CIVIL AIR REGULATIONS

PART 60
AIR TRAFFIC RULES

As Amended to August 15, 1944

CIVIL AERONAUTICS BOARD

WASHINGTON, D. C.

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. - - Price 10 cents

Sec.
60.1 Definitions.
60.2 Control airport and other designations.
60.21 Control airports.
60.23 Airway traffic control area.
60.3 General flight rules (general).
60.30 Pilot certificates.
60.31 Aircraft certificate.
60.32 Identification mark.
60.33 Traffic control.
60.34 Flight en route.
60.35 Minimum and maximum safe altitudes of flight.
60.36 Parachutes.
60.37 Landing flares.
60.38 Air traffic control procedures and phraseologies.
60.39 Crossing range approach channel.
60.4 Flight rules (contact).
60.40 Pilot.
60.41 Equipment.
60.42 Fuel requirements.
60.43 Flight plan.
60.44 Weather minimums.
60.45 Alternate airport.
60.46 Over-the-top flight.
60.47 Flight en route.
60.5 Flight rules (instrument).
60.50 Pilot.
60.51 Equipment.
60.52 Fuel requirements.
60.53 Flight plan.
60.54 Weather minimums.
60.55 Alternate airport.
60.56 Over-the-top flight.

Sec.
60.57 Flight en route.
60.58 Flight altitudes.
60.59 Approach and departure procedures.
60.6 Light and signal rules.
60.60 Aircraft on the ground.
60.61 Airplane lights.
60.62 Airship lights.
60.63 Balloon lights.
60.64 Lights on stationary aircraft.
60.65 Signals on stationary aircraft.
60.66 Distress signals.
60.67 Forced landing signals.
60.68 Fog signals.
60.7 Acrobatic flight rules.
60.70 Prohibited zones.
60.71 Acrobatics while carrying persons.
60.72 Equipment for acrobatics.
60.73 Parachute jump.
60.8 Air meet rules.
60.80 Classification.
60.81 Certificate of waiver required.
60.89 Air meet rules.
60.9 Miscellaneous air traffic rules.
60.90 Nonapplication of air traffic rules.
60.91 Certificate of waiver.
60.92 Aircraft on water.
60.93 Aircraft model flying activities, supervision of.
60.94 Foreign flight authorization.
60.95 Emergency regulations.
60.96 Weather information.
60.97 Transportation of explosives and other dangerous articles.

60.1 Definitions.

60.102 Civil airway. Civil airway means a path through the navigable airspace of the United States identified by an area on the surface of the earth, designated or approved by the Administrator as suitable for interstate, overseas, or foreign air commerce.

NOTE: By regulation of the Administrator effective April, 1 1943, "Each civil airway shall include the navigable airspace of the United States above all that area on the surface of the earth lying within five miles of the center line prescribed for each such airway, but shall not include any of the airspace of an airspace reservation set apart as provided in section 4 of the Air Commerce Act of 1926."

60.103 Control zone. A control zone is the airspace above that area on the surface of the earth within 3 miles of the center of an airport designated by the Administrator as a control airport, and within one-half mile of a line extending from the center of such airport to the radio range station established for the purpose of directing air traffic to such airport.

NOTE: For a list of control airports, see *Air Navigation Radio Aids* published periodically by the Administrator.

60.111 Alternate airport. An alternate airport is an airport, other than the point of first intended landing, specified in the flight plan, and to which the flight may be directed in case of emergency.

60.112 Radio fix. A radio fix is a geographical location designated by the Administrator on a civil airway above which the position of an aircraft in flight can be accurately determined by means of radio only (such as a cone of silence marker, Z-type marker, fan-type marker, or intersection of radio range on-course signals).

NOTE: For a list of designated radio fixes, see *Air Navigation Radio Aids* published periodically by the Administrator.

60.113 Check point. A check point is a geographical location on the surface of the land or water, above which the position of an aircraft in flight can be accurately determined by means of visual reference. (Such as a river, highway, mountain, bridge, lightship, etc.)

60.114 Radio range station. A radio range station is that point in a radio station from which radio signals are emitted for the purpose of assisting an aircraft to maintain a course.

60.115 Range approach channel. A standard range approach channel as designated by the Administrator is the airspace above the ground or water below 17,000 feet above sea level located within 2 miles of the center line of the on-course signal of any leg of a radio range station and extending along such leg between points 2 and 15 miles from the radio range station exclusive of control zones: *Provided*, That such range approach channels may be modified or extended by the Administrator when he deems it necessary in the interest of safety.

60.120 Airway traffic control center. An airway traffic control center is a station operated by the Administrator for the purpose of controlling air traffic on civil airways.

NOTE: For a list of airway traffic control centers, see *Air Navigation Radio Aids* published periodically by he Administrator

60.121 Airway traffic control area. An airway traffic control area is an area within the limits of an airway designated by the Administrator and over which an airway traffic control center exercises control of air traffic.

NOTE: For a list of airway traffic control areas, see *Air Navigation Radio Aids* published periodically by the Administrator.

60.122 Airway communications station. An airway communications station is an airway radio, teletype, or other communications station operated by the Administrator.

60.123. Airport traffic control tower. An airport traffic control tower is an establishment properly situated and equipped to allow an operator thereof to adequately control air traffic in the immediate vicinity of the airport on or adjacent to which such airport traffic control tower is located.

60.130 Contact flight. Contact flight is flight of aircraft in which the attitude of the aircraft and its flight path can at all times be controlled by means of visual reference to the ground or water.

60.131 Instrument flight. Instrument flight is flight of aircraft in which the visual reference in § 60.130 is not continuously available and the attitude of the aircraft and its flight path can be controlled in part or in whole by reference to instruments only.

60.132 Over-the-top flight. Over-the-top flight is flight of aircraft made above an overcast, usually a cloud formation.

60.133 Flight plan.

60.1330 Flight plan for contact flight. The flight plan shall contain the following information:

(*a*) identity of pilot and aircraft;
(*b*) time and point of departure;
(*c*) proposed cruising altitude or altitudes;
(*d*) proposed route to be followed;
(*e*) destination and estimated time of arrival;
(*f*) usable radio equipment carried in aircraft, if any;
(*g*) number of aircraft making the flight, if the aircraft are to be flown in formation.

60.1331 Flight plan for instrument or over-the-top flight. The flight plan shall contain the following information:

(*a*) the aircraft identification mark, or the name of the governmental service in which the aircraft is employed, if so employed, or the name of the air carrier operator and the trip number, if engaged in scheduled air transportation service;
(*b*) the type of aircraft involved and the number of aircraft making the flight, if the aircraft are in formation;
(*c*) the name of the pilot, or of the flight commander if the aircraft are in formation;
(*d*) the point of departure of the particular flight for which such plan is being filed;
(*e*) the proposed cruising altitude or altitudes and the route to be followed;
(*f*) the point of first intended landing;
(*g*) the proposed cruising airspeed;
(*h*) transmitter frequency;
(*i*) the proposed time of departure. (The time of departure shall be considered as the time when the aircraft leaves the ground);

(*j*) the estimated elapsed time until arrival on the ground at the point of first intended landing. (For scheduled operation, the first stop to be made, together with additional stops if requested by an airway traffic control center);

(*k*) the alternate airport or airports;

(*l*) any other pertinent information which the pilot deems useful for control purposes or which may be requested by an airway traffic control center.

60.134 Approved flight plan. An approved flight plan is a plan of flight, containing the information required by § 60.133, which has been approved solely with respect to known air traffic conditions by an airway traffic control center of the Administrator.

NOTE: Approval of a flight plan is an authorization for an aircraft to proceed in accordance with the provisions of such flight plan only insofar as known air traffic conditions are concerned and does *not* constitute authority to violate any provision or provisions of the Civil Air Regulations.

60.1340 Traffic control instructions issued to the pilot before departure or en route shall be considered to be a part of the approved flight plan.

60.135 Cruising altitude. A cruising altitude is a flight altitude, measured in feet above sea level, proposed for that part of a flight from point to point during which a constant altitude will be maintained.

60.140 Ceiling. Ceiling is the distance from the cloud base to the ground. (The reports of the U. S. Weather Bureau, when available to the pilot, shall govern.)

60.141 Unlimited ceiling. A ceiling is considered unlimited when clouds cover less than one-half of the sky or when the base of the clouds is more than 9,750 feet above the point of observation. (The reports of the U. S. Weather Bureau, when available to the pilot, shall govern.)

60.142 Daylight, hours of. (Day flight, daylight hours, day.) The hours of daylight as used in these rules are those hours between the mean solar times of sunrise and sunset, as published in the Nautical Almanac, converted to local standard time for the locality concerned.

NOTE: The Nautical Almanac, price 50 cents, containing sunshine tables, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. Information is available from the Sunshine Tables, in the offices of officials in charge, Airport Station, U. S. Weather Bureau, at:

Newark, N. J.
Washington Airport, Washington, D. C.
Atlanta, Ga.
Cleveland, Ohio.
Chicago, Ill.
Kansas City, Mo.
Fort Worth, Tex.
Salt Lake City, Utah.
Portland, Oreg.
Oakland, Calif.

These Sunshine Tables are not available for distribution.

60.143 Darkness, hours of. (Night flight, hours of darkness, night.) The hours of darkness as used in these rules are those hours between the mean solar times of sunset and sunrise, as published in the Nautical Almanac, converted to local standard time for the locality concerned.

NOTE: See note under § 60.142.

60.144 Visibility. Visibility is the greatest distance toward the horizon at which conspicuous objects can be seen and identified.

60.145 Weather minimums. Weather minimums are ceiling, visibility, and other minimums provided for specified types of flight operation, and below which flight operation is not permitted, unless specifically authorized elsewhere in these regulations or by the Administrator.

NOTE: The local United States Weather Bureau reporting station for each control airport will classify existing weather conditions for such airport by one of the following symbols:

Class C—*Contact:* Weather equal to or better than the minimums specified for the particular airport for flight in accordance with contact flight rules.

Class N—*Instrument:* Weather less than the minimums specified for the particular airport for flight in accordance with contact rules. Requiring observance of instrument flight rules, unless flight in accordance with contact flight rules has been authorized as provided for in §§ 60.440 and 60.441.)

60.150 Military aircraft. Military aircraft are public aircraft operated in the service of the United States Army, National Guard, Navy, Marine Corps, or Coast Guard.

60.151 Public aircraft. A public aircraft is an aircraft used exclusively in the governmental service.

60.152 Acrobatics (acrobatic flight). Acrobatics are unnecessary flight evolutions voluntarily performed with an aircraft requiring or resulting in an abrupt change in its attitude, an abnormal attitude, or operations in excess of the aircraft's design level flight speed (placard value). A normal bank not in excess of 70 degrees will not be considered as an abrupt change in the aircraft's attitude or as an abnormal attitude.

60.2 Control airport and other designations.

60.21 Control airports. The Administrator, in the interest of safety, and after finding it necessary for the proper control of air traffic may designate as a control airport any airport in the United States.

60.23 Airway traffic control area. The Administrator, in the interest of safety, may designate such portions of the civil airways as airway traffic control areas as may be necessary for the proper control of air traffic.

60.3 General flight rules.

60.30 Pilot certificates. No person shall pilot a civil aircraft in the United States unless such person holds a valid pilot certificate issued by the Administrator or an effective foreign pilot certificate validated by the Administrator. Any person may operate the controls of an aircraft if the aircraft is equipped with fully functioning dual controls and one of the control seats is occupied by a person holding an appropriate pilot certificate.

60.31 Aircraft certificate. No flight of civil aircraft, other than of a foreign aircraft whose navigation in the United States has been authorized according to law, shall be made or authorized to be made in the United States unless there is outstanding for such aircraft a valid aircraft airworthiness certificate, or in violation of any term, condition, or limitation of such certificate.

60.32 Identification mark. No aircraft (except a foreign aircraft provided for in section 6 of the Air Commerce Act of 1926, as amended) shall be operated within the United States unless it displays an identification mark assigned thereto by the Administrator: *Provided*, That aircraft of the national defense forces of the United States shall be identified by the agency having jurisdiction over such aircraft, in a manner satisfactory to the Board. The identification marks assigned by the Administrator shall be as follows:

(*a*) A certificated aircraft which has fully complied with the minimum airworthiness requirements specified in the Civil Air Regulations, shall display the Roman capital letters NC followed by the registration number.

(*b*) A certificated aircraft which has not demonstrated compliance with the airworthiness requirements specified in the Civil Air Regulations but which, in the opinion of the Administrator, is in condition for safe operation for particular activities, shall display the Roman capital letters NR followed by the registration number.

(*c*) A certificated aircraft which has not demonstrated compliance with the airworthiness requirements specified in the Civil Air Regulations but which, in the opinion of the Administrator, is in condition for safe operation for experimental purposes shall display the Roman capital letters NX followed by the registration number.

(*d*) An uncertificated aircraft shall display the registration number only.

(*e*) A certificated aircraft manufactured in the United States for delivery to a foreign purchaser may display such marks or insignia as the appropriate foreign government shall designate. Such aircraft may only be operated for the purpose of test flights and demonstration for a limited time in the immediate vicinity of the manufacturer's airport or for the sole purpose of delivery to a foreign purchaser.

60.320 Location for display. The identification mark on conventional aircraft shall be displayed, in the case of a biplane, on the lower surface of the lower left wing and on the upper surface of the upper right wing and, in the case of a monoplane, on the lower surface of the left wing and the upper surface of the right wing: *Provided*, That if the length of the lower left wing of a biplane is less than one-half the length of the upper left wing, the identification mark shall be displayed on the lower surface of the upper left wing as far to the left as possible. The top of the letters and figures shall be toward the leading edge. The height shall be at least four-fifths of the mean chord but need not exceed 30 inches. The mark shall also be located on both sides of the vertical tail surface of all conventional airplanes, of a size as large as a 2-inch margin will permit. On gliders the letters and figures shall be displayed in the same manner and place prescribed for conventional airplanes except the minimum height shall be 15 inches. On aircraft other than conventional airplanes or gliders or on conventional aircraft where the design or dimensions of the wing prevent the display of the identification mark in the manner prescribed in these regulations, the identification mark shall be displayed in a manner satisfactory to the Administrator.

60.321 Lettering. The width of the letters and figures (except the figure 1) shall be at least two-thirds of their height. The width of each stroke shall be at least one-sixth of the height of the letters and figures, which shall be of uniform size. The space between such letters

and figures shall be not less than one-sixth of the height. Such letters and figures shall be painted on the aircraft in a solid color and on a clearly contrasting background. Such indentification mark shall be kept clean and clearly visible. No other design, mark, or symbol which might modify or confuse the assigned mark shall be placed on the aircraft except with the approval of a duly authorized inspector of the Administrator.

60.322 Military insignia. No aircraft, other than aircraft of the national defense forces of the United States, shall be operated with emblems, insignia, or markings of the national defense forces unless written authorization for such use is obtained from the War or Navy Departments.

60.33 Traffic control. No person shall operate an aircraft within a control zone contrary to traffic control instructions issued by certificated air-traffic control-tower operators of the Administrator on duty at the control airport of such zone.

60.330 Procedure for taking off and landing.

60.3300 A take-off shall not be commenced until there is no risk of collision with other aircraft during such take-off.

60.3301 Aircraft approaching for a landing shall circle the airport or other landing area sufficiently to observe other traffic, unless the pilot receives other instructions from the air-traffic control-tower operator. All circles, either approaching for a landing or after take-off, shall be made to the left unless the pilot receives other instructions from the air-traffic control-tower operator, or unless the Administrator has prescribed a different procedure for the airport or landing area after finding that such procedure is required in the interest of safety.

60.3302 Aircraft approaching for a landing shall, unless impracticable, maintain a straight approach course for the last 1,000 feet before crossing the airport boundary.

60.3304 Air traffic departing from or arriving at a control airport shall take precedence over other air traffic within the control zone of such airport when required in the interests of safety.

60.331 Running motors, supervision of. No aircraft engine shall be started or run unless a competent operator is in the aircraft attending the engine controls. Blocks, equipped with ropes or other suitable means of pulling them, shall always be placed in front of the wheels before starting the engine, or engines, unless the aircraft is provided with adequate parking brakes and the same are fully on.

60.332 Air meet landing. In approaching a landing area where there is a congestion of aircraft or an assembly of persons or automobiles in the vicinity of aircraft, pilots shall proceed with caution and ascertain before landing, or before flying at low altitude over the landing area, whether or not an air meet or aeronautical demonstration is in progress. (See § 60.8911.)

60.34 Flight en route.

60.340 Right-of-way. The following rules will govern aircraft right-of-way:

60.3400 (*a*) **Order.** Aircraft in flight shall have right-of-way in the following order (1) balloons, fixed or free (an airship not under control is classed as free balloon), (2) gliders, (3) airships, and (4) airplanes, including rotorplanes.

60.3401 (*b*) **Crossing.** When two aircraft are on crossing courses at approximately the same altitude, the aircraft which has the other on its left shall have right-of-way, and the other aircraft shall give way.

60.3402 (*c*) **Approaching head-on.** When two aircraft are approaching head-on, or approximately so, and there is danger of collision, each shall alter its course to the right so that they will pass each other at a distance of at least 500 feet.

60.3403 (*d*) **Overtaking.** An overtaken aircraft shall have right-of-way and the overtaking aircraft shall keep clear of the overtaken aircraft by altering its own course to the right.

60.3404 (*e*) **Landing.** An aircraft landing in the manner prescribed in § 60.3302 shall have right-of-way over other aircraft in flight or on the ground or water, except aircraft landing in distress.

60.3405 (*f*) **Distress landing.** An aircraft in distress shall have right-of-way in attempting to land.

60.341 Duty to give way. When landing or maneuvering in preparation to land, it shall be the duty of the aircraft at the higher altitude to avoid the aircraft at the lower altitude.

60.342 Right side traffic. Aircraft operating along a civil airway shall keep to the right of the radio range course projected along the airway, or if no radio range course is projected along the airway, shall keep to the right of the center line of the airway except:

(*a*) when impracticable for reasons of safety;

(*b*) when otherwise instructed or authorized by an airway traffic control center of the Administrator;

(*c*) in the case of inbound aircraft operating on instruments and using the on-course signal of the radio range;

(*d*) when landing or taking off.

60.343 Proximity in flight. No aircraft shall be flown closer than 500 feet to any other aircraft in flight, except that by prearrangement two or more aircraft may be flown in formation closer than 500 feet to each other. When such flight is to be made within the limits of an airway traffic control area a flight plan shall be filed in accordance with § 60.1330.

60.344 Airport traffic pattern. Aircraft in contact flight within three miles horizontally of the center of an airport or other landing area shall conform to the circle rule provided in § 60.3301 unless flying at an altitude in excess of 1,500 feet above such airport or other landing area.

60.345 Liquor, narcotics, and drugs. No pilot or other member of the crew of an aircraft in flight shall be under the influence of, or use intoxicating liquor, cocaine, or other habit-forming drugs, nor shall such person carry any other person who is obviously under the influence of intoxicating liquor, cocaine, or other habit-forming drugs, except a medical patient under proper care, or in case of emergency.

60.346 Towing by aircraft. The towing of aircraft by other aircraft or the towing of any device or object by aircraft is prohibited, unless permission therefor has been granted by the Administrator in accordance with the provisions of § 60.91: *Provided, however*, Such restriction shall not apply to military aircraft previously authorized by the appropriate governmental agency to make such flights in the public interest.

60.347 Dropping objects or things. No object or thing, other than fine sand, fine (No. 7 or smaller) lead shot, fuel, or water (all unconfined), shall be dropped or released from an aircraft in flight by any person on board the aircraft, unless permission therefor has been granted by the Administrator in accordance with the provisions of § 60.91: *Provided, however*, Such restriction shall not apply to military aircraft previously authorized by the appropriate governmental agency to make such flights in the public interest. The pilot or person in charge of the aircraft shall be responsible for the observance of this rule by all persons in the aircraft.

60.348 Airspace restrictions. Areas in which the flight of aircraft is prohibited or restricted are classified as caution areas, danger areas, and prohibited areas.

60.3480 Caution area. An area designated by the Administrator in which a visible hazard to aircraft in flight exists and which should be avoided if practicable.

60.3481 Danger area. An area designated by the Administrator in which an invisible hazard to aircraft in flight exists. No flight of aircraft shall be conducted in this area without specific authority issued by the agency having jurisdiction over the danger area.

60.3482 Prohibited area. An area established by Executive order of the President of the United States. No flight of aircraft shall be made in this area except aircraft actually engaged in defense missions, or otherwise in accordance with the Executive order establishing such areas.

NOTE: Restricted areas are indicated on aeronautical charts and published in *Weekly Notice to Airmen* issued by the Administrator of Civil Aeronautics.

60.349 Passenger baggage restrictions. A pilot shall not pilot any aircraft (except scheduled air carrier aircraft) in flight carrying passenger's baggage or cargo unless every item of such baggage or cargo has been thoroughly searched by the pilot, or a person designated by him, immediately prior to taking off for the flight and placed in the aircraft by the pilot or a person designated by him, with no possession by any other person intervening between such search and the placing of the baggage or cargo in the aircraft. If such baggage or cargo includes a camera, such camera shall be placed in a closed compartment or space in the aircraft completely

inaccessible to all passengers during the flight. Any pilot shall permit the search of his aircraft upon demand by any representative of the Army, Navy, Civil Aeronautics Administration, Civil Aeronautics Board, or by civil police.

60.35 Minimum and maximum safe altitudes of flight.

60.350 Minimum safe altitudes. Exclusive of taking off from or landing upon an airport or other landing area aircraft shall not be flown below the following minimum safe altitudes of flight:

60.3500 An altitude over the congested parts of cities, towns, or settlements, sufficient to permit at all times an emergency landing outside of such areas in the event of complete power failure, but in no case less than 1,000 feet above the ground.

60.3502 1,000 feet above the ground over any Federal penal institution or any open-air assembly of persons.

60.3503 500 feet above the ground or water elsewhere than as specified in §§ 60.3500 and 60.3502, or within 500 feet from any mountain, hill, or other obstruction to flight, except as may be specifically approved by the Administrator: *Provided, however,* That seaplanes and amphibians may be flown below 500 feet, but not below 300 feet, if making a contact flight during daylight hours over open water and where an emergency landing may, at all times, be made without the aid of power, into the wind and without danger of collision with craft on the surface or other obstructions: *And provided, further,* That the restrictions of this paragraph shall not apply to public aircraft, previously authorized by the appropriate governmental agency, to make specific flights below such minimums in the public interest.

60.3504 1,000 feet above the ground or water, or within 1,000 feet of any mountain, hill, or other obstruction to flight, if an aircraft is making an instrument flight as defined in § 60.131.

60.3505 Any maneuver required in student instruction or solo practice under the supervision of a certificated flight instructor, the Army, Navy, Marine Corps, or Coast Guard, or in flight tests given by an inspector of the Administrator, may be performed at an altitude less than 500 feet above the ground or water if necessary for the proper execution of such maneuver, notwithstanding the provisions of § 60.3503.

60.351 Maximum safe altitude. Aircraft, except military aircraft, shall not be flown at altitudes above 17,000 feet above sea level: *Provided, however,* That air carrier aircraft in scheduled air transportation may operate above that altitude when authorized by the terms of the air carrier operating certificate issued to the air carrier: *And provided, further,* That the Administrator may authorize flights of aircraft above that altitude when necessary in the interests of safety or the development of aeronautics.

60.3510 Military aircraft when operating above 17,000 feet above sea level must be equipped with two-way radio equipment adequate to communicate at all times with either a ground radio station maintained by one of the armed forces of the United States or with an airway communications station of the Administrator. Such aircraft shall obtain a clearance from the appropriate airway traffic control center of the Administrator before ascending to or descending from that altitude if during such ascent or descent the aircraft enters into or passes through an airway traffic control area.

60.3511 Military aircraft while operating either contact or on instruments above the altitude of 17,000 feet above sea level in accordance with the provisions of § 60.351 shall be exempt from all other provisions of this Part except that such aircraft shall comply with the airplane light rules of § 60.61 and when flying along or crossing routes or civil airways approved for use by a scheduled air carrier authorized to operate above 17,000 feet, such military aircraft shall comply with the following flight altitudes:

(*a*) *Eastbound flight.*—Aircraft making good a true course of 0° (or 360°) to, but not including, 180° shall fly at an ODD thousand-foot level plus 500 feet, above sea level (such as 17,500, 19,500, or 21,500 feet); and

(*b*) *Westbound flights.*—Aircraft making good a true course of 180° to, but not including, 360° (or 0°) shall fly at an EVEN thousand-foot level plus 500 feet, above sea level (such as 18,500, 20,500, or 22,500 feet).

60.3512 Aircraft practicing take-offs and landings under contact flight rules within an airway traffic control area shall not exceed an altitude of 1,500 feet above the airport from which such practice is being conducted.

60.36 Parachutes. No parachute shall be carried in a civil aircraft of the United States in a manner available for emergency use unless within the preceding 60 days it has been packed by a person certificated for that purpose in accordance with the Civil Air Regulations or by personnel of the Army, Navy, Marine Corps, or Coast Guard whose regular duty is to pack parachutes for use in such services.

60.37 Landing flares. No aircraft shall be flown for hire at night beyond an area within a circle with a radius of 3 miles drawn from the center of the airport of take-off unless equipped with certificated landing flares as required in § 04.512 (*c*).

60.38 Air traffic control procedures and phraseologies. Airmen shall observe air traffic control procedures and phraseologies which shall provide adequately for safety in the operation of aircraft in air commerce and which are best adapted to ready understanding by the flying public.

60.39 Crossing range approach channel. Aircraft crossing a range approach channel shall give way to aircraft proceeding along and within the range approach channel, and in addition, aircraft when crossing a range approach channel above 1,500 feet above the ground or water shall do so at a constant altitude and at an angle of not less than 45°.

60.391 Flight within local flying areas adjacent to a control airport. The Administrator may designate flight zones for specific purposes within the local flying area, as defined in § 60.950 (*c*), adjacent to any control airport. Thereafter, within such local flying area, no person shall make a flight of a type for which a zone has been set apart, except within such zone.

60.4 Flight rules (contact). In addition to general or special air traffic rules which apply, the following rules shall govern a contact flight in weather conditions equal to or better than those described in § 60.44, within the limits of a civil airway or elsewhere in interstate, overseas, or foreign air commerce. For flight in weather conditions worse than those described in § 60.44 and for flight in closer proximity to cloud formations than the distances prescribed in § 60.44, see § 60.5.

NOTE: The rules prescribed under § 60.4 will apply to scheduled air carrier operations unless otherwise specifically indicated.

60.40 Pilot. No instrument rating required. (See Parts 40 and 61 for provisions applicable to scheduled air carriers.)

60.41 Equipment. Aircraft shall be certificated as to equipment as provided for in §§ 04.510, 04.511, 04.512, or 04.515, depending upon whether the flight is visual-contact-day within 100 miles of a fixed base, visual-contact-day unlimited distance or visual-contact-night for landplanes, or either of the same for seaplanes or amphibians. (See §§ 04.530 and 04.531 for provisions applicable to scheduled air carriers.)

60.42 Fuel requirements. No aircraft shall take off without sufficient fuel and oil, taking into account wind and other weather conditions to be encountered during the course of the flight, to arrive at its point of first intended landing and effect a safe landing thereat. (See § 61.702 for provisions applicable to scheduled air carriers.)

60.43 Flight plan. A flight plan is not required unless the flight is made at night and lies within or passes through airway traffic control areas as specified in § 60.471.

60.430 Notification of arrival. If the pilot of an aircraft has submitted, or authorized the submission of, a flight plan for transmission to destination, he shall, immediately upon landing or upon completion of the flight, file an arrival message for transmission to the point of departure.

60.44 Weather minimums. The following weather minimums shall govern flight made in accordance with contact flight rules: *Provided, however*, That an airway traffic control center of the Administrator may for reasons of safety restrict or suspend contact flight operation within the airway traffic control area of such center: *Provided, further*, That in the interests of safety the Administrator may require higher minimums at any particular control airport, and that such minimums shall govern the control zone in which such control airport lies.

60.440 Within control zones. Aircraft shall not be flown within a control zone unless the ceiling is at least 1,000 feet and the visibility is at least 3 miles: *Provided, however*, That a certificated air-traffic control-tower operator on duty in a radio-equipped airport control tower may authorize flight at altitudes of 1,000 feet or less above the ground or water when the visibility is less than 3 miles but not less than 1 mile: *And provided, further*, That such operator may suspend contact flight operation within the control zone when reasons of safety require such actions.

60.441 Outside of control zone.

60.4410 At or below 1,000 feet. Aircraft shall not be flown at or below 1,000 feet above the ground or water unless the ceiling is sufficient to permit flight at the minimum altitude prescribed in § 60.35 and unless the visibility during the hours of daylight is at least 1 mile and during the hours of darkness is at least 2 miles.

60.4411 Above 1,000 feet. Aircraft shall not be flown above 1,000 feet above the ground or water unless the ceiling is sufficient to permit flight at the minimum altitude prescribed in § 60.35 and unless the visibility is at least 3 miles at flight altitude.

60.442 Proximity to cloud formation. Aircraft shall not be flown closer than 500 feet vertically to an overcast or cloud formation nor closer than 2,000 feet horizontally to a cloud formation.

60.45 Alternate airport. No requirement.

60.46 Over-the-top flight. No flight of aircraft shall be made over broken clouds or stretches of solid overcast unless the attitude of the aircraft and its flight path can at all times be controlled by visual reference to the ground or water and ascent and descent can be made in accordance with the provisions of § 60.442. (For scheduled air carrier operations, see Parts 40 and 61.)

60.47 Flight en route.

60.470 Weather changes. If weather conditions below the minimums prescribed in § 60.44 are anticipated or are actually encountered en route, a landing shall be made at the nearest airport at which weather conditions are equal to or better than those prescribed in § 60.44, or the flight shall be altered so that it may be made in weather conditions as good as, or better than, such minimums, unless such flight can and does proceed in accordance with the instrument flight rules prescribed in § 60.5.

60.471 Contact flight on civil airways. Aircraft flying under contact flight rules along or across a civil airway during the night, except for necessary ascent and descent, shall maintain flight altitudes as described in § 60.58; and a flight plan in accordance with § 60.1330 shall be filed for any such flights which are to lie within or pass through airway traffic control areas. Aircraft flying under contact flight rules along or across a civil airway during the day, except for necessary ascent or descent, shall maintain flight altitudes as described in § 60.58 as nearly as existing conditions permit.

60.5 Flight rules (instrument). In addition to general or special air traffic rules which apply, the following rules shall govern instrument flight, flight in closer proximity to cloud formation than the distances prescribed in § 60.44, and flight in weather conditions worse than those described in § 60.44, within or approaching the limits of a civil airway or elsewhere in interstate, overseas, or foreign air commerce.

NOTE: The rules prescribed under § 60.5 will apply to scheduled air carrier operations unless otherwise specifically indicated.

60.50 Pilot. No flight shall be made in civil aircraft unless the pilot in charge

(*a*) holds a valid instrument rating; or

(*b*) holds a valid airline transport pilot certificate; or

(*c*) holds a valid commercial lighter-than-air pilot certificate; or

(*d*) is an active member of the regular Army, Navy, Marine Corps, or Coast Guard, or a reserve member of any such service on extended active duty for at least 1 year, and who holds at least a private pilot certificate issued by the Administrator and a military instrument flying rating, or equivalent, issued by his service.

60.51 Equipment. Aircraft shall be properly certificated as to equipment according to the provisions of §§ 04.513, 04.514, and 04.515. (Scheduled air carrier aircraft shall be certificated as provided in §§ 04.532, 04.533, and 04.534.)

60.52 Fuel requirements. No aircraft shall take off without fuel and oil sufficient, considering the wind and other weather conditions forecast for the flight, at least

(*a*) to complete such flight to the point of the first intended landing, and thereafter

(*b*) to fly to and land at the alternate airport designated in the approved flight plan, and thereafter

(*c*) to fly, at normal cruising consumption, for a periof of 45 minutes. (For scheduled air carrier operations, see § 61.7021.)

600421°—44——2

60.586 Crossing a civil airway. Unless otherwise instructed by an airway traffic control center of the Administrator, a civil airway shall not be crossed at an angle of less than 45° to such airway.

60.59 Approach and departure procedures. (To be issued.)

60.6 Light and signal rules.

60.60 Aircraft on the ground. Between sunset and sunrise all aircraft parked or moved within, or in dangerous proximity to, the usable portion of all landing areas used for, or available to, night flight operations shall be clearly illuminated or lighted, or the area marked with obstruction lights.

60.61 Airplane lights. Between sunset and sunrise, all airplanes in flight shall show position lights certificated. and installed in accordance with the applicable provisions of Parts 15 and 04.

60.62 Airship lights. Between sunset and sunrise, airships shall carry and display the same lights prescribed for non-air carrier airplanes, except that the side lights shall be doubled horizontally in a fore and aft position and the rear light shall be doubled vertically. Lights in a pair shall be at least 7 feet apart.

60.63 Balloon lights. Between sunset and sunrise, a free balloon shall display one steady white light and one flashing red light, both lights to be visible all around the horizon at a distance of at least 2 miles under clear atmospheric conditions. The white light shall be located not less than 20 feet below the car and the red light shall be located not less than 7, nor more than 10, feet below the white light. Between sunset and sunrise, a fixed balloon, or airship, shall carry 3 lights—red, white, and red—in a vertical line, one over the other, visible at least 2 miles under clear atmospheric conditions. The top light shall not be less than 20 feet below the car, and the lights shall be not less than 7, nor more than 10, feet apart.

60.64 Lights on stationary aircraft. Between sunset and sunrise, all airplanes which are on the surface of water and not under way, or which are moored or anchored in navigation lanes, shall show in all directions an anchor light in accordance with the applicable provisions of Part 04. Between sunset and sunrise, balloon and airship mooring cables shall show groups of 3 red lights at intervals of at least every 100 feet, measured from the car. The first light in the first group shall be approximately 20 feet from the lower red balloon light. The object to which the balloon is moored on the ground shall have an adequate group of lights to mark its position.

60.65 Signals on stationary aircraft. By day, balloon and airship mooring cables shall be marked with chrome yellow-colored conical streamers not less than 10 inches in diameter at the mouth and 7 feet long. The object to which the balloon or airship is moored on the ground shall have the same kind of streamers, which must be in the same position as the lights specified in § 60.64.

60.66 Distress signals. The following signals, separately or together, shall, where practicable, be used in case of distress:

60.660 (*a*) The international signal, S O S by radio: In radiotelephony, the spoken expression MAYDAY (corresponding to the French pronunciation of the expression "m'aider"). When, owing to the rapidity of the maneuvers to be accomplished, an aircraft is unable to transmit the intended message, the signal P A N not followed by a message retains such meaning.

60.661 (*b*) The international code flag signal of distress, NC.

60.662 (*c*) A square flag having either above or below it a ball, or anything resembling a ball.

60.67 Forced landing signals. When an aircraft is forced to land at night at an airport, it shall signal its forced landing by making a series of short flashes with its navigation lights, if practicable to do so.

60.68 Fog signals. In fog, mist, or heavy weather, an aircraft on the water in navigation lanes shall signal its presence by a sound device emitting a signal for about 5 seconds at one-minute intervals.

60.7 Acrobatic flight rules..

60.441 Outside of control zone.

60.4410 At or below 1,000 feet. Aircraft shall not be flown at or below 1,000 feet above the ground or water unless the ceiling is sufficient to permit flight at the minimum altitude prescribed in § 60.35 and unless the visibility during the hours of daylight is at least 1 mile and during the hours of darkness is at least 2 miles.

60.4411 Above 1,000 feet. Aircraft shall not be flown above 1,000 feet above the ground or water unless the ceiling is sufficient to permit flight at the minimum altitude prescribed in § 60.35 and unless the visibility is at least 3 miles at flight altitude.

60.442 Proximity to cloud formation. Aircraft shall not be flown closer than 500 feet vertically to an overcast or cloud formation nor closer than 2,000 feet horizontally to a cloud formation.

60.45 Alternate airport. No requirement.

60.46 Over-the-top flight. No flight of aircraft shall be made over broken clouds or stretches of solid overcast unless the attitude of the aircraft and its flight path can at all times be controlled by visual reference to the ground or water and ascent and descent can be made in accordance with the provisions of § 60.442. (For scheduled air carrier operations, see Parts 40 and 61.)

60.47 Flight en route.

60.470 Weather changes. If weather conditions below the minimums prescribed in § 60.44 are anticipated or are actually encountered en route, a landing shall be made at the nearest airport at which weather conditions are equal to or better than those prescribed in § 60.44, or the flight shall be altered so that it may be made in weather conditions as good as, or better than, such minimums, unless such flight can and does proceed in accordance with the instrument flight rules prescribed in § 60.5.

60.471 Contact flight on civil airways. Aircraft flying under contact flight rules along or across a civil airway during the night, except for necessary ascent and descent, shall maintain flight altitudes as described in § 60.58; and a flight plan in accordance with § 60.1330 shall be filed for any such flights which are to lie within or pass through airway traffic control areas. Aircraft flying under contact flight rules along or across a civil airway during the day, except for necessary ascent or descent, shall maintain flight altitudes as described in § 60.58 as nearly as existing conditions permit.

60.5 Flight rules (instrument). In addition to general or special air traffic rules which apply, the following rules shall govern instrument flight, flight in closer proximity to cloud formation than the distances prescribed in § 60.44, and flight in weather conditions worse than those described in § 60.44, within or approaching the limits of a civil airway or elsewhere in interstate, overseas, or foreign air commerce.

NOTE: The rules prescribed under § 60.5 will apply to scheduled air carrier operations unless otherwise specifically indicated.

60.50 Pilot. No flight shall be made in civil aircraft unless the pilot in charge

(*a*) holds a valid instrument rating; or

(*b*) holds a valid airline transport pilot certificate; or

(*c*) holds a valid commercial lighter-than-air pilot certificate; or

(*d*) is an active member of the regular Army, Navy, Marine Corps, or Coast Guard, or a reserve member of any such service on extended active duty for at least 1 year, and who holds at least a private pilot certificate issued by the Administrator and a military instrument flying rating, or equivalent, issued by his service.

60.51 Equipment. Aircraft shall be properly certificated as to equipment according to the provisions of §§ 04.513, 04.514, and 04.515. (Scheduled air carrier aircraft shall be certificated as provided in §§ 04.532, 04.533, and 04.534.)

60.52 Fuel requirements. No aircraft shall take off without fuel and oil sufficient, considering the wind and other weather conditions forecast for the flight, at least

(*a*) to complete such flight to the point of the first intended landing, and thereafter

(*b*) to fly to and land at the alternate airport designated in the approved flight plan, and thereafter

(*c*) to fly, at normal cruising consumption, for a periof of 45 minutes. (For scheduled air carrier operations, see § 61.7021.)

60.53 Flight plan. Prior to take-off from any point within an airway traffic control area and prior to entering such an area, an approved flight plan as prescribed in § 60.134 is required. No flight plan shall be submitted until after the pilot has made a careful study of available current weather reports and forecasts and believes the flight can be made with safety.

NOTE: For a list of airway traffic control areas, see *Air Navigation Radio Aids* published periodically by the Administrator.

60.530 Traffic control instructions.

(*a*) *En route.* No person shall operate an aircraft en route contrary to traffic control instructions issued by an airway traffic control center of the Administrator.

(*b*) *Approach.* No person shall operate an aircraft during an approach for landing at a control airport contrary to traffic control instructions issued by a certificated air-traffic control-tower operator of the Administrator on duty at such airport.

60.532 Notification of arrival. If the pilot of an aircraft has submitted, or authorized the submission of, a flight plan for transmission to destination as provided for in § 60.53, he shall, immediately upon landing or upon completion of the flight, file an arrival message for transmission to the point of departure.

60.54 Weather minimums. The following weather minimums shall govern landings and take-offs made in accordance with instrument flight rules: *Provided, however*, That, in the interest of safety, the Administrator may require higher minimums at any airport: *And provided further*, That such minimums, if for a control airport, shall govern the control zone in which such airport lies.

60.540 Airports within control zones. No flight, other than by a public aircraft or by a scheduled air carrier aircraft from or to a regular terminal or scheduled intermediate stop on the regular route, shall be made to or from a control airport nor to or from any other airport within a control zone, when the ceiling is less than 500 feet or the visibility is less than 1 mile: *Provided, however*, That if the control airport is equipped with a radio directional aid to air navigation designed to direct aircraft to that airport by the aid of instruments, a certificated air-traffic control-tower operator on duty in a radio-equipped airport control tower in operation at such airport may authorize departure from such control airport when the ceiling is not less than 300 feet and the visibility is not less than one-half mile. (For scheduled air carrier operation at terminals and scheduled intermediate stops, see §§ 40.290, 40.390, 61.7109, and 61.730.)

60.541 Airports outside a control zone. No flight, other than by a public aircraft or by a scheduled air carrier aircraft, shall be made to or from an airport outside of a control zone when the ceiling is less than 500 feet or the visibility is less than 1 mile. (For scheduled air carrier operation, see §§ 40.290, 40.390, 61.7109, and 61.730.)

60.55 Alternate airport. No take-off of aircraft shall be made unless:

(*a*) the flight plan as submitted includes an alternate airport having a landing area suitable for the equipment to be used, and

(*b*) weather reports and forecasts indicate that the weather conditions at the alternate airport will remain at or above the minimums specified in (*c*) or (*d*) below until the arrival of the aircraft thereat, and

(*c*) if the alternate airport is equipped with a radio directional aid to air navigation in operation and there is at such alternate airport a ceiling of at least 2,000 feet and a visibility of at least 3 miles if an overcast exists, or a ceiling of at least 1,500 feet and a visibility of at least 3 miles if broken clouds exist, or

(*d*) if the alternate airport is not equipped with a radio directional aid to air navigation, there is at such alternate airport an unlimited ceiling and a visibility of at least 3 miles. (For scheduled air carrier operation see §§ 61.23 and 61.7109.)

60.56 Over-the-top flight. Over-the-top flight shall be governed by instrument flight rules whenever the attitude of the aircraft and its flight path cannot be controlled at all times by visual reference to the ground or water.

60.57 Flight en route.

60.570 Weather changes. If weather reports available to the pilot en route indicate that the weather conditions will be below the minimums allowing operation into the airport of destination at the expected time of arrival, the pilot shall not attempt a landing at the airport of destination but shall either proceed to the appropriate alternate airport as provided for in § 60.55, or proceed to an airport where weather conditions are at such time equal to or better than the weather minimums described in § 60.54. (For scheduled air carrier operation, see § 61.7106.)

60.571 Communications contacts. The pilot shall maintain a continuous listening watch on the appropriate radio frequency and shall, by radio, contact and report as soon as possible to the appropriate communication station the time and altitude of passing each radio fix or other check point designated by the Administrator or specified in the flight plan together with unanticipated weather conditions being encountered and any other information pertinent to the aircraft movement.

60.5710 Aircraft utilizing air carrier communication facilities shall transmit information as required in this paragraph through such facilities, or such information may be transmitted directly by radio, to the appropriate agency of the Administrator.

NOTE: For further information concerning aids to air navigation, see *Air Navigation Radio Aids*, published periodically by the Administrator of Civil Aeronautics.

60.572 Communications failure. In the event of the electrical or the mechanical failure of aircraft two-way communication equipment or in the event that the pilot does not receive radio signals sufficient to permit him to maintain instrument navigation, one of the following procedures shall be observed:

60.5720 (*a*) **Continue flight in accordance with contact flight rules.** The pilot may proceed provided that the flight may be made in accordance with contact flight rules as provided for in § 60.4.

60.5721 (*b*) **Effect a landing.** The pilot may effect a landing at the nearest suitable airport at which favorable weather conditions exist.

60.5722 (*c*) **Continue flight in accordance with flight plan.** In the event weather conditions do not permit the procedures provided for in §§ 60.5720 or 60.5721, the pilot may, when sufficient radio signals are received, proceed according to his flight plan, including any amending instructions issued and acknowledged en route, with particular attention to maintaining his last acknowledged assigned altitude until the approach time last authorized for, and acknowledged by, the pilot of such aircraft, after which landing may be made.

NOTE: Normal traffic will resume as soon as the aircraft has landed or been accounted for, but in any event in not more than 30 minutes after the approach time last authorized for the aircraft and acknowledged by the pilot of such aircraft.

60.573 Flight plan changes. No change shall be made en route in any approved flight plan until approval has first been obtained from the airway traffic control center of the Administrator for the area in which the flight is progressing, unless an emergency situation arises which requires immediate decision and action, in which case, as soon as possible after such emergency authority is exercised, the pilot shall inform the proper control center of the new flight plan and obtain approval therefor.

60.58 Flight altitudes. Unless different altitudes are assigned by an airway traffic control center of the Administrator, the following flight altitudes shall govern flights made in accordance with instrument flight rules. (See § 60.3504.)

60.580 Flight altitudes along green or red civil airways. The following rules will govern the altitude at which aircraft shall fly when making flights along green or red civil airways:

60.5800 Eastbound flights. Aircraft making good a true course of from 0° (or 360°) to, but not including, 180° shall fly at an odd thousand-foot level above sea level (such as 3,000, 5,000, or 7,000 feet).

60.5801 Westbound flights. Aircraft making good a true course of from 180° to, but not including, 360° or (0°) shall fly at an even thousand-foot level above sea level (such as 2,000, 4,000, or 6,000 feet).

60.581 Flight altitudes along blue or amber civil airways. The following rules will govern the altitude at which aircraft shall fly when making flights along blue or amber civil airways:

60.5810 Northbound flights. Aircraft making good a true course of from 270° to, but not including, 90° shall fly at an odd thousand-foot level above sea level (such as 3,000, 5,000, or 7,000 feet).

60.5811 Southbound flights. Aircraft making good a true course of from 90° to, but not including, 270° shall fly at an even thousand-foot level above seal level (such as 2,000, 4,000, or 6,000 feet).

60.586 Crossing a civil airway. Unless otherwise instructed by an airway traffic control center of the Administrator, a civil airway shall not be crossed at an angle of less than 45° to such airway.

60.59 Approach and departure procedures. (To be issued.)

60.6 Light and signal rules.

60.60 Aircraft on the ground. Between sunset and sunrise all aircraft parked or moved within, or in dangerous proximity to, the usable portion of all landing areas used for, or available to, night flight operations shall be clearly illuminated or lighted, or the area marked with obstruction lights.

60.61 Airplane lights. Between sunset and sunrise, all airplanes in flight shall show position lights certificated, and installed in accordance with the applicable provisions of Parts 15 and 04.

60.62 Airship lights. Between sunset and sunrise, airships shall carry and display the same lights prescribed for non-air carrier airplanes, except that the side lights shall be doubled horizontally in a fore and aft position and the rear light shall be doubled vertically. Lights in a pair shall be at least 7 feet apart.

60.63 Balloon lights. Between sunset and sunrise, a free balloon shall display one steady white light and one flashing red light, both lights to be visible all around the horizon at a distance of at least 2 miles under clear atmospheric conditions. The white light shall be located not less than 20 feet below the car and the red light shall be located not less than 7, nor more than 10, feet below the white light. Between sunset and sunrise, a fixed balloon, or airship, shall carry 3 lights—red, white, and red—in a vertical line, one over the other, visible at least 2 miles under clear atmospheric conditions. The top light shall not be less than 20 feet below the car, and the lights shall be not less than 7, nor more than 10, feet apart.

60.64 Lights on stationary aircraft. Between sunset and sunrise, all airplanes which are on the surface of water and not under way, or which are moored or anchored in navigation lanes, shall show in all directions an anchor light in accordance with the applicable provisions of Part 04. Between sunset and sunrise, balloon and airship mooring cables shall show groups of 3 red lights at intervals of at least every 100 feet, measured from the car. The first light in the first group shall be approximately 20 feet from the lower red balloon light. The object to which the balloon is moored on the ground shall have an adequate group of lights to mark its position.

60.65 Signals on stationary aircraft. By day, balloon and airship mooring cables shall be marked with chrome yellow-colored conical streamers not less than 10 inches in diameter at the mouth and 7 feet long. The object to which the balloon or airship is moored on the ground shall have the same kind of streamers, which must be in the same position as the lights specified in § 60.64.

60.66 Distress signals. The following signals, separately or together, shall, where practicable, be used in case of distress:

60.660 (*a*) The international signal, S O S by radio: In radiotelephony, the spoken expression MAYDAY (corresponding to the French pronunciation of the expression "m'aider"). When, owing to the rapidity of the maneuvers to be accomplished, an aircraft is unable to transmit the intended message, the signal P A N not followed by a message retains such meaning.

60.661 (*b*) The international code flag signal of distress, NC.

60.662 (*c*) A square flag having either above or below it a ball, or anything resembling a ball.

60.67 Forced landing signals. When an aircraft is forced to land at night at an airport, it shall signal its forced landing by making a series of short flashes with its navigation lights, if practicable to do so.

60.68 Fog signals. In fog, mist, or heavy weather, an aircraft on the water in navigation lanes shall signal its presence by a sound device emitting a signal for about 5 seconds at one-minute intervals.

60.7 Acrobatic flight rules..

60.70 Prohibited zones. No person shall acrobatically fly an aircraft:

60.700 (*a*) at any height whatsoever over a congested area of any city, town, or settlement, or over any open-air assembly of persons, or over any airport or landing area or within 1,000 feet horizontally thereof, or within the limits of a civil airway except within that portion lying adjacent to, but outside of, a range approach channel;

60.701 (*b*) at any height less than 1,500 feet over any place over which flight is not otherwise restricted;

60.702 (*c*) at any place unless the visibility is at least 3 miles and the ceiling at least 3,000 feet, and unless the pilot has first ascertained that there is no danger of collision with other aircraft.

60.71 Acrobatics while carrying persons. No person shall acrobatically fly an aircraft while carrying any other person or persons for hire: *Provided, however,* That this provision shall not apply to the giving of instruction in acrobatic flying to a person receiving dual instruction.

60.72 Equipment for acrobatics. Each person in an aircraft flown acrobatically shall be properly equipped with a parachute manufactured under a valid type certificate and maintained in accordance with the provisions of the Civil Air Regulations.

60.73 Parachute jump. No person shall make any exhibition, test, training, or demonstration parachute jump, unless wearing a certificated and properly maintained auxiliary parachute so arranged that it can be operated if the first parachute should fail to function or become fouled. Whenever an auxiliary parachute is required, it shall consist of a single-harness pack.

60.730 Altitude before jump. No person shall make any exhibition, training, or demonstration parachute jump from an altitude of less than 2,000 feet above the surface of the ground or water.

60.731 Delayed jump. No person shall delay opening his parachute more than is necessary to properly and safely clear the aircraft, which in no case, except in an emergency jump, shall be less than 1,500 feet above the surface of the ground.

60.732 Jump in high wind. No person shall make any exhibition, test, training, or demonstration parachute jump from any aircraft when the surface wind is more than 15 miles per hour.

60.733 Jump near open water. No person shall make any exhibition, test, training, or demonstration parachute jump from any aircraft within 2 miles horizontally from any body of water, unless the jumper wears a flotation device approved by the Administrator and unless motor-powered marine rescue equipment is available.

NOTE: §§ 60.71, 60.72, and 60.73 do not apply to military personnel when flying, or flying in military aircraft.

60.734 Permit for jump. No pilot or person in command of civil aircraft in flight shall permit any parachute jump from such aircraft other than a jump made to abandon the aircraft in distress, unless prior thereto the person making such jump shall have obtained from the Administrator a permit which prescribes the equipment and conditions therefor, and the pilot or person in command of the aircraft shall have examined such permit. This provision is a war emergency regulation and shall terminate at the end of the war.

60.8 Air meet rules.

60.80 Classification. Air meets will be classified as follows:

60.800 Class 1 air meets. Meaning those meets which will receive wide publicity, large crowds, and large numbers of visiting aircraft, and in which any one or all of the following events are included:

60.8000 (*a*) Races in which "NC," "NR," or "NX" aircraft are permitted to enter.

60.8001 (*b*) Acrobatic flights over the airport at or below 1,500 feet.

60.8002 (*c*) Formation flying over the airport at or below 1,500 feet.

60.8003 (*d*) So called "crazy flying" over the airport.

60.8004 (*e*) Parachute jumping for a spot.

60.801 Class 2 air meets. Meaning those meets which are locally sponsored amateur meets and which may combine passenger-carrying activities with one or more of the following events:

60.8010 (*a*) Races for "NC" aircraft.

60.8011 (*b*) Simulated bomb dropping contests.

60.8012 (*c*) Acrobatic flights over the airport above 1,500 feet.

60.8013 (*d*) Formation flights over the airport above 1,500 feet.

60.8014 (*e*) Paper-cutting over the airport above 1,500 feet.

60.8015 (*f*) Balloon-bursting over the airport above 1,500 feet.

60.8016 (*g*) Spot landing contests (switches not cut).

60.8017 (*h*) Parachute jumping (not for spot).

60.81 Certificate of waiver required. No air meet shall be held or conducted, or authorized to be held or conducted, on a civil airway or elsewhere within the United States where the operation or navigation of aircraft engaged in such air meet directly affects or may endanger safety in interstate, overseas, or foreign air commerce, unless a certificate of waiver covering the activities of such meet is issued by the Administrator.

NOTE: Application for a certificate of waiver for an air meet should be made in accordance with § 60.91 at least 15 days prior to the proposed air meet in the case of a class 1 air meet and at least 5 days prior to the proposed air meet in the case of a class 2 air meet.

60.89 Air meet rules. The following rules shall apply to, and govern the conduct of, all Class 1 and Class 2 air meets for which a permit may be issued by the Administrator:

60.8900 (*a*) No person shall be permitted to take part in any air meet until he has furnished the air meet officials a signed statement to the effect that he has read the rules and regulations governing such meets, and which obligates him to abide by all local and Civil Aeronautics Board rules and regulations and orders.

60.8901 (*b*) No person shall be permitted on the operations area of an airport or flying field during any air meet held thereon, except the operating personnel, contestants, and their crews, police, State, and Federal aeronautics officials and inspectors, and authorized press, radio, and photographer personnel.

60.8902 (*c*) A white dead line paralleling the area reserved for spectators and at least 200 feet in front of such area shall be provided by the air meet officials and the crossing by any aircraft of this dead line in the direction of the spectators will result in the suspension of the certificate of the operator of such aircraft.

60.8903 (*d*) The air meet management shall be held responsible for the proper policing of the air meet area within the airport and for other suitable provisions to insure that all spectators and unauthorized persons are kept off prohibited areas.

60.8904 (*e*) No air meet event shall be conducted unless the operations area of the airport or flying field is clear, the operating personnel are present, sufficient police or guards are on duty and at their posts, no other air operations are going on, and scheduled air carrier aircraft are not flying in the vicinity.

60.8905 (*f*) Participants in racing events shall not come in closer proximity to other participating aircraft than 50 feet, and a participant must be not less than 150 feet in the lead before cutting into the same lane of plane or planes just passed.

60.8906 (*g*) No aircraft shall be flown toward, over, nor within 200 feet horizontally of the grandstand or spectators.

60.8907 (*h*) No aircraft performing acrobatics shall be flown toward or over the grandstands or spectators nor within 500 feet thereof.

60.8908 (*i*) No object shall be dropped or released from aircraft in connection with an air meet which will fall over, toward, nor within 500 feet of the grandstands or spectators.

60.8909 (*j*) Race-horse starts shall be prohibited except when such starts provide for minimum spacing from wing tip to wing tip of at least 100 feet between participating aircraft and then only in case the take-off area is suitable for such starts and a scattering pylon is used for the first pylon, which scattering pylon must be located beyond the boundaries of the airport at least a sufficient distance to permit all aircraft participating to attain their normal speed

before reaching it. For races in which aircraft capable of 200 miles per hour or over participate, this pylon and race-course pylons shall be so located that no continuous turn of over 100 degrees is required.

60.8910 (*k*) The home pylon shall be located at least 800 feet from the grandstands or spectators, and racing aircraft shall not be flown toward, over, or within a minimum distance of 500 feet horizontally of the grandstands or spectators. The home stretches of all race courses shall be parallel to the grandstands and other sections provided for spectators.

60.8911 (*l*) For purposes of controlling traffic at, and in the vicinity of, an airport or other landing area used for an air meet, signals shall be located either near the announcer's stand or near the home pylon and shall consist either of a large white letter "O" indicating open, and a large white letter "X" indicating closed, or by the words spelled in large white letters on the ground, "OPEN" or "CLOSED" as the case may be. Such signals shall be so constructed as to be easily legible from 2,000 feet altitude and these signals shall be properly operated during the period of the air meet to indicate whether the airport is open for landing to nonparticipants in the meet, or whether it is closed. For the safety and convenience of nonparticipating aircraft, the airport or landing area shall be declared open for landing and take-off purposes for a period of 5 minutes at not more than 30-minute intervals during the air meet.

60.8912 (*m*) A physician and ambulance and a fully equipped emergency truck shall be available at the air meet for emergency use. This provision is mandatory for Class 1 air meets only.

60.9 Miscellaneous air traffic rules.

60.90 Nonapplication of air traffic rules. The air traffic rules, or any particular air traffic rule, shall not apply in the following cases:

60.900 (*a*) When special circumstances render nonobservance necessary to avoid immediate danger, or when such nonobservance is required because of stress of weather conditions which could not reasonably have been foreseen, or other unavoidable causes. Such nonobservance shall be reported within 24 hours in full detail by letter to the Administrator, including the emergency making such nonobservance necessary, the results accomplished by nonobservance, and when regular observance was resumed after the emergency had passed. In such case of nonobservance if, after investigation by the Administrator, nonobservance is deemed to have been necessary in the interests of safety, no infraction of these rules will have been incurred.

60.91 Certificate of waiver. When in the opinion of the Administrator (a) the public interest will be best served by the nonobservance of any part of the air traffic rules for a particular activity and for a limited period of time and (b) such nonobservance will not adversely affect safety in air commerce, a certificate of waiver may be issued by the Administrator.

60.910 Application. Application for a certificate of waiver shall be made upon the applicable form prescribed and furnished by the Administrator.

60.911 Duration. The duration of a certificate of waiver shall be limited to the period prescribed on such certificate, except that it shall immediately expire at any time an authorized inspector of the Administrator shall demand the surrender of such certificate after inspection or examination.

60.912 Surrender. Upon the suspension, revocation, or expiration of a certificate of waiver, the holder thereof shall, upon request, surrender such certificate to any officer or employee of the Administrator.

60.92 Aircraft on water. Seaplanes on the water shall navigate according to the laws and regulations of the United States governing the navigation and operation of watercraft, except as otherwise provided in these regulations.

60.93 Aircraft model flying activities, supervision of. No model aircraft shall be flown from, or over, any airport or landing field unless permission therefor, in writing, has been secured from the airport manager or his duly authorized representative. The airport manager shall designate the portion of the field to be used and shall take all necessary precautions to assure the safety of the public on the ground and of aircraft in the air. Rules governing the conduct of such activity shall be drawn and shall include:

60.930 (*a*) the definite boundaries of the area to be utilized;

60.931 (*b*) the periods of suspensions of activity before, during, and after any scheduled or other aircraft operations;

60.932 (*c*) the limitation of duration of flight of the models;

60.933 (*d*) procedure for the retrieving of models;

60.934 (*e*) notification, by the airport manager to all model operators so engaged, of the rules as drawn.

60.94 Foreign flight authorization. No person shall operate or attempt to operate any civil aircraft of the United States from any State, Territory, or possession of the United States or the District of Columbia to or over any foreign country, over the high seas, or within or away from any foreign country, unless a Foreign Flight Authorization for such operation has been issued by the Administrator prior to each such operation or attempt to operate; nor shall such operation be conducted otherwise than in accordance with the terms, conditions, and limitations prescribed and set forth in such Authorization: *Provided*, That no Authorization is required for the operation of civil aircraft in overseas or foreign air transportation conducted pursuant to the terms of an Air Carrier Operating Certificate issued by the Administrator, nor for the operation of civil aircraft within any of the following areas:

(*a*) those portions of the Dominion of Canada which lie within 250 miles of the territorial limits of the United States, provided that such aircraft are operated by and carry only United State or Canadian citizens or both;

(*b*) (Repealed.)

(*c*) (Repealed.)

(*d*) that portion of the high seas or international waters which lie within 100 miles of the territorial limits of the United States.

60.940 General requirements. No Foreign Flight Authorization will be issued unless the Administrator, or his representative, shall determine that:

(*a*) the aircraft and aircraft equipment to be used for the proposed flight are adequate to insure the safe operation of such flight;

(*b*) the airmen and other personnel are qualified for the type of flight contemplated;

(*c*) the foreign countries through which the flight will proceed do not prohibit the entry of the passengers and goods to be carried;

(*d*) the purpose of the flight is lawful and consistent with the policies of the United States Government;

(*e*) each foreign country through which the flight will proceed has or will accord permission to operate the aircraft therein;

NOTE: After receipt by the Administrator of application for foreign flight, the Administrator will, if he perceives no objection, request the Secretary of State to obtain permission through the usual diplomatic channels from each of the foreign governments which requires special permission for flight by United States registered aircraft therein, except in respect to countries from which the pilot is permitted to obtain his own permit directly.

(*f*) the airman who will be in command of the aircraft is familiar with all applicable provisions of International Conventions and Arrangements, and of the laws and regulations of the foreign countries through which the proposed flight will take place.

NOTE: Copies of such conventions and arrangements may be obtained from the Superintendent of Documents, Government Printing Office Washington, D. C., for five cents per copy. Information concerning air traffic rules, prohibited articles, prohibited areas, ports of entry, customs and public health matters, etc., may be obtained from the Administrator of Civil Aeronautics, or from the Department of State, or from the respective foreign consulates.

60.941 Application. Application for a Foreign Flight Authorization shall be made in duplicate upon the applicable form prescribed and furnished by the Administrator.

NOTE: Applicant is advised to file application as far in advance as possible of the date of contemplated departure from the United States. Three weeks to two months are required to secure permission from certain foreign countries which require special permission for flight of United States registered aircraft therein, and generally the more extensive the proposed flight and the greater the number of countries through which the flight is to proceed, the more time is required to secure permissions from each foreign country. Applications involving unusual circumstances, such as long-distance over-water flights, should be made several months before the contemplated departure.

60.942 Display. The Foreign Flight Authorization shall be kept in the personal possession of the pilot in command at all times during operation pursuant to the Authorization, and shall be presented for inspection upon the request of any authorized representative of the Administrator, or when the aircraft is within any foreign country, upon the request of any authorized representative of such government or political subdivision thereof.

60.943. Duration. The duration of a Foreign Flight Authorization shall be limited to the period prescribed on such Authorization.

60.944 Surrender. Upon a suspension, revocation, or expiration of a Foreign Flight Authorization, the holder of such Authorization shall, upon request, surrender such Authorization to any officer or employee of the Administrator.

60.95 Emergency regulations.

60.950 Definitions. (a) As used in this section (60.95), the term "aircraft" means all aircraft other than those operated by scheduled air carriers while on their certificated routes, the United States Army or Navy, the Civil Aeronautics Administration, or the Civil Aeronautics Board.

(*b*) A "designated landing area" is a landing area designated by the Administrator for the landing and take-off of aircraft during the period of national emergency.

(*c*) A "local flying area" is an area adjacent to a designated landing area, including any channel leading thereto, which has been set aside by the Administrator, or his authorized representative, for local flying and a "local flight" is a flight wholly within such area.

(*d*) A "vital defense area" is an area set aside by the Secretary of War, or the Administrator upon the request or approval of the Secretary of War, within which the operation of aircraft is prohibited or is authorized only subject to prescribed conditions.

(*e*) A "zone of military operations" is an area designated as such by the Secretary of War, or the Administrator upon the request or with the approval of the Secretary of War.

60.951 Flight rules. (*a*) Except upon the prior approval of the Administrator, or his authorized representative, no person shall take off any aircraft from, or land any aircraft on, a place other than a designated landing area. If an emergency landing is made at other than a designated area the pilot shall make a report to the Administrator or his designee at the landing area of departure or arrival as soon as possible setting forth the reasons therefor.

(*b*) No person shall pilot an aircraft into or within a vital defense area or zone of military operations unless specific authority for the proposed flight has been issued by the agency having jurisdiction over the particular area or zone.

(*c*) No person shall leave an aircraft unattended under circumstances which would permit its operation by an unauthorized person without rendering the aircraft incapable of operation in a manner consistent with any instructions issued by the Administrator for this purpose.

60.953 Landing area rules. (*a*) The operator of a desginated landing area shall provide means by which all available current flight information bearing upon flights from the landing area may be secured by persons operating aircraft on the landing area.

(*b*) The operator of a designated landing area shall maintain adequate records which shall include the identification mark, make and model of the aircraft, pilot's name and certificate number, time of arrival, number of passengers, time of departure, point of destination, and other such information as may be required by the Administrator. Any authorized representative of the Army, Navy, Civil Aeronautics Administration, or Civil Aeronautics Board shall be permitted to inspect the landing area and have access to all records, buildings, and equipment.

(*c*) The Administrator may, at any time, cancel the designation of a landing area if he deems such action necessary to the public safety or in the interest of national defense.

60.96 Weather information. Air carriers and their employees, except pilots while in scheduled flight within the continental limits of the United States, shall make available to the United States Weather Bureau and to the Administrator such weather information and data in their possession as the Administrator may direct, to be submitted in the form and manner prescribed by the Administrator.

60.97 Transportation of explosives and other dangerous articles. The following regulations shall govern the carriage of explosives and other dangerous articles in civil aircraft.

60.970 Definition of terms. As used in this section (60.97), the following terms shall have the following meanings:

(*a*) "Interstate Commerce Commission Regulations" shall mean the Interstate Commerce Commission's "Regulations for Transportation of Explosives and Other Dangerous Articles by Land and Water in Rail Freight, Express, and Baggage Services, and by Motor Vehicle (Highway), and Water", effective January 7, 1941.

(*b*) The terms "explosives" and "other dangerous articles" shall mean any article or substance classed as "Class A Explosives," "Class B Explosives," "Class C Explosives," "Inflammable Liquid," "Inflammable Solid," "Oxidizing Material," "Corrosive Liquid," "Noninflammable Compressed Gas," "Inflammable Compressed Gas," "Poison Gas or Liquid, Class A," "Poisonous Liquid or Solid, Class B," or "Tear Gas, Class C," in Part 2 of the Interstate Commerce Commission Regulations.

60.971 Prohibited articles. No person shall operate a civil aircraft in flight carrying any article designated as a "forbidden explosive" in part 4, § 503, or as an explosive "not accepted" in part 5, § 653, or as an article "not accepted" in part 5, § 672 of the Interstate Commerce Commission Regulations or any other explosive and/or other dangerous article not designated in § 60.973.

60.972 Certificate of waiver. The Administrator may authorize the carriage of any of the articles prohibited by § 60.971 by issuing a waiver for such carriage: *Provided*, That no waiver shall be issued for the carriage of such articles by any aircraft carrying passengers for hire.

60.973 Acceptable explosives and other dangerous articles. Civil aircraft may be operated in flight carrying articles designated as "acceptable explosives" in part 5, § 654 or as "acceptable articles" in part 6, § 703 of the Interstate Commerce Commission Regulations.

60.974 Packing and shipping precautions. No person shall operate a civil aircraft in flight carrying explosives or other dangerous articles which are permitted by this section (60.97) unless:

(*a*) Such explosives and other dangerous articles have been appropriately packed and marked in accordance with the Interstate Commerce Commission Regulations;

(*b*) Such explosives and other dangerous articles have been placed in a baggage compartment inacessible to passengers during flight; and

(*c*) Such explosives, other dangerous articles, and other cargo carried in the same compartment have been firmly lashed to the aircraft structure or otherwise secured in such manner as to prevent shifting in flight.

60.9740 Safety equipment and small arms ammunition. Signaling devices and equipment necessary to promote safety in operation and small arms ammunition in moderate quantities for personal use may be carried without complying with the provisions of section 60.974.

60.975 Shipper's certificate. The operator of a scheduled air carrier aircraft may rely on a certificate signed by an authorized agent of the shipper that a given shipment meets the requirements set forth in § 60.973.

INDEX

Acrobatic flight rules 60.152, 60.7
Air meet restrictions 60.8907(h)
Ceiling restrictions 60.702 (c)
Equipment requirements 60.72
Parachute jump 60.73
altitude 60.730
delayed jump 60.731
emergency jump 60.731
in high wind 60.732
near open water 60.733
Prohibited zones 60.70
Visibility restrictions 60.702 (c)
While carrying persons 60.71
Aircraft identification mark 60.32
Aircraft model flying activities 60.93
Air meet rules 60.8
Landing 60.332
Airspace restrictions 60.348
Air traffic control procedures and phraseologies 60.38
Air traffic rules 60.9
Airport control tower 60.123
Airway, Civil, definition 60.102
Airway communications station 60.122
Airway traffic control area 60.23
Airway traffic control center 60.120
Airworthiness certificate 60.31
Aliens
Pilot certificate requirements 60.30
Alternate airports 60.111, 60.55
Contact flight 60.45
Instrument flight 60.55
ceiling and visibility requirements 60.55
to be listed in flight plan 60.133 (k)
Use of, when weather changes 60.570
Altitude of aircraft
Above 17,000 feet prohibited, exceptions 60.351
Cruising 60.135
Landing 60.341
Altitudes required in flight (contact) 60.35
Maximum safe altitudes 60.351
Administrator may alter rule 60.351
Minimum safe altitudes 60.350
flight instruction and flight tests 60.3505
over congested areas 60.3500
over ground or water and obstructions 60.3503
over penal institutions 60.3502
public aircraft 60.3503
seaplanes and amphibians 60.3503
Altitudes required in flight (instrument) 60.58
Above ground or obstructions 60.3504
Blue or amber civil airways 60.581
Crossing airways 60.586
Green or red civil airways 60.580
Baggage 60.349
Cameras 60.349
Pilots' duty to search 60.349
Blocks, parking 60.331
Brakes 60.331
Cameras, disposition of 60.349
Ceiling defined 60.140
Unlimited 60.141
Ceiling requirements
Contact flight 60.44
Instrument flight 60.54
alternate airports 60.55
Civil airway, definition 60.102
Cloud formation, proximity to 60.442
Communications contacts 60.571
Communications failure 60.572
Contact flight 60.130, 60.4
Ceilings 60.440
outside control zone 60.441
within control zone 60.440
Civil airways 60.471
Cloud formations, proximity to 60.442
Flight plan 60.43, 60.471
notification of arrival 60.430
Fuel requirements 60.42
Over-the-top flight, restrictions 60.46
Pilot instrument rating not required 60.40
Visibility requirements:
outside control zone 60.441
within control zone 60.440
Weather changes 60.470
Control airport 60.2
Control procedures and phraseologies 60.38
Control tower operator
Authorization for flight 60.540
Suspension of flight 60.440
Control zone 60.103
Crop dusting 60.970
Darkness, hours of 60.143
Daylight, hours of 60.142
Definitions 60.1
Acrobatics (acrobatic flight) 60.152
Aircraft (other than scheduled air carrier operations) 60.950 (a)
Airport traffic control tower 60.123
Airway communications station 60.122
Airway traffic control area 60.121
Airway traffic control center 60.120
Alternate airport 60.111
Approved flight plan 60.134
Ceiling 60.140
unlimited 60.141
Check point 60.113
Contact flight 60.130
Control zone 60.103

Definitions—Continued.
Cruising altitude 60.135
Darkness, hours of 60.143
Daylight, hours of 60.142
Designated landing area ..... 60.950 (b)
Explosives 60.970
Flight plan 60.133, 60.134
Instrument flight 60.131
Local flying area ..... 60.950 (c)
Military aircraft 60.150
Over-the-top flight 60.132
Public aircraft 60.151
Radio fix 60.112
Radio range station 60.114
Range approach channel 60.115
Traffic control instructions, part of flight plan 60.1340
Visibility 60.144
Vital defense area ..... 60.950 (d)
Weather minimums 60.145
Zone of military operations ..... 60.950 (e)
Dropping objects 60.347
Emergency regulations 60.95
Definitions 60.950
aircraft (other than scheduled air carrier operations) ..... 60.950 (a)
designated landing area ..... 60.950 (b)
local flying area ..... 60.950 (c)
vital defense area ..... 60.950 (d)
zone of military operations ..... 60.950 (e)
Designated landing area cancellation ..... 60.953 (c)
Flight rules 60.951
aircraft, unattended ..... 60.951 (c)
designated landing areas, take-off from ..... 60.951 (a)
flight restrictions 60.391
flight within defense areas and zones of military operations ..... 60.951 (b)
Landing area rules 60.953
Take-off from nondesignated area prohibited ..... 60.951 (a)
Engines attended when running 60.331
Equipment requirements 60.41
Instrument flight 60.51
Explosives, transportation of 60.97
Acceptable explosives and other dangerous articles 60.973
Certificate of waiver 60.972
Definition of terms 60.970
Packing and shipping precautions 60.974
Prohibited articles 60.971
Shipper's certificate 60.975
Flares, landing, when required 60, 37
Flight plan 60.133, 60.134, 60.43, 60.53
Contents 60.133
Instrument flight 60.53
alternate airports 60.55
changes 60.573
Notification of arrival 60.430, 60.532
Traffic-control instructions, a part of 60.1340, 60.530
When entering traffic control areas 60.471

Flight rules
Contact—*See* "Contact flight."
Emergency regulations 60.95
General:
aircraft certificate 60.31
airspace restrictions 60.348
air traffic control procedures and phraseologies 60.38
airworthiness certificate required 60.31
baggage restrictions 60.349
collision precaution 60.3300
congestion of aircraft, procedure when 60.332
dropping objects 60.347
engines attended when running 60.331
en route 60.34, 60.47, 60.57
identification marks on aircraft 60.32
gliders 60.320
lettering, size 60.321
location 60.320
landing flares 60.37
liquor, narcotics, and drugs 60.345
local flying areas, flight restrictions 60.391
see "Emergency regulations" 60.95
military aircraft 60.3510
clearance by traffic control center 60.3510
flight altitudes, rules above 17,000 feet 60.3511
insignia 60.322
light requirements 60.3511
radio equipment 60.3510
minimum and maximum safe altitudes 60.35
see "Altitudes required in flight (Contact)" 60.35
see "Altitudes required in flight (Instrument)" 60.58
parachutes:
jump 60.73
altitude 60.730
delayed 60.731
in high wind 60.732
near open water 60.733
packing of 60.36
to be carried during acrobatics 60.72
pilot certificates 60.30
proximity in flight 60.343
range approach channel 60.115, 60.39
right-of-way rules 60.340
airport traffic pattern 60.344
approaching head-on ..... 60.3402(c)
crossing courses ..... 60.3401(b)
distress landing ..... 60.3405(f)
duty to give way 60.341
landing ..... 60.3404(e)
order ..... 60.3400(a)
overtaking ..... 60.3403(d)
proximity in flight 60.343
right-side traffic 60.342
take-off and landing procedure 60.330
air meet landing 60.332
approach course to airport 60.3302

Flight rules—Continued.
General—Continued.
take-off and landing procedure—Continued.
approaching congested areas 60.332
circle rule 60.3301
control airport, precedence of departing and arriving aircraft 60.3304
take-off from nondesignated area, prohibited 60.951(a)
towing by aircraft 60.346
Instrument—*See* "Instrument flight."
Traffic pattern for airports 60.344
Right-of-way in flight 60.340
Flight zones may be designated for specific purpose within local flying area 60.391
Foreign flight authorization 60.94
Fuel requirements 60.42, 60.52
Identification marks, aircraft 60.32
Delivery to foreign purchaser 60.32(e)
Gliders 60.320
Lettering, size 60.321
Location 60.320
Insignia, Military 60.322
Instrument flight 60.131, 60.5
Aircraft equipment requirements 60.51
Alternate airports 60.55
ceiling and visibility requirements 60.55
Altitude and time, report of by pilot 60.571
Communications contacts, pilot must maintain 60.571
Communications failure 60.572
Crossing airways 60.586
Flight altitudes 60.58
Flight plan required 60.53
notification of arrival 60.532
pilot must study weather reports 60.53
traffic control instructions 60.1340, 60.530
Fuel requirements 60.52
Information to be transmitted by pilot, facilities used 60.5710
Over-the-top flight 60.56
Pilot ratings required 60.50
Proximity to obstructions in flight 60.3504
Take-offs permitted by air-traffic control-tower operator 60.540
Traffic control instructions, part of flight plan 60.1340, 60.530
Weather changes 60.570
Weather conditions, report by pilot 60.571
Weather minimums, landings and take-off:
Administrator may alter 60.54
airports outside control zones 60.541
airports within control zones 60.540
Landing approach procedure.
Approach course to airport 60.3302
Approaching congested traffic area 60.332
Circle rule 60.3301
Control airport, precedence of arriving aircraft 60.3304
Duty to give way 60.341
Light and signal rules
Lights, requirements for aircraft 60.6
aircraft on the ground 60.60
airplane 60.61
airship 60.62
balloon 60.63
stationary aircraft 60.64
Signal requirements:
distress 60.66
fog 60.68
forced landing 60.67
stationary aircraft 60.65
Liquor, narcotics, and drugs 60.345
Local flying area, flight restrictions 60.391
See "Emergency regulations" 60.95
Military aircraft 60.150, 60.3510
Clearance by traffic control center 60.3510
Flight altitudes, rules above 17,000 feet 60.3511
Position light requirements 60.3511
Radio equipment required 60.3510
Model aircraft flying activities, supervision of 60.93
Objects, dropping from aircraft 60.347
Over-the-top flight
Defined 60.132
Instrument flight rules 60.56
Prohibited, when 60.46
Proximity to clouds 60.442
Parachutes
Jump 60.73
altitude 60.730
delayed 60.731
in high wind 60.732
near open water 60.733
permit for jump 60.734
Packing of 60.36
To be carried during acrobatics 60.72
Parking brakes 60.331
Pilot certificates 60.30
Pilot ratings required for flight
Contact 60.40
General 60.30
Instrument 60.50
Proximity to clouds 60.442
Proximity to obstructions 60.3503
Proximity to other aircraft in flight 60.343
Public aircraft 60.151

Radio equipment requirements
- Flight outside local flying area ..... 60.951 (c)
- Instrument flight 60.51
- Military aircraft 60.3510

Radio fix 60.112
Radio range station 60.114
Range approach channel
- Crossing 60.39
- Designation 60.115
- Modification of 60.115

Right-of-way rules 60.340
- Approaching head-on ..... 60.3402(c)
- Crossing courses ..... 60.3401(b)
- Distress landing ..... 60.3405 (f)
- Duty to give way 60.341
- Landing ..... 60.3404 (e)
- Overtaking ..... 60.3403(d)
- Proximity in flight 60.343
- Right-side traffic on airway 60.342
- Types of aircraft, precedence of ..... 60.3400(a)

Right-side traffic on airway 60.342
Seaplanes operating on water, traffic rules 60.92
Signals— *See* "Light and signal rules."
Take-off
- Control tower operator may alter weather minimums, when 60.540

Towing of aircraft 60.346
Traffic control 60.33, 60.530
- Air meet landing 60.332
- Approach course to airport 60.3302
- Approaching congested areas 60.332
- Circle rule 60.3301
- Departing and arriving traffic, precedence of 60.3304
- Risk of collision 60.3300
- Take-off from nondesignated area prohibited ..... 60.951 (a)

Visibility 60.144
- Above 1,000 feet 60.4411
- Below 1,000 feet 60.4410
- Contact flight 60.44
  - outside control zones 60.441
  - within control zones 60.440
- Day 60.4410
- Instrument flight 60.54
  - alternate airport 60.55
  - outside control zones 60.541
  - within control zones 60.540
- Night 60.4410

Waiver of air traffic rules 60.91
Weather information, air carriers to furnish 60.96
Weather minimums 60.145, 60.44
- Contact flight:
  - Administrator may require higher minimums 60.44
  - Ceiling requirements 60.440
    - outside control zones 60.441
    - within control zones 60.440
  - Changes 60.470, 60.570
  - Proximity to cloud formations 60.442
  - Visibility requirements 60.440
    - outside control zones 60.441
    - within control zones 60.440
      - control tower operator may alter 60.440
- Instrument flight:
  - Minimums for landings and take-offs 60.54
    - airports outside control zones 60.541
      - ceiling requirements 60.541
      - visibility requirements 60.541
    - airport within control zones 60.540
      - ceiling requirements 60.540
      - control tower operator may alter 60.540
      - visibility requirements 60.540
  - Pilot must study weather reports 60.53

Zones, flight, designated within local flying area 60.391

NOTICE

Advise the Civil Aeronautics Board, Washington 25, D. C., that you have purchased this Part of the Civil Air Regulations and that agency will supply you with copies of amendments which have been issued since this printing. Be sure to specify the number of this Part, otherwise your request cannot be filled.

If you would like to be informed of all future amendments to this and to other Parts of the regulations, you can be sure of getting this information by subscribing to the monthly Civil Aeronautics Journal. All new regulations, amendments, and special regulations are carried in the Journal. Annual subscriptions are 50 cents, payable in advance by cash or money order, and are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

○