RECOMMENDATION DOCUMENT

Number: Applicability 3 Docket 58, 76.1, 78

Issue: Where does Part 125 general aviation operations (no compensation and no holding out, no exceptions, no deviations) go in today's regulatory environment?

Discussion: The recommendations for this change are included in separate files titled:

- APP-03F 91 Subpart F
- APP-03F 125 Regulations with Changes for 91 Subpart F

Any questions regarding this document should be directed to Doug Carr, Vice President, National Business Aviation Association

Recommendation:

- For Part 91 Subpart F (Private only operations of what is currently Part 125 operations – i.e., John Travolta):
  - No compensation or hire; reimbursement allowed under 14 CFR 91.
  - Rules for 14 CFR 91.501 apply.
  - Requires amendment of 91 Subpart F to increase the safety regulations.

Steering Committee Review: Steering Committee Approved.

Final Action: APPROVED WITH FULL CONSENSUS.

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Subpart F -- Large and Turbine-Powered Multiengine Airplanes

Source: Docket No. 18334, 54 FR 34314, Aug. 18, 1989, unless otherwise noted.

§91.501 Applicability.

(a) This subpart prescribes operating rules, in addition to those prescribed in other subparts of this part, governing the operation of large and of turbojet-powered multiengine civil airplanes of U.S. registry. The operating rules in this subpart do not apply to those airplanes when they are required to be operated under parts 121, 125, 129, 135, and 137 of this chapter. (Section 91.409 prescribes an inspection program for large and for turbine-powered (turbojet and turboprop) multiengine airplanes of U.S. registry when they are operated under this part or part 129 or 137.)

(b) Operations that may be conducted under the rules in this subpart instead of those in parts 121, 129, 135, and 137 of this chapter when common carriage is not involved, include --

(1) Ferry or training flights;

(2) Aerial work operations such as aerial photography or survey, or pipeline patrol, but not including fire fighting operations;

(3) Flights for the demonstration of an airplane to prospective customers when no charge is made except for those specified in paragraph (d) of this section;

(4) Flights conducted by the operator of an airplane for his personal transportation, or the transportation of his guests when no charge, assessment, or fee is made for the transportation;

(5) Carriage of officials, employees, guests, and property of a company on an airplane operated by that company, or the parent or a subsidiary of the company or a subsidiary of the parent, when the carriage is within the scope of, and incidental to, the business of the company (other than transportation by air) and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the airplane, except that no charge of any kind may be made for the carriage of a guest of a company, when the carriage is not within the scope of, and incidental to, the business of that company;

(6) The carriage of company officials, employees, and guests of the company on an airplane operated under a time sharing, interchange, or joint ownership agreement as defined in paragraph (c) of this section;

(7) The carriage of property (other than mail) on an airplane operated by a person in the furtherance of a business or employment (other than transportation by air) when the carriage is within the scope of, and incidental to, that business or employment and no charge, assessment, or fee is made for the carriage other than those specified in paragraph (d) of this section;

(8) The carriage on an airplane of an athletic team, sports group, choral group, or similar group having a common purpose or objective when there is no charge, assessment, or fee of any kind made by any person for that carriage; and

(9) The carriage of persons on an airplane operated by a person in the furtherance of a business other than transportation by air for the purpose of selling them land, goods, or property, including franchises or distributorships, when the carriage is within the scope of, and incidental to, that business and no charge, assessment, or fee is made for that carriage.

(c) As used in this section --

(1) A *time sharing agreement* means an arrangement whereby a person leases his airplane with flight crew to another person, and no charge is made for the flights conducted under that arrangement other than those specified in paragraph (d) of this section;

(2) An *interchange agreement* means an arrangement whereby a person leases his airplane to another person in exchange for equal time, when needed, on the other person's airplane, and no charge, assessment, or fee is made, except that a charge may be made not to exceed the difference between the cost of owning, operating, and maintaining the two airplanes;

(3) A *joint ownership agreement* means an arrangement whereby one of the registered joint owners of an airplane employs and furnishes the flight crew for that airplane and each of the registered joint owners pays a share of the charge specified in the agreement.

(d) The following may be charged, as expenses of a specific flight, for transportation as authorized by paragraphs (b) (3) and (7) and (c)(1) of this section:

(1) Fuel, oil, lubricants, and other additives.

(2) Travel expenses of the crew, including food, lodging, and ground transportation.

(3) Hangar and tie-down costs away from the aircraft's base of operation.

(4) Insurance obtained for the specific flight.

(5) Landing fees, airport taxes, and similar assessments.

(6) Customs, foreign permit, and similar fees directly related to the flight.

(7) In flight food and beverages.

(8) Passenger ground transportation.

(9) Flight planning and weather contract services.

(10) An additional charge equal to 100 percent of the expenses listed in paragraph (d)(1) of this section.

§91.503 Flying equipment and operating information.

(a) The pilot in command of an airplane shall ensure that the following flying equipment and aeronautical charts and data, in current and appropriate form, are accessible for each flight at the pilot station of the airplane:

(1) A flashlight having at least two size "D" cells, or the equivalent, that is in good working order.

(2) A cockpit checklist containing the procedures required by paragraph (b) of this section.

(3) Pertinent aeronautical charts.

(4) For IFR, VFR over-the-top, or night operations, each pertinent navigational en route, terminal area, and approach and letdown chart.

(5) In the case of multiengine airplanes, one-engine inoperative climb performance data.

(b) Each cockpit checklist must contain the following procedures and shall be used by the flight crewmembers when operating the airplane:

(1) Before starting engines.

(2) Before takeoff.

(3) Cruise.

(4) Before landing.

(5) After landing.

(6) Stopping engines.

(7) Emergencies.

(c) Each emergency cockpit checklist procedure required by paragraph (b)(7) 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 procedures necessary for safety.

(d) The equipment, charts, and data prescribed in this section shall be used by the pilot in command and other members of the flight crew, when pertinent.

§91.505 Familiarity with operating limitations and emergency equipment.

(a) Each pilot in command of an airplane shall, before beginning a flight, become familiar with the Airplane Flight Manual for that airplane, if one is required, and with any placards, listings, instrument markings, or any combination thereof, containing each operating limitation prescribed for that airplane by the Administrator, including those specified in §91.9(b).

(b) Each required member of the crew shall, before beginning a flight, become familiar with the emergency equipment installed on the airplane to which that crewmember is assigned and with the procedures to be followed for the use of that equipment in an emergency situation.

§91.507 Equipment requirements: Over-the-top or night VFR operations.

No person may operate an airplane over-the-top or at night under VFR unless that airplane is equipped with the instruments and equipment required for IFR operations under §91.205(d) and one electric landing light for night operations. Each required instrument and item of equipment must be in operable condition.

§91.509 Survival equipment for overwater operations.

Link to an amendment published at 68 FR 54560, Sept. 17, 2003.

(a) No person may take off an airplane for a flight over water more than 50 nautical miles from the nearest shore unless that airplane is equipped with a life preserver or an approved flotation means for each occupant of the airplane.

(b) No person may take off an airplane for a flight over water more than 30 minutes flying time or 100 nautical miles from the nearest shore unless it has on board the following survival equipment:

(1) A life preserver, equipped with an approved survivor locator light, for each occupant of the airplane.

(2) Enough liferafts (each equipped with an approved survival locator light) of a rated capacity and buoyancy to accommodate the occupants of the airplane.

(3) At least one pyrotechnic signaling device for each liferaft.

(4) One self-buoyant, water-resistant, portable emergency radio signaling device that is capable of transmission on the appropriate emergency frequency or frequencies and not dependent upon the airplane power supply.

(5) A lifeline stored in accordance with §25.1411(g) of this chapter.

(c) The required liferafts, life preservers, and signaling devices must be installed in conspicuously marked locations and easily accessible in the event of a ditching without appreciable time for preparatory procedures.

(d) A survival kit, appropriately equipped for the route to be flown, must be attached to each required liferaft.

(e) As used in this section, the term shore means that area of the land adjacent to the water which is above the high water mark and excludes land areas which are intermittently under water.

§91.511 Radio equipment for overwater operations.

(a) Except as provided in paragraphs (c), (d), and (f) of this section, no person may take off an airplane for a flight over water more than 30 minutes flying time or 100 nautical miles from the nearest shore unless it has at least the following operable equipment:

(1) Radio communication equipment appropriate to the facilities to be used and able to transmit to, and receive from, any place on the route, at least one surface facility:

(i) Two transmitters.

(ii) Two microphones.

(iii) Two headsets or one headset and one speaker.

(iv) Two independent receivers.

(2) Appropriate electronic navigational equipment consisting of at least two independent electronic navigation units capable of providing the pilot with the information necessary to navigate the airplane within the airspace assigned by air traffic control. However, a receiver that can receive both communications and required navigational signals may be used in place of a separate communications receiver and a separate navigational signal receiver or unit.

(b) For the purposes of paragraphs (a)(1)(iv) and (a)(2) of this section, a receiver or electronic navigation unit is independent if the function of any part of it does not depend on the functioning of any part of another receiver or electronic navigation unit.

(c) Notwithstanding the provisions of paragraph (a) of this section, a person may operate an airplane on which no passengers are carried from a place where repairs or replacement cannot be made to a place where they can be made, if not more than one of each of the dual items of radio communication and navigational equipment specified in paragraphs (a)(1) (i) through (iv) and (a)(2) of this section malfunctions or becomes inoperative.

(d) Notwithstanding the provisions of paragraph (a) of this section, when both VHF and HF communications equipment are required for the route and the airplane has two VHF transmitters and two VHF receivers for communications, only one HF transmitter and one HF receiver is required for communications.

(e) As used in this section, the term *shore* means that area of the land adjacent to the water which is above the high-water mark and excludes land areas which are intermittently under water.

(f) Notwithstanding the requirements in paragraph (a)(2) of this section, a person may operate in the Gulf of Mexico, the Caribbean Sea, and the Atlantic Ocean west of a line which extends from 44°47&min;00&sec; N / 67°00&min;00&sec; W to 39°00&min;00&sec; N / 67°00&min;00&sec; W to 38°30&min;00&sec; N / 60°00&min;00&sec; W south along the 60°00&min;00&sec; W longitude line to the point where the line intersects with the northern coast of South America, when:

(1) A single long-range navigation system is installed, operational, and appropriate for the route; and

(2) Flight conditions and the aircraft's capabilities are such that no more than a 30-minute gap in two-way radio very high frequency communications is expected to exist.

[Doc. No. 18334, 54 FR 34314, Aug. 18, 1989, as amended by Amdt. 91-249, 61 FR 7190, Feb. 26, 1996]

§91.513 Emergency equipment.

(a) No person may operate an airplane unless it is equipped with the emergency equipment listed in this section.

(b) Each item of equipment --

(1) Must be inspected in accordance with §91.409 to ensure its continued serviceability and immediate readiness for its intended purposes;

(2) Must be readily accessible to the crew;

(3) Must clearly indicate its method of operation; and

(4) When carried in a compartment or container, must have that compartment or container marked as to contents and date of last inspection.

(c) Hand fire extinguishers must be provided for use in crew, passenger, and cargo compartments in accordance with the following:

(1) The type and quantity of extinguishing agent must be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used.

(2) At least one hand fire extinguisher must be provided and located on or near the flight deck in a place that is readily accessible to the flight crew.

(3) At least one hand fire extinguisher must be conveniently located in the passenger compartment of each airplane accommodating more than six but less than 31 passengers, and at least two hand fire extinguishers must be conveniently located in the passenger compartment of each airplane accommodating more than 30 passengers.

(4) Hand fire extinguishers must be installed and secured in such a manner that they will not interfere with the safe operation of the airplane or adversely affect the safety of the crew and passengers. They must be readily accessible and, unless the locations of the fire extinguishers are obvious, their stowage provisions must be properly identified.

(d) First aid kits for treatment of injuries likely to occur in flight or in minor accidents must be provided.

(e) Each airplane accommodating more than 19 passengers must be equipped with a crash axe.

(f) Each passenger-carrying airplane must have a portable battery-powered megaphone or megaphones readily accessible to the crewmembers assigned to direct emergency evacuation, installed as follows:

(1) One megaphone on each airplane with a seating capacity of more than 60 but less than 100 passengers, at the most rearward location in the passenger cabin where it would be readily accessible to a normal flight attendant seat. However, the Administrator may grant a deviation from the requirements of this subparagraph if the Administrator finds that a different location would be more useful for evacuation of persons during an emergency.

(2) On each airplane with a seating capacity of 100 or more passengers, one megaphone installed at the forward end and one installed at the most rearward location where it would be readily accessible to a normal flight attendant seat.

§91.515 Flight altitude rules.

(a) Notwithstanding §91.119, and except as provided in paragraph (b) of this section, no person may operate an airplane under VFR at less than --

(1) One thousand feet above the surface, or 1,000 feet from any mountain, hill, or other obstruction to flight, for day operations; and

(2) The altitudes prescribed in §91.177, for night operations.

(b) This section does not apply --

(1) During takeoff or landing;

(2) When a different altitude is authorized by a waiver to this section under subpart J of this part; or

(3) When a flight is conducted under the special VFR weather minimums of §91.157 with an appropriate clearance from ATC.

§91.517 Passenger information.

(a) Except as provided in paragraph (b) of this section, no person may operate an airplane carrying passengers unless it is equipped with signs that are visible to passengers and flight attendants to notify them when smoking is prohibited and when safety belts must be fastened. The signs must be so constructed that the crew can turn them on and off. They must be turned on during airplane movement on the surface, for each takeoff, for each landing, and when otherwise considered to be necessary by the pilot in command.

(b) The pilot in command of an airplane that is not required, in accordance with applicable aircraft and equipment requirements of this chapter, to be equipped as provided in paragraph (a) of this section shall ensure that the passengers are notified orally each time that it is necessary to fasten their safety belts and when smoking is prohibited.

(c) If passenger information signs are installed, no passenger or crewmember may smoke while any "no smoking" sign is lighted nor may any passenger or crewmember smoke in any lavatory.

(d) Each passenger required by §91.107(a)(3) to occupy a seat or berth shall fasten his or her safety belt about him or her and keep it fastened while any "fasten seat belt" sign is lighted.

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

[Doc. No. 26142, 57 FR 42672, Sept. 15, 1992]

§91.519 Passenger briefing.

Link to an amendment published at 68 FR 54561, Sept. 17, 2003.

(a) Before each takeoff the pilot in command of an airplane 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. This briefing shall include a statement, as appropriate, that the Federal Aviation Regulations require passenger compliance with lighted passenger information signs and no smoking placards, prohibit smoking in lavatories, and require compliance with crewmember instructions with regard to these items;

(2) *Use of safety belts and shoulder harnesses.* Each passenger shall be briefed on when, where, and under what conditions it is necessary to have his or her safety belt and, if installed, his or her shoulder harness fastened about him or her. This briefing shall include a statement, as appropriate, that Federal Aviation Regulations require passenger compliance with the lighted passenger sign and/or crewmember instructions with regard to these items;

(3) Location and means for opening the passenger entry door and emergency exits;

(4) Location of survival equipment;

(5) Ditching procedures and the use of flotation equipment required under §91.509 for a flight over water; and

(6) The normal and emergency use of oxygen equipment installed on the airplane.

(b) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a member of the crew, but need not be given when the pilot in command determines that the passengers are familiar with the contents of the briefing. It may be supplemented by printed cards for the use of each passenger containing --

(1) A diagram of, and methods of operating, the emergency exits; and

(2) Other instructions necessary for use of emergency equipment.

(c) Each card used under paragraph (b) must be carried in convenient locations on the airplane for the use of each passenger and must contain information that is pertinent only to the type and model airplane on which it is used.

[Doc. No. 18334, 54 FR 34314, Aug. 18, 1989, as amended by Amdt. 91-231, 57 FR 42672, Sept. 15, 1992]

§91.521 Shoulder harness.

(a) No person may operate a transport category airplane that was type certificated after January 1, 1958, unless it is equipped at each seat at a flight deck station with a combined safety belt and shoulder harness that meets the applicable requirements specified in §25.785 of this chapter, except that --

(1) Shoulder harnesses and combined safety belt and shoulder harnesses that were approved and installed before March 6, 1980, may continue to be used; and

(2) Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the airplane.

(b) No person may operate a transport category airplane unless it is equipped at each required flight attendant seat in the passenger compartment with a combined safety belt and shoulder harness that meets the applicable requirements specified in §25.785 of this chapter, except that --

(1) Shoulder harnesses and combined safety belt and shoulder harnesses that were approved and installed before March 6, 1980, may continue to be used; and

(2) Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the airplane.

§91.523 Carry-on baggage.

No pilot in command of an airplane having a seating capacity of more than 19 passengers may permit a passenger to stow baggage aboard that airplane except --

(a) In a suitable baggage or cargo storage compartment, or as provided in §91.525; or

(b) Under a passenger seat in such a way that it will not slide forward under crash impacts severe enough to induce the ultimate inertia forces specified in §25.561(b)(3) of this chapter, or the requirements of the regulations under which the airplane was type certificated. Restraining devices must also limit sideward motion of under-seat baggage and be designed to withstand crash impacts severe enough to induce sideward forces specified in §25.561(b)(3) of this chapter.

§91.525 Carriage of cargo.

(a) No pilot in command may permit cargo to be carried in any airplane unless --

(1) It is carried in an approved cargo rack, bin, or compartment installed in the airplane;

(2) It is secured by means approved by the Administrator; or

(3) It is carried in accordance with each of the following:

(i) It is properly secured by a safety belt or other tiedown having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions.

(ii) It is packaged or covered to avoid possible injury to passengers.

(iii) It does not impose any load on seats or on the floor structure that exceeds the load limitation for those components.

(iv) It is not located in a position that restricts 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.

(v) It is not carried directly above seated passengers.

(b) 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.

§91.527 Operating in icing conditions.

(a) No pilot may take off an airplane that has --

(1) Frost, snow, or ice adhering to any propeller, windshield, or powerplant installation or to an airspeed, altimeter, rate of climb, or flight attitude instrument system;

(2) Snow or ice adhering to the wings or stabilizing or control surfaces; or

(3) Any frost adhering to the wings or stabilizing or control surfaces, unless that frost has been polished to make it smooth.

(b) Except for an airplane that has ice protection provisions that meet the requirements in section 34 of Special Federal Aviation Regulation No. 23, or those for transport category airplane type certification, no pilot may fly --

(1) Under IFR into known or forecast moderate icing conditions; or

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

(c) Except for an airplane that has ice protection provisions that meet the requirements in section 34 of Special Federal Aviation Regulation No. 23, or those for transport category airplane type certification, no pilot may fly an airplane into known or forecast severe icing conditions.

(d) If current weather reports and briefing information relied upon by the pilot in command indicate that the forecast icing conditions 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 (b) and (c) of this section based on forecast conditions do not apply.

§91.529 Flight engineer requirements.

(a) No person may operate the following airplanes without a flight crewmember holding a current flight engineer certificate:

(1) An airplane for which a type certificate was issued before January 2, 1964, having a maximum certificated takeoff weight of more than 80,000 pounds.

(2) An airplane type certificated after January 1, 1964, for which a flight engineer is required by the type certification requirements.

(b) No person may serve as a required flight engineer on an airplane unless, within the preceding 6 calendar months, that person has had at least 50 hours of flight time as a flight engineer on that type airplane or has been checked by the Administrator on that type airplane and is found to be familiar and competent with all essential current information and operating procedures.

§91.531 Second in command requirements.

Link to an amendment published at 68 FR 54561, Sept. 17, 2003.

(a) Except as provided in paragraph (b) of this section, no person may operate the following airplanes without a pilot who is designated as second in command of that airplane:

(1) A large airplane, except that a person may operate an airplane certificated under SFAR 41 without a pilot who is designated as second in command if that airplane is certificated for operation with one pilot.

(2) A turbojet-powered multiengine airplane for which two pilots are required under the type certification requirements for that airplane.

(3) A commuter category airplane, except that a person may operate a commuter category airplane notwithstanding paragraph (a)(1) of this section, that has a passenger seating configuration, excluding pilot seats, of nine or less without a pilot who is designated as second in command if that airplane is type certificated for operations with one pilot.

(b) The Administrator may issue a letter of authorization for the operation of an airplane without compliance with the requirements of paragraph (a) of this section if that airplane is designed for and type certificated with only one pilot station. The authorization contains any conditions that the Administrator finds necessary for safe operation.

(c) No person may designate a pilot to serve as second in command, nor may any pilot serve as second in command, of an airplane required under this section to have two pilots unless that pilot meets the qualifications for second in command prescribed in §61.55 of this chapter.

§91.533 Flight attendant requirements.

(a) No person may operate an airplane unless at least the following number of flight attendants are on board the airplane:

(1) For airplanes having more than 19 but less than 51 passengers on board, one flight attendant.

(2) For airplanes having more than 50 but less than 101 passengers on board, two flight attendants.

(3) For airplanes having more than 100 passengers on board, two flight attendants plus one additional flight attendant for each unit (or part of a unit) of 50 passengers above 100.

(b) No person may serve as a flight attendant on an airplane when required by paragraph (a) of this section unless that person has demonstrated to the pilot in command familiarity with the necessary functions to be performed in an emergency or a situation requiring emergency evacuation and is capable of using the emergency equipment installed on that airplane.

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

(a) No operator may move an aircraft on the surface, take off, or land when any food, beverage, or tableware furnished by the operator is located at any passenger seat.

(b) No operator 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 operator 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) No operator may permit an aircraft to move on the surface, take off, or land unless each movie screen that extends into the aisle is stowed.

(e) Each passenger shall comply with instructions given by a crewmember with regard to compliance with this section.

[Doc. No. 26142, 57 FR 42672, Sept. 15, 1992]

§§91.536-91.599 [Reserved]

91.537 Operation of U.S.-registered civil airplanes having e a seating configuration of 20 or more passengers or a maximum payload capacity of 6,000 pounds or more

In addition to the requirements of this subpart, aircraft have a seating configuration of 20 or more passengers or a maximum payload capacity of 6,000 pounds or more that are not required to conduct operations under Part 125 must comply with the additional requirements of Appendix H to this part

Appendix H to Part 91 - Operation of U.S.-registered civil airplanes having e a seating configuration of 20 or more passengers or a maximum payload capacity of 6,000 pounds or more

Section 1 – Special Airworthiness Requirements[Change this section to refer to subpart e of Part 125 in its entirety, also include new reg referring to "General" provision below that requires compliance with the rest of subpart e]]

1) General.

(a) Except as provided in paragraph (b) of this section, no aircraft operator may use an airplane powered by airplane engines rated at more than 600 horsepower each for maximum continuous

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operation unless that airplane meets the requirements of 2) through XXX) below.

(b) If the Administrator determines that, for a particular model of airplane used in cargo service, literal compliance with any requirement under paragraph (a) of this section would be extremely difficult and that compliance would not contribute materially to the objective sought, the Administrator may require compliance with only those requirements that are necessary to accomplish the basic objectives of this part.

(c) This section does not apply to any airplane certificated under --

(1) Part 4b of the Civil Air Regulations in effect after October 31, 1946;

(2) Part 25 of this chapter; or

(3) Special Civil Air Regulation 422, 422A, or 422B.

2) Cabin interiors.

(a) Upon the first major overhaul of an airplane cabin or refurbishing of the cabin interior, all materials in each compartment used by the crew or passengers that do not meet the following requirements must be replaced with materials that meet these requirements:

(1) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, §25.853 in effect on April 30, 1972.

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(2) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, the materials requirement under which the airplane was type certificated.

(b) Except as provided in paragraph (a) of this section, each compartment used by the crew or passengers must meet the following requirements:

(1) Materials must be at least flash resistant.

(2) The wall and ceiling linings and the covering of upholstering, floors, and furnishings must be flame resistant.

(3) Each compartment where smoking is to be allowed must be equipped with self-contained ash trays that are completely removable and other compartments must be placarded against smoking.

(4) Each receptacle for used towels, papers, and wastes must be of fire-resistant material and must have a cover or other means of containing possible fires started in the receptacles.

(c) Thermal/acoustic insulation materials. For transport category airplanes type certificated after January 1, 1958:

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation materials are installed in the fuselage as replacements after September 2, 2005, those materials must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.

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(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.

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3) Internal doors.

In any case where internal doors are equipped with louvres or other ventilating means, there must be a means convenient to the crew for closing the flow of air through the door when necessary.

4) Ventilation.

Each passenger or crew compartment must be suitably ventilated. Carbon monoxide concentration may not be more than one part in 20,000 parts of air, and fuel fumes may not be present. In any case where partitions between compartments have louvres or other means allowing air to flow between compartments, there must be a means convenient to the crew for closing the flow of air through the partitions when necessary.

5) Fire precautions.

(a) Each compartment must be designed so that, when used for storing cargo or baggage, it meets the following requirements:

(1) No compartment may include controls, wiring, lines, equipment, or accessories that would upon damage or failure, affect the safe operation of the airplane unless the item is adequately shielded, isolated, or otherwise protected so that it cannot be damaged by movement of cargo in the compartment and so that damage to or failure of the item would not create a fire hazard in the compartment.

(2) Cargo or baggage may not interfere with the functioning of the fire-protective features of the compartment.

(3) Materials used in the construction of the compartments, including tie-down equipment, must be at least flame resistant.

(4) Each compartment must include provisions for safeguarding against fires according to the classifications set forth in paragraphs (b) through (f) of this section.

(b) *Class A.* Cargo and baggage compartments are classified in the "A" category if a fire therein would be readily discernible to a member of the crew while at that crewmember's station, and all parts of the compartment are easily accessible in flight. There must be a hand fire extinguisher available for each Class A compartment.

(c) *Class B.* Cargo and baggage compartments are classified in the "B" category if enough access is provided while in flight to enable a member of the crew to effectively reach all of the compartment and its contents with a hand fire extinguisher and the compartment is so designed that, when the access provisions are being used, no hazardous amount of smoke, flames, or extinguishing agent enters any compartment occupied by the crew or passengers. Each Class B compartment must comply with the following:

(1) It must have a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station.

(2) There must be a hand-held fire extinguisher available for the compartment.

(3) It must be lined with fire-resistant material, except that additional service lining of flame-resistant material may be used.

(d) *Class C.* Cargo and baggage compartments are classified in the "C" category if they do not conform with the requirements for the "A", "B", "D", or "E" categories. Each Class C compartment must comply with the following:

(1) It must have a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station.

(2) It must have an approved built-in fire-extinguishing system controlled from the pilot or flight engineer station.

(3) It must be designed to exclude hazardous quantities of smoke, flames, or extinguishing agents from entering into any compartment occupied by the crew or passengers.

(4) It must have ventilation and draft control so that the extinguishing agent provided can control any fire that may start in the compartment.

(5) It must be lined with fire-resistant material, except that additional service lining of flame-resistant material may be used.

(e) *Class D.* Cargo and baggage compartments are classified in the "D" category if they are so designed and constructed that a fire occurring therein will be completely confined without endangering the safety of the airplane or the occupants. Each Class D compartment must comply with the following:

(1) It must have a means to exclude hazardous quantities of smoke, flames, or noxious gases from entering any compartment occupied by the crew or passengers.

(2) Ventilation and drafts must be controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits.

(3) It must be completely lined with fire-resistant material.

(4) Consideration must be given to the effect of heat within the compartment on adjacent critical parts of the airplane.

(f) *Class E.* On airplanes used for the carriage of cargo only, the cabin area may be classified as a Class "E" compartment. Each Class E compartment must comply with the following:

(1) It must be completely lined with fire-resistant material.

(2) It must have a separate system of an approved type smoke or fire detector to give warning at the pilot or flight engineer station.

(3) It must have a means to shut off the ventilating air flow to or within the compartment and the controls for that means must be accessible to the flightcrew in the crew compartment.

(4) It must have a means to exclude hazardous quantities of smoke, flames, or noxious gases from entering the flightcrew compartment.

(5) Required crew emergency exits must be accessible under all cargo loading conditions.

6) Proof of compliance with 5)

Compliance with those provisions of 5) that refer to compartment accessibility, the entry of hazardous quantities of smoke or extinguishing agent into compartment occupied by the crew or passengers, and the dissipation of the extinguishing agent in Class "C" compartments must be shown by tests in flight. During these tests it must be shown that no inadvertent operation of smoke or fire detectors in other compartments within the airplane would occur as a result of fire contained in any one compartment, either during the time it is being extinguished, or thereafter, unless the extinguishing system floods those compartments simultaneously.

7) Propeller deicing fluid.

If combustible fluid is used for propeller deicing, the aircraft operator must comply with Item 22

8) Pressure cross-feed arrangements.

(a) Pressure cross-feed lines may not pass through parts of the airplane used for carrying persons or cargo unless there is a means to allow crewmembers to shut off the supply of fuel to these lines or the lines are enclosed in a fuel and fume-proof enclosure that is ventilated and drained to the exterior of the airplane. However, such an enclosure need not be used if those lines incorporate no fittings on or within the personnel or cargo

areas and are suitably routed or protected to prevent accidental damage.

(b) Lines that can be isolated from the rest of the fuel system by valves at each end must incorporate provisions for relieving excessive pressures that may result from exposure of the isolated line to high temperatures.

9) Location of fuel tanks.

(a) Fuel tanks must be located in accordance with Item 22.

(b) No part of the engine nacelle skin that lies immediately behind a major air outlet from the engine compartment may be used as the wall of an integral tank.

(c) Fuel tanks must be isolated from personnel compartments by means of fume- and fuel-proof enclosures.

10) Fuel system lines and fittings.

(a) Fuel lines must be installed and supported so as to prevent excessive vibration and so as to be adequate to withstand loads due to fuel pressure and accelerated flight conditions.

(b) Lines connected to components of the airplane between which there may be relative motion must incorporate provisions for flexibility.

(c) Flexible connections in lines that may be under pressure and subject to axial loading must use flexible hose assemblies rather than hose clamp connections.

(d) Flexible hoses must be of an acceptable type or proven suitable for the particular application.

11) Fuel lines and fittings in designated fire zones.

Fuel lines and fittings in each designated fire zone must comply with Item 24.

12) Fuel valves.

Each fuel valve must --

(a) Comply with Item 23;

(b) Have positive stops or suitable index provisions in the "on" and "off" positions; and

(c) Be supported so that loads resulting from its operation or from accelerated flight conditions are not transmitted to the lines connected to the valve.

13) Oil lines and fittings in designated fire zones.

Oil lines and fittings in each designated fire zone must comply with Item 24.

14) Oil valves.

(a) Each oil valve must --

(1) Comply with Item 23;

(2) Have positive stops or suitable index provisions in the "on" and "off" positions; and

(3) Be supported so that loads resulting from its operation or from accelerated flight conditions are not transmitted to the lines attached to the valve.

(b) The closing of an oil shutoff means must not prevent feathering the propeller, unless equivalent safety provisions are incorporated.

15) Oil system drains.

Accessible drains incorporating either a manual or automatic means for positive locking in the closed position must be provided to allow safe drainage of the entire oil system.

16) Engine breather lines.

(a) Engine breather lines must be so arranged that condensed water vapor that may freeze and obstruct the line cannot accumulate at any point.

(b) Engine breathers must discharge in a location that does not constitute a fire hazard in case foaming occurs and so that oil emitted from the line does not impinge upon the pilots' windshield.

(c) Engine breathers may not discharge into the engine air induction system.

17) Firewalls.

Each engine, auxiliary power unit, fuel-burning heater, or other item of combusting equipment that is intended for operation in flight must be isolated from the rest of the airplane by means of firewalls or shrouds, or by other equivalent means.

18) Firewall construction.

Each firewall and shroud must --

(a) Be so made that no hazardous quantity of air, fluids, or flame can pass from the engine compartment to other parts of the airplane;

(b) Have all openings in the firewall or shroud sealed with close-fitting fireproof grommets, bushings, or firewall fittings;

(c) Be made of fireproof material; and

(d) Be protected against corrosion.

19) Cowling.

(a) Cowling must be made and supported so as to resist the vibration, inertia, and air loads to which it may be normally subjected.

(b) Provisions must be made to allow rapid and complete drainage of the cowling in normal ground and flight attitudes. Drains must not discharge in locations constituting a fire hazard. Parts of the cowling that are subjected to high temperatures because they are near exhaust system parts or because of exhaust gas impingement must be made of fireproof material. Unless otherwise specified in these regulations, all other parts of the cowling must be made of material that is at least fire resistant.

20) Engine accessory section diaphragm.

Unless equivalent protection can be shown by other means, a diaphragm that complies with Item **18** must be provided on air-cooled engines to isolate the engine power section and all parts of the exhaust system from the engine accessory compartment.

21) Powerplant fire protection.

(a) Designated fire zones must be protected from fire by compliance with Item 22.

(b) Designated fire zones are --

(1) Engine accessory sections;

(2) Installations where no isolation is provided between the engine and accessory compartment; and

(3) Areas that contain auxiliary power units, fuel-burning heaters, and other combustion equipment.

22) Flammable fluids.

(a) No tanks or reservoirs that are a part of a system containing flammable fluids or gases may be located in designated fire zones, except where the fluid contained, the design of the system, the materials used in the tank, the shutoff means, and the connections, lines, and controls provide equivalent safety.

(b) At least one-half inch of clear airspace must be provided between any tank or reservior and a firewall or shroud isolating a designated fire zone.

23) Shutoff means.

(a) Each engine must have a means for shutting off or otherwise preventing hazardous amounts of fuel, oil, deicer, and other flammable fluids from flowing into, within, or through any designated fire zone. However, means need not be provided to shut off flow in lines that are an integral part of an engine.

(b) The shutoff means must allow an emergency operating sequence that is compatible with the emergency operation of other equipment, such as feathering the propeller, to facilitate rapid and effective control of fires.

(c) Shutoff means must be located outside of designated fire zones, unless equivalent safety is provided, and it must be shown that no hazardous amount of flammable fluid will drain into any designated fire zone after a shutoff.

(d) Adequate provisions must be made to guard against inadvertent operation of the shutoff means and to make it possible for the crew to reopen the shutoff means after it has been closed.

24) Lines and fittings.

(a) Each line, and its fittings, that is located in a designated fire zone, if it carries flammable fluids or gases under pressure, or is attached directly to the engine, or is subject to relative motion between components (except lines and fittings forming an integral part of the engine), must be flexible and fire-resistant with fire-resistant, factory-fixed, detachable, or other approved fire-resistant ends.

(b) Lines and fittings that are not subject to pressure or to relative motion between components must be of fire-resistant materials.

25) Vent and drain lines.

All vent and drain lines, and their fittings, that are located in a designated fire zone must, if they carry flammable fluids or gases, comply with Item 24, if the Administrator finds that the rupture or breakage of any vent or drain line may result in a fire hazard.

26) Fire-extinguishing systems.

(a) Unless the aircraft operator shows that equivalent protection against destruction of the airplane in case of fire is provided by the use of fireproof materials in the nacelle and other components that would be subjected to flame, fire-extinguishing systems must be provided to serve all designated fire zones.

(b) Materials in the fire-extinguishing system must not react chemically with the extinguishing agent so as to be a hazard.

27) Fire-extinguishing agents.

Only methyl bromide, carbon dioxide, or another agent that has been shown to provide equivalent extinguishing action may be used as a fire-extinguishing agent. If methyl bromide or any other toxic extinguishing agent is used, provisions must be made to prevent harmful concentrations of fluid or fluid vapors from entering any personnel compartment either because of leakage during normal operation of the airplane or because of discharging the fire extinguisher on the ground or in flight when there is a defect in the extinguishing system. If a methyl bromide system is used, the containers must be charged with dry agent and sealed by the fire-extinguisher manufacturer or some other person using satisfactory recharging equipment. If carbon dioxide is used, it must not be possible to discharge enough gas into the personnel compartments to create a danger of suffocating the occupants.

28) Extinguishing agent container pressure relief.

Extinguishing agent containers must be provided with a pressure relief to prevent bursting of the container because of excessive internal pressures. The discharge line from the relief connection must terminate outside the airplane in a place convenient for inspection on the ground. An indicator must be provided at the

discharge end of the line to provide a visual indication when the container has discharged.

29) Extinguishing agent container compartment temperature.

Precautions must be taken to ensure that the extinguishing agent containers are installed in places where reasonable temperatures can be maintained for effective use of the extinguishing system.

30) Fire-extinguishing system materials.

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(a) Except as provided in paragraph (b) of this section, each component of a fire-extinguishing system that is in a designated fire zone must be made of fireproof materials.

(b) Connections that are subject to relative motion between components of the airplane must be made of flexible materials that are at least fire-resistant and be located so as to minimize the probability of failure.

31) Fire-detector systems.

Enough quick-acting fire detectors must be provided in each designated fire zone to assure the detection of any fire that may occur in that zone.

32) Fire detectors.

Fire detectors must be made and installed in a manner that assures their ability to resist, without failure, all vibration, inertia, and other loads to which they may be normally subjected. Fire detectors must be unaffected by exposure to fumes, oil, water, or other fluids that may be present.

33) Protection of other airplane components against fire.

(a) Except as provided in paragraph (b) of this section, all airplane surfaces aft of the nacelles in the area of one nacelle diameter on

both sides of the nacelle centerline must be made of material that is at least fire resistant.

(b) Paragraph (a) of this section does not apply to tail surfaces lying behind nacelles unless the dimensional configuration of the airplane is such that the tail surfaces could be affected readily by heat, flames, or sparks emanating from a designated fire zone or from the engine from a designated fire zone or from the engine compartment of any nacelle.

34) Control of engine rotation.

(a) Except as provided in paragraph (b) of this section, each airplane must have a means of individually stopping and restarting the rotation of any engine in flight.

(b) In the case of turbine engine installations, a means of stopping rotation need be provided only if the Administrator finds that rotation could jeopardize the safety of the airplane.

35) Fuel system independence.

(a) Each airplane fuel system must be arranged so that the failure of any one component does not result in the irrecoverable loss of power of more than one engine.

(b) A separate fuel tank need not be provided for each engine if the aircraft operator older shows that the fuel system incorporates features that provide equivalent safety.

36) Induction system ice prevention.

A means for preventing the malfunctioning of each engine due to ice accumulation in the engine air induction system must be provided for each airplane.

37) Carriage of cargo in passenger compartments.

(a) Except as provided in paragraph (b) or (c) of this section, no aircraft operator may carry cargo in the passenger compartment of an airplane.

(b) Cargo may be carried aft of the foremost seated passengers if it is carried in an approved cargo bin that meets the following requirements:

(1) The bin must withstand the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed, multiplied by a factor of 1.15, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin.

(2) The maximum weight of cargo that the bin is approved to carry and any instructions necessary to ensure proper weight distribution within the bin must be conspicuously marked on the bin.

(3) The bin may not impose any load on the floor or other structure of the airplane that exceeds the load limitations of that structure.

(4) The bin must be attached to the seat tracks or to the floor structure of the airplane, and its attachment must withstand the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the airplane, whichever is greater, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin.

(5) The bin may not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment.

(6) The bin must be fully enclosed and made of material that is at least flame-resistant.

(7) Suitable safeguards must be provided within the bin to prevent the cargo from shifting under emergency landing conditions.

(8) The bin may not be installed 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 passenger is provided.

(c) All cargo may be carried forward of the foremost seated passengers and carry-on baggage may be carried alongside the foremost seated passengers if the cargo (including carry-on baggage) is carried either in approved bins as specified in paragraph (b) of this section or in accordance with the following:

(1) 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.

(2) It is packaged or covered in a manner to avoid possible injury to passengers.

(3) It does not impose any load on seats or the floor structure that exceeds the load limitation for those components.

(4) Its location does not restrict access to or use of any required emergency or regular exit, or of the aisle in the passenger compartment.

(5) Its location does not obscure any passenger's view of the "seat belt" sign, "no smoking" sign, or required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

38) Carriage of cargo in cargo compartments.

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-held fire extinguisher.

39) Landing gear: Aural warning device.

(a) Except for airplanes that comply with the requirements of §25.729 of this chapter on or after January 6, 1992, each airplane must have a landing gear aural warning device that functions continuously under the following conditions:

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(1) For airplanes with an established approach wing-flap position, whenever the wing flaps are extended beyond the maximum certificated approach climb configuration position in the Airplane Flight Manual and the landing gear is not fully extended and locked.

(2) For airplanes without an established approach climb wing-flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(b) The warning system required by paragraph (a) of this section --

(1) May not have a manual shutoff;

(2) Must be in addition to the throttle-actuated device installed under the type certification airworthiness requirements; and

(3) May utilize any part of the throttle-actuated system including the aural warning device.

(c) The flap position sensing unit may be installed at any suitable place in the airplane.

Section 2 – **Oxygen for medical use by passengers.**

(a) Except as provided in paragraphs (d) and (e) of this section, no aircraft operator conducting operating under this Appendix 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 §173.24(a)(1);

Deleted: **40) Demonstration of emergency evacuation procedures.** ¶
(a) Each certificate holder must show, by actual demonstration conducted in accordance with paragraph (a) of appendix B of this part, that the emergency evacuation procedures for each type and model of airplane with a seating of more than 44 passengers, that is used in its passenger-carrying operations, allow the evacuation of the full seating capacity, including crewmembers, in 90 seconds or less, in each of the following circumstances: ¶
(1) A demonstration must be conducted by the certificate holder upon the initial introduction of a type and model of airplane into passenger-carrying operations. However, the demonstration need not be repeated for any airplane type or model that has the same number and type of exits, the same cabin configuration, and the same emergency equipment as any other airplane used by the certificate holder in successfully demonstrating emergency evacuation in compliance with this paragraph. ¶
(2) A demonstration must be conducted -- ¶
(i) Upon increasing by more than 5 percent the passenger seating capacity for which successful demonstration has been conducted; or ¶
(ii) Upon a major change in the passenger cabin interior configuration that will affect the emergency evacuation of passengers. ¶
(b) If a certificate holder has conducted a successful demonstration required by §121.291(a) in the same type airplane as a part 121 or part 123 certificate holder, it need not conduct a demonstration under this paragraph in that type airplane to achieve certification under part 125. ¶
(c) Each certificate holder operating or proposing to operate one or more landplanes in extended overwater operations, or otherwise required to have certain equipment under §125.209, must show, by a simulated ditching conducted in accordance with paragraph ... [1]

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(ii) When owned by the aircraft operators, maintained under the aircraft operators 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 aircraft operator's 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 aircraft operator, 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) When oxygen is being used, no person may smoke and no aircraft operator may allow any person to smoke within 10 feet of oxygen storage and dispensing equipment carried under paragraph (a) of this section.

(c) No aircraft operator conducting operations under this appendix 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 airplane.

(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 airplane 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 aircraft operator 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 FAA Flight Standards district office charged with the overall inspection of the aircraft operator a complete report of the operation involved, including a description of the deviation and the reasons for it.

Section 3- Flight crew requirements

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§125.281 Pilot-in-command qualifications. [Waivable, not recommended for inclusion in Subpart F]

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No certificate holder may use any person, nor may any person serve, as pilot in command of an airplane unless that person --

(a) Holds at least a commercial pilot certificate, an appropriate category, class, and type rating, and an instrument rating; and

(b) 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, including at least 10 night takeoffs and landings, and 75 hours of actual or simulated instrument flight time, at least 50 hours of which were actual flight.

§125.283 Second-in-command qualifications. [Waivable, not recommended for inclusion in Subpart F]

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No certificate holder may use any person, nor may any person serve, as second in command of an airplane unless that person --

(a) Holds at least a commercial pilot certificate with appropriate category and class ratings, and an instrument rating; and

(b) For flight under IFR, meets the recent instrument experience requirements prescribed for a pilot in command in part 61 of this chapter.

§125.285 Pilot qualifications: Recent experience. [contained in part 61.57. Not recommended for inclusion]

(a) No certificate holder may use any person, nor may any person serve, as a required pilot flight crewmember unless within the preceding 90 calendar days that person has made at least three takeoffs and landings in the type airplane in which that person is to serve. The takeoffs and landings required by this paragraph may be performed in a flight simulator if the flight simulator is qualified and approved by the Administrator for such purpose. However, any person who fails to qualify for a 90-consecutive-day period following the date of that person's last qualification under this paragraph must reestablish recency of experience as provided in paragraph (b) of this section.

(b) A required pilot flight crewmember who has not met the requirements of paragraph (a) of this section may reestablish recency of experience by making at least three takeoffs and landings under the supervision of an authorized check airman, in accordance with the following:

(1) At least one takeoff must be made with a simulated failure of the most critical powerplant.

(2) At least one landing must be made from an ILS approach to the lowest ILS minimums authorized for the certificate holder.

(3) At least one landing must be made to a complete stop.

(c) A required pilot flight crewmember who performs the maneuvers required by paragraph (b) of this section in a qualified and approved flight simulator, as prescribed in paragraph (a) of this section, must --

(1) Have previously logged 100 hours of flight time in the same type airplane in which the pilot is to serve; and

(2) Be observed on the first two landings made in operations under this part by an authorized check airman who acts as pilot in command and occupies a pilot seat. The landings must be made in weather minimums that are not less than those contained in the certificate holder's operations specifications for Category I

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operations and must be made within 45 days following completion of simulator testing.

(d) An authorized check airman who observes the takeoffs and landings prescribed in paragraphs (b) and (c)(3) of this section shall certify that the person being observed is proficient and qualified to perform flight duty in operations under this part, and may require any additional maneuvers that are determined necessary to make this certifying statement.

§125.287 Initial and recurrent pilot testing requirements. [Contained in Part 61. Not recommended for inclusion in Subpart F]

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(a) No certificate holder may use any person, nor may any person serve as a pilot, unless, since the beginning of the 12th calendar month [61.58(a)(1)] before that service, that person has passed a written or oral test, given by the Administrator or an authorized check airman on that person's knowledge in the following areas --

(1) The appropriate provisions of parts 61, 91, and 125 of this chapter and the operations specifications and the manual of the certificate holder;

(2) For each type of airplane to be flown by the pilot, the airplane powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the approved Airplane Flight Manual or approved equivalent, as applicable;

(3) For each type of airplane 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 of 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 avoiding operations in thunderstorms and hail, and for operating in turbulent air or in icing conditions;

(8) New equipment, procedures, or techniques, as appropriate;

(9) Knowledge and procedures for operating 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:

(i) The use of holdover times when using deicing/anti-icing fluids.

(ii) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities.

(iii) Communications.

(iv) 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.

(v) Types and characteristics of deicing/anti-icing fluids, if used by the certificate holder.

(vi) Cold weather preflight inspection procedures.

(vii) Techniques for recognizing contamination on the airplane.

(b) No certificate holder may use any person, nor may any person serve, as a pilot in any airplane unless, since the beginning of the 12th calendar month before that service, that person has passed a competency check given by the Administrator or an authorized check airman in that type of airplane to determine that person's competence in practical skills and techniques in that airplane or type of airplane. The extent of the competency check shall be determined by the Administrator or authorized check airman 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 airplane 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.

(c) The instrument proficiency check required by §125.291 may be substituted for the competency check required by this section for the type of airplane used in the check.

(d) For the purposes 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 airplane with the successful outcome of the maneuver never in doubt.

(e) The Administrator or authorized check airman 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 airplane simulator or other appropriate training device, if approved by the Administrator.

§125.289 Initial and recurrent flight attendant crewmember testing requirements. [request additional input]

No certificate holder may use any person, nor may any person serve, as a flight attendant crewmember, unless, since the beginning of the 12th calendar month before that service, the certificate holder has determined by appropriate initial and recurrent testing that the person is knowledgeable and competent in the following areas as appropriate to assigned duties and responsibilities:

(a) Authority of the pilot in command;

(b) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety;

(c) Crewmember assignments, functions, and responsibilities during ditching and evacuation of persons who may need the

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assistance of another person to move expeditiously to an exit in an emergency;

(d) Briefing of passengers;

(e) Location and operation of portable fire extinguishers and other items of emergency equipment;

(f) Proper use of cabin equipment and controls;

(g) Location and operation of passenger oxygen equipment;

(h) Location and operation of all normal and emergency exits, including evacuation chutes and escape ropes; and

(i) Seating of persons who may need assistance of another person to move rapidly to an exit in an emergency as prescribed by the certificate holder's operations manual.

§125.291 Pilot in command: Instrument proficiency check requirements. [contained in 61.57(d). not recommended for inclusion in Subpart F]

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(a) No certificate holder may use any person, nor may any person serve, as a pilot in command of an airplane under IFR unless, since the beginning of the sixth calendar month before that service, that person has passed an instrument proficiency check and the Administrator or an authorized check airman has so certified in a letter of competency.

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the sixth calendar month before that use, the pilot has satisfactorily demonstrated that type of approach procedure and has been issued a letter of competency under paragraph (g) of this section. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the sixth 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 and has been issued a letter of competency under paragraph (g) of this section. 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 supercharge 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.

(1) For a pilot in command of an airplane, the instrument proficiency check must 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 airplane, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of airplane.

(e) If the pilot in command is assigned to pilot more than one type of airplane, that pilot must take the instrument proficiency check required by paragraph (a) of this section in each type of airplane 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) Portions of a required flight check may be given in an airplane simulator or other appropriate training device, if approved by the Administrator.

(g) The Administrator or authorized check airman issues a letter of competency to each pilot who passes the instrument proficiency check. The letter of competency contains a list of the types of instrument approach procedures and facilities authorized.

§125.293 Crewmember: Tests and checks, grace provisions, accepted standards. [not allowed under 91. Recommend no inclusion in subpart F]

(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, in the capacity for which the pilot is being checked in operations under this part until the pilot has satisfactorily completed the check.

§125.295 Check airman authorization: Application and issue. [recommend inclusion in Subpart F]

Each certificate holder desiring FAA approval of a check airman shall submit a request in writing to the FAA Flight Standards district office charged with the overall inspection of the certificate holder. The Administrator may issue a letter of authority to each check airman if that airman passes the appropriate oral and flight test. The letter of authority lists the tests and checks in this part that the check airman is qualified to give, and the category, class and type airplane, where appropriate, for which the check airman is qualified.

§125.296 Training, testing, and checking conducted by training

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centers: Special rules. [Part 91 allows training in simulators. Not recommended for inclusion in Subpart K]

A crewmember who has successfully completed training, testing, or checking in accordance with an approved training program that meets the requirements of this part and that is conducted in accordance with an approved course conducted by a training center certificated under part 142 of this chapter, is considered to meet applicable requirements of this part.

§125.297 Approval of flight simulators and flight training devices. [part 91/61 allows training in simulators. Recommend no inclusion in Subpart K]

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(a) Flight simulators and flight training devices approved by the Administrator may be used in training, testing, and checking required by this subpart.

(b) Each flight simulator and flight training device that is used in training, testing, and checking required under this subpart must be used in accordance with an approved training course conducted by a training center certificated under part 142 of this chapter, or meet the following requirements:

(1) It must be specifically approved for --

(i) The certificate holder;

(ii) The type airplane and, if applicable, the particular variation within type for which the check is being conducted; and

(iii) The particular maneuver, procedure, or crewmember function involved.

(2) It must maintain the performance, functional, and other characteristics that are required for approval.

(3) It must be modified to conform with any modification to the airplane being simulated that changes the performance, functional, or other characteristics required for approval.

Section 4-Maintenance Requirements

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§125.241 Applicability. [Part 91, subpart E, 91.401(a)]

This subpart prescribes rules, in addition to those prescribed in other parts of this chapter, for the maintenance of airplanes, airframes, aircraft engines, propellers, appliances, each item of survival and emergency equipment, and their component parts operated under this part.

§125.243 Certificate holder's responsibilities. [Not required for 91F]

(a) With regard to airplanes, including airframes, aircraft engines, propellers, appliances, and survival and emergency equipment, operated by a certificate holder, that certificate holder is primarily responsible for --

(1) Airworthiness;

(2) The performance of maintenance, preventive maintenance, and alteration in accordance with applicable regulations and the certificate holder's manual;

(3) The scheduling and performance of inspections required by this part; and

(4) Ensuring that maintenance personnel make entries in the airplane maintenance log and maintenance records which meet the requirements of part 43 of this chapter and the certificate holder's manual, and which indicate that the airplane has been approved for return to service after maintenance, preventive maintenance, or alteration has been performed.

§125.245 Organization required to perform maintenance, preventive maintenance, and alteration. [Similar to requirements in Part 91, subpart E, 91.403(a), but refers to the "owner or operator' responsibilities]

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The certificate holder must ensure that each person with whom it arranges for the performance of maintenance, preventive maintenance, alteration, or required inspection items identified in the certificate holder's manual in accordance with §125.249(a)(3)(ii) must have an organization adequate to perform that work.

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§125.247 Inspection programs and maintenance. [Covered by section of Part 91, subpart E]

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(a) No person may operate an airplane subject to this part unless [91.403(a)]

(1) The replacement times for life-limited parts specified in the aircraft type certificate data sheets, or other documents approved by the Administrator, are complied with; [91.403(c)]

(2) Defects disclosed between inspections, or as a result of inspection, have been corrected in accordance with part 43 of this chapter; and [91.7(a),(b)]

(3) The airplane, including airframe, aircraft engines, propellers, appliances, and survival and emergency equipment, and their component parts, is inspected in accordance with an inspection program approved by the Administrator. [91.403(c)]

(b) The inspection program specified in paragraph (a)(3) of this section must include at least the following:

(1) Instructions, procedures, and standards for the conduct of inspections for the particular make and model of airplane, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, aircraft engines, propellers, appliances, and survival and emergency equipment required to be inspected. [91.409(g)]

(2) A schedule for the performance of inspections that must be performed under the program, expressed in terms of the time in service, calendar time, number of system operations, or any combination of these. [91.409(g)]

(c) No person may be used to perform the inspections required by this part unless that person is authorized to perform maintenance under part 43 of this chapter. [91.403(b)]

(d) No person may operate an airplane subject to this part unless --

(1) The installed engines have been maintained in accordance with the overhaul periods recommended by the manufacturer or a program approved by the Administrator; and [91.409(e)]

(2) The engine overhaul periods are specified in the inspection programs required by §125.247(a)(3). [91.409(e)]

(e) Inspection programs which may be approved for use under this part include, but are not limited to --

(1) A continuous inspection program which is a part of a current continuous airworthiness program approved for use by a certificate holder under part 121 or part 135 of this chapter; [91.409(f) (1)]

(2) Inspection programs currently recommended by the manufacturer of the airplane, aircraft engines, propellers, appliances, or survival and emergency equipment; or [91.409(f) (3)]

(3) An inspection program developed by a certificate holder under this part. [91.409(g)]

§125.248 Special maintenance program requirements. [same as Part91, subpart E,91.410]

(a) No person may operate an Airbus Model A300 (exlcuding the -600 series), British Aerospace Model BAC 1-11, Boeing Model 707, 720, 727, 737 or 747, McDonnell Douglas Model DC-8, DC-9/MD-80 or DC-10, Fokker Model F28, or Lockheed Model L-1011 beyond the applicable flight cycle implementation time specified below, or May 25, 2001, whichever occurs later, unless operations specifications have been issued to reference repair assessment guidelines applicable to the fuselage pressure boundary (fuselage skin, door skin, and bulkhead webs), and those guidelines are

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incorporated in its maintenance program. The repair assessment guidelines must be approved by the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane.

(1) For the Airbus Model A300 (excluding the -600 series), the flight cycle implementation time is:

(i) Model B2: 36,000 flights.

(ii) Model B4-100 (including Model B4-2C): 30,000 flights above the window line, and 36,000 flights below the window line.

(iii) Model B4-200: 25,500 flights above the window line, and 34,000 flights below the window line.

(2) For all models of the British Aerospace BAC 1-11, the flight cycle implementation time is 60,000 flights.

(3) For all models of the Boeing 707, the flight cycle implementation time is 15,000 flights.

(4) For all models of the Boeing 720, the flight cycle implementation time is 23,000 flights.

(5) For all models of the Boeing 727, the flight cycle implementation time is 45,000 flights.

(6) For all models of the Boeing 737, the flight cycle implementation time is 60,000 flights.

(7) For all models of the Boeing 747, the flight cycle implementation time is 15,000 flights.

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

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

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

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

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

(b) After December 6, 2004, no certificate holder may operate a turbine-powered transport category airplane with a type certificate issued after January 1, 1958, and either a maximum type certificated passenger capacity of 30 or more, or a maximum type certificated payload capacity of 7,500 pounds or more unless instructions for maintenance and inspection of the fuel tank system are incorporated in its inspection program. These instructions must address the actual configuration of the fuel tank systems of each affected airplane and must be approved by the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane. Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the manager of the appropriate office. Thereafter, the approved instructions can be revised only with the approval of the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane. Operators must submit their requests for revisions through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the manager of the appropriate office.

§125.249 Maintenance manual requirements. [not required for 91F]

(a) Each certificate holder's manual required by §125.71 of this part shall contain, in addition to the items required by §125.73 of this part, at least the following:

(1) A description of the certificate holders maintenance organization, when the certificate holder has such an organization.

(2) A list of those persons with whom the certificate holder has arranged for performance of inspections under this part. The list shall include the persons' names and addresses.

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(3) The inspection programs required by §125.247 of this part to be followed in the performance of inspections under this part including --

(i) The method of performing routine and nonroutine inspections (other than required inspections);

(ii) The designation of the items that must be inspected (required inspections), including at least those which if improperly accomplished could result in a failure, malfunction, or defect endangering the safe operation of the airplane;

(iii) The method of performing required inspections;

(iv) Procedures for the inspection of work performed under previously required inspection findings ("buy-back procedures");

(v) Procedures, standards, and limits necessary for required inspections and acceptance or rejection of the items required to be inspected;

(vi) Instructions to prevent any person who performs any item of work from performing any required inspection of that work; and

(vii) Procedures to ensure that work interruptions do not adversely affect required inspections and to ensure required inspections are properly completed before the airplane is released to service.

(b) In addition, each certificate holder's manual shall contain a suitable system which may include a coded system that provides for the retention of the following:

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

(2) The name of the person performing the work and the person's certificate type and number.

(3) The name of the person approving the work and the person's certificate type and number.

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§125.251 , Required inspection personnel. [Parts 91.403 (b), and 43.3 and .13]

(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 perform a required inspection if that person performed the item of work required to be inspected. [no direct equivalent in Part 91]

Section 5 – Additional Requirements

1) Composition of flightcrew.

(a) No aircraft operator may operate an airplane with less than the minimum flightcrew specified in the type certificate and the Airplane Flight Manual approved for that type airplane and required by this part for the kind of operation being conducted.

(b) In any case in which this part requires the performance of two or more functions for which an airman certificate is necessary, that requirement is not satisfied by the performance of multiple functions at the same time by one airman.

(c) On each flight requiring a flight engineer, at least one flight crewmember, other than the flight engineer, must be qualified to provide emergency performance of the flight engineer's functions for the safe completion of the flight if the flight engineer becomes ill or is otherwise incapacitated. A pilot need not hold a flight engineer's certificate to perform the flight engineer's functions in such a situation.

2) Flight engineer requirements.

(a) No person may operate an airplane for which a flight engineer is required by the type certification requirements without a flight crewmember holding a current flight engineer certificate.

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(b) No person may serve as a required flight engineer on an airplane unless, within the preceding 6 calendar months, that person has had at least 50 hours of flight time as a flight engineer on that type airplane, or the Administrator has checked that person on that type airplane and determined that person is familiar and competent with all essential current information and operating procedures.

4) Duty period limitations.

(a) Each flight crewmember and flight attendant must be relieved from all duty for at least 8 consecutive hours during any 24-hour period.

(b) The Administrator may specify rest, flight time, and duty time limitations in the Letter of Authorization that are other than those specified in paragraph (a) of this section.

5) Inspection authority.

Each holder of a letter of authorization issued under this appendix shall allow the Administrator, at any time or place, to make any inspections or tests to determine its compliance with it's letter of authorization.

6) Change of address.

Each holder of a letter of authorization issued under this appendix shall notify the FAA Flight Standards district office charged with the overall inspection of its operations, in writing, at least 30 days in advance, of any change in the address of its principal business office, its principal operations base, or its principal maintenance base, as applicable.

7) compliance with the following regulations (125.93-Airplane limitations re: ditching), **§125.187 Landing gear: Aural warning device, §125.206 Pitot heat indication systems, §125.223 Airborne weather radar equipment requirements, §125.224 Collision Avoidance System, [consider flight attendant requirements from operations subgroup – more than 19 seats or one to 4 escape slides requires one flight attendant, more than 4 escape slides requires 2 flight attendants, more than 8 escape slides, 3 flight attendants, could should up in 91.533 with adjustments], [review work for emergency and emergency evacuation issues from operations workgroup], [§125.323 Reporting mechanical irregularities – see 91.213(c) for similar requirement] [91.535-review changes made for 135/125-dave hewitt. Might need to retain current permission under 91, we don't want to prevent use of non-plastic cups] [include language from 91.1039(d) for departure airport alternate if landing min's are below mins), [§125.379 Landing weather minimums: IFR-this deals with crew pairing, [§125.379 Landing weather minimums: IFR- copy 91.1039(c) requirement], [§125.409 Reports of defects or unairworthy conditions-require input from maintenance community on appropriate verbage],**

Deleted: **3) Check airman authorization: Application and issue.**¶
Each aircraft operator desiring FAA approval of a check airman shall submit a request in writing to the FAA Flight Standards district office charged with the overall inspection of the aircraft operator. The Administrator may issue a letter of authority to each check airman if that airman passes the appropriate oral and flight test. The letter of authority lists the tests and checks in this part that the check airman is qualified to give, and the category, class and type airplane, where appropriate, for which the check airman is qualified. ¶

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40) Demonstration of emergency evacuation procedures.

(a) Each certificate holder must show, by actual demonstration conducted in accordance with paragraph (a) of appendix B of this part, that the emergency evacuation procedures for each type and model of airplane with a seating of more than 44 passengers, that is used in its passenger-carrying operations, allow the evacuation of the full seating capacity, including crewmembers, in 90 seconds or less, in each of the following circumstances:

(1) A demonstration must be conducted by the certificate holder upon the initial introduction of a type and model of airplane into passenger-carrying operations. However, the demonstration need not be repeated for any airplane type or model that has the same number and type of exits, the same cabin configuration, and the same emergency equipment as any other airplane used by the certificate holder in successfully demonstrating emergency evacuation in compliance with this paragraph.

(2) A demonstration must be conducted --

(i) Upon increasing by more than 5 percent the passenger seating capacity for which successful demonstration has been conducted; or

(ii) Upon a major change in the passenger cabin interior configuration that will affect the emergency evacuation of passengers.

(b) If a certificate holder has conducted a successful demonstration required by §121.291(a) in the same type airplane as a part 121 or part 123 certificate holder, it need not conduct a demonstration under this paragraph in that type airplane to achieve certification under part 125.

(c) Each certificate holder operating or proposing to operate one or more landplanes in extended overwater operations, or otherwise required to have certain equipment under §125.209, must show, by a simulated ditching conducted in accordance with paragraph (b) of appendix B of this part, that it has the ability to efficiently carry out its ditching procedures.

(d) If a certificate holder has conducted a successful demonstration required by §121.291(b) in the same type airplane as a part 121 or part 123 certificate holder, it need not conduct a demonstration under this paragraph in that type airplane to achieve certification under part 125.

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THIS DATA CURRENT AS OF THE FEDERAL REGISTER DATED NOVEMBER 17, 2003

14 CFR
Aeronautics and Space
CHAPTER I
FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION
(CONTINUED)

SUBCHAPTER G -- AIR CARRIERS AND OPERATORS FOR COMPENSATION OR HIRE: CERTIFICATION AND OPERATIONS

PART 125 -- CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE; AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

Special Federal Aviation Regulation No. 89 [Note]
Special Federal Aviation Regulation No. 97 [Note]

Subpart A -- General

Sec.

Subpart B -- Certification Rules and Miscellaneous Requirements

Subpart C -- Manual Requirements

Subpart D -- Airplane Requirements

Subpart E -- Special Airworthiness Requirements

Subpart F -- Instrument and Equipment Requirements

Subpart G -- Maintenance

Subpart H -- Airman and Crewmember Requirements

Subpart I -- Flight Crewmember Requirements

Subpart J -- Flight Operations

Subpart K -- Flight Release Rules

Subpart L -- Records and Reports

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44705, 44710-44711, 44713, 44716-44717, 44722.

Source: Docket No. 19779, 45 FR 67235, Oct. 9, 1980, unless otherwise noted.

Special Federal Aviation Regulation No. 89

Editorial Note: For the text of SFAR No. 89, see part 121 of this chapter.

Special Federal Aviation Regulation No. 97

Editorial Note: For the text of SFAR No. 97, see part 91 of this chapter.

Subpart A -- General

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§125.1 Applicability.

(a) Except as provided in paragraphs (b), (c) and (d) of this section, this part prescribes rules governing the operations of U.S.-registered civil airplanes which have a seating configuration of 20 or more passengers or a maximum payload capacity of 6,000 pounds or more in private carriage for hire and private carriage of petroleum and petroleum products in the state of Alaska.

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(b) The rules of this part do not apply to the operations of airplanes specified in paragraph (a) of this section, when --

(1) They are required to be operated under part 121, 129, 135, or 137 of this chapter;

(2) They have been issued restricted, limited, or provisional airworthiness certificates, special flight permits, or experimental certificates;

(3) They are being operated by a part 125 certificate holder without carrying passengers or cargo under part 91 for training, ferrying, positioning, or maintenance purposes;

(4) They are being operated under part 91 by an operator certificated to operate those airplanes under the rules of parts 121, 135, or 137 of this chapter, they are being operated under the applicable rules of part 121 or part 135 of this chapter by an applicant for a certificate under part 119 of this chapter or they are being operated by a foreign air carrier or a foreign person engaged in common carriage solely outside the United States under part 91 of this chapter;

(5) They are being operated under Part 91F Appendix H

(6) They are being operated under part 91, subpart K by a fractional owner as defined in §91.1001 of this chapter; or

Deleted: (5) They are being operated under a deviation authority issued under §125.3; ¶

(7) They are being operated by a fractional ownership program manager as defined in §91.1001 of this chapter, for training, ferrying, positioning, maintenance, or demonstration purposes under part 91 of this chapter and without carrying passengers or cargo for compensation or hire except as permitted for demonstration flights under §91.501(b)(3) of this chapter.

(c) The rules of this part, except §125.247, do not apply to the operation of airplanes specified in paragraph (a) when they are operated outside the United States by a person who is not a citizen of the United States.

(d) The provisions of this part apply to each person on board an aircraft being operated under this part, unless otherwise specified.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-4, 47 FR 44719, Oct. 12, 1982; Amdt. 125-5, 49 FR 34816, Sept. 4, 1984; Amdt. 125-6, 51 FR 873, Jan. 8, 1986; Amdt. 125-9, 52 FR 20028, May 28, 1987; Amdt. 121-251, 60 FR 65937, Dec. 20, 1995; Amdt. 125-31, 64 FR 1080, Jan. 7, 1999; Amdt. 125-44, 68 FR 54585, Sept. 17, 2003]

[TOP]

§125.3 Deviation authority. **[Consider noting within each rule that is deviable or listing of all deviable rules. Preamble-deviation to operate under 91 is removed. Preamble language-should state that this will not be the same deviation authority issued in the past. This will be limited deviation authority]**

(a) The Administrator may, upon consideration of the circumstances of a particular operation, issue deviation authority providing relief from specified sections of part 125. This deviation authority will be issued as a Letter of Deviation Authority.

(b) A Letter of Deviation Authority may be terminated or amended at any time by the Administrator.

(c) A request for deviation authority must be submitted to the nearest Flight Standards District Office, not less than 60 days prior to the date of intended operations. A request for deviation authority must contain a complete statement of the circumstances and justification for the deviation requested.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-13, 54 FR 39294, Sept. 25, 1989]

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§125.5 Operating certificate and operations specifications required. **[Preamble-deleted dates in A and deleted paragraph B and they related to original transition and are no longer applicable, also preamble, no deviation from certificate requirements of part 125]**

(a) No person may engage in operations governed by this part unless that person holds a certificate and operations specification or appropriate deviation authority.

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(b) The rules of this part which apply to a certificate holder also apply to any person who engages in any operation governed by this part without an appropriate certificate and operations specifications required by this part.

Deleted: (b) Applicants who file an application before June 1, 1981 shall continue to operate under the rules applicable to their operations on February 2, 1981 until the application for an operating certificate required by this part has been denied or the operating certificate and operations specifications required by this part have been issued. ¶

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-1A, 46 FR 10903, Feb. 5, 1981]

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[Preamble note-This requirement is combined in 125.41]

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Deleted: or a Letter of Deviation Authority issued under §125.3.

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§125.9 Definitions. **[Need to evaluate inclusion of any of these definitions within 91F. Also, determine if duplicate definitions found in 119 will allow for removal of definitions in this part. Also, consider language under 119.3 "for the purpose of subchapter G-should this also be a roadmap for large airplanes heading to 91 Sub F]**

Deleted: §125.7 Display of certificate.

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(a) The certificate holder must display a true copy of the certificate in each of its aircraft. ¶
(b) Each operator holding a Letter of Deviation Authority issued under this part must carry a true copy in each of its airplanes.

(a) For the purposes of this part, *maximum payload capacity* means:

(1) For an airplane for which a maximum zero fuel weight is prescribed in FAA technical specifications, the maximum zero fuel weight, less empty weight, less all justifiable airplane equipment, and less the operating load (consisting of minimum flightcrew, foods and beverages and supplies and equipment related to foods and beverages, but not including disposable fuel or oil):

(2) For all other airplanes, the maximum certificated takeoff weight of an airplane, less the empty weight, less all justifiable airplane equipment, and less the operating load (consisting of minimum fuel load, oil, and flightcrew). The allowance for the weight of the crew, oil, and fuel is as follows:

(i) Crew -- 200 pounds for each crewmember required under this chapter

(ii) Oil -- 350 pounds.

(iii) Fuel -- the minimum weight of fuel required under this chapter for a flight between domestic points 174 nautical miles apart under VFR weather conditions that does not involve extended overwater operations.

(b) For the purposes of this part, *empty weight* means the weight of the airframe, engines, propellers, and fixed equipment. Empty weight excludes the weight of the crew and payload, but includes the

weight of all fixed ballast, unusable fuel supply, undrainable oil, total quantity of engine coolant, and total quantity of hydraulic fluid.

(c) For the purposes of this part, *maximum zero fuel weight* means the maximum permissible weight of an airplane with no disposable fuel or oil. The zero fuel weight figure may be found in either the airplane type certificate data sheet or the approved Airplane Flight Manual, or both.

(d) For the purposes of this section, *justifiable airplane equipment* means any equipment necessary for the operation of the airplane. It does not include equipment or ballast specifically installed, permanently or otherwise, for the purpose of altering the empty weight of an airplane to meet the maximum payload capacity.

(e) For the purpose of this part

(1) *Private carriage for hire* shall have the same meaning as defined in new 119.3

(2) *Holding out by reputation* means gaining a reputation for a willingness to serve the traveling or shipping public, or a segment thereof, on an indiscriminate basis.

(3) *Affilliate of the certificate holder* means a company that, directlyu or indirectly, through one or more intermediariers, controls, or controlled by, or under common control with, the certificate holder. The holding of at least forty percent (40%) of the equity and forty percent (40%) of the voting power of an entity will be presumed to constitute control for purposes of determining an affiliation under this part.

(4) *Revenue hour* shall mean hours when revenue passenger and/or revenue cargo are on board. Hours associated with ferry flights, positioning flights, depositioining flights and maintenance flights when no revenue passengers are on board are no "revenue hours."

[TOP] **§125.11** Authorizations and limitations

(a) A certificate holder under this part shall not hold a certificate to conduct operations under 121, 129, 135. (b) A certificate holder under this part shall not operate or list on its operations specifications any aircraft listed on any operations specifications or other required aircraft listing under part 121, 129, or 135 of this chapter.

(c), A certificate holder under this part shall not conduct an operation which results directly or indirectly from any person's holding out to the public to furnish transportation (indiscriminately- DOT wants this term removed). A certificate holder under this part may not hold out to the public, including by:

(i) advertising transportation services to the public,

(ii) actively soliciting customers through its own sales personnel, brokers or other intermediaries (which itselves are advertising and soliciting passengers or cargo traffic from the public- DOT wants this section removed) or

(iii) holding out by reputation (by Exceeding the limits of (e)-DOT Added this language)

(d) a certificate holder under this part may: do business with an intermediary under the following conditions:

(i) such intermediary acts as an agent for the customer,

(ii) The certificate holder contracts directly with the customer or with the intermediary having authority to sign contracts on behalf of the customer, and

(iii) The number of contracts does not result in a holding out by reputation.

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Deleted: (b) Except as provided in 125.1b, where or otherwise authorized, a certificate holder may not conduct any operation under the rules of this part other than private carriage for hire. A certificate holder is not conducting private carriage for hire operations if, for compensation or hire, it is holding out directly or indirectly to the public to furnish transportation indiscriminately. No certificate holder may conduct any operation which results directly or indirectly from any person's holding out to the public to furnish transportation. ¶

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(e) For flights other than for the certificate holder, a certificate holder under this part must operate pursuant to a contract with:

(i) one customer per calendar year with no restrictions on revenue hours for that customer. A certificate holder may also conduct flights for up to 3 affiliates of the certificate holder with no revenue hour restrictions for flights conducted for those affiliates, or

(ii) More than one but no more than 4 total customers per calendar year with a maximum of 300 revenue hours for all contracts with those customers. A certificate holder may conduct flights for up to 3 affiliates of the certificate holder with no revenue hour restriction for flights conducted for those affiliates.

(iii) An unlimited number of customers with no flight hour restrictions for the transportation of petroleum and petroleum products in the state of Alaska.

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[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980 as amended by Amdt. 125-9, 52 FR 20028, May 28, 1987]

Subpart B -- Certification Rules and Miscellaneous Requirements

[TOP]

§125.21 Application for operating certificate.

(a) Each applicant for the issuance of an operating certificate must submit an application in a form and manner prescribed by the Administrator to the FAA Flight Standards district office in whose area the applicant proposes to establish or has established its principal operations base. The application must be submitted at least 60 days before the date of intended operations.

(b) Each application submitted under paragraph (a) of this section must contain a signed statement showing the following:

(1) The name and address of each director and each officer or person employed or who will be employed in a management position described in §125.25.

(2) A list of flight crewmembers with the type of airman certificate held, including ratings and certificate numbers.

[TOP]

§125.23 Rules applicable to operations subject to this part.

Each person operating an airplane in operations under this part shall --

(a) While operating inside the United States, comply with the applicable rules in part 91 of this chapter; and

(b) 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 §91.703(b) of this chapter.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-12, 54 FR 34331, Aug. 18, 1989]

[TOP]

§125.25 Management personnel required.

(a) Each applicant for a certificate under this part must show that it has enough management personnel, including at least a director of operations and director of maintenance, held by 2 separate people, to assure that its operations are conducted in accordance with the requirements of this part.

(b) Each applicant shall --

(1) Set forth the duties, responsibilities, and authority of each of its management personnel in the general policy section of its manual;

(2) List in the manual the names and addresses of each of its management personnel;

(3) Designate a person as responsible for the scheduling of inspections required by the manual and for the updating of the approved weight and balance system on all airplanes.

(c) Each certificate holder shall notify the FAA Flight Standards district office charged with the overall inspection of the certificate holder of any change made in the assignment of persons to the listed positions within 10 days, excluding Saturdays, Sundays, and Federal holidays, of such change.

[TOP]

§125.27 Issue of certificate. [Not required for 91F]

(a) An applicant for a certificate under this subpart is entitled to a certificate if the Administrator finds that the applicant is properly and adequately equipped and able to conduct a safe operation in accordance with the requirements of this part and the operations specifications provided for in this part.

(b) The Administrator may deny an application for a certificate under this subpart if the Administrator finds --

(1) That an operating certificate required under this part or part 121, 123, or 135 of this chapter previously issued to the applicant was revoked; or

(2) That a person who was employed in a management position under §125.25 of this part with (or has exercised control with respect to) any certificate holder under part 121, 123, 125, or 135 of this chapter whose operating certificate has been revoked, will be employed in any of those positions or a similar position with the applicant and that the person's employment or control contributed materially to the reasons for revoking that certificate.

[TOP]

§125.29 Duration of certificate. [Not required for 91F]

(a) A certificate issued under this part is effective until surrendered, suspended, or revoked.

(b) The Administrator may suspend or revoke a certificate under section 609 of the Federal Aviation Act of 1958 and the applicable procedures of part 13 of this chapter for any cause that, at the time of suspension or revocation, would have been grounds for denying an application for a certificate.

(c) If the Administrator suspends or revokes a certificate or it is otherwise terminated, the holder of that certificate shall return it to the Administrator.

[TOP]

§125.31 Contents of certificate and operations specifications. [Not required for 91F]

(a) Each certificate issued under this part contains the following:

(1) The holder's name.

(2) A description of the operations authorized.

(3) The date it is issued.

(b) The operations specifications issued under this part contain the following:

(1) The kinds of operations authorized.

(2) The types and registration numbers of airplanes authorized for use.

(3) Approval of the provisions of the operator's manual relating to airplane inspections, together with necessary conditions and limitations.

(4) Registration numbers of airplanes that are to be inspected under an approved airplane inspection program under §125.247.

(5) Procedures for control of weight and balance of airplanes.

(6) Any other item that the Administrator determines is necessary to cover a particular situation.

[TOP]

§125.33 Operations specifications not a part of certificate. [Not required for 91F]

Operations specifications are not a part of an operating certificate.

[TOP]

§125.35 Amendment of operations specifications. [Not required for 91F]

(a) The FAA Flight Standards district office charged with the overall inspection of the certificate holder may amend any operations specifications issued under this part if --

(1) It determines that safety in air commerce requires that amendment; or

(2) Upon application by the holder, that district office determines that safety in air commerce allows that amendment.

(b) The certificate holder must file an application to amend operations specifications at least 15 days before the date proposed by the applicant for the amendment to become effective, unless a shorter filing period is approved. The application must be on a form and in a manner prescribed by the Administrator and be submitted to the FAA Flight Standards district office charged with the overall inspection of the certificate holder.

(c) Within 30 days after a notice of refusal to approve a holder's application for amendment is received, the holder may petition the Director, Flight Standards Service, to reconsider the refusal to amend.

(d) When the FAA Flight Standards district office charged with the overall inspection of the certificate holder amends operations specifications, that district office gives notice in writing to the holder of a proposed amendment to the operations specifications, fixing a period of not less than 7 days within which the holder may submit written information, views, and arguments concerning the proposed amendment. After consideration of all relevant matter presented, that district office notifies the holder of any amendment adopted, or a rescission of the notice. That amendment becomes effective not less than 30 days after the holder receives notice of the adoption of the amendment, unless the holder petitions the Director, Flight Standards Service, for reconsideration of the amendment. In that case, the effective date of the amendment is stayed pending a decision by the Director. If the Director finds there is an emergency requiring immediate action as to safety in air commerce that makes the

provisions of this paragraph impracticable or contrary to the public interest, the Director notifies the certificate holder that the amendment is effective on the date of receipt, without previous notice.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-13, 54 FR 39294, Sept. 25, 1989]

[TOP]

§125.36 Flight time limitations and rest requirements: one and two pilot crews. [[comes from 135 regs. Part 125 group reserves final approval pending outcome of flight and duty summit recommendations]]

(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; or

(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;

(2) 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

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Deleted: Duty period limitations

Deleted: (a) Each flight crewmember and flight attendant must be relieved from all duty for at least 8 consecutive hours during any 24-hour period. ¶
(b) The Administrator may specify rest, flight time, and duty time limitations in the operations specifications that are other than those specified in paragraph (a) of this section. ¶
[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-21, 59 FR 42993, Aug. 19, 1994] ¶

(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.

125.37 **Flight time limitations and rest requirements: three- and four-pilot crews [comes from 135 regs. Part 125 group reserves final approval pending outcome of flight and duty summit recommendations].**

(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 three- or four-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) No certificate holder may assign any pilot to a crew of three or four pilots, unless that assignment provides --

(1) At least 10 consecutive hours of rest immediately preceding the assignment;

(2) No more than 8 hours of flight deck duty in any 24 consecutive hours;

(3) No more than 18 duty hours for a three-pilot crew or 20 duty hours for a four-pilot crew in any 24 consecutive hours;

(4) No more than 12 hours aloft for a three-pilot crew or 16 hours aloft for a four-pilot crew during the maximum duty hours specified in paragraph (b)(3) of this section;

(5) Adequate sleeping facilities on the aircraft for the relief pilot;

(6) Upon completion of the assignment, a rest period of at least 12 hours;

(c) When a flight crewmember has exceeded the daily flight deck duty limitation in this section by more than 60 minutes, because of circumstances beyond the control of the certificate holder or flight crewmember, that flight crewmember must have a rest period before the next duty period of at least 16 consecutive hours.

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

125.38 **Duty period limitations and rest time requirements.[From 135.273][125 group reserves final approval pending outcome of flight and rest summit]**

(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.

Flight attendant means an individual, other than a flight crewmember, who is assigned by the certificate holder, in accordance with the required minimum crew complement under the certificate holder's operations specifications or in addition to that minimum complement, to duty in an aircraft

during flight time and whose duties include but are not necessarily limited to cabin-safety-related responsibilities.

Rest period means the period free of all responsibility for work or duty should the occasion arise.

(b) Except as provided in paragraph (c) of this section, a certificate holder may assign a duty period to a flight attendant only when the applicable duty period limitations and rest requirements of this paragraph are met.

(1) Except as provided in paragraphs (b)(4), (b)(5), and (b)(6) of this section, no certificate holder may assign a flight attendant to a scheduled duty period of more than 14 hours.

(2) Except as provided in paragraph (b)(3) of this section, a flight attendant scheduled to a duty period of 14 hours or less as provided under paragraph (b)(1) of this section must be given a scheduled rest period of at least 9 consecutive hours. This rest period must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(3) The rest period required under paragraph (b)(2) of this section may be scheduled or reduced to 8 consecutive hours if the flight attendant is provided a subsequent rest period of at least 10 consecutive hours; this subsequent rest period must be scheduled to begin no later than 24 hours after the beginning of the reduced rest period and must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(4) A certificate holder may assign a flight attendant to a scheduled duty period of more than 14 hours, but no more than 16 hours, if the certificate holder has assigned to the flight or flights in that duty period at least one flight attendant in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the certificate holder's operations specifications.

(5) A certificate holder may assign a flight attendant to a scheduled duty period of more than 16 hours, but no more than 18 hours, if the certificate holder has assigned to the flight or flights in that duty period at least two flight attendants in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the certificate holder's operations specifications.

(6) A certificate holder may assign a flight attendant to a scheduled duty period of more than 18 hours, but no more than 20 hours, if the scheduled duty period includes one or more flights that land or take off outside the 48 contiguous states and the District of Columbia, and if the certificate holder has assigned to the flight or flights in that duty period at least three flight attendants in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the certificate holder's operations specifications.

(7) Except as provided in paragraph (b)(8) of this section, a flight attendant scheduled to a duty period of more than 14 hours but no more than 20 hours, as provided in paragraphs (b)(4), (b)(5), and (b)(6) of this section, must be given a scheduled rest period of at least 12 consecutive hours. This rest period must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(8) The rest period required under paragraph (b)(7) of this section may be scheduled or reduced to 10 consecutive hours if the flight attendant is provided a subsequent rest period of at least 14 consecutive hours; this subsequent rest period must be scheduled to begin no later than 24 hours after the beginning of the reduced rest period and must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(9) Notwithstanding paragraphs (b)(4), (b)(5), and (b)(6) of this section, if a certificate holder elects to reduce the rest period to 10 hours as authorized by paragraph (b)(8) of this section, the certificate holder may not schedule a flight attendant for a duty period of more than 14 hours during the 24-hour period commencing after the beginning of the reduced rest period.

(10) No certificate holder may assign a flight attendant any duty period with the certificate holder unless the flight attendant has had at least the minimum rest required under this section.

(11) No certificate holder may assign a flight attendant to perform any duty with the certificate holder during any required rest period.

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

(13) Each certificate holder must relieve each flight attendant engaged in air transportation from all further duty for at least 24 consecutive hours during any 7 consecutive calendar days.

(14) A flight attendant is not considered to be scheduled for duty in excess of duty period limitations if the flights to which the flight attendant is assigned are scheduled and normally terminate within the limitations but due to circumstances beyond the control of the certificate holder (such as adverse weather conditions) are not at the time of departure expected to reach their destination within the scheduled time.

[TOP]

§125.39 Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances. **[more stringent regs exist under 91. Not required for 91F]**

If the holder of a certificate issued under this part permits any airplane owned or leased by that holder to be engaged in any operation that the certificate holder knows to be in violation of §91.19(a) of this chapter, that operation is a basis for suspending or revoking the certificate.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-12, 54 FR 34331, Aug. 18, 1989]

[TOP]

§125.41 Availability of certificate and operations specifications. **[Not required for 91F]**

(a) Each certificate holder shall make its operating certificate and operations specifications available for inspection by the Administrator at its principal operations base.

(b) The certificate holder must carry a copy of the certificate and operations specifications in each of its aircraft

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[TOP]

§125.43 Use of operations specifications. **[Not required for 91F]**

(a) Each certificate holder shall keep each of its employees informed of the provisions of its operations specifications that apply to the employee's duties and responsibilities.

(b) Each certificate holder shall maintain a complete and separate set of its operations specifications. In addition, each certificate holder shall insert pertinent excerpts of its operations specifications, or reference thereto, in its manual in such a manner that they retain their identity as operations specifications.

[TOP]

§125.45 Inspection authority. **[Not required for 91F]**

Each certificate holder shall allow the Administrator, at any time or place, to make any inspections or tests to determine its compliance with the Federal Aviation Act of 1958, the Federal Aviation

Regulations, its operating certificate and operations specifications, its letter of deviation authority, or its eligibililty to continue to hold its certificate or its letter of deviation authority.

[TOP]

§125.47 Change of address. **[Not required for 91F]**

Each certificate holder shall notify the FAA Flight Standards district office charged with the overall inspection of its operations, in writing, at least 30 days in advance, of any change in the address of its principal business office, its principal operations base, or its principal maintenance base.

[TOP]

§125.49 Airport requirements. **[Not required for 91F]**

(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 airplane carrying passengers at night may take off 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 by boundary or runway marker lights.

(c) For the purposes 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.

[TOP]

§125.51 En route navigational facilities. **[Route approvals are generally used for commercial operations. 91.205 contains equipment requirements for day/night/IFR flights and should provide comparable requirements. Not recommended for inclusion in 91F]**

(a) Except as provided in paragraph (b) of this section, no certificate holder may conduct any operation over a route unless nonvisual ground aids are --

(1) Available over the route for navigating airplanes within the degree of accuracy required for ATC; and

(2) Located to allow navigation to any airport of destination, or alternate airport, within the degree of accuracy necessary for the operation involved.

(b) Nonvisual ground aids are not required for --

(1) Day VFR operations that can be conducted safely by pilotage because of the characteristics of the terrain;

(2) Night VFR operations on routes that the Administrator determines have reliable landmarks adequate for safe operation; or

(3) Operations where the use of celestial or other specialized means of navigation, such as an inertial navigation system, is approved.

[TOP]

§125.53 Flight locating requirements. **[Generally required for commercial activity. Should not be required for private operations. Not recommended for inclusion in 91F]**

(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 airplane 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 operations base, 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.

125.55 Aircraft Security

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

Subpart C -- Manual Requirements

[TOP]

§125.71 Preparation. [Manuals not required for 91F, however comparison to 91K included below]

[Part 91 Subpart K, 91.1023 is nearly identical to this section with "program manager" in lieu of "certificate holder"]

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(a) Each certificate holder 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. [.1023(a)]

(b) Each certificate holder shall maintain at least one copy of the manual at its principal operations base. [.1023(b)]

(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. [.1023(c)]

(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 -- [.1023(d)]

(1) Its flight crewmembers; and [.1023(d)(1)]

(2) The FAA Flight Standards district office charged with the overall inspection of its operations. [.1023(d)(2)]

(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. [.1023(e)]

[no equivalent in Part 125 to the Part 91.1023(f) Except as provided in paragraph (h) of this section, the appropriate parts of the manual must be carried on each aircraft when away from the principal operations base. The appropriate parts must be available for use by ground or flight personnel.] [evidently it was decided that part 125/71(g) below was good enough to indicate that manuals must be carried on the airplane]

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(f) For the purpose of complying with paragraph (d) of this section, a certificate holder may furnish the persons listed therein with the maintenance 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 the maintenance 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 maintenance information and instructions or a system that is able to retrieve the maintenance information and instructions in the English language. [.1023(g)]

(g) If a certificate holder conducts airplane inspections or maintenance at specified stations where it keeps the approved inspection program manual, it is not required to carry the manual aboard the airplane en route to those stations. [.1023(e)]

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-28, 62 FR 13257, Mar. 19, 1997]

[TOP]

§125.73 Contents. [Manuals not required for 91F] [comparison to 91K included below]

[Part 91 Subpart K, 91.1025 is nearly identical to this section with "program manager" in lieu of "certificate holder"]

Each manual shall have the date of the last revision and revision number on each revised page. The manual must include -- [.1025]

(a) The name of each management person who is authorized to act for the certificate holder, the person's assigned area of responsibility, and the person's duties, responsibilities, and authority; [subpart K. does not have anything exactly comparable]

(b) Procedures for ensuring compliance with airplane weight and balance limitations; [.1025(a)]

(c) Copies of the certificate holder's operations specifications or appropriate extracted information, including area of operations authorized, category and class of airplane authorized, crew complements, and types of operations authorized; [.1025(b)]

(d) Procedures for complying with accident notification requirements; [.1025(c)]

(e) Procedures for ensuring that the pilot in command knows that required airworthiness inspections have been made and that the airplane has been approved for return to service in compliance with applicable maintenance requirements; [.1025(d)]

(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; [.1025(e)]

(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; [.1025(f)]

(h) Procedures to be followed by the pilot in command to obtain maintenance, preventive maintenance, and servicing of the airplane at a place where previous arrangements have not been made by the operator, when the pilot is authorized to so act for the operator; [.1025(g)]

(i) Procedures 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; [.1025(h)]

(j) Procedures for refueling airplanes, eliminating fuel contamination, protecting from fire (including electrostatic protection), and supervising and protecting passengers during refueling; [.1025(i)]

(k) Procedures to be followed by the pilot in command in the briefing under §125.327; [.1025(j); refs. 91.1035]

(l) Flight locating procedures, when applicable; [.1025(q)]

(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; [.1025(k)]

(n) The approved airplane inspection program; [.1025(l)]

(o) Procedures and instructions to enable personnel to recognize hazardous materials, as defined in title 49 CFR, and if these materials are to be carried, stored, or handled, procedures and instructions for -- [.1073(a)(1) and .1085]

(1) Accepting shipment of hazardous material required by title 49 CFR, to assure proper packaging, marking, labeling, shipping documents, compatibility of articles, and instructions on their loading, storage, and handling; [no equivalent in Part 91, other than training to perform]

(2) Notification and reporting hazardous material incidents as required by title 49 CFR; and [no equivalent in Part 91, other than training to perform]

(3) Notification of the pilot in command when there are hazardous materials aboard, as required by title 49 CFR; [no equivalent in Part 91, other than training to perform]

(p) Procedures for the evacuation of persons who may need the assistance of another person to move expeditiously to an exit if an emergency occurs; [.1025(m)]

(q) The identity of each person who will administer tests required by this part, including the designation of the tests authorized to be given by the person; and [no exact equivalent in subpart K, other than drug and alcohol use testing]

(r) Other procedures and policy instructions regarding the certificate holder's operations that are issued by the certificate holder. [.1025(r)]

[TOP]

§125.75 Airplane flight manual. [Part 91 subpart A, 91.9]

Deleted:

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(a) Each certificate holder shall keep a current approved Airplane Flight Manual or approved equivalent for each type airplane that it operates. [91.9(b)(1)]

(b) Each certificate holder shall carry the approved Airplane Flight Manual or the approved equivalent aboard each airplane it operates. A certificate holder may elect to carry a combination of the manuals required by this section and §125.71. If it so elects, the certificate holder may revise the operating procedures sections and modify the presentation of performance from the applicable Airplane Flight Manual if the revised operating procedures and modified performance data presentation are approved by the Administrator. [nothing in Part 91 allows nor prevents from doing this]

Subpart D -- Airplane Requirements

[TOP]

§125.91 Airplane requirements: General. **[With respect to weight and balance, no requirement exists today under Part 91. Need to understand the impact of inclusion of this requirement within 91F. Initially not recommended for inclusion within 91F]**

(a) No certificate holder may operate an airplane governed by this part unless it --

(1) Carries an appropriate 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) No person may operate an airplane unless the current empty weight and center of gravity are calculated from the values established by actual weighing of the airplane within the preceding 36 calendar months.

(c) Paragraph (b) of this section does not apply to airplanes issued an original airworthiness certificate within the preceding 36 calendar months.

[TOP]

§125.93 Airplane limitations. **[91.509 and 91.511 list equipment required for flight beyond 100nm/30 minutes from land.**

No certificate holder may operate a land airplane (other than a DC-3, C-46, CV-240, CV-340, CV-440, CV-580, CV-600, CV-640, or Martin 404) in an extended overwater operation unless it is certificated or approved as adequate for ditching under the ditching provisions of part 25 of this chapter.

Subpart E -- Special Airworthiness Requirements **[Benefit to 91F unclear. No requirements today relating to this subpart. Recommend inclusion in 91 as new appendix H]**

[TOP]

§125.111 General.

(a) Except as provided in paragraph (b) of this section, no certificate holder may use an airplane powered by airplane engines rated at more than 600 horsepower each for maximum continuous operation unless that airplane meets the requirements of §§125.113 through 125.181.

(b) If the Administrator determines that, for a particular model of airplane used in cargo service, literal compliance with any requirement under paragraph (a) of this section would be extremely difficult and that compliance would not contribute materially to the objective sought, the Administrator may require compliance with only those requirements that are necessary to accomplish the basic objectives of this part.

(c) This section does not apply to any airplane certificated under --

(1) Part 4b of the Civil Air Regulations in effect after October 31, 1946;

(2) Part 25 of this chapter; or

(3) Special Civil Air Regulation 422, 422A, or 422B.

[TOP]

§125.113 Cabin interiors.

(a) Upon the first major overhaul of an airplane cabin or refurbishing of the cabin interior, all materials in each compartment used by the crew or passengers that do not meet the following requirements must be replaced with materials that meet these requirements:

(1) For an airplane for which the application for the type certificate was filed prior to May 1, 1972, §25.853 in effect on April 30, 1972.

(2) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, the materials requirement under which the airplane was type certificated.

(b) Except as provided in paragraph (a) of this section, each compartment used by the crew or passengers must meet the following requirements:

(1) Materials must be at least flash resistant.

(2) The wall and ceiling linings and the covering of upholstering, floors, and furnishings must be flame resistant.

(3) Each compartment where smoking is to be allowed must be equipped with self-contained ash trays that are completely removable and other compartments must be placarded against smoking.

(4) Each receptacle for used towels, papers, and wastes must be of fire-resistant material and must have a cover or other means of containing possible fires started in the receptacles.

(c) Thermal/acoustic insulation materials. For transport category airplanes type certificated after January 1, 1958:

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation materials are installed in the fuselage as replacements after September 2, 2005, those materials must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.

[Doc. No. 19799, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-43, 68 FR 45084, July 31, 2003]

[TOP]

§125.115 Internal doors.

In any case where internal doors are equipped with louvres or other ventilating means, there must be a means convenient to the crew for closing the flow of air through the door when necessary.

[TOP]

§125.117 Ventilation.

Each passenger or crew compartment must be suitably ventilated. Carbon monoxide concentration may not be more than one part in 20,000 parts of air, and fuel fumes may not be present. In any case where partitions between compartments have louvres or other means allowing air to flow between compartments, there must be a means convenient to the crew for closing the flow of air through the partitions when necessary.

[TOP]

§125.119 Fire precautions.

(a) Each compartment must be designed so that, when used for storing cargo or baggage, it meets the following requirements:

(1) No compartment may include controls, wiring, lines, equipment, or accessories that would upon damage or failure, affect the safe operation of the airplane unless the item is adequately shielded, isolated, or otherwise protected so that it cannot be damaged by movement of cargo in the compartment and so that damage to or failure of the item would not create a fire hazard in the compartment.

(2) Cargo or baggage may not interfere with the functioning of the fire-protective features of the compartment.

(3) Materials used in the construction of the compartments, including tie-down equipment, must be at least flame resistant.

(4) Each compartment must include provisions for safeguarding against fires according to the classifications set forth in paragraphs (b) through (f) of this section.

(b) *Class A.* Cargo and baggage compartments are classified in the "A" category if a fire therein would be readily discernible to a member of the crew while at that crewmember's station, and all parts of the compartment are easily accessible in flight. There must be a hand fire extinguisher available for each Class A compartment.

(c) *Class B.* Cargo and baggage compartments are classified in the "B" category if enough access is provided while in flight to enable a member of the crew to effectively reach all of the compartment and its contents with a hand fire extinguisher and the compartment is so designed that, when the access provisions are being used, no hazardous amount of smoke, flames, or extinguishing agent enters any compartment occupied by the crew or passengers. Each Class B compartment must comply with the following:

(1) It must have a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station.

(2) There must be a hand-held fire extinguisher available for the compartment.

(3) It must be lined with fire-resistant material, except that additional service lining of flame-resistant material may be used.

(d) *Class C.* Cargo and baggage compartments are classified in the "C" category if they do not conform with the requirements for the "A", "B", "D", or "E" categories. Each Class C compartment must comply with the following:

(1) It must have a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station.

(2) It must have an approved built-in fire-extinguishing system controlled from the pilot or flight engineer station.

(3) It must be designed to exclude hazardous quantities of smoke, flames, or extinguishing agents from entering into any compartment occupied by the crew or passengers.

(4) It must have ventilation and draft control so that the extinguishing agent provided can control any fire that may start in the compartment.

(5) It must be lined with fire-resistant material, except that additional service lining of flame-resistant material may be used.

(e) *Class D.* Cargo and baggage compartments are classified in the "D" category if they are so designed and constructed that a fire occurring therein will be completely confined without endangering the safety of the airplane or the occupants. Each Class D compartment must comply with the following:

(1) It must have a means to exclude hazardous quantities of smoke, flames, or noxious gases from entering any compartment occupied by the crew or passengers.

(2) Ventilation and drafts must be controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits.

(3) It must be completely lined with fire-resistant material.

(4) Consideration must be given to the effect of heat within the compartment on adjacent critical parts of the airplane.

(f) *Class E.* On airplanes used for the carriage of cargo only, the cabin area may be classified as a Class "E" compartment. Each Class E compartment must comply with the following:

(1) It must be completely lined with fire-resistant material.

(2) It must have a separate system of an approved type smoke or fire detector to give warning at the pilot or flight engineer station.

(3) It must have a means to shut off the ventilating air flow to or within the compartment and the controls for that means must be accessible to the flightcrew in the crew compartment.

(4) It must have a means to exclude hazardous quantities of smoke, flames, or noxious gases from entering the flightcrew compartment.

(5) Required crew emergency exits must be accessible under all cargo loading conditions.

[TOP]

§125.121 Proof of compliance with §125.119.

Compliance with those provisions of §125.119 that refer to compartment accessibility, the entry of hazardous quantities of smoke or extinguishing agent into compartment occupied by the crew or passengers, and the dissipation of the extinguishing agent in Class "C" compartments must be shown by tests in flight. During these tests it must be shown that no inadvertent operation of smoke or fire detectors in other compartments within the airplane would occur as a result of fire contained in any one compartment, either during the time it is being extinguished, or thereafter, unless the extinguishing system floods those compartments simultaneously.

[TOP]

§125.123 Propeller deicing fluid.

If combustible fluid is used for propeller deicing, the certificate holder must comply with §125.153.

[TOP]

§125.125 Pressure cross-feed arrangements.

(a) Pressure cross-feed lines may not pass through parts of the airplane used for carrying persons or cargo unless there is a means to allow crewmembers to shut off the supply of fuel to these lines or the lines are enclosed in a fuel and fume-proof enclosure that is ventilated and drained to the exterior of the airplane. However, such an enclosure need not be used if those lines incorporate no fittings on or within the personnel or cargo areas and are suitably routed or protected to prevent accidental damage.

(b) Lines that can be isolated from the rest of the fuel system by valves at each end must incorporate provisions for relieving excessive pressures that may result from exposure of the isolated line to high temperatures.

[TOP]

§125.127 Location of fuel tanks.

(a) Fuel tanks must be located in accordance with §125.153.

(b) No part of the engine nacelle skin that lies immediately behind a major air outlet from the engine compartment may be used as the wall of an integral tank.

(c) Fuel tanks must be isolated from personnel compartments by means of fume- and fuel-proof enclosures.

[TOP]

§125.129 Fuel system lines and fittings.

(a) Fuel lines must be installed and supported so as to prevent excessive vibration and so as to be adequate to withstand loads due to fuel pressure and accelerated flight conditions.

(b) Lines connected to components of the airplane between which there may be relative motion must incorporate provisions for flexibility.

(c) Flexible connections in lines that may be under pressure and subject to axial loading must use flexible hose assemblies rather than hose clamp connections.

(d) Flexible hoses must be of an acceptable type or proven suitable for the particular application.

[TOP]

§125.131 Fuel lines and fittings in designated fire zones.

Fuel lines and fittings in each designated fire zone must comply with §125.157.

[TOP]

§125.133 Fuel valves.

Each fuel valve must --

(a) Comply with §125.155;

(b) Have positive stops or suitable index provisions in the "on" and "off" positions; and

(c) Be supported so that loads resulting from its operation or from accelerated flight conditions are not transmitted to the lines connected to the valve.

[TOP]

§125.135 Oil lines and fittings in designated fire zones.

Oil lines and fittings in each designated fire zone must comply with §125.157.

[TOP]

§125.137 Oil valves.

(a) Each oil valve must --

(1) Comply with §125.155;

(2) Have positive stops or suitable index provisions in the "on" and "off" positions; and

(3) Be supported so that loads resulting from its operation or from accelerated flight conditions are not transmitted to the lines attached to the valve.

(b) The closing of an oil shutoff means must not prevent feathering the propeller, unless equivalent safety provisions are incorporated.

[TOP]

§125.139 Oil system drains.

Accessible drains incorporating either a manual or automatic means for positive locking in the closed position must be provided to allow safe drainage of the entire oil system.

[TOP]

§125.141 Engine breather lines.

(a) Engine breather lines must be so arranged that condensed water vapor that may freeze and obstruct the line cannot accumulate at any point.

(b) Engine breathers must discharge in a location that does not constitute a fire hazard in case foaming occurs and so that oil emitted from the line does not impinge upon the pilots' windshield.

(c) Engine breathers may not discharge into the engine air induction system.

[TOP]

§125.143 Firewalls.

Each engine, auxiliary power unit, fuel-burning heater, or other item of combusting equipment that is intended for operation in flight must be isolated from the rest of the airplane by means of firewalls or shrouds, or by other equivalent means.

[TOP]

§125.145 Firewall construction.

Each firewall and shroud must --

(a) Be so made that no hazardous quantity of air, fluids, or flame can pass from the engine compartment to other parts of the airplane;

(b) Have all openings in the firewall or shroud sealed with close-fitting fireproof grommets, bushings, or firewall fittings;

(c) Be made of fireproof material; and

(d) Be protected against corrosion.

[TOP]

§125.147 Cowling.

(a) Cowling must be made and supported so as to resist the vibration, inertia, and air loads to which it may be normally subjected.

(b) Provisions must be made to allow rapid and complete drainage of the cowling in normal ground and flight attitudes. Drains must not discharge in locations constituting a fire hazard. Parts of the cowling that are subjected to high temperatures because they are near exhaust system parts or because of exhaust gas impingement must be made of fireproof material. Unless otherwise specified in these regulations, all other parts of the cowling must be made of material that is at least fire resistant.

[TOP]

§125.149 Engine accessory section diaphragm.

Unless equivalent protection can be shown by other means, a diaphragm that complies with §125.145 must be provided on air-cooled engines to isolate the engine power section and all parts of the exhaust system from the engine accessory compartment.

[TOP]

§125.151 Powerplant fire protection.

(a) Designated fire zones must be protected from fire by compliance with §§125.153 through 125.159.

(b) Designated fire zones are --

(1) Engine accessory sections;

(2) Installations where no isolation is provided between the engine and accessory compartment; and

(3) Areas that contain auxiliary power units, fuel-burning heaters, and other combustion equipment.

[TOP]

§125.153 Flammable fluids.

(a) No tanks or reservoirs that are a part of a system containing flammable fluids or gases may be located in designated fire zones, except where the fluid contained, the design of the system, the materials used in the tank, the shutoff means, and the connections, lines, and controls provide equivalent safety.

(b) At least one-half inch of clear airspace must be provided between any tank or reservior and a firewall or shroud isolating a designated fire zone.

[TOP]

§125.155 Shutoff means.

(a) Each engine must have a means for shutting off or otherwise preventing hazardous amounts of fuel, oil, deicer, and other flammable fluids from flowing into, within, or through any designated fire zone. However, means need not be provided to shut off flow in lines that are an integral part of an engine.

(b) The shutoff means must allow an emergency operating sequence that is compatible with the emergency operation of other equipment, such as feathering the propeller, to facilitate rapid and effective control of fires.

(c) Shutoff means must be located outside of designated fire zones, unless equivalent safety is provided, and it must be shown that no hazardous amount of flammable fluid will drain into any designated fire zone after a shutoff.

(d) Adequate provisions must be made to guard against inadvertent operation of the shutoff means and to make it possible for the crew to reopen the shutoff means after it has been closed.

[TOP]

§125.157 Lines and fittings.

(a) Each line, and its fittings, that is located in a designated fire zone, if it carries flammable fluids or gases under pressure, or is attached directly to the engine, or is subject to relative motion between

components (except lines and fittings forming an integral part of the engine), must be flexible and fire-resistant with fire-resistant, factory-fixed, detachable, or other approved fire-resistant ends.

(b) Lines and fittings that are not subject to pressure or to relative motion between components must be of fire-resistant materials.

[TOP]

§125.159 Vent and drain lines.

All vent and drain lines, and their fittings, that are located in a designated fire zone must, if they carry flammable fluids or gases, comply with §125.157, if the Administrator finds that the rupture or breakage of any vent or drain line may result in a fire hazard.

[TOP]

§125.161 Fire-extinguishing systems.

(a) Unless the certificate holder shows that equivalent protection against destruction of the airplane in case of fire is provided by the use of fireproof materials in the nacelle and other components that would be subjected to flame, fire-extinguishing systems must be provided to serve all designated fire zones.

(b) Materials in the fire-extinguishing system must not react chemically with the extinguishing agent so as to be a hazard.

[TOP]

§125.163 Fire-extinguishing agents.

Only methyl bromide, carbon dioxide, or another agent that has been shown to provide equivalent extinguishing action may be used as a fire-extinguishing agent. If methyl bromide or any other toxic extinguishing agent is used, provisions must be made to prevent harmful concentrations of fluid or fluid vapors from entering any personnel compartment either because of leakage during normal operation of the airplane or because of discharging the fire extinguisher on the ground or in flight when there is a defect in the extinguishing system. If a methyl bromide system is used, the containers must be charged with dry agent and sealed by the fire-extinguisher manufacturer or some other person using satisfactory recharging equipment. If carbon dioxide is used, it must not be possible to discharge enough gas into the personnel compartments to create a danger of suffocating the occupants.

[TOP]

§125.165 Extinguishing agent container pressure relief.

Extinguishing agent containers must be provided with a pressure relief to prevent bursting of the container because of excessive internal pressures. The discharge line from the relief connection must terminate outside the airplane in a place convenient for inspection on the ground. An indicator must be provided at the discharge end of the line to provide a visual indication when the container has discharged.

[TOP]

§125.167 Extinguishing agent container compartment temperature.

Precautions must be taken to ensure that the extinguishing agent containers are installed in places where reasonable temperatures can be maintained for effective use of the extinguishing system.

[TOP]

§125.169 Fire-extinguishing system materials.

(a) Except as provided in paragraph (b) of this section, each component of a fire-extinguishing system that is in a designated fire zone must be made of fireproof materials.

(b) Connections that are subject to relative motion between components of the airplane must be made of flexible materials that are at least fire-resistant and be located so as to minimize the probability of failure.

[TOP]

§125.171 Fire-detector systems.

Enough quick-acting fire detectors must be provided in each designated fire zone to assure the detection of any fire that may occur in that zone.

[TOP]

§125.173 Fire detectors.

Fire detectors must be made and installed in a manner that assures their ability to resist, without failure, all vibration, inertia, and other loads to which they may be normally subjected. Fire detectors must be unaffected by exposure to fumes, oil, water, or other fluids that may be present.

[TOP]

§125.175 Protection of other airplane components against fire.

(a) Except as provided in paragraph (b) of this section, all airplane surfaces aft of the nacelles in the area of one nacelle diameter on both sides of the nacelle centerline must be made of material that is at least fire resistant.

(b) Paragraph (a) of this section does not apply to tail surfaces lying behind nacelles unless the dimensional configuration of the airplane is such that the tail surfaces could be affected readily by heat, flames, or sparks emanating from a designated fire zone or from the engine from a designated fire zone or from the engine compartment of any nacelle.

[TOP]

§125.177 Control of engine rotation.

(a) Except as provided in paragraph (b) of this section, each airplane must have a means of individually stopping and restarting the rotation of any engine in flight.

(b) In the case of turbine engine installations, a means of stopping rotation need be provided only if the Administrator finds that rotation could jeopardize the safety of the airplane.

[TOP]

§125.179 Fuel system independence.

(a) Each airplane fuel system must be arranged so that the failure of any one component does not result in the irrecoverable loss of power of more than one engine.

(b) A separate fuel tank need not be provided for each engine if the certificate holder shows that the fuel system incorporates features that provide equivalent safety.

[TOP]

§125.181 Induction system ice prevention.

A means for preventing the malfunctioning of each engine due to ice accumulation in the engine air induction system must be provided for each airplane.

[TOP]

§125.183 Carriage of cargo in passenger compartments.

(a) Except as provided in paragraph (b) or (c) of this section, no certificate holder may carry cargo in the passenger compartment of an airplane.

(b) Cargo may be carried aft of the foremost seated passengers if it is carried in an approved cargo bin that meets the following requirements:

(1) The bin must withstand the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed, multiplied by a factor of 1.15, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin.

(2) The maximum weight of cargo that the bin is approved to carry and any instructions necessary to ensure proper weight distribution within the bin must be conspicuously marked on the bin.

(3) The bin may not impose any load on the floor or other structure of the airplane that exceeds the load limitations of that structure.

(4) The bin must be attached to the seat tracks or to the floor structure of the airplane, and its attachment must withstand the load factors and emergency landing conditions applicable to the passenger seats of the airplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the airplane, whichever is greater, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin.

(5) The bin may not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment.

(6) The bin must be fully enclosed and made of material that is at least flame-resistant.

(7) Suitable safeguards must be provided within the bin to prevent the cargo from shifting under emergency landing conditions.

(8) The bin may not be installed 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 passenger is provided.

(c) All cargo may be carried forward of the foremost seated passengers and carry-on baggage may be carried alongside the foremost seated passengers if the cargo (including carry-on baggage) is carried either in approved bins as specified in paragraph (b) of this section or in accordance with the following:

(1) 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.

(2) It is packaged or covered in a manner to avoid possible injury to passengers.

(3) It does not impose any load on seats or the floor structure that exceeds the load limitation for those components.

(4) Its location does not restrict access to or use of any required emergency or regular exit, or of the aisle in the passenger compartment.

(5) Its location does not obscure any passenger's view of the "seat belt" sign, "no smoking" sign, or required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

[TOP]

§125.185 Carriage of cargo in cargo compartments.

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-held fire extinguisher.

[TOP]

§125.187 Landing gear: Aural warning device.

(a) Except for airplanes that comply with the requirements of §25.729 of this chapter on or after January 6, 1992, each airplane must have a landing gear aural warning device that functions continuously under the following conditions:

(1) For airplanes with an established approach wing-flap position, whenever the wing flaps are extended beyond the maximum certificated approach climb configuration position in the Airplane Flight Manual and the landing gear is not fully extended and locked.

(2) For airplanes without an established approach climb wing-flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(b) The warning system required by paragraph (a) of this section --

(1) May not have a manual shutoff;

(2) Must be in addition to the throttle-actuated device installed under the type certification airworthiness requirements; and

(3) May utilize any part of the throttle-actuated system including the aural warning device.

(c) The flap position sensing unit may be installed at any suitable place in the airplane.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-16, 56 FR 63762, Dec. 5, 1991]

[TOP]

§125.189 Demonstration of emergency evacuation procedures.

(a) Each certificate holder must show, by actual demonstration conducted in accordance with paragraph (a) of appendix B of this part, that the emergency evacuation procedures for each type and model of airplane with a seating of more than 44 passengers, that is used in its passenger-carrying operations, allow the evacuation of the full seating capacity, including crewmembers, in 90 seconds or less, in each of the following circumstances:

(1) A demonstration must be conducted by the certificate holder upon the initial introduction of a type and model of airplane into passenger-carrying operations. However, the demonstration need not be repeated for any airplane type or model that has the same number and type of exits, the same cabin configuration, and the same emergency equipment as any other airplane used by the certificate holder in successfully demonstrating emergency evacuation in compliance with this paragraph.

(2) A demonstration must be conducted --

(i) Upon increasing by more than 5 percent the passenger seating capacity for which successful demonstration has been conducted; or

(ii) Upon a major change in the passenger cabin interior configuration that will affect the emergency evacuation of passengers.

(b) If a certificate holder has conducted a successful demonstration required by §121.291(a) in the same type airplane as a part 121 or part 123 certificate holder, it need not conduct a demonstration under this paragraph in that type airplane to achieve certification under part 125.

(c) Each certificate holder operating or proposing to operate one or more landplanes in extended overwater operations, or otherwise required to have certain equipment under §125.209, must show, by a simulated ditching conducted in accordance with paragraph (b) of appendix B of this part, that it has the ability to efficiently carry out its ditching procedures.

(d) If a certificate holder has conducted a successful demonstration required by §121.291(b) in the same type airplane as a part 121 or part 123 certificate holder, it need not conduct a demonstration under this paragraph in that type airplane to achieve certification under part 125.

Subpart F -- Instrument and Equipment Requirements

[TOP]

§125.201 Inoperable instruments and equipment. **[Requirement exists nearly in its entirety in 91.213, with the exception of FSDO approval (2). Not recommended for inclusion in 91F]**

(a) No person may take off an airplane with inoperable instruments or equipment installed unless the following conditions are met:

(1) An approved Minimum Equipment List exists for that airplane.

(2) The Flight Standards District Office having certification responsibility 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 airplane with certain instruments and equipment in an inoperable condition.

(4) Records identifying the inoperable instruments and equipment and the information required by paragraph (a)(3)(ii) of this section must be available to the pilot.

(5) The airplane 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 airplane with inoperable instruments or equipment may be operated under a special flight permit under §§21.197 and 21.199 of this chapter.

[Doc. No. 25780, 56 FR 12310, Mar. 22, 1991]

[TOP]

§125.203 Radio and navigational equipment. **[Requirements contained within 91.507- Equipment requirements: Over-the-top or night VFR operations and 91.511 Radio equipment for overwater operations. Not recommended for inclusion within 91F]**

(a) No person may operate an airplane 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 airplane over-the-top unless it has radio navigational equipment able to receive radio signals from the ground facilities to be used.

(c) Except as provided in paragraph (e) of this section, no person may operate an airplane carrying passengers 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.

(d) For the purposes of paragraphs (c)(5) and (c)(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.

(e) Notwithstanding the requirements of paragraph (c) of this section, installation and use of a single long-range navigation system and a single long-range communication system for extended overwater operations in certain geographic areas 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.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-25, 61 FR 7191, Feb. 26, 1996]

[TOP]

§125.204 Portable electronic devices. **[Requirement exists within 91.21. Not recommended for inclusion in 91F]**

(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 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 125 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 125 certificate holder operating the particular device to be used.

[Doc. No. FAA-1998-4954, 64 FR 1080, Jan. 7, 1999]

[TOP]

§125.205 Equipment requirements: Airplanes under IFR [Contained in 91.205, not recommended for 91F]

Deleted: .

No person may operate an airplane under IFR 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) At least two generators each of which is on a separate engine, or 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 airplane; and

(g) 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 gyroscopic instruments 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. For the purposes of this paragraph, each engine-driven source of energy must be on a different engine.

(h) For the purposes 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.

(i) An airspeed indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to icing.

(j) A sensitive altimeter.

(k) Instrument lights providing enough light to make each required instrument, switch, or similar instrument easily readable and installed so that the direct rays are shielded from the flight crewmembers' eyes and that no objectionable reflections are visible to them. There must be a means of controlling the intensity of illumination unless it is shown that nondimming instrument lights are satisfactory.

[TOP]

§125.206 Pitot heat indication systems. **[Not required for inclusion in subpart F]**

(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 equipped with an operable pitot heat indication system that complies with §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.

[Doc. No. 18904, 46 FR 43806, Aug. 31, 1981, as amended by Amdt. 125-13, 54 FR 39294, Sept. 25, 1989]

[TOP]

§125.207 Emergency equipment requirements. **[Requirement exists in 91.503]**

(a) No person may operate an airplane having a seating capacity of 20 or more passengers unless it is equipped with the following emergency equipment:

(1) One approved first aid kit for treatment of injuries likely to occur in flight or in a minor accident, which meets the following specifications and requirements:

(i) Each first aid kit must be dust and moisture proof and contain only materials that either meet Federal Specifications GGK-391a, as revised, or as approved by the Administrator.

(ii) Required first aid kits must be readily accessible to the cabin flight attendants.

(iii) Except as provided in paragraph (a)(1)(iv) of this section, at time of takeoff, each first aid kit must contain at least the following or other contents approved by the Administrator:

Contents	Quantity
Adhesive bandage compressors, 1 in	16
Antiseptic swabs	20
Ammonia inhalants	10
Bandage compressors, 4 in	8
Triangular bandage compressors, 40 in	5
Arm splint, noninflatable	1
Leg splint, noninflatable	1
Roller bandage, 4 in	4
Adhesive tape, 1-in standard roll	2
Bandage scissors	1
Protective latex gloves or equivalent nonpermeable gloves	\1\ 1

\1\ Pair.

(iv) Protective latex gloves or equivalent nonpermeable gloves may be placed in the first aid kit or in a location that is readily accessible to crewmembers.

(2) A crash axe carried so as to be accessible to the crew but inaccessible to passengers during normal operations.

(3) Signs that are visible to all occupants to notify them when smoking is prohibited and when safety belts should be fastened. The signs must be so constructed that they can be turned on and off by a crewmember. They must be turned on for each takeoff and each landing and when otherwise considered to be necessary by the pilot in command.

(4) The additional emergency equipment specified in appendix A of this part.

(b) *Megaphones.* Each passenger-carrying airplane must have a portable battery-powered megaphone or megaphones readily accessible to the crewmembers assigned to direct emergency evacuation, installed as follows:

(1) One megaphone on each airplane with a seating capacity of more than 60 and less than 100 passengers, at the most rearward location in the passenger cabin where it would be readily accessible to a normal flight attendant seat. However, the Administrator may grant a deviation from the requirements of this paragraph if the Administrator finds that a different location would be more useful for evacuation of persons during an emergency.

(2) Two megaphones in the passenger cabin on each airplane with a seating capacity of more than 99 and less than 200 passengers, one installed at the forward end and the other at the most rearward location where it would be readily accessible to a normal flight attendant seat.

(3) Three megaphones in the passenger cabin on each airplane with a seating capacity of more than 199 passengers, one installed at the forward end, one installed at the most rearward location where it would be readily accessible to a normal flight attendant seat, and one installed in a readily accessible location in the mid-section of the airplane.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-19, 59 FR 1781, Jan. 12, 1994; Amdt. 125-22, 59 FR 52643, Oct. 18, 1994; 59 FR 55208, Nov. 4, 1994]

[TOP]

§125.209 Emergency equipment: Extended overwater operations. [This new language is from 121.339]

(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 airplane in extended overwater operations without having on the airplane the following equipment:

(1) A life preserver equipped with an approved survivor locator light, for each occupant of the airplane.

(2) Enough life rafts (each equipped with an approved survivor locator light) of a rated capacity and buoyancy to accommodate the occupants of the airplane. Unless excess rafts of enough capacity are provided, the buoyancy and seating capacity beyond the rated capacity of the rafts must accommodate all occupants of the airplane in the event of a loss of one raft of the largest rated capacity.

(3) At least one pyrotechnic signaling device for each life raft.

(4) An approved survival type emergency locator transmitter. Batteries used in this transmitter must be replaced (or recharged, if the battery is 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.

(b) The required life rafts, life preservers, and survival type emergency locator transmitter must be easily accessible in the event of a ditching without appreciable time for preparatory procedures. This equipment must be installed in conspicuously marked, approved locations.

(c) A survival kit, appropriately equipped for the route to be flown, must be attached to each required life raft.

125.210 Emergency floatation means

(a) Except as provided in paragraph (b) of this section, no person may operate an airplane in any overwater operation unless it is equipped with life preservers in accordance with §125.209(a)(1) or with an approved flotation means for each occupant. This means must be within easy reach of each seated occupant and must be readily removable from the airplane.

(b) Upon application by the air carrier or commercial operator, the Administrator may approve the operation of an airplane over water without the life preservers or flotation means required by paragraph (a) of this section, if the air carrier or commercial operator shows that the water over which the airplane is to be operated is not of such size and depth that life preservers or flotation means would be required for the survival of its occupants in the event the flight terminates in that water.

[TOP]

§125.211 Seat and safety belts. [Contained in 91.517, not recommended for Subpart F]

(a) No person may operate an airplane unless there are available during the takeoff, en route flight, and landing --

(1) An approved seat or berth for each person on board the airplane who is at least 2 years old; and

(2) An approved safety belt for separate use by each person on board the airplane who is at least 2 years old, except that two persons occupying a berth may share one approved safety belt and two persons occupying a multiple lounge or divan seat may share one approved safety belt during en route flight only.

(b) Except as provided in paragraphs (b)(1) and (b)(2) of this section, each person on board an airplane 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. A safety belt provided for the occupant of a seat may not be used for 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 (b)(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 (b)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:

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Deleted: (a) No person may operate an airplane 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, or an approved flotation means, for each occupant of the aircraft. The life preserver or other flotation means must be easily accessible to each seated occupant. If a flotation means other than a life preserver is used, it must be readily removable from the airplane. ¶
(2) Enough approved life rafts (with proper buoyancy) to carry all occupants of the airplane, and at least the following equipment for each raft clearly marked for easy identification -- ¶
(i) One canopy (for sail, sunshade, or rain catcher); ¶
(ii) One radar reflector (or similar device); ¶
(iii) One life raft repair kit; ¶
(iv) One bailing bucket; ¶
(v) One signaling mirror; ¶
(vi) One police whistle; ¶
(vii) One raft knife; ¶
(viii) One CO2 bottle for emergency inflation; ¶
(ix) One inflation pump; ¶
(x) Two oars; ¶
(xi) One 75-foot retaining line; ¶
(xii) One magnetic compass; ¶
(xiii) One dye marker; ¶
(xiv) One flashlight having at least two size "D" cells or equivalent; ¶
(xv) At least one approved pyrotechnic signaling device; ¶
(xvi) A 2-day supply of emergency food rations supplying at least 1,000 calories a day for each person; ¶
(xvii) One sea water desalting kit for each two persons that raft is rated to carry, or two pints of water for each person the raft is rated to carry; ¶
(xviii) One fishing kit; and ¶
(xix) One book on survival appropriate for the area in which the airplane is operated. ¶
(b) 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 one 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 esse... [1]

(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 (b)(2)(ii)(A) and (b)(2)(ii)(B) of this section must bear either a label showing approval of a foreign government or a label showing that the seat was manufactured under the standards of the United Nations;

(D) Notwithstanding any other provisions of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle 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).

(c) Except as provided in paragraph (c)(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, and movement on the surface.

(2) Except as required in paragraph (c)(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 (b)(2)(i) of this section are met;

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

(iv) The child restraint system has one or more of the labels described in paragraphs (b)(2)(ii)(A) through (b)(2)(ii)(C) of this section.

(3) This section does not prohibit the certificate holder from providing child restraint systems authorized by this section or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

(d) Each sideward facing seat must comply with the applicable requirements of §25.785(c) of this chapter.

(e) No certificate holder may take off or land an airplane unless each passenger seat back is in the upright position. Each passenger shall comply with instructions given by a crewmember in compliance with this paragraph. This paragraph does not apply to seats on which cargo or persons who are unable to sit erect for a medical reason are carried in accordance with procedures in the

certificate holder's manual if the seat back does not obstruct any passenger's access to the aisle or to any emergency exit.

(f) Each occupant of a seat equipped with a shoulder harness must fasten the shoulder harness during takeoff and landing, except that, in the case of crewmembers, the shoulder harness need not be fastened if the crewmember cannot perform his required duties with the shoulder harness fastened.

[Doc. No. 19799, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-17, 57 FR 42674, Sept. 15, 1992; Amdt. 125-26, 61 FR 28422, June 4, 1996]

[TOP]

§125.213 Miscellaneous equipment. **[Waivable for deviations. Not recommended for inclusion in Subpart F]**

No person may conduct any operation unless the following equipment is installed in the airplane:

(a) If protective fuses are installed on an airplane, the number of spare fuses approved for the airplane and appropriately described in the certificate holder's manual.

(b) A windshield wiper or equivalent for each pilot station.

(c) A power supply and distribution system that meets the requirements of §§25.1309, 25.1331, 25.1351 (a) and (b) (1) through (4), 25.1353, 25.1355, and 25.1431(b) or that is able to produce and distribute the load for the required instruments and equipment, with use of an external power supply if any one power source or component of the power distribution system fails. The use of common elements in the system may be approved if the Administrator finds that they are designed to be reasonably protected against malfunctioning. Engine-driven sources of energy, when used, must be on separate engines.

(d) A means for indicating the adequacy of the power being supplied to required flight instruments.

(e) Two independent static pressure systems, vented to the outside atmospheric pressure so that they will be least affected by air flow variation or moisture or other foreign matter, and installed so as to be airtight except for the vent. When a means is provided for transferring an instrument from its primary operating system to an alternative system, the means must include a positive positioning control and must be marked to indicate clearly which system is being used.

(f) A placard on each door that is the means of access to a required passenger emergency exit to indicate that it must be open during takeoff and landing.

(g) A means for the crew, in an emergency, to unlock each door that leads to a compartment that is normally accessible to passengers and that can be locked by passengers.

[TOP]

§125.215 Operating information required. **[Contained in 91.503. Not recommended for inclusion in Subpart F]**

(a) The operator of an airplane 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) 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) One-engine-inoperative climb performance data and, if the airplane is approved for use in IFR or over-the-top operations, that data must be sufficient to enable the pilot to determine that the airplane is capable of carrying passengers over-the-top or in IFR conditions at a weight that will allow it to climb, with the critical engine inoperative, at least 50 feet a minute when operating at the MEA's of the route to be flown or 5,000 feet MSL, whichever is higher.

(b) Each cockpit checklist required by paragraph (a)(1) of this section must contain the following procedures:

(1) Before starting engines;

(2) Before take-off;

(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.

[TOP]

§125.217 Passenger information. **[Contained in 91.517. Not recommended for inclusion in Subpart F]**

(a) Except as provided in paragraph (b) of this section, no person may operate an airplane carrying passengers unless it is equipped with signs that meet the requirements of §25.791 of this chapter and that are visible to passengers and flight attendants to notify them when smoking is prohibited and when safety belts must be fastened. The signs must be so constructed that the crew can turn them on and off. They must be turned on during airplane movement on the surface, for each takeoff, for each landing, and when otherwise considered to be necessary by the pilot in command.

(b) No passenger or crewmember may smoke while any "No Smoking" sign is lighted nor may any passenger or crewmember smoke in any lavatory.

(c) Each passenger required by §125.211(b) to occupy a seat or berth shall fasten his or her safety belt about him or her and keep it fastened while any "Fasten Seat Belt" sign is lighted.

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

[Doc. No. 26142, 57 FR 42675, Sept. 15, 1992]

[TOP]

§125.219 Oxygen for medical use by passengers. [recommend for inclusion in Appendix H]

(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 §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) When oxygen is being used, 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 airplane.

(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 airplane 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 FAA Flight Standards district office charged with the overall inspection of the certificate holder a complete report of the operation involved, including a description of the deviation and the reasons for it.

[TOP]

§125.221 Icing conditions: Operating limitations. **[Covered in 91.527. Not recommended for inclusion in Subpart F]**

(a) No pilot may take off an airplane that has frost, ice, or snow adhering to any 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 follow 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 the testing required under §125.287(a)(9) 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 §121.629(c) of this chapter and the takeoff complies with that program.

(c) Except for an airplane that has ice protection provisions that meet appendix C of this part 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 airplane has functioning deicing or anti-icing equipment protecting each propeller, windshield, wing, stabilizing or control surface, and each airspeed, altimeter, rate of climb, or flight attitude instrument system.

(d) Except for an airplane that has ice protection provisions that meet appendix C of this part or those for transport category airplane type certification, no pilot may fly an airplane into known or forecast severe icing conditions.

(e) 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 (b) and (c) of this section based on forecast conditions do not apply.

[45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-18, 58 FR 69629, Dec. 30, 1993]

[TOP]

§125.223 Airborne weather radar equipment requirements. **[Waiveable. Not required under Sub. F, not recommended for inclusion]**

(a) No person may operate an airplane governed by this part in passenger-carrying operations unless approved airborne weather radar equipment is installed in the airplane.

(b) No person may begin a flight under IFR or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar equipment, may reasonably be expected along the route to be flown,

unless the airborne weather radar equipment required by paragraph (a) of this section is in satisfactory operating condition.

(c) If the airborne weather radar equipment becomes inoperative en route, the airplane must be operated under the instructions and procedures specified for that event in the manual required by §125.71.

(d) This section does not apply to airplanes used solely within the State of Hawaii, within the State of Alaska, within that part of Canada west of longitude 130 degrees W, between latitude 70 degrees N, and latitude 53 degrees N, or during any training, test, or ferry flight.

(e) Without regard to any other provision of this part, an alternate electrical power supply is not required for airborne weather radar equipment.

[TOP]

§125.224 Collision Avoidance System.[Waivable. Contained in 91.221. Not recommended for inclusion in Subpart F]

Link to an amendment published at 68 FR 15903, Apr. 1, 2003.

(a) After December 30, 1993, no person may operate a large airplane that has a passenger seating configuration, excluding any pilot seat, of more than 30 seats unless it is equipped with an approved TCAS II traffic alert and collision avoidance system and the appropriate class of Mode S transponder.

(b) The manual required by §125.71 of this part shall contain the following information on the TCAS II system required by this section.

(1) Appropriate procedures for --

(i) The operation of the equipment; and

(ii) Proper flightcrew action with respect to the equipment.

(2) An outline of all input sources that must be operating for the TCAS II to function properly.

(c) Effective May 1, 2003, if TCAS II is installed in an airplane for the first time after April 30, 2003, and before January 1, 2005, no person may operate that airplane without TCAS II that meets TSO C-119b (version 7.0), or a later version.

[Doc. No. 25355, 54 FR 951, Jan. 10, 1989, as amended by Amdt. 125-14, 55 FR 13247, Apr. 9, 1990; Amdt. 125-41, 68 FR 15903, Apr. 1, 2003]

[TOP]

§125.225 Flight recorders. [Contained in 91.609. Not recommended for inclusion]

(a) Except as provided in paragraph (d) of this section, after October 11, 1991, no person may operate a large airplane type certificated before October 1, 1969, for operations above 25,000 feet altitude, nor a multiengine, turbine powered airplane type certificated before October 1, 1969, unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The following information must be able to be determined within the ranges, accuracies, resolution, and recording intervals specified in appendix D of this part:

(1) Time;

(2) Altitude;

(3) Airspeed;

(4) Vertical acceleration;

(5) Heading;

(6) Time of each radio transmission to or from air traffic control;

(7) Pitch attitude;

(8) Roll attitude;

(9) Longitudinal acceleration;

(10) Control column or pitch control surface position; and

(11) Thrust of each engine.

(b) Except as provided in paragraph (d) of this section, after October 11, 1991, no person may operate a large airplane type certificated after September 30, 1969, for operations above 25,000 feet altitude, nor a multiengine, turbine powered airplane type certificated after September 30, 1969, unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The following information must be able to be determined within the ranges, accuracies, resolutions, and recording intervals specified in appendix D of this part:

(1) Time;

(2) Altitude;

(3) Airspeed;

(4) Vertical acceleration;

(5) Heading;

(6) Time of each radio transmission either to or from air traffic control;

(7) Pitch attitude;

(8) Roll attitude;

(9) Longitudinal acceleration;

(10) Pitch trim position;

(11) Control column or pitch control surface position;

(12) Control wheel or lateral control surface position;

(13) Rudder pedal or yaw control surface position;

(14) Thrust of each engine;

(15) Position of each trust reverser;

(16) Trailing edge flap or cockpit flap control position; and

(17) Leading edge flap or cockpit flap control position.

(c) After October 11, 1991, no person may operate a large airplane equipped with a digital data bus and ARINC 717 digital flight data acquisition unit (DFDAU) or equivalent unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. Any parameters specified in appendix D of this part that are available on the digital data bus must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified.

(d) No person may operate under this part an airplane that is manufactured after October 11, 1991, unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The parameters specified in appendix D of this part must be recorded within the ranges, accuracies, resolutions and sampling intervals specified. For the purpose of this section, "manufactured" means the point in time at which the airplane inspection acceptance records reflect that the airplane is complete and meets the FAA-approved type design data.

(e) Whenever a flight recorder required by this section is installed, it must be operated continuously from the instant the airplane begins the takeoff roll until it has completed the landing roll at an airport.

(f) Except as provided in paragraph (g) of this section, and except for recorded data erased as authorized in this paragraph, each certificate holder shall keep the recorded data prescribed in paragraph (a), (b), (c), or (d) of this section, as applicable, until the airplane has been operated for at least 25 hours of the operating time specified in §125.227(a) of this chapter. A total of 1 hour of recorded data may be erased for the purpose of testing the flight recorder or the flight recorder system. Any erasure made in accordance with this paragraph must be of the oldest recorded data accumulated at the time of testing. Except as provided in paragraph (g) of this section, no record need be kept more than 60 days.

(g) In the event of an accident or occurrence that requires immediate notification of the National Transportation Safety Board under 49 CFR part 830 and that results in termination of the flight, the certificate holder shall remove the recording media from the airplane and keep the recorded data required by paragraph (a), (b), (c), or (d) of this section, as applicable, for at least 60 days or for a longer period upon the request of the Board or the Administrator.

(h) Each flight recorder required by this section must be installed in accordance with the requirements of §25.1459 of this chapter in effect on August 31, 1977. The correlation required by §25.1459(c) of this chapter need be established only on one airplane of any group of airplanes.

(1) That are of the same type;

(2) On which the flight recorder models and their installations are the same; and

(3) On which there are no differences in the type design with respect to the installation of the first pilot's instruments associated with the flight recorder. The most recent instrument calibration, including the recording medium from which this calibration is derived, and the recorder correlation must be retained by the certificate holder.

(i) Each flight recorder required by this section that records the data specified in paragraphs (a), (b), (c), or (d) of this section must have an approved device to assist in locating that recorder under water.

[Doc. No. 25530, 53 FR 26148, July 11, 1988; 53 FR 30906, Aug. 16, 1988]

[TOP]

§125.226 Digital flight data recorders. [Contained in 91.609 and appendix E/F]. Not recommended for inclusion]

(a) Except as provided in paragraph (l) of this section, no person may operate under this part a turbine-engine-powered transport category airplane unless it is equipped with one or more approved flight recorders that use a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The operational parameters required to be recorded by digital flight data recorders required by this section are as follows: the phrase "when an information

source is installed" following a parameter indicates that recording of that parameter is not intended to require a change in installed equipment:

(1) Time;

(2) Pressure altitude;

(3) Indicated airspeed;

(4) Heading -- primary flight crew reference (if selectable, record discrete, true or magnetic);

(5) Normal acceleration (Vertical);

(6) Pitch attitude;

(7) Roll attitude;

(8) Manual radio transmitter keying, or CVR/DFDR synchronization reference;

(9) Thrust/power of each engine -- primary flight crew reference;

(10) Autopilot engagement status;

(11) Longitudinal acceleration;

(12) Pitch control input;

(13) Lateral control input;

(14) Rudder pedal input;

(15) Primary pitch control surface position;

(16) Primary lateral control surface position;

(17) Primary yaw control surface position;

(18) Lateral acceleration;

(19) Pitch trim surface position or parameters of paragraph (a)(82) of this section if currently recorded;

(20) Trailing edge flap or cockpit flap control selection (except when parameters of paragraph (a)(85) of this section apply);

(21) Leading edge flap or cockpit flap control selection (except when parameters of paragraph (a)(86) of this section apply);

(22) Each Thrust reverser position (or equivalent for propeller airplane);

(23) Ground spoiler position or speed brake selection (except when parameters of paragraph (a)(87) of this section apply);

(24) Outside or total air temperature;

(25) Automatic Flight Control System (AFCS) modes and engagement status, including autothrottle;

(26) Radio altitude (when an information source is installed);

(27) Localizer deviation, MLS Azimuth;

(28) Glideslope deviation, MLS Elevation;

(29) Marker beacon passage;

(30) Master warning;

(31) Air/ground sensor (primary airplane system reference nose or main gear);

(32) Angle of attack (when information source is installed);

(33) Hydraulic pressure low (each system);

(34) Ground speed (when an information source is installed);

(35) Ground proximity warning system;

(36) Landing gear position or landing gear cockpit control selection;

(37) Drift angle (when an information source is installed);

(38) Wind speed and direction (when an information source is installed);

(39) Latitude and longitude (when an information source is installed);

(40) Stick shaker/pusher (when an information source is installed);

(41) Windshear (when an information source is installed);

(42) Throttle/power lever position;

(43) Additional engine parameters (as designed in appendix E of this part);

(44) Traffic alert and collision avoidance system;

(45) DME 1 and 2 distances;

(46) Nav 1 and 2 selected frequency;

(47) Selected barometric setting (when an information source is installed);

(48) Selected altitude (when an information source is installed);

(49) Selected speed (when an information source is installed);

(50) Selected mach (when an information source is installed);

(51) Selected vertical speed (when an information source is installed);

(52) Selected heading (when an information source is installed);

(53) Selected flight path (when an information source is installed);

(54) Selected decision height (when an information source is installed);

(55) EFIS display format;

(56) Multi-function/engine/alerts display format;

(57) Thrust command (when an information source is installed);

(58) Thrust target (when an information source is installed);

(59) Fuel quantity in CG trim tank (when an information source is installed);

(60) Primary Navigation System Reference;

(61) Icing (when an information source is installed);

(62) Engine warning each engine vibration (when an information source is installed);

(63) Engine warning each engine over temp. (when an information source is installed);

(64) Engine warning each engine oil pressure low (when an information source is installed);

(65) Engine warning each engine over speed (when an information source is installed);

(66) Yaw trim surface position;

(67) Roll trim surface position;

(68) Brake pressure (selected system);

(69) Brake pedal application (left and right);

(70) Yaw of sideslip angle (when an information source is installed);

(71) Engine bleed valve position (when an information source is installed);

(72) De-icing or anti-icing system selection (when an information source is installed);

(73) Computed center of gravity (when an information source is installed);

(74) AC electrical bus status;

(75) DC electrical bus status;

(76) APU bleed valve position (when an information source is installed);

(77) Hydraulic pressure (each system);

(78) Loss of cabin pressure;

(79) Computer failure;

(80) Heads-up display (when an information source is installed);

(81) Para-visual display (when an information source is installed);

(82) Cockpit trim control input position-pitch;

(83) Cockpit trim control input position -- roll;

(84) Cockpit trim control input position -- yaw;

(85) Trailing edge flap and cockpit flap control position;

(86) Leading edge flap and cockpit flap control position;

(87) Ground spoiler position and speed brake selection; and

(88) All cockpit flight control input forces (control wheel, control column, rudder pedal).

(b) For all turbine-engine powered transport category airplanes manufactured on or before October 11, 1991, by August 20, 2001 --

(1) For airplanes not equipped as of July 16, 1996, with a flight data acquisition unit (FDAU), the parameters listed in paragraphs (a)(1) through (a)(18) of this section must be recorded within the ranges and accuracies specified in Appendix D of this part, and --

(i) For airplanes with more than two engines, the parameter described in paragraph (a)(18) is not required unless sufficient capacity is available on the existing recorder to record that parameter.

(ii) Parameters listed in paragraphs (a)(12) through (a)(17) each may be recorded from a single source.

(2) For airplanes that were equipped as of July 16, 1996, with a flight data acquisition unit (FDAU), the parameters listed in paragraphs (a)(1) through (a)(22) of this section must be recorded within the ranges, accuracies, and recording intervals specified in Appendix E of this part. Parameters listed in paragraphs (a)(12) through (a)(17) each may be recorded from a single source.

(3) The approved flight recorder required by this section must be installed at the earliest time practicable, but no later than the next heavy maintenance check after August 18, 1999 and no later than August 20, 2001. A heavy maintenance check is considered to be any time an airplane is scheduled to be out of service for 4 or more days and is scheduled to include access to major structural components.

(c) For all turbine-engine-powered transport category airplanes manufactured on or before October 11, 1991 --

(1) That were equipped as of July 16, 1996, with one or more digital data bus(es) and an ARINC 717 digital flight data acquisition unit (DFDAU) or equivalent, the parameters specified in paragraphs (a)(1) through (a)(22) of this section must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified in Appendix E of this part by August 20, 2001. Parameters listed in paragraphs (a)(12) through (a)(14) each may be recorded from a single source.

(2) Commensurate with the capacity of the recording system (DFDAU or equivalent and the DFDR), all additional parameters for which information sources are installed and which are connected to the recording system must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified in Appendix E of this part by August 20, 2001.

(3) That were subject to §125.225(e) of this part, all conditions of §125.225(c) must continue to be met until compliance with paragraph (c)(1) of this section is accomplished.

(d) For all turbine-engine-powered transport category airplanes that were manufactured after October 11, 1991 --

(1) The parameters listed in paragraphs (a)(1) through (a)(34) of this section must be recorded within the ranges, accuracies, resolutions, and recording intervals specified in Appendix E of this part by August 20, 2001. Paramaters listed in paragraphs (a)(12) through (a)(14) each may be recorded from a single source.

(2) Commensurate with the capacity of the recording system, all additional parameters for which information sources are installed and which are connected to the recording system, must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified in Appendix E of this part by August 20, 2001.

(e) For all turbine-engine-powered transport category airplanes that are manufactured after August 18, 2000 --

(1) The parameters listed in paragraph (a) (1) through (57) of this section must be recorded within the ranges, accuracies, resolutions, and recording intervals specified in Appendix E of this part.

(2) Commensurate with the capacity of the recording system, all additional parameters for which information sources are installed and which are connected to the recording system, must be recorded within the ranges, accuracies, resolutions, and sampling intervals specified in Appendix E of this part.

(f) For all turbine-engine-powered transport category airplanes that are manufactured after August 19, 2002 parameters listed in paragraph (a)(1) through (a)(88) of this section must be recorded within the ranges, accuracies, resolutions, and recording intervals specified in Appendix E of this part.

(g) Whenever a flight data recorder required by this section is installed, it must be operated continuously from the instant the airplane begins its takeoff roll until it has completed its landing roll.

(h) Except as provided in paragraph (i) of this section, and except for recorded data erased as authorized in this paragraph, each certificate holder shall keep the recorded data prescribed by this section, as appropriate, until the airplane has been operated for at least 25 hours of the operating time specified in §121.359(a) of this part. A total of 1 hour of recorded data may be erased for the purpose of testing the flight recorder or the flight recorder system. Any erasure made in accordance with this paragraph must be of the oldest recorded data accumulated at the time of testing. Except as provided in paragraph (i) of this section, no record need to be kept more than 60 days.

(i) In the event of an accident or occurrence that requires immediate notification of the National Transportation Safety Board under 49 CFR 830 of its regulations and that results in termination of the flight, the certificate holder shall remove the recorder from the airplane and keep the recorder data prescribed by this section, as appropriate, for at least 60 days or for a longer period upon the request of the Board or the Administrator.

(j) Each flight data recorder system required by this section must be installed in accordance with the requirements of §25.1459 (a), (b), (d), and (e) of this chapter. A correlation must be established between the values recorded by the flight data recorder and the corresponding values being measured. The correlation must contain a sufficient number of correlation points to accurately establish the conversion from the recorded values to engineering units or discrete state over the full operating range of the parameter. Except for airplanes having separate altitude and airspeed sensors that are an integral part of the flight data recorder system, a single correlation may be established for any group of airplanes --

(1) That are of the same type;

(2) On which the flight recorder system and its installation are the same; and

(3) On which there is no difference in the type design with respect to the installation of those sensors associated with the flight data recorder system. Documentation sufficient to convert recorded data into the engineering units and discrete values specified in the applicable appendix must be maintained by the certificate holder.

(k) Each flight data recorder required by this section must have an approved device to assist in locating that recorder under water.

(l) The following airplanes that were manufactured before August 18, 1997 need not comply with this section, but must continue to comply with applicable paragraphs of §125.225 of this chapter, as appropriate:

(1) Airplanes that meet the Stage 2 noise levels of part 36 of this chapter and are subject to §91.801(c) of this chapter, until January 1, 2000. On and after January 1, 2000, any Stage 2 airplane otherwise allowed to be operated under Part 91 of this chapter must comply with the applicable flight data recorder requirements of this section for that airplane.

(2) British Aerospace 1-11, General Dynamics Convair 580, General Dynamics Convair 600, General Dynamics Convair 640, deHavilland Aircraft Company Ltd. DHC-7, Fairchild Industries FH 227, Fokker F-27 (except Mark 50), F-28 Mark 1000 and Mark 4000, Gulfstream Aerospace G-159, Jetstream 4100 Series, Lockheed Aircraft Corporation Electra 10-A, Lockheed Aircraft Corporation Electra 10-B, Lockheed Aircraft Corporation Electra 10-E, Lockheed Aircraft Corporation Electra L-188, Lockheed Martin Model 382 (L-100) Hercules, Maryland Air Industries, Inc. F27, Mitsubishi Heavy Industries, Ltd. YS-11, Short Bros. Limited SD3-30, Short Bros. Limited SD3-60.

[Doc. No. 28109, 62 FR 38387, July 17, 1997; 62 FR 48135, Sept. 12, 1997, as amended by Amdt. 125-42, 68 FR 42937, July 18, 2003; 68 FR 50069, Aug. 20, 2003]

[TOP]

§125.227 Cockpit voice recorders.[Contained in 91.609. Not recommended for inclusion in Subpart F]

(a) No certificate holder may operate a large turbine engine powered airplane or a large pressurized airplane with four reciprocating engines unless an approved cockpit voice recorder is installed in that airplane and is operated continuously from the start of the use of the checklist (before starting engines for the purpose of flight) to completion of the final checklist at the termination of the flight.

(b) Each certificate holder shall establish a schedule for completion, before the prescribed dates, of the cockpit voice recorder installations required by paragraph (a) of this section. In addition, the certificate holder shall identify any airplane specified in paragraph (a) of this section he intends to discontinue using before the prescribed dates.

(c) The cockpit voice recorder required by this section must also meet the following standards:

(1) The requirements of part 25 of this chapter in effect after October 11, 1991.

(2) After September 1, 1980, each recorder container must --

(i) Be either bright orange or bright yellow;

(ii) Have reflective tape affixed to the external surface to facilitate its location under water; and

(iii) Have an approved underwater locating device on or adjacent to the container which is secured in such a manner that it is not likely to be separated during crash impact, unless the cockpit voice recorder and the flight recorder, required by §125.225 of this chapter, are installed adjacent to each other in such a manner that they are not likely to be separated during crash impact.

(d) In complying with this section, an approved cockpit voice recorder having an erasure feature may be used so that, at any time during the operation of the recorder, information recorded more than 30 minutes earlier may be erased or otherwise obliterated.

(e) For those aircraft equipped to record the uninterrupted audio signals received by a boom or a mask microphone the flight crewmembers are required to use the boom microphone below 18,000 feet mean sea level. No person may operate a large turbine engine powered airplane or a large pressurized airplane with four reciprocating engines manufactured after October 11, 1991, or on which a cockpit voice recorder has been installed after October 11, 1991, unless it is equipped to record the uninterrupted audio signal received by a boom or mask microphone in accordance with §25.1457(c)(5) of this chapter.

(f) In the event of an accident or occurrence requiring immediate notification of the National Transportation Safety Board under 49 CFR part 830 of its regulations, which results in the termination of the flight, the certificate holder shall keep the recorded information for at least 60 days or, if requested by the Administrator or the Board, for a longer period. Information obtained from the record is used to assist in determining the cause of accidents or occurrences in connection with investigations under 49 CFR part 830. The Administrator does not use the record in any civil penalty or certificate action.

[Doc. No. 25530, 53 FR 26149, July 11, 1988]

125.229 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 §125.335(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 §125.335(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.

Subpart G -- Maintenance

[TOP]

§125.241 Applicability. [Part 91, subpart E, 91.401(a)]

This subpart prescribes rules, in addition to those prescribed in other parts of this chapter, for the maintenance of airplanes, airframes, aircraft engines, propellers, appliances, each item of survival and emergency equipment, and their component parts operated under this part.

[TOP]

§125.243 Certificate holder's responsibilities. [Not required for 91F]

(a) With regard to airplanes, including airframes, aircraft engines, propellers, appliances, and survival and emergency equipment, operated by a certificate holder, that certificate holder is primarily responsible for --

(1) Airworthiness;

(2) The performance of maintenance, preventive maintenance, and alteration in accordance with applicable regulations and the certificate holder's manual;

(3) The scheduling and performance of inspections required by this part; and

(4) Ensuring that maintenance personnel make entries in the airplane maintenance log and maintenance records which meet the requirements of part 43 of this chapter and the certificate holder's manual, and which indicate that the airplane has been approved for return to service after maintenance, preventive maintenance, or alteration has been performed.

[TOP]

§125.245 Organization required to perform maintenance, preventive maintenance, and alteration. [Similar to requirements in Part 91, subpart E, 91.403(a), but refers to the "owner or operator' responsibilities]

The certificate holder must ensure that each person with whom it arranges for the performance of maintenance, preventive maintenance, alteration, or required inspection items identified in the certificate holder's manual in accordance with §125.249(a)(3)(ii) must have an organization adequate to perform that work.

[TOP]

§125.247 Inspection programs and maintenance. [Covered by section of Part 91, subpart E]

(a) No person may operate an airplane subject to this part unless [91.403(a)]

(1) The replacement times for life-limited parts specified in the aircraft type certificate data sheets, or other documents approved by the Administrator, are complied with; [91.403(c)]

(2) Defects disclosed between inspections, or as a result of inspection, have been corrected in accordance with part 43 of this chapter; and [91.7(a),(b)]

(3) The airplane, including airframe, aircraft engines, propellers, appliances, and survival and emergency equipment, and their component parts, is inspected in accordance with an inspection program approved by the Administrator. [91.403(c)]

(b) The inspection program specified in paragraph (a)(3) of this section must include at least the following:

(1) Instructions, procedures, and standards for the conduct of inspections for the particular make and model of airplane, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, aircraft engines, propellers, appliances, and survival and emergency equipment required to be inspected. [91.409(g)]

(2) A schedule for the performance of inspections that must be performed under the program, expressed in terms of the time in service, calendar time, number of system operations, or any combination of these. [91.409(g)]

(c) No person may be used to perform the inspections required by this part unless that person is authorized to perform maintenance under part 43 of this chapter. [91.403(b)]

(d) No person may operate an airplane subject to this part unless --

(1) The installed engines have been maintained in accordance with the overhaul periods recommended by the manufacturer or a program approved by the Administrator; and [91.409(e)]

(2) The engine overhaul periods are specified in the inspection programs required by §125.247(a)(3). [91.409(e)]

(e) Inspection programs which may be approved for use under this part include, but are not limited to --

(1) A continuous inspection program which is a part of a current continuous airworthiness program approved for use by a certificate holder under part 121 or part 135 of this chapter; [91.409(f) (1)]

(2) Inspection programs currently recommended by the manufacturer of the airplane, aircraft engines, propellers, appliances, or survival and emergency equipment; or [91.409(f) (3)]

(3) An inspection program developed by a certificate holder under this part. [91.409(g)]

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-2, 46 FR 24409, Apr. 30, 1981]

[TOP]

§125.248 Special maintenance program requirements. [same as Part91, subpart E,91.410]

(a) No person may operate an Airbus Model A300 (exlcuding the -600 series), British Aerospace Model BAC 1-11, Boeing Model 707, 720, 727, 737 or 747, McDonnell Douglas Model DC-8, DC-9/MD-80 or DC-10, Fokker Model F28, or Lockheed Model L-1011 beyond the applicable flight cycle implementation time specified below, or May 25, 2001, whichever occurs later, unless operations specifications have been issued to reference repair assessment guidelines applicable to the fuselage pressure boundary (fuselage skin, door skin, and bulkhead webs), and those guidelines are incorporated in its maintenance program. The repair assessment guidelines must be approved by the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane.

(1) For the Airbus Model A300 (excluding the -600 series), the flight cycle implementation time is:

(i) Model B2: 36,000 flights.

(ii) Model B4-100 (including Model B4-2C): 30,000 flights above the window line, and 36,000 flights below the window line.

(iii) Model B4-200: 25,500 flights above the window line, and 34,000 flights below the window line.

(2) For all models of the British Aerospace BAC 1-11, the flight cycle implementation time is 60,000 flights.

(3) For all models of the Boeing 707, the flight cycle implementation time is 15,000 flights.

(4) For all models of the Boeing 720, the flight cycle implementation time is 23,000 flights.

(5) For all models of the Boeing 727, the flight cycle implementation time is 45,000 flights.

(6) For all models of the Boeing 737, the flight cycle implementation time is 60,000 flights.

(7) For all models of the Boeing 747, the flight cycle implementation time is 15,000 flights.

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

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

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

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

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

(b) After December 6, 2004, no certificate holder may operate a turbine-powered transport category airplane with a type certificate issued after January 1, 1958, and either a maximum type certificated passenger capacity of 30 or more, or a maximum type certificated payload capacity of 7,500 pounds or more unless instructions for maintenance and inspection of the fuel tank system are incorporated in its inspection program. These instructions must address the actual configuration of the fuel tank systems of each affected airplane and must be approved by the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane. Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the manager of the appropriate office. Thereafter, the approved instructions can be revised only with the approval of the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane. Operators must submit their requests for revisions through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the manager of the appropriate office.

[Doc. No. 29104, 65 FR 24126, Apr. 25, 2000; 65 FR 50744, Aug. 21, 2000, as amended by Amdt. 125-36, 66 FR 23131, May 7, 2001; Amdt. 125-40, 67 FR 72834, Dec. 9, 2002]

[TOP]

§125.249 Maintenance manual requirements. **[not required for 91F]**

(a) Each certificate holder's manual required by §125.71 of this part shall contain, in addition to the items required by §125.73 of this part, at least the following:

(1) A description of the certificate holders maintenance organization, when the certificate holder has such an organization.

(2) A list of those persons with whom the certificate holder has arranged for performance of inspections under this part. The list shall include the persons' names and addresses.

(3) The inspection programs required by §125.247 of this part to be followed in the performance of inspections under this part including --

(i) The method of performing routine and nonroutine inspections (other than required inspections);

(ii) The designation of the items that must be inspected (required inspections), including at least those which if improperly accomplished could result in a failure, malfunction, or defect endangering the safe operation of the airplane;

(iii) The method of performing required inspections;

(iv) Procedures for the inspection of work performed under previously required inspection findings ("buy-back procedures");

(v) Procedures, standards, and limits necessary for required inspections and acceptance or rejection of the items required to be inspected;

(vi) Instructions to prevent any person who performs any item of work from performing any required inspection of that work; and

(vii) Procedures to ensure that work interruptions do not adversely affect required inspections and to ensure required inspections are properly completed before the airplane is released to service.

(b) In addition, each certificate holder's manual shall contain a suitable system which may include a coded system that provides for the retention of the following:

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

(2) The name of the person performing the work and the person's certificate type and number.

(3) The name of the person approving the work and the person's certificate type and number.

[TOP]

§125.251 Required inspection personnel. [Parts 91.403 (b), and 43.3 and .13]

(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 perform a required inspection if that person performed the item of work required to be inspected. [no direct equivalent in Part 91]

Subpart H -- Airman and Crewmember Requirements

[TOP]

§125.261 Airman: Limitations on use of services. [Not specifically listed under 91. Other parts of 91 contain requirements. Not recommended for inclusion in Subpart F]

(a) No certificate holder may use any person as an airman nor may any person serve as an airman unless that person --

(1) Holds an appropriate current airman certificate issued by the FAA;

(2) Has any required appropriate current airman and medical certificates in that person's possession while engaged in operations under this part; and

(3) Is otherwise qualified for the operation for which that person is to be used.

(b) Each airman covered by paragraph (a) of this section shall present the certificates for inspection upon the request of the Administrator.

[TOP]

§125.263 Composition of flightcrew. [No requirement, recommend inclusion in Subpart F]

(a) No certificate holder may operate an airplane with less than the minimum flightcrew specified in the type certificate and the Airplane Flight Manual approved for that type airplane and required by this part for the kind of operation being conducted.

(b) In any case in which this part requires the performance of two or more functions for which an airman certificate is necessary, that requirement is not satisfied by the performance of multiple functions at the same time by one airman.

(c) On each flight requiring a flight engineer, at least one flight crewmember, other than the flight engineer, must be qualified to provide emergency performance of the flight engineer's functions for the safe completion of the flight if the flight engineer becomes ill or is otherwise incapacitated. A pilot need not hold a flight engineer's certificate to perform the flight engineer's functions in such a situation.

[TOP]

§125.265 Flight engineer requirements. **[No requirement, recommend inclusion in Subpart F]**

(a) No person may operate an airplane for which a flight engineer is required by the type certification requirements without a flight crewmember holding a current flight engineer certificate.

(b) No person may serve as a required flight engineer on an airplane unless, within the preceding 6 calendar months, that person has had at least 50 hours of flight time as a flight engineer on that type airplane, or the Administrator has checked that person on that type airplane and determined that person is familiar and competent with all essential current information and operating procedures.

[TOP]

§125.267 Flight navigator and long-range navigation equipment. **[no longer relevant crew stations. Recommend no inclusion in subpart F]**

(a) No certificate holder may operate an airplane outside the 48 conterminous States and the District of Columbia when its position cannot be reliably fixed for a period of more than 1 hour, without --

(1) A flight crewmember who holds a current flight navigator certificate; or

(2) Two independent, properly functioning, and approved long-range means of navigation which enable a reliable determination to be made of the position of the airplane by each pilot seated at that person's duty station.

(b) Operations where a flight navigator or long-range navigation equipment, or both, are required are specified in the operations specifications of the operator.

[TOP]

§125.269 Flight attendants. **[need additional guidance from group]**

(a) Each certificate holder shall provide at least the following flight attendants on each passenger-carrying airplane used:

(1) For airplanes having more than 19 but less than 51 passengers -- one flight attendant.

(2) For airplanes having more than 50 but less than 101 passengers -- two flight attendants.

(3) For airplanes having more than 100 passengers -- two flight attendants plus one additional flight attendant for each unit (or part of a unit) of 50 passengers above 100 passengers.

(b) The number of flight attendants approved under paragraphs (a) and (b) of this section are set forth in the certificate holder's operations specifications.

(c) During takeoff and landing, flight attendants required by this section shall be located as near as practicable to required floor level exits and shall be uniformly distributed throughout the airplane to provide the most effective egress of passengers in event of an emergency evacuation.

[TOP]

§125.271 Emergency and emergency evacuation duties. **[not recommended for inclusion in subpart f]**

(a) Each certificate holder shall, for each type and model of airplane, assign to each category of required crewmember, as appropriate, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The certificate holder shall show those functions are realistic, can be practically accomplished, and will meet any reasonably anticipated emergency, including the possible incapacitation of individual crewmembers or their inability to reach the passenger cabin because of shifting cargo in combination cargo-passenger airplanes.

(b) The certificate holder shall describe in its manual the functions of each category of required crewmembers under paragraph (a) of this section.

Subpart I -- Flight Crewmember Requirements

[TOP]

§125.281 Pilot-in-command qualifications. **[Waivable, not recommended for inclusion in Subpart F]**

No certificate holder may use any person, nor may any person serve, as pilot in command of an airplane unless that person --

(a) Holds at least a commercial pilot certificate, an appropriate category, class, and type rating, and an instrument rating; and

(b) 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, including at least 10 night takeoffs and landings, and 75 hours of actual or simulated instrument flight time, at least 50 hours of which were actual flight.

[TOP]

§125.283 Second-in-command qualifications. **[Waivable, not recommended for inclusion in Subpart F]**

No certificate holder may use any person, nor may any person serve, as second in command of an airplane unless that person --

(a) Holds at least a commercial pilot certificate with appropriate category and class ratings, and an instrument rating; and

(b) For flight under IFR, meets the recent instrument experience requirements prescribed for a pilot in command in part 61 of this chapter.

125.284 Operating experience [This comes from 135.244]

(a) No certificate holder may use any person, nor may any person serve, as a pilot in command of an aircraft operated under this part 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) Each person must acquire the operating experience while performing the duties of a pilot in command under the supervision of a current and qualified pilot in command.

(3) 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.

[TOP]

§125.285 Pilot qualifications: Recent experience. [contained in part 61.57. Not recommended for inclusion]

(a) No certificate holder may use any person, nor may any person serve, as a required pilot flight crewmember unless within the preceding 90 calendar days that person has made at least three takeoffs and landings in the type airplane in which that person is to serve. The takeoffs and landings required by this paragraph may be performed in a flight simulator if the flight simulator is qualified and approved by the Administrator for such purpose. However, any person who fails to qualify for a 90-consecutive-day period following the date of that person's last qualification under this paragraph must reestablish recency of experience as provided in paragraph (b) of this section.

(b) A required pilot flight crewmember who has not met the requirements of paragraph (a) of this section may reestablish recency of experience by making at least three takeoffs and landings under the supervision of an authorized check airman, in accordance with the following:

(1) At least one takeoff must be made with a simulated failure of the most critical powerplant.

(2) At least one landing must be made from an ILS approach to the lowest ILS minimums authorized for the certificate holder.

(3) At least one landing must be made to a complete stop.

(c) A required pilot flight crewmember who performs the maneuvers required by paragraph (b) of this section in a qualified and approved flight simulator, as prescribed in paragraph (a) of this section, must --

(1) Have previously logged 100 hours of flight time in the same type airplane in which the pilot is to serve; and

(2) Be observed on the first two landings made in operations under this part by an authorized check airman who acts as pilot in command and occupies a pilot seat. The landings must be made in weather minimums that are not less than those contained in the certificate holder's operations specifications for Category I operations and must be made within 45 days following completion of simulator testing.

(d) An authorized check airman who observes the takeoffs and landings prescribed in paragraphs (b) and (c)(3) of this section shall certify that the person being observed is proficient and qualified to perform flight duty in operations under this part, and may require any additional maneuvers that are determined necessary to make this certifying statement.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-27, 61 FR 34561, July 2, 1996]

[TOP]

§125.287 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 §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.

[TOP]

§125.289 Initial and recurrent flight attendant crewmember testing requirements. No certificate holder may use any person, nor may any person serve, as a flight attendant crewmember, unless, since the beginning of the 12th calendar month before that service, the certificate holder has determined by appropriate initial and recurrent testing that the person is knowledgeable and competent in the following areas as appropriate to assigned duties and responsibilities:

(a) Authority of the pilot in command;

(b) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety;

(c) Crewmember assignments, functions, and responsibilities during ditching and evacuation of persons who may need the assistance of another person to move expeditiously to an exit in an emergency;

(d) Briefing of passengers;

(e) Location and operation of portable fire extinguishers and other items of emergency equipment;

(f) Proper use of cabin equipment and controls;

(g) Location and operation of passenger oxygen equipment;

(h) Location and operation of all normal and emergency exits, including evacuation chutes and escape ropes; and

(i) Seating of persons who may need assistance of another person to move rapidly to an exit in an emergency as prescribed by the certificate holder's operations manual.

[TOP]

§125.291 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 §135.293(d).

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(a) No certificate holder may use any person, nor may any person serve as a pilot, unless, since the beginning of the 12th calendar month before that service, that person has passed a written or oral test, given by the Administrator or an authorized check airman on that person's knowledge in the following areas -- ¶

(1) The appropriate provisions of parts 61, 91, and 125 of this chapter and the operations specifications and the manual of the certificate holder; ¶

(2) For each type of airplane to be flown by the pilot, the airplane powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the approved Airplane Flight Manual or approved equivalent, as applicable; ¶

(3) For each type of airplane 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 of 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 avoiding operations in thunderstorms and hail, and for operating in turbulent air or in icing conditions; ¶

(8) New equipment, procedures, or techniques, as appropriate; ¶

(9) Knowledge and procedures for operating 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: ¶

(i) The use of holdover times when using deicing/anti-icing fluids. ¶

(ii) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities. ¶

(iii) Communications. ¶

(iv) 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. ¶

(v) Types and characteristics of deicing/anti-icing fluids, if used by the certificate holder. ¶

(vi) Cold weather preflight inspection procedures. ¶

(vii) Techniques for recognizing contamination on the airplane. ¶

(b) No certificate holder may use any per... [2]

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(1) The instrument proficiency check must --

(i) For a pilot in command of an airplane under §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 §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.

(h) The certificate holder may accept a current IPC conducted in the same aircraft type under FAR Parts 135 or 121 as meeting the requirements of this section.

[TOP]

§125.293 Crewmember: Tests and checks, grace provisions, accepted standards. [not allowed under 91. Recommend no inclusion in subpart F]

(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, in the capacity for which the pilot is being checked in operations under this part until the pilot has satisfactorily completed the check.

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(a) No certificate holder may use any person, nor may any person serve, as a pilot in command of an airplane under IFR unless, since the beginning of the sixth calendar month before that service, that person has passed an instrument proficiency check and the Administrator or an authorized check airman has so certified in a letter of competency. ¶

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the sixth calendar month before that use, the pilot has satisfactorily demonstrated that type of approach procedure and has been issued a letter of competency under paragraph (g) of this section. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the sixth 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 and has been issued a letter of competency under paragraph (g) of this section. 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 supercharge 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. ¶

(1) For a pilot in command of an airplane, the instrument proficiency check must 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 airplane, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of airplane. ¶

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

... [3]

[TOP]

§125.295 Check airman authorization: Application and issue. **[recommend inclusion in Subpart F]**

Each certificate holder desiring FAA approval of a check airman shall submit a request in writing to the FAA Flight Standards district office charged with the overall inspection of the certificate holder. The Administrator may issue a letter of authority to each check airman if that airman passes the appropriate oral and flight test. The letter of authority lists the tests and checks in this part that the check airman is qualified to give, and the category, class and type airplane, where appropriate, for which the check airman is qualified.

[TOP]

§125.296 Training, testing, and checking conducted by training centers: Special rules. **[Part 91 allows training in simulators. Not recommended for inclusion in Subpart K]**

A crewmember who has successfully completed training, testing, or checking in accordance with an approved training program that meets the requirements of this part and that is conducted in accordance with an approved course conducted by a training center certificated under part 142 of this chapter, is considered to meet applicable requirements of this part.

[Doc. No. 26933, 61 FR 34561, July 2, 1996]

[TOP]

§125.297 Approval of flight simulators and flight training devices. **[part 91/61 allows training in simulators. Recommend no inclusion in Subpart K]**

(a) Flight simulators and flight training devices approved by the Administrator may be used in training, testing, and checking required by this subpart.

(b) Each flight simulator and flight training device that is used in training, testing, and checking required under this subpart must be used in accordance with an approved training course conducted by a training center certificated under part 142 of this chapter, or meet the following requirements:

(1) It must be specifically approved for --

(i) The certificate holder;

(ii) The type airplane and, if applicable, the particular variation within type for which the check is being conducted; and

(iii) The particular maneuver, procedure, or crewmember function involved.

(2) It must maintain the performance, functional, and other characteristics that are required for approval.

(3) It must be modified to conform with any modification to the airplane being simulated that changes the performance, functional, or other characteristics required for approval.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-27, 61 FR 34561, July 2, 1996]

125.299 Drug and alcohol misuse education program

a) Each program manager must provide each direct employee performing flight crewmember, flight attendant, flight instructor, or aircraft maintenance duties with drug and alcohol misuse education.

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(b) No program manager may use any contract employee to perform flight crewmember, flight attendant, flight instructor, or aircraft maintenance duties for the program manager unless that contract employee has been provided with drug and alcohol misuse education.

(c) Program managers must disclose to their owners and prospective owners the existence of a company drug and alcohol misuse testing program. If the program manager has implemented a company testing program, the program manager's disclosure must include the following:

(1) Information on the substances that they test for, for example, alcohol and a list of the drugs;

(2) The categories of employees tested, the types of tests, for example, pre-employment, random, reasonable cause/suspicion, post accident, return to duty and follow-up; and

(3) The degree to which the program manager's company testing program is comparable to the federally mandated drug and alcohol misuse prevention program required under part 121, appendices I and J, of this chapter, regarding the information in paragraphs (c)(1) and (c)(2) of this section.

(d) If a program aircraft is operated on a program flight into an airport at which no maintenance personnel are available that are subject to the requirements of paragraphs (a) or (b) of this section and emergency maintenance is required, the program manager may use persons not meeting the requirements of paragraphs (a) or (b) of this section to provide such emergency maintenance under both of the following conditions:

(1) The program manager must notify the Drug Abatement Program Division, AAM–800, 800 Independence Avenue, SW., Washington, DC 20591 in writing within 10 days after being provided emergency maintenance in accordance with this paragraph. The program manager 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 (a) or (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(e) 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.

(f) Notwithstanding paragraphs (a) and (b) of this section, drug and alcohol misuse education conducted under an FAA-approved drug and alcohol misuse prevention program may be used to satisfy these requirements.

Subpart J -- Flight Operations

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125.307 Responsibilities for operational control

Each certificate holder is responsible for operational control and shall list, in the manual required by §125.73(a), the name and title of each person authorized by it to exercise operational control.

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125.309 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."

[TOP]

§125.311 Flight crewmembers at controls.[Contained in 91.105. Not recommended for inclusion in Subpart F]

(a) Except as provided in paragraph (b) of this section, each required flight crewmember on flight deck duty must remain at the assigned duty station with seat belt fastened while the airplane is taking off or landing and while it is en route.

(b) A required flight crewmember may leave the assigned duty station --

(1) If the crewmember's absence is necessary for the performance of duties in connection with the operation of the airplane;

(2) If the crewmember's absence is in connection with physiological needs; or

(3) If the crewmember is taking a rest period and relief is provided --

(i) In the case of the assigned pilot in command, by a pilot qualified to act as pilot in command.

(ii) In the case of the assigned second in command, by a pilot qualified to act as second in command of that airplane during en route operations. However, the relief pilot need not meet the recent experience requirements of §125.285.

[TOP]

§125.313 Manipulation of controls when carrying passengers.[No prohibition under part 91. Not recommended for inclusion]

No pilot in command may allow any person to manipulate the controls of an airplane while carrying passengers during flight, nor may any person manipulate the controls while carrying passengers during flight, unless that person is a qualified pilot of the certificate holder operating that airplane.

[TOP]

§125.315 Admission to flight deck. [Not prohibited under 91, not recommended for inclusion in Subpart F

(a) No person may admit any person to the flight deck of an airplane unless the person being admitted is --

(1) A crewmember;

(2) An FAA inspector or an authorized representative of the National Transportation Safety Board who is performing official duties; or

(3) Any person who has the permission of the pilot in command.

(b) No person may admit any person to the flight deck unless there is a seat available for the use of that person in the passenger compartment, except --

(1) An FAA inspector or an authorized representative of the Administrator or National Transportation Safety Board who is checking or observing flight operations; or

(2) A certificated airman employed by the certificate holder whose duties require an airman certificate.

[TOP]

§125.317 Inspector's credentials: Admission to pilots' compartment: Forward observer's seat. **[not required under 91, not recommended for inclusion in Subpart F]**

(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 airplane operated by the certificate holder, the inspector must be given free and uninterrupted access to the pilot compartment of that airplane. 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.

[TOP]

§125.319 Emergencies **[Contained in 91.3(b) and (c). Not recommended for inclusion in Subpart F].**

(a) In an emergency situation that requires immediate decision and action, the pilot in command may take any action considered necessary under the circumstances. In such a case, the pilot in command may deviate from prescribed operations, procedures and methods, weather minimums, and this chapter, to the extent required in the interests of safety.

(b) In an emergency situation arising during flight that requires immediate decision and action by appropriate management personnel in the case of operations conducted with a flight following service and which is known to them, those personnel shall advise the pilot in command of the emergency, shall ascertain the decision of the pilot in command, and shall have the decision recorded. If they cannot communicate with the pilot, they shall declare an emergency and take any action that they consider necessary under the circumstances.

(c) Whenever emergency authority is exercised, the pilot in command or the appropriate management personnel shall keep the appropriate ground radio station fully informed of the progress of the flight. The person declaring the emergency shall send a written report of any deviation, through the operator's director of operations, to the Administrator within 10 days, exclusive of Saturdays, Sundays, and Federal holidays, after the flight is completed or, in the case of operations outside the United States, upon return to the home base.

[TOP]

§125.321 Reporting potentially hazardous meteorological conditions and irregularities of ground and navigation facilities. **[not contained in Part 91, not recommended for inclusion in Subpart F]**

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

[TOP]

§125.323 Reporting mechanical irregularities. **[Not required under Part 91, Not recommended for inclusion in Subpart F]**

The pilot in command shall ensure that all mechanical irregularities occurring during flight are entered in the maintenance log of the airplane at the next place of landing. Before each flight, the pilot in command shall ascertain the status of each irregularity entered in the log at the end of the preceding flight.

[TOP]

§125.325 Instrument approach procedures and IFR landing minimums. **[Concept not required for Part 91. Not recommended for inclusion in Subpart F]**

No person may make an instrument approach at an airport except in accordance with IFR weather minimums and unless the type of instrument approach procedure to be used is listed in the certificate holder's operations specifications.

[TOP]

§125.327 Briefing of passengers before flight. **[Contained in 91.519, not recommended for inclusion in Subpart F]**

(a) Before each takeoff, each pilot in command of an airplane 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. This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with the lighted passenger information signs, posted placards, areas designated for safety purposes as no smoking areas, and crewmember instructions with regard to these items.

(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 him or her. 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 airplane.

(c) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a member of the crew. It shall be supplemented by printed cards for the use of each passenger containing --

(1) A diagram and method of operating the emergency exits; and

(2) Other instructions necessary for the use of emergency equipment on board the airplane.

Each card used under this paragraph must be carried in the airplane in locations convenient for the use of each passenger and must contain information that is appropriate to the airplane on which it is to be used.

(d) The certificate holder shall describe in its manual the procedure to be followed in the briefing required by paragraph (a) of this section.

(e) If the airplane does not proceed directly over water after takeoff, no part of the briefing required by paragraph (a)(6) of this section has to be given before takeoff but the briefing required by paragraph (a)(6) must be given before reaching the overwater part of the flight.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-17, 57 FR 42675, Sept. 15, 1992]

[TOP]

§125.328 Prohibition on crew interference. **[Contained in 91.11. Not recommended for inclusion in Subpart F]**

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.

[Doc. No. FAA-1998-4954, 64 FR 1080, Jan. 7, 1999]

[TOP]

§125.329 Minimum altitudes for use of autopilot. **[Contained within Cat II requirements. Not recommended for inclusion in subpart F]**

(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 Airplane 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 §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 Airplane 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.

[Doc. No. 19779, 45 FR 67325, Oct. 9, 1980, as amended by Amdt. 125-12, 54 FR 34332, Aug. 18, 1989; Amdt. 125-29, 62 FR 27922, May 21, 1997]

[TOP]

§125.331 Carriage of persons without compliance with the passenger-carrying provisions of this part. **[Not recommended for inclusion in subpart F]**

The following persons may be carried aboard an airplane without complying with the passenger-carrying requirements of this part:

(a) A crewmember.

(b) A person necessary for the safe handling of animals on the airplane.

(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 operator 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.

[TOP]

§125.333 Stowage of food, beverage, and passenger service equipment during airplane movement on the surface, takeoff, and landing. **[Contained in 91.535. Not recommended for inclusion in Subpart F]**

(a) No certificate holder may move an airplane 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 airplane 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 airplane 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.

[Doc. No. 26142, 57 FR 42675, Sept. 15, 1992]

125.335 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 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.

Subpart K -- Flight Release Rules

Deleted:

[TOP]

§125.351 Flight release authority. [Formal flight release not required by 91F]

(a) No person may start a flight without authority from the person authorized by the certificate holder to exercise operational control over the flight.

(b) No person may start a flight unless the pilot in command or the person authorized by the certificate holder to exercise operational control over the flight has executed a flight release setting forth the conditions under which the flight will be conducted. The pilot in command may sign the flight release only when both the pilot in command and the person authorized to exercise operational

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control believe the flight can be made safely, unless the pilot in command is authorized by the certificate holder to exercise operational control and execute the flight release without the approval of any other person.

(c) No person may continue a flight from an intermediate airport without a new flight release if the airplane has been on the ground more than 6 hours.

[TOP]

§125.353 Facilities and services. [not exact equivalent in Part 91, but is common sense]

During a flight, the pilot in command shall obtain any additional available information of meteorological conditions and irregularities of facilities and services that may affect the safety of the flight.

[TOP]

§125.355 Airplane equipment. [Part 91.203(a)(1) requires an aircraft to be airworthy]

No person may release an airplane unless it is airworthy and is equipped as prescribed.

[TOP]

§125.357 Communication and navigation facilities. [Part 91.3 and .103 requires the PIC to comply with the intent of this paragraph]

No person may release an airplane over any route or route segment unless communication and navigation facilities equal to those required by §125.51 are in satisfactory operating condition.

[TOP]

§125.359 Flight release under VFR. [same intent is accomplished by the PIC when operating to Part 91.155 flight rules]

No person may release an airplane for VFR operation unless the ceiling and visibility en route, as indicated by available weather reports or forecasts, or any combination thereof, are and will remain at or above applicable VFR minimums until the airplane arrives at the airport or airports specified in the flight release.

[TOP]

§125.361 Flight release under IFR or over-the-top.

Deleted: [same intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules]

a)Except as provided in Paragraph b below and §125.363, no person may release an airplane for operations under IFR or over-the-top unless appropriate weather reports or forecasts, or any combination thereof, indicate that the weather conditions will be at or above the authorized minimums at the estimated time of arrival at the airport or airports to which released.

b) No pilot on a program aircraft operating a program flight may begin an instrument approach procedure to an airport unless—

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(1) Either that airport or 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;

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2) For flight planning purposes, if the destination airport does not have a weather reporting facility described in paragraph b1 of this section, the pilot must

designate as an alternate an airport that has a weather reporting facility meeting that criteria

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[TOP]

§125.363 Flight release over water. **[Paragraph (a) intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules] [Paragraph (b) (c) (d) are not applicable to Part 91F operations]**

(a) No person may release an airplane for a flight that involves extended overwater operation unless appropriate weather reports or forecasts, or any combination thereof, indicate that the weather conditions will be at or above the authorized minimums at the estimated time of arrival at any airport to which released or to any required alternate airport.

(b) Each certificate holder shall conduct extended overwater operations under IFR unless it shows that operating under IFR is not necessary for safety.

(c) Each certificate holder shall conduct other overwater operations under IFR if the Administrator determines that operation under IFR is necessary for safety.

(d) Each authorization to conduct extended overwater operations under VFR and each requirement to conduct other overwater operations under IFR will be specified in the operations specifications.

[TOP]

§125.365 Alternate airport for departure. **[Part 91, subpart B requires similar actions for Part 91F operations]**

(a) If the weather conditions at the airport of takeoff are below the landing minimums in the certificate holder's operations specifications for that airport, no person may release an airplane from that airport unless the flight release specifies an alternate airport located within the following distances from the airport of takeoff:

(1) *Airplanes having two engines.* Not more than 1 hour from the departure airport at normal cruising speed in still air with one engine inoperative.

(2) *Airplanes having three or more engines.* Not more than 2 hours from the departure airport at normal cruising speed in still air with one engine inoperative.

(b) For the purposes of paragraph (a) of this section, the alternate airport weather conditions must meet the requirements of the certificate holder's operations specifications.

(c) No person may release an airplane from an airport unless that person lists each required alternate airport in the flight release.

[TOP]

§125.367 Alternate airport for destination: IFR or over-the-top. **[similar intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules]**

(a) Except as provided in paragraph (b) of this section, each person releasing an airplane for operation under IFR or over-the-top shall list at least one alternate airport for each destination airport in the flight release.

(b) An alternate airport need not be designated for IFR or over-the-top operations where the airplane carries enough fuel to meet the requirements of §§125.375 and 125.377 for flights outside the 48 conterminous States and the District of Columbia over routes without an available alternate airport for a particular airport of destination.

(c) For the purposes of paragraph (a) of this section, the weather requirements at the alternate airport must meet the requirements of the operator's operations specifications.

(d) No person may release a flight unless that person lists each required alternate airport in the flight release.

[TOP]

§125.369 Alternate airport weather minimums. **[similar intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules, paragraph 91 .167(c)]**

No person may list an airport as an alternate airport in the flight release unless the appropriate weather reports or forecasts, or any combination thereof, indicate that the weather conditions will be at or above the alternate weather minimums specified in the certificate holder's operations specifications for that airport when the flight arrives.

[TOP]

§125.371 Continuing flight in unsafe conditions. **[similar intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules, paragraph 91 .3 (a) and (b)]**

(a) No pilot in command may allow a flight to continue toward any airport to which it has been released if, in the opinion of the pilot in command, the flight cannot be completed safely, unless, in the opinion of the pilot in command, there is no safer procedure. In that event, continuation toward that airport is an emergency situation.

[TOP]

§125.373 Original flight release or amendment of flight release. **[formal flight release not required by 91F, however the safety intent of these requirements are achieved by the PIC when operating to Part 91, subpart B Flight Rule]**

(a) A certificate holder may specify any airport authorized for the type of airplane as a destination for the purpose of original release.

(b) No person may allow a flight to continue to an airport to which it has been released unless the weather conditions at an alternate airport that was specified in the flight release are forecast to be at or above the alternate minimums specified in the operations specifications for that airport at the time the airplane would arrive at the alternate airport. However, the flight release may be amended en route to include any alternate airport that is within the fuel range of the airplane as specified in §125.375 or §125.377.

(c) No person may change an original destination or alternate airport that is specified in the original flight release to another airport while the airplane is en route unless the other airport is authorized for that type of airplane.

(d) Each person who amends a flight release en route shall record that amendment.

[TOP]

§125.375 Fuel supply: Nonturbine and turbopropeller-powered airplanes. **[similar intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules, paragraph 91 .151 and 91.167]**

(a) Except as provided in paragraph (b) of this section, no person may release for flight or take off a nonturbine or turbopropeller-powered airplane unless, considering the wind and other weather conditions expected, it has enough fuel --

(1) To fly to and land at the airport to which it is released;

(2) Thereafter, to fly to and land at the most distant alternate airport specified in the flight release; and

(3) Thereafter, to fly for 45 minutes at normal crusing fuel consumption.

(b) If the airplane is released for any flight other than from one point in the conterminous United States to another point in the conterminous United States, it must carry enough fuel to meet the requirements of paragraphs (a) (1) and (2) of this section and thereafter fly for 30 minutes plus 15 percent of the total time required to fly at normal cruising fuel consumption to the airports specified in paragraphs (a) (1) and (2) of this section, or fly for 90 minutes at normal cruising fuel consumption, whichever is less.

(c) No person may release a nonturbine or turbopropeller-powered airplane to an airport for which an alternate is not specified under §125.367(b) unless it has enough fuel, considering wind and other weather conditions expected, to fly to that airport and thereafter to fly for 3 hours at normal cruising fuel consumption.

[TOP]

§125.377 Fuel supply: Turbine-engine-powered airplanes other than turbopropeller. **[similar intent is accomplished by the PIC when operating to Part 91, subpart B Flight Rules, paragraph 91 .151 and 91.167]**

(a) Except as provided in paragraph (b) of this section, no person may release for flight or takeoff a turbine-powered airplane (other than a turbopropeller-powered airplane) unless, considering the wind and other weather conditions expected, it has enough fuel --

(1) To fly to and land at the airport to which it is released;

(2) Thereafter, to fly to and land at the most distant alternate airport specified in the flight release; and

(3) Thereafter, to fly for 45 minutes at normal cruising fuel consumption.

(b) For any operation outside the 48 conterminous United States and the District of Columbia, unless authorized by the Administrator in the operations specifications, no person may release for flight or take off a turbine-engine powered airplane (other than a turbopropeller-powered airplane) unless, considering wind and other weather conditions expected, it has enough fuel --

(1) To fly and land at the airport to which it is released;

(2) After that, to fly for a period of 10 percent of the total time required to fly from the airport of departure and land at the airport to which it was released;

(3) After that, to fly to and land at the most distant alternate airport specified in the flight release, if an alternate is required; and

(4) After that, to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport (or the destination airport if no alternate is required) under standard temperature conditions.

(c) No person may release a turbine-engine-powered airplane (other than a turbopropeller airplane) to an airport for which an alternate is not specified under §125.367(b) unless it has enough fuel, considering wind and other weather conditions expected, to fly to that airport and thereafter to fly for at least 2 hours at normal cruising fuel consumption.

(d) The Administrator may amend the operations specifications of a certificate holder to require more fuel than any of the minimums stated in paragraph (a) or (b) of this section if the Administrator finds that additional fuel is necessary on a particular route in the interest of safety.

[TOP]

§125.379 Landing weather minimums: IFR. **[no equivalent requirements for Part 91F operations]**

(a) If the pilot in command of an airplane has not served 100 hours as pilot in command in the type of airplane being operated, the MDA or DH and visibility landing minimums in the certificate holder's operations specification are increased by 100 feet and one-half mile (or the RVR equivalent). The MDA or DH and visibility minimums need not be increased above those applicable to the airport when used as an alternate airport, but in no event may the landing minimums be less than a 300-foot ceiling and 1 mile of visibility.

(b) The 100 hours of pilot-in-command experience required by paragraph (a) may be reduced (not to exceed 50 percent) by substituting one landing in operations under this part in the type of airplane for 1 required hour of pilot-in-command experience if the pilot has at least 100 hours as pilot in command of another type airplane in operations under this part.

(c) Category II minimums, when authorized in the certificate holder's operations specifications, do not apply until the pilot in command subject to paragraph (a) of this section meets the requirements of that paragraph in the type of airplane the pilot is operating.

[TOP]

§125.381 Takeoff and landing weather minimums: IFR. **[no equivalent requirements for Part 91F operations, however the safety intent of these requirements are achieved by the PIC when operating to Part 91, subpart B Flight Rule]**

(a) Regardless of any clearance from ATC, if the reported weather conditions are less than that specified in the certificate holder's operations specifications, no pilot may --

(1) Take off an airplane under IFR; or

(2) Except as provided in paragraph (c) of this section, land an airplane under IFR.

(b) Except as provided in paragraph (c) of this section, no pilot may execute an instrument approach procedure if the latest reported visibility is less than the landing minimums specified in the certificate holder's operations specifications.

(c) If a pilot initiates an instrument approach procedure when the latest weather report indicates that the specified visibility minimums exist, and a later weather report indicating below minimums conditions is received after the airplane --

(1) Is on an ILS final approach and has passed the outer marker,

(2) Is on final approach segment using a nonprecision approach procedure, or

(3) Is on PAR final approach and has been turned over to the final approach controller, the approach may be continued and a landing may be made if the pilot in command finds, upon reaching the authorized MAP or DH, that actual weather conditions are at least equal to the minimums prescribed in the operations specifications.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-2, 46 FR 24409, Apr. 30, 1981]

[TOP]

§125.383 Load manifest. **[Part 91F does not require a formal load manifest, however the PIC is responsible to ensure that the airplane is loaded properly during flight planning (part 91.3). The remaining data requirements of paragraph (a) are similar to those documented in an the Part 91.153, and .169 Flight Plan requirements]**

(a) Each certificate holder is responsible for the preparation and accuracy of a load manifest in duplicate containing information concerning the loading of the airplane. The manifest must be prepared before each takeoff and must include --

(1) The number of passengers;

(2) The total weight of the loaded airplane;

(3) The maximum allowable takeoff and landing weights for that flight;

(4) The center of gravity limits;

(5) The center of gravity of the loaded airplane, except that the actual center of gravity need not be computed if the airplane is loaded according to a loading schedule or other approved method that ensures that the center of gravity of the loaded airplane is within approved limits. In those cases, an entry shall be made on the manifest indicating that the center of gravity is within limits according to a loading schedule or other approved method:

(6) The registration number of the airplane;

(7) The origin and destination ; and

(8) Names of passengers.

(b) The pilot in command of an airplane for which a load manifest must be prepared shall carry a copy of the completed load manifest in the airplane to its destination. The certificate holder shall keep copies of completed load manifests for at least 30 days at its principal operations base, or at another location used by it and approved by the Administrator.

Subpart L -- Records and Reports

[TOP]

§125.401 Crewmember record. **[no equivalent requirements for Part 91F operations]**

(a) Each certificate holder shall --

(1) Maintain current records of each crewmember that show whether or not that crewmember complies with this chapter (e.g., proficiency checks, airplane qualifications, any required physical examinations, and flight time records); and

(2) Record each action taken concerning the release from employment or physical or professional disqualification of any flight crewmember and keep the record for at least 6 months thereafter.

(b) Each certificate holder shall maintain the records required by paragraph (a) of this section at its principal operations base, or at another location used by it and approved by the Administrator.

(c) Computer record systems approved by the Administrator may be used in complying with the requirements of paragraph (a) of this section.

124.402 Retention and Contents of Contracts

a) The contracts shall contain the following information

i) Signatories of the contract including:

a) Name and signature of the operator and,

b) Name and signature of the customer or,.

c) If an intermediary is used as a lawful agent of the customer, the name and signature of the intermediary must be included in addition to the name of the customer.

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ii) Effective date and expiration date of the contract

b) The contracts referred to in section 125.31(b)(6) shall be retained for 12 calendar months beyond the expiration of the contract after the current calendar year.

[TOP]

§125.403 Flight release form. **[no equivalent requirements for Part 91F operations]**

(a) The flight release may be in any form but must contain at least the following information concerning each flight:

(1) Company or organization name.

(2) Make, model, and registration number of the airplane being used.

(3) Date of flight.

(4) Name and duty assignment of each crewmember.

(5) Departure airport, destination airports, alternate airports, and route.

(6) Minimum fuel supply (in gallons or pounds).

(7) A statement of the type of operation (e.g., IFR, VFR).

(b) The airplane flight release must contain, or have attached to it, weather reports, available weather forecasts, or a combination thereof.

[TOP]

§125.405 Disposition of load manifest, flight release, and flight plans. **[no equivalent requirements for Part 91F operations]**

(a) The pilot in command of an airplane shall carry in the airplane to its destination the original or a signed copy of the --

(1) Load manifest required by §125.383;

(2) Flight release;

(3) Airworthiness release; and

(4) Flight plan, including route.

(b) If a flight originates at the principal operations base of the certificate holder, it shall retain at that base a signed copy of each document listed in paragraph (a) of this section.

(c) Except as provided in paragraph (d) of this section, if a flight originates at a place other than the principal operations base of the certificate holder, the pilot in command (or another person not aboard the airplane who is authorized by the operator) shall, before or immediately after departure of the flight, mail signed copies of the documents listed in paragraph (a) of this section to the principal operations base.

(d) If a flight originates at a place other than the principal operations base of the certificate holder and there is at that place a person to manage the flight departure for the operator who does not depart on the airplane, signed copies of the documents listed in paragraph (a) of this section may be retained at that place for not more than 30 days before being sent to the principal operations base of the

certificate holder. However, the documents for a particular flight need not be further retained at that place or be sent to the principal operations base, if the originals or other copies of them have been previously returned to the principal operations base.

(e) The certificate holder shall:

(1) Identify in its operations manual the person having custody of the copies of documents retained in accordance with paragraph (d) of this section; and

(2) Retain at its principal operations base either the original or a copy of the records required by this section for at least 30 days.

[TOP]

§125.407 Maintenance log: Airplanes. **[Part 91, subpart E – Maintenance, Preventative Maintenance, and Alterations, paragraph 91.417 satisfies para. (a) and (b)]**

(a) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, aircraft engine, propeller, or appliance shall record the action taken in the airplane maintenance log in accordance with part 43 of this chapter.

(b) Each certificate holder shall establish a procedure for keeping copies of the airplane maintenance log required by this section in the airplane for access by appropriate personnel and shall include that procedure in the manual required by §125.249.

[TOP]

§125.409 Reports of defects or unairworthy conditions. **[Part 91F does not specifically require this, however the intent is satisfied by the following: NTSB 49CFR Part 830, requires the airplane operator (pilot, owner, lessee) to report any aircraft accidents or incidents. In addition, FAA Repair Stations are required by Part 21.3 to report defects and un-airworthy conditions the same as required here. The FAA, via Advisory Circular also encourages voluntary reporting of defects and un-airworthy conditions noted by pilots and certificated mechanics.]**

Link to an amendment published at 65 FR 56203, Sept. 15, 2000.

This amendment was delayed until July 16, 2001, at 65 FR 80743, Dec. 22, 2000.

This amendment was delayed until Jan. 16, 2002, at 66 FR 21626, Apr. 30, 2001.

This amendment was delayed until Jan. 16, 2003, at 66 FR 58912, Nov. 23, 2001.

This amendment was delayed until Jan. 16, 2004, at 67 FR 78970, Dec. 27, 2002.

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect, in a form and manner prescribed by the Administrator.

(b) The report must be made within 72 hours to the FAA Flight Standards district office in whose area the certificate holder has its principal operations base. The procedures to be used in complying with this section must be made a part of the manual procedures required by §125.73(f).

[TOP]

§125.410 Service difficulty reports (structural). **[no equivalent requirements for Part 91F operations]**

Link to an amendment published at 65 FR 56204, Sept. 15, 2000.

This amendment was delayed until July 16, 2001, at 65 FR 80743, Dec. 22, 2000.

This amendment was delayed until Jan. 16, 2002, at 66 FR 21626, Apr. 30, 2001.

This amendment was delayed until Jan. 16, 2003, at 66 FR 58912, Nov. 23, 2001.

This amendment was delayed until Jan. 16, 2004, at 67 FR 78970, Dec. 27, 2002.

(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 §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 125 certificate holder. However, the part 125 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 125 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.

Effective Date Note: By Amdt. 125-35, 65 FR 56204, Sept. 15, 2000, §125.410 was added, effective Jan. 16, 2001. At 65 FR 80743, Dec. 22, 2000, the effective date was delayed until July 16, 2001. At 66 FR 21626, Apr. 30, 2001, the effective date was delayed until Jan. 16, 2002. At 66 FR 58912, Nov. 23, 2001, the effective date was delayed until Jan. 16, 2003. At 67 FR 78970, Dec. 27, 2002, the effective date was delayed until Jan. 16, 2004.

[TOP]

§125.411 Airworthiness release or maintenance record entry. **[similar intent achieved by the requirements of Part 91, subpart E, Part 43 and Part 145]**

(a) No certificate holder may operate an airplane after maintenance, preventive maintenance, or alteration is performed on the airplane unless the person performing that maintenance, preventive maintenance, or alteration prepares or causes to be prepared --

(1) An airworthiness release; or

(2) An entry in the aircraft maintenance records in accordance with the certificate holder's manual.

(b) The airworthiness release or maintenance record entry required by paragraph (a) of this section must --

(1) Be prepared in accordance with the procedures set forth 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 airplane unairworthy; and

(iv) So far as the work performed is concerned, the airplane is in condition for safe operation; and

(3) Be signed by a person authorized in part 43 of this chapter to perform maintenance, preventive maintenance, and alteration.

(c) When an airworthiness release form is prepared, the certificate holder must give a copy to the pilot in command and keep a record of it for at least 60 days.

(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 a person authorized in part 43 of this chapter constitutes that certification.

Subpart M-Training [numbering for this section for follow current scheme][125 group reserves final approval pending outcome of training group recommendations]

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[TOP]

§135.321 Applicability and terms used.

Link to an amendment published at 68 FR 54588, Sept. 17, 2003.

(a) Except as provided in §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 provides 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 §135.293;

(ii) Instrument proficiency check requirements of §135.297; or

(iii) Line checks required by §135.299.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 121-250, 60 FR 65950, Dec. 20, 1995; Amdt. 135-63, 61 FR 34561, July 2, 1996]

[TOP]

§135.323 Training program: General.

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

(1) Establish, obtain the appropriate initial and final approval of, and provide a training program that meets this subpart and that ensures that each crewmember, flight instructor, check airman, and each person assigned duties for the carriage and handling of hazardous materials (as defined in 49 CFR 171.8) is adequately trained to perform their assigned duties.

(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.

[TOP]

§135.324 Training program: Special rules.

Link to an amendment published at 68 FR 54588, Sept. 17, 2003.

(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 provide 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 provide 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 §§135.337 through 135.340 to provide training, testing, and checking to persons subject to the requirements of this subpart.

[Doc. No. 26933, 61 FR 34562, July 2, 1996, as amended by Amdt. 135-67, 62 FR 13791, Mar. 21, 1997]

[TOP]

§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.

[TOP]

§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.

[TOP]
§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 §§135.345 and 135.349, as applicable.

(3) Emergency training in §135.331.

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

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

(d) Upgrade training in §§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.

[TOP]
§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.

[TOP]

§135.333 Training requirements: Handling and carriage of hazardous materials.

(a) Except as provided in paragraph (d) of this section, no certificate holder may use any person to perform, and no person may perform, any assigned duties and responsibilities for the handling or carriage of hazardous materials (as defined in 49 CFR 171.8), unless within the preceding 12 calendar months that person has satisfactorily completed initial or recurrent training in an appropriate training program established by the certificate holder, which includes instruction regarding --

(1) The proper shipper certification, packaging, marking, labeling, and documentation for hazardous materials; and

(2) The compatibility, loading, storage, and handling characteristics of hazardous materials.

(b) Each certificate holder shall maintain a record of the satisfactory completion of the initial and recurrent training given to crewmembers and ground personnel who perform assigned duties and responsibilities for the handling and carriage of hazardous materials.

(c) Each certificate holder that elects not to accept hazardous materials shall ensure that each crewmember is adequately trained to recognize those items classified as hazardous materials.

(d) If a certificate holder operates into or out of airports at which trained employees or contract personnel are not available, it may use persons not meeting the requirements of paragraphs (a) and (b) of this section to load, offload, or otherwise handle hazardous materials if these persons are supervised by a crewmember who is qualified under paragraphs (a) and (b) of this section.

[TOP]

§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 §135.327.

[Doc. No. 16907, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135-1, 44 FR 26738, May 7, l979]

[TOP]

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

(a) For the purposes of this section and §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 §§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 §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 §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 §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 calender month after the month in which they are due.

[Doc. No. 28471, 61 FR 30744, June 17, 1996]

[TOP]

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

(a) For the purposes of this section and §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 §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 §135.340;

(5) Holds at least a Class III medical certificate; and

(6) Has satisfied the recency of experience requirements of §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; and

(4) Has satisfactorily completed the applicable training requirements of §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.

[Doc. No. 28471, 61 FR 30744, June 17, 1996; 62 FR 3739, Jan. 24, 1997]

[TOP]

§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.

[Doc. No. 28471, 61 FR 30745, June 17, 1996; 62 FR 3739, Jan. 24, 1997]

[TOP]

§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.

[Doc. No. 28471, 61 FR 30745, June 17, 1996; 61 FR 34927, July 3, 1996; 62 FR 3739, Jan. 24, 1997]

[TOP]

§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 attend- ant is to be assigned, and will ensure that they are adequately trained to meet the applicable knowledge and practical testing requirements of §§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.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135-18, 47 FR 33396, Aug. 2, 1982]

[TOP]

§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.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135-18, 47 FR 33396, Aug. 2, 1982]

[TOP]

§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.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135-27, 53 FR 37697, Sept. 27, 1988; Amdt. 135-46, 58 FR 69630, Dec. 30, 1993]

[TOP]

§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.

[TOP]

§135.349 Flight attendants: Initial and transition ground training.

Initial and transition ground training for flight attendants must include instruction in at least the following --

(a) General subjects --

(1) The authority of the pilot in command; and

(2) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety.

(b) For each aircraft type --

(1) A general description of the aircraft emphasizing physical characteristics that may have a bearing on ditching, evacuation, and inflight emergency procedures and on other related duties;

(2) The use of both the public address system and the means of communicating with other flight crewmembers, including emergency means in the case of attempted hijacking or other unusual situations; and

(3) Proper use of electrical galley equipment and the controls for cabin heat and ventilation.

[TOP]

§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 §135.341 and described in §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 §135.293 within the preceding 12 calendar months may be substituted for recurrent flight training.

[Doc. No. 16097, 43 FR 46783, Oct. 10, 1978, as amended by Amdt. 135-27, 53 FR 37698, Sept. 27, 1988; Amdt. 135-46, 58 FR 69630, Dec. 30, 1993]

[TOP]

§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.

Appendix A to Part 125 -- Additional Emergency Equipment

(a) *Means for emergency evacuation.* Each passenger-carrying landplane emergency exit (other than over-the-wing) that is more that 6 feet from the ground with the airplane on the ground and the landing gear extended must have an approved means to assist the occupants in descending to the ground. The assisting means for a floor level emergency exit must meet the requirements of §25.809(f)(1) of this chapter in effect on April 30, 1972, except that, for any airplane for which the application for the type certificate was filed after that date, it must meet the requirements under which the airplane was type certificated. An assisting means that deploys automatically must be armed during taxiing, takeoffs, and landings. However, if the Administrator finds that the design of the exit makes compliance impractical, the Administrator may grant a deviation from the requirement of automatic deployment if the assisting means automatically erects upon deployment and, with respect to required emergency exits, if an emergency evacuation demonstration is conducted in accordance with §125.189. This paragraph does not apply to the rear window emergency exit of DC-3 airplanes operated with less than 36 occupants, including crewmembers, and less than five exits authorized for passenger use.

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

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

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

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

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

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

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

(ii) For an airplane for which the application for the type certificate was filed on or after May 1, 1972, each passenger emergency exit marking and each locating sign must be manufactured to meet the interior emergency exit marking requirements under which the airplane was type certificated. On these airplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 250 microlamberts.

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

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

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

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

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

(i) In a crash landing; or

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

(2) Each light must --

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

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

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

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

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

(e) *Emergency exit operating handles.*

(1) For a passenger-carrying airplane for which the application for the type certificate was filed prior to May 1, 1972, the location of each passenger emergency exit operating handle and instructions for opening the exit must be shown by a marking on or near the exit that is readable from a distance of 30 inches. In addition, for each Type I and Type II emergency exit with a locking mechanism released by rotary motion of the handle, the instructions for opening must be shown by --

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(h) *Exterior emergency lighting and escape route.*

(1) Each passenger-carrying airplane must be equipped with exterior lighting that meets the following requirements:

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

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

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

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

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

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

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

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

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

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

Appendix B to Part 125 -- Criteria for Demonstration of Emergency Evacuation Procedures Under §125.189

(a) *Aborted takeoff demonstration.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(16) If safety equipment as allowed by item (3) of this section is provided, either all passenger and cockpit windows must be blacked out or all of the emergency exits must have safety equipment to prevent disclosure of the available emergency exits.

(17) Not more than 50 percent of the emergency exits in the sides of the fuselage of an airplane that meet all of the requirements applicable to the required emergency exits for that airplane may be used for the demonstration. Exits that are not to be used in the demonstration must have the exit handle deactivated or must be indicated by red lights, red tape or other acceptable means, placed outside the exits to indicate fire or other reason that they are unusable. The exits to be used must be representative of all of the emergency exits on the airplane and must be designated by the certificate holder, subject to approval by the Administrator. At least one floor level exit must be used.

(18) All evacuees, except those using an over-the-wing exit, must leave the airplane by a means provided as part of the airplane's equipment.

(19) The certificate holder's approved procedures and all of the emergency equipment that is normally available, including slides, ropes, lights, and megaphones, must be fully utilized during the demonstration.

(20) The evacuation time period is completed when the last occupant has evacuated the airplane and is on the ground. Evacuees using stands or ramps allowed by item (3) above are considered to be on the ground when they are on the stand or ramp: *Provided,* That the acceptance rate of the stand or ramp is no greater than the acceptance rate of the means available on the airplane for descent from the wing during an actual crash situation.

(b) *Ditching demonstration.* The demonstration must assume that daylight hours exist outside the airplane and that all required crewmembers are available for the demonstration.

(1) If the certificate holder's manual requires the use of passengers to assist in the launching of liferafts, the needed passengers must be aboard the airplane and participate in the demonstration according to the manual.

(2) A stand must be placed at each emergency exit and wing with the top of the platform at a height simulating the water level of the airplane following a ditching.

(3) After the ditching signal has been received, each evacuee must don a life vest according to the certificate holder's manual.

(4) Each liferaft must be launched and inflated according to the certificate holder's manual and all other required emergency equipment must be placed in rafts.

(5) Each evacuee must enter a liferaft and the crewmembers assigned to each liferaft must indicate the location of emergency equipment aboard the raft and describe its use.

(6) Either the airplane, a mockup of the airplane, or a floating device simulating a passenger compartment must be used.

(i) If a mockup of the airplane is used, it must be a life-size mockup of the interior and representative of the airplane currently used by or proposed to be used by the certificate holder and must contain adequate seats for use of the evacuees. Operation of the emergency exits and the doors must closely simulate that on the airplane. Sufficient wing area must be installed outside the over-the-wing exits to demonstrate the evacuation.

(ii) If a floating device simulating a passenger compartment is used, it must be representative, to the extent possible, of the passenger compartment of the airplane used in operations. Operation of the emergency exits and the doors must closely simulate operation on that airplane. Sufficient wing area must be installed outside the over-the-wing exits to demonstrate the evacuation. The device must be equipped with the same survival equipment as is installed on the airplane, to accommodate all persons participating in the demonstration.

Deleted: Appendix C to Part 125 -- Ice Protection¶
If certification with ice protection provisions is desired, compliance with the following must be shown: ¶
(a) The recommended procedures for the use of the ice protection equipment must be set forth in the Airplane Flight Manual. ¶
(b) An analysis must be performed to establish, on the basis of the airplane's operational needs, the adequacy of the ice protection system for the various components of the airplane. In addition, tests of the ice protection system must be conducted to demonstrate that the airplane is capable of operating safely in continuous maximum and intermittent maximum icing conditions as described in appendix C of part 25 of this chapter. ¶
(c) Compliance with all or portions of this section may be accomplished by reference, where applicable because of similarity of the designs, to analyses and tests performed by the applicant for a type certificated model. ¶
Appendix D to Part 125 -- Airplane Flight Recorder Specification¶
¶

---¶
Accuracy sensor¶
Parameters Range input to DFDR Sampling interval Resolution \4\¶
readout
(per second) read out¶

---¶
Time (GMT or Frame Counter) 24 Hrs..... ±0.125% Per 0.25 (1 per 4 1 sec.¶
(range 0 to 4095, sampled 1 per Hour. seconds).¶
frame).¶
Altitude..... -1,000 ft to max ±100 to 1..... 5[foot] to¶
certificated ±700 ft (See 35[foot] \1\¶
altitude of Table 1, TSO-¶
aircraft. C51a).¶
Airspeed..... 50 KIAS to ±5%, ±3% 1..... 1 kt.¶
V[INF]so[/INF],¶
and V[INF]so[/¶
INF] to 1.2¶
V[INF]D[/INF].¶
Heading..... 360°..... ±2°..... 1..... 0.5°¶
Normal Acceleration (Vertical).. -3g to +6g..... ±1% of max 8..... 0.01g.¶
range excluding¶
datum error of¶
±5%.¶
Pitch Attitude..... ±75°.... ±2°..... 1..... 0.5°.¶
Roll Attitude..... ±180°... ±2°..... 1..... 0.5°.¶
Radio Transmitter Keying..... On-Off (Discrete). ..... 1..... .....¶
Thrust/Power on Each Engine..... Full range forward ±2%..... 1..... 0.2% \2\¶
Trailing Edge Flap or Cockpit Full range or each ±3° or 0.5..... 0.5% \2\¶
Control Selection. discrete position. as pilot's¶
Indicator.¶
Leading Edge Flap or Cockpit Full range or each ±3° or 0.5..... 0.5% \2\¶
Control Selection. discrete position. ... [4]

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(a) No person may operate an airplane 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, or an approved flotation means, for each occupant of the aircraft. The life preserver or other flotation means must be easily accessible to each seated occupant. If a flotation means other than a life preserver is used, it must be readily removable from the airplane.

(2) Enough approved life rafts (with proper buoyancy) to carry all occupants of the airplane, and at least the following equipment for each raft clearly marked for easy identification --

(i) One canopy (for sail, sunshade, or rain catcher);

(ii) One radar reflector (or similar device);

(iii) One life raft repair kit;

(iv) One bailing bucket;

(v) One signaling mirror;

(vi) One police whistle;

(vii) One raft knife;

(viii) One CO_2 bottle for emergency inflation;

(ix) One inflation pump;

(x) Two oars;

(xi) One 75-foot retaining line;

(xii) One magnetic compass;

(xiii) One dye marker;

(xiv) One flashlight having at least two size "D" cells or equivalent;

(xv) At least one approved pyrotechnic signaling device;

(xvi) A 2-day supply of emergency food rations supplying at least 1,000 calories a day for each person;

(xvii) One sea water desalting kit for each two persons that raft is rated to carry, or two pints of water for each person the raft is rated to carry;

(xviii) One fishing kit; and

(xix) One book on survival appropriate for the area in which the airplane is operated.

(b) 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 one 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.

[Doc. No. 19779, 45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-20, 59 FR 32058, June 21, 1994]

Page 59: [2] Deleted **Douglas Carr** **11/17/2004 11:35:00 AM**

(a) No certificate holder may use any person, nor may any person serve as a pilot, unless, since the beginning of the 12th calendar month before that service, that person has passed a written or oral test, given by the Administrator or an authorized check airman on that person's knowledge in the following areas --

(1) The appropriate provisions of parts 61, 91, and 125 of this chapter and the operations specifications and the manual of the certificate holder;

(2) For each type of airplane to be flown by the pilot, the airplane powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the approved Airplane Flight Manual or approved equivalent, as applicable;

(3) For each type of airplane 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 of 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 avoiding operations in thunderstorms and hail, and for operating in turbulent air or in icing conditions;

(8) New equipment, procedures, or techniques, as appropriate;

(9) Knowledge and procedures for operating 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:

(i) The use of holdover times when using deicing/anti-icing fluids.

(ii) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities.

(iii) Communications.

(iv) 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.

(v) Types and characteristics of deicing/anti-icing fluids, if used by the certificate holder.

(vi) Cold weather preflight inspection procedures.

(vii) Techniques for recognizing contamination on the airplane.

(b) No certificate holder may use any person, nor may any person serve, as a pilot in any airplane unless, since the beginning of the 12th calendar month before that service, that person has passed a competency check given by the Administrator or an authorized check airman in that type of airplane to determine that person's competence in practical skills and techniques in that airplane or type of airplane. The extent of the competency check shall be determined by the Administrator or authorized check airman 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 airplane 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.

(c) The instrument proficiency check required by §125.291 may be substituted for the competency check required by this section for the type of airplane used in the check.

(d) For the purposes 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 airplane with the successful outcome of the maneuver never in doubt.

(e) The Administrator or authorized check airman 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 airplane simulator or other appropriate training device, if approved by the Administrator.

[45 FR 67235, Oct. 9, 1980, as amended by Amdt. 125-18, 58 FR 69629, Dec. 30, 1993]

Page 60: [3] Deleted **Douglas Carr** **11/17/2004 11:37:00 AM**

(a) No certificate holder may use any person, nor may any person serve, as a pilot in command of an airplane under IFR unless, since the beginning of the sixth calendar month before that service, that person has passed an instrument proficiency check and the Administrator or an authorized check airman has so certified in a letter of competency.

(b) No pilot may use any type of precision instrument approach procedure under IFR unless, since the beginning of the sixth calendar month before that use, the pilot has satisfactorily demonstrated that type of approach procedure and has been issued a letter of competency under paragraph (g) of this section. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the sixth 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 and has been issued a letter of competency under paragraph (g) of this section. 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 supercharge 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.

(1) For a pilot in command of an airplane, the instrument proficiency check must 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 airplane, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of airplane.

(e) If the pilot in command is assigned to pilot more than one type of airplane, that pilot must take the instrument proficiency check required by paragraph (a) of this section in each type of airplane 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) Portions of a required flight check may be given in an airplane simulator or other appropriate training device, if approved by the Administrator.

(g) The Administrator or authorized check airman issues a letter of competency to each pilot who passes the instrument proficiency check. The letter of competency contains a list of the types of instrument approach procedures and facilities authorized.

Page 99: [4] Deleted **Roger William Kirk** **9/29/2004 3:33:00 PM**

Appendix C to Part 125 -- Ice Protection

If certification with ice protection provisions is desired, compliance with the following must be shown:

(a) The recommended procedures for the use of the ice protection equipment must be set forth in the Airplane Flight Manual.

(b) An analysis must be performed to establish, on the basis of the airplane's operational needs, the adequacy of the ice protection system for the various components of the airplane. In addition, tests of the ice protection system must be conducted to demonstrate that the airplane is capable of operating safely in continuous maximum and intermittent maximum icing conditions as described in appendix C of part 25 of this chapter.

(c) Compliance with all or portions of this section may be accomplished by reference, where applicable because of similarity of the designs, to analyses and tests performed by the applicant for a type certificated model.

Appendix D to Part 125 -- Airplane Flight Recorder Specification

Parameters	Range	Accuracy sensor input to DFDR Resolution \4\ readout	Sampling interval (per second)	read out
Time (GMT or Frame Counter) (range 0 to 4095, sampled 1 per frame).	24 Hrs.....	±0.125% Per Hour.	0.25 (1 per 4 seconds).	1 sec.
Altitude.....	-1,000 ft to max certificated altitude of	±100 to ±700 ft (See Table 1, TSO-	1.....	5[foot] to 35[foot] \1\

		aircraft.	C51a).	
Airspeed.....	50 KIAS to V[INF]so[/INF], and V[INF]so[/INF] to 1.2 V[INF]D[/INF].	±5%, ±3%	1.....	1 kt.
Heading.....	360°.....	±2°.....	1.....	0.5°
Normal Acceleration (Vertical)..	-3g to +6g.....	±1% of max range excluding datum error of ±5%.	8.....	0.01g.
Pitch Attitude.....	±75°....	±2°.....	1.....	0.5°.
Roll Attitude.....	±180°...	±2°.....	1.....	0.5°.
Radio Transmitter Keying.....	On-Off (Discrete).	.....	1.....	.....
Thrust/Power on Each Engine.....	Full range forward	±2%.....	1.....	0.2% \2\
Trailing Edge Flap or Cockpit Control Selection.	Full range or each discrete position.	±3° or as pilot's Indicator.	0.5.....	0.5% \2\
Leading Edge Flap or Cockpit Control Selection.	Full range or each discrete position.	±3° or as pilot's indicator.	0.5.....	0.5% \2\
Thrust Reverser Position.....	Stowed, in transit, and reverse (Discrete).	.....	1 (per 4 seconds per engine).	
Ground Spoiler Position/Speed	Full range or each	±2% unless higher accuracy uniquely required.	1.....	0.2% \2\.
Brake Selection.	discrete position.			
Marker Beacon Passage.....	Discrete.....	.....	1.....	.....
Autopilot Engagement.....	Discrete.....	.....	1.....	.....
Longitudinal Acceleration.....	±1g.....	±1.5% max range excluding datum error of ±5%.	4.....	0.01g
Pilot Input and/or Surface Position-Primary Controls (Pitch, Roll, Yaw) \3\.	Full range.....	±2° unless higher accuracy uniquely required.	1.....	0.2% \2\.
Lateral Acceleration.....	±1g.....	±1.5% max range excluding datum error of ±5%.	4.....	0.01g.
Pitch Trim Position.....	Full range.....	±3% unless higher accuracy	1.....	0.3% \2\

				uniquely required.
Glideslope Deviation.....	±400	±3%.....	1.....	0.3% \2\ Microamps.
Localizer Deviation.....	±400	±3%.....	1.....	0.3% \2\. Microamps.
AFCS Mode and Engagement Status.	Discrete.....	.....	1.....	.....
Radio Altitude.....	-20 ft to 2,500 ft	±2 Ft or ±3%	.....	1 ft + 5% \2\ above 500[foot]. Whichever is Greater Below 500 Ft and ±5% Above 500 Ft.
Master Warning.....	Discrete.....	.....	1.....	.....
Main Gear Squat Switch Status...	Discrete.....	.....	1.....	.....
Angle of Attack (if recorded directly).	As installed.....	As installed.....	2.....	0.3% \2\.
Outside Air Temperature or Total Air Temperature.	-50° C to +90° C.	±2° C...	0.5.....	0.3° C
Hydraulics, Each System Low Pressure.	Discrete.....	.....	0.5.....	or 0.5% \2\.
Groundspeed.....	As Installed.....	Most Accurate Systems Installed (IMS Equipped Aircraft Only).	1.....	0.2% \2\.

If additional recording capacity is available, recording of the following parameters is recommended. The parameters are listed in order of significance:

Drift Angle.....	When available. As installed.	As installed.....	4.....	.....
Wind Speed and Direction.....	When available. As installed.	As installed.....	4.....	.....
Latitude and Longitude.....	When available. As installed.	As installed.....	4.....	.....
Brake pressure/Brake pedal position.	As installed.....	As installed.....	1.....	.....
Additional engine parameters:				
EPR.....	As installed.....	As installed.....	1 (per engine)....	.....
N \1\.....	As installed.....	As installed.....	1 (per engine)....	.....

N \2\..... As installed..... As installed..... 1 (per engine).... .....
EGT..... As installed..... As installed..... 1 (per engine).... .....
Throttle Lever Position..... As installed..... As installed..... 1 (per engine).... .....
Fuel Flow..... As installed..... As installed..... 1 (per engine).... .....
TCAS:
TA..... As installed..... As installed..... 1..... .....
RA..... As installed..... As installed..... 1..... .....
Sensitivity level (as selected by crew). As installed..... As installed..... 2..... .....
GPWS (ground proximity warning system). Discrete..... ..... 1..... .....
Landing gear or gear selector position. Discrete..... ..... 0.25 (1 per 4 seconds). .....
DME 1 and 2 Distance..... 0-200 NM;..... As installed..... 0.25..... 1 mi.
Nav 1 and 2 Frequency Selection. Full range..... As installed..... 0.25..... .....

\1\ When altitude rate is recorded. Altitude rate must have sufficient resolution and sampling to permit the derivation of altitude to 5 feet.
\2\ Percent of full range.
\3\ For airplanes that can demonstrate the capability of deriving either the control input on control movement (one from the other) for all modes of operation and flight regimes, the ``or'' applies. For airplanes with non-mechanical control systems (fly-by-wire) the ``and'' applies. In airplanes with split surfaces, suitable combination of inputs is acceptable in lieu of recording each surface separately.
\4\ This column applies to aircraft manufactured after October 11, 1991.

[Doc. No. 25530, 53 FR 26150, July 11, 1988; 53 FR 30906, Aug. 16, 1988]

Appendix E to Part 125 -- Airplane Flight Recorder Specifications

The recorded values must meet the designated range, resolution, and accuracy requirements during dynamic and static conditions. All data recorded must be correlated in time to within one second.

Parameters	Range	Accuracy (sensor input)	Seconds per sampling interval	Resolution	Remarks

1. Time or Relative Times	24 Hrs, 0 to 4095.....	±0.125% Per Hour.	4.....	1 sec.....	UTC time preferred when available. Count increments each 4 seconds of system operation.
2. Pressure Altitude.....	-1000 ft to max	±100 to ±700	1.....	5[foot] to 35[foot]..	Data should be obtained from the air data computer when practicable.
3. Indicated airspeed or Calibrated airspeed.	50 KIAS or minimum value to Max V[INF]so[/INF], to 1.2 V.[INF]D[/INF].	±5% and ±3%.	1.....	1 kt.....	Data should be obtained from the air data computer when practicable.
4, Heading (Primary flight crew reference).	0-360° and Discrete ``true'' or ``mag''.	±2°.....	1.....	0.5°.....	When true or magnetic heading can be selected as the primary heading reference, a discrete indicating selection must be recorded.
5. Normal Acceleration (Vertical)	-3g to +6g.....	±1% of max range	0.125.....	0.004g.	

\9\.			excluding datum error of ±5%.		
6. Pitch Attitude.....	±75°.....	±2°.....	1 or 0.25 for airplanes operated under § 125.226(f).	0.5°.....	A sampling rate of 0.25 is recommended.
7. Roll Attitude \2\.....	±180°.....	±2°.....	1 or 0.5 for airplanes operated under § 121.344(f).	0.5°.....	A sampling rate of 0.5 is recommended.
8. Manual Radio Transmitter Keying or CVR/DFDR synchronization	On-Off (Discrete) None.....	.....	1..... Preferably each crew member but one discrete acceptable for all transmission provided the CVR/FDR system complies with TSO C124a CVR synchronization requirements (paragraph 4.2.1 ED-55).	.....	
9. Thrust/Power on each engine).....	Full Range Forward....	±2%.....	1 (per engine)..... 0.3% of full range... Sufficient parameters engine_primary flight crew (e.g. EPR, N1 or Torque, NP) as appropriate to the particular engine	reference.	

being recorded to determine power in forward and reverse thrust, including potential overspeed condition.

10. Autopilot Engagement	Discrete ``on'' or ``off''.		1.	
11. Longitudinal Acceleration	±1g	±1.5% max. range excluding datum error of ±5%.	0.25	0.004g.
12a. Pitch Control(s) position (non-fly-by-wire systems).	Full Range	±2% Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to	under § 121.344(f).

			produce the sampling
			interval of 0.5 or
			0.25,
			as applicable.
12b. Pitch Control(s) position (fly- by-wire systems).\3\.	Full Range..... 0.2% of full range...	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for ..... airplanes operated under § 121.344(f).
13a. Lateral Control position(s) (non-fly-by-wire).	Full Range..... 0.2% of full range...	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for For airplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5 or 0.25, as applicable.
13b. Lateral Control position(s) (fly-by-wire).\4\.	Full Range..... 0.2% of full range...	±2° Unless Higher Accuracy	0.5 or 0.25 for ..... airplanes operated

		Uniquely Required.	under § 121.344(f).	
14a. Yaw Control position(s) (non-fly-by-wire) \5\.	Full Range..... ±2° Unless 0.3% of full range... Higher Accuracy	0.5..... For airplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5.		
14b. Yaw Control position(s) (fly-by-wire).	Full Range..... ±2° Unless 0.2% of full range. Higher Accuracy	0.5..... Uniquely Required.		
15. Pitch Control Surface(s) Position.\6\.	Full Range..... ±2° Unless 0.3% of full range... Higher Accuracy	0.5 or 0.25 for For airplanes fitted airplanes operated with multiple or split surfaces, a suitable combination of inputs is Uniquely Required..	under § 121.344(f)..	

			acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25.
16. Lateral Control Surface(s) Position \7\.	Full Range..... ±2° Unless 0.3% of full range... Higher Accuracy Uniquely Required.	0.5 or 0.25 for A suitable combination of surface position sensors is	acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25.	airplanes operated under § 121.344(f).
17. Yaw Control Surface(s) Position.\8\.	Full Range..... ±2° Unless of full range... Higher Accuracy	0.5..... 0.2% For airplanes with multiple or split		

Uniquely Required.
surfaces, a suitable
combination of
surface
position
sensors
is
acceptable in lieu
of
recording each
surface
separately.
The
control surfaces
may be
sampled
alternately to
produce the sapling
interval of 0.5.
18. Lateral Acceleration..... ±1g..... ±1.5% max. range 0.25..... 0.004g. .....
excluding datum error
of ±5%.
19. Pitch Trim Surface Position.... Full Range..... ±3° Unless 1..... 0.6% of full range
Higher Accuracy
Uniquely Required.
20. Trailing Edge Flap or Cockpit Full Range or Each ±3° or as 2..... 0.5% of full range... Flap position and
Control Selection.\10\. Position (discrete). Pilot's indicator.
cockpit control may
each
be sampled at 4
second
intervals, to
give a
data point
every 2
seconds.
21. Leading Edge Flap or Cockpit Full Range or Each ±3° or as 2..... 0.5% of full range... Left and right sides,

Control Selection.\11\.	Discrete Position.	Pilot's indicator and or flap position and sufficient to cockpit control may determine each each be sampled at 4 discrete position. second intervals, so as to give a data point every 2 seconds.			
22. Each Thrust Reverser Position	Stowed, In Transit, (or equivalent for propeller airplane).	..... 1 (per engine)..... ..... Turbo-jet_2 discretes and Reverse enable the 3 states (Discrete). to be determined. Turbo-prop_1 discrete.			
23. Ground Spoiler Position or Speed Brake Selection \12\.	Full Range or Each Position (discrete).	±2° Unless Higher Accuracy Uniquely Required.	1 or 0.5 for airplanes operated under § 121.344(f).	0.5% of full range	
24. Outside Air Temperature or Total Air Temperature.\13\.	-50 °C to +90 °C.	±2 °C..... 2..... 0.3 °C.....			
25. Autopilot/Autothrottle/AFCS Mode and Engagement Status.	A suitable combination of discretes.	..... 1..... ..... Discretes should show which systems are engaged and which primary modes are controlling the flight path and			

speed of the aircraft.

26. Radio Altitude \14\..... -20 ft to 2,500 ft.... ±2 ft or ±3% 1..... 1 ft +5% Above 500 ft For autoland/category Whichever is Greater 3 operations. Each Below 500 ft and radio altimeter ±5% above 500 ft. should be recorded, but arranged so that at least one is recorded each second.

27. Localizer Deviation, MLS ±400 Microamps or As installed. ±3% 1..... 0.3% of full range... For autoland/category Azimuth, or GPS Lateral Deviation. available sensor recommended..... 3 operations. each range as installed system should be ±62°. recorded but arranged so that at least one is recorded each second. It is not necessary to record ILS and MLS at the same time, only the approach aid in use need be recorded.

28. Glideslope Deviation, MLS ±400 Microamps or As installed ±3%. 1..... 0.3% of full range... For autoland/category Elevation, or GPS Vertical available sensor recommended..... 3 operations. each Deviation. range as installed. system should be 0.9 to recorded but + 30°..... arranged so that at least one is recorded each second. It is not necessary to record ILS and MLS at the same time, only the approach aid in use need be recorded.

29. Marker Beacon Passage..... Discrete ``on'' or ..... 1..... ..... A single discrete is ``off''. acceptable for all markers.

30. Master Warning..... Discrete..... ..... 1..... ..... Record the master warning and record each `red' warning that cannot be determined from other parameters or from the cockpit

				voice recorder.
31. Air/ground sensor (primary recommended).	Discrete ``air'' or ..... airplane system reference nose or main gear).	..... ``ground".	1 (0.25	
32. Angle of Attack (If measured directly).	As installed.....	As Installed.....	2 or 0.5 for 0.3% of full range... If left and right airplanes operated under § 125.226(f).	sensors are available, each may be recorded at 4 or 1 second intervals, as appropriate, so as to give a data point at 2 seconds or 0.5 second, as required.
33. Hydraulic Pressure Low, Each System.	Discrete or available sensor range, ``low'' or ``normal".	±5%.....	2.....	0.5% of full range.
34. Groundspeed.....	As Installed.....	Most Accurate Systems Installed.	1.....	0.2% of full range.
35. GPWS (ground proximity warning system).	Discrete ``warning'' or ``off".	....	1.....	A suitable combination of discretes unless recorder capacity is limited in which case a single

discrete for all modes is acceptable.

36. Landing Gear Position or Landing gear cockpit control selection. | Discrete..... discrete for all combination of discretes should be recorded. | ..... 4..... ..... A suitable combination of discretes to determine activation.

37. Drift Angle.\15\..... As installed..... As installed..... 4..... 0.1%..... .....

38. Wind Speed and Direction..... As installed..... As installed..... 4..... 1 knot, and ..... 1.0°.

39. Latitude and Longitude..... As installed..... As installed..... 4..... 0.002°, or as Provided by the installed. Primary Navigation System Reference. Where capacity permits Latitude/ longtitude resolution should be 0.0002°.

40. Stick shaker and pusher Discrete(s) ``on'' or ``off''. ..... 1..... ..... A suitable activation.

41. WIndshear Detection..... Discrete ``warning'' or ``off''. ..... 1 .....

42. Throttle/power lever position.\16\.	Full Range.....	±2%.....	1 for each lever.....	2% of full range..... For airplanes with non-mechanically linked cockpit engine controls.
43. Additional Engine Parameters... each	As installed.....	As installed.....	Each engine second.	2% of full range..... Where capacity permits, the preferred priority is indicated vibration level, N2, EGT, Fuel Flow, Fuel Cut-off lever position and N3, unless engine manufacturer recommends otherwise.
44. Traffic Alert and Collision Avoidance System (TCAS).	Discretes.....	As installed.....	1.....	..... A suitable combination of discretes should be recorded to determine the status of- Combined Control, Vertical Control, Up

Advisory, and Down

Advisory. (ref.

ARINC Characteristic

735

Attachment 6E,

TCAS

VERTICAL RA

DATA

OUTPUT WORD.)

45. DME 1 and 2 Distance..... 0-200 NM..... As installed..... 4..... 1 NM..... 1 mile.

46. Nav 1 and 2 Selected Frequency. Full range..... As installed..... 4..... ..... Sufficient to

determine selected

frequency

47. Selected barometric setting.... Full range..... ±5%..... (1 per 64 sec.)..... 0.2% of full range. .....

48. Selected Altitude..... Full range..... ±5%..... 1..... 100 ft. .....

49. Selected speed..... Full range..... ±5%..... 1..... 1 knot. .....

50. Selected Mach..... Full range..... ±5%..... 1..... .01. .....

51. Selected vertical speed..... Full range..... ±5%..... 1..... 100 ft/min. .....

52. Selected heading..... Full range..... ±5%..... 1..... 1°. .....

53. Selected flight path..... Full range..... ±5%..... 1..... 1°. .....

54. Selected decision height..... Full range..... ±5%..... 64..... 1 ft. .....

55. EFIS display format..... Discrete(s)..... ..... 4..... ..... Discretes should show

the

display system

status

(e.g., off,

normal, fail,

composite, sector,

plan,
nav aids,
weather radar,
range,
copy).
56. Multi-function/Engine Alerts Discrete(s)..... ..... 4..... ..... Discretes should show
Display format.
the display system
status
(e.g., off,
normal, fail, and
the
identity of
display
pages for
emergency
procedures, need not
be
recorded).
57. Thrust command.\17\..... Full Range..... ±2%..... 2..... 2% of full range..... .....
58. Thrust target..... Full range..... ±2%..... 4..... 2% of full range. .....
59. Fuel quantity in CG trim tank.. Full range..... ±5%..... (1 per 64 sec.)..... 1% of full range. .....
60. Primary Navigation System Discrete GPS, INS, VOR/ ..... 4..... ..... A suitable
Reference. DME, MLS, Loran C,
combination of
Omega, Localizer
discrete to
Glideslope.
determine the
Primary Navigation
System
reference.
61. Ice Detection..... Discrete ``ice" or ..... 4..... .....
``no ice".

62. Engine warning each engine vibration. Discrete..... ..... 1..... .....

63. Engine warning each engine over temp. Discrete..... ..... 1..... .....

64. Engine warning each engine oil pressure low. Discrete..... ..... 1..... .....

65. Engine warning each engine over speed. Discrete..... ..... 1..... .....

66. Yaw Trim Surface Position..... Full Range..... ±3% Unless Higher Accuracy Required. 2..... 0.3% of full range... .....

67. Roll Trim Surface Position..... Full Range..... ±3% Unless Higher Accuracy Required. 2..... 0.3% of full range... .....

68. Brake Pressure (left and right) As installed..... ±5%..... 1..... ..... To determine braking effort applied by pilots or by autobrakes.

69. Brake Pedal Application (left and right). Discrete or Analog ``applied'' or ``off''. ±5% (Analog)..... 1..... ..... To determine braking effort applied by pilots.

70. Yaw or sideslip angle..... Full Range..... ±5%..... 1..... 0,5°..... .....

71. Engine bleed valve position.... Decrete ``open'' or ``closed''. ..... 4..... ....

72. De-icing or anti-icing system selection. Discrete ``on'' or ``off''. ..... 4..... ....

73. Computed center of gravity..... Full Range..... ±5%..... (1 per 64 sec.)..... 1% of full range. .....

74. AC electrical bus status..... Discrete ``power'' or ``off''. ..... 4..... ..... Each bus.

75. DC electrical bus status..... Discrete ``power" or ``off". ..... 4..... ..... Each bus.

76. APU bleed valve position..... Discrete ``open" or ``closed. ..... 4..... .....

77. Hydraulic Pressure (each system). Full range..... ±5%..... 2..... 100 psi. .....

78. Loss of cabin pressure..... Discrete ``loss" or ``normal". ..... 1..... .....

79. Computer failure (critical flight and engine control systems). Discrete ``fail" or ``normal". ..... 4..... .....

80. Heads-up display (when an information source is installed). Discrete(s) ``on" or ``off". ..... 4..... .....

81. Para-visual display (when an information source is installed). Discrete(s) ``on" or ``off". ..... 1..... .....

82. Cockpit trim control input position_pitch. Full Range..... ±5%..... 1..... 0.2% of full range... Where mechanical means for control inputs are not available, cockpit display trim positions should be recorded.

83. Cockpit trim control input position_roll. Full Range..... ±5%..... 1..... 0.7% of full range... Where mechanical means for control inputs are not available, cockpit display trim

position should be

recorded.

84. Cockpit trim control input position_yaw. Full Range..... ±5%..... 1..... 0.3% of full range... Where mechanical means for control input are not available, cockpit display trim positions should be recorded.

85. Trailing edge flap and cockpit flap control position. Full Range..... ±5%..... 2..... 0.5% of full range... Trailing edge flaps and cockpit flap control position may be sampled alternately at 4 second intervals to provide a sample each 0.5 second.

86. Leading edge flap and cockpit flap control position. Full Range or Discrete ±5%..... 1..... 0.5% of full range. .....

87. Ground spoiler position and speed brake selection. Full Range or Discrete ±5%..... 0.5..... 0.3% of full range

88. All cockpit flight control input forces (control wheel, control column, rudder pedal). Full Range Control ±5%..... 1..... 0.3% of full range For fly-by-wire flight control systems, where Wheel ±70 lbs Control Column

±85 lb Rudder flight control pedal ±165 lbs. surface position is a function of the displacement of the control input device only, it is not necessary to record this parameter. For airplanes that have a flight control break away capability that allows either pilot to operate the control independently, record both control force inputs. The control force inputs may be sampled alternately once per 2 seconds to produce the sampling

interval of 1.

\1\ For A300 B2/B4 airplanes, resolution = 6 seconds.

\2\ For A330/A340 series airplanes, resolution = 0.703°.

\3\ For A318/A319/A320/A321 series airplanes, resolution = 0.275% (0.088°>0.064°)
For A330/A340 series airplanes, resolution = 2.20% (0.703°>0.064°)

\4\ For A318/A319/A320/A321 series airplanes, resolution = 0.22% (0.088°>0.080°)
For A330/A340 series airplanes, resolution = 1.76% (0.703°>0.080°)

\5\ For A330/A340 series airplanes, resolution = 1.18% (0.703°>0.120°).

\6\ For A330/A340 series airplanes, resolution = 0.783% (0.352°>0.090°)

\7\ For A330/A340 series airplanes, aileron resolution = 0.704% (0.352°>0.100°). For A330/A340 series airplanes, spoiler resolution =
1.406% (0.703°>0.100°).

\8\ For A330/A340 series airplanes, resolution = 0.30% (0.176°>0.12°)
For A330/A340 series airplanes, seconds per sampling interval = 1

\9\ For B-717 series airplanes, resolution = .005g. For Dassault F900C/F900EX airplanes, resolution = .007g.

\10\ For A330/A340 series airplanes, resolution = 1.05% (0.250°>0.120°)

\11\ For A330/A340 series airplanes, resolution = 1.05% (0.250°>0.120°). For A330 B2/B4 series airplanes, resolution = 0.92%
(0.230°>0.125°).

\12\ For A330/A340 series airplanes, spoiler resolution = 1.406% (0.703°>0.100°).

\13\ For A330/A340 series airplanes, resolution = 0.5°C.

\14\ For Dassault F900C/F900EX airplanes, Radio Altitude resolution = 1.25 ft.

\15\ For A330/A340 series airplanes, resolution = 0.352 degrees.

\16\ For A318/A319/A320/A321 series airplanes, resolution = 4.32%. For A330/A340 series airplanes, resolution is 3.27% of full range for throttle lever
angle (TLA); for reverse thrust, reverse throttle lever angle (RLA) resolution is nonlinear over the active reverse thrust range, which is 51.54
degrees to 96.14 degrees. The resolved element is 2.8 degrees uniformly over the entire active reverse thrust range, or 2.9% of the full range value
of 96.14 degrees.

\17\ For A318/A319/A320/A321 series airplanes, with IAE engines, resolution = 2.58%.

[Doc. No. 28109, 62 FR 38390, July 17, 1997; 62 FR 48135, Sept. 12, 1997, as amended by Amdt. 125-32, 64 FR 46121, Aug. 24, 1999; 65 FR 2295, Jan. 14, 2000; Amdt. 125-32, 65 FR 2295, Jan. 14, 2000; Amdt. 125-34, 65 FR 51745, Aug. 24, 2000; 65 FR 81735, Dec. 27, 2000; Amdt. 125-39, 67 FR 54323, Aug. 21, 2002; Amdt. 125-42, 68 FR 42937, July 18, 2003; 68 FR 50069, Aug. 20, 2003; 68 FR 53877, Sept. 15, 2003]

RECOMMENDATION DOCUMENT

Number: APP-12; APP-19

Title: Definition of "scheduled operations" under Part 119 and the "Part 380 exception". The frequency test for defining scheduled operations.

Point of Contact: Patti Thomas (DOT) for original version (Note 1); Eileen Gleimer for final version.

Background

Section 119.3 defines "scheduled operation" as "any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. *It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title.*" [emphasis added] In defining "on-demand operation," section 119.3 specifically includes Public Charters as an authorized type of operation.

"Public Charters" are a type of charter operation that receive economic authority from the Department of Transportation under 14 CFR Part 380, which allows transportation to be sold to individual members of the public on a per-seat basis. Typically, such flights are arranged and sold by an *indirect* air carrier known as a Public Charter Operator ("charter operator") who contracts with a *direct* air carrier to provide the air transportation. However, direct air carriers are also allowed to act as their own charter operators and sell such flights to the public without using an indirect air carrier, provided that they comply with the additional rules set forth in 14 CFR 212. Direct air carriers include certificated and commuter air carriers as well as on-demand air taxi operators.

Public Charters are subject to various financial and contractual consumer protection safeguards that are not required for scheduled operations. These include the requirement that the charter operator must obtain a surety bond, surety trust, or letter of credit and establish an escrow account into which passenger payments are to be paid and held until after each flight is completed. In addition, the charter operator must enter into a contract with the passenger that sets forth the passengers' rights and must file a charter prospectus with the Department certifying that all of these safeguards are in place prior to being authorized to advertise the Public Charter flights.

Once the Public Charter requirements have been met, such flights may be advertised and sold to the public. There are no advance purchase requirements, and seats may be sold on a one-way or round-trip basis, with or without a ground package. In addition, Part 380 places no restrictions on the number or frequency of charter flights that may be operated in any city-pair market.

Under Part 135, scheduled airplane operations are subject to different requirements than are on-demand airplane operations. Part 135 carriers conducting scheduled flights of five or more round trips a week in one market are subject to the additional economic licensing rules

applicable to commuter carriers and are required to be found "fit" to conduct such operations by the Department (see 14 CFR 298). All scheduled airplane operators, including commuters, must obtain Part 121 authority if they operate scheduled flights with airplanes with 10 or more passenger seats. On-demand operators are not subject to the Department's fitness requirements, and the "dividing line" for when an on-demand operator must obtain Part 121 authority is when more than 30 passenger seats are present.

"Is it scheduled or is it charter?"

Recently, carriers holding on-demand-only authority under Part 135 have conducted or attempted to conduct Public Charter flights, and thus pursuant to a published schedule, in excess of four round trips a week in one market, making them appear more like regularly scheduled flights than charter flights. In some instances, the flights were marketed by the direct air carrier itself or by a related indirect air carrier using aircraft configured with 10 to 30 seats. By marketing the flights as Public Charters, the direct air carrier was able to operate them under the on-demand rules of Part 135 even though the frequency of the operation would otherwise have required their operation under the commuter rules or under the provisions of Part 121 because of the size of the aircraft involved. We believe that this presents a "loophole" in the regulations that harms the public interest by allowing on-demand operators to conduct an unlimited number of scheduled flights under the guise of a Public Charter operation without having met the additional requirements applicable to commuter operations, and may allow a carrier to operate under Part 135 rather than Part 121 rules if aircraft with between 10 and 30 seats are used.

In those instances where an on-demand operator has operated Public Charter flights whose frequency exceeded four round trips a week in one market, the Department, in enforcing its economic regulations, has required the carrier to apply for a "fitness" determination, similar to that required of a commuter or a certificated air carrier. It has been the Department's view that permitting air taxis to exceed four round trips per week in a given market pursuant to a published schedule, even if the schedule is that of a charter operator or operated as part of a Public Charter program, would undermine the integrity of the Department's fitness and licensing program, and is contrary to the public interest.

The FAA agrees that the Public Charter exception in section 119.3 creates an unintended loophole because the Public Charter regulations permit an air carrier to operate daily turbojet service according to a pre-established schedule which specifies the departure location, the departure time and the arrival location. In reliance on this exception, the operator of a turbojet aircraft with 30 passenger seats or fewer could operate daily scheduled service in a city pair under the on-demand rules of Part 135 as long as the flights are part of a public charter, even though there is no practical difference from non-public charter scheduled service other than the economic authority under which the flights are offered. As a result, section 119.3, as currently written, is subject to abuse and could be used as a subterfuge for avoiding the additional safety requirements for commuter operations or for operations under Part 121.

To eliminate this loophole, the FAA proposes to treat flights operated as part of a Public Charter in the same fashion as all other flights for purposes of determining whether such flights are part of an on-demand operation or scheduled operation. Except for a modification to permit turbojets with nine or less passenger seats to be operated in limited scheduled service under the rules of Part 135 for aircraft of equivalent size, this modification is not intended to reflect a desire by the

FAA to change the underlying requirements for when it considers an operation to be scheduled. By virtue of this change, the economic classification of the flight will be irrelevant to the determination of whether it is scheduled. Instead, the FAA will look only at (1) whether the departure time, departure location and arrival location are specifically negotiated with the customer or the customer's representative for flights using aircraft with ten or more passenger seats or (2) whether there (a) are more than four roundtrip flights per week over at least one route and (b) is a published schedule, for flights using aircraft of nine or less passenger seats.[1]

The FAA does not believe the mere frequency of operations alone is determinative of whether an operation in aircraft with 9 or less passenger seats is a "scheduled operation" so long as the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative. In the absence of any form of published schedule, such flights are wholly dependent on the demands of the customers. The current regulations, for example, would allow for an on-demand operator to accept a charter contract that may require it to fly between the same two points six times per week at a given time for a period of weeks. However, these points and the times at which the flights will occur will dictated by the specific request of the customer and at the price specifically negotiated between the customer and the on-demand operator. In the absence of a customers' particular request, the on-demand operator would not otherwise operate these flights. A scheduled operation, on the other hand, depends on the matching of customers to seats on a particular aircraft whose schedule has been determined in advance of the customer booking the flight. In other words, the customer's travel plans must conform to the schedule the operator has established for the aircraft, as opposed to the schedule for the aircraft being established to fit the flight times requested by the passengers.

Consistent with its historic understanding of the nature of on-demand operations, FAA maintains that so long as an on-demand operator does not publish a schedule, or otherwise disseminate information that offers in advance the departure location, the departure time, and arrival location of its flights, and each of these elements is specifically negotiated with each individual customer, the operator will not be required to obtain commuter authority from the FAA. This principle holds true whether the operation is conducted using the entire capacity of the aircraft, under the Public Charter rules, or on a per-seat on-demand basis. In determining whether a schedule is published for purposes of classifying an operation, it is immaterial whether that schedule is published by the air carrier, a public charter operator, a travel agent or third party. Circumstances may even exist where a schedule may be deemed to be published, although there is no written schedule. For example, publication may exist if a flight is operated at the same time every day, and it is known by the public that anyone who shows up and is willing to pay will be carried on the flight. Publication may also be found if the passengers themselves transmit information on behalf of the carrier.

The FAA does not believe it is relevant whether the transportation is sold on a per-seat or per-aircraft basis for purposes of determining whether an operation is scheduled or on-demand. Although it may be easier to sell transportation on a per-seat basis if it is scheduled, the FAA does not believe an operator's economic or business structure is relevant to the classification of the operation. If an operator is capable of developing a method of selling transportation on a

[1] Although all turbojet aircraft operating scheduled service are currently required to operate in accordance with the rules of part 121, the FAA has proposed, as noted elsewhere in this NPRM, to permit any turbojet to be utilized in commuter service, subject to the existing passenger and weight limitations (9 or fewer passengers and maximum 7,500 lbs. payload).

per-seat basis without having to publish a schedule in advance that contains the departure time, the departure location and arrival location, such an operation will be considered "on-demand." If per-seat sales cannot take place without the publication of such a schedule, the operation will be deemed scheduled (and therefore subject the applicable part 135 commuter rules or part 121 rules) if there five or more round trips per week on at least one route between two or more points.

To provide for the consistent treatment and classification of flights, we are proposing to amend the definition of "scheduled operation" and "on-demand operation" in section 119.3 to impose the same frequency limitations as would be imposed on any other on-demand operation--less than five round trips a week on any one route between two or more points.[2] In doing so, we do not believe that the majority of Public Charter flights would be affected by this action. The proposed changes affect operations under Part 135 only. We are not proposing to require that any air carrier already operating under the supplemental rules of Part 121 would have to obtain domestic or flag operations specifications. We also recognize that a charter operator wishing to exceed the proposed frequency limit using small aircraft could contract with multiple on-demand operators and limit each air carrier to no more than four round trip flights a week in one market.

Recommendation:

That the definitions of "scheduled operation" and "on-demand operation" contained in section 119.3 be amended as follows:

"Scheduled operation" means any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title *as long as that operation is conducted (a) under part 121, (b) under the commuter rules of part 135 or (c) under the on-demand rules of part 135 with a frequency of operations of less than five round trips a week over each route between two or more points.*

"On-demand operation" means any operation for compensation or hire that is one of the following:

(1) Passenger-carrying operations conducted as a public charter under part 380 of this title *with a frequency of operations of less than five round trips a week over each route between two or more points*, or any operations in which the departure time, departure location, and arrival

[2] We note that one commenter suggested either rescinding the frequency limit or increasing it. To rescind the limit and use the definition of "scheduled operation" contained in section 119.3 would result in more on-demand operations falling under the scheduled/commuter rules than do now, since even a single flight "conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location" would constitute a scheduled operation and thus, adherence to different and arguably more stringent operating rules. We do not believe that this was the commenter's intent. With respect to the suggestion to increase the number of frequencies per week, there was no indication as to what that frequency might be or why such a change was necessary. The current frequency test is similar to the one applied by the Department in determining what constitutes a commuter vs. an on-demand operation. To avoid further confusion between the Department's and the FAA's rules, absent a strong justification to change the current rules, we are not prepared to recommend such a change.

location are specifically negotiated with the customer or the customer's representative that are any of the following types of operations:

(i) Common carriage operations conducted with airplanes, including turbojet-powered airplanes, having a passenger-seat configuration of 30 seats or fewer, excluding each crewmember seat, and a payload capacity of 7,500 pounds or less, except that operations using a specific airplane that is also used in domestic or flag operations and that is so listed in the operations specifications as required by § 119.49(a)(4) for those operations are considered supplemental operations;
(ii) Noncommon or private carriage operations conducted with airplanes having a passenger-seat configuration of less than 20 seats, excluding each crewmember seat, and a payload capacity of less than 6,000 pounds; or
(iii) Any rotorcraft operation.

(2) Scheduled passenger-carrying operations conducted with one of the following types of aircraft with a frequency of operations of less than five round trips per week over each route between two or more points according to the published flight schedules:
(i) Airplanes~~, other than turbojet powered airplanes,~~ having a maximum passenger-seat configuration of 9 seats or less, excluding each crewmember seat, and a maximum payload capacity of 7,500 pounds or less; or
(ii) Rotorcraft.

(3) All-cargo operations conducted with airplanes having a payload capacity of 7,500 pounds or less, or with rotorcraft.

NOTE: The following is the history of the development of APP-12; APP-19 which starts with the original version submitted by DOT followed by the discussion among members of the Applicability Committee reviewing APP-12; APP-19 on additional proposed changes that could be made to the write-up and definitions.

NOTE 1: The following is the original write up prepared by Patti Thomas.

Discussion:

Background

Section 119.3 defines "scheduled operation" as "any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. ***It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title.***" [emphasis added] In defining "on-demand operation," section 119.3 specifically includes Public Charters as an authorized type of operation.

"Public Charters" are a type of charter operation that receive economic authority from the Department of Transportation under 14 CFR Part 380, which can be sold to individual members of the public on a per-seat basis. Typically, such flights are arranged and sold by an *indirect* air

carrier known as a Public Charter Operator ("charter operator") who contracts with a *direct* air carrier to provide the air transportation. However, direct air carriers are also allowed to act as their own charter operators and sell such flights to the public without using an indirect air carrier, provided that they comply with the additional rules set forth in 14 CFR 212. Direct air carriers include certificated and commuter air carriers as well as on-demand air taxi operators.

Public Charters are subject to various financial and contractual consumer protection safeguards that are not required for scheduled operations. These include the requirement that the charter operator must obtain a surety bond, surety trust, or letter of credit and establish an escrow account into which passenger payments are to be paid and held until after each flight is completed. In addition, the charter operator must enter into a contract with the passenger that sets forth the passengers' rights and must file a charter prospectus with the Department certifying that all of these safeguards are in place prior to being authorized to advertise the Public Charter flights.

Once the Public Charter requirements have been met, such flights may be advertised and sold to the public. There are no advance purchase requirements, and seats may be sold on a one-way or round-trip basis, with or without a ground package. In addition, Part 380 places no restrictions on the number or frequency of charter flights that may be operated in any city-pair market.

Under Part 135, scheduled operations are subject to different requirements than are on-demand operations. Carriers conducting scheduled flights of five or more round trips a week in one market are subject to the additional economic licensing rules applicable to commuter carriers and are required to be found "fit" to conduct such operations by the Department (see 14 CFR 298). In addition, with regard to safety certification, commuters must obtain Part 121 authority if they operate scheduled flights with aircraft with 10 or more seats, whereas on-demand operators are not required to obtain commuter Operations Specifications and are not subject to the Department's fitness requirements, and the "dividing line" for when an on-demand operator must obtain Part 121 authority is 30 seats.

"Is it scheduled or is it charter?"

Recently, carriers holding on-demand-only authority under Part 135 have conducted or attempted to conduct charter flights in excess of four round trips a week in one market under the Public Charter rules, making them appear more like scheduled flights than charter flights. In some instances, the flights were marketed by the direct air carrier itself or by a related indirect air carrier using aircraft configured with 10 to 30 seats. By conducting the flights as Public Charters, the direct air carrier was able to operate them under the on-demand rules of Part 135 even though the frequency of the operation would otherwise have required their operation under the commuter rules or under the provisions of Part 121 because of the size of the aircraft involved. We believe that this presents a "loophole" in the regulations that harms the public interest by allowing on-demand operators to conduct scheduled flights under the guise of a Public Charter operation without having met the additional requirements applicable to commuter operations, and may allow a carrier to operate under Part 135 rather than Part 121 rules if aircraft with between 10 and 30 seats are used.

In those instances where an on-demand operator has operated Public Charter flights whose frequency exceeded four round trips a week in one market, the Department, in enforcing its

economic regulations, has required the carrier to apply for a "fitness" determination, similar to that required of a commuter or a certificated air carrier. It has been the Department's view that permitting air taxis to exceed four round trips per week in a given market pursuant to a published schedule, even if the schedule is that of a charter operator or operated as part of a Public Charter program, would undermine the integrity of the Department's fitness and licensing program, and is contrary to the public interest.

Because of the nature of the Public Charter regulations, which allows seats to be advertised and sold to individual members of the public, and which imposes no frequency limitations on the operation of such flights, section 119.3 as now written is subject to abuse and could be used as a subterfuge for avoiding the additional safety requirements for commuter operations or for operations under Part 121. Therefore, we are proposing to amend the definition of "scheduled operation" and "on-demand operation" in section 119.3 to impose the same frequency limitations as would be imposed on any other on-demand operation--less than five round trips a week on any one route between two or more points.[3] In doing so, we do not believe that the majority of Public Charter flights would be affected by this action. The proposed changes affect operations under Part 135 only. We are not proposing to require that any air carrier already operating under the supplemental rules of Part 121 would have to obtain domestic or flag operations specifications. We also recognize that a charter operator wishing to exceed the proposed frequency limit using small aircraft could contract with multiple on-demand operators and limit each air carrier to no more than four round trip flights a week in one market.

Recommendation: That the definitions of "scheduled operation" and "on-demand operation" contained in section 119.3 be amended as follows:

Scheduled operation means any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title as long as that operation is conducted (a) under part 121, (b) under the commuter rules of part 135, or (c) under the on-demand rules of part 135 with a frequency of operations of less than five round trips a week on one route between two or more points.

On-demand operation means any operation for compensation or hire that is one of the following:

(1) Passenger-carrying operations in which (a) the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative, or (b) are conducted as a public charter under part 380 of this title with a frequency of operations of

[3] We note that one commenter suggested either rescinding the frequency limit or increasing it. To rescind the limit and use the definition of "scheduled operation" contained in section 119.3 would result in more on-demand operations falling under the scheduled/commuter rules than do now, since even a single flight "conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location" would constitute a scheduled operation and thus, adherence to different and arguably more stringent operating rules. We do not believe that this was the commenter's intent. With respect to the suggestion to increase the number of frequencies per week, there was no indication as to what that frequency might be or why such a change was necessary. The current frequency test is similar to the one applied by the Department in determining what constitutes a commuter vs. an on-demand operation. To avoid further confusion between the Department's and the FAA's rules, absent a strong justification to change the current rules, we are not prepared to recommend such a change.

less than five round trips a week on one route between two or more points, and that are any of the following types of operations: *****

NOTE 2: The following is the email exchange relating to the original write up contained in Note 1.

-----Original Message-----
From: Lehman, Dayton [mailto:Dayton.Lehman@ost.dot.gov]
Sent: Tuesday, March 30, 2004 2:50 PM
To: Norman Joseph; Dols, Jonathan; rpriddy@naca.cc; ggarofalo@ggh-airlaw.com; dkeith@jetsolutions.com; Thomas, Patti
Subject: RE: Proposed KSN on Part 380
I haven't had time fully to digest your comments, Norm, but one observation I have off the top of my head about your proposed addition that reads: ***No person, charter operator or air carrier may combine on-demand operators to offer a greater frequency of operations than permitted by a single on demand operator.***
Let's assume for the moment that one can accept the definition of "scheduled" proposed in Patti's doc (up to the point of your addition) which would by its terms exclude operations "under the on-demand rules of part 135 with a frequency of operations of less than five round trips a week on one route between two or more points."
It is unclear to me what a charter operator has to do with anything we are trying to accomplish here.
It is also unclear to me why, when our concern is safe operations of a particular carrier or ensuring that like operations are treated equally, a combination of more than one carrier is of concern to the FAA from a safety standpoint. By this I mean -- if you accept the fact that up to 4 round trip charter flights per week operated as part of an economically-licensed Public Charter program filed at OST can be operated without calling the ops scheduled, where is the logic (or legal basis) in the FAA saying that use of a second carrier in the same program that would perform its own 4 flights renders the flights of both the first and second carriers scheduled?
I think I understand your issue -- which is the apparent contradiction of calling the flights that are in a program that operates, for example, 3 times a day, 5 days a week, roundtrip between the same 2 points at the same times each of the 5 days, using 3 separate carriers, "charter" flights, as opposed to "scheduled" flights. But this seems to me to be an economic issue, not a safety issue, presuming that one accepts the "less than 5 round trips a week" part of the definition.
Maybe the real question concerns the fact that one flight pursuant to a published schedule is "scheduled" for FAA safety purposes, but up to 4 roundtrips a week is not "scheduled" if operated pursuant to OST's Part 380. This issue, to a non-safety expert like myself seems odd.
Dayton

-----Original Message-----
From: Norman Joseph [mailto:normjoseph@peoplepc.com]
Sent: Tuesday, March 30, 2004 4:41 PM
To: Lehman, Dayton; Dols, Jonathan; rpriddy@naca.cc; ggarofalo@ggh-airlaw.com; dkeith@jetsolutions.com; Thomas, Patti
Subject: RE: Proposed KSN on Part 380
Thanks for your reply Dayton.

I have accepted Patti's doc. I have also accepted, for reasons I do not understand, that the DOT/FAA have approved the concept of "public scheduled charters" to provide air travel to unrelated members of the public. The rules, as applied in today's world (internet etc.) , foster the possibility that a person, charter operator or air carrier (anybody with a computer or website able to comply with DOT 380) could package a very robust operation that would appear to the public to be a substantial scheduled service airline. The level of infrastructure, regulatory and safety oversight that provides public benefit and perception (and the cost of providing same) varies depending who provides the actual airplane, crew, maintenance, and insurance (ACMI). Again accepting that on demand operators can provide scheduled service up to 5 round trips, (based on service to small communities that would likely not have air service otherwise) I accept that, under current law, they also be permitted like Part 380 activities. Given the substantial differences in infrastructure, regulatory and safety oversight I am concerned about the leap from a single on demand operator to a package of on demand operators that appear to be a substantial scheduled air carrier.
Also, in my opinion we are not creating a situation where "like operations area treated equally". In today's world, I believe the "like operation" is in fact scheduled service. DOT/FAA has permitted this under a public charter, Part 121 Flag/Domestic and Part 135 Commuter rules. Each of these provider sources are treated considerably different in terms of infrastructure, regulation, oversight and the cost to provide same.
If it looks like a duck, talks like a duck, walks like a duck it is assumed to be a duck...but is it really?
Norm

-----Original Message-----
From: Thomas, Patti [mailto:Patti.Thomas@ost.dot.gov]
Sent: Wednesday, April 07, 2004 3:07 PM
To: Norman Joseph; Lehman, Dayton; Dols, Jonathan
Subject: RE: Proposed KSN on Part 380
Norm - I have to agree with Dayton that I don't think that putting a limit on a public charter operator prohibiting it from using more than one on-demand operator in a public charter program--even if it makes that program look like scheduled service--is a safety concern for the FAA. I would recommend going ahead with the draft as I have written it just to get something posted.
How do you guys feel about that?
Patti

-----Original Message-----
From: Norman Joseph [mailto:normjoseph@peoplePC.com]
Sent: Wednesday, April 07, 2004 4:05 PM
To: Dols, Jonathan; Lehman, Dayton; Thomas, Patti
Subject: RE: Proposed KSN on Part 380
I have provided my opinion. It's just that. I have no problem posting your original proposal, if you do not feel my suggestion has merit.
However, it appears you are saying that it would be just as safe, just as regulated and have the same level of surveillance and oversight if an undetermined number of on demand operators came together and provided all the aircraft, maintenance, crew and insurance to a large regional, national or international scheduled charter program...as compared to a true Part 135 or Part 121 scheduled operation. The only limit appears to be the maximum number of seats for on demand operators. Am I missing something? Are there other limits or restrictions? If not, I can not agree that the use of multiple on demand operators in lieu of a scheduled Part 135 or Part 121

carrier provides the same safety concerns to the FAA or the public.
At any rate, thank you Patti for providing a solution and the opportunity for discussion.
Norm

Dave Hewitt 6-16-2004
I agree with this solution, but I think there is also the opportunity to clear up the "on-demand" definition in a related area. I can't begin to tell you how many times I have been asked about (or heard about) the selling of individual seats in Part 135 on-demand operations. As a suggestion, how about this:
On-demand operation means any operation for compensation or hire that is one of the following:

(1) Passenger-carrying operations in which:

(a) the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative, and the entire capacity of the aircraft is engaged, or;

(b) are conducted as a public charter under part 380 of this title with a frequency of operations of less than five round trips a week on one route between two or more points, and that are any of the following types of operations: *****

There may be better wording, but I think we should address and clarify the issue. Additionally, preamble language should be included that indicates that individual seats cannot be sold, only the entire capacity of the aircraft.
****

NOTE 3: ADDED COMMENTS FROM JACQUE ROSSER TO CLARIFY INTENT OF STEERING COMMITTEE DECISION.

Regarding to Applicability Issue 12 (APP-12) which was voted on and approved in a prior Steering Committee Meeting.

Requesting that clarification of the exact nature of the Steering Committee's agreement is added to the KSN Recommendation Document (RecDoc). This can be accomplished with the suggested replacement language at the conclusion of this document. The current text of the Steering Committee Review section of App-12 is:

> **Steering Committee Review:** Approved. This closes one loophole, the "Indigo Issue", the committee agrees that any perceived violations such as linking multiple operators through a Part 380 indirect air carrier should remain an OST enforcement issue.

The RecDoc does not specify that certain suggested changes related to the definition of "on-demand operator" were rejected.

Specifically, one comment suggested the addition of language that would eliminate the ability of an on-demand operator to sell individual seats or offer mixed-load flights (pax and cargo).

The exact comment was:

> I agree with this solution, but I think there is also the opportunity to clear up the "on-demand" definition in a related area. I can't begin to tell you how many times I have been asked about (or heard about) the selling of individual seats in Part 135 on-demand operations. As a suggestion, how about this:
>
> *On-demand operation* means any operation for compensation or hire that is one of the following:
>
> (1) Passenger-carrying operations in which:
>
> (a) the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative, and the entire capacity of the aircraft is engaged, or;
>
> (b) are conducted as a public charter under part 380 of this title with a frequency of operations of less than five round trips a week on one route between two or more points, and that are any of the following types of operations: *****
>
> There may be better wording, but I think we should address and clarify the issue. Additionally, preamble language should be included that indicates that individual seats cannot be sold, only the entire capacity of the aircraft.

The Steering Committee agreement was to support the regulatory definitions proposed under the heading ***Recommendation*** on Page 3 of the RecDoc, not those suggested by the above comment. The text of the ***Recommendation*** section is:

Recommendation: That the definitions of "scheduled operation" and "on-demand operation" contained in section 119.3 be amended as follows:

Scheduled operation means any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title as long as that operation is conducted (a) under part 121, (b) under the commuter rules of part 135, or (c) under the on-demand rules of part 135 with a frequency of operations of less than five round trips a week on one route between two or more points.

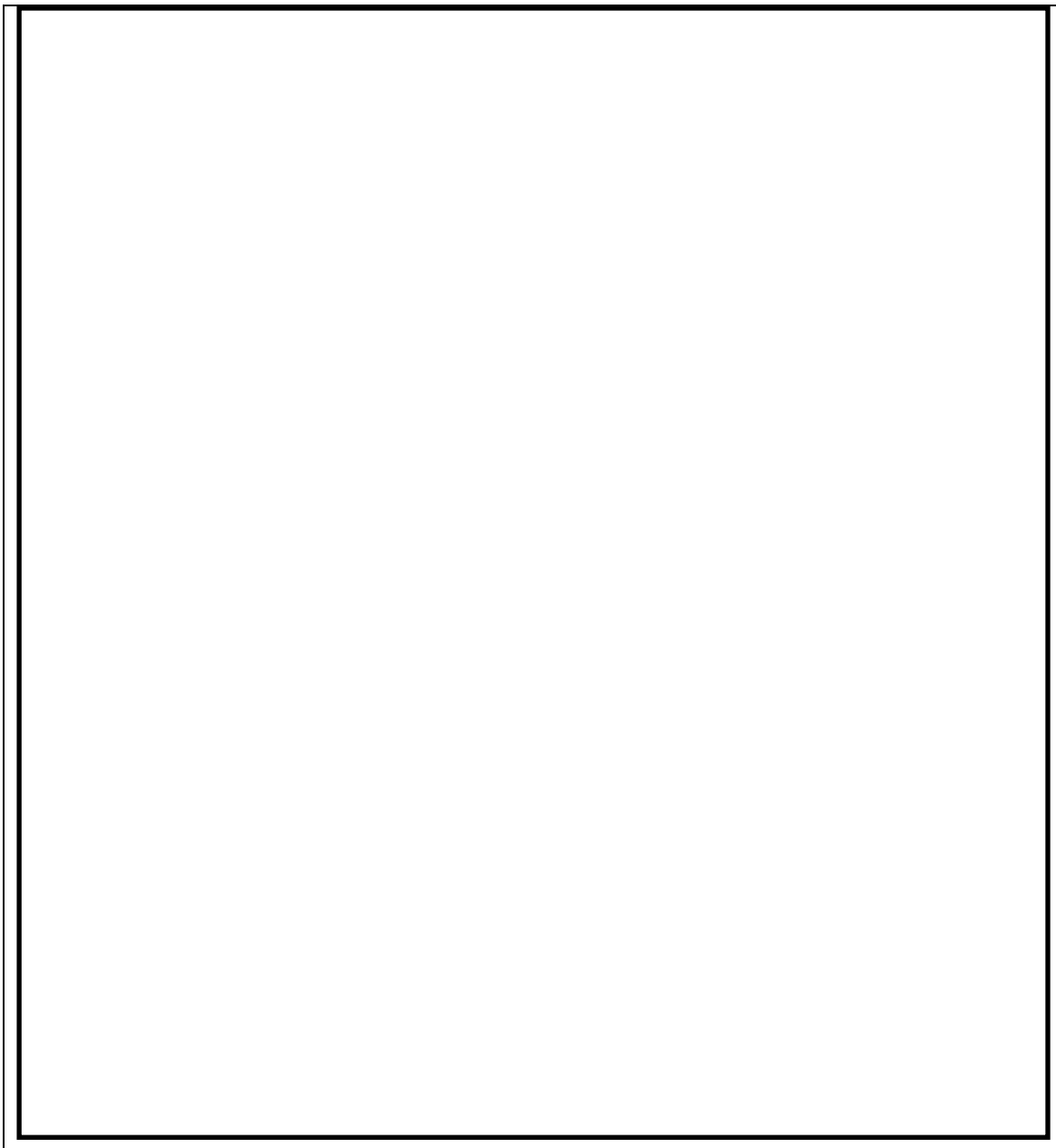
On-demand operation means any operation for compensation or hire that is one of the following:

(1) Passenger-carrying operations in which (a) the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative, or (b) are conducted as a public charter under part 380 of this title with a frequency of operations of less than five round trips a week on one route between two or more points, and that are any of the following types of operations: *****

To ensure clarity as the regulatory drafters work with this document, the **Steering Committee Review** section should be revised to note that the comment proposing that the entire aircraft capacity be engaged in order to qualify for on-demand operational status was considered and rejected and that only the original recommendations were adopted.

The proposed change (below) accomplishes this clarification.

Proposed Change to App 12 document, **Steering Committee Review** section:



NOTE 4: ADDED COMMENTS FROM EILEEN GLEIMER TO EXPLAIN DIFFERENCES BETWEEN FINAL DOCUMENT AND ORIGINAL DOCUMENT AND TO INCORPORATE RELATED RECOMMENDATIONS APPROVED BY THE STEERING COMMITTEE.

As explained in Note 4, the RecDoc approved by the Steering Committee did not include a requirement that the entire capacity of an aircraft be engaged in order for an operation to be considered "on-demand." To incorporate the clarification and based on the discussion during the final Steering Committee meeting, the original RecDoc was revised. The final revised version is in a format that can be incorporated into the preamble of the proposed NPRM. Part of the preamble language addresses per-seat on-demand operations in the context of determining whether such an operation is scheduled or on-demand. The revised RecDoc also includes the recommendation adopted by the Steering Committee that would authorize certain turbojets to be

operated in scheduled service under the rules of Part 135.

In addition language was changed regarding the requirement that the frequency of operations be less than five times per week between two points pursuant to a published schedule. For example, the proposed revised language for 119.3 created an inadvertent loophole that could have resulted in an on-demand classification for an operation as long as one of the city-pair routes had less than five roundtrips per week pursuant to a published schedule. The change in the language makes clear that each such route must have less than five roundtrips per week pursuant to a published schedule. In addition, language was included to address the other requirement for scheduled service (i.e., a published schedule) so that true on-demand operations do not inadvertently become classified as scheduled simply because the operator happens to fly between the same two points more than four times per week.

NOTE 5:

(Also suggested) "Scheduled operation" means any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the certificate holder or its representative offers in advance the departure location, departure time, and arrival location. It does not include any passenger-carrying operation that is conducted as a public charter operation under part 380 of this title *as long as that operation is conducted (a) under part 121, (b) under the commuter rules of part 135, or (c) under the on-demand rules of part 135 with a frequency of operations of less than five round trips a week on one route between two or more points. No person, charter operator or air carrier may combine on-demand operators to offer a greater frequency of operations than permitted by a single on demand operator*.

[Inserted regulatory language shown in italics and underlined. Deleted regulatory language shown with strikethrough.]

NOTE 6: (by Eileen Gleimer) For purpose of clarification [included to ensure that any "missed changes" are taken care of] (APP 12) Limits on Part 380 Public Charter - In reviewing APP-12 and APP-20, a pre-existing problem with the definition covering scheduled on demand service came to light. Although this was fixed in some places in APP--12, the correction is not made in all parts of APP-12 or in APP-20. Subparagraph (2) of the current definition of on-demand in 119.3 reads:

Scheduled passenger-carrying operations conducted with one of the following types of aircraft with a frequency of operations of less than five round trips per week on at least one route between two or more points according to the published flight schedules … (emphasis added).

As written, an operator that has five or more roundtrips per week over a number of routes but has less than 5 roundtrips a week on one route, would technically fit in the definition for scheduled on-demand. Clearly this is not the intent since the commuter definition covers an operator with a "frequency of operations of at least five round trips per week on at least one route…." This change has already been made in APP-12 on page 49, lines 11-12 and 18-19, on page 589, lines 18-19, on page 590, lines 2-3 and in part of APP-20. To avoid any ambiguity in the language, we suggest that the language in the scheduled on-demand definition in current 119.3 be changed to read:

Scheduled passenger-carrying operations conducted with one of the following types of aircraft with a frequency of operations of less than five round trips per week <u>over each</u> ~~on at least one~~ route between two or more points according to the published flight schedules

Steering Committee Review: See Notes 3 and 4 which address changes to original version contained in Note 1 based on steering committee discussion. Also, Note 6 to ensure correction is carried through all documents.

Final Action: Approved with clarifications on scheduled operation and the sale of individual seats. Including Notes 1-6 with corrections.

RECOMMENDATION DOCUMENT

Number: Applicability 16 emb

Issue: Medical Personnel as Crew Members (**Positioning flights for Part 135 should not be covered under Part 135.)**

Discussion:

Background

The typical air ambulance flight operation includes two or more flight segments, yet only one of these involves the air transportation of one or more patients. Air ambulance flight profiles differ depending upon the location of the patient, whether the air ambulance operator is based at a health care facility or at an independent base, and the entity employing the medical personnel. There is a need to clarify, in all these situations, that Part 91, rather than Part 135, governs those flight segments in which flightcrew members and medical personnel, but no patients, are on board.

Air Ambulance Flight Profiles

The variations in air ambulance flight profiles, including the number of positioning flights and presence of medical personnel on board, are determined by several factors. These include:

(1) Patient location. Air ambulance operations generally fall into one of two categories: scene responses and patient transfers between hospitals. A scene response flight involves the air transportation of a person , with a health condition requiring treatment by medical personnel from the medical emergency scene landing location to a hospital. An inter-hospital flight involves the air transportation of a patient from one health care facility to another.

(2) Entity Employing the Medical Personnel. Medical personnel participating in air medical transports require specific medical training and experience that meet the specific needs of each patient. The medical personnel may be employees of the certificate holder, employees of the sending or receiving hospital or contracted personnel from another medical service organization depending on the aeromedical program structure.

Medical personnel have the responsibility to provide medical care and treatment to the patient during transport and have no aircraft operational responsibility unless specifically directed by the pilot in command. If aircraft operational duties are assigned, training must have been provided by the operator pursuant to an FAA approved training program.

(3) Aircraft Base. Air ambulance aircraft may be based in any number of locations most conducive to quick response, including airports, heliports, and helipads on and off hospital premises.

Depending upon the combination of factors, there will be one or more positioning flights associated with each patient air transportation flight, medical personnel will be on board one or more of these positioning flights, and the medical personnel aboard may or may not be employed by the certificate holder.

Existing Guidance on Medical Personnel and Positioning Flight Status

The status of medical personnel and positioning flights is addressed in FAA inspector guidance, interagency policy understandings, and the Federal Aviation Regulations with different degrees of clarity.

- FAA Order 8400.10

The Air Transportation Operations Inspector's Handbook, FAA Order 8400.10, provides that medical personnel trained in flight operational procedures may be considered crewmembers, and a flight with only crewmembers on board may be conducted under Part 91. More specifically, Volume 4, Chapter 5, Section 4, Paragraph 1399.B. states:

> Medical personnel may or may not be considered crewmembers at the discretion of the operator. If the operator desires to consider the medical personnel crewmembers, the medical personnel must complete initial and recurrent crewmember training programs. Additionally, the medical personnel must perform some duty in an aircraft that relates to the operation of that aircraft, such as assisting the flightcrew members in seeing and avoiding other aircraft, evaluating a landing site, coordinating with ground personnel at a landing site, and emergency shutdown of aircraft systems in a crash.
>
> NOTE: If the medical personnel are crewmembers, they are not considered passengers. When only crewmembers are on board the aircraft, the flight may be conducted under FAR Part 91. When a patient or passenger is on board the aircraft, the flight must be conducted under FAR Part 135.

The order permits the certificate holder to determine medical personnel status. It implies that if medical personnel do not perform a flight operational duty, they are not considered crew, and, if they are on board a flight without a passenger, i.e. a positioning flight, that flight must be conducted under FAR Part 135.

- FAA/NTSB MOU

In contrast, a 1992 Memorandum of Understanding between the FAA and the NTSB to reconcile policies for accident reporting operational categories is more direct and encompassing. It states: "EMS positioning flights are Part 91 operations until a passenger is picked up. A doctor, nurse, or

medical technician are [stet] considered part of the crew." Under the policy reflected in the MOU, all medical personnel are considered to be part of the crew and air ambulance positioning flights are conducted under Part 91. The policy implies that medical personnel are crew by virtue of their medical duties related to the care of the patient and not because of any aviation operational duties.

- Federal Aviation Regulations

The FAR do not specifically address the status of medical personnel. Generally, flights by the certificate holder with only its employees on board are not considered common carriage and may take place under Part 91. Positioning flights with medical personnel employed by the certificate holder on board would appear to be in this category. The status of medical personnel not employed by the certificate holder is less clear.

Further, Section 135.85(a) permits a certificate holder to carry "a crewmember *or other* employee of the certificate holder" without "complying with the passenger-carrying requirements of this part." 14 CFR §135.85(a) (emphasis added). Again, it is not certain whether medical personnel not employed by the certificate holder would be considered a "crewmember" under this exclusion.

Key Points of Discussion

The key point for clarification is that a positioning flight in any of the air ambulance flight profiles with medical personnel on board may be conducted under Part 91. This clarification will affirm, among other things, that the air ambulance operator will be able to access airports, heliports, and helipads without weather reporting capability under instrument flight rules, which is permissible under Part 91.

<u>Medical Personnel Duties</u>

Medical personnel are integral to an air ambulance operation. The pilots and the medical personnel operate as a team with distinct functions. The pilots are responsible for the safe operation of the flight. The primary reason medical personnel are on board is passenger-patient care; any aviation operational duties are ancillary to that primary purpose.

Medical personnel associated with an air ambulance operation have a special status, as the FAA NTSB MOU recognizes, simply by virtue of their medical role. They should be considered crew, and air ambulance positioning flights with only crew on board should operate under Part 91. Requiring medical personnel to perform aviation related duties to achieve crew status may, in some cases, be overly burdensome and should not be necessary. Of course, should the certificate holder choose to assign medical personnel aviation operational duties, those personnel would be required to complete appropriate training, as is the case now.

Weather Reporting

The air ambulance industry wants to be able to operate positioning flights under the higher level of safety afforded by instrument flight rules to any airport, heliport, or helipad, when appropriate to the conditions of the operation. An air ambulance operator's ability to do so depends on whether a positioning flight with medical personnel on board is considered Part 91 or Part 135.

IFR operations under Part 135 generally are restricted to airports with weather observations made at the airport. 14 CFR §135.213. This restriction forces air ambulance operators, when carrying patients, to operate under visual flight rules when conducting operations into airports without weather reporting capability. Under Part 91, an operator, using IFR, may access any airport, heliport, or helipad regardless of weather reporting capability at that landing facility. Confirmation that positioning flights with medical personnel on board may be operated under Part 91 will remove any artificial barrier to attaining that higher level of safety for positioning flights.

Recommendations:

1) Amend Section 119.1 to include positioning operations of aircraft with pilots and medical personnel on board in its exclusions from the applicability of Part 119. Specifically, amend Section 119.1 by redesignating paragraphs (e)(4) through (10) as (e)(5) through (11) and adding new paragraph (e)(4) as follows:

§119.1 Applicability

*** * * * ***

(e) * * *

(4) Positioning flights by operators holding air ambulance operations specifications, when only flightcrew members or assigned medical personnel, are on board, if:

(i) The medical personnel are assigned to provide medical care during a previous or subsequent flight segment(s), and

(ii) The medical personnel are qualified in accordance with the certificate holder's approved flightcrew and medical personnel coordination training program. The flightcrew and medical personnel coordination training program must include physiological aspects of flight, patient loading and unloading, safety in and around the aircraft, passenger briefing, appropriate inflight emergency procedures, emergency landing procedures, and emergency evacuation procedures.

2) In the regulatory preamble to this change include the following:

Medical personnel are integral to an air ambulance operation. The pilots and the medical personnel operate as a team with distinct functions. The pilots are responsible for the safe operation of the flight. The primary reason medical personnel are on board is passenger-patient care. This amendment does not change the fact that medical personnel do not perform safety-sensitive functions as defined in FAR 121, Appendices I and J, and, therefore, are not subject the drug and alcohol testing requirements of FAR 135.251 and FAR 135.255.

3) Amend Order 8400.10, Volume 4, Chapter 5, Section 4, Paragraph 1399. B to conform to this regulatory change, including deleting the requirement that "medical personnel must perform some duty in an aircraft that relates to the operation of that aircraft", unless the operator so desires and provides appropriate training./

NOTE: AMENDED REGULATORY LANGUAGE PROVIDED BY AEROMEDICAL APRIL 2005:

xx. Amend Section 119.1 by redesignating paragraphs (e)(4) through (10) as (e)(5) through (11) and adding new paragraph (e)(4) as follows:

§119.1 Applicability

***

(e) ***

(4) Positioning flights by operators holding air ambulance operations specifications, when only flightcrew members or assigned medical personnel, are on board, if:

(i) The medical personnel are assigned to provide medical care during a previous or subsequent flight segment(s), and

(ii) The medical personnel are qualified in accordance with the certificate holder's approved flightcrew and medical personnel coordination training program. The flightcrew and medical personnel coordination training program must include physiological aspects of flight, patient loading and unloading, safety in and around the aircraft, passenger briefing, appropriate inflight emergency procedures, emergency landing procedures, and emergency evacuation procedures.

Steering Committee Review: Agrees that assignment of flight duties are not necessary for properly trained, qualified medical staff.

Final Action: Approved with amended language.
Notes:

RECOMMENDATION DOCUMENT

Number: Applicability 18 Docket 60.2

Issue: Adjustment to § 91.501 limited reimbursement allowed for aircraft sales demonstration, time sharing and cargo-only flights.

Issue originally raised by Jack Olcott as "manufacturer demonstrating airplane to customer;" this recommendation is from the work of the assigned subcommittee chaired by Dennis Keith, as reported in this document by David Norton.

Discussion:

SEE COMMENTS AT THE END OF THIS DISCUSSION. - 2/15/2003 - MJP

The original issue raised was whether or not the amount of reimbursement specified in 14 C.F.R. § 91.501(d), which currently allows for "[f]lights for the demonstration of an airplane to prospective customers when no charge is made except for those specified in [§ 91.501(d)]" under § 91.501(b)(3), meets the original intent of the rule. The subcommittee chaired by Dennis Keith to address this issue therefore reviewed the rule and its underlying regulatory material, and spoke with several individuals who had participated in the original drafting of the rule.

Based on this review, the subcommittee determined that the original intent of the FAA was to allow aircraft sellers, be they aircraft manufacturers selling new aircraft or owners selling their own used aircraft, to recover all of their direct operating costs for such demonstration flights, i.e., those expenses that would not have been incurred if the flight not been made (such as fuel costs for that specific flight), *plus* an additional amount representing a pro rata portion of those expenses not directly incurred by the particular flight but appropriately attributed thereto (such as a pro rata portion of pilot salaries, aircraft depreciation, and so forth). Recognizing the difficulty in accurately arriving at an amount representing these latter costs, in 1973 the FAA elected to allow for the recovery of certain specifically delineated direct operating costs arising from such flights (codified as those costs recoverable under § 91.501(d)(1-9)), plus an additional amount equal to 100% of the fuel costs for those flights as a reasonable approximation for the additional permitted costs (codified as the permitted recovery of an additional amount equal to 100% of the cost of the fuel and lubricants for the flight under § 91.501(d)(10)). In this way, the FAA could allow an aircraft seller to recover approximately all of its operating costs for demonstration flights, but still limit the ability to abuse this rule in an effort to derive some profit from those flights.

As part of this process, the FAA also determined the that same reasoning and methodology should apply to those costs that may be recoverable for aircraft time sharing operations (§ 91.501(c)(1)), as well as operations involving a company's carriage of its own property incidental to its non-air transportation business (or "cargo-only" flights) (§ 91.501(b)(7)). The subcommittee therefore felt that, although the issue of whether or not to adjust reimbursement for time sharing or cargo-only flights was not originally raised along with the question of addressing reimbursement for aircraft demonstration flights, due to the original identical treatment of all three of these types flights by the FAA, and the fact that modifying the rule with respect to demonstration flights will necessarily have some effect on how time sharing and cargo-only flights are addressed under the current rule, the issue should be expanded here to address all three types of flights as well.

The subcommittee's review of these issues resulted in the determination that due to significant changes over the last thirty years in the different types and amounts of costs facing aircraft operators (such as significant changes in engine efficiencies leading to lower relative fuel usage), the original goal of allowing

for full cost-recovery from demonstration, cargo-only and time sharing operations is no longer being met by the § 91.501(d)(10) allowance of an additional 100% of the fuel costs for such flights.

In light of changes in these underlying costs since the rule was originally promulgated, the subcommittee therefore spoke with several industry sources, seeking guidance on what appropriate fuel multipliers would be that would allow the original intent of the rule to be followed without opening the application of the rule to abuse. The subcommittee also recognized that with the common use of various exemptions making the application of these rules to a broad range of aircraft operators rather than just multi-engine turbojet operators, it was also appropriate to seek to define fuel multipliers for those type of aircraft as well. These initial efforts lead to an initial proposal that an appropriate adjustment could be made by increasing the percentage of the additional cost of the fuel and other lubricants for demonstration, cargo-only and time sharing flights from 100% to 167% for turbojet aircraft, or, in those instances where non-turbojet aircraft were being operated under this rule either because they are large aircraft or because the operator has been granted an exemption to do so by the FAA, to 275% for turboprop aircraft, 200% for piston aircraft, or 400% for turbine helicopter aircraft.

After arriving at this initial proposal, the subcommittee sought additional information and guidance from Conklin & de Decker, a well-know firm in the corporate aviation industry that performs, among other things, analysis on the costs of owning and operating a broad range of civil aircraft. Mr. de Decker of that firm responded to this request with the following analysis:

> [W]e have analyzed a variety of jet aircraft in several classes to determine the average fuel multiplier for those classes. We had originally discussed one multiplier for jets (2.67). Then, based on various comments it was felt that three multipliers would be more appropriate (2.00 for old aircraft, 2.67 for modern aircraft and 2.33 for a small group of "in between" aircraft). Then, as a result of [additional] discussions . . . , we re-examined the multipliers for a large number of jets to support the final recommendation.
>
> The first result of the analysis was that a closer examination of the aircraft in the middle category (with the 2.33 multiplier) really split into two categories. One category (with the CL 600 and the Falcon 200) is much closer to the "newer" aircraft with the 2.67 multiplier. The other category (primarily with the Gulfstream IV/IVSP) is much closer to the "older" aircraft with the 2.00 multiplier. Accordingly, our recommendation is to delete the middle category with the 2.33 multiplier and reassign the few aircraft in that category to the other two categories as indicated. The following analysis is based on these two categories.
>
> The attached analysis summarizes the results of the analysis. One of the major variables in the analysis is of course the cost of fuel. There are two published sources of average fuel costs available. One is published by AirNav and the other is published by ARG/US. Until recently, these were fairly close. During 2004 these two indices diverged significantly. The AirNav average fuel cost is currently $2.88. The ARG/US average fuel cost is $3.47 gallon. Given this wide divergence in fuel cost, we calculated the fuel multiplier to cover the cost of fuel, maintenance, etc. in two different ways:
>
> - The first way was to calculate the multiplier with the two different average fuel costs shown above. This yielded the following:

Type of Aircraft	Older Aircraft (2.00 Multiplier)	Newer Aircraft (2.67 Multiplier)
Fuel at $2.88/Gallon	2.15	2.81
Fuel at $3.47/Gallon	1.95	2.50

- The alternate way of looking at this is to average the two average fuel prices and determine the resulting multiplier. The average fuel price is $3.175 per gallon. This yielded the following:

Type of Aircraft	Older Aircraft (2.00 Multiplier)	Newer Aircraft (2.67 Multiplier)
Fuel at $3.175/Gallon	2.04	2.64

The results of this analysis support the use of a fuel multiplier of 2.00 for the older aircraft and a multiplier of 2.67 for the newer aircraft as well as the in-production and future aircraft.

Attached is one workbook with three tables. The first table shows the aircraft in each multiplier category. The other tables show the detailed analysis for a representative group of aircraft in each category.

As discussed previously, the real key to classifying the aircraft is the engine and as you can see the attached listing of aircraft shows both the list of engines for each class of multiplier and a representative list of aircraft with those engines.

(Written comments to the subcomittee provided by Mr. Bill de Decker on or about January 20, 2005.) The workbook referenced in Mr. de Decker's response are reproduced in the following tables:

Recommended Jet Aircraft Fuel Multiplier

Multiplier =	**2.0 X**	
Make & Model	Year Cert.	Engine
All Out Of Production		
B 727-100/200	1964	PW JT-8D
B 737-200	1968	PW JT-8D
BAC 1-11	1965	RR Spey
DC 9 (All)	1965	PW JT-8D
Falcon 20	1965	GE CF-700
Fokker 28	1969	RR Spey
Gulfstream II/IIB	1967	RR Spey
Gulfstream III	1979	RR Spey

Multiplier =	**2.67 X**	
Make & Model	Year Cert.	Engine
All Current Production Jets		
All Newly Certificated Jets		
And the following aircraft:		
Astra SP/SPX	1986	H TFE-731
B 737-300	1984	CFM 56
Beechjet 400/400A	1985	PWC JT-15D
Citation 500 (All)	1972	PWC JT-15D
Citation 550 (All)	1978	PWC JT-15D
Citation 525	1993	W FJ 44
Citation 650 (All)	1983	H TFE-731
CL 600	1981	H ALF-502

Gulfstream IV/IVSP	1986	RR Tay		CL 601 (all)	1983	GE CF-34
Hansa Jet HFB 320	1967	GE CJ-610		Diamond 1	1982	PWC JT-15D
Hawker 1A - 400	1965	RR Viper		Falcon 10/100	1973	H TFE-731
Hawker 600	1973	RR Viper		Falcon 200	1983	H ATF3-6
Jet Commodore 1121/1123	1965	GE CJ-610		Falcon 2000	1995	CFE 738
Jetstar -6/-8	1961	PW JT-12		Falcon 20-5	1991	H TFE-731
Learjet 23/24/25/28/29	1965	GE CJ-610		Falcon 50	1980	H TFE-731
MD 80 (All)	1980	PW JT-8D-200		Falcon 900	1986	H TFE-731
Sabre 40/60/75	1964	PW JT-12		Gulfstrean V	1995	RR BR-710
Sabre 80	1974	GE CF-700		Hawker 1000	1990	PWC 300
				Hawker 400F	1980	PWC JT-15D
				Hawker 700	1977	H TFE-731
				Hawker 800	1984	H TFE-731
				Jetsatar II/731	1976	H TFE-731
				Learjet 31	1988	H TFE-731
				Learjet 35/36	1974	H TFE-731
				Learjet 55	1981	H TFE-731
				MD 90	1995	V 2500
				Sabre 65	1980	H TFE-731
				Westwind 1/2	1976	H TFE-731
Aircraft Equipped With:		GE CF-700		Aircraft Equipped With:		CFE 738
		GE CJ-610				CFM 56
		PW JT-12				GE CF-34
		PW JT-8D				H TFE-731
		RR Spey				PWC 300
		RR Viper				PWC 500
		RR Tay				PWC JT-15D
						RR AE-3007
						RR BR-710
						V 2500
						W FJ 44

Ratios for a Representative Fleet Sample

Multiplier =	**2.0 X**		Fuel	Fuel/Hr	Maintenance	Fixed Cost	Ratio
			Consumption	$ 3.37	per Hour	per Hour	
Make & Model	Year Cert.	Engine		per gallon			
All Out Of Production							
B 727-	1964	PW JT-	1174	$ 3,956	$ 1,854	$ 1,237	1.78

100/200		8D					
BAC 1-11	1965	RR Spey	900	$ 3,033	$ 1,373	$ 732	1.69
Falcon 20	1965	GE CF-700	378	$ 1,274	$ 1,103	$ 554	2.30
Gulfstream II	1967	RR Spey	599	$ 2,019	$ 1,521	$ 755	2.13
Gulfstream III	1979	RR Spey	550	$ 1,854	$ 1,273	$ 830	2.13
Gulfstream IV/IVSP	1986	RR Tay	512	$ 1,725	$ 587	$ 955	1.89
Hawker 400	1965	RR Viper	387	$ 1,304	$ 1,199	$ 497	2.30
Learjet 25	1965	GE CJ-610	316	$ 1,065	$ 937	$ 537	2.38
Sabre 60	1964	PW JT-12	350	$ 1,180	$ 1,005	$ 519	2.29
				$ 17,409	$ 10,853	$ 6,616	2.00

Ratios for a Representative Fleet Sample

Multiplier =	**2.67 X**		Fuel	Fuel/Hr	Maintenance	Fixed Cost	Ratio
			Consumption	$ 3.12	per Hour	per Hour	
Make & Model	Year Cert.	Engine		per gallon			
All Current Production Jets							
All Newly Certificated Jets							
Astra SP	1986	H TFE-731	241	$ 752	$ 663	$ 624	2.71
Beechjet 400A	1985	PWC JT-15D	222	$ 693	$ 464	$ 571	2.49
Citation 550	1978	PWC JT-15D	170	$ 530	$ 359	$ 495	2.61
Citation CJ 1	1993	W FJ 44	134	$ 418	$ 305	$ 448	2.80
Citation VI	1983	H TFE-731	276	$ 861	$ 831	$ 635	2.70
Citation X		RR AE 3007	386	$ 1,204	$ 623	$ 1,071	2.41
CL 600	1981	H ALF-502	352	$ 1,098	$ 1,521	$ 766	3.08
CL 601-3A	1983	GE CF-34	329	$ 1,026	$ 1,046	$ 855	2.85
Falcon 100	1973	H TFE-731	237	$ 739	$ 873	$ 553	2.93
Falcon 200	1983	H ATF3-6	325	$ 1,014	$ 1,354	$ 600	2.93
Falcon 2000	1995	CFE 738	296	$ 924	$ 529	$ 949	2.60
Falcon 50	1980	H TFE-731	323	$ 1,008	$ 646	$ 966	2.60
Falcon 900	1986	H TFE-731	314	$ 980	$ 694	$ 1,029	2.76
Global Express		RR BR-710	492	$ 1,535	$ 676	$ 1,186	2.21
Gulfstreanm 200		PWC 300	301	$ 939	$ 568	$ 918	2.58
Gulfstrean 550	1995	RR BR-710	445	$ 1,388	$ 704	$ 1,147	2.33
Hawker 700	1977	H TFE-731	263	$ 821	$ 992	$ 542	2.87
Hawker 800XP	1984	H TFE-731	264	$ 824	$ 519	$ 678	2.45
Learjet 31	1988	H TFE-731	202	$ 630	$ 525	$ 562	2.72

Learjet 35	1974	H TFE-731	229	$ 714	$ 761	$ 558	2.85
Learjet 55	1981	H TFE-731	252	$ 786	$ 842	$ 630	2.87
Westwind 1/2	1976	H TFE-731	243	$ 758	$ 919	$ 557	2.95
Average ratio				$ 19,644	$ 16,415	$16,340	2.67

The end result of this analysis was the creation of the draft regulatory language below that recognizes several possible fuel multipliers that can be use for demonstration, time sharing and cargo-only flights based on the type of equipment being used.

It is also appropriate to note that the FAA's original treatment of these cost reimbursements did not contemplate the ability to make any type of profit from these flights, and the recommendation below is consistent with this approach as it does not consider or allow for the making of any profit; rather, it is intended to essentially serve only as an adjustment to the amounts originally allowed in recognition of the changes in the types and amounts of costs that currently face aircraft operators. Moreover, the subcommittee recognizes that there currently is some abuse of these provisions within the general aviation community, and there is a fear in the Part 135 community that if the recoverable amounts under § 91.501(d) are increased, this action will lead to even more abuse. The subcommittee believes that this is not a valid reason to not increase the amounts recoverable to the to levels originally contemplated by the rules for those parties who are properly complying with them. The limited exemptions found in § 91.501 are only permitted to be used by those operators that are not otherwise required to comply with one of the commercial parts, and bringing § 91.501(d) back into line with its original intent does not change this fundamental principal.

That being said, the subcommittee does recognize that it is currently difficult for FAA safety inspectors to easily and efficiently monitor compliance with the provisions of this rule as it is currently written. As such, the subcommittee recommends that the rule adopt the requirement that any aircraft operator seeking to take advantage of the cost-reimbursement provisions with respect to demonstration, time sharing and cargo-only flights maintain appropriate contemporaneous written records related to each flight in which reimbursement is made to the extent permitted under § 91.501(d).

Finally, the subcommittee also recognizes that the Applicability Working Group is currently addressing the issue of whether the provisions currently found in § 91.501(b) should be amended and moved to another location within Part 91 such that they potentially apply to all sizes and types of aircraft, not just multi-engine and large aircraft. If this eventually happens, the numbering of the proposed changes below can be amended as appropriate at that time.

I wish to strongly object to any change in the current §91.501 as proposed by the Applicability Working Group, Recommendation Document 18, Docket 60.2.

The Part 125/135 Aviation Rulemaking Committee (ARC) was established by the FAA for updating Part 125, and Part 135 Federal Aviation Regulations (FARs) and related regulations as effected by changes to the Part 125/135 regulations (i.e., Part 119, Part 91, Part 61). Therefore, I believe it is out of the scope of this ARC to randomly select FARs not specifically effected by changes to Part 125/135 regulations, as has apparently been done in this Recommendation Document (RecDoc).

As stated in the discussion of this RecDoc, this issue was brought up without any reference to a change in

Part 125 or Part 135 regulations. It appears to me that someone found a forum to try to effect a change in §91.501 for whatever personal interest they may have had, and the Applicability Working Group chose to address the RecDoc, without considering that it may be out of the scope of this ARC.

However, on the assumption that the FAA is willing to consider this RecDoc as within the ARC's scope, I submit the following arguments for not approving this RecDoc as written.

1. The original RecDoc was presented as a change to the "sales demo" portion of 91.501, only. However, by association it was expanded to include other areas of 91.501, such as Time Sharing, etc. Sales demos are one thing, expanding to include Time Sharing is something with far greater implications, particularly the increased reality of abuse, and additional treat to established air carriers.
2. The discussion states the subcommittee acknowledged that the expanding this recommendation to time-sharing and cargo-only flights was not originally raised, but since it was originally addressed in this manner, it should then be expanded to include time sharing and cargo-only flights. I object to this decision. Although I am against changing 91.501 at all, it would be more palatable if restricted to sales demos only, and limiting the number of sales demos to any potential buyer.
3. The subcommittee's argument for making this recommendation was that significant changes over the last 30 years in the different types and amounts of costs facing aircraft operators has grown to a point where the 100% current method under 91.501(d)(10) is not sufficient compensation for the aircraft owner. Yet, the only reason given for the significant changes was engine fuel efficiencies. Fuel efficient engines cannot be a valid argument to change this rule, as the cost of fuel is almost ten fold from what it was 30 years ago. Therefore, even though the engines are more efficient, the cost of fuel is greater making this argument a push at best. As an example, the Learjet 25 burns an average of 316 gallons per hour and did so 30 years ago. The current Learjet 35 with more fuel efficient engines burns around 221 gallons per hour (per Conklin & de Decker Fall 2002). The average cost of jet fuel 30 years ago was $1.20 (estimated-no available record). The average cost of jet fuel today per ARG/US is $3.47. Therefore, a calculation of each would prove my
   1.20 x 316 gallons ='s $379.20 per gallon.
   3.47 x 221 gallons ='s $766.87 per gallon.
   point that although the jet engines burn less fuel, the cost is much greater which gives a current aircraft owner an equal to or (as in my example) substantially greater benefit than the aircraft owners of 30 years ago.
4. From the discussion detailed within this RecDoc, most of the research was determining the formula for increasing the current 100% allowed in 91.501(d)(10) to some other percentage. There has been almost no research done on the real need for any increase other than to make unfounded or undocumented assumptions. I have stated my argument for why fuel-efficient engines are not a valid reason for increasing the current allowance in (d)(10), and the only other significant possible reason would be pilot salary increases. This argument would not work well in regards to sales demos as most aircraft sales companies do not have full time pilots sitting around waiting to fly demonstration flights. Therefore, pilot salaries are not a problem for aircraft sales companies. However, for companies wanting to participate in the time sharing or cargo only portion of 91.501,that do have pilot salaries, I believe with the increase cost of fuel the 100% rule still works as it has in the past.
5. Further within the RecDoc's discussion, it was acknowledged that the FAA's original treatment of these cost reimbursements (as allowed in 91.501 (d)) did not contemplate the ability to make any type of profit from these flights, and it was the subcommittees opinion that they were being consistent with this approach with the increases to (d)(10) because it (the subcommittee) did not believe it allowed for the making of any profit. However, the subcommittee gives no statistical or calculatable support for this assumption. Further, the definition of profit is different for a corporation trying to recover

costs of their flight department, than for an air carrier who is in the business of commercial aviation, and considers profit the simple difference between income and expenses. Most corporations whose business is not related to commercial aviation would enjoy any method by which they can recover all or some of their cost of owning an aircraft and operating a flight department. Therefore, any monies being returned over and above there direct operating costs is profit to that corporation. And, the more you allow a corporation to receive monies above their direct operating costs the more they have an incentive to rent out their aircraft and/or crew. I firmly disagree with the subcommittee's assumption that their recommended increases are consistent with the FAA's original allowance. I believe its just the opposite, in that the more you allow a corporation to receive above their direct operating costs, the more the chance for profit, and the more incentive you give them to abuse this regulation.

6. I further disagree with the subcommittees "brush off" of the threat to Part 135 operators, of any increase to (d)(10). They admit that there is some abuse of this regulation but that abuse should not keep their recommended increase from becoming regulatory. However, I doubt any of us know the amount of abuse currently going on within the Part 91 community, and to make any assumption concerning this would be without documented support. I can tell you that my personal experience is that the Part 91 community is my biggest competitor. One of the reasons for this is that the FAA does not have the staffing or budget to monitor Part 91 operators, as they do Part 135 operators. Therefore, considering the lack of FAA resources and knowing that abuse does happen, why consider any increases to 91.501(d)(10) that would only exacerbate the problem?
7. The subcommittee states that the way to solve abuse of this regulation is to require the Part 91 operators using provisions of 91.501 to keep contemporaneous records. Come on, who is going to check these records. This is just a feel good way to try to get (d)(10) changed. Again, the FAA does not have the manpower to check these contemporaneous records, and requiring this record keeping is not going to deter anyone from abusing the regulation. If the IRS decided not to audit any tax payers in the future, but required better documentation of deductions as an offset for no audits, do you believe taxpayer abuse would increase or not?
8. My final argument would be to give you a real example of the current benefit of 91.501(d) to Part 91 operators and the increased value to them under this RecDoc proposal. My example is a flight in a Hawker 800A from Indianapolis to Philadelphia for a one day flight. In this example, I am only going to use 91.501(d) line items that financially benefit the aircraft owner.
    a. Flight time round trip: 2.9 hours.
    b. Fuel cost for the trip: Average burn rate of 265 gallon an hour (Conklin & de Decker) at an average price per gallon of $3.47 (ARG/US).
    c. Total fuel cost for this flight equals $2,667.
    d. Insurance cost for this specific flight (based on 400 hours per year at a cost of $51,000 annually) is $369.75.
    e. Total of 91.501(d)(4) & (10) as it relates to this flight equals $3,037.
    f. Under the increases proposed by this RecDoc to 91.501 the benefit to the Part 91 operator would be $4,824.
    g. It would not take very many time sharing hours before the Part 91 operators return pays for most or all of their fixed expenses, thereby, making time sharing agreements "profitable" to the Part 91 operator without the requirement to be certified as an air carrier.

In summary, it is my opinion that any increase to 91.501(d)(10) is not needed, that it would increase the already existing abuse of this regulation, that safety may be compromised as more passenger fly on non-air carrier aircraft, and it further infringes on business that supports the Part 135 industry.

Respectfully submitted,

Mick Pittard
Aviation Charter Services
Indianapolis, IN

Recommendation:

The subcommittee recommends that the Applicability Working Group and the Steering Committee consider the following changes (listed here in the form of a draft preamble) to § 91.501(d):

On October 7, 1971, the FAA proposed new rules applicable to large and turbine-powered multiengine aircraft. (NPRM 71-32; 36 F.R. 19507) These rules were the result of a task force recommendation in response to a fatal accident in the fall of 1970, which involved a charter flight carrying a college football team on a large aircraft. The recommendation was that additional safety rules should be promulgated for the operation, maintenance and inspection of such aircraft, but that the rules be placed in Part 91 rather than Parts 135 or 121 in order to not increase the economic burdens on those operators who were using such aircraft for their own personal and non-transportation business purposes and not holding out to the public to provide such transportation as a common carrier. The FAA recognized that although the recovery of costs for the conduct of such flights would cause those flights to be considered commercial operations under the existing rules, it was appropriate, upon the promulgation of additional safety regulations for those aircraft, to create several narrow exemptions to the requirement to receive certification as a commercial operator or air carrier where such cost recovery was limited in amount and scope and no profit motive was involved in such use of those aircraft. (36 F.R. 19508)

One of the several types of operations that were specifically addressed in this initial proposed rule-making was aircraft demonstration flights. The FAA noted, in part, that it had already "made it clear that the manufacturer or an aircraft sales company does not need a commercial operator certificate to demonstrate aircraft in flight to a prospective purchaser. Moreover, in connection with the such flights the prospective purchased (sic) may be charged a fee to defray the normal operating expenses of the flight such as fuel, oil, hangar or landing fees, and salary of the flight crew. Such demonstrations are considered to be within the scope of, and incidental to, the primary business of the aircraft manufacturer or sales company." (36 F.R. 19509) Section 91.181(b)(3) of the proposed rule therefore provided that one type of operation that would not trigger the requirement to obtain commercial certification would be "flights for the demonstration of an airplane to prospective customers . . . ." (36 F.R. 19512)

On July 25, 1972, the FAA issued its final rule creating the new proposed Subpart D (now Subpart F) to Part 91. After considering all of the comments received to the original notice of proposed rulemaking, the FAA issued in final form the rule as originally proposed with respect to demonstration flights, and further clarified that the ability to charge such normal operating expenses applied not only to the original manufacturer of the aircraft but also to aircraft owners who were demonstrating their own aircraft for the potential sale of those aircraft. (37 F.R. 14760). It also created a definition of expenses that could be

recovered for these as well as a number of other types flights. These "normal operating expenses" included expenses for fuel, oil, hangar and landing fees, and salaries of the flight crew, and the ability to recover at least a pro rata share of such expenses applied not only to demonstration flights but to flights on personal and company aircraft, and flights under time sharing, interchange and joint ownership agreements as well. (37 F.R. 14763-14764)

In October of 1972, the FAA issued as Notice 72-28 an additional notice of proposed rulemaking, addressing the charges that could be made under the new Subpart D rules. In this notice the FAA observed that although it clearly intended to allow for some cost reimbursement for certain operations when it promulgated the new Subpart D, "it was not intended that those operations be conducted for the purpose of making a profit. In issuing the same rule, the FAA believed that it was accomplishing this intent by expressly providing therein that no charge may be made in excess of the 'normal operating expenses of the flight, including fuel, oil, hangar and landing fees, and salary of the flight crew.'" (37 F.R. 22798) Upon issuing the final rule, however, the FAA received many inquiries as to whether certain expenses constituted normal operating expenses within the meaning of the regulation, and how or whether certain yearly or periodic expenses could be charged as an expense for a particular flight on a pro rata basis. In light of these comments, the FAA determined that the phrase "normal operating expenses" as used in the rule was so broad as to allow significant abuse of the intent of that rule, and therefore proposed deleting the reference to "normal operating expenses" entirely, and, with respect to demonstration flights, operations involving a company's carriage of its own property incidental to its non-air transportation business (or "cargo-only") flights, and time sharing flights, replacing it with a new § 91.181(d) (now re-numbered as § 91.501(d)). (37 F.R. 22799)

This new proposed section primarily allowed for the recovery of those "expenses [that] are incurred as a direct result of the flight, i.e., expenses that would not have been incurred if the flight had not been made." The FAA also recognized that it would be appropriate to allow for the recovery of certain additional expenses that "could be attributable to a flight although they are not typically incurred as a direct result of the flight in that they are incurred irrespective of whether or not a particular flight is conducted. Among such expenses are: (1) salaries of flight crews employed by the operator, (2) aircraft depreciation, (3) insurance premiums (hull and liability), (4) crew training costs, and (5) maintenance costs." (37 F.R. 22799) The FAA invited suggestions on how to properly define and capture the latter category of expenses while still staying within the original intent of the rule of not allowing for a profit motive for such operations, and then stated that "[r]ecognizing the difficulty of determining the amount of flight crew salary, maintenance expenses, and depreciation that should be charged for a specific flight, it has been suggested that a charge equal to 100% of the cost of the fuel for the flight be allowed instead of the specific computation of those expenses. Based on information available to the FAA, it appears that this suggestion may be a reasonable method of approximating those expenses, and provide the additional benefit of relieving the FAA of the administrative burden of verifying in detail the various methods used by operators to compute those expenses, in order to insure that a profit is not being made." (37 F.R. 22799)

On July 17, 1973, the FAA issued as Amendment No. 91-118 changes to Subpart D based on its notice for proposed rulemaking issued in October of 1972. As part of the amendment, the FAA determined that in addition to being allowed to charge for the direct operating costs of demonstration, cargo-only and time sharing flights, the allowance of a charge equal to 100% of the cost of the fuel for the flight would reasonably approximate expenses not incurred as a direct result of a particular flight, but appropriately attributed thereto. The FAA accomplished this by specifically listing the direct operating costs that could be recovered for such flights under what is now § 91.501(d)(1-9), and allowing for the recovery of an additional

amount equal to 100% of the cost of the fuel for each such flight, under what is now § 91.501(10), as a reasonable approximation of the pro rata indirect costs that could be recovered for those operations. (38 F.R. 19024)

Although the FAA determined that allowing for the recovery of an additional amount equal to 100% of the cost of fuel for aircraft demonstration or time sharing operations was a reasonable method for approximating the pro rata indirect costs properly attributable to those flights in 1973, over the last thirty-plus years the range and relative distribution of operating costs for these types of operations has significantly shifted and expanded. There is a much broader range of aircraft makes, models and performance specifications that still fit within the general category of large and turbine-powered multiengine aircraft, and there are many other aircraft that do not fit into this general category yet properly operate under these regulations through appropriate exemptions granted by the Administrator. Since this rule was originally written, substantial increases in non-fuel costs, the relative stability of fuel prices, and significant relative decreases in fuel use through increases in the efficiency of aircraft engines have all resulted in the basic method of allowing for recovery of only 100% of the fuel costs for these flights no longer reasonably approximating a pro rata share of the total indirect costs attributable to such flights.

With this result in mind, and because § 91.501(d) in its current form is widely used and understood by the aviation community and still offers the FAA a reasonable method to supervise the application of this rule without requiring the review of detailed accounting reports for each flight, the easiest way to effect a change that brings its application back to the original intent of the rule, i.e., to allow for the recovery of all direct costs plus a pro rata share of indirect costs reasonably attributable to such flights without allowing for a profit motive, is to adjust the reimbursement allowed by § 91.501(d)(10). Therefore, after conducting research into the changes in the various costs that face aircraft operators today as opposed to approximately thirty years ago, including among other things changes in technology, personnel requirements, and the time-value of money, the FAA has determined that such an adjustment can be made by increasing the percentage of the additional cost of the fuel and other lubricants for demonstration, cargo-only and time sharing flights from 100% to 167% for those turbojet aircraft listed in Table A below, or, in those instances where non-turbojet aircraft are being operated under this rule either because they are large aircraft or because the operator has been granted an exemption to do so by the Administrator, to 275% for turboprop aircraft, 200% for piston aircraft, or 400% for turbine helicopter aircraft. Any operator using turbojet aircraft that are not listed in Table A below wishing to seek reimbursement pursuant to this rule may continue to charge an additional 100% of the fuel costs for those flights.

Finally, it is also appropriate to note that the FAA's original treatment of the cost reimbursements allowed under § 91.501(d) did not contemplate the ability to make any type of profit from these flights, and the change to this rule is consistent with this approach as it still does not consider or allow for the making of any profit; rather, it is intended to essentially serve only as an adjustment to the amounts originally allowed in recognition of the changes in the types and amounts of costs that currently face aircraft operators. Moreover, the FAA recognizes that there currently is some abuse of these provisions within the general aviation community, and there is a fear in the on-demand commercial community that if the recoverable amounts under § 91.501(d) are increased, this action will lead to even more abuse. The FAA believes that this is not a valid reason to not increase the amounts recoverable to the to levels originally contemplated by the rules for those parties who are properly complying with them. The limited exemptions found in § 91.501 are only permitted to be used by those operators that are not otherwise required to comply with one of the commercial parts, and bringing § 91.501(d) back into line with its original intent does not change this fundamental principal.

That being said, the FAA does recognize that it is currently difficult for its safety inspectors to easily

and efficiently monitor compliance with the provisions of this rule as currently written. As such, in addition to amending this rule as noted above, the FAA will adopt the requirement that any aircraft operator seeking to take advantage of the cost reimbursement provisions for demonstration, time sharing and cargo only flights must record at the time of each such flight, and must maintain such records for a period of three years thereafter, the following information: the aircraft used, name of the operator and name of the person receiving and paying for such flight, total amounts paid, and the date, time, departure point and destination.

Accordingly, § 91.501(d) in its adjusted form will now read:

"(d) The following may be charged, as expenses of a specific flight, for transportation as authorized by paragraphs (b)(3) and (7) and (c)(1) of this section (but only so long as the operator for and at the time of each said flight maintains written records showing the aircraft used, name of the operator and name of the person receiving and paying for such flight, total amounts paid, and the date, time, departure point and destination.):

(1) Fuel, oil, lubricants, and other additives.

(2) Travel expenses of the crew, including food, lodging, and ground transportation.

(3) Hangar and tie-down costs away from the aircraft's base of operation.

(4) Insurance obtained for the specific flight.

(5) Landing fees, airport taxes, and similar assessments.

(6) Customs, foreign permit, and similar fees directly related to the flight.

(7) In flight food and beverages.

(8) Passenger ground transportation.

(9) Flight planning and weather contract services.

(10) An additional charge equal to 100% for any turbojet aircraft not listed in Table A below, 167% for any turbojet aircraft listed in Table A below, or, in those instances where non-turbojet aircraft are being operated under this rule either because they are large aircraft or because they have been granted an exemption to do so by the Administrator, 275% for turboprop aircraft, 200% for piston aircraft, or 400% for turbine helicopter aircraft of the expenses listed in paragraph (d)(1) of this section.

Table A

Make & Model	Year Cert.	Engine
All Current Production Jets (as of (date?))		
All Newly Certificated Jets (as of (date?))		
And the following aircraft:		
Astra SP/SPX	1986	H TFE-731
B 737-300	1984	CFM 56
Beechjet 400/400A	1985	PWC JT-15D
Citation 500 (All)	1972	PWC JT-15D

	Citation 550 (All)	1978	PWC JT-15D	
	Citation 525	1993	W FJ 44	
	Citation 650 (All)	1983	H TFE-731	
	CL 600	1981	H ALF-502	
	CL 601 (all)	1983	GE CF-34	
	Diamond 1	1982	PWC JT-15D	
	Falcon 10/100	1973	H TFE-731	
	Falcon 200	1983	H ATF3-6	
	Falcon 2000	1995	CFE 738	
	Falcon 20-5	1991	H TFE-731	
	Falcon 50	1980	H TFE-731	
	Falcon 900	1986	H TFE-731	
	GulfstreamV	1995	RR BR-710	
	Hawker 1000	1990	PWC 300	
	Hawker 400F	1980	PWC JT-15D	
	Hawker 700	1977	H TFE-731	
	Hawker 800	1984	H TFE-731	
	Jetstar II/731	1976	H TFE-731	
	Learjet 31	1988	H TFE-731	
	Learjet 35/36	1974	H TFE-731	
	Learjet 55	1981	H TFE-731	
	MD 90	1995	V 2500	
	Sabre 65	1980	H TFE-731	
	Westwind ½	1976	H TFE-731	

Steering Committee Review: Does not agree with changing reimbursements, but recommends record keeping requirement. Pending additional language from Dave Norton.

Final Action: This document was Not Approved. However, the ARC believes that the FAA should require record keeping by the operator for any flights that involve reimbursement.

Notes:

RECOMMENDATION DOCUMENT

Number: Applicability 20 (APP-20)

Issue: Commuter Part 135 Operations in turbojets; and
Single Pilot Authority for Part 135 Commuter and On-demand Operations

Jump to Section by Section Analysis
Jump to List of Affected Regulations
Jump to Proposed Regulations

Discussion:

Goals

I. The proposed changes are intended to permit the limited use of turbojet airplanes in scheduled service under Part 135 Commuter and On-demand regulations
II. The proposed regulations establish the minimum requirements for single pilot operations in turbojets.

I. Discussion/Arguments On Introduction of Turbojet Airplanes for Commuter Operations

Prior to the commuter rule turbojets were permitted in 135 commuter operations. At the time the commuter rule was implemented, FAA required all turboprop airplanes with 10 or more passenger seats to move to part 121 and required that ANY turbojet airplane operated in scheduled service (regardless of passenger capacity) be operated under part 121.

The FAA made several transitional provisions for existing airplanes certificated under part 23 to continue operations under the part 121 regulations. However, the regulations stipulated that any aircraft required to be operated under part 121 (i.e. scheduled passenger operations in turbojets) newly certificated after March 29, 1995, must be certificated under part 25. (see §121.2 (f))

This has created an operational limitation for the next-generation very light jets (VLJs). The VLJs are being certificated as part 23 airplanes. Under the current regulatory structure, there is no ability to operate a VLJ in scheduled service.

It was not the intent of the FAA to preclude an entire class of airplanes from scheduled service under the appropriate conditions, rather the development of these part 23 turbojet airplanes was not anticipated at the time of the commuter rule and therefore, no regulatory environment within which they could operate was created. The ARC was tasked with determining, among other things, the appropriate regulatory framework and safety standards for the use of such aircraft in scheduled commuter service.

Options:

1. Revise part 121 to include part 23 turbojets.
2. Revise part 135 to permit turbojets in commuter service.

Discussion of Option 1.

Extensive revision of part 121 would be necessary to accommodate part 23 VLJs.
This is due to the fact that part 121 requirements are framed around the assumption that all new aircraft used in scheduled service would be part 25. In fact in the commuter rule, the FAA stated that, “many part 121 standards are based on the assumption that transport category [part 25] airplanes are operated.” (see 60 FR 65832) A major revision of this type would be very difficult and may take several years to accomplish.

It is not necessary or practical to completely revise part 121 standards to reflect technology improvements for those operators already permitted to conduct scheduled operations in smaller aircraft under part 135 or for a relatively small group of aircraft models.

Discussion of Option 2. (Selected Option)
Part 135 on-demand regulations currently permit the operation of turbojets with up to 30 passenger seats. Although there are at present no commuter operators under part 135 considering use of VLJs for scheduled service, there may be a market in the future for such operations. This is particularly true as the piston and turboprop aircraft in part 135 commuter services continue to age. In the coming years operators may see the VLJ as an appropriate replacement airplane. The existing part 135 commuter population utilizing land airplanes (as opposed to seaplanes) is very small, largely consisting of carriers in Alaska. We believe these operators and any future commuter operators are appropriately regulated under part 135 commuter regulations. Use of turbojets under part 135 commuter rules would continue to be limited to airplanes configured for 9 or fewer passenger seats and 7,500 pounds or less of payload.

Should This Change Include Only Part 23 or Part 25 as Well?
Because the certification standards of part 25 either meet or exceed those of part 23, it would be inconsistent for the FAA to permit part 23 airplanes to be utilized in a type of service while prohibiting the same type of service by a part 25 airplane. Should the FAA limit this change to only part 23 airplanes, it would be a disincentive for new airplane manufacturers to seek part 25 certification if the target market for the airplane is commuter service. Further, potential commuter air carriers would be unlikely to select a part 25 airplane over a part 23 airplane because it would require certification under part 121. For these reasons, the proposal is to permit any turbojet to be utilized in commuter service, subject to the existing passenger and weight limitations (9 or fewer passengers and maximum 7,500 lbs. payload)

Impact on Existing Carriers.
There are no scheduled turbojet airplanes with a seating configuration of 9 or fewer passenger seats in operation. Therefore, no existing part 121 operators would be eligible to transition their aircraft to part 135 under this proposed change. There are no existing part 135 commuter operators that have indicated an interest in utilizing VLJ in their commuter operations.

Economic Impact.
There is a universal economic benefit because the FAA is permitting a type of operation that is currently prohibited. There is the additional potential for economic benefit for small commuter operators that may wish to upgrade to turbojet aircraft in the future because they will be able to maintain their existing certification under part 135 and would not be required to re-certify under part 121.

What, if any, additional safety requirements are necessary for commuter turbojet operations?
Because scheduled turbojet operations are today only permitted under part 121, the ARC also considered whether it is appropriate to apply specific part 121 safety standards to the proposed turbojet scheduled operations under part 135. In evaluating this issue, the ARC considered the benefits the FAA sought to achieve through the implementation of the commuter rule. The ARC considered, among other things, the following:

- Dispatch
- Aircraft performance
- Equipment
- Flight/Duty/Rest Rules (was tied to the belief that the 1995 NPRM would change the system)
- Training

As described in more detail below, not only will part 135, as structured and modified, provide an equivalent level of safety for the operation of small aircraft (i.e., 9 or less passenger seats or 7500 or less

payload) as exists under part 121, it will also provide a more appropriate set of operating rules for aircraft of this type.

Why make this change? Summary.

1. The existing regulatory structure prohibits the operation of certain small jets (new part 23 jets, for example) in scheduled service under parts 121 and 135.

2. There needs to be a regulatory place for such service, but the new jet aircraft are not permitted in part 121 and are specifically prohibited in part 135.

3. The FAA has an obligation to establish the appropriate regulatory and safety framework for scheduled service in smaller turbojet airplanes rather than preclude such operations altogether.

4. It is appropriate and consistent to permit both parts 23 and 25 certificated aircraft in scheduled commuter service.

5. A safety benefit is realized if an existing part 135 operator offering scheduled service operates a turbine aircraft rather than a piston.

6. An economic benefit is also realized by permitting a type of service that is currently prohibited.

7. There are no existing operators in part 121 that would be eligible for a move to part 135.

II. Discussion/Arguments Related to Single Pilot Operations in Turbojets

Under the current rules, if the aircraft certification requires two-pilots, that is the operational standard, otherwise,

Two pilots are required when:

- 10 or more passenger seats are installed,

- When required by operational rule. For example, IFR operations (subject to autopilot exception under FAR 135.105).

FAR 135.105 has provided a valuable level of convenience to part 135 passengers and an economic savings to part 135 operators. The ability to conduct single-pilot part 135 charter operations has allowed part 135 operators to furnish a greater number of flight operations to the public, while at the same time lessening the personnel costs that are inherent to two-pilot operations. This has occurred without a compromise to the safety of charter passengers.

Considering the fact that FAR 135.105 permits the carriage of passengers under part 135 by a single pilot in piston twins that have been out of production for three decades or more, it is inconsistent to deny these same passengers the opportunity to travel in state of the art turbine equipment with a pilot who is operating the aircraft possessing the advantage of a level of situational awareness that traditionally was only available in the highest range of corporate or transport category aircraft.

In reviewing the advancements inherent in the various light jet aircraft that will be entering the marketplace during this decade, single-pilot operations under FAR 135.105 will be able to be conducted not only at an equivalent, but at an enhanced level of safety under this regulation. Specifically, the certification of light jet aircraft that incorporate EFIS displays, flight management systems, weather radar, reduced vertical separation minimums equipment, and three-axis autopilots, will offer a level of situational awareness that will provide a higher level of safety than what was envisioned when FAR 135.105 was enacted. However, it is acknowledged that these technology enhancements are not required in part 135 in order to obtain

single pilot operational authority under the existing rules.

Further, advances in airframe development will allow light jet aircraft to conduct operations at slower approach speeds, and at airports that were not even accessible, by the former generation of jet aircraft with 9 passenger seats or fewer. Just as the advances in aircraft technology provided the FAA with an adequate safety basis to support its earlier decision to allow two-person crews in transport category aircraft, the additional technological advances found in the new generation of light jets supports the continuation of single-pilot operations in appropriately equipped light jets operating under FAR 135.105.

The group has discussed how replacing piston aircraft flown by an existing operator which holds single pilot authority with a turbojet aircraft would alter the operational environment. In general, it was agreed that in many ways the turbojet would provide equivalent or improved safety margins. For example, a two-engine turbojet aircraft which loses an engine shortly after take off would have better performance than a piston aircraft in the same situation. However, the turbojets may permit more frequent operations at higher altitudes over longer ranges. This may place the pilot in a new operating environment, where factors such as decreased response time for loss of pressurization, and RVSM could be encountered. The group discussed whether these new environments should impact single pilot authority.

Specific areas discussed by the group included:

- Pilot communications with passengers
- Pilot workload
- Should operations be permitted with key MEL-listed equipment inoperative
- Minimum pilot experience in aircraft type
- Minimum operator experience with type in scheduled operations
- Training for pilots

The ARC's recommendations are based on a thorough evaluation of each of these areas.

Review of Current Part 23 Certification Process

In evaluating the above items, it is important to note that many of these various issues are addressed during the aircraft certification process.

"Single pilot approval" is accomplished when the minimum flight crew evaluation is performed as part of the Type Design approval under FARs 23.1523 or 25.1523. Once established by Type Design, then operational approval under FAR 135.105 is merely a matter of meeting any specific requirements for equipment or training that part 135 addresses (i.e., approved autopilot system; if used in commuter operation, PIC is required to have 100 hours PIC flight time).

FAR parts 23 and 25 have been in place for a number of years, having previously existed in the Civil Air Regulations (CARs) which were re-codified and replaced by the FARs in the 1960s. The initial requirement for part 23 at re-codification was to address operation under VFR; however, in 1978 Amendment 23-21 revised part 23, requiring evaluation for all operations authorized by Type Design (same as part 25 requirement at re-codification).

Minimum flight crew evaluation is based upon a workload assessment of the aircraft considering flight path control, collision avoidance, navigation, communications, operation and monitoring of aircraft

engines and systems, command decisions, and accessibility and ease of operation of necessary controls. In this evaluation, there are a number of workload factors that are considered significant:

- Impact of basic airplane flight characteristics on stability and ease of flight path control
- Accessibility, ease, and simplicity of operation of all necessary flight, power, and equipment controls
- Accessibility and conspicuity of all necessary instruments and warning devices
- Degree and duration of concentrated mental and physical effort involved in normal operation and in diagnosing and coping with malfunctions and emergencies, including accomplishment of checklist, and location and accessibility of switches and valves
- Extent of required monitoring of the fuel, hydraulic, pressurization, electrical, electronic, deicing, and other systems while en route
- Degree of automation provided in the event of a failure or malfunction in any aircraft systems
- Communications and navigation workload
- Possibility of increased workload associated with any emergency that may lead to other emergencies
- Passenger problems
- Number, urgency, and complexity of operating procedures with particular consideration given to the specific fuel management schedule

It should be noted that the preceding requirements are the same as those codified into FAR part 25 aircraft, Appendix D (and harmonized with JAR-25). They are also contained in AC 23-8B (Flight Test Guide for Certification of Part 23 Airplanes) and is harmonized with the Flight Test Guide for Certification of JAR-23 Aeroplanes.

Obtaining a type certificate authorizing single pilot operations for a particular aircraft involves, among other things, the development of is a systematic test plan which is then flown by a panel of pilots. For a single pilot approval, the evaluation pilots should be experienced and proficient in single pilot operations (i.e., representative pilot population). The flight test program is structured to address route (simulates a typical area that is likely to provide adverse weather and IMC, as well as mix of navigation aids and ATC services), turbulence, day and night conditions, crew work schedule (evaluation crew is assigned a daily work schedule representative of the type of operations intended, including attention to possible passenger problems), minimum equipment, traffic density (evaluation is conducted over routes representative of high density areas and includes precision and non-precision approaches, holdings, missed approaches, and diversions), system failures (consequences of changes from normal to failed modes of operation, including inducing failures such as failed displays), and emergency procedures (a sampling of various emergencies).

In determining compliance, judgments by the evaluation team members are performed against pre-established workload standards. The intent is to provide a holistic pilot evaluation rationale in view of the wide variety of possible crew configurations.

Single Pilot Certification – Historical Aircraft Standards

Recognizing that the FAA has long-standing historical precedent to permit single pilot operations in part 135, an analysis of the certification basis of the many single-pilot operated aircraft within part 135 today is appropriate. Such analysis would assist in determining whether aircraft certification standards have evolved to a point where newly certificated aircraft offers equipment or design elements that further enhance the safety of single pilot operations.

Three aircraft were compared in this review, Cessna 501 and 525, and Piaggio P-180.
The current amendment level of part 23 is 23-55. Specific amendment levels of part 23 of note for evaluation purposes are:

- Amendment 23-21 from 1978: incorporated the basic minimum flight crew standards into 23.1523 used today (was amended again in 1987, but basic regulatory requirements are the same).
- Amendment 23-41 from 1990: incorporated the current systems and equipment installations safety

standards into 23.1309 that dictate systems reliability and redundancy (was amended again in 1996, but basic regulatory requirements are the same).

- Cessna 501: approved for single pilot with specified equipment. Certification basis of Amendment 23-16.
- Cessna 525: approved for single pilot with specified equipment. Certification basis of Amendment 23-38.
- Piaggio P-180: approved for single pilot. Certification basis of Amendment 23-33.

Therefore, none of the three airplanes evaluated meet the current standards for systems safety put into effect by Amendment 23-43 for system reliability and redundancy. Therefore, new aircraft like the VLJs entering the marketplace should provide enhanced systems reliability.

Exemption History

FAA has issued exemptions to allow single pilot operations in part 25 aircraft. The most prevalent exemption related to single-pilot operation is for the part 25 Cessna Model 550, 552, 560 (Citation II/V/Ultra) series of airplanes. The initial exemption No. 4050 was obtained by Cessna and has since been used as justification for a large number of exemptions issued to individual operators. This primarily exempts the operator from the 91.531(a)(1)&(2) Second in Command Requirement for large airplanes and turbojet-powered multiengine airplanes and modifies the type certificated 2-person minimum crew to allow for single-pilot. Review of an exemption showed the following requirements:

Operational Limitations

- Part 91
- No circling instrument approaches to minimums less than 200ft and 1mi above until 100 hours single pilot experience
- No straight-in instrument approach to minimums less than 100ft and 1/2mi above until 100 hrs single pilot experience

Pilot Training

- Single-pilot initial authorization training program approved by AFS-800
- Single-pilot authorization renewal training program approved by AFS-800
- Hold ATP/Commercial with C-500 type rating
- At least 1,000 hrs pilot flight time

Equipage

- 3-Axes Autopilot with approach coupling
- Flight director system
- Boom microphone
- Transponder "ident" switch on pilot's control wheel

The Current Process for Obtaining Operator Single Pilot Authority.

A number of actions must be taken by an operator in order for it to obtain the necessary authorization to engage in single pilot part 135 operations. These actions, which are described below, are in addition to the requirement that the selected aircraft be approved for single pilot operations either by its Type Certificate or pursuant to an FAA exemption.

Under current guidance the FAA does not allow part 135 single pilot operations with aircraft Type Certificated for more than 9 seats. In addition CAT II/III and some international flights (i.e., long range) are not authorized.

Normally a meeting with the FSDO would be necessary to inform the FAA of the operator's intent to operate Single Pilot.

During this meeting, the FSDO should provide the operator the necessary guidance to assist the operator.

If the operator's operation is neither large nor complex, the FAA generally does not require extensive manuals, training programs, and management personnel. However, operators with complex or large scale operations generally would be required to have those items in place due to the size and capabilities of their organization (as opposed to simply because it is a single pilot operation).

One area that will be addressed by the FAA is pilot training. The operator's training program must be revised to include the new aircraft's (Single Pilot) capabilities. Most turbine powered operators will send their pilots to an FAA approved Part 142 Training Center for their pilot training. These training centers are not only overseen by the FAA, but the operator also has a responsibility as well to perform audits on the center.

The operator's aircraft maintenance program will have to have the aircraft's inspection program added, and approved by the FSDO.

The operator will also perform a conformity inspection on each of the aircraft that will be used on the operator's certificate. The conformity package consists of work items which detail the aircraft history, maintenance squawks, AD compliance, damage history, approved parts, part 135 Requirements, Emergency equipment, and placards. The operator performs the conformity and the FAA will inspect the aircraft prior to being placed into the ops specs.

Proving runs will be required for a new operator. For single pilot operations, the proving runs are significant because they provide the FAA with the ability to evaluate in real time the workload issues that the pilot will face and the manner in which the pilot handles such issues.
Line checks for the pilots can be accomplished during the proving runs by the FAA.

Once the operator has been advised of acceptance of the manual revisions, training program approvals, aircraft conformity, approval of the maintenance inspection program, and has completed the proving runs or validation, the FAA principal inspectors will issue the appropriate operations specifications, and the operator may begin operations.

Guidance for Air Carrier Single Pilot operations addressing many of these issues is already contained in FAA Order 8400.10 and applicable provisions of part 135.

Review of Safety Record.
Prior to making any recommendation for or against single pilot authority for part 135, the ARC conducted a review of available safety data. The group agreed that any decision for additional requirements for or restrictions on single pilot operations must have some basis in safety. That is, the recommended actions must be intended to improve safety by addressing identified safety failures, rather than arbitrarily or randomly picking rules that "sound good." The group therefore considered the accident history of single pilot part 135 accidents (using NTSB source data compiled by FAA) and accident history for single pilot turbojet accidents (provided by Breiling Associates). Due to the relative lack of single pilot 135 operations in turbojets, the turbojet information included predominately part 91 operated airplanes. This makes a direct correlation to part 135 difficult as part 135 has substantially different operator, operations, and maintenance requirements than those of part 91.

There was some interesting information in the turbojet accident summaries. Many of the accidents involved situations that could be addressed with proper training and adherence to regulations (such as below minimums takeoffs/approaches) and possibly use of single pilot resource management training.

While the FAA accident data for part 135 showed the majority of accidents occurred in single pilot

operations, this is not unexpected as single pilot piston aircraft comprise a large portion of the entire part 135 fleet.

- Of 787 accidents identified, 193 had fatalities.

- 605 of the 787 accidents involved reciprocating engine airplanes

The data showed that the first occurrence in serious or fatal accidents was In Flight Collision with Terrain (or Water) and Loss of Control – In Flight.

Based upon this information, the group feels that recommendations to impose additional requirements for commuter and on-demand single pilot operations should target:

Training
- Single-Pilot Resource Management
- Regular training and checking specific to single pilot operations
- Specialized aircraft training (this will be required by default as the turbojets will require a pilot type rating)

Equipment
- Examine the benefit of TAWS equipment. This was completed by the AWG and Equip/Tech. Group.
- Autopilot enhancements

Operations
- Minimum pilot experience in type
- Minimum operator experience with aircraft
- Operations with MEL-deferred items (such as TAWS, if installed). MELs should specify that single pilot operations are prohibited even if item is properly MEL deferred (i.e., can fly 2 pilots but not one). Operating with an MEL cannot relieve you of equipment required for single pilot operations – there is no deferment of autopilot (autopilot can be MEL'd but a second pilot would be required), passenger/crew oxygen or passenger communication equipment items.

Conclusions

The group does not doubt that these airplanes ***can*** be operated safely by one pilot. If it could not, the FAA would not have permitted it to be certificated as a single pilot airplane. However, because these airplanes will be operated in commercial service, consideration of additional, safety-based, requirements is appropriate. It is important that any such restrictions not be so burdensome as to be an obstacle to obtaining single pilot authority.

After much debate, a **general consensus** was reached on the single pilot issue for on-demand operations.

On-Demand Part 135 Single Pilot
- Agree that Single-Pilot Operations for all aircraft categories (piston, turboprop, jet) should be approved.

The group was **unable to reach a consensus** on whether single pilot operations in turbojets should be permitted in commuter service.

Commuter Part 135 Single Pilot
- **Consensus** that existing (piston/turboprop) authority to conduct single pilot operations should

remain.

- **Majority opinion** that single pilot commuter operations in turbojets are acceptable subject to specific requirements/standards, including dispatch requirements. The **minority opinion** was that single pilot commuter operations in turbojets are not acceptable.
- Consensus that recommended changes are intended to incorporate a mandatory dispatch function for Commuter Operations based upon the following agreement of the group.

Commuter with turbojets – Dispatch would meet the 121 flag/domestic standard (except for Alaskan operators, see discussion below).
Commuter non-turbojets –Require an FAA-approved dispatch function appropriate to the size and number of aircraft and the scope and frequency of operations. There is an argument to implement a 121 Flag & Domestic type of dispatch requirement within this community. However, there could be substantial cost burden imposed by a full dispatch requirement on many of these businesses that are very small in size and scope. These operators have successfully shown the FAA that their existing dispatch functions fulfill the safety needs of their operations. We are requiring a thoughtful review of existing dispatch functions between the operator and FAA to ensure safety needs for flight planning, dispatch and operational control are met. (includes Alaskan operators)
On-demand – no change to current rules proposed with regard to the dispatch function

Alaskan Operations:
There was significant discussion regarding the unique operational environment and challenges faced by operators within the State of Alaska. Based on the evaluation conducted, it is firmly believed that the challenges of implementing the part 121 dispatch function in this region will not present the same benefits as may be experienced elsewhere. Among the unique challenges faced by Alaska is the inability to attract and retain qualified employees. The ability to have a locally trained staff, on "Alaskan time" does seem to mitigate accidents but often this would be best accomplished by a company employee performing other functions in addition to dispatching. A separate position as a dispatcher, or even a company contracted to perform the dispatch function presents dramatic concerns for these operators. Importantly, the vast majority of existing commuter operators exist within Alaska. These carriers serve a vital need and the public interest is best served by having them available to serve the most remote villages and regions of the state. The potential negative impact of instituting a full 121 dispatch function may well negate the potential safety and service benefits that could be achieved should an existing operator 'upgrade' to turbojet service in the future. To encourage such a transition where feasible, the ARC proposes to exclude Alaskan operations from the proposed Subpart K requirements.

Further, aside from the economics of the added cost, several of the Subpart K requirements would be impractical within Alaska. For instance, the ability to communicate between a crew in flight and a ground base station does not exist and would be very costly to implement. With regard to weather requirements, airports with scheduled air service have an "all weather" approach and landing capability. There are 176 public use Alaska airports which do not have basic instrument approach capability. Most do not even have GPS approaches established. Compliance with the 121 dispatch requirements would therefore have a drastic negative impact on scheduled service within the state. Weather information, communications capability, and approach procedures are required to support commercial transport of people, property, and mail. Weather for VFR operations, weather cameras, expansion of the program to include all AWOS sites and select remote passes or choke points, and finally, a plan to maintain current and future systems are considered necessary.
Finally, only 70 runways are lit out of over 81 airports—21 of which cannot be lit safely for fixed wing operations due to minimal length, terrain, and obstructions. More than half of rural airports are without minimal passenger shelter.

Importantly, there are alternative communication and surveillance technologies emerging within Alaska that would benefit all operations. Communications, navigation and surveillance (CNS) capability should be available state-wide to support efficient routing, traffic and terrain avoidance, real time flight locating, and enhanced search and rescue. Existing communication capabilities are not continuous throughout the state, due to terrain, distance, and altitude constraints. A need for data-link ground stations to provide CNS capability has been identified at 194 locations in Alaska. Statewide aircraft CNS can be enabled with Automated Dependent Surveillance Broadcast (ADS-B) data link technology, which is also critical for flight track monitoring and security.

Therefore, due to the significant obstacles to compliance with the 121 dispatch function, the proposal forwarded is that any Alaskan commuter operator seeking to operate turbojet aircraft would need to have in place an approved dispatch function satisfactory to the Administrator in lieu of the part 121 standard.

Economic Impact

Overall, there is expected to be a neutral to positive economic impact from the proposed regulations related to single pilot operational authority. Because single pilot operations in turbojets are not prevalent today in on-demand operations, and importantly no turbojet commuter operations are permitted within today's regulatory structure, these regulations create an opportunity for service that was not previously possible. For those single pilot on-demand operations in turbojets today there will be some economic impact to comply with requirements (notably the passenger communication and auto pilot requirements and revisions to training programs). The working group anticipates that the FAA will provide a sufficient time to meet new requirements and, if necessary due to the unique design capabilities of a particular aircraft, issue a deviation or exemption from any specific requirement if justified. Further, it is expected that existing pilots conducting single pilot operations in turbojets would already meet experience requirements. An appropriate implementation schedule will minimize the financial impact of these changes, particularly for small businesses.

Summary Table of Proposed Changes for Single Pilot Turbojet Operations

	Autopilot w/coupled approaches & track/hold?	Communications capability while wearing O2?	IOE under 135.244? (25 hours for Turbojets)	Single Pilot specific training and proficiency check?	Addt'l pilot general experience requirements for single pilot eligibility.	PIC need 10 hours under observation with check pilot before Single Pilot authorized?	Certificate holder needs 6 months experience with turbojets in commuter service?	Meet 121 Flag/Domestic Dispatch requirements?
Commuter 2 pilot turbojet	No	Nothing additional proposed	Yes	n/a	n/a	n/a	n/a	Yes (except Alaska)
Commuter 1 pilot turbojet	Yes	Yes	Yes	Yes	Yes, 100 hours in make/model/type	Yes	Yes	Yes (except Alaska)
On-demand 2 pilot turbojet	No	Nothing additional proposed	No	n/a	n/a	n/a	n/a	No
On-demand 1 pilot turbojet	Yes	Yes	Yes	Yes	Yes, 100 in make/model/type	Yes	n/a	No

SECTION BY SECTION ANALYSIS OF PROPOSED CHANGES

(Note: Hyperlinks below will take you to the proposed regulation.)

§ 119.3 Definitions.

All changes are to reflect the ability of turbojets to operate in scheduled operations under part 135 regulations so long as they have a maximum passenger seating configuration of 9 or fewer seats and a maximum payload capacity of 7,500 pounds or less.

The changes do not establish an aircraft certification-basis for eligibility under part 135 (meaning the aircraft could be either part 23 or 25), rather the regulatory changes authorize the use, in **scheduled service**, of:

1. A turbojet aircraft in part 135 commuter operations when the aircraft is configured in accordance with maximum passenger and payload limits. (Today's limit is 9 or fewer passenger seats and 7,500 pounds payload or less)

2. A turbojet aircraft in part 135 on-demand operations when airplane is configured in accordance with maximum passenger and payload limits. (Today's limit is 9 or fewer passenger seats and 7,500 pounds payload or less)

Part 135 on-demand operations (other than scheduled) would maintain authorizations of:

Part 23 or part 25 aircraft, configured with 30 passenger seats or 7,500 pounds payload

Definitions amended are:
- Commuter operation
- Domestic operation
- Flag operation
- On-demand operations

§ 119.21 (a) (4) Commercial operators engaged in intrastate common carriage and direct air carriers.

The proposed change will require commuter operations utilizing turbojets to establish dispatch and operational control functions generally meeting the standard for part 121 domestic and flag carriers. These requirements are specified in proposed 135 Subpart K. Commuter operations utilizing turbojet aircraft conducted within the State of Alaska and those utilizing other than turbojet aircraft would be required to develop a formalized dispatch function that in the determination of the FAA is appropriate to the size and number of aircraft operated and the scope and frequency of those operations. As articulated by the FAA in the 1997 so-called "Commuter Rule" one of the primary reasons for transitioning many scheduled operations from 135 to 121 was the requirement within 121 for dispatch and operational control functions. The ARC believes that because the use of turbojets in scheduled operations today is required to be under part 121 and our proposal will permit such use under 135 that introduction of the dispatch requirement satisfies the necessity to maintain an equivalent level of safety.

§ 135.5 Special Rule for commuter operations in turbojet aircraft.

The proposed change will require commuter operators utilizing turbojet aircraft to comply with provisions for pilot operating limitations and crew pairing requirements found in § 135.4. That section was created to define the qualities of "eligible on-demand operations." Crew pairing requirements are also found within part 121. Because turbojet operations are now being permitted under part 135 commuter rules where they would have previously been under part 121, the working group felt it was appropriate to recognize the benefit such rules have previously demonstrated in the scheduled environment and adopt such a requirement for commuter turbojet operations. Further, to adequately address unique circumstances and issues encountered with initial cadre pilots and other events, the regulation proposes to permit commuter operators subject to this part the opportunity to apply for limited deviations from those crew limitations and pairing standards that are detailed within § 135.4.

§ 135.19 Emergency Operations
§ 135.21 Manual requirements
§ 135.23 Manual contents
§ 135.69 Restriction or suspension of operations: Continuation of flight in an emergency.
§ 135.77 Responsibility for operational control.

The proposed changes are intended to reflect the new dispatch and operational control requirements for commuter operations in turbojet aircraft.

§ 135.99 Composition of flight crew.

(a) no changes
(b) no changes
(c) This section is intended to establish the minimum aircraft, certificate holder and pilot qualifications for operations in a turbojet with a single pilot.
    (1) Establishes additional functional requirements for an autopilot. Specifically, the autopilot, in addition to the existing criteria of § 135.105, must be capable of coupled approaches and have "track and hold" functionality.

(2) This requirement recognizes that a single pilot environment complicates the pilot's ability to communicate with passengers above certain altitudes. In a two pilot environment one pilot will, under most all circumstances, be able to casually communicate with passengers without electronic aid due to the relatively small cabin interior. This would continue to be possible when one crewmember is required to be continuously wearing the mask. Typical communications during this time would include updates regarding arrival time, ATC delays, potential turbulence ahead, etc. In the single pilot environment, once the aircraft is above FL250 the oxygen mask must be worn by the pilot continuously. Absent the proposed communications equipment, those casual communications would be nearly impossible and could pose a threat to passenger safety, especially in the case of warnings to fasten seatbelts in preparation for turbulence. Therefore, a means of pilot communication to the passengers while wearing the oxygen mask is proposed for any single pilot operation utilizing a turbojet aircraft.

(3) Under existing regulations (see 135.105 and 135.99(d) below) the FAA requires that any commuter pilot seeking authority to conduct single pilot operations posses at least 100 flight hours as pilot in command in the make and model of aircraft to be flown. The working group believes that this standard is appropriate and should be required for both on-demand and commuter operations in turbojets utilizing a single pilot. This standard ensures that the pilot has a minimum amount of direct, applicable experience with the aircraft prior to conducting commercial operations. With regard to turbojets, the working group intends to make it clear that operations must be in the specific aircraft type when a type rating is required for the aircraft the pilot intends to operate.

(4) The working group believes that ensuring a pilot is properly equipped to handle the workload and unique aspects of a turbojet flown with a single pilot necessitates a specific training program and proficiency check. Regardless of prior pilot experience with turbojets in general or a specific aircraft type the proposed regulation requires completion of an FAA approved training program and pilot check ride.

(5) Following the successful completion of the training and checking in (4) above, the pilot would assume pilot in command duties for a minimum of 10 hours under the supervision of a qualified check airman. After completion of this "observation period" the check airman may authorize the pilot to conduct single pilot operations for the certificate holder. This supervision time would not be transferable between certificate holders. That is, a pilot would need to complete this requirement for each certificate holder that he may work for.

(6) This regulation is intended to clarify that the pilot experience requirements for a commuter pilot are in addition to, not in lieu of, the operating experience requirements (25 hours for turbojets) detailed in § 135.244.

(7) The working group believes that requiring the certificate holder to have a minimal level of operational experience is necessary prior to conducting single pilot operations in turbojets. The proposed six months of operating experience will allow the certificate holder's processes and procedures to mature while

permitting their pilots time to gain the experience necessary to obtain single pilot authorization. Safety will be enhanced when prior to conducting single pilot commuter operations the certificate holder gains experience in the operation of the aircraft over those routes and to those airports where the certificate holder will conduct scheduled operations.

(8) The working group believes that the large scale introduction of very light jets will also impact the crewmember needs within the on-demand operational environment as well and further believes the operating experience requirements for commuter operations under § 135.244 would benefit such pilots. Therefore, the proposal requires compliance with the applicable portions of that section for on-demand operations in turbojet aircraft with a single pilot. Specifically, pilots would need operating experience totaling 25 hours and that those hours must be flown in on-demand operations.

(d) Under today's regulations, a commuter pilot must have at least 100 hours as pilot in command in the make and model of aircraft to be flown in order to operate that aircraft as a single pilot. This requirement is today located within § 135.105 (a). Because § 135.99 now stipulates the requirements for single pilot operational authority, the group has moved this requirement to this location. It applies to aircraft other than turbojet aircraft, as it does today.

§ 135.101 Second in command required under IFR.

No significant changes are proposed other than to reference § 135.99.

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

The only proposed change is the removal of the commuter pilot experience requirement (100 hours in make and model) for single pilot operations, that was moved to § 135.99 (d).

§ 135.244 Operating Experience.

Altering the "make and model" language to reflect type where applicable now that turbojets with type ratings will be permitted in 135 commuter operations.

135 Subpart K – Dispatch and Operational Control Requirements for Commuter Service Operators Using Turbojet Airplanes

For commuter operations in turbojets (exclusive of Alaskan operations) the proposal requires a dispatch and operational control function based upon the existing requirements for part 121 Flag and Domestic operations. Following an evaluation of part 121 requirements, those applicable to commuter operations under part 135 are detailed.

§ 135.551 Applicability.

This regulation states that any commuter operation utilizing turbojets is subject to Subpart K. Operations within the state of Alaska are exempt from this subpart. Finally, the rule stipulates that when operations are conducted within the 48 contiguous United States that rules related to Domestic operations are followed. For operations outside or to/from the 48 contiguous United States the rules related to Flag operations should be followed. As occurs in the part 121 environment today, operators my petition the Administrator for a deviation from certain requirements and the working group feels it is prudent to grant deviation authority for commuter operations as well.

§ 135.553 References.

The purpose of this regulation is to ensure operators understand that the references within

Subpart K are intended to reflect the current regulations under part 121. It is expected, however, that the FAA when revising/ renumbering those part 121 regulations will also revise the Subpart K references.

§ 135.555 Compliance with other regulations under this part.
This regulation is to clarify that were corollary or conflicting regulations exist within part 135, that the Commuter operator shall comply with the part 121 regulations listed in § 135.559. Part 135 contains many regulations for computation of fuel supply, destination and alternate weather minimums and others. To avoid confusion, operators must be aware that they need not comply with those regulations, but the rules part 121 rules detailed in Subpart K instead.

§ 135.557 Compliance with regulations under part 121.
This regulation lists the applicable part 121 regulations with which part 135 commuters utilizing turbojets must comply.

RECOMMENDED CHANGES TO PART 135

LIST OF REGULATIONS:

14 CFR 119

SUBPART A - GENERAL

119.3 Definitions.
119.21 Commercial operators engaged in intrastate common carriage and direct air carriers.

14 CFR 135

SUBPART A - GENERAL

135.5 Special Rule for commuter operations in turbojet aircraft.
135.19 Emergency operations.
135.21 Manual requirements.
135.23 Manual contents.

SUBPART B –FLIGHT OPERATIONS

135.69 Restriction or suspension of operations: Continuation of flight in an emergency.
135.77 Responsibility for operational control.
135.99 Composition of flight crew.
135.101 Second in command required under IFR.
135.105 Exception to second in command requirement: Approval for use of autopilot system.

SUBPART E – FLIGHT CREWMEMBER REQUIREMENTS

135.244 Operating experience.
~~135.24x Pilot operating limitation and pairing requirement: Commuter operations.~~

SUBPART K –DISPATCH AND OPERATIONAL CONTROL REQUIREMENTS FOR COMMUTER SERVICE OPERATORS USING TURBOJET AIRPLANES

135.551 Applicability
135.553 References.
135.554 Compliance with other regulations under this part.
135.557 Compliance with regulations under part 121.

PROPOSED REGULATORY CHANGES

(Note: Hyperlinks will take you to the appropriate Section by Section analysis.)

CONVENTIONS – Deleted text shown by ~~strikethrough.~~ New text shown by *italics.*

§ 119.3 Definitions.

Commuter operation means any scheduled operation conducted by any person operating one of the following types of aircraft with a frequency of operations of at least five round trips per week on at least one route between two or more points according to the published flight schedules:

(1)Airplanes~~, other than turbojet powered airplanes,~~ having a maximum passenger-seat configuration of 9 seats or less, excluding each crewmember seat, and a maximum payload capacity of 7,500 pounds or less; or

(2) Rotorcraft.

Domestic operation means any scheduled operation conducted by any person operating any airplane described in paragraph (1) of this definition at locations described in paragraph (2) of this definition:

(1) Airplanes:

~~(i) Turbojet-powered airplanes;~~

(i) ~~(ii)~~ Airplanes having a passenger-seat configuration of more than 9 passenger seats, excluding each crewmember seat; or

(ii) ~~(iii)~~ Airplanes having a payload capacity of more than 7,500 pounds.

(2) Locations:

(i) Between any points within the 48 contiguous States of the United States or the District of Columbia; or

(ii) Operations solely within the 48 contiguous States of the United States or the District of Columbia; or

(iii) Operations entirely within any State, territory, or possession of the United States; or

(iv) When specifically authorized by the Administrator, operations between any point within the 48 contiguous States of the United States or the District of Columbia and any specifically authorized point located outside the 48 contiguous States of the United States or the District of Columbia.

Flag operation means any scheduled operation conducted by any person operating any airplane described in paragraph (1) of this definition at the locations described in paragraph (2) of this definition:

(1) Airplanes:

~~(i) Turbojet-powered airplanes;~~

(i) ~~(ii)~~ Airplanes having a passenger-seat configuration of more than 9 passenger seats, excluding each crewmember seat; or

(ii) ~~(iii)~~ Airplanes having a payload capacity of more than 7,500 pounds.

(2) Locations:

(i) Between any point within the State of Alaska or the State of Hawaii or any territory or possession of the United States and any point outside the State of Alaska or the State of Hawaii or any territory or possession of the United States, respectively; or
(ii) Between any point within the 48 contiguous States of the United States or the District of Columbia and any point outside the 48 contiguous States of the United States and the District of Columbia.
(iii) Between any point outside the U.S. and another point outside the U.S.

On-demand operation means any operation for compensation or hire that is one of the following:

(1) Passenger-carrying operations conducted as a public charter under part 380 of this title or any operations in which the departure time, departure location, and arrival location are specifically negotiated with the customer or the customer's representative that are any of the following types of operations:
(i) Common carriage operations conducted with airplanes, including turbojet-powered airplanes, having a passenger-seat configuration of 30 seats or fewer, excluding each crewmember seat, and a payload capacity of 7,500 pounds or less, except that operations using a specific airplane that is also used in domestic or flag operations and that is so listed in the operations specifications as required by § 119.49(a)(4) for those operations are considered supplemental operations;
(ii) Noncommon or private carriage operations conducted with airplanes having a passenger-seat configuration of less than 20 seats, excluding each crewmember seat, and a payload capacity of less than 6,000 pounds; or
(iii) Any rotorcraft operation.

(2) Scheduled passenger-carrying operations conducted with one of the following types of aircraft with a frequency of operations of less than five round trips per week on at least one route between two or more points according to the published flight schedules:
(i) Airplanes~~, other than turbojet powered airplanes,~~ having a maximum passenger-seat configuration of 9 seats or less, excluding each crewmember seat, and a maximum payload capacity of 7,500 pounds or less; or
(ii) Rotorcraft.

(3) All-cargo operations conducted with airplanes having a payload capacity of 7,500 pounds or less, or with rotorcraft.

§ 119.21 (a) (4) Commercial operators engaged in intrastate common carriage and direct air carriers.

Commuter operations in accordance with the applicable requirements of part 135 of this chapter, and shall be issued operations specifications for those operations in accordance with those requirements. *Commuter operations using turbojet aircraft, except those conducted solely within the state of Alaska, shall comply with part 121 Domestic or Flag dispatch and operational control requirements as stated in part 135 subpart K as appropriate. Commuter operations using other than turbojet aircraft, and those conducting commuter operations in turbojet aircraft solely within the state of Alaska, require an approved dispatch function appropriate to the size and number of aircraft and the scope and frequency of operations.*

§ 135.5 Special rule for commuter operations in turbojet aircraft.

Commuter operations in turbojet powered aircraft conducted under this part that consist of two flight crewmembers shall meet the pilot operating limitations and crew pairing requirements of

subparagraphs(a)(3) and (a)(4) of § 135.4. Certificate holders are also eligible to apply for the deviation authority of subparagraph (b) of § 135.4.

§ 135.19 Emergency Operations

(a) In an emergency involving the safety of persons or property, the certificate holder *and or aircraft dispatcher, if dispatchers are utilized,* may deviate from the rules of this part * * * *

§ 135.21 Manual requirements.

(1) Its flight crewmembers, *aircraft dispatchers (if dispatchers are utilized)* and * * * *

§ 135.23 Manual contents.

* * * *

(e) Procedures for ensuring that the pilot in command *and aircraft dispatcher (if dispatchers are utilized),* 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

* * * *

(g) Procedures to be followed by the pilot in command *and aircraft dispatcher (if dispatchers are utilized)* for determining that mechanical irregularities or defects reported for previous flights have been corrected or that correction has been deferred;

(l) Flight locating *or dispatch* procedures, when applicable

(3) Notification of the pilot in command *and aircraft dispatcher (if dispatchers are utilized)* when there are hazardous materials aboard, as required by title 49 CFR;

§ 135.69 Restriction or suspension of operations: Continuation of flight in an emergency.

(a) During operations under this part, if a certificate holder *aircraft dispatcher* or pilot in command knows of conditions, including airport and runway conditions, that are a hazard to safe operations, the certificate holder, *aircraft dispatcher o*r pilot in command, as the case may be, shall restrict or suspend operations as necessary until those conditions are corrected.

(b) No pilot in command *or aircraft dispatcher* may allow a flight to continue toward any airport of intended landing under the conditions set forth in paragraph (a) of this section, unless, in the opinion of the pilot in command *and aircraft dispatcher, (if utilized),* the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival or, unless there is no safer procedure. In the latter event, the continuation toward that airport is an emergency situation under §135.19.

§ 135.77 Responsibility for operational control.

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

Each certificate holder using a turbojet aircraft in commuter service shall comply with part 121 Domestic or Flag dispatch and operational control regulations as required in Subpart K of this part.

§ 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.

(c) No certificate holder may operate a turbojet aircraft without a second in command unless;

(1) In addition to the autopilot requirements of § 135.105, the approved autopilot system is also be capable of coupled approaches and have "track & hold" functions,

(2) Oxygen equipment, when required by § 135.89 to be in continuous use, must allow the pilot to provide briefings to passengers through a means approved by the Administrator,

(3) The pilot has at least 100 hours of flight time as pilot in command in the make, model and type (if a type rating is applicable) of aircraft to be flown,

(4)The pilot must successfully complete both the certificate holder's approved single pilot training program and a single pilot proficiency check, and

(5) The pilot must complete at least 10 hours of flight time acting as a single pilot in command under the supervision of a qualified check airman with that certificate holder.

(6) For on-demand operations, the pilot must meet the operating experience requirements identified for operations of turbojet aircraft in § 135.244, except that the requirement for experience under (b)(2)of that section must be satisfied by on-demand operations, not commuter operations.

(7) For commuter operations, the experience identified in paragraphs (3) and (5) above is in addition to the operating experience required by § 135.244.

(8) For commuter operations, the certificate holder may not conduct commuter passenger carrying operations in turbojet aircraft with a single pilot until that certificate holder has obtained at least 6 calendar months of operating experience utilizing turbojet aircraft in commuter operations.

(d) No certificate holder may operate an aircraft other than a turbojet in commuter operations without a second in command unless the pilot 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.

§ 135.101 Second in command required under IFR.

(a) Except as provided in §§ *135.99* and 135.105, no person may operate an aircraft carrying passengers under IFR unless there is a second in command on the aircraft.

§ 135.105 Exception to second in command requirement: Approval for use of autopilot system additional requirements.

(a) Except as provided in §§ 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.

(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;

(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.

§ 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, model and type (if a type rating is applicable)* aircraft and in that crewmember position, the following operating experience in each *make, model and type (if a type rating is required*) 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.

§ 135.399 Small nontransport category airplane performance operating limitations.

(a) No person may operate a reciprocating engine, ~~or~~ turbopropeller or turbojet powered small airplane that is certificated under § 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 § 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 § 135.169(b)(6) unless that person complies with the landing limitations prescribed in §§ 135.385 and 135.387 of this part. For purposes of this paragraph, §§ 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.

PROPOSED NEW SUBPART K TO PART 135

Subpart K- Dispatch and Operational Control Requirements for Commuter Service Operators using turbojet airplanes

§ 135.551 Applicability.

This subpart prescribes the part 121 Dispatch and Operational Control requirements to be used by part 135 operators using turbojet airplanes in commuter service, except for those operations conducted solely within the state of Alaska. Unless otherwise authorized by the Administrator, operations conducted with the 48 contiguous United States will be conducted under the regulations listed in § 135.557 for Domestic operations and operations to, from or outside the 48 contiguous United States will be conducted under the regulations listed in § 135.557 for Flag operations, as applicable.

§ 135.553 References.

Unless otherwise provided, references in this subpart to specific sections of 14 CFR Part 121 are to those sections of part 121 currently in effect.

§ 135.555 Compliance with other regulations under this part.

In instances where other regulations in this part prescribe actions similar to or in conflict with the requirements of § 135.557, operators shall comply with the requirements of § 135.557.

§ 135.557 Compliance with regulations under part 121.

Each certificate holder must comply with the applicable requirements of part 121 Domestic or Flag Dispatch and Operational requirements including but not limited to:

§ 121.99 Communication facilities.

§ 121.101 Weather reporting facilities.

§ 121.103 En route navigational facilities.

§ 121.107 Dispatch centers.

§ 121.357 Airborne weather radar equipment requirements.

§ 121.395 Aircraft dispatcher: Domestic and flag operations.

121 Subpart N—Training Program as it applies to aircraft dispatchers.

(Specific regulations not referenced due to on-going FAA regulatory work on this Subpart.)

121 Subpart P—Aircraft Dispatcher Qualifications and Duty Time (121.461 through 121.467)

§ 121.533 Responsibility for operational control: Domestic operations.

§ 121.535 Responsibility for operational control: Flag operations.

§ 121.557 Emergencies: Domestic and flag operations.

§ 121.593 Dispatching authority: Domestic operations.

§ 121.595 Dispatching authority: Flag operations.

§ 121.599 (a) Familiarity with weather conditions.

§ 121.601 Aircraft dispatcher information to pilot in command: Domestic and flag operations.

§ 121.607 Communication and navigation facilities: Domestic and flag operations.

§ 121.611 Dispatch or flight release under VFR.

§ 121.613 Dispatch or flight release under IFR or over the top.

§ 121.615 Dispatch or flight release over water: Flag and supplemental operations.

§ 121.617 Alternate airport for departure.

§ 121.619 Alternate airport for destination: IFR or over-the-top: Domestic operations.

§ 121.621 Alternate airport for destination: Flag operations.

§ 121.625 Alternate airport weather minimums.

§ 121.627 Continuing flight in unsafe conditions.

§ 121.629 Operation in icing conditions.

§ 121.631 Original dispatch or flight release, redispatch or amendment of dispatch or flight release.

§ 121.635 Dispatch to and from refueling or provisional airports: Domestic and flag operations.

§ 121.637 Takeoffs from unlisted and alternate airports: Domestic and flag operations.

§ 121.639 Fuel supply: All domestic operations.

§ 121.645 Fuel supply: Turbine-engine powered airplanes, other than turbo propeller: Flag and supplemental operations.

§ 121.647 Factors for computing fuel required.

§ 121.663 Responsibility for dispatch release: Domestic and flag operations.

§ 121.683 Crewmember and dispatcher record.

§ 121.687 Dispatch release: Flag and domestic operations.

§ 121.711 Communication records: Domestic and flag operations.

END

DISSENETING OPINOION 1 FROM AIRLINE DISPATCHER FEDERATION:

Minority Opinion on Exempting Alaska from Proposed New Rules

Herein please find the Airline Dispatchers Federation (ADF) objection to exempting Alaska from new rules proposed by the Part 125/135 Aviation Rulemaking Committee, particularly the requirements for Part 121 Domestic and Flag Dispatch and Operational Control for jet aircraft in Part 135 Commuter Service, as expressed at the Steering Committee.

Most of the rule changes proposed by the Part 125/135 ARC deal with forward-looking future operations under Part 125 or Part 135. This is particularly true of the provisions allowing jet aircraft to be operated in scheduled commuter service. ADF believes it is an affront to the air travelers of Alaska to mandate by rule of law a lesser level of compliance and safety for them than for other United

States citizens. It also serves to unnecessarily jeopardize the effort to achieve a true single level of safety.

ADF acknowledges that infrastructure and geography is different in Alaska than in other U.S. states. This, in itself, does not prevent compliance with current or proposed regulations. Costs may be greater and procedures may be different but almost universally compliance is possible. Additionally the Alaskan representatives themselves presented information that improvements are well under way in Alaska that would facilitate more traditional compliance at costs similar to those incurred in the lower 48. Specifically, the Alaskan presentation seems to say a non-Alaskan dispatcher, who would be an additional employee presents a potential negative impact. There is no requirement for an additional employee or that the dispatcher be located outside Alaska. If the operation is appropriately staffed, a currently employed individual performing any or all of a wide variety of other functions could well be the required, trained and certificated dispatcher along with other duties based on the size and complexity of the operation. This would present a clear positive impact.

The Alaskan presentation also sets forth a number of "impractical" requirements. These may be requirements for a Part 121 certificate operation, but for the most part they would NOT necessarily be required by the proposal to require Part 121 Domestic and Flag Dispatch. The following paragraph in the Alaskan presentation notes several future improvements that would allow a more standard application of Part 121 Dispatch and Operational Control requirements.

Part 135, with the proposed changes, including Part 121 Domestic or Flag Dispatch and Operational Control provides an equivalent level of safety for small jet aircraft as exists under Part 121. If, at some point in the future, an operator wishes to conduct a specific operation that cannot comply with the full proposed rule, then that operator may apply for the appropriate deviation or exemption including specific alternate procedures to insure the appropriate level of safety. To require less, in advance by permanently exempting Alaska by rule is a disservice to the aviation industry and to the traveling public.

Respectfully submitted.

Norm Joseph
Director

DISSENTING OPINION 2 FROM THE AIRLINE DISPATCHER FEDERATION:

Minority Opinion on Single Pilot Jet Operations in Commuter Service

Herein please find the Airline Dispatchers Federation (ADF) objection to allowing jet aircraft to be flown by a single pilot in commuter service under the new rules proposed by the Part 125/135 Aviation Rulemaking Committee (ARC).

Most of the rule changes proposed by the Part 125/135 ARC deal with forward-looking future operations under Part 125 or Part 135. This is particularly true of the provisions allowing jet aircraft to be operated in scheduled commuter service. Prior to these proposed rules jet aircraft with any number of seats in scheduled service would be required to comply with Part 25 certification requirements and to be operated under a Part 121 Domestic or Flag rules. Part 135, with the proposed changes, including Part 121 Domestic or Flag Dispatch And Operational Control provides an equivalent level of safety for small jet aircraft as exists under Part 121. Under Part 121 scheduled service two pilots would be required without question.

ADF believes the 2 pilot mandate for commuter or scheduled service with jet aircraft should be maintained for a number of reasons.

-We have a different traveling public today. Terrorist and hijackers are more likely to be among the passengers. No secure cockpits or flight attendants planed for these aircraft.

-We have a different National Airspace System today. More congestion on the ground and in the sky. RVSM and RNP will allow much less separation and room for error today. The VLJ will operate at high altitude and for long distances.

-The ATC system and the FAA are becoming more automated with less human assistance available.

-The ultimate value of an aircraft dispatcher is to be the trained and qualified jointly responsible point of contact and coordination for the pilot while enroute. In a single pilot environment, any non-routine issue or emergency results in the pilot immediately losing all cockpit resources except ATC, as the pilot must fly the airplane and deal with the issue while listening to ATC. The dispatcher can not communicate with and is no longer available to assist the pilot in command.
-The publics trust and a single level of safety will be maintained. The public expects jet aircraft to be operated by 2 pilots in scheduled service, just as they are today.

An equivalent level of safety for jet aircraft in scheduled service under Part 135 is only possible with a minimum crew of two pilots.

Respectfully submitted.

Norm Joseph
Director

DISSENTING NOTE 3 FROM ALPA REGARDING SINGLE PILOT COMMUTER OPERATIONS

APP-20 Single Pilot Jet Operations in Commuter Service

Minority Opinion
Air Line Pilots Association, International (ALPA)

ALPA is strongly opposed to the use of single pilot jet operations for scheduled, commuter service in Part 135 as proposed in this Recommendation Document being submitted by the 125/135 Aviation Rulemaking Committee (ARC). We understand that the certification criteria (Part 23) for the very light jets in question does not, by design, allow them to operate in Part 121 where two pilot crews are required for turbojet airplane scheduled, passenger operations.

This proposal contains beneficial pilot training and experience criteria for operators and their pilots new to these airplanes and unfamiliar with the operating environment. This allows them to gain valuable knowledge and experience for operating a turbojet airplane in on-demand Part 135 operations. However, we continue to maintain a single pilot crew does not meet the equivalent level of safety afforded by a two pilot crew in Part 121 operations.

To maintain the FAA's One Level of Safety program, ALPA strongly believes a two pilot crew must be required for scheduled, commuter service with jet aircraft. An equivalent level of safety for jet aircraft in this type of operation under Part 135 is only possible with a minimum crew of two pilots.

Additionally, in a single pilot environment, the routine workload of the sole pilot is well above the workload of either pilot in a two-pilot operation. In the event of a non-routine situation, such as an emergency or other abnormal event, that single pilot's workload level is further increased and other cockpit resources are either limited or non-existent. Since the pilot must fly the airplane and deal with the emergency or abnormal event, the satisfactory outcome may be in question thus placing the safety of the flight in jeopardy.

The traveling public insists that two pilots operate jet aircraft in scheduled service. They are not concerned with, or may not be aware of, which Part of the regulations the aircraft is operated under.

RICK KESSEL

NOTE 4 [CLARIFICATION PROVIDED BY EILEEN GLEIMER AND INCLUDED IN NPRM]:

(APP 20) Nine or less scheduled turbojets and single pilot operations - Section Analysis of Proposed Changes for 119.3 (page 77, line 10) - Although technically correct, the narrative attempts to describe simultaneously the changes to four definitions, but only gives the definitions afterwards making it a bit unclear. The first sentence, beginning with "All changes", should stay because it sets forth what the sum total of the changes will accomplish. However, when describing the two types of scheduled service, we suggest that number 2 be revised to read as

follows:

"A turbojet aircraft in part 135 scheduled on-demand operations (i.e., less than 5 round trips per week over a published route) when the airplane is configured in accordance with maximum passenger and payload limits. (Today's limit is 9 or fewer passenger seats and 7,500 pounds payload or less)"

Steering Committee Review: This document has dissenting opinions from ALPA and ADF related to the two crew operation in commuter operation.

On-demand single pilot is full consensus as the rule currently reads for single pilot operation.

This document will have majority/minority opinion based on crew pairing.

Also, since this is a new type of operation, several members of the Steering Committee believes it to be inappropriate to approve.

Final Action: This document will go to the FAA with a minority/majority opinion on crew. APPROVED [includes 4 notes]

Notes:

RECOMMENDATION DOCUMENT

Number: Applicability 21 Docket 75.2, 90

Issue: Brokers without authority acting as direct or indirect air carriers

Dayton Lehman/Patti Thomas/Jonathan Dols

Discussion:

An initial recommendation was made to examine whether air charter brokers who act as unauthorized indirect air carriers are subject to FAA enforcement jurisdiction under Part 135 or 14 CFR 121.4 and, if so, whether existing regulations have to be amended to cover concerns over air charter brokers' conduct. The issue stems from concerns over air charter brokers who arrange with a customer for air transportation, for example on an empty return leg of a charter arranged by the air charter broker, without involvement of the airline operating the flight. The airline may not know who its true passengers are and the air charter broker may be passing itself off as the operator of the flight through service requirements contractually imposed on the airline, or otherwise.

It was determined that the FAA's statutory jurisdiction to regulate air charter brokers is limited to situations where an air charter broker may be in actual operational control of an aircraft (49 U.S.C. § 44711.) This situation is not likely to arise, but when it does, existing FAA regulations are sufficient to cover the situation. Moreover, service requirements, to the extent they do not impinge on actual operational control of an aircraft or deceive consumers, are in contractual matters between the airline and the air charter broker and/or customer. The Department's Office of the Secretary (OST), however, does have broader jurisdiction over air charter brokers that engage in (hold out and/or operate) air transportation.

In order to hold out or operate air transportation for hire as a common carrier, a person is required to hold economic authority from OST pursuant to 49 U.S.C. § 41101 or an exemption from that provision, such as that provided to air taxis under 14 CFR Part 298, or to indirect air carriers such as provided to charter operators pursuant to 14 CFR Part 380 or to air freight forwarders pursuant to 14 CFR Part 296. This economic authority is in addition to any safety authority necessary under applicable Federal Aviation Administration requirements. Accordingly, air charter brokers without economic authority may not hold out air transportation in their own right or, as a principal, enter into contracts with customers to provide air transportation. Rather, in entering into contracts to provide air transportation, air charter brokers must act as either an agent of the direct air carrier or of the customer.

With regard to passenger air service, there are situations in which air charter brokers contract directly with the charter customer for air transportation and separately solicit and contract with a direct carrier to operate the charter flight. In most if not all of these situations, the air charter broker collects and holds all of the monies paid by the chartering entities that ultimately are provided air transportation, turning over the funds to the operating carrier pursuant to whatever terms are required under the contract between the air charter broker and the operating carrier. In such instances the air charter broker is not acting as an agent for the operating carrier or for

the ultimate charter customers that is transported. Accordingly, the air charter broker is the principal in such transactions and, at a minimum, is engaged in air transportation as an indirect air carrier, doing so without required Departmental economic authority in violation of 49 U.S.C. § 41101. Under OST precedent, violations of section 41101 also constitute unfair and deceptive practices and unfair methods of competition in violation of 49 U.S.C. § 41712, which is also enforced by OST. (To the extent the airline is facilitating the unlawful conduct of the air charter broker, it, too, may be in violation of section 41712.)

Such conduct by air charter brokers can also violate specific OST regulations designed to protect the public from unfair and deceptive practices and unfair methods of competition in violation of 49 U.S.C. § 41712. In this regard, air charter brokers can be ticket agents pursuant to 49 U.S. C. § 40102(a)(40), which defines a ticket agent as a person (other than a carrier or its employee) who, "as a principal or agent sells, offers for sale, negotiates for, or holds itself out as selling, providing, or arranging for air transportation." Pursuant to 14 CFR 399.80, it is an unfair and deceptive practice or unfair method of competition for a ticket agent to, among other things, pass itself off as an airline (§ 399.80(a)) or to enter into a contract with a customer without a binding commitment with an airline to perform the air transportation (§ 399.80(j).

While the general prohibitions of section 41712 against a person falsely passing oneself off as an airline, or otherwise engaging in unfair and deceptive practices or unfair methods of competition, apply to air charter brokers involved in the all-cargo business, it must be recognized that the deregulation of all-cargo air service, including all-cargo indirect air carriers, otherwise known as air freight forwarders, renders the all-cargo air service industry less subject to regulatory obligations and protections.

I would agree that the ARC is not the place to solve the problem of air charter brokers, but I disagree that the Part 135 industry should be the ones educated. The broker problem will continue and become a larger problem for OST, as the fractional programs did for the FAA. It is my opinion that OST needs to develop some method of regulating the non-certificated brokers for the protection of the public, or this issue will blossom into a major problem for OST.

Recommendation: Since OST is primarily responsible for protecting the public regarding the practices of brokers and the FAA's jurisdiction over brokers is limited to matters involving unlawful operational control, we recommend that no action be taken through this ARC to amend FAA rules as they concern brokers. Nevertheless, the ARC should consider recommending to a well-respected organization, such as NATA, that it strive to educate the on-demand air transportation industry about the need to refrain from practices meant to confuse the charter passenger as to the identity of the carrier operating the flight.

Steering Committee Review: This should be addressed by OST. The FAA should make a formal request to OST.

Final Action: Approved by Steering Committee (also OST issued "Notice on the Role of Air Charter Brokers in Arranging Air Transportation" on October 18, 2004 in response to the ARC recommendations.)
Notes:

Doing a search for these "@@" will take you to the ALPA minority position statement

RECOMMENDATION DOCUMENT

Number: APPLICABILITY 32 [merged with Applicability 39], Rev. 7a (18Nov04)
[Note: Rev 7a corrects minor punctuation, spelling, and grammatical errors discovered subsequent to posting of Rev 7.]

Issue: Permit Part 135 all-cargo airplanes to carry a maximum payload of 18,000 lb (and permit certain Part 125 operators of airplanes up to this maximum payload to elect to operate under Part 135); and "grandfather" a limited number of other FAR 125 operators whose aircraft have maximum payloads between 18,000 and 30,000 lb.

Minority Position: ALPA Comments; November 12, 2004 and February 22, 2005

Discussion:

STATUS OF CURRENT APPLICABLE RULES

At present, FAR 135 operators are limited to a maximum cargo payload of 7,500 lb by FAR 119. FAR 125 operators are caught between public demand for their services by a wide variety of entities, limitations in FAR 125 on their ability to hold out to the public, ambiguities in the definition of "holding out," and increasingly vigorous enforcement action by the Department of Transportation – which has driven some operators out of business, and continues to do so.

SUMMARY OF THIS PROPOSAL

Increase the maximum allowable payload for FAR 135 cargo operators to 18,000 lb. Incorporate into this recommendation the limited 30,000 lb payload limit proposed by the FAR 125 working group for certain all-cargo airplanes currently operating under Part 125 (with the expectation that these larger all-cargo aircraft will be phased out over time). Provide a means for current FAR 125 operators who are willing to accept the additional regulatory requirements to transition to FAR 135 operation. This proposal recognizes that details of the operational and safety standards will be reviewed in this proposal may be further developed and modified as a joint task of the Operations, Airworthiness, and other Working Groups for final Steering Committee action.

The principal justifications for this proposal are:

1. To provide a regulatory alternative for certain Part 125 all-cargo certificate holders who no longer wish to operate, or cannot operate, under Part 125 (as it may be amended through the current Aviation Rulemaking Committee process), and are willing to accept the additional regulatory burdens of FAR 135 that will enable them to hold out their all-cargo transportation services to the shipping public, and

2. To permit FAR 135 operators to respond to market demands for larger, available, more modern, and inherently safer aircraft in all-cargo service.

Because of evident public interest in these operations, and economic pressure on current operators arising from artificial limits on payload, it requested that the FAA consider expedited relief by whatever means the agency deems appropriate, presuming that general consensus of this proposal by the ARC Steering Committee is expressed. The need for immediate relief is twofold:

1. To provide an immediate regulatory alternative for certain FAR 125 all-cargo operators facing

pending or potential enforcement action by the Department of Transportation (DOT) for allegedly exceeding the limits of private carriage for hire, and those whose revenue has been so diminished by current "holding out" limitations that they can no longer stay in business; and

2. In the case of FAR 135 cargo operators, to address the current need and immediate availability of aircraft technologically, operationally, and economically suitable for FAR 135 all cargo operation – recognizing that economically viable operation of these aircraft under FAR 135 with the artificial 7,500 payload limit in place is not possible.

Both the FAR 125 and 135 groups face significant public demand for their services, which cannot be effectively addressed within the current regulatory framework.

PROBLEMS WITH THE CURRENT RULES

FAR 125 AND 135

FAR 125: The dividing line between "private carriage for hire" and "common carriage is ambiguous in FAR 125 as currently written – as explained more fully in Recommendation Document "Applicability 39" currently being processed by the Aviation Rulemaking Committee. In addition, there are certain Part 125 all-cargo operators who would find it difficult (or in a limited number of cases, impossible) to conduct economically viable operations based upon the standards proposed in the ARC Part 125 Work Group's paper (including the four-contract/300 hour limitation). These operators require a regulatory alternative, and are willing to accept the additional regulatory burdens associated with a revised Part 135.

FAR 135: The rule's current language (via definitions in FAR 119.3) limits all-cargo operators to a maximum payload of 7,500 lb. While that restriction was appropriate in the days when the rule was written (and the airplane being addressed was the Douglas DC-3), former regional airliners such as the Embraer EMB-120 Brasilia, SAAB 340, and various versions of the ATR-42/72, available in today's market to the same classes of operators, are capable of lifting significantly greater payloads – as high as 18,000 lb – while offering improved safety, performance, and operating flexibility due to their more modern design, equipment, and requirement for two-pilot crews. These newer airplanes are, however, economically unfeasible to operate with artificial limits on their useable payloads.

WHY OPERATE UNDER FAR 135 INSTEAD OF 121?

There has been some discussion as to whether a “FAR 121 light” as opposed to an “augmented FAR 135” approach would be best. It is believed that the FAR 135 approach is preferable for several reasons:

1. The market for services provided by these aircraft imposes economic strictures that would render them unprofitable if operators were required to absorb the initial certification, and particularly the long-term administrative costs of FAR 121 operation. The paucity of FAR 121 operators in this part of the market at present confirms this position.

2. The majority of experience in the specific markets that will be served by the ex-regional turboprop aircraft resides with current FAR 135 operators.

3. Part 121 was written for large airline operations, with large, extraordinarily complex aircraft, whose procedures and requirements are appropriate to that type and size of operation and its associated infrastructure. Part 135 was written for the smaller operations with smaller, less-complex aircraft, in which the operators of aircraft that will fall under this subpart more logically

fit.

4. By imposing the FAR 135.411(a)(2) (ten-or-more) maintenance standards (which parallel those of FAR 121 Supplemental in virtually every respect as shown below), the airworthiness standards of aircraft moving into this new proposed subpart from Part 125 and Part 135 (nine-or-less) are raised to a level equivalent to that of Part 121.

5. In the case of large Part 125 aircraft transitioning to Part 135, the more stringent regulatory standards of Part 135 clearly promote safety and are in the public interest.

AIRCRAFT IN THE EX-REGIONAL TURBOPROP CLASS

The table below sets forth aircraft that would be subject to the allowable payload increase, with their estimated payload capability as straight freighters.

REGIONAL TURBOPROP PAYLOADS

Embraer EMB-120ER Brasilia	*8,100 lb*
Shorts SD-360	*8,300*
SAAB 340	*8,500*
de Havilland DHC-8-100	*10,000*
de Havilland DHC-8-200	*11,000*
de Havilland DHC-8-300	*12,000*
Avions de Transport Regional ATR-42	*12,250*
Avions de Transport Regional ATR-72	*17,800*

Estimated payloads based upon typical results when passenger interiors are removed and a dedicated cargo interior with restraint system is installed. Maximum payload is assumed: MZFW – BOW = Payload.

Prepared by Regional Air Cargo Carriers Association

PROPOSED CHANGE TO CURRENT RULES

The proposed proposed rule will permit:

1. Aircraft whose maximum cargo payload is between 7,500 lb and 18,000 lb, to carry that payload in FAR 135 cargo-only operations;[1] and
2. Certain FAR 125 all-cargo aircraft with a maximum payload of 30,000 lb or less (as configured, and listed on the respective operators' Operations Specifications as of 24 June 2004), to operate under a revised FAR 135.[2]

The proposed change to the 7,500 lb payload limit echoes the rationale employed by the FAA in 1978 when the existing maximum payload standard was adopted in lieu of the 12,500 lb maximum takeoff weight limit: Namely, the need for greater operating flexibility in aircraft size, recognition of advancements in technological and operating state of the art, and responsiveness to

marketplace demand for larger aircraft.

Accompanying the increase in payload are changes to Part 135 to incorporate more stringent safety standards including provisions paralleling Part 121 as described more fully below.

FLIGHT-DUTY-REST: In this particular instance, the current rules in FAR 135 regulating crew flight, duty, and rest time are actually more stringent – and inherently safer – than equivalent FAR 121 rules.

FLIGHT FOLLOWING: It is believed that the provisions of FAR 135.77, .79, and .81, although slightly less stringent than Supplemental rules in §121.125 and .597, provide an equivalent or better level of safety in the context of other requirements imposed herein, particularly in view of the fact that most of the aircraft affected by this proposal will be propeller driven, as opposed to jet powered. Operational control requirements already present in §135.77 through .83 have been demonstrated to be safe in the context of these types of operations, which often involve rural airports with limited facilities — but adequate for the types of aircraft involved in view of restrictions already imposed by §135 Subpart I.

FLIGHT TRAINING/TESTING: The training and testing requirements of FAR 135 Subparts G and H are comprehensive (in some respects, more strict than FAR 121 Subpart N), and believed to be adequate for operations under this proposal. Certain FAR 121 provisions are more thoroughly defined, but largely inapplicable to cargo operations in (chiefly) propeller-driven aircraft. However, considering the availability (and training benefits) of advanced flight simulators for many of the newer turboprop airplanes involved, the proposed rule language requires that operators incorporate the use of advanced simulation for initial flight crew training in those aircraft when such simulators are available within the U.S. Guidance should recommend incorporation of advanced simulation for recurrent training on at least a yearly basis in their training programs when it is practicable to do so (in view of location of operations vs. location of simulator training facilities).

MAINTENANCE REGULATIONS: Considerable concern has been focused upon maintenance requirements for these aircraft if operated at increased weights under FAR 135. FAR 135 “10 or more passenger seats” requirements were compared to those of FAR 121 (Supplemental); it was determined that the FAR 135 rules were more appropriate to this type of operation. Based upon recommendations of the Airworthiness work group, maintenance generally will be required to meet FAR 135.411(a)(2) [commonly called "10 or more"] requirements as follows:

- 135.415 Mechanical reliability reports [currently suspended until Dec06] [parallels §121.703]
- 135.416 Service difficulty reports (structural) [currently suspended until Dec06] [parallels §121.704]
- 135.417 Mechanical interruption summary report [currently suspended until Dec06] [parallels §121.705]
- 135.422 Aging airplane inspections [Aging “10-or-more-pax” aircraft; no direct equivalent in FAR 121]
- 135.424 Maintenance, preventive maintenance, and alteration organization [parallels §121.365]
- 135.425 Maintenance, preventive maintenance, and alteration programs [parallels §121.367]

- 135.427 Manual requirements [parallels §121.369]
- 135.429 Required inspection personnel [parallels §121.371]
- 135.431 Continuing analysis and surveillance [parallels §121.373]. Recognizing the limited capability of small operators to conduct on-site audits of distant vendors, for operators with 10 or fewer aircraft subject to this PROPOSED RULE guidance should state that a telephone audit program acceptable to the Administrator, augmented by requests for audit assistance by FAA Flight Standards District or other appropriate FAA offices near the vendor in the event of problems with specific vendors, will be deemed to satisfy CAS external audit requirements.
- 135.433 Maintenance and preventive maintenance training program [parallels §121.375]
- 135.435 Certificate requirements [parallels §121.378]
- 135.437 Authority to perform and approve maintenance, preventive maintenance, and alterations [parallels §121.379]
- 135.439 Maintenance recording requirements [parallels §121.380]
- 135.441 Transfer of maintenance records [parallels 21.380a]
- 135.443 Airworthiness release or aircraft maintenance log entry [parallels §121.709]
- MRB Report: In aircraft for which an Maintenance Review Board Report is available, the proposed rule language requires that maintenance and inspections comply with that document. This alone represents a significant "raising of the bar" compared to the Approved Aircraft Inspection Programs [per FAR 135.411(a)(1) and .419] used by most cargo-only operators.

NOTE: Guidance should state that FAR 21.217(c) will be considered to have been satisfied by the above with respect to operators' continuing authorization to self-issue Special Flight Permits (ferry permits).

The Maintenance Review Board Report mentioned above is prepared jointly by the manufacturer, operators, and the FAA for aircraft intended to be operated under FAR 121, contains the guidelines for comprehensive inspection and maintenance of a specific make and model of large aircraft, and represents a significant "raising of the bar" for FAR 135 operators.

TRANSITION AND INITIAL CADRE CONSIDERATIONS: Guidance should state that for FAR 135 operators currently operating the same airplane types that will be used under this proposed rule, flight crewmembers, flight instructors, check airmen, flight following personnel, mechanics, and inspectors qualified under the operator's previous authorizations in the same type(s) of aircraft will be considered qualified under this proposed rule provided they satisfactorily complete a training program acceptable to the Administrator addressing the differences between the previous FAR 135 operation and operations conducted under this proposed rule. Other testing and training due dates, grace periods, etc., will flow through into the proposed rule unchanged except where a change is mandated by a difference between the previous regulation and this proposed rule.

JUSTIFICATION FOR CHANGE

Four primary factors justify the proposed change:

1. Limited expansion and updating of Part 135's payload limitation to reflect the actual payload capability of certain aircraft *already operating* under FAR 135, but whose payloads are artificially restricted by current rules.

2. Additional expansion of Part 135 to capture modern, Part-25-certificated former regional airliners with design payloads up to 18,000 lb which are currently available (in many cases, facing continued deterioration in "dead storage" at various locations), at attractive prices.

3. Providing a "home" for those Part 125 operators using airplanes up to an 18,000 lb payload limit, who may not be able to comply with restrictions on operations under Part 125 as proposed in the ARC Work Group paper, and/or wish to "hold out" their services as common carriers as would be permitted under the revised Part 135; and for a limited (and steadily decreasing) number of current FAR 125 operators and aircraft with payloads from 18,000 to 30,000 lb.

4. Harmonizing the FAA Part 135/Part 121 dividing line with DOT's Part 298 certification limit: 18,000 lb as designed.

A number of additional factors militate in favor of this change:

A. INDUSTRY DEMAND/PUBLIC INTEREST

- Accommodating certain all-cargo Part 125 operators, a demand for whose services clearly exists, who currently operate in the gray area between "private carriage for hire" and "common carriage"
- As elaborated upon in the Part 125 Work Group position paper, the definition of "private carriage for hire" versus "common carriage" (or "holding out") has been, and still is, one of the more confusing and misunderstood concepts in aviation law. There is no bright line test for making this distinction, which has made it especially difficult for Part 125 operators to determine whether they are "holding out by reputation." Part 121 operators disagree with Part 125 operators on whether the latter are "holding out" and thereby encroaching upon the 121 operator's domain. In fact, the confusion within the industry has, at times, been shared by the FAA and DOT.
- Certain Part 125 all cargo operators *cannot* operate within the proposed Part 125 limits (4 contracts/300 hours, for example) or transition to Part 121. These operators are relatively few in number; moreover the number of aircraft operated by these operators are also few in number (approximately 30) and fall within the payload range of 18,000 to 30,000 lbs., as configured (e.g. certain DC-6 freighters). Allowing these few operators to continue to operate under Part 135 – only those all-cargo airplanes listed on their Part 125 operations specifications as of June 24, 2004(see footnote 2 below) – will avoid their having to cease operations as well as avoid potential enforcement action over the issue of "private" vs. "common" carriage by DOT or FAA (which several of these operators are already facing or have faced). The expectation is that the remaining economic life of these aircraft is relatively short, and that they be phased out over time through attrition. Several have been withdrawn from service during the time this ARC was active. In these circumstances, the public interest does not favor a shutdown, but it does favor the continuation of service with these airplanes under a more clearly defined regulatory structure. This element of the public interest is also addressed in the Part 125 Work Group position paper.
- Additionally, there are Part 125 all-cargo operators currently operating aircraft in the 7,500 to 18,000 lb payload range (e.g. CV-5800[3]) operators which no longer wish to operate under the private carriage for hire restriction in Part 125, as stated in the Applicability Work Group position paper. These operators who elect common carrier status under Part 135 are willing to absorb the increased regulatory burden, certification and operating costs of Part 135 in return for the opportunities to serve the general shipping public. These transitioning Part 125 operators will be able to "hold out" their services to

the shipping public without fear of enforcement action; the shipping public, in turn, will benefit from having additional carriers, with additional capabilities, in the marketplace from which to choose.

B. OTHER BENEFITS:

Aside from transitioning FAR 125 operators, the proposal to increase the payload limit from 7,500 lb to 18,000 lb, will benefit the small package express industry, as well as other shippers (couriers that support transportation of business documents, U.S. Postal Service contract flying, financial institutions, carriers that specialize in transportation of short-inventory auto manufacturing parts, etc.). All are experiencing significant growth, which in turn drives the requirement for increased payload capacity proposed in this proposed rule. There are two types of airplanes which fall into this category:

1. Those airplanes currently operating under Part 135 such as the Embraer Brasilia, capable of 8,500 lb payload but artificially restrained to 7,500 lbs. due to existing Part 135 limitations. In fact, these airplanes can now "legally" carry the weight as fuel – but not as payload. There are no sound safety or public interest reasons for these artificial restrictions.
2. Those Part 25-certificated former regional passenger airliners with design payloads up to 18,000 lb which are readily available for all-cargo service at attractive prices, such as the ATR-42 and -72 series.

- SAFETY: The operations and types of airplanes that drive this proposed proposed rule embody some or all of the following features –

    1. All operations included in this proposal will be conducted under the increased safety standards of FAR 135 as augmented by specific provisions of this proposal.
    2. Two-pilot crews required by their type certification – a major safety "plus," considering that most airplanes in the current FAR 135 cargo fleet are operated single-pilot, including former 19-passenger turboprop "commuters" such as the Fairchild Metro and Beech 1900.
    3. FAR 25-certificated systems and fail-safe damage-tolerant structures, or aircraft designed for transport service.
    4. Thoroughly developed Maintenance and Structural Repair manuals.
    5. Many aircraft in this proposal (including the EMB-120, SAAB 340, ATR series, Convair 5800, etc.) incorporate cockpit design and ergonomic benefits not available or practicable to retrofit in older aircraft, such as: Modern, extensively redundant instrumentation, including electronic flight instrument systems (EFIS) and autopilot/integrated flight control systems (IFCS); cockpit voice recorders (CVR) and flight data recorders (FDR); traffic collision avoidance systems (TCAS); modern, reliable, efficient powerplants; and cargo restraint systems based upon Supplemental Type Certificates compliant with recent standards. Although retaining this equipment for aircraft in cargo service "raises the bar" significantly, it is justified in the interest of safety.
    6. For certain aircraft types, availability of advanced flight simulators for pilot training.
    7. For newer aircraft types and certain older transport airplanes, significantly better parts availability and support from manufacturers than is provided for

many aircraft currently in FAR 135 cargo service.

8. Aircraft certificated in the 7,500 to 18,000 lb design payload category may replace two smaller aircraft in package-express and financial document cargo operations – with clear safety benefits due to reduced number of takeoffs and landings, and less traffic in congested hub areas.

9. This proposed proposed rule does not involve any changes to maximum takeoff or landing weights available to FAR 135 operators, or to certificated weights and performance for the airplane involved. The only change will be to the regulatory limit on maximum payload. FAR 135 operators now legally fly with a 7,500 lb maximum payload plus fuel or other non-payload items up to the certificated maximum takeoff weight – but they cannot take off with more payload (up to the certificated maximum zero-fuel weight) and less fuel, at the same total maximum weight. This artificial restriction on payload does not serve the public interest, nor does it improve safety.

Accompanying the increase in payload are changes in the proposed rule language to incorporate more stringent safety standards, paralleling provisions of Part 121, as described elsewhere in this proposal.

Together, these factors will not only produce an equivalent level of safety; they represent a proactive move to improve the level of safety.

- EVOLUTION OF THE AIRPLANE FLEET: Large numbers of 30- to 60-plus-seat former regional airliners – including modern turboprops – certificated to FAR 25 standards and incorporating recent avionics, instrumentation, and ergonomic technology, are now (and continue to become) available to the cargo-only market. Approximate payloads of these airplanes are shown above in this proposal. As to airplanes in the 18,000 to 30,000 lb FAR 125 group, there are only a limited number of aircraft (fewer than 30) eligible for operation under this proposal. However, it is essential that these airplanes be accommodated under FAR 135 (revised) for the reasons stated above and in the FAR 125 Applicability Working Group paper.

Nature of air operations currently being conducted under FAR 135: Twenty years ago, the current small package express market was virtually nonexistent. Today, major integrated air carriers, who also act as charterers and forwarders such as Federal Express, UPS, DHL, and others ship millions of packages for next- and second-day delivery all over the U.S. This has generated a major (and continuing) demand for "air feeder" service, in airplanes that transport packages delivered to major hubs by the parent carriers' large jet freighters, to smaller outlying communities in the morning. These same airplanes then carry packages shipped from the smaller communities back to the hubs in the evening, where they are loaded aboard the large jet freighters, flown to sort centers such as Memphis (FedEx), Louisville (UPS), and Cincinnati (DHL) for overnight sorting and redistribution. Similar growth has been experienced in U.S. Postal Service, air courier, and financial document transportation requirements.

FAR 125 interests: "Just in time" manufacturers' inventory practices (especially in the auto industry) have created a requirement for various sizes of aircraft to be available on a moment's notice. These operators should be able to freely hold out to the public and not be constrained by the proposed four-contract/300 hour FAR 125 limitation.

Additional factors favoring the change:

- For airplanes in the 7,500 to 18,000 lb design weight category, the proposed rule will harmonize applicable FAA regulations with Department of Transportation's Part 298 standard by applying an 18,000 lb maximum payload design criterion to all-cargo operations under FAR 135. It is recognized that operations with airplanes exceeding this design weight limit will, under current DOT regulations, require a Certificate of Public Convenience and Necessity.
- Plentiful and continuing supply of airplanes in the 7,500 to 18,000 lb design payload category: EMB-120, ATR-42 and -72, SAAB 340, etc. airplanes are currently available at attractive prices, having been removed from service and stored as regional passenger carriers move to jets. Although specific numbers vary from day to day as airplanes are bought, sold, and leased, as of this writing more than 70 EMB-120s, 40 ATR-42 and -72 airplanes (which, along with the DHC-8 series are still in production), and 70 SAAB 340s are parked and available for conversion into freighters. A continuing supply of these airplanes over the next few years is assured by the ongoing trend toward jet equipment by regional airlines.[4] Because of their popularity (and certain unique capabilities) significant numbers of DHC-8-series aircraft have not yet appeared on the used market at prices compatible with all-cargo conversion – although they too will eventually become available. These modern turboprop airplanes will remain in storage or be placed in storage if prospective operators are required to absorb Part 121 certification and increased operational costs. The longer these airplanes sit in storage, the more they will deteriorate—and the more costly (and impracticable) they will be to recommission. Thus, this fleet of aircraft represents a finite source that will not be endlessly available.
- To take advantage of this valuable resource, Part 135 as revised to include an 18,000 pound payload standard and incorporate more stringent safety standards, can provide benefits outlined herein which are commensurate with the cost of adding these aircraft to a Part 135 certificate and operating them. The number of airplanes in the FAR 125 18,000 to 30,000 lb-configured payload group in this proposal is limited and will continue to decrease over time.
- The cost-benefit balance of the limited increase in payload capacity proposed by this proposed rule, weighed against the current cost of initial certification and ongoing operation under FAR 121 clearly favors the proposed rule language. The economics of markets served by these aircraft will not bear the initial certification and continuing infrastructure costs of FAR 121 (five versus three FAR 119-mandated high-salary managers, to cite only one example). If FAR 121 is the only option, the shipping public will never see the economic benefits associated with use of the more modern airplanes in the 7,500 to 18,000 lb design payload category . . . and most airplanes in the 18,000 to 30,000 lb payload configuration group are ineligible for operation under current FAR 121.
- There is a need to provide a home for (and avoid shutdown arising from current and pending enforcement actions against) the limited number of Part 125 operators and their fewer than 30 all-cargo airplanes in the 18,000 to 30,000 lb payload capacity range (as configured). These operators cannot economically operate under the "four contract" standard being imposed by DOT, will not be able to do so under Part 125 with revisions currently envisioned, cannot comply with existing Part 135 (or an amended Part 135 incorporating an 18,000 lb payload design standard), and cannot transition to Part 121. The few airplanes in the FAR 125 18,000 to 30,000 lb-configured payload group in this

proposal is limited and will be phased out over time by attrition.

- Cargo-only operations under FAR 135 are uniquely different from passenger service, or from cargo FAR 121 operations: Many of the flights occur at relatively low-traffic times of the day; service is provided to smaller communities with smaller airports, flying shorter airborne legs.
- Current FAR 125 operators coming into FAR 135 become subject to drug and alcohol testing requirements, which further enhances safety.
- There are already several operators who have demonstrated their ability to conduct safe, reliable operations under FAR 135 with large ex-regional-airline turboprops, at their full maximum takeoff and zero-fuel weight limits, carrying fuel instead of payload. However, their inability to use their airplanes' maximum payload capability (on routes where fuel requirements permit it) damages the economic viability of those aircraft, does not serve the public interest, and does not enhance safety

In short, this proposed proposed rule will grant the air cargo industry access to more modern, reliable, inherently safer airplanes, and provide a regulatory alternative for a limited number of larger capacity airplanes currently operating under FAR 125. It will help address capacity issues currently troubling overnight package express and air courier companies, which in turn touch business, industry, health care, individual citizens, and the economy as a whole. Fewer, larger airplanes, lighten burdens on the airspace system. More modern, fuel-efficient engines move a given amount of freight with fewer noise and pollution consequences.

TIMETABLE

If relief were available now to increase payloads for current FAR 135 operators from 7,500 to 18,000 lb, industry would go to work immediately to use it. A number of aircraft that would be eligible for relief under this proposed rule are currently in operation but economically hobbled by the 7,500-lb payload restriction. This group is known to include at least 21 Shorts SD-360s, seven Embraer EMB-120s, and three SAAB 340s as of this writing. Each of these aircraft types is penalized by 500 to 1,000 lb of payload under the current rules. A number of operators would expand their fleets to include ATR-42 and -72 aircraft, if the relief in this proposed proposed rule became available. A few FAR 121 operators of these aircraft would have the option of changing to FAR 135 in accordance with this proposed rule.

FAR 135 operators intending to operate airplanes in the 7,500 to 18,000 lb payload category regard this issue to be urgent – and more so for current operators of these aircraft – for practical and economic reasons. This prompts the need for an interim recommendation to proceed by the most expeditious practicable means to provide the relief contained in this proposal, prior to completion of final action by the ARC.

For the Part 125 operators this issue is also extremely urgent, as many of these operators have had to limit their revenue flying due to imposition of "four customer" limits by DOT. In several cases, the companies have ceased operations entirely because this limitation has made their operation economically unviable. In one case financial pressure forced an operator to park his newer transport category airplane and return to a 60-plus-year old Aero Bulletin 7A-certificated DC-3. Several operators will soon be grounded by the December 31 TCAS rule, because they are uncertain that they will be allowed to continue to operate if they make the investment in the new equipment.

If the expedited relief proposed by this subpart is not made available, these operators, too, will disappear – displacing hundreds of employees. Their airplanes are not eligible for operation under FAR 121. There is a definite demand for their unique services, but timely implementation of this proposed rule is needed.

In short, time is of the essence for both practical and economic reasons, for both the FAR 135 and 125 operators. Expedited relief, available more quickly than will occur in the course of the normal rulemaking process, is vital.

ADDITIONAL CONSIDERATIONS

An important benefit of a payload increase for FAR 135 is that it would encourage a number of current FAR 125 commercial operators of large airplanes to convert to FAR 135, and in the process eliminate issues as to whether their services are properly characterized as "private carriage for hire" or "common carrier" operations – a distinction which turns upon whether the operator is holding out to the public (common carrier) or not (private carrier for hire). The regulatory agencies with jurisdiction (FAA and DOT) may not agree in all cases as to the proper application of these concepts. Current Part 125 operators deserve to be able to understand the rules, to facilitate their compliance with them.

It is worth repeating that in a separate recommendation, Part 125 is being revised to clarify what is (or what is not) "holding out to the public"; however, that recommendation recognizes that some operators may not be able to operate within its "safe harbor" standards – or those operators' aircraft, although falling within the 7,500 to 18,000 lb design payload criterion, may not be suited to operation under FAR 121 from an economic, technological, and operational standpoint.

As to airplanes in the 18,000 to 30,000 lb configured payload limit, the Part 125 Applicability Work Group has recognized that these operators cannot effectively continue within the limits proposed for all-cargo private carriage for hire in Part 125 (revised) – and their (approximately 30) airplanes are ineligible to operate under FAR 121. Accommodating these all-cargo operators under revised Part 135 preserves a class of operator whose services are in demand, and at the same time enhances safety by subjecting their operations to the increased safety standards and surveillance of FAR 135 (revised). In all cases, responding to the shipping public's demands by providing transportation alternatives furthers the public interest.

Effects on industry and operators have been stated above. Although some training burden would devolve upon the FAA, passenger or cargo operators are currently using each of the aircraft types (including regional turboprops already mentioned) addressed by this paper; a cadre of inspectors capable of supporting and providing effective surveillance of these operators is thus already available, and training facilities are available to the FAA as well as the operators. The net effect, for both the Agency and the operators, involved will be an equivalent (or better) level of safety, improved service, growth opportunities, and significantly reduced long-term administrative responsibilities compared to similar operations conducted under FAR 121. These benefits will ultimately accrue to the shipping public.

Transportation Security Administration (TSA) ramifications will be minimal, as most operators who will utilize this proposed rule are already subject to TSA Twelve Five Standard Security Program (TFSSP) requirements, or are not required to have a program.

In the case of the 7,500 to 18,000 design payload airplanes, this proposed rule will also harmonize

"large aircraft" cargo payload limits with DOT's Part 298 definition.

ANCILLARY EFFECTS OF THIS PROPOSED RULE

The main effects of this proposed rule have been stated above: The public and U.S. business impact will be improved air cargo capacity, service levels, and pricing. After relatively simple administrative activity to implement the proposed rule for operators requesting it at the district office level, little change in FAA workload (compared to the same operations under FAR 121) is to be expected. Since these operations are chiefly within the U.S., no international consequences should arise.

An important public policy benefit is that virtually every cargo operator under FAR 135, and current 125 operators eligible for the FAR 125-to-135 transition, qualify as small businesses, so this proposed rule has the effect of fostering small business.

ECONOMICS

The economic investment required to implement the limited increase from 7,500 to 18,000 lb design payload capacity proposed in this proposed rule will be significantly less than that required to accomplish the same result via FAR 121 certification and operation. For these airplanes, the chief economic impact of this proposed rule will be availability of more modern, more capable aircraft without the initial and ongoing economic burden of FAR 121 certification and operation, which would likely prevent many otherwise-capable operators from acquiring and operating these airplanes.

Additional training requirements for both flight and maintenance personnel will arise from this proposal. In terms of flight crew training, costs will range from as low as $300 per hour to rent simulator time with the operators' own instructors, to more than $10,000 per pilot for fully-contracted-out ground and simulator training. Maintenance training costs are much more difficult to quantify, but could be estimated at $500 to $2,000 per person for initial qualification.

Some additional costs will be incurred by retaining/maintaining equipment not normally required for FAR 135 cargo operations (TCAS, CVR, FDR, IFCS, etc.); these costs are difficult to estimate and will vary among aircraft types. They are mitigated somewhat by the presence of the equipment in aircraft removed from passenger service, so new installations (with their attendant cost and certification issues) will not be necessary.

Pending and potential enforcement action has already forced some FAR 125 operators out of business, or required them to significantly truncate their activity. The 18,000 to 30,000 lb configured payload category aircraft are looking at an uncertain future, FAR 121 is simply not an option for them. Therefore, this proposed subpart preserves the economic viability of their businesses and avoids disruptive consequences for those using their services (notably the auto industry) who have built their "just-in-time" inventory methods around access to Part 125 operators.

All other economic consequences foreseeable at this time appear positive – long-term reduced costs to operators and the FAA, and improved service to the public.

UNINTENDED CONSEQUENCES

It has been asserted that allowing FAR 135 operators to operate above the current 7,500 lb payload limit would give them an unfair advantage over existing operators who have already made the investment in time and money for FAR 121 certification. The safety, public interest, and economic benefits of this proposed rule proposal clearly outweigh any perception of unfairness by some operators, most of whom have long since discharged their initial costs of FAR 121 certification – obtained, in most cases, in earlier times when certification costs were much lower.

This proposed rule would not compel current FAR 121 operators to operate airplanes with maximum payloads below 18,000 lb under Part 135; such operators may continue to operate under FAR 121, thus addressing the interests of certain operators in Alaska.

ADDITIONAL NOTES

Aging aircraft inspections not required on FAR 135 aircraft: Aging aircraft inspections are addressed in FAR 135.422 and .423. Compliance is a requirement for FAR 135.411(a)(2) operators and required in this proposed proposed rule.

Duty time limitations for maintenance personnel: Not required by FAR 135; current evidence does not indicate that this is a significant safety issue; this subject may be addressed in the Flight-Duty-Rest subgroup.

Bulletproof [cockpit] doors, separation from cockpit and other "people compartments," other security measures: Operators of aircraft subject to this proposed rule will be required to comply with the TSA's "TFSSP" security program. All personnel aboard cargo aircraft are subject to security screening according to the operators' approved TFSSP – so there is no practical reason to have bulletproof cockpit doors. We believe this is fundamentally a TSA, not an FAA issue.

Fire detection and suppression requirements: Aside from a few FAR 125 aircraft eligible for "grandfather" provisions under this proposed rule, modern aircraft are required to meet fire detection and suppression requirements (or have "Class E" compartments where fire suppression systems are not required by FAR 121).

Requirement for GPWS: Not currently required for freight aircraft. Some operators (of current FAR 135 freighters) have elected to provide it. Future regulations do, or may require it.

Cockpit safety checklist: Currently required by provisions of FAR 135.83.

Personal Breathing Equipment: Smoke masks and walkaround oxygen masks are required by cargo conversion STC or applicable certification regulations.

Reliability program: Continuing Analysis and Surveillance programs are required by FAR 135.431, a requirement of FAR 135.411(a)(2) programs, and required in this proposed rule. If the reference is to "maintenance by reliability" programs, these are optional – not required – for FAR 121 operators.

FAR 119 mandated management personnel:

DIRECTOR OF SAFETY – Not required, but encouraged for FAR 135 operators; some operators currently have directors of safety, or persons with equivalent responsibilities.

CHIEF INSPECTOR – Although not a required position for FAR 135, FAR 135.429 mandates inspection personnel and functional separation between production and inspection activities. FAR 135.429 is a requirement for FAR 135.411(a)(2) operators, and required in this proposed rule.

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MINORITY POSITION

Submitted by the Air Line Pilots Association, International (ALPA)

November 12, 2004:

ALPA maintains our strong opposition to any proposed increase above the 7,500 pounds useful payload for cargo-only aircraft operated in FAR Part 135 (APP-32). Furthermore, we oppose an operational restriction that artificially limits the payload on cargo-only aircraft to the 7,500-pound weight for the purpose of avoiding the increased margins of safety afforded by FAR Part 121. These actions result in a reduced level of safety. ALPA's emphasis is continuing the FAA's One Level of Safety program established in 1995.

February 22, 2005:

While ALPA applauds the opportunity for significant growth in the all cargo commuter segment of the industry, there are concerns that the proposed changes in this recommendation document encourage a lesser level of safety. The information provided to ARC members during the discussion of proposed rule changes states that the intent is to allow operators the capability to operate and maintain the newer turbo-propeller aircraft that are currently not being used and available to the market. ALPA is not opposed to incorporating these newer aircraft into the fleets of the small cargo operator. However, it is our position that aircraft with a useful payload in excess of 7,500 pounds should continue to comply with Part 121 regulations.

In 1995 "The Commuter Rule" moved passenger commuter aircraft operations for aircraft having a seating capacity of more than nine seats from Part 135 up to Part 121 regulatory standards. (Note: Cargo operations for these aircraft were already required to be operated in Part 121.) Wishing to incorporate the latest in technology and performance, manufacturers designed commuter aircraft with complexity equal to or greater than most of the large transport category aircraft being operated by today's Part 121 major airlines. Recognizing that Part 135 requirements were inadequate to ensure an ongoing margin of safety for these aircraft, the FAA required they be operated under the Part 121 regulations. This change has been highly successful in the pursuit of the FAA's "One Level of Safety" throughout the commercial airline industry and has benefited all parties concerned.

The original certification of these aircraft for passenger service further compelled the FAA to believe that adequate public safety could not be maintained unless operated to Part 121 standards. Now the industry, through the Regional Air Cargo Carrier Association (RACCA) is contending that without passengers these same aircraft should be allowed to default back to Part 135 standards. The suggestion that cargo and passenger aircraft operations are separate and different is inappropriate. The only fundamental difference is the type of revenue, passengers or cargo, being carried. Most all cargo carriers operate the same type aircraft, in and out of the same airports and airspace as their passenger counterparts. Cargo aircraft operate during a broad range of hours and into more austere and remote environments exposing them to a much higher risk. With the past and projected growth of the all cargo sector, the belief that public safety concerns are minimized, with a reconfiguration to cargo, is out dated.

Since discussions have begun on this issue, there have been at least 5 major all cargo aircraft accidents in North America (one MD10, one B747, and three Convairs).
From 1984 to present, the U.S. National Transportation Safety Board has conducted at least 38 accident investigations involving cargo operators. Those accidents represent **more than 170 deaths** and more than **60 serious injuries** both in the airplane and on the ground. Excluding ramp, turbulence, and runway incursion events, a recent study of aircraft accidents in the United States by the Commercial Aviation Safety Team (CAST) revealed that Cargo Operations maintain an accident rate 5 times greater than Passenger Operations. FAA statistics between 1994 and 2003 show cargo operations accounted for only 6.3% of total flight departures. When considering regulatory changes that solely impact the cargo sector, the high accident rate within relatively low overall system utilization cannot continue to be ignored.

ALPA is committed to safety improvements in the all cargo sector. The Association substantiates this commitment through continued teamwork with agencies and organizations around the world identifying those factors that indicate safety compromises. Over the past few decades, cargo operators have maintained aggressive worldwide expansion. The Boeing World Air Cargo Forecast 2000/2001 report validates this by stating; "During the next 20 years, the freighter fleet is expected to double" and "it is not surprising that forecasts anticipate the addition of more than 2,600 freighter airplanes by 2019." This aggressive growth with the previously stated accident probability that is 5 times greater than the passenger sector clearly predicts the potential for unsatisfactory safety performance in future cargo operations. ALPA believes until the cause of the higher accident rate among cargo aircraft is identified and rectified, it would be premature to move any aircraft types out the enhanced safety structure of Part 121. Additionally, making ANY changes without due diligence and complete study would further exacerbate an already dismal safety record.

The following considerations need to be reviewed in the Regional Air Cargo Carrier Association's (RACCA) effort to justify their proposed regulatory changes.

- This proposed change would group together Part 125 all cargo operators and these "smaller" former Part 121 aircraft operators in one operating rule.
- RACCA's statement in this proposal's request to voluntarily "increase" these operators is for operational, economic, and regulatory efficiency and flexibility.

RACCA's contention this "increase in burden" only applies to approximately 30 Part 125 aircraft, while ALPA contends over 3000 other Part 121 aircraft would potentially be allowed to significantly decrease the safety criteria stipulated by Part 121. ALPA's assessment of the RACCA proposal to move these aircraft from Part 121 to Part 135 is primarily motivated by their frustration with the Certification, Standardization and Evaluation Team (CSET) in their "quickest path to revenue".

In an effort to justify their proposal, RACCA continues to cite the FAA's CSET process as being financially burdensome and time consuming. If time and cost issues are the real problem with the CSET process, then perhaps it is these issues that need to be corrected. If properly addressed, fixing the problems in the CSET process will allow these aircraft to be safely operated and maintained under Part 121. This would yield a more prudent solution for all, without subjecting the FAA to an unknown prohibitive level of new regulatory supervision, oversight, and enforcement. Unfortunately, if this rule change is allowed, significant economic and lack of personnel burdens will be placed upon the FAA since they will now be required to implement,

supervise, and enforce this new program at the National, Regional and local FSDO level.

To date, we are unaware of any formal studies that have been completed by industry or government regarding the financial impact to the public based on what would be required of the FAA to implement, supervise, and enforce the changes requested in this proposal. While it might be economically advantageous for some certificate holders, it will be very difficult for the FAA to significantly increase their personnel, as they are already operating under budget and manning constraints in the current fiscal state of the Federal government.

The safety gained by operating under Part 121, a proven regulatory structure, should not be compromised by major changes (e.g., economics) that have not been properly studied. Creating this new undefined level of safety in Part 135, without a detailed study of the outcome to industry and government, could result in unsafe consequences. This study is well beyond the scope of the ARC. Research into the accident rates is being addressed at the highest levels of the FAA, the NTSB, Safety Foundations, Aviation Organizations and Industry Associations around the world. These experts need to be allowed to finish their analysis and make their recommendations prior to any consideration or action on unsubstantiated economic arguments.

This proposal continues to be presented as a combining of the proposal to change Part 125 (APP-39) with the RACCA proposal because they state the older aircraft of Part 125 will not be able to operate in Part 121 they should be placed into Part 135. ALPA disagrees these two documents (concepts) should be combined since they involve separate operations. We understand there are some of the airplanes flying today under Part 125 that would not be able to meet Part 121 regulations. However, this does not equate to opening up entire fleets to be moved from Part 121. These older airplanes currently being flown under the current Part 125 could be operated in Part 135 by assignment until they are either no longer airworthy or change operating certificate. When this occurs, the airplanes would lose their ability to be operated under Part 135.

Any required change to the Federal Aviation Regulations (FAR) typically requires that an "equivalent level of safety" be maintained. Based upon the activities of the cited ongoing studies, we don't believe RACCA has conducted or completed a study to ensure an equivalent level of safety is maintained. RACCA wants to pick and choose selected sections of Part 121 as a way to enhance Part 135 to comply with rather than complying with all of the applicable requirements of Part 121. We agree with the FAA when they have found that picking and choosing isolated sections from each part to comply with would not provide an equivalent level of safety and maintains a one level of safety position.

Additionally, early discussions concerning this proposal involved the potential of medium to heavy jets moving their operations from Part 121 to Part 135 using the Supplemental Type Certificate (STC) process to artificially limit the useful load to avoid applicable safety regulations they require. During the course of the work of the ARC, RACCA's proposal was discussed as only pertaining to turbo propeller aircraft; however, this revision's proposed regulatory language specifies the broader category of airplanes. This includes reciprocating and turbine powered aircraft, turbo-propeller and turbo-jet. It is conceivable in today's operating environment for operators of DC-9 and Boeing 727 airplanes who do not have the need to utilize the maximum useful load capacity of these airplanes to apply for and be granted an STC to operate below the 18,000-pound limit. These airplanes would then drop out of Part 121 and into Part 135 where they were never intended to operate.

In summary, many of the safety, operations, and maintenance requirements under Part 121 will

not be required under the Part 135 regulations. Furthermore, the trend set by this proposed change does not identify that cost, training and compliance issues required for Part 121 certification of the CSET process are really the issues that need to be addressed and improved. Reducing the regulatory requirements due to "economic" concerns should not be a justification to roll back proven safety standards on a segment of the industry the government already admits it has difficulty enforcing and overseeing.

ALPA remains opposed to increasing the useful payload in Part 135 from the current 7,500 pounds up to and including 18,000 pounds. The implementation of this proposal is unacceptable. Ten years ago the FAA mandated “One Level of Safety” for regional aircraft operations elevating them to Part 121 safety standards. This proposal does not adhere to this established FAA policy of “One Level of Safety”. If adopted, it will create another level of safety within the regulations that allows cargo carriers to operate their aircraft well below the safety level of Part 121. The airplanes currently being flown under the current Part 125 should be placed into Part 135 until they are either no longer airworthy or change operating certificate.

* * *

Recommendation:

PROPOSED AMENDMENT TO FAR 135

[Proposed new subpart]

1. APPLICABILITY: This subpart applies to certain all-cargo operations conducted in aircraft having a maximum payload capacity in excess of 7,500 lb. and operated in accordance with 14 CFR 135.

2. SPECIFIC CONDITIONS FOR APPROVAL OF INCREASED PAYLOADS: Except as provided in Paragraph (c) –

(a) Airplanes operated in accordance with this subpart must have a maximum allowable payload capacity of 18,000 lb or less. Increases of up to five percent above 18,000 may be approved by the Administrator to account for model variances.

(b) Airplanes operated under this subpart must be certificated under Part 25 of the Federal Aviation Regulations or equivalent Civil Air Regulations.

(c) Airplanes eligible for operation in accordance with this subpart also include those airplanes configured for all-cargo operations having a maximum payload capacity, as configured, between 18,000 pounds and 30,000 pounds which were listed on the operations specifications of a Part 125 certificate holder on June 25, 2004.

(d) Pilots operating all-cargo airplanes in compliance with this subpart must be trained in accordance with an approved training program that meets the requirements of FAR 135 subpart H. The operator’s training program must incorporate initial training to meet proficiency requirements of FAR 135 for pilot crewmembers, using advanced simulation, if approved aircraft-specific simulators incorporating motion and visual systems are available in the U.S.

(e) Operators of all-cargo airplanes operated under this subpart must develop and comply with a maintenance training program applicable to the specific aircraft type, in accordance with FAR 135.433.

(f) All-cargo airplanes operated under this subpart must be maintained and inspected in

accordance with a program acceptable to the Administrator that complies with FAR 135.411(a)(2), and those scheduled maintenance requirements set forth in the Maintenance Review Board (MRB) report applicable to aircraft in all-cargo configuration, if an MRB report is available for that airplane type. If no MRB report is available, an equivalent document, provided by the operator and acceptable to the Administrator, must be utilized

(g) Airplanes operated in accordance with this subpart must be equipped with cockpit voice recorders. If flight data recorders, electronic flight instrument systems, integrated flight control systems, traffic collision avoidance systems, or equivalent equipment were installed in the aircraft at the time of manufacture or mandated by regulations for aircraft carrying passengers in revenue operations in effect on [the effective date of this rule], these systems will be retained in operative condition except in accordance with approved Minimum Equipment Lists.[5] The requirements of this subparagraph do not apply to reciprocating-engine powered airplanes.

3. An operator eligible to operate under this subpart may elect to operate in accordance with Part 121 of this chapter, rather than this subpart.

PROPOSED ADDITIONAL "PLACEHOLDER" CHANGE TO FAR 135

(X) After [EFFECTIVE DATE OF THIS SUBPART], each certificate holder that conducts cargo operations within the state of Alaska in aircraft whose payload capacity is more than 7,500 lb. shall comply with Part 121 of this chapter.

(Y) If authorized by the Administrator upon application, each certificate holder that conducts operations under this part to which paragraph (X) of this section does not apply, may comply with Part 135 of this chapter

Steering Committee Review:

There is a strong dissenting view from ALPA. ALPA is opposed to taking the Part 121 turbo-propeller (and jet) aircraft out of Part 121 (by increasing the weight from 7,500 to 18k pounds) and allowing them to operate in Part 135. The moving of Part 125 aircraft into Part 135 is separate and distinct from the RACCA proposal. ALPA understands that many of the Part 125 aircraft may not or can not meet the Part 121 airworthiness or special requirements. We maintain this is a different group of aircraft than the RACCA proposal. ALPA believes RACCA's primary motivation is to stay away from the FAA imposed CSET procedure.

Final Action: This document will go to the FAA without consensus. ALPA has submitted an opposing vote.

Notes: (Endnotes -- see below)

[1] Proposed rule language also provides a five per cent increase above the 18,000 lb. maximum payload "if approved by the Administrator." This will allow operators access to limited payload increases to account for anticipated small increases in certificated maximum takeoff weight developed by manufacturers of aircraft at the upper end of the payload range.

[2] These larger, older FAR 125 aircraft, with a cargo payload of more than 18,000 lb up to a maximum of 30,000 lb are limited in number (fewer that 30 in late 2004 and continuing to decrease) and will be phased out over time through attrition as their continued operation becomes economically unfeasible. The 24 June 2004 date was selected arbitrarily by ARC committee members to establish a cutoff date beyond which operators could not add aircraft in this group that would eligible for relief under this "grandfather" feature of the proposed rule.

[3] A stretched, remanufactured, modernized version of the turboprop Convair 580 (Allison Convair)

[4] Data provided by airplane manufacturers, their associated leasing entities, and industry data collection enterprises. Numbers presented are deliberately conservative.

[5] Minimum Equipment Lists (MELs) are developed by operators from FAA-produced Master MELs (MMELS) applicable to specific aircraft types or related groups of aircraft, and approved by operators' certificate holding district offices. MELs are intended to provide controlled, short-term relief from specific equipment requirements so equipment can be removed for repair, aircraft rotated to stations where repairs can be made, etc.

RECOMMENDATION DOCUMENT

Number: Applicability 39

Issue: Private carriage for hire, which will reside under Part 125

(first page previously posted) (see new material beginning with "Additional Background")

Discussion:

Perpetuate rule

No holding out directly or indirectly, which includes:

* No Advertising, no solicitation

* No Salesperson

* No Brokers (This would not preclude the operator dealing with an agent of the customer, provided that the operator signs the contract directly with the customer. The operator can not have a broker.) (Contract with agent spelling out that the agent specifically represents the end user in this contract are permitted.)

…and

- Ops Specs limited to 1 customer per calendar year with one specific end user per calendar year (end user defined as a single entity) with no limitation on hours;

…or

- Ops Specs limited to 4 ~~6~~ contracts per calendar year (outside of private operations) per certificate holder (single entity). Private operations (single entity) include affiliate operations. "Affiliate" is defined as minimum 40% ownership and limited to three companies. (Corporate structure concept.) Maximum of 300 revenue hours during the calendar year (hours for which you are "paid") per year outside of private operations per certificate holder.

- Fuel haulers in Alaska are exempt from hour and contract limitations.

Also, orphan aircraft will somehow be accommodated!

OPS and AWG will be populated by Part 125 operators and specific meeting times will be set aside (in consultation with the Chairs). Part 125 will develop two papers APP 41 and APP 42 to identify the issues. The work will be developed in work groups over next day and before June 1, 2004.

Additional Background:

A. References

1. Proposal to Upgrade Regulation of Certain Large General Aviation Airplanes and replace Commercial Operator and Air Travel Club Regulations, Notice No. 79-10, 44 Fed. Reg. 6324 et seq. (November 19, 1979) (hereinafter the "125 NPRM")

2. Certification and Operations Rules for Certain Large Airplanes; Establishment of Part [125] and Miscellaneous Amendments to Existing Regulations, New Part 125, 45 Fed. Reg. 67214 et seq. (October 9, 1980) (hereinafter the "125 Final Rule")

3. AC 120-12A – Private Carriage vs. Common Carriage of Persons or Property dated April 24, 1986

4. AC 125-1 – Operations of Large Airplanes subject to Federal Aviation Regulation Part 125 dated January 22, 1981

B. Expanded Statement of the Issue: Whether and under what conditions should private carriage for hire passenger and cargo operations be retained under Part 125. A principal related issue is whether an objective standard can and should be developed to determine that an operator is not "holding out" by gaining a reputation for willingness to serve the traveling public or shipping public indiscriminately.

C. Objective: To retain Part 125 for "non-common carriage" operations as defined in 119.3(a) (to be re-defined per this proposal as "private carriage for hire") and provide an objective standard for a Part 125 certificate holder to determine that it is not "holding out by reputation." A related objective is to provide relief for those Part 125 certificate holders which cannot take advantage of the "safe harbor" recommended herein for private carriage for hire operations, and whose aircraft cannot technically or economically transition to Part 121 and/or Part 135 (as these parts may be amended as a result of this ARC, including a proposal to increase the maximum payload capacity for all cargo operations to 18,000 pounds); this relief is limited to those aircraft having payload capacity not greater than 30,000 lbs, as configured, and listed on the affected 125 certificate holder's Ops Specs (by serial number) as of June 24, 2004. which aircraft shall be operated under the on-demand rules of Part 135 in cargo only operations. From a timing standpoint, the objective is to adopt this recommendation on a fast track basis through an appropriate FAA process.

D. Current Regulations

1. Section 119.23 provides in pertinent part:

"119.23 Operators engaged in passenger-carrying operations, cargo operations or both with airplanes when common carriage is not involved."

"(d) Each person who conducts operations when common carriage is not involved with airplanes having a passenger-seat configuration of 20 seats or more . . . or

a payload capacity of 6,000 pounds or more shall, unless deviation authority is issued—

(1) Comply with the certification and operations specifications requirements of Part 125 of this chapter;

(2) Conduct its operations with those airplanes in accordance with the requirements of Part 125 of this chapter; and

* * * * *

2. §119.3(a) provides in pertinent part:

"§119.3. Definitions. For the purpose of subchapter G of this chapter, the term—

"When common carriage is not involved or operations not involving common carriage means any of the following:

(1) Noncommon carriage:

* * * * *

"*Noncommon* carriage means aircraft operations for compensation or hire that does not involve a holding out to others." (Emphasis supplied)

3. §125.1 provides in pertinent part:

"§125.1 Applicability

"(a) Except as provided in paragraphs (b), (c), and (d) of this section, this part prescribes rules governing the operations of U.S.-registered civil airplanes which have a seating configuration of 20 or more passengers or a maximum payload capacity of 6,000 pounds or more when common carriage is not involved." (Emphasis supplied)

4. Section 125.11 provides in pertinent part that

"§125.11 Certification eligibility and prohibited operations

"(b) No certificate holder may conduct any operation which results directly or indirectly from any person's holding out to the public to furnish transportation"

E. Proposed Amendments to Accomplish Objective: To achieve the above objective, parts 119 and 125 shall be amended as follows:

1. Revise the title of Part 125 to read as follows:

"Part 125—Private Carriage for Hire and Miscellaneous Amendments: Certification and Operations of Airplanes having a Seating Capacity of 20 or more Passengers or a

Maximum Payload Capacity of 6,000 pounds or more and Rules to Governing Persons on Board Such Aircraft"

2. Amend §119.3(a) as follows:

   "(d) Strike "*Noncommon Carriage*" and substitute "*Private Carriage for Hire*" in subparagraph (1) of the definition of "*When common carriage is not involved or operations not involving common carriage.*"

   "(e) Re-title "*Noncommon carriage*" in §119.3(a) to read "*Private Carriage for hire*" and define "*Private Carriage for hire*" to mean ". . . an aircraft operation carrying passengers or cargo or both for compensation or hire that does not involve, directly or indirectly, a holding out to the public to furnish transportation."

3. Amend §125.1 by striking "when common carriage is not involved" and inserting "in private carriage for hire and private carriage of petroleum and petroleum products in the State of Alaska."

4. Strike ~~§125.1(a)(4)~~ 125.1(b)(5) (Technical Correction to paragraph reference based on June 30 E-mail from Garofalo) and substitute "[Reserved]"

5. Amend §125.9 by adding the following Paragraph (e) at the end thereof:

   "(e) For purposes of this part

      (1) "*Private carriage for hire*" shall have the same meaning as defined in [new] §119.3(a).

      (2) A "*holding out by reputation*" means gaining a reputation for a willingness to serve the traveling or shipping public, or a segment thereof, on an indiscriminate basis.

      (3) An "*affiliate of the certificate holder*" means a company that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or under common control with, the certificate holder. The holding of at least forty percent (40%) of the equity and forty percent (40%) of the voting power of an entity will be presumed to constitute control for purposes of determining an affiliation under this Part.

      (4) "*Revenue hour*" shall mean hours when revenue passenger and/or revenue cargo are on board. Hours associated with ferry flights, positioning flights, de-positioning flights and maintenance flights when no revenue passengers are on board are not "revenue hours."

6. Amend paragraph (b) of §125.11 to read as follows:

   "(b) Except as provided in §125.1(b) or as otherwise authorized under §125.3, a

certificate holder may not conduct any operation under the rules of this part other than private carriage for hire. A certificate holder is not conducting private carriage for hire operations if, for compensation or hire, it is holding out, directly or indirectly, to the public to furnish transportation indiscriminately."

7. Amend §125.11 to add a new paragraph (d) at the end thereof:

"(d) A certificate holder is "holding out directly or indirectly to the public to furnish transportation indiscriminately" if—

(1) It is advertising its transportation services to the public or is actively soliciting passengers or cargo customers through its own salesperson(s) or through a broker or other intermediary which itself is advertising and soliciting passenger or cargo traffic from the public, *provided that,* a certificate holder may do business with a broker or other intermediary if (i) such broker or intermediary acts as an agent for the customer; (ii) the certificate holder contracts directly with the customer or with the agent having authority to sign contracts on behalf of the customer, and (iii) the number of contracts do not result in a holding out by reputation under subparagraph (2).

(2) It is holding out by reputation, *provided that* a certificate holder shall not be deemed to be holding out by reputation under this subparagraph if—

(i) Within any calendar year period it has entered into not more than four (4) transportation contracts, *provided that* the maximum number of revenue hours relating to such contracts, in the aggregate, shall not exceed 300, and *provided further* that no revenue hour limitation shall apply to transportation contracts with not more than three (3) affiliates of the certificate holder or to contracts for the transportation of petroleum and petroleum products in the State of Alaska on a private carriage for hire basis, or

(ii) Within any calendar year it has entered into not more than one (1) transportation contract with a specific passenger or cargo customer in which case no revenue hour limitation shall apply.

8. Amend Paragraph (b) of §125.31 by re-designating subparagraph (6) as subparagraph (7) and adding a new paragraph (6) to read as follows:

"(6) A list of the current contract or contracts subject to (i) the 300 revenue hour limitation in [new] §125.11(d)(2)(i), (ii) the single customer limitation in §125.11(d)(2)(ii), and (iii) the three (3) contract limitation for contracts with an affiliate of the certificate holder in §125.11(d)(2)(i), *provided that* the certificate holder may keep the current list of contracts at its principal base of operation or other location approved by the Administrator and referenced in its operations specifications. Each certificate holder shall make this list of contracts and the contracts themselves available for inspection by the Administrator.

Recommendation:

Adopt the proposed amendments to Parts 119 and 125 on a fast track basis through an appropriate FAA process to retain Part 125 and eliminate the grey areas governing private carriage for hire operations under Part 125. This recommendation also contemplates (a) enhancing the safety standards in Part 125 by incorporating appropriate provisions of Part 121 (applicable to supplemental air carriers) and Part 135 (currently being considered by the Operations Working Group), (b) conforming FAA guidance materials, including guidance relating to the "safe harbors" created by the proposed amendments to avoid "holding out by reputation," and (c) developing to permit continuation of operations by certain Part 125 all cargo operators under an amended Part 135, limited to aircraft specified in paragraph C which operators cannot comply with either an amended Part 125, as proposed herein, or existing Part 135, or transition to Part 121 rules, as may be amended through the ARC process.

Justification for Recommendation:

Part 125 was adopted over 23 ½ years ago. The FAA's stated purpose was to "establish a uniform set of certification and operation rules for large airplanes having a seating capacity of 20 or more passengers and a maximum payload capacity of 6,000 pounds or more" (125 Final Rule) with safety standards appropriate to the size and complexity of these airplanes. The rule applied to the use and operation of these airplanes "for any purpose other than common carriage" (125 Final Rule). This embraced "private carriage," i.e. passenger and cargo operations where no charge or fee is involved as well as "private carriage for hire" where passengers and cargo are transported on a commercial basis (i.e. for compensation and hire) without any "holding out" of such service to the general public.

As a general proposition, a Part 125 operator cannot "hold out" its services through advertising, solicitation, and use of brochures or by reputation. In the event of a "holding out" the resulting commercial operations would be considered "common carriage" subject to the certification and operational rules of Part 121 (and, in certain cases Part 135) and subject to the certification requirements of the Department of Transportation which would undertake a fitness review—i.e. an examination of the operator's management, operational and financial qualifications and its compliance disposition.

As the agency gained experience with Part 125, it issued deviations in appropriate cases to authorize "private carriage" operations with Part 125 size airplanes. In fact the FAA's deviation policy for private carriage has now become the rule rather than the exception with no adverse safety consequences. As a result, the ARC is recommending that "private carriage" operations with Part 125 size airplanes be removed from Part 125 and regulated under enhanced safety standards in Part 91.

Private carriage for hire operations have continued to be regulated under Part 125. Moreover, since the adoption of Part 125, the demand for the specialized services of these operators has grown among sports teams and entertainment groups. Also, the distribution system for automotive parts—which are a major source of business for the Part 125 all-cargo operators—has changed. Whereas, in the past, the automobile manufacturers were limited in number and dealt directly with Part 125 operators, today the transportation of auto parts is arranged through intermediaries a/k/a logistics companies acting on behalf of an increased number of automobile

manufacturers. These marketplace developments have resulted in a heightened interest among the regulators and the Part 121 common carrier community over the limits of private carriage for hire and when, if even, an operator crosses the line into common carriage.

What constitutes "private carriage for hire" versus "common carriage" (or "holding out") has been, and still is, one of the more confusing and misunderstood concepts in aviation law. There is no bright line test for making this distinction which has made it especially difficult for Part 125 operators to determine whether they are "holding out by reputation." Within the aviation industry there is a disagreement: Part 121 operators disagree with Part 125 operators on whether the latter are "holding out" thereby encroaching upon the 121 operators' domain. In fact, the confusion within the industry has, at times, been shared by the FAA and DOT.

While the FAA has attempted to clarify the concept of private carriage for hire, its well-intentioned efforts have added to the confusion. For example, AC 120-12A, on page 4, establishes the general principle that "private carriage for hire is carriage for one or several selected customers, generally on a long term basis," where the "number of contracts must not be too great, otherwise it implies a willingness to make a contract with anybody." The AC goes on to state that three (3) contracts is probably permissible which would result in avoiding a "holding out by reputation" whereas 18 to 24 contracts is impermissible and would result in common carrier status. From the operator's standpoint the gap between 3 contracts and 18 contracts is gaping, and it should not have to conduct business in this "grey area."

What has brought this matter to a head is that over the past 2 years, DOT has initiated several investigations of Part 125 operators which DOT believes are "holding out" and have crossed the line between private carriage for hire and common carriage. The principal segments of the Part 125 community that have been the subject of these investigations are the automotive parts operators and the Part 125 operators carrying sports teams and entertainment groups.

As a result of this confusion as well as DOT's enforcement efforts the Applicability Working Group has reached consensus on a proposal that would inject a degree of objectivity into what is a permissible Part 125 private carriage for hire operation as distinguished from a "holding out." The focus has been on (i) avoiding a "holding out by reputation," and (ii) the use of brokers to arrange transportation of auto parts, both of which seem to be the most pressing issues for the Part 125 operators as well as the regulators.[1]

This proposal addresses the "holding out by reputation" dilemma by—

(1) Defining "Private Carriage for Hire" and "holding out by reputation" to provide an appropriate frame of reference for Part 125 certificate holders to conduct business.

(2) Within the above frame of reference, developing "safe harbors" for operations that would <u>not</u> be deemed to have resulted from or considered "holding out by reputation" and, therefore, would constitute lawful private carriage for hire.

(3) The safe harbor would permit up to <u>four (4) written</u> contracts in a calendar year subject to a 300-hour limitation in the aggregate for such contracts.

[1] "Holding out" through advertising and/or direct solicitation normally does not fall into a regulatory grey area.

(4) Another safe harbor would be created for written contracts with up to three (3) affiliates of the Part 125 operator. The affiliate contracts would not be subject to the 300-hour limitation. While "affiliates" has been broadly defined—borrowing from the definition of "Affiliate of a program manager" in the Subpart K fractional ownership rules (§91.1001(b)(1))—the number of affiliates in the Part 125 safe harbor rule has been capped at three (3) per calendar year.

(5) Part 125 operators which intend to limit their operations to a single written contract would not be subject to any hour limitation and could have up to 3 affiliate contracts as defined in (4).

(6) In recognition of Alaska's traditional dependence on air service especially to transport fuel to the outlying villages, those Part 125 operators hauling fuel for third parties within the State of Alaska would not be subject to any hourly limitation on such operations.

(7) Accomplish items (1) through (6) on a fast track basis through an appropriate FAA rulemaking process.

This proposal contemplates all cargo operations under an amended Part 135 of aircraft having a maximum payload capacity, as configured, of 30,000 lbs or less listed on the operator's Part 125 Ops Specs on June 24, 2004. The objective is to provide limited relief through an appropriate SFAR for existing all cargo Part 125 certificate holders as explained above with the expectation that such aircraft will be phased out over time. The applicability working group has identified approximately 30 all cargo aircraft will fall within this SFAR.

This proposal also addresses the "broker" issue which arises mainly in the transportation of automotive cargo where, as previously mentioned, logistics companies arrange the transportation on behalf of the customers, including the auto manufacturers. The proposed amendments permit a Part 125 certificate holder to do business with an intermediary if such intermediary acts as an agent for the customer, and the Part 125 operator contracts directly with the customer or with the agent if it has authority to sign the contract on behalf of the customer. Here, of course, the number of customer contracts would be limited to take advantage of the safe harbor rules discussed above.

The proposed rule also contemplates that the safety standards in existing Part 125 will be enhanced by incorporating appropriate provisions of Part 121 applicable to Supplemental Air Carriers and Part 135. These standards are the subject of separate papers being generated by the Operations Working Group.

The decision to retain Part 125 for private carriage for hire operations with large (20 seats or more/6,000 pound payload or more) was thoroughly vetted, including a special break-out session of the Applicability Working Group to consider this precise question. This decision recognizes that private carriage for hire, albeit a niche form of commercial air service, has a valuable role in the marketplace, and there is no safety-related reason to do away with Part 125.

Alternatives considered were rescinding Part 125 and regulating the commercial

operations permitted by Part 125 under a separate subpart of Part 135. However this alternative was rejected as exalting form over substance, because the main issue of what constitutes "private carriage for hire" and/or "holding out by reputation" would remain. Another alternative considered regulating existing Part 125 operations under Part 121. This alternative was rejected because certain Part 125 operators have a business model based on private carriage for hire operations and do not want—or need—the ability to "hold out" their services to the public as a common carrier with the attendant administrative and cost burdens associated with Part 121 certification and regulation as well as DOT certification. Thus it was determined that these operators should not be compelled to change their business model based solely on regulatory, non safety-related, concerns.

As noted above, it is recognized that some Part 125 operators may not be able to operate within the safe harbors created by this proposal. Moreover from a technological, operational and economic standpoint their aircraft may not be suitable for operations under Part 121. A possible alternative for Part 125 all-cargo operators only may be certification under Part 135 in the event that the maximum payload limit is increased from 7,500 pounds to 18,000 pounds as is being proposed in this ARC. Another Part 125 alternative is provided through the SFAR process described above for certain all cargo aircraft, which are expected to be phased out over time.

Finally during the deliberations on this proposal the Department's representatives pointed out that, while there is no express U.S. citizenship requirement for Part 125 certificate holders in Parts 119 or 125, the governing statute administered by DOT, 49 U.S.C. §41701(c) and DOT regulation, §375.25, would, inter alia, prohibit private carriage for hire operations with "foreign civil aircraft" between two (2) U.S. points (i.e. cabotage) and require licensing for such operations to/from the U.S. A "foreign civil aircraft" is defined in §375.1 of DOT's regulations to include any "U.S.-registered aircraft owned, controlled or operated by persons who are not citizens or permanent residents of the United States." (Emphasis supplied.) As such the DOT representative cautioned that if a Part 125 certificate holder did not qualify as a U.S. citizen as defined in 49 U.S.C. §40102(a)(15) as amended by Vision 100 – Century of Aviation Reauthorization Act, Pub. L. 108-176, §807, 117 stat. 2490 (Dec. 12, 2003), its U.S.-registered aircraft would be considered a foreign civil aircraft and private carriage for hire operations (as well as common carrier operations) performed with aircraft domestically would be prohibited as cabotage, and such operations to/from the U.S. would require DOT licensing.

Steering Committee Review: ALPA would like it recognized that, while they agree to this concept for Part 125 Private Carriage for Hire operations, that does not mean that they agree to any other changes [specifically the raised cargo payload] indirectly. The Steering Committee recognizes that ALPA has not agree to other changes due to their approval of this document.

Final Action: Approved by full consensus

Notes:

Number: Applicability 39 – proposed
Amendments to Part 125 Safety Standards

Issue: Private carriage for hire, which will reside under Part 125

Executive Summary

Questions regarding the viability of FAR Part 125 operations were attached to the 135 ARC due to lack of standardization and definition of Private Carriage for Hire. Operators, their customers and regulators have been confused regarding the scope of permissible Private Carriage activity as contrasted with Common Carriage. Typical Private Carriage operations are unique in their mission and aircraft configuration and operate in small niche markets. Since the inception of Part 125 these certificate holders have experienced an exemplary safety record nearly unmatched in aviation history. Developing new regulations in FAR 135 or 121 Supplemental would require duplication of unnecessary efforts. The retention of FAR 125 for the continuation of Private Carriage for Hire activities has provided a logical starting point for operator safe harbors which will now determine permissible scope of these operations as well as defining what is not holding out, either by reputation or course of conduct.

Discussion:

The approval of Recommendation Document "Applicability 39" contemplated "that the safety standards in existing Part 125 will be enhanced by incorporating provisions of Part 121 available to supplemental air carriers and Part 135." The following are the safety enhancements to Part 125, which the Applicability Working Group (AWG) believes are appropriate. It is noteworthy that the safety record for Part 125 operations is exemplary (no fatal accidents have occurred since the inception of Part 125). Moreover these changes reflect a "practice to rule" concept similar to the regulatory approach, which led to the adoption of subpart K and the related amendments to Part 135.

1. Reference: section 125.3, Deviation Authority.

   Section 125.3 has been retained with the understanding that (i) deviations will be limited to "specified sections," as stated in section125.3 (b), and (ii) this provision, as a matter of policy, will not be used for full deviation from Part 125 in order to operate under Part 91. In furtherance of this expectation, it is recommended that:

   "Paragraph (b) (5) of section 125.1 shall be deleted."

   Cost Impact: Neutral

2. Reference: Required Management Personnel

Paragraph (a) of section 125.25 shall be amended by inserting "and director of maintenance" between "director of operations" and the ",".

Rationale: Current Part 125 operations require a director of operations who may also serve in the dual role of director of maintenance. The AWG believes that the

addition of a director of maintenance-- even for a single aircraft operation-- is appropriate and will enhance safety.

Cost Impact: Addition of Director of Maintenance anticipated to cost $100,000.00 USD including benefit and initial training.

3. Reference "new" section 125.402—Retention of Contracts

   Adopt a new 125.402 to read as follows:

   > "the contracts referred to in section 125.31(b)(6) shall be retained for 12 calendar months after the current calendar year".

Rationale: This will facilitate inspection and enforcement of the "safe harbor" provisions in revised Part 125 relating to the number of contracts and limitations thereon.

Cost Impact: Administrated expenses estimated at $200.00 USD per year.

4. Reference: Oxygen Use Requirements for Crew and Passengers

   a. For crewmembers, add a new section 125.335, "Pilot Requirements: Use of Oxygen", which will include the content of section 135.89 and the amendments proposed in Ops 27.

Rationale: FAR Part 125 is silent on this subject. This new requirement is similar to provisions of Parts 121 and/or 135, which the "AWG believes are appropriate and will enhance safety.

Cost Impact: None anticipated since this change is essential a practice to rule.

5. Reference: Oxygen Equipment Requirements

   Add new section 125.229 which will incorporate and restate in this new section, the provisions of section 135.157.

Rationale: Same as (4) above.

Cost Impact: None anticipated because in the current operating environment in passenger and cargo operations will represent a practice to rule.

6. Reference: Flight Crewmember Requirements

Adopt a new section 125.309, which will incorporate and restate in this new section the provisions of section 121.542.

NOTE 1: THE FOLLOWING CLARIFICATION WAS PROVIDED BY ALPA TO BETTER CLARIFY THE REGULATORY REFERENCE.:

Subpart M of Part 121 (.381 to .387) deals with the flight crewmember requirements.[…] I'm not sure which of the Para's in this section is being referenced for the text.

Without the details, I would think 121.385 (see below) is what you're looking for.

§ 121.385 Composition of flight crew.
(a) No certificate holder may operate an airplane with less than the minimum flight crew in the airworthiness certificate or the airplane Flight Manual approved for that type airplane and required by this part for the kind of operation being conducted.
(b) In any case in which this part requires the performance of two or more functions for which an airman certificate is necessary, that requirement is not satisfied by the performance of multiple functions at the same time by one airman.
(c) The minimum pilot crew is two pilots and the certificate holder shall designate one pilot as pilot in command and the other second in command.
(d) On each flight requiring a flight engineer at least one flight crewmember, other than the flight engineer, must be qualified to provide emergency performance of the flight engineer's functions for the safe completion of the flight if the flight engineer becomes ill or is otherwise incapacitated. A pilot need not hold a flight engineer's certificate to perform the flight engineer's functions in such a situation.

[Doc. No. 6258, 29 FR 19212, Dec. 31, 1964, as amended by Amdt. 121-178, 47 FR 13316, Mar. 29, 1982; Amdt. 121-253, 61 FR 2611, Jan. 26, 1996; Amdt. 121-256, 61 FR 30434, June 14, 1996, as corrected at 61 FR 35628, July 8, 1996, was Amdt. 121-259]

END NOTE.

Rationale: Same as (4) above.

Cost Impact: Neutral

7. Reference: Aircraft Security

Adopt a new section 125.55 which will incorporate and restate in this new section, the provisions of section 121.538.

Rationale: Same as (4) above.

Cost Impact: Neutral since TSA has occupied this field and any cost impact will be attributed to TSA, not FAA requirements.

8. Reference: Responsibility for Operational Control

Adopt a new section 125.307, which will incorporate and restate in this new section, the provisions of section 135.77, except change the reference to "section 135.21" to "section 125.73(a)."

Rationale: Same as (4) above.

Cost Impact: Changes to manuals estimated at $500.00 USD and administrated expenses.

9. Reference: Emergency Equipment

Adopt a new section 125.209, which will incorporate and restate in this new section, the provisions of section 121.339.

Rationale: Same as (4) above.

Cost Impact: Cost neutral as such equipment is already required.

10. Reference: New Section—Emergency Flotation Means

Adopt a new section 125.210, entitled "Emergency Floatation Means", which will incorporate and restate in this new section the provisions of section 121.340, except the reference to "section 121.339 (a)(1)" shall read: "section 125.209 (a)(1)."

Cost Impact: Cost neutral

11. Reference: Flight Release Under IFR and Over the Top

Change section 125.361 to enable the initiation of a flight to a destination airport without approved weather reporting, so long as the designated alternate airport has approved weather reporting meeting the appropriate criteria in accordance with section 91.1039.

Amend section 125.361 by striking "Except as provided in section 125.363" and inserting "Except as provided in paragraph (b) below and section 125.363." Add a new paragraph (b) which will incorporate and restate in that paragraph the provisions of paragraph (a) (1) and (b) of 91.1039.

Rationale: Same as (4) above.

Cost Impact: Anticipate requirement for manual changes costing approximately $500.00 USD.

12. Reference: Drug and Alcohol Provisions

The AWG recommends incorporating the drug and alcohol testing provisions of Parts 121 & 135, but recognized there may be a threshold legal issue as to whether the Federal Aviation Administration has the statutory authority to impose the drug and alcohol testing requirements on a Part 125 private carrier for hire. In lieu of drug and alcohol testing, the AWG recommends incorporating and restating in a new section 125.299, the drug and alcohol misuse education program provisions of section 91.1047.

Rationale: Same as (4) above.

Cost Impact: Assuming a statuory change anticipated costs is $2500.00 USD for a typical operation with 15 covered employees.

13. Reference: Operating Experience

Add a new section 125.284 to incorporate and restate in this new section 125.284 the provisions of section 135.244, except that (i) the reference to paragraph (a) to "commuter operations" and "Part 119" and (ii paragraph (b) (2) shall be deleted, and the reference to "a qualified check pilot" in paragraph (b) (3) shall be changed to "current and qualified pilot in command".

Rationale: Same as (4) above.

Cost Impact: For a typical passenger or cargo operation with one or two airplanes and 10-15 employees anticipated expense for substituting a none /salaried qualified PIC for an SIC to gain IOE is $3500.00 USD annually.

14. Reference: Flight, Duty and Rest Requirements

Incorporate the provisions of 135.267 & 135.269 as applicable for flight crew members and 135.273 (a), (b) as applicable for flight attendants.

Rationale: Same as (4).

Cost Impact: Defer pending review of flight and duty summit results.

15. Reference: Training

Add a new Subpart M in Part 125 to incorporate and restate the substance of Subpart H of Part 135. The AWG reserves the right to review the recommendations of the Training Work Group in this area.

Rationale: Same as (4) above.

Cost Impact: Passenger: Practice to rule. Cargo: Practice to rule. Training Manual: $2,500.00 USD.

16. Reference: Initial and Recurrent Pilot Testing Requirements

Substitute section 135.293—Initial and Recurrent Pilot Testing Requirements-- for section 125.287; substitute section 135.297 – Pilot in Command Instrument Proficiency Check required-- for section 125.291. Also amend section 125.291 by adding a paragraph (h) to permit acceptance of instrument proficiency checks in the same aircraft type under Parts 135 and 121 as fulfilling instrument proficiency checks under section 125.291.

Rationale: Same as (4) above.

Cost Impact: To be determined.

RECOMMENDATION DOCUMENT

Number: Applicability 41

Issue: "Flight Department Companies" — Appropriate regulation of flight departments companies with respect to § 91.501

Discussion:

1. Introduction

Section 91.501 currently provides (so long as common carriage is not involved) several different limited cost-sharing exemptions from the general rule that operations involving cost reimbursement must be conducted under one of the commercial parts of the federal aviation regulations. Originally promulgated in the early 1970's, this rule has proven to be extremely beneficial to the appropriate development of business and personal aviation in the United States without negatively affecting the safety of those operations. That being said, significant changes in basic US corporate practices and law over the last thirty years, as well as a great deal of misunderstanding and technical non-compliance with this rule (sometimes purposefully, but by most accounts almost always inadvertent), has lead to the point that it is now appropriate to re-evaluate the rule and create two additional types of permitted but narrowly-confined cost-sharing operations that will more closely align the rule with modern business practices without sacrificing in any way the safety of these aircraft operations.

2. Background

In October of 1971 the FAA issued a notice of proposed rule making seeking to analyze the appropriateness of "amending Part 91 of the Federal Aviation Regulations by adding a new Subpart [F] containing general operating rules and an inspection program for large and turbine-powered multiengine airplanes." 36 F.R. 19507. There were several factors that triggered this analysis, including the FAA's recent rulemaking regarding the definition of a "Commercial Operator" (and the commentary that effort received), as well as a special task force report addressing the fatal accident in the fall of 1970 of a charter flight carrying a college football team. *Id.* Quoting directly from this report, the FAA noted that the task force urged the Administrator to:

> promulgate a new Part of the Federal Aviation Regulations governing the operations of all (a) large airplanes, (b) pressurized airplanes, and (c) turbine powered airplanes, engaged in private carriage. This regulation should provide that those airplanes be operated and maintained in the condition for safe operation appropriate for transport category airplanes. The regulations should include requirements for crew proficiency, operations, and continued airworthiness consistent with the terms of original airworthiness certification of transport airplanes. It should be written so as to provide a level of safety comparable to FAR 121, but without the detailed administrative, financial and organizational

> requirements for the issuance of a commercial operator certificate prescribed in that Part. This new Part should be written in such a way that it provides the flexibility necessary for the operation and maintenance of the individual airplane.
>
> Upon implementing the requirement that all large airplanes, pressurized airplanes, and turbine-powered airplanes be raised to an acceptable level of safety, commercial operator certification should no longer be required. The regulation should then require that only scheduled and supplemental air carriers engaged in common carriage will be governed by FAR 121 and meet the highest possible degree of safety as required by section 601(b) of the Federal Aviation Act of 1958. Operators of large or complex airplanes engaged in private carriage should no longer be burdened with economic requirements, but could continue to meet under the new Part an acceptable level of safety. FAA field inspectors would no longer be required to make an economic determination of what constitutes operation "for compensation or hire."

36 F.R. 19507-19508.

The rule the FAA then proposed in its notice generally followed the guidelines laid forth in the task force's report, creating several exemptions from the general rule that where cost-sharing was occurring for the ownership and operation of these aircraft, those operations would have to be operated pursuant to one of the commercial operating parts. Specifically, the proposed rule would create exemptions for limited permitted cost sharing related to the use of business aircraft by companies and certain of their affiliates with regard to their business operations, the operation of aircraft by their joint registered owners, demonstration flights in anticipation of the sale or lease of the aircraft, time sharing of the aircraft, and the interchange of aircraft by two separate aircraft owners and operators. The permitted cost sharing was not allowed to exceed the fully allocated costs of owning and operating the aircraft, and reimbursement for time sharing, demonstration and cargo-only flights was further limited to specific expenses listed in the proposed rule (i.e. landing fees, fuel, etc.), in order to help assure that such operations would not be conducted with an underlying profit motive in mind.

When setting forth the FAA's then current policies in order to assist in the commentary the agency was seeking on the new proposed rule, the FAA observed in part that it "has also held that a subsidiary corporation may not lease an aircraft with crew to its parent corporation, even though the actual operating expenses of the flight are the only charges made. With the growth of the conglomerates and the use of various legal artifices to provide transportation for compensation this policy is becoming increasingly difficult to apply. *Safety wise, neither the relationship of the corporations nor the type of compensation received for the services rendered should be relevant or controlling for such operations.*" 36 F.R. 19509 (emphasis supplied). With these and similar observations in mind, the FAA then put forth the first version of what it proposed would eventually become the new Subpart F to Part 91 of the FARs. *Id.* At 19509-19515.

By July of 1972 the FAA had received significant commentary on its new proposed rule, and, taking this commentary and its own analysis into account, then issued the final form of the

new Subpart [F]. 37 F.R. 14758. This new rule did provide for the cost-sharing exemptions mentioned above, namely those related to affiliated groups, joint registered ownership, demonstration flights, time sharing and interchange agreements. With respect to the affiliated groups exemption, however, and despite observing in its original notice that "[s]afety wise, neither the relationship of the corporations nor the type of compensation received for the services rendered should be relevant or controlling for such operations," the agency specifically noted "that if a corporation is established solely for the purpose of providing transportation to the parent corporation, a subsidiary, or other corporation, the foregoing policy does not apply. In that case, the primary business of the corporation operating the airplane is transportation and the carriage of persons of goods for any other corporation, for a fee or charge of any kind, would require the corporation operating the airplane to hold a commercial operator certificate under Part 121 or 135, as appropriate." 37 F.R. 14759. As time went on, such corporations created to solely own and operate an aircraft for the benefit of their affiliates came to be commonly referred to by the FAA's Chief Counsel's office, and the industry in general, as "flight department companies." Moreover, the FAA did not specifically define what would constitute an "affiliate" for purposes of evaluating which related entities would be included under 91.501(b)(5), such that companies with less than fifty-percent ownership in a subsidiary, for example, could be considered an affiliate for the purposes of the rule. With all of this in mind, under the rule as promulgated, a company that was not a flight department company could take advantage of the full range of other exemptions, e.g., time sharing and interchange, that were created by the new rule, so long as common carriage was not involved.

3. Significant Changes in Corporate Law and Aircraft Ownership Practices

Although the FAA's policy with respect to flight department companies may have been a reasonable position to prevent abuse of the exemptions provided in Subpart F under the circumstances existing at the time of the rule's original promulgation, a strict application of this rule in today's environment is not as appropriate for at least two different reasons—the changes that have occurred in the law and commonly accepted business practices regarding the ownership and operation of corporate assets in the United States, and the increasing ability of individuals and smaller companies to safely own and operate complex aircraft due to their lower relative prices, increased availability and increased technological capabilities.

With respect to the first reason, there has been a significant increase in the development and acceptance of various limited liability shielding devices under general corporate and tax law since Subpart F was promulgated in the 1970s. For example, in 1977 Wyoming passed the first limited liability company legislation. Several states followed, although such entities were rarely adopted by other states or used until 1988, when the IRS issued Revenue Ruling 88-76, classifying a Wyoming limited liability company as a partnership for federal income tax purposes. *See, e.g.* 2 ZOLMAN CAVITCH, BUSINESS ORGANIZATIONS WITH TAX PLANNING § 33.01[3] (1997). This Ruling opened the floodgates to states creating their own limited liability legislation, such that by 1997 every state had its own form of limited liability company entities in place. *Id.* Under typical limited liability entity legislation, these are usually non-corporate entities that provide limited liability to individual members or owners, but still also allow full management rights to all of those owners. *Id.* at § 33.01[1]. The use of these entities has become broadly accepted throughout the United States as an appropriate method to own and operate

various businesses and business assets. Further, the various states and the Internal Revenue Service have, over the years, permitted such entities to elect certain tax treatment that has increased their utility for individuals and businesses alike.

With respect to the second reason noted above, since the 1970s there has arguably been a noticeable increase in the range of types and technological capabilities of business aircraft afforded to individuals, along with a reduction in prices for those aircraft. Moreover, on the horizon is the introduction of an even broader range of jet aircraft that will be coming on the market with significantly lower ownership and operational costs yet greater safety features and equipment. In light of this aircraft availability, there have been an increasing number of individuals and smaller businesses that have moved into the business aviation market. In line with current business practices and significant tax rules and regulations, there has been an increase in the methods such individuals use to manage there personal assets. The increased availability and lower costs of business aircraft combined with these tax and asset-management strategies has lead to the situation that the preferred method of ownership for these aircraft is through entities such as limited liability companies rather than owning the aircraft in an individual's own name. This preference has in turn led to the situation in which there is a significant disconnect between the FAA's rules with respect to cost sharing on aircraft used in private carriage, the commonly accepted business practices in today's U.S. market place, and what has become the very common ownership structure for many businesses and individuals, even though this quite often inadvertently leads to technical violations of the current cost sharing rules.

As a final observation, some may argue that one valid reason to maintain the requirement that a company with no assets or business other than owning or operating an aircraft may not take advantage of the cost-sharing exceptions provided in § 91.501 is because of concerns such as civil liability concerns that might be raised with respect to third parties. It is important to note, however, that the mandate of the FAA is to address the safe operation and management of U.S. registered aircraft. Generally speaking, it is not within the purview of the FAA to address non-safety or economic issues such as the civil liability that could potentially arise from the ownership and operation of aircraft that are not used in common carriage, an issue that has traditionally been left to the individual states. For example, it is for the states to directly decide whether an individual plaintiff should be able to "pierce the corporate veil" of an entity if that entity has been under-capitalized, improperly formed, or otherwise formed in contravention to the statutory, regulatory or common law requirements of that state, not for the FAA to indirectly decide.

For that reason, and keeping in line with the FAA's early recognition and observation that business-entity structures (and now personal asset management structures) are becoming increasingly complex, neither the relationship between these entities nor the type of compensation received for the services rendered between them should be controlling for such aircraft operations from the FAA's safety perspective. That being said, it is also important to recognize that concerns such as civil liability may indirectly have an impact on the ownership and safe operation of aircraft. As such, and keeping in mind that the rule amendments being considered are exceptions to the general rule that the payment of any reimbursement triggers the requirement to conduct the operations under the commercial rules and it is important to not allow these exceptions to "swallow the rule," the two new flight-department-company cost-sharing

exceptions discussed below and that are being proposed in this rule are more tightly constrained than the full range of cost sharing exceptions that will continue to be available to § 91.501(b)(5) affiliated groups and aircraft being operated under time sharing, joint ownership or interchange agreements.

4. Amendment to the Rule: Two New Proposed Permitted Flight Department Company Structures

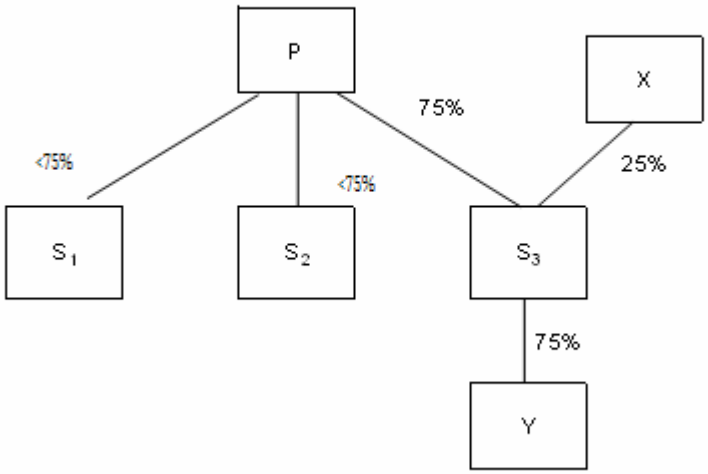
Under Subpart F as currently written, operators of large or multi-engine turbine aircraft may use the cost sharing exceptions contained in § 91.501(b), namely joint ownership, time sharing or interchange operations, and sales and demonstration flights. Moreover, under § 91.501(b)(5), any company that owns and operates an aircraft may conduct operations on a fully cost-allocated basis provided such operations are incidental to and within the scope of its business or the business of its affiliates (other than transportation by air), and may utilize all of the other various costs sharing exemptions under Section 91.501(b) as well. As also already noted above, because there is no specific definition of what constitutes an affiliated company in § 91.501(b)(5), as currently written, it is possible that companies with much less than 50% ownership in another related company could qualify for this exemption, with the only specifically stated restriction being that flight department companies may not use this affiliated group exemption. In light of the current situation as described above, the FAA should consider adopting modifications to § 91.501 that will allow for two new types of permitted costs-sharing structures.

The first would be a business flight department entity, i.e., an entity created solely to own and operate aircraft in a form that does allow for some limited liability shielding and favorable tax treatment for such entities (be it a corporation, limited liability company or some form of partnership) that wishes to use its aircraft in support of business operations. But in light of the concerns discussed above, such a flight department company exception would be in a form that would more tightly constrain the aircraft's availability for use other than what is currently permitted under the § 91.501(b)(5) affiliated group exception to certification. Specifically, this flight department entity would be allowed to receive compensation for the operation of aircraft for its officers, directors, employees and guests and those of its affiliated entity so long as the flight department entity was either at least seventy-five percent owned by, or had at least seventy-five percent ownership of, the affected affiliate (the seventy-five percent ownership requirement striking a balance between sufficient ownership to ensure proper oversight of the entity and limiting the number of companies involved while still allowing for some underlying funding flexibility for the capital costs related to buying or leasing an aircraft). Moreover, to the extent another entity owns at least twenty-five percent of the flight department entity, that other entity would also be allowed to compensate the flight department entity for the use of such aircraft, but only in an amount equal to the second entity's ownership interest in that flight department entity (again striking an appropriate balance between limiting use of the aircraft under this exception with the ability to provide flexibility in the funding of the significant capital costs involved). In all cases, the amount of compensation could not be in excess of the pro rata cost of owning, operating, and maintaining the aircraft. Finally, this new flight department entity would not be permitted to avail itself of several of the other costs sharing exemptions, such as the joint ownership exemption or the interchange exemption, and could only avail itself of the time sharing exemption to the extent it was conducting time sharing with executives or employees or one of its

permitted affiliated entities as defined above. (Such an entity would still be able to avail itself of the provisions related to demonstration flights found in § 91.501(b)(3).) This proposed structure strikes an appropriate balance between the desire to properly align aircraft ownership and operations with the current US law and practice with respect to appropriate limited liability shielding of business assets, while at the same time constraining the amount of compensation that may be received by such a flight department entity for these operations such that appropriate safety concerns that the entity not be operating as a commercial operation are met.

The figure below offers a graphic example of what types of entities would or would not constitute an appropriate business flight department entity. In this diagram, assuming that none of S1, S2 or S3 have business activity other than air transportation (i.e., owning and operating an aircraft), none of S1, S2 or S3 can operate an aircraft under the provisions of § 91.501 as currently written. Under the rules as amended by this recommendation, S3 would become the only entity of these three that would be eligible as a business flight department entity to operate an aircraft incidental to the non-air-transportation business activity of P. Moreover, S3 could also conduct flight operations for its affiliated entities X and Y, but only in an amount equal to those affiliates' interest in or held by S3. Finally, in no event would S3 be allowed to avail itself of the joint ownership or interchange exemptions, and could only conduct time sharing operations with the executives or employees of itself and entities P, X and Y.

Figure - Business Flight Department Entities



The second type of flight department entity the FAA should allow would be a personal flight department entity used by one or more individuals that wish to use corporate aircraft solely for their own benefit and hold the aircraft in an entity such as a limited liability company, once again allowing some limited liability shielding and favorable tax and asset-management treatment. Once again, in order to satisfy safety concerns that such operations not be acting as inappropriate uncertificated commercial operations, such personal flight department entities would also be more tightly constrained in the compensated use of the aircraft than is currently permitted under the affiliated groups exemption. Specifically, under this new exception, up to

four natural persons, or up to four entities established for the benefit of natural persons under applicable state law for the management of their personal assets (such as family trusts, family partnerships, etc.), could own or form a separate entity—the personal flight department company—that would in turn own and operate an aircraft for the benefit of those natural persons, and those natural persons or their specific asset-management entities could compensate this new personal flight department entity on a pro rata fully cost-allocated basis for their own flights. The personal flight department company would not be allowed to accept any form of reimbursement for the carriage of any persons or property other than from the natural persons or beneficiaries of the asset-management entities that own that personal flight department company on flights conducted for their benefit, and, as with the business flight department entity described immediately above, such a personal flight department entity, or the underlying owners of that entity or entities, would not be permitted to use the other exemptions of joint ownership or interchange, nor, in this case, would these entities be allowed to time share. (Such an entity would still be able to avail itself of the provisions related to demonstration flights found in § 91.501(b)(3).) Once again, the purpose of creating such a personal flight department entity would be to more appropriately align the FAA's rules on the ownership and operation of aircraft with common and accepted tax and limited liability shielding practices in the United States, while at the same time more tightly constraining who will be afforded transportation pursuant to this rule in order to again appropriately address any related safety concerns.

5. Additional Considerations

Because the proposed amendments will primarily serve to more closely align business aviation with current U.S. law and practice, and these rules are tightly constrained as to who may take advantage of them and under what circumstances, they should have little to no negative impact on the safety of traveling public or on the aviation industry. Likewise, there should be very little "spillover" effect such as an increase in paperwork or other agency involvement. Finally, there should be little need to harmonize this amendment with other rules, although it would be prudent to draft an appropriate advisor circular or other related guidance materials to assist in the implementation in these rule amendments. Other than the typical costs associated with creating such guidance material, the impact of these amendments should be largely cost neutral.

6. Text of new proposed rule

With all of these considerations in mind, the proposed new version of Section 91.501, applicability, is as follows (with the original rule in normal text and the amendments to the rule underlined):

§ 91.501 Applicability.

* * * * *

(b) Operations that may be conducted under the rules in this subpart instead of those in parts 121, 129, 135, and 137 of this chapter when common carriage is not involved, include -

* * * * *

(5) Except as otherwise permitted by paragraph (b)(11) or paragraph (b)(12) of this section, carriage of officials, employees, guests, and property of a company on an airplane operated by that company, or the parent or a subsidiary of the company or a subsidiary of the parent, when the carriage is within the scope of, and incidental to, the business of the company (other than transportation by air) and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the airplane, except that no charge of any kind may be made for the carriage of a guest of a company, when the carriage is not within the scope of, and incidental to, the business of that company;

* * * * *

(11) Carriage of the officials, employees, guests, and property of a business flight department entity and its affiliated entities when the flight department entity is formed solely or primarily to operate aircraft for itself or for its affiliated entities, and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft. Such business flight department entity may not conduct flights under either joint ownership arrangements or interchange agreements under (b)(6) of this section, and may only conduct flights under time sharing agreements under (b)(6) of this section when the person leasing the aircraft is an official, executive or employee of the flight department entity or an affiliated entity. For the purposes of this subsection an affiliated entity means the parent or a subsidiary of the business flight department entity or a subsidiary of the parent where the parent owns at least seventy-five percent of the business flight department entity and each other subsidiary, or the business flight department entity owns at least seventy-five percent of each of its subsidiaries, and such use is limited to first-tier subsidiaries of either the business flight department entity or its parent; provided, however, that the officials, employees, guests and property of a second entity that is a direct owner of at least twenty-five percent of the business flight department entity, and of up to two first-tier entities in which the second entity is either eighty percent owned by or is the eighty percent owner of said parent or subsidiary, may be carried by a business flight department entity under this subsection as long as no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft and the percentage of such use does not exceed the equivalent percentage of the second entity's ownership of the business flight department entity; and

(12) Carriage of persons or property by a personal entity when that personal flight department entity is formed solely or primarily to operate aircraft for the benefit of individual family members of the personal flight department entity's owner or owners (or in the case of a trust, for the benefit of the beneficiaries of the trust), and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft. For the purposes of this subsection, such personal flight department entities can be formed or owned by up to four natural persons, or up to four entities established for the benefit of natural persons under applicable state law for the management of their personal assets (such as family trusts, family partnerships, etc.). Such personal flight department entities may not conduct flights under joint ownership arrangements, interchange agreements or time sharing agreements under (b)(6) of this section.

Recommendation: Using as much of the discussion above as is appropriate for language to be included in the preamble to the proposed new rule, the proposed new version of Section 91.501, applicability, is as follows (with the original rule in normal text and the amendments to the rule underlined):

§ 91.501 Applicability.

* * * * *

(b) Operations that may be conducted under the rules in this subpart instead of those in parts 121, 129, 135, and 137 of this chapter when common carriage is not involved, include -

* * * * *

(5) Except as otherwise permitted by paragraph (b)(11) or paragraph (b)(12) of this section, carriage of officials, employees, guests, and property of a company on an airplane operated by that company, or the parent or a subsidiary of the company or a subsidiary of the parent, when the carriage is within the scope of, and incidental to, the business of the company (other than transportation by air) and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the airplane, except that no charge of any kind may be made for the carriage of a guest of a company, when the carriage is not within the scope of, and incidental to, the business of that company;

* * * * *

(11) Carriage of the officials, employees, guests, and property of a business flight department entity and its affiliated entities when the flight department entity is formed solely or primarily to operate aircraft for itself or for its affiliated entities, and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft. Such business flight department entity may not conduct flights under either joint ownership arrangements or interchange agreements under (b)(6) of this section, and may only conduct flights under time sharing agreements under (b)(6) of this section when the person leasing the aircraft is an official, executive or employee of the flight department entity or an affiliated entity. For the purposes of this subsection an affiliated entity means the parent or a subsidiary of the business flight department entity or a subsidiary of the parent where the parent owns at least seventy-five percent of the business flight department entity and each other subsidiary, or the business flight department entity owns at least seventy-five percent of each of its subsidiaries, and such use is limited to first-tier subsidiaries of either the business flight department entity or its parent; provided, however, that the officials, employees, guests and property of a second entity that is a direct owner of at least twenty-five percent of the business flight department entity, and of up to two first-tier entities in which the second entity is either eighty percent owned by or is the eighty percent owner of said parent or subsidiary, may be carried by a business flight department entity under this subsection as long as no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft and the percentage of such use does not exceed the equivalent percentage of the second entity's ownership of the business flight department entity; and

(12) Carriage of persons or property by a personal entity when that personal flight department entity is formed solely or primarily to operate aircraft for the benefit of individual family members of the personal flight department entity's owner or owners (or in the case of a trust, for the benefit of the beneficiaries of the trust), and no charge, assessment or fee is made for the carriage in excess of the cost of owning, operating, and maintaining the aircraft. For the purposes of this subsection, such personal flight department entities can be formed or owned by up to four natural persons, or up to four entities established for the benefit of natural persons under applicable state law for the management of their personal assets (such as family trusts, family partnerships, etc.). Such personal flight department entities may not conduct flights under joint ownership arrangements, interchange agreements or time sharing agreements under (b)(6) of this section.

Note 1 [provided by Eileen Gleimer for clarification and included in NPRM text]: **APP 41) Flight Department Company Structure** - The common ownership element of the "affiliated entity" exception provided for in the text of the proposed rule changes to 91.501(b)(11) (lines 19-20 on page 151) is not picked up in the discussion of the change on page 146, line 24-page 147, line 1 and page 154, lines 5-8. The relevant portion of the discussion on pages 146-147 should be revised as follows:

Specifically, this business flight department entity would be allowed to receive compensation for the operation of aircraft for its officers, directors, employees and guests and those of its affiliated entity so long as the business flight department entity was either seventy-five percent owned by, or had at least seventy-five percent ownership of, the affected affiliate, **or the where the parent** of the flight department entity owns at least seventy-five percent of the business flight department entity and at least seventy-five percent of the affiliate for which the business flight department entity operates (the seventy-five percent ownership requirement striking a balance between sufficient ownership to ensure…)

We suggest a similar change for the 25% owner ("second owner") of the business flight department entity to make clear that the affiliate concept covers an entity that owns at least 80% of the second owner or is at least 80% owned by the second owner. As currently written, the reference to "said parent or subsidiary" when talking about that second entity seems confusing. As part of that clarification, we also suggest that instead of referring to the owner of the 25% interest in the flight department entity as the "second entity," it be referred to as the "second owner" or "minority owner." We believe that making this change to the term, makes the language a little easier to follow. Specifically, we suggest the language on page 151, lines 23-24 and page 154, lines 10-13 be changed to read as follows:

> "provided, however, that the officials, employees, guests and property of a second entity that is a direct owner of at least twenty-five percent of the business flight department entity ("second owner") and of up to two first-tier entities including any entity which owns at least eighty percent of the second owner or is at least eighty percent owned by the second owner…" ~~in which the second entity is either eighty percent owned by or is the eighty percent owner of said parent or subsidiary~~

Steering Committee Review: When the above recommendation was presented to the Steering Committee in its original form, the Steering Committee asked for additional detail as to what would be permitted as a flight department company. One of the key issues was an understanding of the time sharing of aircraft by such entities. The Steering Committee also had issues with companies being able to create corporate structures under the proposed rule that would permit violations of the intent of the rule, and therefore asked for further specification that would lead to a more conservative approach to the problem. That said, the Steering Committee did strongly believe that this recommendation document raised an important issue that needs to be solved, and the committee did generally agree with the resolution as initially presented. Therefore, after this initial presentation to the Steering Committee was made, the Applicability Working Group subcommittee that had been assigned to address this issue, along with additional interested individual members of the Steering Committee, met to further discuss the original recommendation. As a result of that process, the recommendation as provided above was re-presented to the Steering Committee. As such, the recommendation now fully incorporates the changes that were suggested by the Steering Committee (such changes specifically being a raising of the required affiliated ownership of business flight department entities from 66% ownership to 75% ownership, and the inclusion of the graphic now appearing as part of paragraph 4 of the above discussion). Based upon the re-presentation of the recommendation as presented above, the recommendation was made that the Steering Committee approve the proposed rule changes.
Final Action: Approved as presented. [also includes note 1 for clarification of intent]
Notes:

RECOMMENDATION DOCUMENT

Number: Applicability 42

Issue: Operation of Small Airplanes and Helicopters under § 91.501

Discussion:

1. Introduction

Section 91.501 currently provides (so long as common carriage is not involved) several different limited cost-sharing exemptions from the general rule that operations involving cost reimbursement must be conducted under one of the commercial parts of the federal aviation regulations. Originally promulgated in the early 1970's, this rule has proven to be extremely beneficial to the appropriate development of business and personal aviation in the United States without negatively affecting the safety of those operations. As drafted, this rule specifically applies only to large and multi-engine turbine aircraft. That being said, for over thirty years the FAA has granted an exemption regarding this rule to members of the National Business Aviation Association who fly small and piston-powered aircraft, so long as they comply with certain additional requirements. The original justification for this exemption has remained the same, the exemption itself has not changed, and operations conducted pursuant to this rule have consistently been safe since the exemption was first granted in 1972. As such, it is now appropriate for the FAA to simply build this exemption into the rule itself.

2. Background

In October of 1971 the FAA issued a notice of proposed rule making seeking to analyze the appropriateness of "amending Part 91 of the Federal Aviation Regulations by adding a new Subpart [F] containing general operating rules and an inspection program for large and turbine-powered multiengine airplanes." 36 F.R. 19507. There were several factors that triggered this analysis, including the FAA's recent rulemaking regarding the definition of a "Commercial Operator" (and the commentary that effort received), as well as a special task force report addressing the fatal accident in the fall of 1970 of a charter flight carrying a college football team. *Id.* Quoting directly from this report, the FAA noted that the task force urged the Administrator to:

> Promulgate a new Part of the Federal Aviation Regulations governing the operations of all (a) large airplanes, (b) pressurized airplanes, and (c) turbine powered airplanes, engaged in private carriage. This regulation should provide that those airplanes be operated and maintained in the condition for safe operation appropriate for transport category airplanes. The regulations should include requirements for crew proficiency, operations, and continued airworthiness consistent with the terms of original airworthiness certification of transport airplanes. It should be written so as to provide a level of safety comparable to FAR 121, but without the detailed administrative, financial and organizational requirements for the issuance of a commercial operator certificate prescribed in

> that Part. This new Part should be written in such a way that it provides the flexibility necessary for the operation and maintenance of the individual airplane.
>
> Upon implementing the requirement that all large airplanes, pressurized airplanes, and turbine-powered airplanes be raised to an acceptable level of safety, commercial operator certification should no longer be required. The regulation should then require that only scheduled and supplemental air carriers engaged in common carriage will be governed by FAR 121 and meet the highest possible degree of safety as required by section 601(b) of the Federal Aviation Act of 1958. Operators of large or complex airplanes engaged in private carriage should no longer be burdened with economic requirements, but could continue to meet under the new Part an acceptable level of safety. FAA field inspectors would no longer be required to make an economic determination of what constitutes operation "for compensation or hire."

36 F.R. 19507-19508.

The rule the FAA then proposed in its notice generally followed the guidelines laid forth in the task force's report, creating several exemptions from the general rule that where cost-sharing was occurring for the ownership and operation of these aircraft, those operations would have to be operated pursuant to one of the commercial operating parts. Specifically, the proposed rule would create exemptions for limited permitted cost sharing related to the use of business aircraft by companies and certain of their affiliates with regard to their business operations, the operation of aircraft by their joint registered owners, demonstration flights in anticipation of the sale or lease of the aircraft, time sharing of the aircraft, and the interchange of aircraft by two separate aircraft owners and operators. By July of 1972 the FAA had received significant commentary on its new proposed rule, and, taking this commentary and its own analysis into account, then issued the final form of the new Subpart [F]. 37 F.R. 14758. This new rule did provide for the cost-sharing exemptions mentioned above, namely those related to affiliated groups, joint registered ownership, demonstration flights, time sharing and interchange agreements, all directly applicable to, but only applicable to, large and multi-engine turbine aircraft.

3. Exemption for Small and Piston-Powered Aircraft Operations under Subpart F

Almost immediately upon the promulgation of the new subpart F, the National Business Aviation Association, Inc., petitioned the FAA for an exemption for its members operating small and piston-powered aircraft, allowing those members to be able to utilize certain cost-sharing provisions found in § 91.501 so long as they complied with certain other requirements. Under this proposal, these operators could conduct operations under §§ 91.501(b)(1) through (7) and (9) so long as they: (1) conducted those flights in compliance with §§ 91.505-535 (except that helicopter operators would not have to comply with § 91.515(a) so long as they complied with the minimum safe altitude requirements in § 91.119), and the aircraft used for such operations were maintained under an inspection program approved under § 91.409(f); (2) notified the appropriate Flight Standards District Office of the operator's use of the exemption and provided to that FSDO copies of any applicable time sharing, interchange or joint ownership agreements used under the rule; (3) made an appropriate log-book entry for the aircraft operated under the exemption showing it was being operated pursuant to Subpart F; and (4) submitted to, and received approval from, the appropriate FSDO a copy of the aircraft inspection program being used for the aircraft

being operated under the exemption.

The FAA issued the initial exemption, in the form described above, to the NBAA for use by its members on September 27, 1972, as Exemption No. 1637. Since that time, the agency has re-issued this exemption its same and original form—based upon the original justification—twenty-two times. Regulatory Docket No. FAA-2002-12728. In light of the fact that this exemption has effectively been the rule for over thirty years, that its rational has not changed at all during that time, and that for thirty years small and piston-powered aircraft owners have been operating their aircraft under this rule in a safe fashion, it is time to simply make these provisions part of the actual rule.

4. Proposed Amendment: Adoption of Exemption No. 1637 Into the Rule

Because the Exemption No. 1637 has essentially acted as a mechanism allowing small and piston-powered aircraft operators to elect to take advantage of the cost-sharing mechanisms found in Subpart F so long as they were willing to take on additional safety-related regulatory obligations (as opposed to the operators of large and multi-engine turbine powered aircraft, who must automatically comply with these provisions due to the nature of their aircraft), it is more appropriate to place language allowing for small and piston-powered aircraft operators to elect to operate under Subpart F in § 91.501(a) itself, rather than placing language to that effect in § 91.2, the section that addresses the applicability of Part 91 in general.

With this in mind, the FAA proposes that language be added to § 91.501(a) allowing for small and piston-powered aircraft to be operated under the provisions of Subpart F with certain restrictions and so long as certain additional obligations are met, and then a new § 91.501(e) be added to the rule specifying those restrictions and obligations. The proposed language is provided below.

5. Additional Considerations

Because the proposed amendments will merely put into actual rule form an exemption that has acted as the defacto rule for over thirty years, they should not have a negative impact on the safety of traveling public or on the aviation industry. Likewise, there should be very little "spillover" effect such as an increase in paperwork or other agency involvement. Finally, there should be little need to harmonize this amendment with other rules, although it would be prudent to draft an appropriate advisor circular or other related guidance materials to assist in the implementation in these rule amendments. Other than the typical costs associated with creating such guidance material, the impact of these amendments should be largely cost neutral.

6. Text of new proposed rule

With all of these considerations in mind, the proposed new version of Section 91.501, applicability, is as follows (with the original rule in normal text and the amendments to the rule underlined):

§ 91.501 Applicability.

(a) This subpart prescribes operating rules, in addition to those prescribed in other subparts of

this part, governing the operation of large airplanes of U.S. registry, turbojet-powered multiengine civil airplanes of U.S. registry, and fractional ownership program aircraft of U.S. registry that are operating under subpart K of this part in operations not involving common carriage. Small aircraft and helicopters may also be operated under the rules in this subpart to the extent permitted by, and so long as the operators comply with, the additional provisions in paragraph (e) of this section. The operating rules in this subpart do not apply to those aircraft when they are required to be operated under parts 121, 125, 129, 135, and 137 of this chapter. (Section 91.409 prescribes an inspection program for large and for turbine-powered (turbojet and turboprop) multiengine airplanes and turbine-powered rotorcraft of U.S. registry when they are operated under this part or part 129 or 137.)

* * * * *

(e) Small civil airplanes and helicopters may operate under the rules of sections 91.503 through 91.535 and select an inspection program as described in section 91.409(f), subject to the following conditions and limitations:

(1) Only those operations that are listed in section 91.501(b)(1) through (7) and (9) [through (12)] may be conducted under the authority of this section. Those operations must be conducted in compliance with the operating rules in sections 91.503 through 91.535; provided, however, helicopter operations are not required to comply with the flight altitude rules of section 91.515(a), provided the operations comply with the minimum safe altitude requirements in section 91.119. Aircraft operated under the authority of this subpart must use an inspection program listed in section 91.409(f).

(2) No person may operate a small airplane or helicopter under the authority of this section unless the appropriate Flight Standards District Office has been: (a) notified that the operation will be conducted under the terms of this section; and (b) where applicable, provided with a copy of the time sharing, interchange, or joint-ownership agreement each aircraft is being operated under. Each agreement must include the aircraft registration number of each aircraft involved.

(3) No person may operate an aircraft under this exemption unless an entry is made in the aircraft logbook showing the provisions of this subpart under with it is being operated.

(4) No person may operate an aircraft under the authority of this section unless an inspection program has been submitted to and approved by the appropriate Flight Standards District Office.

Recommendation: Text summary and draft rule/ advisory/ policy language

Steering Committee Review: NBAA doesn't see reason for exemption to be incorporated into the rule, but can live with the rule proposal. They see benefit from NBAA membership.

Final Action: APPROVED
Notes:

RECOMMENDATION DOCUMENT

Number: PUB-86 to STE-XX (Public Docket No. 86 to Steering Committee No. XX)

Issue: Suggests that ARC Create a "Safety Working Group" to pull together all aspects of Part 135. (See Docket for complete comment.)

Discussion: The committee believes that safety should be a factor in all workgroups and not simply the task of one committee.

Recommendation: The committee recommends that the committee structure remains unchanged.

Steering Committee Review: Agreed

Final Action: Agreed. No Safety Working group created.

Notes: