

127 [New] was published as a notice of proposed rule making in the **FEDERAL REGISTER** on May 7, 1964 (29 F.R. 6047).

A number of changes have been made in the proposal, both as a result of comments received and as a result of further review by the Agency. Some of the comments received recommended substantive changes of the regulations. Although some of these recommendations might, upon further study, appear to be meritorious, they cannot be adopted as a part of the recodification program. However, all comments of this nature will be preserved and considered in any later substantive revision of this part.

One comment indicated, correctly, that the word "unless" should be added to paragraph (a) of § 127.73(a) to be consistent with the present requirements of § 46.63. This correction has been made.

Another comment indicated that the word "approved" should be deleted from § 127.151(a) since present § 46.280 does not require formal approval of the training program required by this part. This deletion has been made.

As indicated in the preamble to the notice of proposed rule making § 127.27 was revised to include certain provisions giving an air carrier certain rights not presently contained in Part 46 of this chapter relating to the amendment of operations specifications. This section has been further revised to make it more consistent with comparable provisions in present Parts 40, 41, and 42, concerning amendments to air carrier operations specifications. While these changes are mainly procedural in nature, they have some substantive effect in that they give the carriers additional rights and privileges.

Section 127.93 has been amended to make it clear that an air carrier may carry cargo in the passenger compartment, in accordance with the limitations stated therein, whenever the cargo cannot be loaded in approved cargo racks, bins, or compartments that are separate from passenger compartments. Section 46.153 presently states that an air carrier may exercise this privilege only whenever operating conditions require the carriage of cargo outside of the specified approved cargo racks, bins, or compartments. The Agency feels that rarely could it be shown that operating conditions "require" the carriage of cargo that cannot be loaded in the approved locations and that this limitation should therefore be removed. As revised this section is more consistent with comparable provisions of present Parts 40, 41, and 42.

Section 127.107 has been expanded to make clear that the word "approved" is not limited to approval of fire extinguishers by the Administrator. This expansion of the word "approved" has been carried as a note in Part 41 of the Civil Air Regulations and as CAM material in Part 40. Since the additional language is relaxatory in nature it can be added as a part of the recodification program.

Section 127.191 has been revised to eliminate the term "duty aloft" and substitute "flight time". As presently defined in Part 46 "duty aloft" means "flight time". Since "flight time" is de-

finied in Part 1 [New] the term "duty aloft" is unnecessary.

Subpart I "Maintenance, Preventive Maintenance, and Alterations" has been revised to reflect Amendment 46-9 published in the **FEDERAL REGISTER** on May 20, 1964 (29 F.R. 6522).

As stated in the notice of proposed rule making, Part 1 [New] includes "inspection" within the definition of the term "maintenance". Consistent with this definition, the term "maintenance" as used in this Part includes "required inspections" performed by a separate inspection organization under Amendment 46-9. Whenever a rule is directed to all maintenance functions except required inspections, the term "maintenance" is modified by specifically excluding "required inspections".

Special Civil Air Regulation SR 448A and SR 455 and § 14 of SR 425C, as applicable to operations under Part 127 [New] have been included as §§ 127.227, 127.212, and 127.85, respectively.

Other minor changes of a technical nature have been made. They are not substantive and do not impose any burden on regulated persons.

The definitions, abbreviations, and rules of construction contained in Part 1 [New] of the Federal Aviation Regulations apply to Part 127 [New].

In consideration of the foregoing, Chapter I of Title 14 of the Code of Federal Regulations is amended, effective November 2, 1964, by deleting Part 46 and by adding Part 127 [New] reading as hereinafter set forth.

Issued in Washington, D.C., on August 11, 1964.

N. E. HALABY,
Administrator.

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[Reg. Docket No. 5032]

PART 127—CERTIFICATION AND OPERATIONS OF SCHEDULED AIR CARRIERS WITH HELICOPTERS [NEW]

This amendment adds Part 127 "Certification and Operations of Scheduled Air Carriers with Helicopters" [New] to the Federal Aviation Regulations to replace the requirements contained in Part 46 of the Civil Air Regulations and is part of the Agency recodification program. Part

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AUTHORITY: The provisions of this Part 127 issued under sec. 313(a), 601, 604, and 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1424, and 1425).

Subpart A—General

§ 127.1 Applicability.

This part prescribes rules governing each air carrier holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board when that air carrier engages in scheduled interstate air transportation using helicopters within the 48 contiguous States and the District of Columbia.

§ 127.3 Rules applicable to operations subject to this part.

Unless otherwise specified in this part, each air carrier shall comply with Part 91 [New] of this chapter.

Subpart B—Certification: Operations Specifications

§ 127.11 Certificate and operations specifications required.

No air carrier may operate a helicopter in operations to which this Part applies without, or in violation of, an air carrier operating certificate and separate appro-

priate operations specifications issued under this part.

§ 127.13 Contents of certificate and operations specifications.

(a) Each air carrier operating certificate contains the points between which, and the routes over which, the air carrier may operate.

(b) An air carrier's operations specifications contain the following:

(1) The kinds of operations authorized.

(2) A current list of all helicopters authorized for use.

(3) En route authorizations.

(4) En route limitations.

(5) Heliport authorizations.

(6) Heliport limitations.

(7) Time limitations, or standards for determining time limitations, for overhauls, parts retirement, inspections, replacements, and checks of airframes, engines, rotors, and appliances.

(8) Procedures for control of weight and balance of helicopters.

(9) Pages of the air carrier's operations manual that have been specifically designated and approved by the Administrator.

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

§ 127.17 Issue of certificates.

(a) An applicant is entitled to an air carrier operating certificate if—

(1) The applicant hold a certificate of public convenience and necessity issued by the Civil Aeronautics Board; and

(2) The Administrator, after investigation, finds that the applicant is properly and adequately equipped and able to conduct a safe operation under this part and operations specifications provided for in this part.

(b) Whenever, after investigation, the Administrator determines that the general standards of safety for air carrier operations require or allow a deviation from any requirement of this part for a particular operation or class of operations, he issues operations specifications prescribing appropriate requirements that deviate from the requirements of this part.

§ 127.19 Availability of certificate.

Each air carrier shall make its operating certificate available for inspection by the Administrator, or an authorized representative of the Civil Aeronautics Board, at its principal operations base.

§ 127.21 Duration of certificate.

(a) An air carrier operating certificate is effective until termination of the economic authority issued by the Civil Aeronautics Board to the air carrier, or until it is surrendered or the Administrator suspends, revokes, or otherwise terminates it.

(b) If the Administrator suspends or revokes an air carrier operating certificate, the holder of that certificate shall return it to the Administrator.

§ 127.23 Use of operations specifications.

(a) Each air carrier shall keep each of its employees informed of the pro-

visions of its operations specifications that apply to the employee's duties and responsibilities.

(b) Each air carrier shall maintain a complete and separate set of its operations specifications. In addition, each air carrier shall insert pertinent provisions of its operations specifications in its air carrier manual in such a manner that they retain their identity as operations specifications.

§ 127.25 Amendment of certificate.

(a) After notice and opportunity of hearing to the carrier concerned, the Administrator may amend an air carrier operating certificate if he finds that the amendment is reasonably required in the interests of safety.

(b) Upon application by an air carrier, the Administrator amends an air carrier operating certificate if he finds that general standards of safety allow the amendment.

§ 127.27 Amendment of operations specifications.

(a) The Administrator may amend any operations specifications issued under this part, except those pertaining to heliport and route authorizations—

(1) Upon application by the air carrier, if the Administrator determines that safety in air transportation and the public interest allows the amendment; or

(2) If the Administrator determines that safety in air transportation and the public interest requires the amendment.

(b) In the case of an amendment under paragraph (a) (2) of this section, the Administrator notifies the air carrier, in writing, of the proposed amendment, fixing a reasonable period (but not less than seven days) within which the air carrier may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Administrator notifies the air carrier of any amendment adopted, or rescinds the notice. The amendment becomes effective not less than 30 days after the air carrier receives notice of it, unless the air carrier petitions the Administrator personally to reconsider the amendment, in which case its effective date is stayed pending a decision by the Administrator. If the Administrator finds that there is an emergency requiring immediate action with respect to safety in air transportation, that makes the procedure in this paragraph impracticable or contrary to the public interest, he may issue an amendment, effective without stay, on the date the air carrier receives notice of it. In such a case, the Administrator incorporates the finding, and a brief statement of the reasons for it, in the notice of the amended operations specifications to be adopted.

(c) An applicant must file his application for an amendment of operations specifications with the FAA District Office charged with the overall inspection of its operations at least 15 days before the date that he proposes for the amendment to become effective, unless a shorter filing period is allowed by that office.

(d) Within 30 days after receiving from the District Office a notice of refusal to approve an air carrier's applica-

tion for amendment, the air carrier may petition the Administrator personally to reconsider the refusal to amend.

§ 127.29 Inspection authority.

Each air carrier shall allow the Administrator to make any inspections or examinations that he considers necessary to determine the air carrier's compliance with the Federal Aviation Act of 1958, the Federal Aviation Regulations, and its operating certificate and operations specifications.

§ 127.31 Change of address.

Each air carrier shall notify the FAA Air Carrier 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.

Subpart C—Requirements for Services and Facilities

§ 127.41 Route requirements.

(a) Each air carrier seeking a route approval must show that—

(1) It is able to conduct scheduled operations between heliports over that route or route segment; and

(2) The facilities and services available are adequate for the kind of operation proposed.

(b) Paragraph (a) of this section does not require actual flight over a route or route segment if the air carrier shows that the flight is not essential to safety.

§ 127.43 Route width.

The Administrator designates the width of routes or route segments submitted to him for approval, consistent with—

- (a) Terrain;
- (b) Available navigation aids;
- (c) Air traffic density; and
- (d) ATC procedures.

§ 127.45 Heliports.

Each air carrier must show that each route it submits for approval has enough heliports that are properly equipped and adequate for the proposed operation, considering such items as size, surface, obstructions, facilities, public protection, lighting, navigational and communications aids, and ATC.

§ 127.47 Communications facilities.

(a) Each air carrier must show that a two-way air/ground radio communication system is available at points that will insure reliable and rapid communications, under normal operating conditions over the entire route (either direct or by approved point to point circuits) for the following purposes:

(1) Communications between the helicopter and the appropriate air carrier operational control office, at the minimum flight altitudes specified in its operations specifications, and independent of systems operated by the United States.

(2) Communications between the helicopter and the appropriate ATC unit.

In case of communications under subparagraph (2) of this paragraph, the Administrator may allow the use of com-

munication systems operated by the United States.

(b) If the Administrator finds that compliance with subparagraph (1) of paragraph (a) of this section is not practicable because of terrain conditions, he may allow an exception to that subparagraph over specified segments of the route.

§ 127.49 Weather reporting facilities.

(a) Each air carrier must show that enough weather reporting services are available along each proposed route to insure weather reports (prepared and released by the U.S. Weather Bureau or a source approved by the Weather Bureau or prepared from in-flight pilot reports) and forecasts necessary for the operation.

(b) Each air carrier that uses forecasts to control flight movements shall prepare each forecast from weather reports specified in paragraph (a) of this section.

§ 127.51 Servicing and maintenance facilities.

Each air carrier must show that competent personnel and adequate facilities and equipment are available for servicing helicopters.

Subpart D—Air Carrier Manuals

§ 127.61 Preparation.

Each air carrier shall prepare and keep current an air carrier manual for the use and guidance of flight and ground operations personnel in conducting its operations.

§ 127.63 Contents.

(a) Each air carrier manual must—

- (1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
- (2) Be in a form that is easy to revise;
- (3) Have the date of last revision on each page concerned; and
- (4) Not be contrary to the provisions of any applicable federal regulation or the air carrier's operations specifications or operating certificate.

(b) Copies of the manual may be divided into two or more parts to facilitate use by personnel concerned. However, each part must contain that part of the following information that is appropriate for each group of personnel:

- (1) General policies.
- (2) Duties and responsibilities of each crewmember and appropriate members of the ground organization.
- (3) Reference to appropriate Federal Aviation Regulations.
- (4) Operational flight control.
- (5) En route flight, navigation, and communication procedures, including procedures for initiating or continuing a flight if any item of equipment required for the particular kind of operation becomes inoperative or unserviceable en route.
- (6) Appropriate information from the en route operations specifications, including for each approved route the types of helicopters authorized, their crew complement, the kind of operation

such as VFR, day, night, etc., and any other pertinent information.

(7) Appropriate information from the heliport operations specifications including for each heliport—

- (i) Its location;
- (ii) Its designation (regular, alternate, provisional, etc.);
- (iii) The types of helicopters authorized;
- (iv) Landing and takeoff minimums;
- (v) A diagram showing access and egress routes, restricted areas, prominent obstructions, usable dimensions; and

(vi) Any other pertinent information that may assist the pilot.

(8) Takeoff, en route, and landing weight limitations.

(9) Procedures for familiarizing passengers with the use of emergency equipment during flight.

(10) Emergency equipment and procedures.

(11) Procedures for determining the usability of landing and takeoff areas.

(12) Procedures for disseminating pertinent information to operations personnel.

(13) Procedures for operating in periods of ice, hail, thunderstorms, turbulence, or any potentially hazardous meteorological condition.

(14) Airman training programs, including appropriate ground, flight, and emergency phases.

(15) Instructions and procedures for maintenance, preventive maintenance, and servicing.

(16) Time limitations, or standards for determining time limitations, for overhauls, parts retirement, inspections, replacements, and checks of airframes, engines, rotors, and appliances.

(17) Procedures for refueling helicopters, eliminating fuel contamination, protection from fire (including electrostatic protection), and supervising and protecting passengers during refueling.

(18) Airworthiness inspections, including instructions covering procedures, standards, responsibilities, and authority of inspection personnel.

(19) Methods and procedures for maintaining the helicopter weight and center of gravity within approved limits.

(20) Pilot route and heliport qualification procedures.

(21) Accident notification procedures.

(22) Pertinent information on helicopter performance taken from the approved flight manual for each type of helicopter used.

(23) Other information or instructions relating to safety.

(c) Each air-carrier shall maintain at least one complete master copy of the air carrier manual at its principal operations base.

§ 127.65 Distribution.

(a) Each air carrier shall furnish current copies (and the changes and additions thereto) of the air carrier manual or appropriate parts of it to—

(1) Appropriate ground operations and maintenance personnel of the air carrier;

(2) Crewmembers; and

(3) Representatives of the Administrator assigned to the air carrier.

(b) Each person to whom a manual, or appropriate parts of it, is furnished under paragraph (a) of this section shall keep it up to date with the changes and additions furnished to him.

Subpart E—Helicopter Requirements

§ 127.71 General.

No air carrier may operate a helicopter unless that helicopter meets the applicable airworthiness requirements of this chapter.

§ 127.73 Proving tests.

(a) No air carrier may operate a helicopter not before proved for use in air carrier operations, unless a helicopter of that type has had, in addition to the helicopter certification tests, at least 100 hours of proving tests under the Administrator's supervision, at least 50 hours of which must have been flown over authorized routes and at least 10 hours of which must have been flown at night, if night operations are authorized.

(b) An air carrier may not operate a helicopter of a type that has been proved in commercial or extensive military service, if it has not previously used that type, or if that helicopter has been materially altered in design unless—

(1) The helicopter has been tested for at least 50 hours, of which at least 25 hours must have been over authorized routes; or

(2) The Administrator specifically authorizes deviations because special circumstances of the particular case make a literal observance of the requirements of this paragraph unnecessary.

(c) During proving tests, no air carrier may operate a helicopter to carry persons other than those needed to make the tests and those designated by the Administrator, but may carry mail, express, or other cargo, when approved.

Subpart F—Operating Limitations

§ 127.81 General.

Each air carrier shall operate each of its helicopters in accordance with operating limitations prescribed by the Administrator in the interests of safety, considering the performance of the helicopter, the areas traversed, heliports used, engine failure in flight, and temperature operating correction factors set forth in the Helicopter Flight Manual.

§ 127.83 Operation of helicopters other than transport Category A.

Each air carrier shall show, for operations with helicopters certificated under Part ---- [present Part 6], or the transport Category B provisions of Part ---- [present Part 7], that adequate areas are available for a safe autorotative or one engine inoperative landing from any point along the route to be used and that those areas are readily identifiable in both day and night operations.

§ 127.85 Provisionally certificated helicopters.

In addition to the limitations in § 91.41 of this chapter, the following limitations apply to the operation of provisionally certificated helicopters:

(a) In addition to crewmembers, each air carrier may carry on board such a helicopter only those persons who are listed in § 127.211(c) or who are specifically authorized by both the air carrier and the Administrator.

(b) Each air carrier shall keep a log of each flight conducted under this section and shall keep accurate and complete records of each inspection made and all maintenance performed on the helicopter. The air carrier shall make the log and records made under this section available to the manufacturer and the Administrator.

Subpart G—Special Airworthiness Requirements

§ 127.91 Fire prevention.

No air carrier may use a helicopter in passenger service (for which application for type certification was made before May 16, 1953) unless that helicopter complies with the fire prevention provisions of Part 6 of the Civil Air Regulations as in effect on May 16, 1953.

§ 127.93 Carriage of cargo in passenger compartments.

Whenever cargo cannot be loaded in approved cargo racks, bins, or compartments that are separate from passenger compartments, that cargo may be carried in the passenger compartment in accordance with the following:

(a) 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.

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

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

(d) 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 compartments.

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

Subpart H—Instrument and Equipment Requirements

§ 127.101 General.

(a) Instruments and equipment required by §§ 127.103 through 127.125 must be approved and installed in accordance with the airworthiness requirements applicable to them.

(b) Except as provided in § 127.247(b), no person may take off any helicopter unless the following instruments and equipment are in operable condition:

(1) Instruments and equipment required to comply with airworthiness requirements under which the helicopter is type certificated and as required by § 127.91.

(2) Instruments and equipment specified in §§ 127.103 through 127.117 for all operations, and the instruments and equipment specified in §§ 127.119 through 127.125 for the kind of operation indicated, wherever these items are not already required by subparagraph (1) of this paragraph.

§ 127.103 Flight and navigational equipment.

No person may operate a helicopter unless it is equipped with the following flight and navigational instruments and equipment:

- (a) An airspeed indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to icing.
- (b) A sensitive altimeter.
- (c) A sweep-second clock.
- (d) A free-air temperature indicator.
- (e) A magnetic compass.

§ 127.105 Engine instruments and equipment.

No person may operate a helicopter unless it is equipped with the following engine instruments and equipment:

- (a) A carburetor air temperature indicator for each engine.
- (b) A cylinder head temperature indicator for each air-cooled engine.
- (c) A fuel pressure indicator and warning light for each engine.
- (d) A means for indicating fuel quantity in each fuel tank to be used, and for helicopters with more than one independent fuel tank, a warning device indicating when the fuel in any independent tank becomes low.
- (e) A manifold pressure indicator for each engine.
- (f) An oil pressure indicator and warning light for each engine.
- (g) An oil-in temperature indicator for each engine.
- (h) An oil temperature indicator or warning device to indicate when the oil temperature exceeds a safe value in each main rotor drive gearbox, including those gearboxes essential to rotor phasing, having an oil system independent of the engine oil system.
- (i) An oil pressure indicator and warning light for each transmission using a separate oil pump.
- (j) Carburetor heating or deicing equipment for each engine.
- (k) If equipped with a rotor brake, a means to indicate full or partial engagement.
- (l) A tachometer for the main rotor, or for each main rotor the speed of which may vary appreciably with respect to another main rotor.
- (m) A tachometer for each engine.

The tachometers required by paragraphs (l) and (m) of this section may be combined in a single instrument, but that instrument must indicate rotor r.p.m. during autorotation.

§ 127.107 Emergency equipment.

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

(b) Each item of emergency equipment. (1) Must be readily accessible to the crew;

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

(3) When carried in a compartment or container, must have that compartment or container marked as to contents.

(c) *Hand fire extinguishers for crew, passenger, and cargo compartments.* Hand fire extinguishers of a type approved by the Underwriters' Laboratories,

Inc., Factory Mutual Laboratories, Underwriters Laboratories of Canada, or any other person whose approval is acceptable to the FAA, or an extinguisher approved under § ---- [Present § 7.18] (and that are accessible in flight) 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 conveniently located on the flight deck for use by the flight crew.

(3) At least one hand fire extinguisher must be conveniently located in the passenger compartment of each helicopter accommodating more than six passengers.

(d) *First-aid equipment.* First-aid kits for treatment of injuries likely to occur in flight or in minor accidents must be provided in a quantity appropriate to the number of passengers and crew accommodated by the helicopter.

(e) *Interior emergency exit markings.* Each helicopter must have conspicuously marked emergency exits. Each emergency exit must have conspicuously marked means of access and means of opening. The identity and location of each emergency exit must be recognizable from a distance equal to the width of the cabin. The location of the emergency exit operating handle and the instructions for opening must be marked on or adjacent to the emergency exit and must be readable from at least 30 inches by a person with normal eyesight.

(f) *Lighting for interior emergency exit markings.* Each passenger-carrying helicopter must have a source or sources of light (with an energy supply that is independent of the main lighting system) for each passenger emergency exit marking. Each light must be designed to—

(1) Function automatically in a crash landing, to continue functioning thereafter, and to be manually operable; or

(2) Be manually operable only and to continue functioning after a crash landing.

If a light requires manual operation, it must be turned on before each takeoff and landing. If a light requires arming of the system to function automatically, the system must be armed before each takeoff and landing.

§ 127.109 Seats and safety belts.

No person may operate a helicopter unless there are available during the takeoff, en route flight, and landing—

(a) An approved seat for each person who is at least two years of age; and

(b) An approved safety belt for separate use for each person who is at least two years of age.

However, in the case of children who are at least two, but not more than 12, years of age, one safety belt may be used for two in a single seat if the strength requirements of the seat and the safety belt are not exceeded.

§ 127.111 Miscellaneous equipment.

No person may conduct any operation unless the following equipment is installed in the helicopter:

(a) A windshield wiper or equivalent for each pilot station.

(b) An alternate source of energy able to carry the necessary load for all instruments required by § 127.119 that require a power source.

(c) A means to indicate the adequacy of the power being supplied to required flight instruments.

§ 127.113 Cockpit check procedure.

(a) Each air carrier shall provide an approved cockpit check procedure for each type of helicopter.

(b) The approved procedures must include the items necessary for flight crewmembers to check for safety before starting engine(s), taking off, or landing, and in engine emergencies. The procedures must be designed so that a flight crewmember will not need to rely upon his memory for items to be checked.

(c) The approved procedures must be readily usable in the cockpit of each helicopter.

§ 127.115 Passenger information.

No person may operate a helicopter that has separate passenger and crew compartments unless it is equipped with signs that are visible to passengers and cabin attendants to notify them when smoking is prohibited and when safety belts should be fastened. The signs must be so constructed that the crew can turn them on and off. The "No smoking" sign must be left on unless a cabin attendant is carried in the passenger compartment. In single-engine helicopters, the seat belts must be fastened during the entire flight.

§ 127.117 Exterior exit and evacuation markings.

No person may operate a helicopter unless the exterior surfaces of the helicopter are marked to clearly identify each required emergency exit. If the exits are operable from the outside, the markings must consist of or include information indicating the method of opening.

§ 127.119 Instruments and equipment for operations at night.

No person may operate a helicopter at night unless it is equipped with the following instruments and equipment in addition to those required by §§ 127.103 through 127.117:

(a) Position lights.

(b) An anti-collision light.

(c) Two landing lights, at least one of which is controllable to light the area forward of and below the helicopter.

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

(e) A generator of adequate capacity.

(f) A gyroscopic bank and pitch indicator (artificial horizon).

(g) A gyroscopic direction indicator (direction gyro).

(h) A gyroscopic rate-of-turn indicator with bank indicator.

(i) A vertical speed indicator (rate-of-climb indicator).

§ 127.121 Equipment for single engine helicopter overwater operations.

No person may operate a single-engine helicopter over water beyond autorotative gliding distance from the land unless it is equipped with the following equipment:

(a) Helicopter flotation devices.

(b) A life preserver (or other adequate individual flotation device) for each occupant.

(c) Any other equipment that the Administrator determines is necessary for safety for a particular operation.

§ 127.123 Radio equipment.

No person may operate a helicopter unless it is equipped with the approved radio equipment specified for the kind of operation being conducted.

§ 127.125 Radio equipment for operations over routes navigated by pilotage.

No person may operate a helicopter over a route that can be navigated by pilotage, unless the helicopter is equipped with the radio equipment needed to perform the following functions under normal operating conditions:

(a) Communicate with at least an appropriate ground station in the vicinity, as prescribed in § 127.47, and with other helicopters operated by the air carrier.

(b) Communicate with ATC towers from any point in the control zone within which flight is intended.

(c) Receive meteorological information at the minimum en route altitude specified in the air carrier's operations specification, either separately or by the means required to comply with paragraph (a) or (b) of this section.

Subpart I—Maintenance, Preventive Maintenance, and Alterations

§ 127.131 Responsibility for airworthiness.

(a) Each air carrier is primarily responsible for—

(1) The airworthiness of its helicopters, including airframes, aircraft engines, appliances, and parts thereof; and

(2) The performance of the maintenance, preventive maintenance, and alteration of its helicopters, including airframes, aircraft engines, appliances, and parts thereof, in accordance with its manual and the regulations of this chapter.

(b) An air carrier may make arrangements with another person for the performance of any maintenance, preventive maintenance, or alterations. However, this does not relieve the air carrier of the responsibility specified in paragraph (a) of this section.

§ 127.132 Maintenance, preventive maintenance, and alteration organization.

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

(b) Each air carrier that performs any inspections required by its manual (in this subpart referred to as "required inspections") and each person with whom it arranges for the performance of that work must have an organization adequate to perform that work.

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

§ 127.133 Maintenance, preventive maintenance, and alterations programs.

Each air carrier shall have an inspection program and a program covering other maintenance, preventive maintenance, and alterations that ensures that—

(a) Maintenance, preventive maintenance, and alterations performed by it, or by other persons, are performed in accordance with the air carrier's manual;

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

(c) Each helicopter released to service is airworthy and has been properly maintained for operation in air transportation.

§ 127.134 Manual requirements.

(a) The air carrier shall put in its manual a chart or description of the air carrier's organization required by § 127.132 and a list of persons with whom it has arranged for the performance of any of its required inspections, other maintenance, preventive maintenance, or alterations, including a general description of that work.

(b) The air carrier's manual must contain the programs required by § 127.133 that must be followed in performing maintenance, preventive maintenance, and alterations of that air carrier's helicopters, including airframes, engines, rotors, appliances, and parts thereof, and must include at least the following:

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

(2) A designation of the items of maintenance, preventive maintenance, and alteration that must be inspected (required inspections), including at least those that could result in a failure, malfunction, or defect endangering the safe operation of the helicopter, if not performed properly or if improper parts or materials are used.

(3) The method of performing required inspections and a designation by occupational title of personnel authorized to perform each required inspection.

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

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

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

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

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

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

§ 127.135 Required inspection personnel.

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

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

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

(d) Each air carrier shall maintain, or shall determine that each person with whom it arranges to perform its required inspections maintains, a current listing of persons who have been trained, qualified, and authorized to conduct required inspections. The persons must be identified by name, occupational title, and the inspections that they are authorized to perform. The air carrier (or person with whom it arranges to perform its required inspections) shall give written information to each person so authorized describing the extent of his responsibilities, authorities, and inspectional limits.

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tations. The list shall be made available for inspection by the Administrator upon request.

§ 127.136 Continuing analysis and surveillance.

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

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

(c) An air carrier may petition the Administrator to reconsider the notice to make a change in a program. The petition must be filed with the FAA Air Carrier District Office charged with the overall inspection of the air carrier's operations within 30 days after the air carrier receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

§ 127.137 Maintenance and preventive maintenance training program.

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

§ 127.138 Maintenance and preventive maintenance personnel duty time limitations.

Each air carrier (or person performing maintenance or preventive maintenance functions for it) shall relieve each person performing maintenance or preventive maintenance from duty for a period of at least 24 consecutive hours during any seven consecutive days, or the equivalent thereof within any one calendar month.

§ 127.139 Certificate requirements.

Each person who is directly in charge of maintenance, preventive maintenance, or alteration, and each person performing required inspections must hold an appropriate airman certificate.

§ 127.140 Authority to perform and approve maintenance, preventive maintenance, and alterations.

(a) An air carrier may perform maintenance, preventive maintenance, and alterations as provided in its continuous airworthiness maintenance program and its maintenance manual. In addition, an air carrier may perform these functions for another air carrier

as provided in the continuous airworthiness maintenance program and maintenance manual of the other air carrier.

(b) An air carrier may approve any helicopter, airframe, aircraft engine, or appliance for return to service after maintenance, preventive maintenance, or alterations that it performed under paragraph (a) of this section. However, in the case of a major repair or major alteration, the work must have been done in accordance with technical data approved by the Administrator.

Subpart J—Airman and Crewmember Requirements

§ 127.141 Airmen: limitations on use of services.

No air carrier may use a person as an airman unless that person holds an appropriate and valid airman certificate issued under this chapter and is otherwise qualified for the operation for which he is to be used.

§ 127.143 Composition of flight crew.

(a) No air carrier may operate a helicopter with less than the minimum flight crew specified in the airworthiness certificate for the helicopter and required by the kind of operation being conducted.

(b) If the air carrier is authorized to operate IFR or operates large helicopters, the minimum pilot crew is two pilots.

§ 127.145 Flight attendant.

Each air carrier conducting a passenger operation shall provide at least one flight attendant for each flight in a helicopter of more than 19-passenger capacity.

Subpart K—Training Programs

§ 127.151 Establishment.

(a) Each air carrier shall have a training program that insures that each crewmember is adequately trained to perform his assigned duties. Before serving in scheduled operations, each crewmember must satisfactorily complete the initial training phases.

(b) Each air carrier shall provide adequate ground and flight training facilities and properly qualified instructors for the training required by this section, and enough approved check airmen to conduct the flight checks required by this part. The check airmen must hold the airman certificates and ratings that are required for the airmen being checked.

(c) The training program for each flight crewmember must consist of appropriate ground and flight training, including proper flight crew coordination. The air carrier shall standardize procedures for each flight crew function to the extent that each flight crewmember knows the functions for which he is responsible and the relation of those functions to the functions of other flight crewmembers. The initial program must include at least the requirements set forth in §§ 127.153 through 127.157.

(d) The crewmember emergency procedures training program must include at least the requirements set forth in § 127.157.

(e) Each instructor, supervisor, or check airman that is responsible for a particular training check or flight check shall certify as to the proficiency of the crewmember and person employed in operational control after he completes his initial training and after he completes his recurrent training. That certification shall be made a part of the record of the person being checked.

§ 127.153 Initial ground training: pilots.

Each air carrier shall provide at least the following initial ground training for each pilot before he serves as a pilot:

(a) Instruction in the appropriate provisions of the air carrier's operations specifications and of this chapter especially the operating and flight release rules and helicopter operating limitations.

(b) Operational control procedures and appropriate contents of the manuals.

(c) Duties and responsibilities of crewmembers.

(d) The type of helicopter to be flown, including a study of the helicopter, engines, major components and systems, performance limitations, standard and emergency operating procedures, and appropriate contents of the approved Helicopter Flight Manual.

(e) Principles and methods for determining weight and balance limitations for takeoff and landing.

(f) Navigation and the use of appropriate navigation aids.

(g) Airport, heliport, air traffic control systems and procedures, and ground control letdown procedures, if pertinent.

(h) Enough meteorology to insure a practical knowledge of the principles of icing, fog, thunderstorms, and frontal systems.

(i) Procedures for operating in turbulent air, icing, hail, thunderstorm, and other potentially hazardous meteorological conditions.

§ 127.155 Initial flight training: pilots.

The initial flight training that the air carrier must provide for each pilot must include at least—

(a) Takeoffs and landings;

(b) Normal and emergency flight maneuvers, including approaches and landings with simulated one engine inoperative in each type of helicopter to be flown by the pilot in scheduled operations; and

(c) If night operations are authorized, night takeoffs and landings.

§ 127.157 Crewmember emergency training.

Each air carrier shall design its training in emergency procedures to give each crewmember appropriate individual instruction in emergency procedures. The training must include at least procedures—

(a) To be followed in event of the failure of an engine or other component or system;

(b) To be followed in event of fire in the air or on the ground;

(c) To be followed in event of ditching;

(d) To be followed in event of evacuation;

(e) Pertaining to the location and operation of emergency equipment; and

(f) Pertaining to limitations maximum and minimum engine and rotor r.p.m.

§ 127.159 Operations personnel.

Each air carrier shall establish and maintain a training program to insure that operations personnel who perform duties involving operational control are adequately trained to perform those duties. The air carrier may not assign a person to perform duties involving operational control until he has passed a test on those duties and responsibilities.

§ 127.161 Recurrent training.

(a) Each air carrier shall provide the training necessary to insure the continued competence of each crewmember and each person engaged in operational control and to insure that each has adequate knowledge of, and familiarity with, any new equipment or new procedures to be used by him.

(b) Each air carrier shall, at intervals established in the training program, but not more than each 12 months, check the competence of each crewmember and each person engaged in operational control, with respect to procedures, techniques, and information essential to the satisfactory performance of his duties. If the check of a pilot in command requires actual flight, the check is met by a check made under § 127.177.

(c) The appropriate instructor, supervisor, or check airman shall certify as to the proficiency shown, and that certification becomes a part of the person's record. In the case of a pilot other than a pilot in command, a pilot in command may make that certification.

Subpart L—Flight Crewmember Qualification

§ 127.171 General.

(a) No air carrier may use a flight crewmember and no flight crewmember may perform duties under his airman certificate, unless he meets the appropriate requirements in §§ 127.151 or 127.161 and 127.175 through 127.181.

(b) When a pilot completes a check required by this subpart the check airman who is responsible for the particular check shall certify that the pilot is proficient. This certification shall be made a part of the pilot's record.

§ 127.173 Pilot qualification: certificates required.

(a) No pilot may act as pilot in command of a helicopter unless he holds an airline transport pilot certificate and an appropriate type rating for that helicopter.

(b) Each pilot who acts as a pilot in a capacity other than as pilot in command must hold at least a commercial pilot certificate and a helicopter rating.

§ 127.175 Pilot qualification: recent experience.

No air carrier may use a pilot in scheduled air transportation unless, within the preceding 90 days, he has made at least three takeoffs and three landings in a helicopter of the type in which he is to serve. At least two of the

landings must have been from an approach with simulated one engine inoperative in multiengine helicopters or in autorotation in single engine helicopters. In addition, if the pilot is scheduled to serve in air transportation at night, at least one of the two simulated one-engine inoperative or autorotative landings must have been made at night.

§ 127.177 Pilot checks.

(a) *Line check.* No air carrier may use a pilot as pilot in command until he has passed a line check in one of the types of helicopters that he is to fly. Thereafter he may not serve as a pilot in command unless each 12 calendar months he passes a similar line check. The line check may be given at any time during the calendar month before or the month after the month in which it is due without affecting its effective date. The check must be given by a check pilot who is qualified on the route. The check must consist of at least one scheduled flight between terminals over a route to which the pilot is normally assigned. The check pilot must determine whether the pilot being checked satisfactorily performs the duties and responsibilities of a pilot in command.

(b) *Proficiency check.* No air carrier may use a pilot as a pilot in command unless he has satisfactorily shown to the Administrator or a check pilot that he is able to pilot and navigate helicopters that he is to fly. Thereafter he may not serve as a pilot in command unless each six calendar months he passes a similar pilot proficiency check. The check may be given at any time during the calendar month before or the calendar month after the calendar month in which it is due without affecting its effective date. If a pilot serves in more than one helicopter type, the check must be given alternately in a helicopter of each type in which he serves. The proficiency check must include the following:

- (1) An oral equipment test covering the subjects tested in § 127.153(d), accomplished in the carrier's ground school or during a proficiency or line check.
- (2) Approaches and landings with simulated one engine inoperative in multiengine helicopters, or autorotation in single engine helicopters.
- (3) Normal takeoffs and landings.
- (4) Crosswind landings.
- (5) Climbs.
- (6) Climbing turns.
- (7) Steep turns.
- (8) Maneuvering at minimum speeds.
- (9) Rapid descents and quick stops.
- (10) A review of the emergency procedures listed in § 127.157.

§ 127.179 Pilot route and heliport qualification requirements.

(a) No air carrier may use a pilot as pilot in command until he has qualified for the route on which he is to serve, in accordance with paragraphs (b) through (d) of this section, and the appropriate instructor or check pilot has so certified.

(b) Each qualifying pilot shall show that he has adequate knowledge of the following:

- (1) Weather characteristics.
- (2) Navigation facilities.
- (3) Communication procedures.

(4) Types of terrain and obstruction hazards.

(5) Minimum safe flight levels.

(6) Position reporting points.

(7) Holding procedures.

(8) Pertinent ATC procedures.

(9) Congested areas, obstructions, physical layout, and approach procedures for each heliport approved for the route.

(c) Each pilot in command must have made an entry, as a member of a flight crew, into each heliport into which he is to fly. The entry must include a landing and takeoff under day VFR weather conditions to allow him to observe the heliport and surrounding terrain, and any obstructions to landing and takeoff. The qualifying pilot must occupy a seat in the pilot compartment and be accompanied by a pilot who is qualified at that heliport.

(d) Each pilot in command who is to be qualified for night passenger operations must be qualified in accordance with paragraphs (b) and (c) of this section. In addition, he must have made one trip over the route at night with a pilot who is qualified for night operations on the route.

§ 127.181 Maintenance and re-establishment of pilot qualifications.

(a) To maintain pilot route and heliport qualifications, each pilot in command must, within the preceding 90 days, have made at least one trip as pilot or other member of a flight crew between terminals into which he is scheduled to fly. To maintain those qualifications for night operations this trip must be made during daylight.

(b) To re-establish pilot route and heliport qualifications after absence from a route or a heliport on that route for more than 90 days, the pilot must comply with § 127.179.

Subpart M—Flight Time Limitations

§ 127.191 General.

(a) No air carrier may schedule any flight crewmembers for flight time in scheduled air transportation or in other commercial flying, if his total flight time in all commercial flying would be more than—

- (1) 1000 hours in any calendar year;
- (2) 100 hours in any calendar month;

or

- (3) 30 hours in any seven consecutive days.

(b) No air carrier may schedule a flight crewmember for flight time for more than eight hours during any 24 consecutive hours unless he is given an intervening rest period at or before the end of the eight scheduled hours aloft. The rest period must be at least twice the number of hours of flight time since the preceding rest period, but not less than eight hours.

(c) A flight crewmember who has had more than eight hours of flight time in any 24 consecutive hours must, upon completing his assigned flight or series of flights, be given at least 16 hours of rest before being assigned any further duty with the air carrier.

(d) Each air carrier shall relieve each flight crewmember engaged in scheduled air transportation from all duty for at

least 24 consecutive hours at least once during any seven consecutive days.

(e) No air carrier may assign a flight crewmember to any duty with it during a rest period prescribed in this section.

(f) A flight crewmember is not considered to be scheduled for duty in excess of any limitation in this section, if the flights to which he is assigned are scheduled and normally terminate within those limitations, but due to exigencies beyond the air carrier's control (such as adverse weather conditions) are not at the time of departure expected to reach their destination within the scheduled time.

Subpart N—Flight Operations

§ 127.201 Operational control.

(a) Each air carrier is responsible for operational control.

(b) Each air carrier is responsible for—

(1) The exercise of necessary authority for the initiation, continuation, diversion, or termination of a flight; and

(2) Monitoring the progress of each flight and providing the pilot with all information necessary for the safety of the flight.

(c) Each pilot in command of a helicopter is, during flight time, in command of the helicopter and crew and is responsible for the safety of the passengers, crewmembers, cargo, and aircraft.

(d) Each pilot in command of a helicopter is responsible for the preflight planning and the operation of the flight in compliance with this chapter and the operations specifications.

§ 127.203 Operations notices.

Each air carrier shall notify its appropriate operations personnel of each change in equipment and operating procedures, including each known change in the use of navigation aids, heliports, ATC procedures and regulations, local airport traffic control rules, and known hazards to flight, including icing and other potentially hazardous meteorological conditions and irregularities in ground and navigation facilities.

§ 127.205 Operations schedules.

In establishing flight operations schedules, each air carrier shall allow enough time for the proper servicing of helicopters with fuel and oil at intermediate stops. In addition, it shall consider the prevailing winds along the particular route and the cruising speed of the type of helicopter to be flown, and that speed may not be more than that achieved with the engines operating at specified cruising power.

§ 127.207 Flight crewmembers at controls.

Each required flight crewmember on-flight deck duty shall remain at his station while the helicopter is taking off or landing, and while it is en route except when the absence of one member is necessary for performing his duties in connection with operating the helicopter. Each flight crewmember shall keep his seat belt fastened when at his station.

§ 127.209 Manipulation of controls.

No person may manipulate the flight controls of a helicopter during flight unless he is—

(a) A qualified pilot employed by the air carrier operating that helicopter;

(b) An authorized pilot safety representative of the Administrator or of the Civil Aeronautics Board who has the permission of the pilot in command, is qualified in the helicopter, and is checking flight operations; or

(c) A pilot employed by another air carrier who has the permission of the pilot in command, is qualified in the helicopter, and is authorized by the carrier operating the helicopter.

§ 127.211 Admission to flight deck.

(a) No person may admit any person to the flight deck of a helicopter unless the person being admitted is—

(1) A crewmember;

(2) An FAA air carrier inspector, or an authorized representative of the Civil Aeronautics Board, who is performing official duties;

(3) An employee of the United States, an air carrier, or an aeronautical enterprise who has the permission of the pilot in command and whose duties are such that admission to the flight deck is necessary or advantageous for safe operations; or

(4) Any person who has the permission of the pilot in command and is specifically authorized by the air carrier management and by the Administrator. Subparagraph (2) of this paragraph does not limit the emergency authority of the pilot in command to exclude any person from the flight deck in the interests of safety.

(b) For the purposes of paragraph (a)(3) of this section, employees of the United States who deal responsibly with matters relating to safety and employees of the air carrier whose efficiency would be increased by familiarity with flight conditions, may be admitted by the air carrier. However, the air carrier may not admit employees of traffic, sales, or other departments that are not directly related to flight operations, unless they are eligible under paragraph (a)(4) of this section.

(c) No person may admit any person to the flight deck unless there is a seat available in the passenger compartment for the use of the person admitted. This paragraph does not apply to—

(1) An FAA air carrier inspector or an authorized representative of the Administrator or Civil Aeronautics Board who is checking or observing flight operations;

(2) An air traffic controller who is authorized by the Administrator to observe ATC procedures;

(3) A certificated airman employed by the air carrier whose duties require an airman's certificate;

(4) A certificated airman employed by another air carrier whose duties with that carrier require an airman's certificate and who is authorized by the carrier operating the helicopter to make specific trips over a route;

(5) An employee of the air carrier operating the helicopter whose duty is directly related to the conduct or planning of flight operations, in-flight monitoring of aircraft equipment, or operating procedures, if his presence on the flight deck is necessary to perform his duties and he has been authorized in writing by a responsible supervisor, listed in the operations manual as having that authority; and

(6) A technical representative of the manufacturer of the helicopter or its components whose duties are directly related to the in-flight monitoring of aircraft equipment or operating procedures if his presence on the flight deck is necessary to perform his duties, and he has been authorized in writing by the Administrator and by a responsible supervisor of the operations department of the air carrier listed in the operations manual as having that authority.

§ 127.212 Air carrier inspector's credentials: admission to pilot's compartment.

Whenever, in performing his duties of conducting an inspection, an inspector of the Federal Aviation Agency presents his credential Form FAA-110A "Air Carrier's Credential" to the pilot in command of a helicopter operated by an air carrier, he must be given free and uninterrupted access to the pilot's compartment of that helicopter.

§ 127.213 Use of cockpit check procedure.

The flight crew shall use the cockpit check procedure for each procedure listed in § 127.113.

§ 127.215 Flying equipment.

(a) The pilot in command shall insure that appropriate aeronautical charts containing adequate information concerning navigation aids and instrument approach procedures are aboard the helicopter for each flight.

(b) The pilot in command shall insure that each crewmember, on each flight at night, has readily available for his use a flashlight that is in good working order.

§ 127.217 Restriction or suspension of operation.

When an air carrier knows of conditions, including heliport conditions, that are a hazard to safe operations, it shall restrict or suspend operations until those conditions are corrected.

[Revision note: Based on § 46.359]

§ 127.219 Emergencies.

(a) In an emergency situation that requires immediate decision and action, the pilot in command may take any action that he considers necessary under the circumstances. In such a case, he may deviate from prescribed operations procedures and methods, weather minimums, and this chapter, to the extent required in the interests of safety.

(b) Whenever emergency authority is exercised by the pilot in command, he shall keep the air carrier 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 after the flight is completed.

(c) No pilot in command may deviate from an authorized route, except in accordance with ATC instructions issued by a control tower or center or when circumstances make the deviation necessary in the interests of safety. In the case of a deviation (based on safety) that is more than 10 miles off the authorized route, the pilot shall make a written report to the Administrator within 10 days after the deviation.

§ 127.221 Reporting potentially hazardous meteorological conditions and irregularities of ground and navigation facilities.

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

(b) The ground radio station that is notified under paragraph (a) of this section, shall report the information to the appropriate agency of the United States.

§ 127.223 Reporting mechanical irregularities.

The pilot in command shall enter or have entered in the maintenance log of the helicopter each mechanical irregularity met during flight time. Before each flight, he shall ascertain the status of each irregularity entered in the log at the end of the preceding flight.

§ 127.225 Weather minimums.

No person may start a flight, continue en route, or land at a destination heliport except in accordance with the weather requirements in the air carrier's operations specifications.

§ 127.227 Prohibition against interference with crewmembers.

(a) No person may assault, threaten, intimidate, or interfere with a crewmember in the performance of his duties on board a helicopter.

(b) No person may attempt to cause or cause the flight crew to divert a flight from its intended course or destination.

(c) No person may, while on board a helicopter being operated under this part, carry on or about his person a deadly or dangerous weapon, either concealed or unconcealed. This paragraph does not apply to—

(1) Officials or employees of a municipality or a State, or of the United States, who are authorized to carry arms; and

(2) Crewmembers and other persons authorized by the air carrier to carry arms.

Subpart O—Flight Release Rules

§ 127.231 Flight release.

No person may start a flight unless the pilot in command has executed a flight release form setting forth the conditions under which the flight will be conducted and certifying that it will be conducted in accordance with this chapter and the air carrier's operating specifications. If

the flight originates at a place other than the normal operating base, the form may be executed orally to the operation control center, and be made a matter of record. A flight that stays at an intermediate heliport for more than 60 minutes requires a new flight release.

§ 127.233 Familiarity with weather conditions.

No pilot in command may execute a flight release unless he is thoroughly familiar with existing and anticipated weather conditions along the route to be flown.

§ 127.235 Facilities and services.

(a) Before beginning a flight, the operational control center shall furnish to the pilot in command all available current reports or information on heliport conditions and irregularities of navigation facilities that may affect the safety of the flight.

(b) During a flight, the operational control center shall furnish the pilot any additional information of meteorological conditions and irregularities of facilities and services that may affect the safety of the flight.

§ 127.237 Helicopter equipment.

No person may release a helicopter for operation unless it is airworthy and is equipped as prescribed in § 127.101.

§ 127.239 Communication and navigation facilities.

No person may release a helicopter for flight over any route or route segment unless the communication and navigation facilities required by § 127.47 are in satisfactory operating condition.

§ 127.241 Flight release under VFR.

No person may release a helicopter for VFR operation unless the ceiling and visibility en route, as indicated by appropriate weather reports or forecasts, or any combination thereof, are and will remain at or above VFR minimums until the helicopter arrives at the heliport or heliports of intended landing specified in the flight release.

§ 127.243 IFR operations.

The Administrator may authorize an air carrier to conduct IFR operations if upon its application, he finds that the helicopter is properly certificated for instrument flight and the pilots are capable of instrument flight in helicopters. If the authority is granted, complete procedures are specified in the air carrier's operations specifications.

§ 127.245 Visual ground reference requirements.

Except when authorized under § 127.243, no air carrier may operate a helicopter unless meteorological conditions allow enough visual ground reference for proper control of the helicopter, or unless, at night, there are ample ground reference lights available for the purpose.

§ 127.247 Continuing flight in unsafe conditions.

(a) If, in the opinion of the pilot in command, or the air carrier, a flight cannot be completed safely, the pilot in com-

mand may not allow the flight to continue toward any heliport to which it was released, unless, in his opinion there is no safer procedure. In that event, continuation toward that heliport is an emergency situation set forth in § 127.219.

(b) If any item of equipment required under this chapter for the particular operation becomes inoperative en route, the pilot in command shall comply with the approved procedures for such an occurrence specified in the air carrier manual. The Administrator may authorize procedures in the air carrier manual for continued operation beyond a scheduled terminal if he finds, under the circumstances, literal compliance with this paragraph is not necessary in the interests of safety.

§ 127.249 Operation in icing conditions.

(a) No person may release a helicopter, continue to operate a helicopter en route, or land a helicopter if, in the opinion of the pilot in command, or the air carrier, icing conditions are expected or met that might adversely affect the safety of the flight.

(b) No person may takeoff a helicopter when frost, snow, or ice is adhering to its rotors, control surfaces, or other movable parts.

§ 127.251 Release and continuance of flight.

(a) A heliport that is specified as the intended destination may be changed en route to another heliport if the original flight release is amended.

(b) If the flight release is amended while the helicopter is en route, the air carrier shall make the amendment a matter of record.

§ 127.253 Fuel supply for VFR operations.

No person may release a helicopter for VFR flight unless it carries enough fuel—

(a) To fly to the heliport to which released; and

(b) Thereafter, to fly at least 20 minutes at normal cruising consumption.

§ 127.255 Factors in computing required fuel.

In computing required fuel, the air carrier shall consider the wind and other weather conditions forecast, traffic delays anticipated, and any other conditions that might delay the landing. Required fuel is in addition to unusable fuel.

§ 127.257 Takeoff and landing minimums; VFR.

Regardless of any clearance from ATC, no person may takeoff a helicopter or land it under VFR if the reported ceiling or ground visibility is less than that specified in the air carrier's operations specifications.

§ 127.259 Minimum flight altitudes.

The Administrator prescribes minimum flight altitudes in the interests of safety for any route or route segment. In establishing them he considers the character of the terrain to be traversed, the type of helicopter, the availability of suitable emergency landing areas, the

quality and quantity of meteorological services, the navigational facilities available, and other pertinent flight conditions.

§ 127.261 Preparation of load manifest.

Each air carrier is responsible for the preparation and accuracy of a load manifest form before each takeoff. The form must be prepared for each flight by employees of the air carrier who have the duty of supervising the loading of helicopters and preparing the load manifest forms or by other qualified persons authorized by the air carrier.

Subpart P—Records and Reports

§ 127.301 Crewmember records.

Each air carrier shall—

(a) Maintain a current record of each crewmember showing whether he complies with this chapter (e.g. proficiency and route checks helicopter and route qualifications, training, physical examination, and flight time records); and

(b) Record each action taken concerning the release from employment or the physical or professional disqualification of any flight crewmember. The air carrier shall keep each record made under this section for a period of at least three calendar months.

§ 127.303 Flight release form.

(a) The flight release may be in any form but must contain at least the following information concerning each flight:

- (1) The registration number of the helicopter being used.
- (2) Flight or trip number.
- (3) Departure heliport, destination heliports, and routes to be followed.
- (4) Minimum fuel supply.
- (5) Date and time of release.
- (6) Kind of operation (e.g. VFR, day, night, etc.).

(b) A flight release executed orally under § 127.231 must be recorded.

§ 127.305 Load manifest.

(a) The load manifest must contain the following information concerning the loading of the helicopter at takeoff time:

- (1) The weight of the helicopter, fuel and oil, cargo and baggage, and passengers.
- (2) The maximum allowable weight for that flight.
- (3) The total weight computed in accordance with approved procedures.
- (4) Evidence that the helicopter is loaded in accordance with an approved schedule that insures that the center of gravity is within approved limits.
- (5) The time and date of preparation, registration of the helicopter, and trip number.

(b) Qualified personnel of the air carrier who supervise the loading of the helicopter and preparation of load manifest forms, or other qualified personnel authorized by the air carrier, shall prepare and sign the load manifest for each flight.

(c) The time and date of preparation, registration of the helicopter, and trip number.

(d) Qualified personnel of the air carrier who supervise the loading of the helicopter and preparation of load manifest forms, or other qualified personnel authorized by the air carrier, shall prepare and sign the load manifest for each flight.

§ 127.307 Disposition of load manifest and flight release.

(a) The pilot in command of a helicopter shall carry in the helicopter to its

destination, copies of the completed load manifest (or information from it except with respect to cargo and passenger distribution) and the flight release.

(b) The air carrier shall keep copies of the records required by this section for at least 60 days.

§ 127.309 Maintenance records.

(a) Each air carrier shall keep, at its principal maintenance base, current records for its helicopters of total time in service, time since last overhaul, and time since last inspection, for each major component of each airframe, engine, rotor, and, where practicable, appliances.

(b) An air carrier may discontinue total time in service records if it shows that the service life of component parts is safely controlled by other means such as inspection, overhaul, or parts retirement procedures. The Administrator may require the keeping of total time in service records for a part when he finds that other procedures will not safely limit the service life of that part.

(c) A helicopter part, engine, rotor, or appliance for which complete records required by this section are not available may be placed in service if—

(1) It is of a type for which total time in service records are not required by paragraph (b) of this section;

(2) In the case of a part that the Administrator or manufacturer limits to a specific total time in service, that part is retired and replaced by a new part; or

(3) It has been properly overhauled or rebuilt and the overhaul or rebuilding is recorded in the maintenance records.

§ 127.311 Maintenance log.

(a) Each person who takes action in the case of a reported or observed failure or malfunction of an airframe, engine, rotor, or appliance that is critical to the safety of flight shall make, or have made, a record of that action in the helicopter's maintenance log.

(b) Each air carrier shall have an approved procedure for keeping an adequate number of copies of the record required in paragraph (a) of this section in the helicopter in a place readily accessible to each flight crewmember and shall put that procedure in the air carrier manual.

(c) The maintenance log must contain information from which the flight crew may determine the time since the last overhaul of the airframe and engine or engines.

§ 127.313 Mechanical reliability reports.

(a) Each air carrier shall report the occurrence or detection of each failure, malfunction, or defect concerning—

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

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

(3) False fire warning during flight;

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

(5) A helicopter component that causes accumulation or circulation of

smoke, vapor, or toxic or noxious fumes in the crew compartment or cabin during flight;

(6) Engine shutdown during flight because of flameout;

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

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

(9) A fuel system that affects fuel flow or causes hazardous leakage during flight;

(10) A helicopter structure that requires major repair;

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

(12) Helicopter components or systems that result in taking emergency actions during flight (except action to shutdown an engine); and

(13) Main rotor or auxiliary rotor system.

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

(c) In addition to the reports required by paragraph (a) of this section, each air carrier shall report any other failure, malfunction, or defect in a helicopter or component that occurs or is detected at any time if, in the air carrier's opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of the helicopter.

(d) Each air carrier shall send each report required by this section, in writing, covering each 24-hour period beginning at 0900 hours local time of each day and ending at 0900 hours local time on the next day, to the FAA maintenance inspector assigned to its operations. The report must be delivered to him by 0900 hours local time on the following day. However, a report that is due on Saturday or Sunday may be delivered on the following Monday and one that is due on a legal holiday may be delivered on the next workday.

(e) The air carrier shall transmit the reports required by this section in a manner and on a form that is convenient to its system of communication and procedure, and shall include in the first daily report as much of the following as is available:

(1) Type and identification number of the helicopter.

(2) The name of the air carrier.

(3) The date, flight number, and stage during which the incident occurred (e.g. preflight, takeoff, climb, cruise, descent, landing, and inspection).

(4) The emergency procedure effected (e.g. unscheduled landing, emergency descent).

(5) The nature of the failure, malfunction, or defect.

(6) Identification of the part and system involved, including available information pertaining to type designation of the major component and time since overhaul.

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

(8) Whether the part was repaired, replaced, sent to the manufacturer, or other action taken.

(9) Whether the helicopter was grounded.

(10) Brief narrative summary of other information necessary for more complete identification, determination of seriousness, or corrective action.

(f) Failures, malfunctions, or defects reported under the accident reporting provisions of Part 320 of the regulations of the Civil Aeronautics Board need not be reported under this section.

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

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

§ 127.315 Mechanical interruption summary report.

Each air carrier shall regularly and promptly send a summary report on the following occurrences to the Administrator:

(a) Each interruption to a scheduled flight, unscheduled changes of helicopters en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under § 127.313.

(b) The number of engines removed prematurely because of malfunction, failure, or defect, listed by make and model and the helicopter type in which it was installed.

§ 127.317 Alteration and repair reports.

Each air carrier shall, promptly upon its completion, prepare a report of each major alteration or major repair of an airframe, engine, rotor, or appliance, of a helicopter operated by it. It shall promptly make a copy of the report available to the Administrator.

§ 127.319 Airworthiness release or helicopter log entries.

(a) No air carrier may operate a helicopter after maintenance or alterations are performed on the helicopter unless the air carrier, or the person with whom the air carrier arranges for the performance of the maintenance or alterations, prepares or causes to be prepared—

- (1) An airworthiness release; or
- (2) An appropriate entry in the helicopter log.

(b) The airworthiness release or log entry required by paragraph (a) of this section must—

(1) Be prepared in accordance with the procedures set forth in the air carrier's manual;

(2) Include a certification that—

(i) The work was performed in accordance with the requirements of the air carrier'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 helicopter unairworthy; and

(iv) So far as the work performed is concerned, the helicopter is in condition for safe operation; and

(3) Be signed by an authorized certificated mechanic or repairman except that a certificated repairman may sign the release or entry only for the work for which he is employed and certificated.

(c) When an airworthiness release form is prepared the air carrier must give a copy to the pilot in command and must keep a record thereof for at least two months.

NOTE: The record keeping and reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

PART 127—DISTRIBUTION TABLE

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¹ Transferred to Part 1 [New].
² Surplusage.

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