U. S. DEPARTMENT OF COMMERCE
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CIVIL AIR REGULATIONS

20.—PILOT RATING

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CIVIL AIR REGULATIONS

20.—PILOT RATING

20.0—PROVISION FOR RATING.—Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the examination and rating of airmen serving in connection with aircraft of the United States as to their qualifications for such service, pilots will be rated in accordance with the following provisions.

20.00—General Pilot Ratings.—The general classification and rating of pilots will be based upon their hours of solo flight and the kind of aeronautical activity for which they are deemed competent. Each general rating, except student rating, will include an aircraft rating specifying the type, weight and engine classification of the aircraft which the pilot is deemed competent to fly, and a flight area rating specifying the geographical area in which he is deemed competent to pilot aircraft. The general pilot ratings will be as follows:

(*a*) Student Pilot Rating.
(*b*) Solo Pilot Rating.
(*c*) Private Pilot Rating.
(*d*) Limited-Commercial Pilot Rating.
(*e*) Commercial Pilot Rating.
(*f*) Airline Pilot Rating (Provided for in all respects in CAR 21).
(*g*) Student Glider Pilot Rating.
(*h*) Private Glider Pilot Rating.
(*i*) Commercial Glider Pilot Rating.

20.01—Special Pilot Ratings.—Special pilot ratings will be based upon satisfactory demonstration of pilot competence as related to skill or qualification for a particular piloting activity. The special pilot ratings will be as follows:

(*a*) Instructor Rating.
(*b*) Instrument Rating.

20.1—GENERAL RATING MINIMUM REQUIREMENTS.—To be eligible for a general pilot competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought.

20.10—Student Pilot Rating.—To be eligible for a student pilot rating, an applicant shall comply with the following minimum requirements.

20.100—AGE.—Applicant shall be at least 16 years of age. If applicant be less than 21 years of age at the time of making application, he shall submit with his application the written consent of either parent, or legal or natural guardian, to the issuance of a student pilot rating.

20.101—CHARACTER.—Applicant shall be of good moral character.

20.102—CITIZENSHIP.—Applicant may be a citizen of any nationality.

20.103—EDUCATION.—Applicant shall be able to read, speak, write and understand the English language; except that a citizen of a country granting reciprocal pilot privileges to pilots of the United States on equal terms and conditions will not be required to meet the English language requirements.

20.104—PHYSICAL CONDITION.—Applicant shall comply with the following minimum requirements as to physical condition; *provided*, that the existence of a lesser grade or condition in one or more of the particulars mentioned may not disqualify the applicant if excellence in other particulars or excellence in aeronautical experience or in aeronautical skill offsets the deficiency in the opinion of the Secretary; *provided*, however, that an increase of such deficiency, which occurs at any time within the effective period of the certificate and cannot be compensated for by some additional excellence (as in aeronautical experience or practical skill), will be ground for the revocation of such certificate:

20.1040—(*a*) *Eye.*—Applicant shall have a visual acuity of at least 20/50 in each eye separately, without correction; provided that, if the vision in either or both eyes is poorer than 20/50 and is brought up to 20/30 or better in each such eye by glasses, the applicant may be qualified on condition that correcting glasses be worn while piloting aircraft. An average of 30 millimeters or less on the depth perception apparatus, with or without glasses, is required. If the depth perception is greater than 30 millimeters without correction and can be corrected to at least 30 millimeters by glasses, the restriction that correcting glasses be worn while piloting aircraft will apply. No diplopia will be allowed unless corrected by glasses in which case such glasses must be worn while piloting aircraft. There shall be no serious pathology of the eye.

20.1041—(*b*) *Ear, Nose, Throat and Equilibrium.*—Applicant shall be able to hear the whispered voice at three feet; shall have no acute or chronic disease of the internal ear, no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance in equilibrium.

20.1042—(*c*) *General Physical Condition.*—Applicant shall have no organic or functional disease or structural defect or limitation which might interfere with the safe piloting of aircraft.

20.1043—(*d*) *Nervous System.*—Applicant shall have no disease of the mental or nervous system and no abnormality of the personality.

20.105—AERONAUTICAL KNOWLEDGE.—No minimum requirement is prescribed but, prior to his first solo flight, applicant shall be familiar with the provisions of CAR 60, and such fact shall be certified to by his instructor in accordance with the requirements of CAR 20.652.

20.106—AERONAUTICAL EXPERIENCE.—No minimum requirement.

20.107—AERONAUTICAL SKILL.—No minimum requirement is prescribed but, prior to his first solo flight, applicant shall have had a minimum of 8 hours dual flight instruction and shall have been deemed, in the opinion of his instructor, competent to make such flight, and such competence shall be certified to by his instructor on the student pilot certificate in the place provided therefor. The date of such flight and the type, weight and engine classification of the aircraft so flown shall also be certified by the instructor in the same manner.

20.11—Solo Pilot Rating.—To be eligible for a solo pilot rating, an applicant shall comply with the following minimum requirements.

20.110—AGE.—Same as in CAR 20.100.

20.111—CHARACTER.—Same as in CAR 20.101.

20.112—CITIZENSHIP.—Same as in CAR 20.102.

20.113—EDUCATION.—Same as in CAR 20.103.

20.114—PHYSICAL CONDITION.—Same as in CAR 20.104.

20.115—AERONAUTICAL KNOWLEDGE.—Applicant shall be familiar with and accomplish satisfactorily a written examination on so much of the provisions of CAR 00, 01, 02, 03, 20, 30, 60, 91, 94 and 98, as are pertinent to his rating.

20.116—AERONAUTICAL EXPERIENCE.—Applicant shall have logged at least 5 hours of solo flight time, of which at least 3 hours shall have been logged within the 60 days last preceding the date of filing the application, *provided,* however, that a graduate of the solo pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation.

20.117—AERONAUTICAL SKILL.—Applicant shall demonstrate satisfactorily his ability to pilot aircraft in solo flights including normal take-offs, turns and landings.

20.12—Private Pilot Rating.—To be eligible for a private pilot rating, an applicant shall comply with the following minimum requirements:

20.120—AGE.—Same as in CAR 20.100.

20.121—CHARACTER.—Same as in CAR 20.101.

20.122—CITIZENSHIP.—Same as in CAR 20.102.

20.123—EDUCATION.—Same as in CAR 20.103.

20.124—PHYSICAL CONDITION.—Same as in CAR 20.104.

20.125—AERONAUTICAL KNOWLEDGE.—Same as in CAR 20.115 and, in addition, applicant shall satisfactorily accomplish a written examination covering prevailing weather conditions in the United States as encountered in flying, and the forecasting thereof, the analyzing of weather maps and sequence reports as furnished by the United States Weather Bureau, practical air navigation problems and the use of maps, and navigation by terrain (pilotage) and by dead reckoning, including the use of instruments and other aids to navigation in visual contact flying.

20.126—AERONAUTICAL EXPERIENCE.—Applicant shall have logged at least 35 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application, *provided,* however, that a graduate of the private pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. As part of the foregoing, applicant shall have logged at least 5 hours of solo cross-country flying which shall include at least one flight over a course of not less than 50 miles with at least 2 full stop landings at different points on such course. Such experience shall be certified to by some person, other than the applicant, having direct knowledge of the same.

20.127—AERONAUTICAL SKILL.—Applicant, for rating on heavier-than-air aircraft of a land or water type, exclusive of gliders, shall demonstrate satisfactorily his ability to pilot an aircraft in solo flight and, in addition to normal take-offs, turns and landings, to perform satisfactorily the following maneuvers:

20.1270—(*a*) From 1,500 feet, with engine throttled, a 360° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.

20.1271—(*b*) From 1,000 feet, with engine throttled, a 180° turn and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.

20.1272—(*c*) A series of 3 shallow and 3 steep figure 8 turns, and one 720° steep power turn in each direction. During these maneuvers, the pilot shall not gain or lose more than 200 feet of altitude.

20.1273—(*d*) A spiral in one direction from 2,000 feet, with engine throttled, and a landing in normal landing attitude, the wheels touching the ground beyond and within 300 feet of a line or point designated by the examining Bureau inspector.

20.1274—(*e*) A right hand and a left hand spin, each of at least one full turn.

20.1275—(*f*) Emergency maneuvers such as spirals, side slips and climbing turns, and recovery from stalls and such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant for the rating sought.

20.128—AERONAUTICAL SKILL ON OTHER TYPES.—Applicant, for rating on aircraft other than gliders or conventional heavier-than-air aircraft of a land or water type, shall demonstrate satisfactorily his ability to pilot an aircraft of such other type in solo flight and, in addition to normal take-offs and landings, shall perform such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant.

20.13—Limited-Commercial Pilot Rating.—To be eligible for a limited-commercial pilot rating, an applicant shall comply with the following minimum requirements:

20.130—AGE.—Applicant shall be at least 18 years of age.

20.131—CHARACTER.—Same as in CAR 20.101.

20.132—CITIZENSHIP.—Applicant shall be—

20.1320—(*a*) A citizen of the United States, or

20.1321—(*b*) A citizen of a foreign country which grants reciprocal commercial pilot privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country, or

20.1322—(*c*) An alien who has filed his declaration of intention to become a citizen of the United States and notifies the Secretary of the serial number of such declaration and of the date thereof and of the court in which it is filed; *provided,* that the certificate of competency is, in such case, subject to revocation if the holder does not from time to time keep the Secretary advised of the status of the proceedings in court and does not diligently and successfully prosecute them and become admitted as a citizen.

20.133—EDUCATION.—Applicant shall be able to read, speak, write and understand the English language.

20.134—PHYSICAL CONDITION.—Applicant shall comply with the following minimum requirements as to physical condition; *provided,* that the existence of a lesser grade or condition in one or more of the particulars mentioned may not disqualify the applicant if excellence in other particulars or excellence in aeronautical experience or in aeronautical skill offsets the deficiency, in the opinion of the Secretary; *provided,* however, that an increase of such deficiency, which occurs at any time within the effective period of the certificate and cannot be compensated for by some other excellence (as in aeronautical experience or practical skill), will be ground for the revocation of such certificate:

20.1340—(*a*) *Eye.*—Applicant shall have a visual acuity of at least 20/20 in each eye separately without correction; an average depth perception of 30 millimeters or less without correction; no diplopia; not more than 1 diopter of hyperphoria; properly balanced eye muscles with

an abduction of 3 diopters or more; sufficient accommodation to pass a Bureau test based primarily upon ability to read official aeronautical maps; normal fields of vision, and no pathology of the eye.

20.1341—(*b*) *Ear, Nose, Throat and Equilibrium.*—Applicant shall be able to hear the whispered voice at eight feet with each ear separately; shall have no acute or chronic disease of the middle or internal ear; no disease of the mastoid; no unhealed perforations of the ear drum; no disease or malformation of the nose or throat which may interfere with or be aggravated by flying, and no disturbance of equilibrium.

20.1342—(*c*) *General Physical Condition.*—Same as in CAR 20.1042.

20.1343—(*d*) *Nervous System.*—Same as in CAR 20.1043.

20.135—AERONAUTICAL KNOWLEDGE.—Same as in CAR 20.125 and, in addition, applicant shall satisfactorily accomplish a written examination on the theory and the practice of flight and the maintenance of aircraft, and on the maintenance and proper use of aircraft power units in common use.

20.136—AERONAUTICAL EXPERIENCE.—Applicant shall have logged at least 60 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application, *provided*, however, that a graduate of the limited-commercial pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. Solo cross-country flying time as provided in CAR 20.126.

20.137—AERONAUTICAL SKILL.—Same as in CAR 20.127 except as follows:

20.1370—(*a*) In the maneuvers required by CAR 20.1270, CAR 20.1271 and CAR 20.1273, the wheels shall touch the ground beyond and within 250 feet of the line or point designated.

20.1371—(*b*) In the maneuvers required by CAR 20.1272, the pilot shall not gain or lose more than 150 feet.

20.1372—(*c*) In the spins required by CAR 20.1274, the applicant shall perform a 2-turn spin in each direction with an error of not more than plus or minus ¼ turn.

20.138—AERONAUTICAL SKILL ON OTHER TYPES.—Same as in CAR 20.128.

20.14—Commercial Pilot Rating.—To be eligible for a commercial pilot rating, an applicant shall comply with the following minimum requirements:

20.140—AGE.—Same as in CAR 20.130.

20.141—CHARACTER.—Same as in CAR 20.101.

20.142—CITIZENSHIP.—Same as in CAR 20.132.

20.143—EDUCATION.—Same as in CAR 20.133.

20.144—PHYSICAL CONDITION.—Same as in CAR 20.134.

20.145—AERONAUTICAL KNOWLEDGE.—Same as in CAR 20.135 except that the examinations will be more searching and in greater detail.

20.146—AERONAUTICAL EXPERIENCE.—Applicant shall have logged at least 200 hours of solo flight time, of which at least 5 hours shall have been logged within the 60 days last preceding the date of filing the application, *provided*, however, that a graduate of the commercial pilot course of a certificated flying school will be deemed to have complied with this requirement upon presentation of his certificate of graduation. As part of the foregoing applicant shall have logged at least 10 hours of solo cross-country flying, which shall include at least one flight over a course of not less than 100 miles with at least three full stop landings at different points on such course. Such experience shall be certified to by some person, other than the applicant, having direct knowledge of the same.

20.147—AERONAUTICAL SKILL.—Same as in CAR 20.127 except as follows:

20.1470—(*a*) In the maneuvers required by CAR 20.1270, CAR 20.1271 and CAR 20.1273, the wheels shall touch the ground within 200 feet beyond the line or point designated.

20.1471—(*b*) In the maneuvers required by CAR 20.1272, the pilot shall not gain or lose more than 100 feet.

20.1472—(*c*) Applicant shall complete the spins required in CAR 20.1372 except that the permissible error shall be plus or minus ten degrees.

20.148—AERONAUTICAL SKILL ON OTHER TYPES.—Same as in CAR 20.128.

20.15—Student Glider Pilot Rating.—To be eligible for a student glider pilot rating, an applicant shall comply with the following minimum requirements.

20.150—AGE.—Applicant shall be at least 14 years of age.

20.151—CHARACTER.—Same as in CAR 20.101.

20.152—CITIZENSHIP.—Same as in CAR 20.102.

20.153—EDUCATION.—Same as in CAR 20.103.

20.154—PHYSICAL CONDITION.—Applicant shall certify that to the best of his knowledge and belief he has no physical defect which renders him incompetent to pilot a glider.

20.155—AERONAUTICAL KNOWLEDGE.—No minimum requirements.

20.156—AERONAUTICAL EXPERIENCE.—No minimum requirements.

20.157—AERONAUTICAL SKILL.—No first solo flight shall be made by a student glider pilot until, in the opinion of his instructor, the student is deemed competent to make such solo flight.

20.16—Private Glider Pilot Rating.—To be eligible for a private glider pilot rating, an applicant shall comply with the following minimum requirements:

20.160—AGE.—Same as in CAR 20.150.

20.161—CHARACTER.—Same as in CAR 20.101.

20.162—CITIZENSHIP.—Same as in CAR 20.102.

20.163—EDUCATION.—Same as in CAR 20.103.

20.164—PHYSICAL CONDITION.—Same as in CAR 20.154.

20.165—AERONAUTICAL KNOWLEDGE.—No minimum requirements.

20.166—AERONAUTICAL EXPERIENCE.—No minimum requirements.

20.167—AERONAUTICAL SKILL.—Applicant shall demonstrate satisfactorily his ability to pilot a glider and to make normal take-offs and landings, a series of moderate banks, and such other maneuvers as the examining Bureau inspector may deem necessary and appropriate to demonstrate the competence of the applicant for the rating sought.

20.17—Commercial Glider Pilot Rating.—To be eligible for a commercial glider pilot rating, an applicant shall comply with the following minimum requirements:

20.170—AGE.—Applicant shall be at least 18 years of age.

20.171—CHARACTER.—Same as in CAR 20.101.

20.172—CITIZENSHIP.—Same as in CAR 20.132.

20.173—EDUCATION.—Same as in CAR 20.133.

20.174—PHYSICAL CONDITION.—Same as in CAR 20.104.

20.175—AERONAUTICAL KNOWLEDGE.—Same as in CAR 20.115.

20.176—AERONAUTICAL EXPERIENCE.—Applicant shall have completed 25 gliding flights of which at least 5 flights shall have been made within the 60 days last preceding the date of filing the application.

20.177—AERONAUTICAL SKILL.—Same as in CAR 20.167 and, in addition, 360° turns will be required.

20.2—SPECIAL RATING MINIMUM REQUIREMENTS.—To be eligible for a special pilot competency rating, an applicant shall comply with the following minimum requirements prescribed for the particular rating sought:

20.20—Instructor Rating.—To be eligible for an instructor rating, an applicant shall comply with the following minimum requirements:

20.200—AGE.—Same as in CAR 20.130.

20.201—AERONAUTICAL KNOWLEDGE.—Applicant shall have practical and theoretical knowledge of flight instruction and shall accomplish a satisfactory written and practical examination thereon.

20.202—AERONAUTICAL EXPERIENCE.—Applicant shall be possessed of a valid commercial or private pilot rating, provided that in the latter case he meets the requirements of CAR 20.146.

20.203—AERONAUTICAL SKILL.—Applicant shall satisfactorily accomplish a practical flight test as to his ability to perform with precision and teach properly such fundamental flight maneuvers as are, in the opinion of the Secretary, deemed necessary and appropriate for safe and sound instruction in the safe piloting of aircraft.

20.21—Instrument Rating.—To be eligible for an instrument rating, an applicant shall comply with the following minimum requirements:

20.210—AERONAUTICAL KNOWLEDGE.—Applicant shall be familiar with the use of such instruments and other navigational aids, both in aircraft and on the ground, as are deemed by the Secretary to be necessary for the navigation of aircraft by instruments, and with meteorology as applied to weather analysis and forecasting, and the applicant shall satisfactorily accomplish a written examination thereon.

20.211—AERONAUTICAL EXPERIENCE.—Applicant shall have logged at least 200 hours of solo flight time as prescribed in CAR 20.146, including a minimum of at least 20 hours of instrument flying instruction and practice, and shall be possessed of a valid private, limited-commercial or commercial pilot rating. In lieu of not to exceed 10 hours of the foregoing 20-hour requirement applicant may show an equal or greater amount of instruction and practice under suitable conditions approved by the Secretary. Applicant shall also be possessed of a valid and appropriate radio license issued by the Federal Communications Commission.

20.212—AERONAUTICAL SKILL.—Applicant shall satisfactorily accomplish, solely by instruments, a flight test with respect to the following:

20.2120—(*a*) Straight level flight for a given period of time.

20.2121—(*b*) Moderately banked 180° and 360° turns in both directions.

20.2122—(*c*) Minimum glides and maximum climbs, and approaches to stalled attitudes of flight.

20.2123—(*d*) Climbing turns.

20.2124—(*e*) Recovery from stalls, skids, slips and spirals, and from banks in excess of 45°.

20.2125—(*f*) Such other maneuvers as the examining inspector deems necessary.

20.2126—(*g*) A practical demonstration, while in flight or under simulated conditions, of estimating arrival time, taking into account speed, wind and drift.

20.213—RADIO SKILL—Applicant shall satisfactorily accomplish, solely by instruments, a flight test with respect to the following:

20.2130—(*a*) Tuning radio.

20.2131—(*b*) Orientation.

20.2132—(*c*) Following radio range.

20.2133—(*d*) Locating cone of silence.

20.2134—(*e*) Letting-down-through on the range by the approved instrument approach procedure for the particular airport used in connection with the test.

20.2135—(*f*) Such other maneuvers as the examining inspector deems necessary.

20.3—PILOT COMPETENCY CERTIFICATE.

20.30—Provision for Issuance.—An appropriate pilot certificate of competency will be issued by the Secretary to a natural person who is an applicant therefor, after approval of an application made and proofs submitted in connection therewith and if upon inspection and examination such applicant is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 20.1. Holders of valid pilot licenses, except student licenses, may pilot aircraft

pursuant to such authority until the expiration thereof. Holders of valid student pilot licenses may pilot aircraft pursuant to such authority until the expiration thereof or for 6 months after the effective date of these regulations, whichever is the shorter period. Upon the expiration of each pilot license as just set forth the holder, upon meeting the requirements for the renewal or re-issuance thereof and for any ratings held, may have issued to him the following certificates and ratings:

(*a*) If the holder of a student license, a *solo certificate*, provided he has logged at least 5 hours of certified solo flying time and makes application within the effective period of his license. If the holder of a student license with no or less than 5 hours solo flying time, a *student certificate*, which may be issued by a duly authorized Bureau inspector, *provided*, that application is made within the effective period of such license and a satisfactory physical examination shown, as provided for in CAR 20.104, within the 6 months immediately preceding application for such student certificate, and, *provided, further*, that such student certificate shall expire one year from the date of said physical examination. Otherwise CAR 20.10 and 20.60 shall apply.

(*b*) If the holder of an amateur license, a solo certificate.

(*c*) If the holder of a private, limited-commercial or transport license, a private, limited-commercial or commercial certificate respectively, plus an instrument rating if a non-scheduled instrument rating is held and, in the case of the commercial pilot certificate, an instructor rating whether or not a flying instructor's rating is held.

20.300—Aircraft Rating.—The type, weight and engine classification of the aircraft (except unconventional aircraft) which the applicant is deemed competent to pilot will be entered upon the pilot certificate. (See CAR 20.54 and 20.55.)

20.301—Flight Area Rating.—When limited, the geographical area in which the applicant is deemed competent to pilot the aircraft provided for in CAR 20.302 will be entered upon the pilot certificate. (See CAR 20.56.)

20.302—Special Rating.—When issued to an applicant, as provided for in CAR 20.2 and 20.4, any special rating will be entered upon his pilot certificate.

20.303—Identification Card.—An appropriate pilot identification card will be issued in connection with a pilot certificate, in the discretion of the Secretary.

20.31—Application.—Application for a pilot certificate of competency, subscribed under oath, shall be made to the Secretary upon a form supplied for the purpose.

20.310—Application to Amend.—When any change in a pilot competency rating is desired, whether affecting the general or special ratings, the applicant shall file a written request therefor with the Secretary upon a form supplied for the purpose.

20.311—Proceeding to Amend.—A proceeding to amend a pilot competency rating, whether general or special, may be instituted by the Secretary when, in his opinion, the pilot is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding shall be addressed to the pilot with opportunity for a hearing. In the interim, the certificate may be suspended in whole or in part. Following the hearing, the Secretary may issue a re-rating as to competency.

20.32—Issuance.—Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, a pilot certificate of competency will be issued in an appropriate form.

20.320—Temporary Certificate.—Following application made for a pilot certificate of competency, but prior to approval thereof and issuance of the certificate, a temporary pilot certificate may be issued by the examining Bureau inspector. A temporary student pilot certificate may be issued by a medical examiner authorized by the Secretary for such purpose.

20.33—Display.—A pilot certificate of competency shall be kept in the personal possession of the pilot at all times when piloting aircraft, and shall be presented for inspection upon the demand of any passenger, of any authorized official or employee of the Department of Commerce and of any State or municipal official charged with the duty of enforcing local laws or regulations involving Federal compliance, or upon the reasonable request of any other person.

20.34—Duration.—A pilot certificate of competency, unless sooner suspended or revoked in accordance with the provisions of CAR 20.37, will remain in force for the following periods, for the respective kinds of certificate:

20.340—(*a*) STUDENT PILOT—1 year.

20.341—(*b*) SOLO PILOT—1 year.

20.342—(*c*) PRIVATE PILOT—1 year.

20.343—(*d*) LIMITED-COMMERCIAL PILOT—6 months.

20.344—(*e*) COMMERCIAL PILOT—6 months.

20.345—(*f*) AIRLINE PILOT—6 months (See CAR 21).

20.346—(*g*) STUDENT GLIDER PILOT—1 year.

20.347—(*h*) PRIVATE GLIDER PILOT—1 year.

20.348—(*i*) COMMERCIAL GLIDER PILOT—1 year.

20.35—Renewal.—The term of a pilot certificate (other than a student pilot or student glider pilot certificate) may be renewed, for a like period as the original certificate, upon application within 45 days prior to expiration and upon satisfactory showing of the following facts with respect to the kinds of certificates issued:

20.3500—(*a*) STUDENT PILOT.—Not renewable.

20.3501—(*b*) SOLO PILOT.—
(1) 15 hours of solo flight, in aircraft of each type, weight and engine classification for which renewal is sought, within the year preceding expiration, and
(2) a satisfactory physical examination, completed within the 9 months preceding expiration, in accordance with the provisions of CAR 20.104.

20.3502—(*c*) PRIVATE PILOT.—Same as in CAR 20.351 except that the physical examination provided for shall have been completed within the 14 months preceding expiration.

20.3503—(*d*) LIMITED-COMMERCIAL PILOT.—
(1) 10 hours of solo flight, in aircraft of each type, weight and engine classification for which renewal is sought, within the 6 months preceding expiration, and
(2) a satisfactory physical examination, completed within the 60 days preceding expiration, in accordance with the provisions of CAR 20.134.

20.3504—(*e*) COMMERCIAL PILOT.—Same as in CAR 20.353.

20.3505—(*f*) AIRLINE PILOT.—See CAR 21.

20.3506—(*g*) STUDENT GLIDER PILOT.—Not renewable.

20.3507—(*h*) PRIVATE GLIDER PILOT.—10 gliding flights, or one soaring flight of one hour, *within the year preceding expiration.*

20.3508—(*i*) COMMERCIAL GLIDER PILOT.—Same as in CAR 20.356, together with a satisfactory physical examination completed within the 60 days preceding expiration, in accordance with CAR 20.104.

20.3509—REINSTATEMENT.—In the event of an emergency which prevents renewal prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his pilot certificate validated in accordance with the provisions for renewal in CAR 20.35, provided the flight tests appropriate to the rating are again satisfactorily accomplished. The date of application for reinstatement rather than the expiration date of the certificate shall be controlling in applying CAR 21.35. There shall be but one application for reinstatement following a given lapse.

20.3510—RE-RATING AFTER LAPSE.—Within 6 months after the expiration date of a private, limited-commercial or commercial pilot certificate the holder thereof may have issued to him a solo pilot certificate upon application therefor and a satisfactory showing to the Secretary of physical competency as provided in CAR 20.351 (2), and of 5 hours of certified solo flying time logged by the applicant within the year preceding application in aircraft of each type, weight and engine classification for which the solo pilot certificate is sought.

20.36—Non-Transferability.—A pilot certificate of competency is not transferable.

20.37—Suspension or Revocation.—The following rules will govern the suspension or revocation of pilot competency certificates.

20.370—AUTOMATIC INVALIDATION.—Any physical deficiency, or any increase in physical deficiency, which occurs at any time within the effective period of a pilot certificate and which is not compensated for by some additional excellence as provided for in CAR 20.104 and 20.134, will automatically cause the pilot certificate to become invalid for the period of such physical deficiency.

20.371—GENERAL GROUNDS.—A pilot certificate of competency may be suspended or revoked by reason of any of the following on the part of the holder thereof:

20.37100—(*a*) Any false statement in an application for a certificate or in any report required by the Secretary.

20.37101—(*b*) Use or display of the certificate for any fraudulent purpose.

20.37102—(*c*) Refusal to exhibit the certificate upon proper demand.

20.37103—(*d*) Unsound physical or mental condition.

20.37104—(*e*) Any demonstration of incompetency in the piloting of aircraft.

20.37105—(*f*) Failure to wear correcting lenses when required.

20.37106—(*g*) *Being under the influence of, or using or having personal possession of, intoxi*cating liquor, cocaine or other habit-forming drugs while on duty.

20.37107—(*h*) Carrying any passenger who is obviously under the influence of intoxicating liquor, cocaine or other habit-forming drugs.

20.37108—(*i*) Carelessness or inattention to duty affecting safety.

20.37109—(*j*) Performance of any act in connection with aircraft which is contrary to the public safety or interest.

20.37110—(*k*) Violation of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

20.38—Surrender.—Upon notice from the Secretary of the suspension or revocation of a pilot certificate, the holder thereof shall immediately return such certificate to the Secretary.

20.39—Re-Application.—The following rules will govern the re-application for pilot competency certificates:

(*a*) An applicant for a solo, private glider or commercial glider pilot certificate who has failed to successfully accomplish any prescribed theoretical or practical examination or test may apply for re-examination in any such subject at any time after the expiration of 45 days from the date of such failure.

(*b*) An applicant for a private, limited-commercial or commercial pilot certificate who has failed to successfully accomplish any prescribed theoretical or practical examination or test may apply for re-examination at any time after the expiration of 90 days from the date of such failure, provided he shows at least 15 additional hours of certified flying time logged by him.

20.4—SPECIAL COMPETENCY RATING.

20.40—Provision for Issuance.—An appropriate special competency rating will be issued by the Secretary, upon approval of application made and satisfactory proofs submitted, to a natural person who, upon inspection and examination, is found by the Secretary to meet the appropriate minimum requirements prescribed in CAR 20.2.

20.41—Application.—Same as in CAR 20.31 applied to a special rating.

20.42.—Issuance.—Any special rating issued to a pilot will be entered or indicated at the proper place therefor on the pilot certificate of competency.

20.43.—Duration.—A special rating, unless sooner suspended or revoked in accordance with the provisions of CAR 20.46, will remain in force for the effective period of the particular pilot certificate held.

20.44—Renewal.—Renewal of a special rating may be effected upon application therefor within 45 days prior to the expiration of the pilot certificate and upon satisfactory showing of the following facts with respect to the kind of rating held:

20.440—Instructor Rating.—The requirements appropriate for renewal of private or commercial pilot certificates as provided in CAR 20.35, as the case may be, and a satisfactory showing that the applicant has served as an instructor for not less than 10 hours during the preceding 6 months. The holder of such rating may be required to undergo a re-examination in any of the tests prescribed for the original rating at such times as the Secretary deems necessary.

20.441—Instrument Rating.—Applicant shall have logged:

20.4410—(*a*) If holder of a private pilot certificate—10 hours of flying solely by instruments within the year preceding the expiration of the pilot certificate, 5 hours of which shall have been within 6 months thereof.

20.4411—(*b*) If holder of a limited-commercial or commercial pilot certificate—5 hours of flying solely by instruments within the 6 months preceding the expiration date of the certificate.

20.4412—(*c*) In lieu of not to exceed 50% of either of the above requirements applicant may show an equal or greater amount of practice under simulated conditions approved by the Secretary.

20.442—REINSTATEMENT.—In the event of an emergency which prevents renewal of any of the foregoing special ratings prior to expiration, and upon a showing thereof satisfactory to the Secretary, the applicant may have his rating or ratings validated in accordance with the appropriate provisions for renewal in CAR 20.440 through 20.441, as the case may be, provided the flight tests appropriate to the particular rating are satisfactorily accomplished. The date of application for reinstatement rather than the expiration date of the rating shall be controlling in applying CAR 20.440 through 20.441. There shall be but one application for reinstatement following a given lapse.

20.45—Non-Transferability.—A special rating is not transferable.

20.46—Suspension or Revocation.—A special rating may be suspended or revoked by reason of the suspension or revocation of the pilot certificate or by reason of any of the following, on the part of the holder thereof:

20.460—(*a*) Any false statement in an application for a pilot rating.

20.461—(*b*) Unsound physical or mental condition.

20.462—(*c*) Any demonstration of incompetency in piloting aircraft, particularly as related to any given rating.

20.463—(*d*) Violation of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

20.47—Re-Application.—An applicant for a special competency rating who has failed to successfully accomplish any prescribed test for such rating may apply for re-examination thereon after the expiration of 30 days from the date of such failure.

20.5—EXAMINATIONS AND TESTS.

20.50—General.—The examinations and tests prescribed in the foregoing regulations (both for pilot certificates of competency and for the ratings issued with respect thereto) will be conducted by an authorized officer or employee of the Bureau or by a properly qualified person designated for the purpose by the Secretary.

20.51—Time and Place.—All examinations and tests will be held at such times and places as the Secretary may designate.

20.52—Physical Examinations.—The following rules will govern the physical examinations given in connection with the original issuance of any pilot competency certificate:

20.520—(*a*) The appropriate physical examination prescribed shall be accomplished before any practical or theoretical test or other examination will be given, and shall be completed within the 9 months preceding application for a solo or private rating, or within the 4 months preceding application for a limited-commercial or commercial pilot rating.

20.521—(*b*) In lieu of a physical examination conducted by authority of the Secretary, a certified copy of the medical examination for flying in the United States Army, Navy, or Marine Corps, made within the 60 days preceding the date of filing application for a pilot certificate, will be accepted for any pilot rating; *provided,* that the physical qualifications as shown in such prior examination are not less than those required by these regulations for the kind of pilot certificate of rating applied for.

20.522—(*c*) A pilot holding a certificate of a lower grade and applying for a certificate of a higher shall pass satisfactorily a new physical examination for the grade applied for unless his prior physical examination was for higher grade and was passed within the time limit prescribed in CAR 20.520.

20.53—Aircraft Used in Tests.—The applicant shall furnish a certificated aircraft for any flight test involved. Each such aircraft, used in any test for a pilot certificate above the grade of solo pilot, shall be equipped with dual controls and shall accommodate the applicant, the inspector and parachutes for both. Aircraft having only one elevator and aileron control for two seats, or any arrangement whereby all flight and engine controls cannot be handled in a normal or conventional manner from either seat are not considered as having dual controls for the purpose of flight tests for pilot ratings.

20.54—Aircraft Type Classification.—For purposes of specifying the types of aircraft which the applicant is deemed competent to pilot and for convenience of examining the applicant with respect thereof, the following aircraft type classification is prescribed:

(*a*) Conventional airplane (land or water)
(*b*) Unconventional airplane (land or water)
(*c*) Rotorplane (land or water)
(*d*) Glider
(*e*) Aerostat.

20.540—Unconventional aircraft which the applicant is deemed competent to fly will be specified on his pilot certificate by make and model designation only.

20.55—Aircraft Weight and Engine Classification.—For purposes of specifying the weight and powerplant equipment of aircraft which the applicant is deemed competent to pilot, and for convenience of examining the applicant with respect thereto, the following aircraft weight and engine classification is prescribed:

(*a*) Class 1.—Gross weight not more than 1,500 pounds.
(*b*) Class 2S.—Gross weight between 1,500 and 4,000 pounds, single-engine.
(*c*) Class 2M.—Gross weight between 1,500 and 4,000 pounds, multi-engine.
(*d*) Class 3S.—Gross weight between 4,000 and 10,000 pounds, single-engine.
(*e*) Class 3M.—Gross weight between 4,000 and 10,000 pounds, multi-engine.
(*f*) Class 4S.—Gross weight between 10,000 and 25,000 pounds, single-engine.
(*g*) Class 4M.—Gross weight between 10,000 and 25,000 pounds, multi-engine.
(*h*) Class 5.—Gross weight in excess of 25,000 pounds.

20.550—The holder of a valid private, limited-commercial or commercial pilot certificate may pilot conventional aircraft of a similar type (seaplane, landplane, etc.) and of an equal or lower weight and/or engine classification than as specified on such pilot certificate, except for the carriage of persons or property for hire.

20.56—Flight Area Classification.—For purposes of specifying the geographical limits within which the applicant is deemed competent to pilot aircraft, the following flight area classification is prescribed.

(*a*) *Limited.*—In which case the radius from the base of aircraft operations within which the pilot is deemed competent to pilot shall be within 10 miles for piloting of aircraft carrying persons for hire, and the name of the particular base will be set forth in the pilot certificate, provided that upon 10 days notice to and approval by the Secretary, said area specified in the certificate issued to a limited-commercial pilot may be changed to a different area.

(*b*) *Unlimited.*—In which case the pilot is deemed by the Secretary to be competent to pilot aircraft without restriction as to geographical limits. Such rating relates only to the competency of the pilot and, of itself, will only authorize the applicant to pilot aircraft in the airspace over those geographical areas (other than airspace reservations and other prohibited areas) wherein the pilot certificate is accorded official recognition as valid and effective.

20.57—Inspection.—The applicant for a pilot certificate of competency shall offer full cooperation with respect to any inspection or examination which may be made of such applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of a pilot certificate of competency.

20.58—Standard of Performance.—Every practical and theoretical examination and test shall be accomplished to the satisfaction of the Secretary and the minimum passing grade in the subject of examination and test shall be 70 per cent. Each flight maneuver will be graded separately. Other examinations will be graded as a whole.

20.59—Reports.—The person giving any examination or test in behalf of the Secretary shall report the result thereof upon an appropriate form to the Secretary and all data collected incident to such examination or test shall be considered as of a confidential nature by all persons conducting such examinations or tests and by all employees of the Department of Commerce.

20.6—PILOT REGULATIONS.

20.60—Certificate Required.—No person shall pilot a civil aircraft on a civil airway, or in interstate or foreign air commerce elsewhere, unless possessed of a valid pilot certificate of competency or, if an alien, possessed of a similar pilot certificate or permit, issued or validated according to the provisions of CAR 65. Accordingly, no person shall make a solo flight of civil aircraft on a civil airway, or in interstate or foreign air commerce elsewhere, unless possessed of such certificate, but, prior to such solo flight, no pilot certificate will be required of a person who is flying with a certificated instructor in an aircraft equipped with fully functioning dual controls as provided in CAR 20.53, and provided further, that said instructor is in full charge of one set of said controls. Even then such flights shall be only for instruction or the demonstration of the aircraft to a bona fide prospective purchaser thereof.

20.61—Carriage of Persons.—The following rules will govern the carriage of persons in aircraft in flight:

20.610—STUDENT.—No person possessed of a valid student pilot certificate or receiving dual instruction shall carry in any aircraft in flight any property or any person other than a certificated instructor. No person who has not attained the age of 16 years shall receive dual instruction in any aircraft.

20.611—SOLO PILOT.—No person possessed of a valid solo pilot certificate shall carry, for or without hire, any person or property in any aircraft in flight.

20.612—PRIVATE PILOT.—No person possessed of a valid private pilot certificate shall carry any property or any person for hire in any aircraft in flight.

20.613—LIMITED-COMMERCIAL PILOT.—No person possessed of a valid limited-commercial pilot certificate shall carry any person for hire in any aircraft in flight outside or beyond the geographical limits specified in his pilot certificate, *provided,* that such person may demonstrate aircraft in flight outside the geographical limits of such area to prospective purchasers, *provided,* also, that such person may carry guests, executives or employees of the company employing him, beyond the geographical limits of such area if no additional payment be made for such carriage, *provided,* further, that such person may serve as second pilot beyond the geographical limits of such area if accompanied by a person possessed of a valid commercial pilot certificate who is in command of such aircraft.

20.614—COMMERCIAL PILOT.—No person possessed of a valid commercial pilot certificate shall carry any persons or property in scheduled airline service in interstate or foreign air commerce, unless possessed of a valid instrument rating.

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20.615—GLIDER PILOT.—No person shall pilot a glider for any commercial purpose unless possessed of a valid commercial glider pilot certificate.

20.62—Aircraft Type and Weight.—No person shall pilot for hire, or carry any person for or without hire other than a properly certificated instructor in, an aircraft of a type, weight or engine classification other than as specified in his pilot certificate.

20.63—Aircraft Flight Area.—No person shall pilot an aircraft carrying any person for hire beyond the geographical limits of the flight area specified in his pilot certificate, except as provided in CAR 20.613.

20.64—Night Flying.—A commercial, limited-commercial or private pilot who has not had at least 2 hours of night solo flying within the last preceding 90 days shall not pilot aircraft carrying passengers between sunset and sunrise until after he has taken off and landed, between sunset and sunrise, at least 10 times, nor unless at least 3 of such landings were made to a full stop.

20.65—Instruction.—The following rules will govern the giving of flight instruction:

20.650—RATING REQUIRED.—No person shall give flying instruction for hire to any other person unless possessed of a valid commercial certificate and a valid instructor rating, or, in case of instruction of glider students, unless possessed of a valid commercial glider pilot certificate. Instruction not for hire may be given by the holder of a valid commercial or private pilot certificate and a valid instructor rating.

20.651—SOLO FLIGHT AUTHORIZATION.—No instructor shall authorize, or knowingly permit any person to whom he has given flying instruction to make, any solo flight on a civil airway or in interstate or foreign air commerce elsewhere, unless such person is possessed of a valid pilot certificate.

20.652—AERONAUTICAL KNOWLEDGE CERTIFICATION.—No instructor shall authorize, or knowingly permit any person to whom he has given flying instruction to make a first solo flight on a civil airway, or in interstate or foreign air commerce elsewhere, until he has examined such student as to his knowledge of the provisions of CAR 60 and until such student shows a satisfactory knowledge thereof, which facts shall be certified to by such instructor on the student pilot certificate.

20.653—TIME LIMITATIONS.—No instructor shall give more than 6 hours of dual flying instruction in any one day, nor more than 6 days of such instruction in any one week.

20.654—FLYING INSTRUCTION TIME ENTRIES.—No instructor shall give flying instruction unless, immediately following each period of such instruction, he makes in the log-book of his student the appropriate certified entries as provided in CAR 20.661.

20.66—Log-Books.—The following rules will govern pilot log-books:

20.660—GENERAL.—Every certificated pilot and every person receiving flying instruction shall keep an accurate record of his flying time in a log-book in which the entries with respect to dual instruction have been certified by a certificated instructor and the entries with respect to solo flying time have been certified to by him before a notary public.

20.661—CONTENTS.—The log-book shall contain the date of flight, the type of aircraft flown, the aircraft certificate number, a statement of instrument and nightly flying time, the duration of the flight, and the points between which such flight was made, and when any flight results in serious damage to the aircraft, a notation to this effect. Flying instruction time shall be logged in the same manner and, in addition, the instructor shall make complete entries in

the log-book of his student showing the nature of each maneuver in which instruction was given and the time spent thereon. The instructor shall attest each such entry with his initials and pilot certificate number and rating thereon. This log-book shall be made available, upon demand, to any authorized representative of the Department of Commerce or State or municipal officer enforcing local regulations or laws involving Federal compliance.

20.662—From and after the effective date of these regulations no flying time shall be taken into account in connection with the issuance, renewal or reinstatement of a pilot certificate unless the aircraft flown was possessed of a valid and appropriate certificate of airworthiness.

20.67—Foreign Flights.—No person shall be in command of any aircraft of the United States flying in any foreign country unless possessed of a valid private, limited-commercial, commercial or airline pilot certificate, with a rating for the type, weight and engine classification of aircraft so flown.

Note.—For permission of U. S. aircraft to be flown out of the United States with intent to enter a foreign country, see CAR 70.

Any and all rules or regulations made, established, and issued by the Secretary of Commerce pursuant to law as are inconsistent with the provisions of the above specified civil air regulations are hereby repealed.

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