forecasts, or any combination of them, indicate that for the period
commencing with the planned departure and ending 30 minutes after the planned arrival at the
destination the flight may be conducted under VFR with a ceiling of not less than 1,000 feet and
visibility of not less than 3 statute miles, except that if weather reports and forecasts are not
available, the pilot in command may use that pilot's observations or those of other persons
competent to supply weather observations if those observations indicate the flight may be
conducted under VFR with the ceiling and visibility required in this paragraph;
(6) The distance of each flight from the certificate holder's base of operation to destination
does not exceed 250 nautical miles for a pilot who holds a commercial pilot certificate with an
airplane rating without an instrument rating, provided the pilot's certificate does not contain any
limitation to the contrary; and
(7) The areas to be flown are approved by the certificate-holding FAA Flight Standards district office and are listed in the certificate holder’s operations specifications.

Sec. 135.244 Operating experience.

(a) No certificate holder may use any person, nor may any person serve, as a pilot in command of an aircraft operated in a commuter operation, as defined in part 119 of this chapter unless that person has completed, prior to designation as pilot in command, on that make and basic model aircraft and in that crewmember position, the following operating experience in each make and basic model of aircraft to be flown:

1. Aircraft, single engine--10 hours.
2. Aircraft multiengine, reciprocating engine-powered--15 hours.
3. Aircraft multiengine, turbine engine-powered--20 hours.
4. Airplane, turbojet-powered--25 hours.

(b) In acquiring the operating experience, each person must comply with the following:

1. The operating experience must be acquired after satisfactory completion of the appropriate ground and flight training for the aircraft and crewmember position. Approved provisions for the operating experience must be included in the certificate holder's training program.
2. The experience must be acquired in flight during commuter passenger-carrying operations under this part. However, in the case of an aircraft not previously used by the certificate holder in operations under this part, operating experience acquired in the aircraft during proving flights or ferry flights may be used to meet this requirement.
3. Each person must acquire the operating experience while performing the duties of a pilot in command under the supervision of a qualified check pilot.
4. The hours of operating experience may be reduced to not less than 50 percent of the hours required by this section by the substitution of one additional takeoff and landing for each hour of flight.

Sec. 135.245 Second in command qualifications.

(a) Except as provided in paragraph (b), no certificate holder may use any person, nor may any person serve, as second in command of an aircraft unless that person holds at least a commercial pilot certificate with appropriate category and class ratings and an instrument rating. For flight under IFR, that person must meet the recent instrument experience requirements of part 61 of this chapter.

(b) A second in command of a helicopter operated under VFR, other than over-the-top, must have at least a commercial pilot certificate with an appropriate aircraft category and class rating.

Sec. 135.247 Pilot qualifications: Recent experience.

(a) No certificate holder may use any person, nor may any person serve, as pilot in command of an aircraft carrying passengers unless, within the preceding 90 days, that person has--

1. Made three takeoffs and three landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type in which that person is to serve; or
2. For operation during the period beginning 1 hour after sunset and ending 1 hour before sunrise (as published in the Air Almanac), made three takeoffs and three landings during that period as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type in which
that person is to serve. A person who complies with paragraph (a)(2) of this section need not comply with paragraph (a)(1) of this section.

(3) Paragraph (a)(2) of this section does not apply to a pilot in command of a turbine-powered airplane that is type certificated for more than one pilot crewmember, provided that pilot has complied with the requirements of paragraph (a)(3)(i) or (ii) of this section:

(i) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) That pilot has accomplished and logged at least 3 takeoffs and 3 landings to a full stop, as the sole manipulator of the flight controls, in a turbine-powered airplane that requires more than one pilot crewmember. The pilot must have performed the takeoffs and landings during the period beginning 1 hour after sunset and ending 1 hour before sunrise within the preceding 6 months prior to the month of the flight.

(ii) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) Within the preceding 12 months prior to the month of the flight, the pilot must have completed a training program that is approved under part 142 of this chapter. The approved training program must have required and the pilot must have performed, at least 6 takeoffs and 6 landings to a full stop as the sole manipulator of the controls in a flight simulator that is representative of a turbine-powered airplane that requires more than one pilot crewmember. The flight simulator's visual system must have been adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

(b) For the purpose of paragraph (a) of this section, if the aircraft is a tailwheel airplane, each takeoff must be made in a tailwheel airplane and each landing must be made to a full stop in a tailwheel airplane.

Sec. 135.249 Use of prohibited drugs.

(a) This section applies to persons who perform a function listed in appendix I to part 121 of this chapter for a certificate holder or an operator. For the purpose of this section, a person who
performs such a function pursuant to a contract with the certificate holder or the operator is considered to be performing that function for the certificate holder or the operator.

(b) No certificate holder or operator may knowingly use any person to perform, nor may any person perform for a certificate holder or an operator, either directly or by contract, any function listed in appendix I to part 121 of this chapter while that person has a prohibited drug, as defined in that appendix, in his or her system.

(c) No certificate holder or operator shall knowingly use any person to perform, nor shall any person perform for a certificate holder or operator, either directly or by contract, any safety-sensitive function if the person has a verified positive drug test result on or has refused to submit to a drug test required by appendix I to part 121 of this chapter and the person has not met the requirements of appendix I to part 121 of this chapter for returning to the performance of safety-sensitive duties.

Sec. 135.251 Testing for prohibited drugs.

(a) Each certificate holder or operator shall test each of its employees who performs a function listed in appendix I to part 121 of this chapter in accordance with that appendix.

(b) Except as provided in paragraph (c) of this section, no certificate holder or operator may use any contractor to perform a function listed in appendix I to part 121 of this chapter unless that contractor tests each employee performing such a function for the certificate holder or operator in accordance with that appendix.

(c) If a certificate holder conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of appendix I to part 121 and emergency maintenance is required, the certificate holder may use persons not meeting the requirements of paragraph (b) of this section to provide such emergency maintenance under both of the following conditions:

1. The certificate holder must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM-800, 800 Independence Avenue, Washington, DC, 20591, within 10 days after being provided same in accordance with this paragraph. A certificate holder must retain copies of all such written notifications for two years.

2. The aircraft must be reinspected by maintenance personnel who meet the requirements of paragraph (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(d) For purposes of this section, emergency maintenance means maintenance that--

1. Is not scheduled and

2. Is made necessary by an aircraft condition not discovered prior to the departure for that location.

Sec. 135.253 Misuse of alcohol.

(a) This section applies to employees who perform a function listed in appendix J to part 121 of this chapter for a certificate holder or operator (covered employees). For the purpose of this section, a person who meets the definition of covered employee in appendix J is considered to be performing the function for the certificate holder or operator.

(b) Alcohol concentration. No covered employee shall report for duty or remain on duty requiring the performance of safety-sensitive functions while having an alcohol concentration of 0.04 or greater. No certificate holder or operator having actual knowledge that an employee has an alcohol concentration of 0.04 or greater shall permit the employee to perform or continue to perform safety-sensitive functions.

(c) On-duty use. No covered employee shall use alcohol while performing safety-sensitive functions. No certificate holder or operator having actual knowledge that a covered employee is using alcohol while performing safety-sensitive functions shall permit the employee to perform or continue to perform safety-sensitive functions.
(d) Pre-duty use. (1) No covered employee shall perform flight crewmember or flight attendant duties within 8 hours after using alcohol. No certificate holder or operator having actual knowledge that such an employee has used alcohol within 8 hours shall permit the employee to perform or continue to perform the specified duties.

(2) No covered employee shall perform safety-sensitive duties other than those specified in paragraph (d)(1) of this section within 4 hours after using alcohol. No certificate holder or operator having actual knowledge that such an employee has used alcohol within 4 hours shall permit the employee to perform or continue to perform safety-sensitive functions.

(e) Use following an accident. No covered employee who has actual knowledge of an accident involving an aircraft for which he or she performed a safety-sensitive function at or near the time of the accident shall use alcohol for 8 hours following the accident, unless he or she has been given a post-accident test under appendix J of part 121 of this chapter, or the employer has determined that the employee's performance could not have contributed to the accident.

(f) Refusal to submit to a required alcohol test. No covered employee shall refuse to submit to a post-accident, random, reasonable suspicion, or follow-up alcohol test required under appendix J to part 121 of this chapter. No operator or certificate holder shall permit a covered employee who refuses to submit to such a test to perform or continue to perform safety-sensitive functions.

Sec. 135.255 Testing for alcohol.

(a) Each certificate holder and operator must establish an alcohol misuse prevention program in accordance with the provisions of appendix J to part 121 of this chapter.

(b) Except as provided in paragraph (c) of this section, no certificate holder or operator may use any person who meets the definition of “covered employee” in appendix J to part 121 of this chapter to perform a safety-sensitive function listed in that appendix unless such person is subject to testing for alcohol misuse in accordance with the provisions of appendix J.

(c) If a certificate holder conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of appendix J to part 121 of this chapter and emergency maintenance is required, the certificate holder may use persons not meeting the requirements of paragraph (b) of this section to provide such emergency maintenance under both of the following conditions:

(1) The certificate holder must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM-800, 800 Independence Avenue, Washington, DC, 20591, within 10 days after being provided same in accordance with this paragraph. A certificate holder must retain copies of all such written notifications for two years.

(2) The aircraft must be reinspected by maintenance personnel who meet the requirements of paragraph (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(d) For purposes of this section, emergency maintenance means maintenance that--

(1) Is not scheduled, and

(2) Is made necessary by an aircraft condition not discovered prior to the departure for that location.

Subpart F_Crewmember Flight Time and Duty Period Limitations and Rest Requirements

Sec. 135.261 Applicability.

Sections 135.263 through 135.273 of this part prescribe flight time limitations, duty period limitations, and rest requirements for operations conducted under this part as follows:

(a) Section 135.263 applies to all operations under this subpart.

(b) Section 135.265 applies to:
(1) Scheduled passenger-carrying operations except those conducted solely within the state of Alaska. "Scheduled passenger-carrying operations" means passenger-carrying operations that are conducted in accordance with a published schedule which covers at least five round trips per week on at least one route between two or more points, includes dates or times (or both), and is openly advertised or otherwise made readily available to the general public, and

(2) Any other operation under this part, if the operator elects to comply with Sec. 135.265 and obtains an appropriate operations specification amendment.

(c) Sections 135.267 and 135.269 apply to any operation that is not a scheduled passenger-carrying operation and to any operation conducted solely within the State of Alaska, unless the operator elects to comply with Sec. 135.265 as authorized under paragraph (b)(2) of this section.

(d) Section 135.271 contains special daily flight time limits for operations conducted under the helicopter emergency medical evacuation service (HEMES).

(e) Section 135.273 prescribes duty period limitations and rest requirements for flight attendants in all operations conducted under this part.

Sec. 135.263 Flight time limitations and rest requirements: All certificate holders.

(a) A certificate holder may assign a flight crewmember and a flight crewmember may accept an assignment for flight time only when the applicable requirements of Sec. Sec. 135.263 through 135.271 are met.

(b) No certificate holder may assign any flight crewmember to any duty with the certificate holder during any required rest period.

(c) Time spent in transportation, not local in character, that a certificate holder requires of a flight crewmember and provides to transport the crewmember to an airport at which he is to serve on a flight as a crewmember, or from an airport at which he was relieved from duty to return to his home station, is not considered part of a rest period.

(d) A flight crewmember is not considered to be assigned flight time in excess of flight time limitations if the flights to which he is assigned normally terminate within the limitations, but due to circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the planned flight time.

Sec. 135.267 Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews.

(a) No certificate holder may assign any flight crewmember, and no flight crewmember may accept an assignment, for flight time as a member of a one- or two-pilot crew if that crewmember's total flight time in all commercial flying will exceed--

(1) 500 hours in any calendar quarter.
(2) 800 hours in any two consecutive calendar quarters.
(3) 1,400 hours in any calendar year.

(b) Except as provided in paragraph (c) of this section, during any 24 consecutive hours the total flight time of the assigned flight when added to any other commercial flying by that flight crewmember may not exceed--

(1) 8 hours for a flight crew consisting of one pilot.
(2) 10 hours for a flight crew consisting of two pilots qualified under this part for the operation being conducted.

(c) A flight crewmember's flight time may exceed the flight time limits of paragraph (b) of this section if the assigned flight time occurs during a regularly assigned duty period of no more than 14 hours and--

(1) If this duty period is immediately preceded by and followed by a required rest period of at least 10 consecutive hours of rest;
If flight time is assigned during this period, that total flight time when added to any other commercial flying by the flight crewmember may not exceed--

(i) 8 hours for a flight crew consisting of one pilot; or
(ii) 10 hours for a flight crew consisting of two pilots; and
(3) If the combined duty and rest periods equal 24 hours.

(d) Each assignment under paragraph (b) of this section must provide for at least 10 consecutive hours of rest during the 24-hour period that precedes the planned completion time of the assignment.

(e) When a flight crewmember has exceeded the daily flight time limitations in this section, because of circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), that flight crewmember must have a rest period before being assigned or accepting an assignment for flight time of at least--

(1) 11 consecutive hours of rest if the flight time limitation is exceeded by not more than 30 minutes;
(2) 12 consecutive hours of rest if the flight time limitation is exceeded by more than 30 minutes, but not more than 60 minutes; and
(3) 16 consecutive hours of rest if the flight time limitation is exceeded by more than 60 minutes.

(f) The certificate holder must provide each flight crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

Sec. 135.273 Duty period limitations and rest time requirements.

(a) For purposes of this section--
- Calendar day means the period of elapsed time, using Coordinated Universal Time or local time, that begins at midnight and ends 24 hours later at the next midnight.
- Duty period means the period of elapsed time between reporting for an assignment involving flight time and release from that assignment by the certificate holder. The time is calculated using either Coordinated Universal Time or local time to reflect the total elapsed time.
- Rest period means the period free of all responsibility for work or duty should the occasion arise.

(b) Notwithstanding paragraph (b) of this section, a certificate holder may apply the flight crewmember flight time and duty limitations and rest requirements of this part to flight attendants for all operations conducted under this part provided that--

(1) The certificate holder establishes written procedures that--

(i) Apply to all flight attendants used in the certificate holder’s operation;
(ii) Include the flight crewmember requirements contained in subpart F of this part, as appropriate to the operation being conducted, except that rest facilities on board the aircraft are not required; and
(iii) Include provisions to add one flight attendant to the minimum flight attendant complement for each flight crewmember who is in excess of the minimum number required in the aircraft type certificate data sheet and who is assigned to the aircraft under the provisions of subpart F of this part, as applicable.
(iv) Are approved by the Administrator and described or referenced in the certificate holder’s operations specifications; and
(2) Whenever the Administrator finds that revisions are necessary for the continued adequacy of duty period limitation and rest requirement procedures that are required by paragraph (c)(1) of this section and that had been granted final approval, the certificate holder must, after notification by the Administrator, make any changes in the procedures that are found necessary by the Administrator. Within 30 days after the certificate holder receives such notice, it may file a petition to reconsider the notice with the certificate-holding district office. The filing of a petition to reconsider stays the notice, pending decision by the Administrator. However, if the Administrator finds that there is an emergency that requires immediate action in the interest of safety, the Administrator may, upon a statement of the reasons, require a change effective without stay.
Subpart G_Crewmember Testing Requirements

Sec. 135.291 Applicability.

Except as provided in Sec. 135.3, this subpart--
(a) Prescribes the tests and checks required for pilot and flight attendant crewmembers and for the approval of check pilots in operations under this part; and
(b) Permits training center personnel authorized under part 142 of this chapter who meet the requirements of Sec. Sec. 135.337 and 135.339 to conduct training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

Sec. 135.293 Initial and recurrent pilot testing requirements.

(a) No certificate holder may use a pilot, nor may any person serve as a pilot, unless, since the beginning of the 12th calendar month before that service, that pilot has passed a written or oral test, given by the Administrator or an authorized check pilot, on that pilot's knowledge in the following areas--
   (1) The appropriate provisions of parts 61, 91, and 135 of this chapter and the operations specifications and the manual of the certificate holder;
   (2) For each type of aircraft to be flown by the pilot, the aircraft powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the approved Aircraft Flight Manual or equivalent, as applicable;
   (3) For each type of aircraft to be flown by the pilot, the method of determining compliance with weight and balance limitations for takeoff, landing and en route operations;
   (4) Navigation and use of air navigation aids appropriate to the operation or pilot authorization, including, when applicable, instrument approach facilities and procedures;
   (5) Air traffic control procedures, including IFR procedures when applicable;
   (6) Meteorology in general, including the principles of frontal systems, icing, fog, thunderstorms, and windshear, and, if appropriate for the operation of the certificate holder, high altitude weather;
   (7) Procedures for--
      (i) Recognizing and avoiding severe weather situations;
      (ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be tested on escaping from low-altitude windshear); and
      (iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and
   (8) New equipment, procedures, or techniques, as appropriate.

(b) No certificate holder may use a pilot, nor may any person serve as a pilot, in any aircraft unless, since the beginning of the 12th calendar month before that service, that pilot has passed a competency check given by the Administrator or an authorized check pilot in that class of aircraft, if single-engine airplane other than turbojet, or that type of aircraft, if helicopter, multiengine airplane, or turbojet airplane, to determine the pilot's competence in practical skills and techniques in that aircraft or class of aircraft. The extent of the competency check shall be determined by the Administrator or authorized check pilot conducting the competency check. The competency check may include any of the maneuvers and procedures currently required for the original issuance of the particular pilot certificate required for the operations authorized and
appropriate to the category, class and type of aircraft involved. For the purposes of this paragraph, type, as to an airplane, means any one of a group of airplanes determined by the Administrator to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For the purposes of this paragraph, type, as to a helicopter, means a basic make and model.

(c) The instrument proficiency check required by Sec. 135.297 may be substituted for the competency check required by this section for the type of aircraft used in the check.

(d) For the purpose of this part, competent performance of a procedure or maneuver by a person to be used as a pilot requires that the pilot be the obvious master of the aircraft, with the successful outcome of the maneuver never in doubt.

(e) The Administrator or authorized check pilot certifies the competency of each pilot who passes the knowledge or flight check in the certificate holder's pilot records.

(f) Portions of a required competency check may be given in an aircraft simulator or other appropriate training device, if approved by the Administrator.

Sec. 135.297 Pilot in command: Instrument proficiency check requirements.

(a) No certificate holder may use a pilot, nor may any person serve, as a pilot in command of an aircraft under IFR unless, since the beginning of the 6th calendar month before that service, that pilot has passed an instrument proficiency check under this section administered by the Administrator or an authorized check pilot.

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the 6th calendar month before that use, the pilot satisfactorily demonstrated that type of approach procedure. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the 6th calendar month before that use, the pilot has satisfactorily demonstrated either that type of approach procedure or any other two different types of nonprecision approach procedures. The instrument approach procedure or procedures must include at least one straight-in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.

(c) The instrument proficiency check required by paragraph (a) of this section consists of an oral or written equipment test and a flight check under simulated or actual IFR conditions. The equipment test includes questions on emergency procedures, engine operation, fuel and lubrication systems, power settings, stall speeds, best engine-out speed, propeller and supercharger operations, and hydraulic, mechanical, and electrical systems, as appropriate. The flight check includes navigation by instruments, recovery from simulated emergencies, and standard instrument approaches involving navigational facilities which that pilot is to be authorized to use. Each pilot taking the instrument proficiency check must show that standard of competence required by Sec. 135.293(d).

(1) The instrument proficiency check must--

(i) For a pilot in command of an airplane under Sec. 135.243(a), include the procedures and maneuvers for an airline transport pilot certificate in the particular type of airplane, if appropriate; and

(ii) For a pilot in command of an airplane or helicopter under Sec. 135.243(c), include the procedures and maneuvers for a commercial pilot certificate with an instrument rating and, if required, for the appropriate type rating.

(2) The instrument proficiency check must be given by an authorized check airman or by the Administrator.

(d) If the pilot in command is assigned to pilot only one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of aircraft.

(e) If the pilot in command is assigned to pilot more than one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in each type of
aircraft to which that pilot is assigned, in rotation, but not more than one flight check during each period described in paragraph (a) of this section.

(f) If the pilot in command is assigned to pilot both single-engine and multiengine aircraft, that pilot must initially take the instrument proficiency check required by paragraph (a) of this section in a multiengine aircraft, and each succeeding check alternately in single-engine and multiengine aircraft, but not more than one flight check during each period described in paragraph (a) of this section. Portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the Administrator.

(g) If the pilot in command is authorized to use an autopilot system in place of a second in command, that pilot must show, during the required instrument proficiency check, that the pilot is able (without a second in command) both with and without using the autopilot to--

1. Conduct instrument operations competently; and
2. Properly conduct air-ground communications and comply with complex air traffic control instructions.

3. Each pilot taking the autopilot check must show that, while using the autopilot, the airplane can be operated as proficiently as it would be if a second in command were present to handle air-ground communications and air traffic control instructions. The autopilot check need only be demonstrated once every 12 calendar months during the instrument proficiency check required under paragraph (a) of this section.

Sec. 135.299 Pilot in command: Line checks: Routes and airports.

(a) No certificate holder may use a pilot, nor may any person serve, as a pilot in command of a flight unless, since the beginning of the 12th calendar month before that service, that pilot has passed a flight check in one of the types of aircraft which that pilot is to fly. The flight check shall--

1. Be given by an approved check pilot or by the Administrator;
2. Consist of at least one flight over one route segment; and
3. Include takeoffs and landings at one or more representative airports. In addition to the requirements of this paragraph, for a pilot authorized to conduct IFR operations, at least one flight shall be flown over a civil airway, an approved off-airway route, or a portion of either of them.

(b) The pilot who conducts the check shall determine whether the pilot being checked satisfactorily performs the duties and responsibilities of a pilot in command in operations under this part, and shall so certify in the pilot training record.

(c) Each certificate holder shall establish in the manual required by Sec. 135.21 a procedure which will ensure that each pilot who has not flown over a route and into an airport within the preceding 90 days will, before beginning the flight, become familiar with all available information required for the safe operation of that flight.

Sec. 135.301 Crewmember: Tests and checks, grace provisions, training to accepted standards.

(a) If a crewmember who is required to take a test or a flight check under this part, completes the test or flight check in the calendar month before or after the calendar month in which it is required, that crewmember is considered to have completed the test or check in the calendar month in which it is required.

(b) If a pilot being checked under this subpart fails any of the required maneuvers, the person giving the check may give additional training to the pilot during the course of the check. In addition to repeating the maneuvers failed, the person giving the check may require the pilot being checked to repeat any other maneuvers that are necessary to determine the pilot’s proficiency. If the pilot being checked is unable to demonstrate satisfactory performance to the person conducting the check, the certificate holder may not use the pilot, nor may the
pilot serve, as a flight crewmember in operations under this part until the pilot has satisfactorily completed the check.

**Subpart H_Training**

**Sec. 135.321 Applicability and terms used.**

(a) Except as provided in Sec. 135.3, this subpart prescribes the requirements applicable to--

(1) A certificate holder under this part which contracts with, or otherwise arranges to use the services of a training center certificated under part 142 to perform training, testing, and checking functions;

(2) Each certificate holder for establishing and maintaining an approved training program for crewmembers, check airmen and instructors, and other operations personnel employed or used by that certificate holder; and

(3) Each certificate holder for the qualification, approval, and use of aircraft simulators and flight training devices in the conduct of the program.

(b) For the purposes of this subpart, the following terms and definitions apply:

(1) Initial training. The training required for crewmembers who have not qualified and served in the same capacity on an aircraft.

(2) Transition training. The training required for crewmembers who have qualified and served in the same capacity on another aircraft.

(3) Upgrade training. The training required for crewmembers who have qualified and served as second in command on a particular aircraft type, before they serve as pilot in command on that aircraft.

(4) Differences training. The training required for crewmembers who have qualified and served on a particular type aircraft, when the Administrator finds differences training is necessary before a crewmember serves in the same capacity on a particular variation of that aircraft.

(5) Recurrent training. The training required for crewmembers to remain adequately trained and currently proficient for each aircraft, crewmember position, and type of operation in which the crewmember serves.

(6) In flight. The maneuvers, procedures, or functions that must be conducted in the aircraft.

(7) Training center. An organization governed by the applicable requirements of part 142 of this chapter that conducts training, testing, and checking under contract or other arrangement to certificate holders subject to the requirements of this part.

(8) Requalification training. The training required for crewmembers previously trained and qualified, but who have become unqualified due to not having met within the required period the--

(i) Recurrent pilot testing requirements of Sec. 135.293;

(ii) Instrument proficiency check requirements of Sec. 135.297; or

(iii) Line checks required by Sec. 135.299.

**Sec. 135.323 Training program: General.**

(a) Each certificate holder required to have a training program under Sec. 135.341 shall:

(1) Establish and implement a training program that satisfies the requirements of this subpart and that ensures that each crewmember, aircraft dispatcher, flight instructor and check airman is adequately trained to perform his or her assigned duties. Prior to implementation, the certificate holder must obtain initial and final FAA approval of the training program.

(2) Provide adequate ground and flight training facilities and properly qualified ground instructors for the training required by this subpart.
(3) Provide and keep current for each aircraft type used and, if applicable, the particular variations within the aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by this subpart.

(4) Provide enough flight instructors, check airmen, and simulator instructors to conduct required flight training and flight checks, and simulator training courses allowed under this subpart.

(b) Whenever a crewmember who is required to take recurrent training under this subpart completes the training in the calendar month before, or the calendar month after, the month in which that training is required, the crewmember is considered to have completed it in the calendar month in which it was required.

(c) Each instructor, supervisor, or check airman who is responsible for a particular ground training subject, segment of flight training, course of training, flight check, or competence check under this part shall certify as to the proficiency and knowledge of the crewmember, flight instructor, or check airman concerned upon completion of that training or check. That certification shall be made a part of the crewmember's record. When the certification required by this paragraph is made by an entry in a computerized recordkeeping system, the certifying instructor, supervisor, or check airman, must be identified with that entry. However, the signature of the certifying instructor, supervisor, or check airman, is not required for computerized entries.

(d) Training subjects that apply to more than one aircraft or crewmember position and that have been satisfactorily completed during previous training while employed by the certificate holder for another aircraft or another crewmember position, need not be repeated during subsequent training other than recurrent training.

(e) Aircraft simulators and other training devices may be used in the certificate holder's training program if approved by the Administrator.

Sec. 135.324 Training program: Special rules.

(a) Other than the certificate holder, only another certificate holder certificated under this part or a training center certificated under part 142 of this chapter is eligible under this subpart to conduct training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

(b) A certificate holder may contract with, or otherwise arrange to use the services of, a training center certificated under part 142 of this chapter to conduct training, testing, and checking required by this part only if the training center--

1. Holds applicable training specifications issued under part 142 of this chapter;
2. Has facilities, training equipment, and courseware meeting the applicable requirements of part 142 of this chapter;
3. Has approved curriculums, curriculum segments, and portions of curriculum segments applicable for use in training courses required by this subpart; and
4. Has sufficient instructor and check airmen qualified under the applicable requirements of Sec. Sec. 135.337 through 135.340 to provide training, testing, and checking to persons subject to the requirements of this subpart.

Sec. 135.325 Training program and revision: Initial and final approval.

(a) To obtain initial and final approval of a training program, or a revision to an approved training program, each certificate holder must submit to the Administrator--

1. An outline of the proposed or revised curriculum, that provides enough information for a preliminary evaluation of the proposed training program or revision; and
2. Additional relevant information that may be requested by the Administrator.

(b) If the proposed training program or revision complies with this subpart, the Administrator grants initial approval in writing after which the certificate holder may conduct the training under that program. The Administrator then evaluates the effectiveness of the training program and advises the certificate holder of deficiencies, if any, that must be corrected.
(c) The Administrator grants final approval of the proposed training program or revision if the certificate holder shows that the training conducted under the initial approval in paragraph (b) of this section ensures that each person who successfully completes the training is adequately trained to perform that person's assigned duties.

(d) Whenever the Administrator finds that revisions are necessary for the continued adequacy of a training program that has been granted final approval, the certificate holder shall, after notification by the Administrator, make any changes in the program that are found necessary by the Administrator. Within 30 days after the certificate holder receives the notice, it may file a petition to reconsider the notice with the Administrator. The filing of a petition to reconsider stays the notice pending a decision by the Administrator. However, if the Administrator finds that there is an emergency that requires immediate action in the interest of safety, the Administrator may, upon a statement of the reasons, require a change effective without stay.

Sec. 135.327 Training program: Curriculum.

(a) Each certificate holder must prepare and keep current a written training program curriculum for each type of aircraft for each crewmember required for that type aircraft. The curriculum must include ground and flight training required by this subpart.

(b) Each training program curriculum must include the following:

(1) A list of principal ground training subjects, including emergency training subjects, that are provided.

(2) A list of all the training devices, mockups, systems trainers, procedures trainers, or other training aids that the certificate holder will use.

(3) Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the inflight portions of flight training and flight checks.

Sec. 135.329 Crewmember training requirements.

(a) Each certificate holder must include in its training program the following initial and transition ground training as appropriate to the particular assignment of the crewmember:

(1) Basic indoctrination ground training for newly hired crewmembers including instruction in at least the--

(i) Duties and responsibilities of crewmembers as applicable;

(ii) Appropriate provisions of this chapter;

(iii) Contents of the certificate holder's operating certificate and operations specifications (not required for flight attendants); and

(iv) Appropriate portions of the certificate holder's operating manual.

(2) The initial and transition ground training in Sec. Sec. 135.345 and 135.349, as applicable.

(3) Emergency training in Sec. 135.331.

(b) Each training program must provide the initial and transition flight training in Sec. 135.347, as applicable.

(c) Each training program must provide recurrent ground and flight training in Sec. 135.351.

(d) Upgrade training in Sec. Sec. 135.345 and 135.347 for a particular type aircraft may be included in the training program for crewmembers who have qualified and served as second in command on that aircraft.

(e) In addition to initial, transition, upgrade and recurrent training, each training program must provide ground and flight training, instruction, and practice necessary to ensure that each crewmember--

(1) Remains adequately trained and currently proficient for each aircraft, crewmember position, and type of operation in which the crewmember serves; and

(2) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft.
Sec. 135.331 Crewmember emergency training.

(a) Each training program must provide emergency training under this section for each aircraft type, model, and configuration, each crewmember, and each kind of operation conducted, as appropriate for each crewmember and the certificate holder.

(b) Emergency training must provide the following:

(1) Instruction in emergency assignments and procedures, including coordination among crewmembers.

(2) Individual instruction in the location, function, and operation of emergency equipment including--

(i) Equipment used in ditching and evacuation;

(ii) First aid equipment and its proper use; and

(iii) Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires.

(3) Instruction in the handling of emergency situations including--

(i) Rapid decompression;

(ii) Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas;

(iii) Ditching and evacuation;

(iv) Illness, injury, or other abnormal situations involving passengers or crewmembers; and

(v) Hijacking and other unusual situations.

(4) Review of the certificate holder’s previous aircraft accidents and incidents involving actual emergency situations.

(c) Each crewmember must perform at least the following emergency drills, using the proper emergency equipment and procedures, unless the Administrator finds that, for a particular drill, the crewmember can be adequately trained by demonstration:

(1) Ditching, if applicable.

(2) Emergency evacuation.

(3) Fire extinguishing and smoke control.

(4) Operation and use of emergency exits, including deployment and use of evacuation chutes, if applicable.

(5) Use of crew and passenger oxygen.

(6) Removal of life rafts from the aircraft, inflation of the life rafts, use of life lines, and boarding of passengers and crew, if applicable.

(7) Donning and inflation of life vests and the use of other individual flotation devices, if applicable.

(d) Crewmembers who serve in operations above 25,000 feet must receive instruction in the following:

(1) Respiration.

(2) Hypoxia.

(3) Duration of consciousness without supplemental oxygen at altitude.

(4) Gas expansion.

(5) Gas bubble formation.

(6) Physical phenomena and incidents of decompression.

Sec. 135.335 Approval of aircraft simulators and other training devices.

(a) Training courses using aircraft simulators and other training devices may be included in the certificate holder’s training program if approved by the Administrator.

(b) Each aircraft simulator and other training device that is used in a training course or in checks required under this subpart must meet the following requirements:

(1) It must be specifically approved for--

(i) The certificate holder; and

(ii) The particular maneuver, procedure, or crewmember function involved.
(2) It must maintain the performance, functional, and other character-
istics that are required for approval.
(3) Additionally, for aircraft simulators, it must be--
   (i) Approved for the type aircraft and, if applicable, the particular variation within type for which
   the training or check is being conducted; and
   (ii) Modified to conform with any modification to the aircraft being simulated that changes the
   performance, functional, or other characteristics required for approval.
(c) A particular aircraft simulator or other training device may be used by more than one
   certificate holder.
(d) In granting initial and final approval of training programs or revisions to them, the
   Administrator considers the training devices, methods and procedures listed in the certificate
   holder's curriculum under Sec. 135.327.

Sec. 135.337 Qualifications: Check airmen (aircraft) and check airmen
(simulator).

(a) For the purposes of this section and Sec. 135.339:
   (1) A check airman (aircraft) is a person who is qualified to conduct flight checks in an aircraft,
   in a flight simulator, or in a flight training device for a particular type aircraft.
   (2) A check airman (simulator) is a person who is qualified to conduct flight checks, but only in
   a flight simulator, in a flight training device, or both, for a particular type aircraft.
   (3) Check airmen (aircraft) and check airmen (simulator) are those check airmen who perform
   the functions described in Sec. Sec. 135.321
   (a) and 135.323(a)(4) and (c).
   (b) No certificate holder may use a person, nor may any person serve as a check airman
   (aircraft) in a training program established under this subpart unless, with respect to the aircraft
   type involved, that person--
   (1) Holds the airman certificates and ratings required to serve as a pilot in command in
   operations under this part;
   (2) Has satisfactorily completed the training phases for the aircraft, including recurrent training,
   that are required to serve as a pilot in command in operations under this part;
   (3) Has satisfactorily completed the proficiency or competency checks that are required to
   serve as a pilot in command in operations under this part;
   (4) Has satisfactorily completed the applicable training requirements of Sec. 135.339;
   (5) Holds at least a Class III medical certificate unless serving as a required crewmember, in
   which case holds a Class I or Class II medical certificate as appropriate.
   (6) Has satisfied the recency of experience requirements of Sec. 135.247; and
   (7) Has been approved by the Administrator for the check airman duties involved.
   (c) No certificate holder may use a person, nor may any person serve as a check airman
   (simulator) in a training program established under this subpart unless, with respect to the aircraft
   type involved, that person meets the provisions of paragraph (b) of this section, or--
   (1) Holds the applicable airman certificates and ratings, except medical certificate, required to
   serve as a pilot in command in operations under this part;
   (2) Has satisfactorily completed the appropriate training phases for the aircraft, including
   recurrent training, that are required to serve as a pilot in command in operations under this part;
   (3) Has satisfactorily completed the appropriate proficiency or competency checks that are
   required to serve as a pilot in command in operations under this part;
   (4) Has satisfactorily completed the applicable training requirements of Sec. 135.339; and
   (5) Has been approved by the Administrator for the check airman (simulator) duties involved.
   (d) Completion of the requirements in paragraphs (b) (2), (3), and (4) or (c) (2), (3), and (4) of
   this section, as applicable, shall be entered in the individual's training record maintained by the
   certificate holder.
   (e) Check airmen who do not hold an appropriate medical certificate may function as check
   airmen (simulator), but may not serve as flightcrew members in operations under this part.
   (f) A check airman (simulator) must accomplish the following--
(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month preceding the performance of any check airman duty in a flight simulator; or
(2) Satisfactorily complete an approved line-observation program within the period prescribed by that program and that must precede the performance of any check airman duty in a flight simulator.
(g) The flight segments or line-observation program required in paragraph (f) of this section are considered to be completed in the month required if completed in the calendar month before or the calendar month after the month in which they are due.

Sec. 135.338 Qualifications: Flight instructors (aircraft) and flight instructors (simulator).

(a) For the purposes of this section and Sec. 135.340:
(1) A flight instructor (aircraft) is a person who is qualified to instruct in an aircraft, in a flight simulator, or in a flight training device for a particular type, class, or category aircraft.
(2) A flight instructor (simulator) is a person who is qualified to instruct in a flight simulator, in a flight training device, or in both, for a particular type, class, or category aircraft.
(3) Flight instructors (aircraft) and flight instructors (simulator) are those instructors who perform the functions described in Sec. 135.321(a) and 135.323 (a)(4) and (c).
(b) No certificate holder may use a person, nor may any person serve as a flight instructor (aircraft) in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person--
(1) Holds the airman certificates and ratings required to serve as a pilot in command in operations under this part;
(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this part;
(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a pilot in command in operations under this part;
(4) Has satisfactorily completed the applicable training requirements of Sec. 135.340;
(5) Holds at least a Class III medical certificate; and
(6) Has satisfied the recency of experience requirements of Sec. 135.247.
(c) No certificate holder may use a person, nor may any person serve as a flight instructor (simulator) in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person meets the provisions of paragraph (b) of this section, or--
(1) Holds the airman certificates and ratings, except medical certificate, required to serve as a pilot in command in operations under this part except before March 19, 1997 that person need not hold a type rating for the type, class, or category of aircraft involved.
(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this part;
(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a pilot in command in operations under this part;
(4) Has satisfactorily completed the applicable training requirements of Sec. 135.340.
(d) Completion of the requirements in paragraphs (b) (2), (3), and (4) or (c) (2), (3), and (4) of this section, as applicable, shall be entered in the individual's training record maintained by the certificate holder.
(e) An airman who does not hold a medical certificate may function as a flight instructor in an aircraft if functioning as a non-required crewmember, but may not serve as a flightcrew member in operations under this part.
(f) A flight instructor (simulator) must accomplish the following--
(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month period preceding the performance of any flight instructor duty in a flight simulator; or
(2) Satisfactorily complete an approved line-observation program within the period prescribed by that program and that must precede the performance of any check airman duty in a flight simulator.

(g) The flight segments or line-observation program required in paragraph (f) of this section are considered completed in the month required if completed in the calendar month before, or in the calendar month after, the month in which they are due.

Sec. 135.339 Initial and transition training and checking: Check airmen (aircraft), check airmen (simulator).

(a) No certificate holder may use a person nor may any person serve as a check airman unless—

(1) That person has satisfactorily completed initial or transition check airman training; and

(2) Within the preceding 24 calendar months, that person satisfactorily conducts a proficiency or competency check under the observation of an FAA inspector or an aircrew designated examiner employed by the operator. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device. This paragraph applies after March 19, 1997.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the calendar month before or the calendar month after the month in which it is due.

(c) The initial ground training for check airmen must include the following:

(1) Check airman duties, functions, and responsibilities.

(2) The applicable Code of Federal Regulations and the certificate holder's policies and procedures.

(3) The applicable methods, procedures, and techniques for conducting the required checks.

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory checks.

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(d) The transition ground training for check airmen must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check airman is in transition.

(e) The initial and transition flight training for check airmen (aircraft) must include the following—

(1) The safety measures for emergency situations that are likely to develop during a check;

(2) The potential results of improper, untimely, or nonexecution of safety measures during a check;

(3) Training and practice in conducting flight checks from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence to conduct the pilot flight checks required by this part; and

(4) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during checking.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

(g) The initial and transition flight training for check airmen (simulator) must include the following—

(1) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks required by this part. This training and practice must be accomplished in a flight simulator or in a flight training device.

(2) Training in the operation of flight simulators, flight training devices, or both, to ensure competence to conduct the flight checks required by this part.
Sec. 135.339  Initial and transition training and checking: Check airmen (aircraft), check airmen (simulator).

(a) No certificate holder may use a person nor may any person serve as a check airman unless--
   (1) That person has satisfactorily completed initial or transition check airman training; and
   (2) Within the preceding 24 calendar months, that person satisfactorily conducts a proficiency
       or competency check under the observation of an FAA inspector or an aircrew designated
       examiner employed by the operator. The observation check may be accomplished in part or in full
       in an aircraft, in a flight simulator, or in a flight training device. This paragraph applies after March
       19, 1997.

(b) The observation check required by paragraph (a)(2) of this section is considered to have
    been completed in the month required if completed in the calendar month before or the calendar
    month after the month in which it is due.

(c) The initial ground training for check airmen must include the following:
   (1) Check airman duties, functions, and responsibilities.
   (2) The applicable Code of Federal Regulations and the certificate holder's policies and
       procedures.
   (3) The applicable methods, procedures, and techniques for conducting the required checks.
   (4) Proper evaluation of student performance including the detection of--
       (i) Improper and insufficient training; and
       (ii) Personal characteristics of an applicant that could adversely affect safety.
   (5) The corrective action in the case of unsatisfactory checks.
   (6) The approved methods, procedures, and limitations for performing the required normal,
       abnormal, and emergency procedures in the aircraft.

(d) The transition ground training for check airmen must include the approved methods,
    procedures, and limitations for performing the required normal, abnormal, and emergency
    procedures applicable to the aircraft to which the check airman is in transition.

(e) The initial and transition flight training for check airmen (aircraft) must include the following--
   (1) The safety measures for emergency situations that are likely to develop during a check;
   (2) The potential results of improper, untimely, or nonexecution of safety measures during a
       check;
   (3) Training and practice in conducting flight checks from the left and right pilot seats in the
       required normal, abnormal, and emergency procedures to ensure competence to conduct the
       pilot flight checks required by this part; and
   (4) The safety measures to be taken from either pilot seat for emergency situations that are
       likely to develop during checking.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in
    flight, in a flight simulator, or in a flight training device, as appropriate.

(g) The initial and transition flight training for check airmen (simulator) must include the
    following:
   (1) Training and practice in conducting flight checks in the required normal, abnormal, and
       emergency procedures to ensure competence to conduct the flight checks required by this part.
       This training and practice must be accomplished in a flight simulator or in a flight training device.
   (2) Training in the operation of flight simulators, flight training devices, or both, to ensure
       competence to conduct the flight checks required by this part.

Sec. 135.340  Initial and transition training and checking: Flight instructors (aircraft), flight instructors (simulator).

(a) No certificate holder may use a person nor may any person serve as a flight instructor
    unless--
   (1) That person has satisfactorily completed initial or transition flight instructor training; and
   (2) Within the preceding 24 calendar months, that person satisfactorily conducts instruction
       under the observation of an FAA inspector, an operator check airman, or an aircrew designated
examiner employed by the operator. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device. This paragraph applies after March 19, 1997.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the calendar month before, or the calendar month after, the month in which it is due.

(c) The initial ground training for flight instructors must include the following:
   (1) Flight instructor duties, functions, and responsibilities.
   (2) The applicable Code of Federal Regulations and the certificate holder's policies and procedures.
   (3) The applicable methods, procedures, and techniques for conducting flight instruction.
   (4) Proper evaluation of student performance including the detection of--
      (i) Improper and insufficient training; and
      (ii) Personal characteristics of an applicant that could adversely affect safety.
   (5) The corrective action in the case of unsatisfactory training progress.
   (6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.
   (7) Except for holders of a flight instructor certificate--
      (i) The fundamental principles of the teaching-learning process;
      (ii) Teaching methods and procedures; and
      (iii) The instructor-student relationship.
   (d) The transition ground training for flight instructors must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the type, class, or category aircraft to which the flight instructor is in transition.
   (e) The initial and transition flight training for flight instructors (aircraft) must include the following--
      (1) The safety measures for emergency situations that are likely to develop during instruction;
      (2) The potential results of improper or untimely safety measures during instruction;
      (3) Training and practice from the left and right pilot seats in the required normal, abnormal, and emergency maneuvers to ensure competence to conduct the flight instruction required by this part; and
      (4) The safety measures to be taken from either the left or right pilot seat for emergency situations that are likely to develop during instruction.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

(g) The initial and transition flight training for a flight instructor (simulator) must include the following:
   (1) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. These maneuvers and procedures must be accomplished in full or in part in a flight simulator or in a flight training device.
   (2) Training in the operation of flight simulators, flight training devices, or both, to ensure competence to conduct the flight instruction required by this part.

Sec. 135.341 Pilot and flight attendant crewmember training programs.

(a) Each certificate holder, other than one who uses only one pilot in the certificate holder's operations, shall establish and maintain an approved pilot training program, and each certificate holder who uses a flight attendant crewmember shall establish and maintain an approved flight attendant training program, that is appropriate to the operations to which each pilot and flight attendant is to be assigned, and will ensure that they are adequately trained to meet the applicable knowledge and practical testing requirements of Sec. Sec. 135.293 through 135.301. However, the Administrator may authorize a deviation from this section if the Administrator finds that, because of the limited size and scope of the operation, safety will allow a deviation from these requirements.
(b) Each certificate holder required to have a training program by paragraph (a) of this section shall include in that program ground and flight training curriculums for--
   (1) Initial training;
   (2) Transition training;
   (3) Upgrade training;
   (4) Differences training; and
   (5) Recurrent training.
(c) Each certificate holder required to have a training program by paragraph (a) of this section shall provide current and appropriate study materials for use by each required pilot and flight attendant.
(d) The certificate holder shall furnish copies of the pilot and flight attendant crewmember training program, and all changes and additions, to the assigned representative of the Administrator. If the certificate holder uses training facilities of other persons, a copy of those training programs or appropriate portions used for those facilities shall also be furnished. Curricula that follow FAA published curricula may be cited by reference in the copy of the training program furnished to the representative of the Administrator and need not be furnished with the program.

Sec. 135.343 Crewmember initial and recurrent training requirements.

No certificate holder may use a person, nor may any person serve, as a crewmember in operations under this part unless that crewmember has completed the appropriate initial or recurrent training phase of the training program appropriate to the type of operation in which the crewmember is to serve since the beginning of the 12th calendar month before that service. This section does not apply to a certificate holder that uses only one pilot in the certificate holder's operations.

Sec. 135.343 Crewmember initial and recurrent training requirements.

No certificate holder may use a person, nor may any person serve, as a crewmember in operations under this part unless that crewmember has completed the appropriate initial or recurrent training phase of the training program appropriate to the type of operation in which the crewmember is to serve since the beginning of the 12th calendar month before that service. This section does not apply to a certificate holder that uses only one pilot in the certificate holder's operations.

Sec. 135.345 Pilots: Initial, transition, and upgrade ground training.

Initial, transition, and upgrade ground training for pilots must include instruction in at least the following, as applicable to their duties:
   (a) General subjects--
      (1) The certificate holder’s flight locating procedures;
      (2) Principles and methods for determining weight and balance, and runway limitations for takeoff and landing;
      (3) Enough meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, windshear and, if appropriate, high altitude weather situations;
      (4) Air traffic control systems, procedures, and phraseology;
      (5) Navigation and the use of navigational aids, including instrument approach procedures;
      (6) Normal and emergency communication procedures;
      (7) Visual cues before and during descent below DH or MDA; and
      (8) Other instructions necessary to ensure the pilot's competence.
(b) For each aircraft type--
   (1) A general description;
   (2) Performance characteristics;
(3) Engines and propellers;
(4) Major components;
(5) Major aircraft systems (i.e., flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;
(6) Knowledge and procedures for--
   (i) Recognizing and avoiding severe weather situations;
   (ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be trained in escaping from low-altitude windshear);
   (iii) Operating in or near thunderstorms (including best penetrating altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and
   (iv) Operating airplanes during ground icing conditions, (i.e., any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the airplane), if the certificate holder expects to authorize takeoffs in ground icing conditions, including:
      (A) The use of holdover times when using deicing/anti-icing fluids;
      (B) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities;
      (C) Communications;
      (D) Airplane surface contamination (i.e., adherence of frost, ice, or snow) and critical area identification, and knowledge of how contamination adversely affects airplane performance and flight characteristics;
      (E) Types and characteristics of deicing/anti-icing fluids, if used by the certificate holder;
      (F) Cold weather preflight inspection procedures;
      (G) Techniques for recognizing contamination on the airplane;
(7) Operating limitations;
(8) Fuel consumption and cruise control;
(9) Flight planning;
(10) Each normal and emergency procedure; and
(11) The approved Aircraft Flight Manual, or equivalent.

Sec. 135.347 Pilots: Initial, transition, upgrade, and differences flight training.

   (a) Initial, transition, upgrade, and differences training for pilots must include flight and practice in each of the maneuvers and procedures in the approved training program curriculum.
   (b) The maneuvers and procedures required by paragraph (a) of this section must be performed in flight, except to the extent that certain maneuvers and procedures may be performed in an aircraft simulator, or an appropriate training device, as allowed by this subpart.
   (c) If the certificate holder's approved training program includes a course of training using an aircraft simulator or other training device, each pilot must successfully complete--
      (1) Training and practice in the simulator or training device in at least the maneuvers and procedures in this subpart that are capable of being performed in the aircraft simulator or training device; and
      (2) A flight check in the aircraft or a check in the simulator or training device to the level of proficiency of a pilot in command or second in command, as applicable, in at least the maneuvers and procedures that are capable of being performed in an aircraft simulator or training device.

Sec. 135.351 Recurrent training.

   (a) Each certificate holder must ensure that each crewmember receives recurrent training and is adequately trained and currently proficient for the type aircraft and crewmember position involved.
   (b) Recurrent ground training for crewmembers must include at least the following:
(1) A quiz or other review to determine the crewmember's knowledge of the aircraft and crewmember position involved.

(2) Instruction as necessary in the subjects required for initial ground training by this subpart, as appropriate, including low-altitude windshear training and training on operating during ground icing conditions, as prescribed in Sec. 135.341 and described in Sec. 135.345, and emergency training.

(c) Recurrent flight training for pilots must include, at least, flight training in the maneuvers or procedures in this subpart, except that satisfactory completion of the check required by Sec. 135.293 within the preceding 12 calendar months may be substituted for recurrent flight training.

**Sec. 135.353 Prohibited drugs.**

(a) Each certificate holder or operator shall provide each employee performing a function listed in appendix I to part 121 of this chapter and his or her supervisor with the training specified in that appendix.

(b) No certificate holder or operator may use any contractor to perform a function specified in appendix I to part 121 of this chapter unless that contractor provides each of its employees performing that function for the certificate holder or the operator and his or her supervisor with the training specified in that appendix.

**Subpart I_Airplane Performance Operating Limitations**

**Sec. 135.397 Small transport category airplane performance operating limitations.**

(a) No person may operate a reciprocating engine powered small transport category airplane unless that person complies with the weight limitations in Sec. 135.365, the takeoff limitations in Sec. 135.367 (except paragraph (a)(3)), and the landing limitations in Sec. Sec. 135.375 and 135.377.

(b) No person may operate a turbine engine powered small transport category airplane unless that person complies with the takeoff limitations in Sec. 135.379 (except paragraphs (d) and (f)) and the landing limitations in Sec. Sec. 135.385 and 135.387.

**Sec. 135.399 Small nontransport category airplane performance operating limitations.**

(a) No person may operate a reciprocating engine or turbopropeller-powered small airplane that is certificated under Sec. 135.169(b) (2), (3), (4), (5), or (6) unless that person complies with the takeoff weight limitations in the approved Airplane Flight Manual or equivalent for operations under this part, and, if the airplane is certificated under Sec. 135.169(b) (4) or (5) with the landing weight limitations in the Approved Airplane Flight Manual or equivalent for operations under this part.

(b) No person may operate an airplane that is certificated under Sec. 135.169(b)(6) unless that person complies with the landing limitations prescribed in Sec. Sec. 135.385 and 135.387 of this part. For purposes of this paragraph, Sec. Sec. 135.385 and 135.387 are applicable to reciprocating and turbopropeller-powered small airplanes notwithstanding their stated applicability to turbine engine powered large transport category airplanes.
Subpart J_Maintenance, Preventive Maintenance, and Alterations

Sec. 135.411 Applicability.

(a) This subpart prescribes rules in addition to those in other parts of this chapter for the maintenance, preventive maintenance, and alterations for each certificate holder as follows:

(1) Aircraft that are type certificated for a passenger seating configuration, excluding any pilot seat, of nine seats or less, shall be maintained under parts 91 and 43 of this chapter and Sec. Sec. 135.415, 135.416, 135.417, 135.421 and 135.422. An approved aircraft inspection program may be used under Sec. 135.419.

(2) Aircraft that are type certificated for a passenger seating configuration, excluding any pilot seat, of ten seats or more, shall be maintained under a maintenance program in Sec. Sec. 135.415, 135.416, 135.417, and 135.423 through 135.443.

(b) A certificate holder who is not otherwise required, may elect to maintain its aircraft under paragraph (a)(2) of this section.

(c) Single engine aircraft used in passenger-carrying IFR operations shall also be maintained in accordance with Sec. 135.421 (c), (d), and (e).

Sec. 135.413 Responsibility for airworthiness.

(a) Each certificate holder is primarily responsible for the airworthiness of its aircraft, including airframes, aircraft engines, propellers, rotors, appliances, and parts, and shall have its aircraft maintained under this chapter, and shall have defects repaired between
required maintenance under part 43 of this chapter.

(b) Each certificate holder who maintains its aircraft under Sec. 135.411(a)(2) shall--

(1) Perform the maintenance, preventive maintenance, and alteration of its aircraft, including airframe, aircraft engines, propellers, rotors, appliances, emergency equipment and parts, under its manual and this chapter; or

(2) Make arrangements with another person for the performance of maintenance, preventive maintenance, or alteration. However, the certificate holder shall ensure that any maintenance, preventive maintenance, or alteration that is performed by another person is performed under the certificate holder’s manual and this chapter.

Sec. 135.415 Mechanical reliability reports.

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect in an aircraft concerning--

(1) Fires during flight and whether the related fire-warning system functioned properly;

(2) Fires during flight not protected by related fire-warning system;

(3) False fire-warning during flight;

(4) An exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Shutdown of more than one engine during flight;

(10) A propeller feathering system or ability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) An unwanted landing gear extension or retraction or opening or closing of landing gear doors during flight;

(13) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the FAA; and

(16) Aircraft components or systems that result in taking emergency actions during flight (except action to shut-down an engine).

(b) For the purpose of this section, during flight means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.
(d) Each certificate holder shall send each report required by this section, in writing, covering each 24-hour period beginning at 0900 hours local time of each day and ending at 0900 hours local time on the next day to the FAA Flight Standards District Office charged with the overall inspection of the certificate holder. Each report of occurrences during a 24-hour period must be mailed or delivered to that office within the next 72 hours. However, a report that is due on Saturday or Sunday may be mailed or delivered on the following Monday and one that is due on a holiday may be mailed or delivered on the next work day. For aircraft operated in areas where mail is not collected, reports may be mailed or delivered within 72 hours after the aircraft returns to a point where the mail is collected.

(e) The certificate holder shall transmit the reports required by this section on a form and in a manner prescribed by the Administrator, and shall include as much of the following as is available:

1. The type and identification number of the aircraft.
2. The name of the operator.
3. The date.
4. The nature of the failure, malfunction, or defect.
5. Identification of the part and system involved, including available information pertaining to type designation of the major component and time since last overhaul, if known.
6. Apparent cause of the failure, malfunction or defect (e.g., wear, crack, design deficiency, or personnel error).
7. Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

(f) A certificate holder that is also the holder of a type certificate (including a supplemental type certificate), a Parts
Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a type certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under Sec. 21.3 or Sec. 37.17 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.

(g) No person may withhold a report required by this section even though all information required by this section is not available.

(h) When the certificate holder gets additional information, including information from the manufacturer or other agency, concerning a report required by this section, it shall expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

Sec. 135.415 Service difficulty reports (operational).

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect concerning--

1. Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;

2. Any false warning of fire or smoke;

3. An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;

4. An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes;

5. Any engine flameout or shutdown during flight or ground operations;

6. A propeller feathering system or ability of the system to
control overspeed;

(7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage;

(8) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;

(9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground;

(10) Any aircraft component or system that results in a rejected takeoff after initiation of the takeoff roll or the taking of emergency action, as defined by the Aircraft Flight Manual or Pilot's Operating Handbook;

(11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments; and

(12) Autothrottle, autoflight, or flight control systems or components of these systems.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft.

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the FAA.
offices in Oklahoma City, Oklahoma. Each report of occurrences during a
24-hour period shall be submitted to the collection point within the
next 96 hours. However, a report due on Saturday or Sunday may be
submitted on the following Monday, and a report due on a holiday may be
submitted on the next workday.

(d) Each certificate holder shall submit each report required by
this section, covering each 24-hour period beginning at 0900 local time
of each day and ending at 0900 local time on the next day, to a
centralized collection point as specified by the Administrator. Each
report of occurrences during a 24-hour period shall be submitted to the
FAA within the next 96 hours. However, a report due on Saturday or
Sunday may be submitted on the following Monday, and a report due on a
holiday may be submitted on the next workday. For aircraft operating in
areas where mail is not collected, reports may be submitted within 24
hours after the aircraft returns to a point where the mail is collected.
Each certificate holder also shall make the report data available for 30
days for examination by the certificate-holding district office in a
form and manner acceptable to the Administrator.

(e) The certificate holder shall submit the reports required by this
section on a form or in another format acceptable to the Administrator.
The reports shall include the following information:

1. The manufacturer, model, and serial number of the aircraft,
engine, or propeller;
2. The registration number of the aircraft;
(3) The operator designator;

(4) The date on which the failure, malfunction, or defect was discovered;

(5) The stage of flight or ground operation during which the failure, malfunction, or defect was discovered;

(6) The nature of the failure, malfunction, or defect;

(7) The applicable Joint Aircraft System/Component Code;

(8) The total cycles, if applicable, and total time of the aircraft, aircraft engine, propeller, or component;

(9) The manufacturer, manufacturer part number, part name, serial number, and location of the component that failed, malfunctioned, or was defective, if applicable;

(10) The manufacturer, manufacturer part number, part name, serial number, and location of the part that failed, malfunctioned, or was defective, if applicable;

(11) The precautionary or emergency action taken;

(12) Other information necessary for more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and

(13) A unique control number for the occurrence, in a form acceptable to the Administrator.

(f) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by that certificate holder
under Sec. 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(g) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by a part 135 certificate holder. However, the part 135 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 135 certificate holder shall receive a copy of each report submitted by the repair station.

(h) No person may withhold a report required by this section although all information required by this section is not available.

(i) When a certificate holder gets supplemental information to complete the report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

Effective Date Note 2: At 70 FR 76979, Dec. 29, 2005, Sec. 135.415 was amended by revising the heading and paragraph (d), effective Jan. 30, 2006. For the convenience of the user, the revised text follows:

**Sec. 135.415 Mechanical reliability reports.**

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect in an aircraft concerning--

(1) Fires during flight and whether the related fire-warning system functioned properly;

(2) Fires during flight not protected by related fire-warning
system;

(3) False fire-warning during flight;

(4) An exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Shutdown of more than one engine during flight;

(10) A propeller feathering system or ability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) An unwanted landing gear extension or retraction or opening or closing of landing gear doors during flight;

(13) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the FAA; and

(16) Aircraft components or systems that result in taking emergency actions during flight (except action to shut-down an engine).
(b) For the purpose of this section, during flight means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.

(d) Each certificate holder shall send each report required by this section, in writing, covering each 24-hour period beginning at 0900 hours local time of each day and ending at 0900 hours local time on the next day to the FAA Flight Standards District Office charged with the overall inspection of the certificate holder. Each report of occurrences during a 24-hour period must be mailed or delivered to that office within the next 72 hours. However, a report that is due on Saturday or Sunday may be mailed or delivered on the following Monday and one that is due on a holiday may be mailed or delivered on the next work day. For aircraft operated in areas where mail is not collected, reports may be mailed or delivered within 72 hours after the aircraft returns to a point where the mail is collected.

(e) The certificate holder shall transmit the reports required by this section on a form and in a manner prescribed by the Administrator, and shall include as much of the following as is available:

1. The type and identification number of the aircraft.
2. The name of the operator.
3. The date.
4. The nature of the failure, malfunction, or defect.
5. Identification of the part and system involved, including
available information pertaining to type designation of the major component and time since last overhaul, if known.

(6) Apparent cause of the failure, malfunction or defect (e.g., wear, crack, design deficiency, or personnel error).

(7) Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

(f) A certificate holder that is also the holder of a type certificate (including a supplemental type certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a type certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under Sec. 21.3 or Sec. 37.17 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.

(g) No person may withhold a report required by this section even though all information required by this section is not available.

(h) When the certificate holder gets additional information, including information from the manufacturer or other agency, concerning a report required by this section, it shall expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

Sec. 135.415 Service difficulty reports (operational).

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect concerning--

(1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;
(2) Any false warning of fire or smoke;

(3) An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;

(4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes;

(5) Any engine flameout or shutdown during flight or ground operations;

(6) A propeller feathering system or ability of the system to control overspeed;

(7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage;

(8) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;

(9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground;

(10) Any aircraft component or system that results in a rejected takeoff after initiation of the takeoff roll or the taking of emergency action, as defined by the Aircraft Flight Manual or Pilot's Operating Handbook;

(11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments; and

(12) Autothrottle, autoflight, or flight control systems or components of these systems.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant
that occurs or is detected at any time if that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft.

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next workday. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(e) The certificate holder shall submit the reports required by this section on a form or in another format acceptable to the Administrator. The reports shall include the following information:

1. The manufacturer, model, and serial number of the aircraft, engine, or propeller;
2. The registration number of the aircraft;
3. The operator designator;
4. The date on which the failure, malfunction, or defect was discovered;
5. The stage of flight or ground operation during which the failure, malfunction, or defect was discovered;
6. The nature of the failure, malfunction, or defect;
7. The applicable Joint Aircraft System/Component Code;
(8) The total cycles, if applicable, and total time of the aircraft, aircraft engine, propeller, or component;

(9) The manufacturer, manufacturer part number, part name, serial number, and location of the component that failed, malfunctioned, or was defective, if applicable;

(10) The manufacturer, manufacturer part number, part name, serial number, and location of the part that failed, malfunctioned, or was defective, if applicable;

(11) The precautionary or emergency action taken;

(12) Other information necessary for more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and

(13) A unique control number for the occurrence, in a form acceptable to the Administrator.

(f) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by that certificate holder under Sec. 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(g) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by a part 135 certificate holder. However, the part 135 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 135 certificate
holder shall receive a copy of each report submitted by the repair station.

(h) No person may withhold a report required by this section although all information required by this section is not available.

(i) When a certificate holder gets supplemental information to complete the report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

Effective Date Note 2: At 70 FR 76979, Dec. 29, 2005, Sec. 135.415 was amended by revising the heading and paragraph (d), effective Jan. 30, 2006. For the convenience of the user, the revised text follows:

**Sec. 135.415 Service difficulty reports.**

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the FAA offices in Oklahoma City, Oklahoma. Each report of occurrences during a 24-hour period shall be submitted to the collection point within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next workday.

**Sec. 135.416 Service difficulty reports (structural).**

(a) Each certificate holder shall report the occurrence or detection
of each failure or defect related to--

(1) Corrosion, cracks, or disbonding that requires replacement of the affected part;

(2) Corrosion, cracks, or disbonding that requires rework or blendout because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits;

(3) Cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a primary structure or a principal structural element; or

(4) Repairs made in accordance with approved data not contained in the manufacturer's maintenance manual.

(b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure or defect in aircraft structure that occurs or is detected at any time if that failure or defect has endangered or may endanger the safe operation of an aircraft.

(c) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next workday. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-
holding district office in a form and manner acceptable to the Administrator.

(d) The certificate holder shall submit the reports required by this section on a form or in another format acceptable to the Administrator. The reports shall include the following information:

1. The manufacturer, model, serial number, and registration number of the aircraft;
2. The operator designator;
3. The date on which the failure or defect was discovered;
4. The stage of ground operation during which the failure or defect was discovered;
5. The part name, part condition, and location of the failure or defect;
6. The applicable Joint Aircraft System/Component Code;
7. The total cycles, if applicable, and total time of the aircraft;
8. Other information necessary for a more complete analysis of the cause of the failure or defect, including corrosion classification, if applicable, or crack length and available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and
9. A unique control number for the occurrence, in a form acceptable to the Administrator.

(e) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure or defect under this section if the failure or defect has been reported by that certificate holder under Sec. 21.3 of this chapter or
under the accident reporting provisions of 49 CFR part 830.

(f) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by the part 135 certificate holder. However, the part 135 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 135 certificate holder shall receive a copy of each report submitted by the repair station.

(g) No person may withhold a report required by this section although all information required by this section is not available.

(h) When a certificate holder gets supplemental information to complete the report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

Sec. 135.417 Mechanical interruption summary report.

Each certificate holder shall mail or deliver, before the end of the 10th day of the following month, a summary report of the following occurrences in multiengine aircraft for the preceding month to the certificate-holding district office:

(a) Each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under Sec. 135.415.

(b) The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed. Propeller
featherings for training, demonstration, or flight check purposes need not be reported.

**Sec. 135.417 Mechanical interruption summary report.**

Each certificate holder shall submit to the Administrator, before the end of the 10th day of the following month, a summary report for the previous month of each interruption to a flight, unscheduled change of aircraft en route, unscheduled stop or diversion from a route, or unscheduled engine removal caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under Sec. 135.415 or Sec. 135.416 of this part.

**Sec. 135.419 Approved aircraft inspection program.**

(a) Whenever the Administrator finds that the aircraft inspections required or allowed under part 91 of this chapter are not adequate to meet this part, or upon application by a certificate holder, the Administrator may amend the certificate holder's operations specifications under Sec. 135.17, to require or allow an approved aircraft inspection program for any make and model aircraft of which the certificate holder has the exclusive use of at least one aircraft (as defined in Sec. 135.25(b)).

(b) A certificate holder who applies for an amendment of its operations specifications to allow an approved aircraft inspection program must submit that program with its application for approval by the Administrator.
(c) Each certificate holder who is required by its operations specifications to have an approved aircraft inspection program shall submit a program for approval by the Administrator within 30 days of the amendment of its operations specifications or within any other period that the Administrator may prescribe in the operations specifications.

(d) The aircraft inspection program submitted for approval by the Administrator must contain the following:

(1) Instructions and procedures for the conduct of aircraft inspections (which must include necessary tests and checks), setting forth in detail the parts and areas of the airframe, engines, propellers, rotors, and appliances, including emergency equipment, that must be inspected.

(2) A schedule for the performance of the aircraft inspections under paragraph (d)(1) of this section expressed in terms of the time in service, calendar time, number of system operations, or any combination of these.

(3) Instructions and procedures for recording discrepancies found during inspections and correction or deferral of discrepancies including form and disposition of records.

(e) After approval, the certificate holder shall include the approved aircraft inspection program in the manual required by Sec. 135.21.

(f) Whenever the Administrator finds that revisions to an approved aircraft inspection program are necessary for the continued adequacy of the program, the certificate holder shall, after notification by the Administrator, make any changes in the program found by the Administrator to be necessary. The certificate holder may petition the Administrator to reconsider the notice to make any changes in a program.
The petition must be filed with the representatives of the Administrator assigned to it within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

(g) Each certificate holder who has an approved aircraft inspection program shall have each aircraft that is subject to the program inspected in accordance with the program.

(h) The registration number of each aircraft that is subject to an approved aircraft inspection program must be included in the operations specifications of the certificate holder.

Sec. 135.421 Additional maintenance requirements.

(a) Each certificate holder who operates an aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of nine seats or less, must comply with the manufacturer's recommended maintenance programs, or a program approved by the Administrator, for each aircraft engine, propeller, rotor, and each item of emergency equipment required by this chapter.

(b) For the purpose of this section, a manufacturer's maintenance program is one which is contained in the maintenance manual or maintenance instructions set forth by the manufacturer as required by this chapter for the aircraft, aircraft engine, propeller, rotor or item of emergency equipment.

(c) For each single engine aircraft to be used in passenger-carrying IFR operations, each certificate holder must incorporate into its
maintenance program either:

(1) The manufacturer's recommended engine trend monitoring program, which includes an oil analysis, if appropriate, or

(2) An FAA approved engine trend monitoring program that includes an oil analysis at each 100 hour interval or at the manufacturer's suggested interval, whichever is more frequent.

(d) For single engine aircraft to be used in passenger-carrying IFR operations, written maintenance instructions containing the methods, techniques, and practices necessary to maintain the equipment specified in Sec. Sec. 135.105, and 135.163 (f) and (h) are required.

(e) No certificate holder may operate a single engine aircraft under IFR, carrying passengers, unless the certificate holder records and maintains in the engine maintenance records the results of each test, observation, and inspection required by the applicable engine trend monitoring program specified in (c) (1) and (2) of this section.

Sec. 135.422 Aging airplane inspections and records reviews for multiengine airplanes certificated with nine or fewer passenger seats.

(a) Applicability. This section applies to multiengine airplanes certificated with nine or fewer passenger seats, operated by a certificate holder in a scheduled operation under this part, except for those airplanes operated by a certificate holder in a scheduled operation between any point within the State of Alaska and any other point within the State of Alaska.

(b) Operation after inspections and records review. After the dates specified in this paragraph, a certificate holder may not operate a
multiengine airplane in a scheduled operation under this part unless the Administrator has notified the certificate holder that the Administrator has completed the aging airplane inspection and records review required by this section. During the inspection and records review, the certificate holder must demonstrate to the Administrator that the maintenance of age-sensitive parts and components of the airplane has been adequate and timely enough to ensure the highest degree of safety.

   (1) Airplanes exceeding 24 years in service on December 8, 2003; initial and repetitive inspections and records reviews. For an airplane that has exceeded 24 years in service on December 8, 2003, no later than December 5, 2007, and thereafter at intervals not to exceed 7 years.

   (2) Airplanes exceeding 14 years in service but not 24 years in service on December 8, 2003; initial and repetitive inspections and records reviews. For an airplane that has exceeded 14 years in service, but not 24 years in service, on December 8, 2003, no later than December 4, 2008, and thereafter at intervals not to exceed 7 years.

   (3) Airplanes not exceeding 14 years in service on December 8, 2003; initial and repetitive inspections and records reviews. For an airplane that has not exceeded 14 years in service on December 8, 2003, no later than 5 years after the start of the airplane's 15th year in service and thereafter at intervals not to exceed 7 years.

   (c) Unforeseen schedule conflict. In the event of an unforeseen scheduling conflict for a specific airplane, the Administrator may approve an extension of up to 90 days beyond an interval specified in paragraph (b) of this section.

   (d) Airplane and records availability. The certificate holder must make available to the Administrator each airplane for which an inspection and records review is required under this section, in a
condition for inspection
specified by the Administrator, together with the records containing the
following information:

(1) Total years in service of the airplane;
(2) Total time in service of the airframe;
(3) Date of the last inspection and records review required by this
section;
(4) Current status of life-limited parts of the airframe;
(5) Time since the last overhaul of all structural components
required to be overhauled on a specific time basis;
(6) Current inspection status of the airplane, including the time
since the last inspection required by the inspection program under which
the airplane is maintained;
(7) Current status of applicable airworthiness directives, including
the date and methods of compliance, and, if the airworthiness directive
involves recurring action, the time and date when the next action is
required;
(8) A list of major structural alterations; and
(9) A report of major structural repairs and the current inspection
status for these repairs.

(e) Notification to the Administrator. Each certificate holder must
notify the Administrator at least 60 days before the date on which the
airplane and airplane records will be made available for the inspection
and records review.

Sec. 135.423 Maintenance, preventive maintenance, and alteration
organization.
(a) Each certificate holder that performs any of its maintenance
(other than required inspections), preventive maintenance, or
alterations, and each person with whom it arranges for the performance
of that work, must have an organization adequate to perform the work.

(b) Each certificate holder that performs any inspections required
by its manual under Sec. 135.427(b) (2) or (3), (in this subpart
referred to as required inspections), and each person with whom it
arranges for the performance of that work, must have an organization
adequate to perform that work.

(c) Each person performing required inspections in addition to other
maintenance, preventive maintenance, or alterations, shall organize the
performance of those functions so as to separate the required inspection
functions from the other maintenance, preventive maintenance, and
alteration functions. The separation shall be below the level of
administrative control at which overall responsibility for the required
inspection functions and other maintenance, preventive maintenance, and
alteration functions is exercised.

Sec. 135.425  Maintenance, preventive maintenance, and alteration
programs.

Each certificate holder shall have an inspection program and a
program covering other maintenance, preventive maintenance, and
alterations, that ensures that--

(a) Maintenance, preventive maintenance, and alterations performed
by it, or by other persons, are performed under the certificate holder's
manual;

(b) Competent personnel and adequate facilities and equipment are
provided for the proper performance of maintenance, preventive maintenance, and alterations; and

(c) Each aircraft released to service is airworthy and has been properly maintained for operation under this part.

Sec. 135.427 Manual requirements.

(a) Each certificate holder shall put in its manual the chart or description of the certificate holder's organization required by Sec. 135.424 and a list of persons with whom it has arranged for the performance of any of its required inspections, other maintenance, preventive maintenance, or alterations, including a general description of that work.

(b) Each certificate holder shall put in its manual the programs required by Sec. 135.425 that must be followed in performing maintenance, preventive maintenance, and alterations of that certificate holder's aircraft, including airframes, aircraft engines, propellers, rotors, appliances, emergency equipment, and parts, and must include at least the following:

(1) The method of performing routine and nonroutine maintenance (other than required inspections), preventive maintenance, and alterations.

(2) A designation of the items of maintenance and alteration that must be inspected (required inspections) including at least those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not performed properly or if improper parts or materials are used.
(3) The method of performing required inspections and a designation by occupational title of personnel authorized to perform each required inspection.

(4) Procedures for the reinspection of work performed under previous required inspection findings (buy-back procedures).

(5) Procedures, standards, and limits necessary for required inspections and acceptance or rejection of the items required to be inspected and for periodic inspection and calibration of precision tools, measuring devices, and test equipment.

(6) Procedures to ensure that all required inspections are performed.

(7) Instructions to prevent any person who performs any item of work from performing any required inspection of that work.

(8) Instructions and procedures to prevent any decision of an inspector regarding any required inspection from being countermanded by persons other than supervisory personnel of the inspection unit, or a person at the level of administrative control that has overall responsibility for the management of both the required inspection functions and the other maintenance, preventive maintenance, and alterations functions.

(9) Procedures to ensure that required inspections, other maintenance, preventive maintenance, and alterations that are not completed as a result of work interruptions are properly completed before the aircraft is released to service.

(c) Each certificate holder shall put in its manual a suitable system (which may include a coded system) that provides for the retention of the following information--

(1) A description (or reference to data acceptable to the
Administrator) of the work performed;

(2) The name of the person performing the work if the work is performed by a person outside the organization of the certificate holder; and

(3) The name or other positive identification of the individual approving the work.

(d) For the purposes of this part, the certificate holder must prepare that part of its manual containing maintenance information and instructions, in whole or in part, in printed form or other form, acceptable to the Administrator, that is retrievable in the English language.

**Sec. 135.429 Required inspection personnel.**

(a) No person may use any person to perform required inspections unless the person performing the inspection is appropriately certificated, properly trained, qualified, and authorized to do so.

(b) No person may allow any person to perform a required inspection unless, at the time, the person performing that inspection is under the supervision and control of an inspection unit.

(c) No person may perform a required inspection if that person performed the item of work required to be inspected.

(d) In the case of rotorcraft that operate in remote areas or sites, the Administrator may approve procedures for the performance of required inspection items by a pilot when no other qualified person is available, provided--

(1) The pilot is employed by the certificate holder;

(2) It can be shown to the satisfaction of the Administrator that each pilot authorized to perform required inspections is properly
trained and qualified;

(3) The required inspection is a result of a mechanical interruption and is not a part of a certificate holder's continuous airworthiness maintenance program;

(4) Each item is inspected after each flight until the item has been inspected by an appropriately certificated mechanic other than the one who originally performed the item of work; and

(5) Each item of work that is a required inspection item that is part of the flight control system shall be flight tested and reinspected before the aircraft is approved for return to service.

(e) Each certificate holder shall maintain, or shall determine that each person with whom it arranges to perform its required inspections maintains, a current listing of persons who have been trained, qualified, and authorized to conduct required inspections. The persons must be identified by name, occupational title and the inspections that they are authorized to perform. The certificate holder (or person with whom it arranges to perform its required inspections) shall give written information to each person so authorized, describing the extent of that person's responsibilities, authorities, and inspectional limitations. The list shall be made available for inspection by the Administrator upon request.

**Sec. 135.431 Continuing analysis and surveillance.**

(a) Each certificate holder shall establish and maintain a system for the continuing analysis and surveillance of the performance and effectiveness of its inspection program and the program covering other maintenance, preventive maintenance, and alterations and for the
correction of any deficiency in those programs, regardless of whether those programs are carried out by the certificate holder or by another person.

(b) Whenever the Administrator finds that either or both of the programs described in paragraph (a) of this section does not contain adequate procedures and standards to meet this part, the certificate holder shall, after notification by the Administrator, make changes in those programs requested by the Administrator.

(c) A certificate holder may petition the Administrator to reconsider the notice to make a change in a program. The petition must be filed with the certificate-holding district office within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

Sec. 135.431 Continuing analysis and surveillance.

(a) Each certificate holder shall establish and maintain a system for the continuing analysis and surveillance of the performance and effectiveness of its inspection program and the program covering other maintenance, preventive maintenance, and alterations and for the correction of any deficiency in those programs, regardless of whether those programs are carried out by the certificate holder or by another person.

(b) Whenever the Administrator finds that either or both of the programs described in paragraph (a) of this section does not contain adequate procedures and standards to meet this part, the certificate holder shall, after notification by the Administrator, make changes in
those programs requested by the Administrator.

(c) A certificate holder may petition the Administrator to reconsider the notice to make a change in a program. The petition must be filed with the certificate-holding district office within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

Sec. 135.433 Maintenance and preventive maintenance training program.

Each certificate holder or a person performing maintenance or preventive maintenance functions for it shall have a training program to ensure that each person (including inspection personnel) who determines the adequacy of work done is fully informed about procedures and techniques and new equipment in use and is competent to perform that person's duties.

Sec. 135.435 Certificate requirements.
(a) Except for maintenance, preventive maintenance, alterations, and required inspections performed by a certificated repair station that is located outside the United States, each person who is directly in charge of maintenance, preventive maintenance, or alterations, and each person performing required inspections must hold an appropriate airman certificate.

(b) For the purpose of this section, a person directly in charge is each person assigned to a position in which that person is responsible for the work of a shop or station that performs maintenance, preventive maintenance, alterations, or other functions affecting airworthiness. A person who is directly in charge need not physically observe and direct each worker constantly but must be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the person performing the work.

Sec. 135.437 Authority to perform and approve maintenance, preventive maintenance, and alterations.

(a) A certificate holder may perform or make arrangements with other persons to perform maintenance, preventive maintenance, and alterations as provided in its maintenance manual. In addition, a certificate holder may perform these functions for another certificate holder as provided in the maintenance manual of the other certificate holder.

(b) A certificate holder may approve any airframe, aircraft engine, propeller, rotor, or appliance for return to service after maintenance, preventive maintenance, or alterations that are performed under paragraph (a) of this section. However, in the case of a major repair or
alteration, the work must have been done in accordance with technical data approved by the Administrator.

Sec. 135.439 Maintenance recording requirements.

(a) Each certificate holder shall keep (using the system specified in the manual required in Sec. 135.427) the following records for the periods specified in paragraph (b) of this section:

(1) All the records necessary to show that all requirements for the issuance of an airworthiness release under Sec. 135.443 have been met.

(2) Records containing the following information:

(i) The total time in service of the airframe, engine, propeller, and rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of each item installed on the aircraft which are required to be overhauled on a specified time basis.

(iv) The identification of the current inspection status of the aircraft, including the time since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives, including the date and methods of compliance, and, if the airworthiness directive involves recurring action, the time and date when the next action is required.

(vi) A list of current major alterations and repairs to each airframe, engine, propeller, rotor, and appliance.

(b) Each certificate holder shall retain the records required to be kept by this section for the following periods:
(1) Except for the records of the last complete overhaul of each airframe, engine, propeller, rotor, and appliance the records specified in paragraph (a)(1) of this section shall be retained until the work is repeated or superseded by other work or for one year after the work is performed.

(2) The records of the last complete overhaul of each airframe, engine, propeller, rotor, and appliance shall be retained until the work is superseded by work of equivalent scope and detail.

(3) The records specified in paragraph (a)(2) of this section shall be retained and transferred with the aircraft at the time the aircraft is sold.

(c) The certificate holder shall make all maintenance records required to be kept by this section available for inspection by the Administrator or any representative of the National Transportation Safety Board.

Sec. 135.441 Transfer of maintenance records.

Each certificate holder who sells a United States registered aircraft shall transfer to the purchaser, at the time of the sale, the following records of that aircraft, in plain language form or in coded form which provides for the preservation and retrieval of information in a manner acceptable to the Administrator:

(a) The records specified in Sec. 135.439(a)(2).

(b) The records specified in Sec. 135.439(a)(1) which are not included in the records covered by paragraph (a) of this section, except that the purchaser may allow the seller to keep physical custody of such records. However, custody of records by the seller does not relieve the
purchaser of its responsibility under Sec. 135.439(c) to make the
records available for inspection by the Administrator or any
representative of the National Transportation Safety Board.

Sec. 135.443  Airworthiness release or aircraft maintenance log entry.

(a) No certificate holder may operate an aircraft after maintenance,
preventive maintenance, or alterations are performed on the aircraft
unless the certificate holder prepares, or causes the person with whom
the certificate holder arranges for the performance of the maintenance,
preventive maintenance, or alterations, to prepare--

   (1) An airworthiness release; or
   (2) An appropriate entry in the aircraft maintenance log.

(b) The airworthiness release or log entry required by paragraph (a)
of this section must--

   (1) Be prepared in accordance with the procedure in the certificate
   holder's manual;
   (2) Include a certification that--

      (i) The work was performed in accordance with the requirements of
      the certificate holder's manual;
      (ii) All items required to be inspected were inspected by an
      authorized person who determined that the work was satisfactorily
      completed;
      (iii) No known condition exists that would make the aircraft
      unairworthy; and
      (iv) So far as the work performed is concerned, the aircraft is in
      condition for safe operation; and
   (3) Be signed by an authorized certificated mechanic or repairman,
except that a certificated repairman may sign the release or entry only for the work for which that person is employed and for which that person is certificated.

(c) Notwithstanding paragraph (b)(3) of this section, after maintenance, preventive maintenance, or alterations performed by a repair station located outside the United States, the airworthiness release or log entry required by paragraph (a) of this section may be signed by a person authorized by that repair station.

(d) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the certificate holder may state in its manual that the signature of an authorized certificated mechanic or repairman constitutes that certification.

Sec. 135.443 Airworthiness release or aircraft maintenance log entry.

(a) No certificate holder may operate an aircraft after maintenance, preventive maintenance, or alterations are performed on the aircraft unless the certificate holder prepares, or causes the person with whom the certificate holder arranges for the performance of the maintenance, preventive maintenance, or alterations, to prepare--

(1) An airworthiness release; or

(2) An appropriate entry in the aircraft maintenance log.

(b) The airworthiness release or log entry required by paragraph (a) of this section must--

(1) Be prepared in accordance with the procedure in the certificate holder's manual;

(2) Include a certification that--

(i) The work was performed in accordance with the requirements of the certificate holder's manual;
(ii) All items required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed;

(iii) No known condition exists that would make the aircraft unairworthy; and

(iv) So far as the work performed is concerned, the aircraft is in condition for safe operation; and

(3) Be signed by an authorized certificated mechanic or repairman, except that a certificated repairman may sign the release or entry only for the work for which that person is employed and for which that person is certificated.

(c) Notwithstanding paragraph (b)(3) of this section, after maintenance, preventive maintenance, or alterations performed by a repair station located outside the United States, the airworthiness release or log entry required by paragraph (a) of this section may be signed by a person authorized by that repair station.

(d) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the certificate holder may state in its manual that the signature of an authorized certificated mechanic or repairman constitutes that certification.

Subpart K_Hazardous Materials Training Program

Sec. 135.501 Applicability and definitions.

(a) This subpart prescribes the requirements applicable to each certificate holder for training each crewmember and person performing or directly supervising any of the following job functions involving any item for transport on board an aircraft:

1. Acceptance;
2. Rejection;
3. Handling;
4. Storage incidental to transport;
5. Packaging of company material; or

(b) Definitions. For purposes of this subpart, the following definitions apply:

1. Company material (COMAT)--Material owned or used by a certificate holder.
2. Initial hazardous materials training--The basic training required for each newly hired person, or each person changing job functions, who performs or directly supervises any of the job functions specified in paragraph (a) of this section.
3. Recurrent hazardous materials training--The training required every 24 months for each person who has satisfactorily completed the certificate holder's approved initial hazardous materials training program and performs or directly supervises any of the job functions specified in paragraph (a) of this section.

Sec. 135.503 Hazardous materials training: General.
(a) Each certificate holder must establish and implement a hazardous materials training program that:

(1) Satisfies the requirements of Appendix O of part 121 of this part;

(2) Ensures that each person performing or directly supervising any of the job functions specified in Sec. 135.501(a) is trained to comply with all applicable parts of 49 CFR parts 171 through 180 and the requirements of this subpart; and

(3) Enables the trained person to recognize items that contain, or may contain, hazardous materials regulated by 49 CFR parts 171 through 180.

(b) Each certificate holder must provide initial hazardous materials training and recurrent hazardous materials training to each crewmember and person performing or directly supervising any of the job functions specified in Sec. 135.501(a).

(c) Each certificate holder's hazardous materials training program must be approved by the FAA prior to implementation.

**Sec. 135.505 Hazardous materials training required.**

(a) Training requirement. Except as provided in paragraphs (b), (c) and (f) of this section, no certificate holder may use any crewmember or person to perform any of the job functions or direct supervisory responsibilities, and no person may perform any of the job functions or direct supervisory responsibilities, specified in Sec. 135.501(a) unless that person has satisfactorily completed the certificate holder's FAA-approved initial or recurrent hazardous materials training program.
within the past 24 months.

(b) New hire or new job function. A person who is a new hire and has not yet satisfactorily completed the required initial hazardous materials training, or a person who is changing job functions and has not received initial or recurrent training for a job function involving storage incidental to transport, or loading of items for transport on an aircraft, may perform those job functions for not more than 30 days from the date of hire or a change in job function, if the person is under the direct visual supervision of a person who is authorized by the certificate holder to supervise that person and who has successfully completed the certificate holder’s FAA-approved initial or recurrent training program within the past 24 months.

(c) Persons who work for more than one certificate holder. A certificate holder that uses or assigns a person to perform or directly supervise a job function specified in Sec. 135.501(a), when that person also performs or directly supervises the same job function for another certificate holder, need only train that person in its own policies and procedures regarding those job functions, if all of the following are met:

(1) The certificate holder using this exception receives written verification from the person designated to hold the training records representing the other certificate holder that the person has satisfactorily completed hazardous materials training for the specific job function under the other certificate holder’s FAA approved hazardous material training program under appendix O of part 121 of this chapter; and

(2) The certificate holder who trained the person has the same operations specifications regarding the acceptance, handling, and
transport of hazardous materials as the certificate holder using this exception.

(d) Recurrent hazardous materials training--Completion date. A person who satisfactorily completes recurrent hazardous materials training in the calendar month before, or the calendar month after, the month in which the recurrent training is due, is considered to have taken that training during the month in which it is due. If the person completes this training earlier than the month before it is due, the month of the completion date becomes his or her new anniversary month.

(e) Repair stations. A certificate holder must ensure that each repair station performing work for, or on the certificate holder's behalf is notified in writing of the certificate holder's policies and operations specification authorization permitting or prohibition against the acceptance, rejection, handling, storage incidental to transport, and transportation of hazardous materials, including company material. This notification requirement applies only to repair stations that are regulated by 49 CFR parts 171 through 180.

(f) Certificate holders operating at foreign locations. This exception applies if a certificate holder operating at a foreign location where the country requires the certificate holder to use persons working in that country to load aircraft. In such a case, the certificate holder may use those persons even if they have not been trained in accordance with the certificate holder's FAA approved hazardous materials training program. Those persons, however, must be under the direct visual supervision of someone who has successfully completed the certificate holder's approved initial or recurrent hazardous materials training program in accordance with this part. This exception applies only to those persons who load
Sec. 135.507 Hazardous materials training records.

(a) General requirement. Each certificate holder must maintain a record of all training required by this part received within the preceding three years for each person who performs or directly supervises a job function specified in Sec. 135.501(a). The record must be maintained during the time that the person performs or directly supervises any of those job functions, and for 90 days thereafter. These training records must be kept for direct employees of the certificate holder, as well as independent contractors, subcontractors, and any other person who performs or directly supervises these job functions for the certificate holder.

(b) Location of records. The certificate holder must retain the training records required by paragraph (a) of this section for all initial and recurrent training received within the preceding 3 years for all persons performing or directly supervising the job functions listed in Appendix O of part 121 of this chapter at a designated location. The records must be available upon request at the location where the trained person performs or directly supervises the job function specified in Sec. 135.501(a). Records may be maintained electronically and provided on location electronically. When the person ceases to perform or directly supervise a hazardous materials job function, the certificate holder must retain the hazardous materials training records for an additional 90 days and make them available upon request at the last location where the person worked.

(c) Content of records. Each record must contain the following:
(1) The individual's name;
(2) The most recent training completion date;
(3) A description, copy or reference to training materials used to meet the training requirement;
(4) The name and address of the organization providing the training; and
(5) A copy of the certification issued when the individual was trained, which shows that a test has been completed satisfactorily.

(d) New hire or new job function. Each certificate holder using a person under the exception in Sec. 135.505(b) must maintain a record for that person. The records must be available upon request at the location where the trained person performs or directly supervises the job function specified in Sec. 135.501(a). Records may be maintained electronically and provided on location electronically. The record must include the following:

(1) A signed statement from an authorized representative of the certificate holder authorizing the use of the person in accordance with the exception;
(2) The date of hire or change in job function;
(3) The person's name and assigned job function;
(4) The name of the supervisor of the job function; and
(5) The date the person is to complete hazardous materials training in accordance with Appendix O of part 121 of this chapter.