CIVIL AIR REGULATIONS

PART 21
AIRLINE TRANSPORT PILOT RATING

As amended to October 20, 1956

CIVIL AERONAUTICS BOARD

WASHINGTON, D. C.

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(Reprinted from FEDERAL REGISTER dated October 23, 1956)

TITLE 14—CIVIL AVIATION

Chapter I—Civil Aeronautics Board

Subchapter A—Civil Air Regulations

PART 21—AIRLINE TRANSPORT PILOT RATING

REVISION OF PART

Because of the number of outstanding amendments to Part 21, it has been decided to issue a revision of this part incorporating all amendments thereto in effect on October 20, 1956. Attention is called also to the following minor changes which have been made:

(1) All definitions have been moved to the front of the part, as § 21.5, and arranged alphabetically, without individual section numbers. Also, minor editorial changes have been made in some of the definitions for the purpose of obtaining uniformity in language or clarification of intent.

(2) An obsolete reference to Part 61 has been deleted in § 21.15 (a).

(3) An obsolete compliance date has been deleted in § 21.18 (a) (2).

(4) The heading, general paragraph, and footnote 1 of § 21.20 have been deleted and paragraph (a) has been changed to § 21.20.

(5) Paragraphs (e) and (f) of § 21.24 have been consolidated into paragraph (e) and revised to delete dates no longer applicable.

(6) Section 21.27 has been revised to delete dates which are no longer applicable.

(7) The identification card requirement contained in present § 21.45 was intended to facilitate the identification of the holder in the event that future security restrictions might so require. However, after 5 years experience with the issuance of identification cards, it is now evident that they have served no useful purpose in the past, and it appears unlikely that the carriage of such a card by airmen would have any future beneficial effect upon the exercise of security controls. In view of this experience and in view of the fact that the requirement has created a burden for the applicant as well as the Government, for which no safety or security justification exists, it has been deleted from this revision.

Since the changes effected by this revision are minor in nature and impose no additional burden on any person, notice and public procedure hereon are unnecessary and the revised part may be made effective on less than 30 days' notice.

In consideration of the foregoing, the Civil Aeronautics Board hereby revises Part 21 of the Civil Air Regulations (14 CFR Part 21, as amended) as set forth below, effective on October 20, 1956.

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

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AUTHORITY: §§ 21.1 to 21.44 issued under sec. 205, 52 Stat. 984; 49 U. S. C. 425. Interpret or apply secs. 601, 602, 52 Stat. 1007, as amended, 1008; 49 U. S. C., 551, 552.

§ 21.1 *Provision for issuance.* Pursuant to the provisions of the Civil Aeronautics Act of 1938, as amended, empowering the Administrator of Civil Aeronautics to issue airman certificates specifying the capacity in which the holders thereof are authorized to serve as airmen in connection with aircraft, and requiring the Civil Aeronautics Board to prescribe such reasonable rules and regulations governing practices, methods, and procedures as the Board may find necessary to provide adequately for safety in air commerce, airline transport pilots will be rated as to competence in accordance with the provisions of the regulations in this part.

§ 21.5 *Definitions.* As used in this part, terms are defined as follows:

Category. A category is a broad classification of aircraft with distinct configuration and operating characteristics such as airplane, rotorcraft, or glider.

Class. A class is a classification of aircraft within a category differentiating between single-engine and multiengine and land and water configurations.

Flight time. Flight time is the total time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the end of the flight (block to block).

Maximum certificated take-off weight. Maximum certificated take-off weight is the maximum take-off weight authorized by the terms of the aircraft airworthiness certificate.

Night. Night is the time between the ending of evening civil twilight and the beginning of morning civil twilight as published in the American Air Almanac converted to local time for the locality concerned.

NOTE: The American Air Almanac containing the ending of evening twilight and the beginning of morning twilight tables may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Information is also available concerning such tables in the offices of the Civil Aeronautics Administration or the United States Weather Bureau.

Pilot in command. A pilot in command is the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

Solo flight time. Solo flight time is flight time during which the pilot is the sole occupant of the aircraft.

Type. Type is a specific classification of aircraft having the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.

MINIMUM REQUIREMENTS

§ 21.9 *Eligibility.* To be eligible for an airline transport pilot competency

rating, an applicant shall comply with the minimum requirements set forth in §§ 21.10–21.18

§ 21.10 *Age.* Applicant shall be at least 23 years of age.

§ 21.11 *Character.* Applicant shall be of good moral character.

§ 21.12 *Citizenship.* An applicant for a pilot certificate with an airline transport pilot rating may be a citizen of any country or a person without nationality.

§ 21.13 *Education.* (a) Applicant shall be able to read, write, and understand the English language, and shall be able to speak the English language without accent or impediment of speech which would interfere with two-way radio conversation; and

(b) Shall be a high school graduate or what is deemed by the Administrator to be its equivalent from the applicant's showing of general experience and aeronautical experience, knowledge, and skill.

§ 21.14 *Physical condition.* Applicant shall meet the physical standards of the First Class prescribed in Part 29 of this subchapter.

§ 21.15 *Aeronautical knowledge.* Applicant shall be familiar with and shall accomplish a satisfactory written examination on:

(a) The provisions of Parts 1, 21, 27, 40, and 60 of this subchapter, together with such parts of the provisions of Parts 4a and 4b of this subchapter as are pertinent to the operations of air carrier aircraft.

(b) The fundamentals of air navigation and the use of formulas and of instruments and other navigational aids, both in aircraft and on the ground, which are deemed necessary for the navigation of aircraft by instruments.

(c) The general system of weather collection and dissemination.

(d) Weather map, weather forecast, and weather sequence abbreviations, symbols, and nomenclature.

(e) Elementary meteorology, including modern knowledge of the cyclones as associated with fronts.

(f) Cloud forms.

(g) Department of Commerce Weather Bureau Circular N, Instructions for Airway Meteorological Service, and all amendments thereto.

(h) Weather conditions, including icing conditions and upper-air winds, affecting aeronautical activities.

(i) Air navigation facilities in use on the civil airways, including rotating beacons, course lights, radio ranges, and radio marker beacons.

(j) Data obtained from airplane weather observations and meteorological data reported from observations made by pilots engaged in air carrier flights.

(k) The influence of terrain upon meteorological conditions and developments, and the relation thereof to air carrier flight operations.

(l) Radio communication procedure as applied to aircraft operation.

(m) The basic principles of loading and weight distribution and its effect on flight characteristics.

§ 21.16 *Aeronautical experience.* An applicant for an airline transport pilot rating shall hold a valid commercial pilot rating, or equivalent as determined by the Administrator, and shall meet the following aeronautical experience requirements:

(a) Applicant shall have had at least 250 hours of flight time composed of time as pilot in command, or time as copilot actually performing the duties and functions of a pilot in command under the surveillance of the pilot in command, or any combination thereof. Of this time, at least 100 hours shall have been cross-country flight time, and at least 25 hours shall have been night flight time. Flight time shown in fulfillment of the requirements of this paragraph may also be used for the purposes of paragraph (b) of this section.

(b) Applicant shall have had at least 1,200 hours of flight time as pilot within the last 8 years, of which

(1) 5 hours shall have been had within 60 days immediately preceding the date of application;

(2) 500 hours shall have been cross-country flight time;

(3) 100 hours shall have been night flight time;

(4) 75 hours shall have been instrument time under actual or simulated instrument conditions of which not less than 50 hours shall have been in actual flight.

(c) An applicant who meets the requirements of paragraph (a) of this section with other than 250 hours of pilot-in-command time shall have his certificate appropriately endorsed by the Administrator in accordance with Article 39 of the Convention on International Civil Aviation. At such time as the holder of a certificate so endorsed submits reliable documentary evidence to the Administrator that he has met the requirements of paragraph (a) of this section, taking into account only time as pilot in command, he shall be reissued a certificate without such endorsement.

NOTE: By the terms of Article 40 of the Convention on International Civil Aviation, no person having a certificate endorsed in accordance with the foregoing provision may participate in international navigation as pilot in command except with the permission of the State or States whose territory is entered.

§ 21.17 *Aeronautical skill.* (a) Applicant shall demonstrate satisfactorily his ability to pilot aircraft in normal take-offs, turns, landings, and the following maneuvers (the maneuvers in subparagraphs (6) and (7) of this paragraph shall be performed in an aircraft satisfactory to the examining inspector of the Administrator):

(1) From 3,500 feet, with engine throttled, a 360° turn and a landing in normal landing attitude.

(2) From 2,500 feet, with engine throttled, a 180° turn and a landing in normal landing attitude.

(3) A series of three shallow and three 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.

(4) A spiral in one direction from 3,500 feet, or higher, with engine throttled, and a landing in normal landing attitude.

(5) Subparagraphs (1) through (4) of this paragraph shall be applicable when the flight tests are conducted in aircraft of a gross weight in excess of 10,000 pounds; otherwise the pilot shall be required to demonstrate his aeronautical skill in accordance with § 20.26 of this subchapter.

(6) Emergency maneuvers such as simulated forced landings, spirals, side slips and climbing turns, and recovery from stalls, maneuvers in multiengine equipment with authorized load with one engine inoperative, if rating is sought on such equipment, and such other maneuvers as the examining inspector of the Administrator may deem necessary to demonstrate the competence of the applicant.

(7) A right-hand and a left-hand spin, each of at least two full turns, with not to exceed 10 degrees error.

NOTE: The requirements of subparagraphs (1)–(7) of this paragraph and of § 21.18 (b) may be met by the holding of a valid commercial rating.

(b) Applicant shall accomplish satisfactorily a flight test, solely by instruments, with respect to the following:

(1) Straight level flight for a given period of time.

(2) Moderate banks during 180° and 360° turns in both directions.

(3) Minimum glides and maximum climbs, and approaches to stalled attitudes of flight.

(4) Climbing turns.

(5) Stalls, skids, slips and spirals, and banks in excess of 45°, and recovery from the same.

NOTE: The requirements of subparagraphs (1)–(5) of this paragraph may be met by the holding of a valid instrument rating.

(6) Such other maneuvers as the examining inspector deems necessary.

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

§ 21.18 *Radio skill.* (a) An applicant shall demonstrate his ability to interpret International Morse Code signals, and shall accomplish a satisfactory flight test in a hooded cockpit with respect to the following:

(1) Tuning radio.

(2) Orientation. Such orientation shall include the use of the radio direction finder with sufficient tests to determine the ability of the pilot to:

(i) Home on a radio station.

(ii) Determine whether the aircraft is heading toward or away from the station.

(iii) Obtain accurate fixes by the use of radio compass.

(3) Following radio range.

(4) Locating cone of silence.

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

(6) Such other maneuvers as the examining inspector deems necessary.

(b) Such maneuvers as are necessary to demonstrate competence to satisfac-

torily pilot an aircraft from either control seat. None of the maneuvers provided for in § 21.17 and this section shall be disregarded, but any such maneuver may be modified by the examining inspector of the Administrator to such extent as may be necessary for reasonable and safe operation of the aircraft used in the particular maneuver. Such inspector will report any such modification to the Administrator in writing.

AIRLINE TRANSPORT PILOT COMPETENCY CERTIFICATE

§ 21.20 *Aircraft rating.* The aircraft which the applicant is deemed competent to pilot shall be prescribed in his certificate by category and class, and type if the aircraft has a maximum certificated take-off weight of more than 12,500 lbs. and, in the case of unconventional airplanes, such description as is appropriate to define clearly the competence of the applicant. Competence to pilot aircraft shall be demonstrated in aircraft of the category and class and, if appropriate, the type for which the rating is sought.

§ 21.21 *Application.* Application for an airline transport pilot certificate shall be made to the Administrator upon a form supplied for the purpose.

(a) *Application to amend.* When any change in an airline transport pilot competency rating is desired, the applicant shall file a written request therefor with the Administrator upon a form supplied for the purpose.

(b) *Revocation.* No person whose airline transport pilot certificate has been revoked shall apply for or be issued a pilot certificate of any grade or rating for a period of 1 year after the revocation, except as the order of revocation may otherwise provide.

§ 21.22 *Issuance.* Upon approval of an application duly made, proofs submitted and examinations and tests satisfactorily completed, an airline transport pilot certificate will be issued in an appropriate form.

(a) *Temporary certificate.* Following application made for an airline transport pilot certificate, but prior to approval thereof and issuance of the certificate, a temporary airline transport pilot certificate may be issued by the examining inspector of the Administrator.

(b) *Special ratings.* A special rating, except an instrument rating, will be issued to and renewed for the holder of a valid airline transport pilot certificate pursuant to the provisions of §§ 20.40–20.42, and upon the same terms as such rating is issued to and renewed for the holder of a valid commercial pilot certificate.

(c) *Instruction in air transportation service.* Any person holding a valid airline transport pilot rating shall be considered competent to instruct other pilots in air transportation service in aircraft of a category, class, and type specified in the airline transport pilot rating of the instructing pilot. No pilot shall give more than 8 hours of such instruction in any one day nor more than 36 hours in any 7-day period. Such instruction shall be given only in aircraft equipped with fully functioning dual controls.

§ 21.23 *Display.* An airline transport pilot certificate 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, or of any authorized official or employee of the Administrator or Board or 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.

§ 21.24 *Duration.* (a) An airline transport pilot certificate issued to a United States citizen shall remain in effect until surrendered, suspended, revoked, or otherwise terminated by order of the Board. A certificate issued to an applicant other than a United States citizen shall remain in effect for a period no longer than 12 months after the date of issuance, but it may be reissued without further demonstration of technical competence.

(b) A temporary airline transport pilot certificate shall remain in effect for a period no longer than 3 months after the date of issuance.

(c) After revocation, and upon request after suspension, the certificate shall be returned to the Administrator.

(d) Nothing in this section shall be construed to deny or defeat the jurisdiction of the Federal courts, the Administrator, or the Board to impose any authorized sanction, including revocation of the certificate, for a violation of the act or of the regulations in this subchapter occurring during the effective period of the certificate.

(e) Upon application to the Administrator, a person who on April 30, 1953, held a valid airline transport pilot certificate showing horsepower ratings and who has failed to exchange such certificate may, notwithstanding such failure and without further showing of competence, obtain an airline transport pilot certificate showing the aircraft category and class ratings and any aircraft type ratings for which he was qualified on April 30, 1953: *Provided,* That the holder of such certificate has:

(1) Passed an official rating test, as prescribed by the Administrator, in that type aircraft; or

(2) Successfully accomplished, in that type aircraft, a pilot ground and flight training program acceptable to the Administrator; or

(3) Served as pilot in command and sole manipulator of the controls of that type aircraft for at least 10 hours since May 1, 1949, and such aircraft was within his category, class, and horsepower ratings.

Such a person may also reinstate any pilot or other special ratings shown on the expired airline transport pilot certificate.

NOTE: All airline transport pilot certificates showing horsepower ratings expired May 1, 1953.

§ 21.25 *Nontransferability.* An airline transport pilot certificate is not transferable.

§ 21.26 *Operation during physical deficiency.* A certificated airline transport pilot shall not operate any aircraft during the period of any known physical deficiency or increase in physical deficiency which would render him during that period unable to meet the physical requirements with which he complied in order to secure his certificate.

§ 21.27 *Termination of certificates.* A certificate issued to an applicant other than a United States citizen shall remain in effect for a period no longer than 12 months after the date of issuance; however, it may be reissued without further demonstration of technical competence.

§ 21.28 *Re-examination.* (a) An applicant who has failed any prescribed theoretical examination may apply for re-examination at any time after the expiration of 30 days from the date of such failure or after he has received not less than 5 hours instruction in each subject failed from a person employed by an airline to instruct in such subject or from whichever one of the following persons is appropriate:

(1) A certificated airline transport pilot;

(2) A certificated ground instructor rated for the subject;

(3) A person qualified to instruct in the theory of instrument flight.

(b) An applicant who has failed to pass any prescribed practical examination or test may apply for re-examination only after (1) he has logged at least 5 additional hours of flying solely by instruments and at least 5 additional hours of dual flight instruction with a certificated flight instructor or a certificated airline transport pilot, or (2) he has acquired such part of the above practice or instruction as may, in the opinion of the Administrator, warrant re-examination. Upon meeting the requirements of this paragraph an applicant for re-examination shall be deemed to meet the 5 hours flight time requirements set forth in § 21.16 (b) (1).

(c) Applicant shall present a statement from the instructor indicating that he has given the required instruction and that he deems the applicant qualified to pass the flight test or that part of the theoretical examination in which such instruction was given, whichever is appropriate.

§ 21.29 *Change of address.* Within 30 days after any change in the permanent mailing address of a holder of a pilot certificate with an airline transport pilot rating, the holder shall notify the Administrator in writing of such change. Such notice shall be mailed to the Administrator of Civil Aeronautics, attention Airman Records Branch, Washington 25, D. C.

EXAMINATIONS AND TESTS

§ 21.30 *General.* The examinations and tests prescribed in the regulations of this part (both for an airline transport pilot certificate and for the ratings issued with respect thereto) will be conducted by an authorized officer or em-

ployee of the Administrator or by a properly qualified person designated for the purpose by the Administrator. During the flight tests the air carrier may have a check pilot on board.

§ 21.31 *Physical examination.* In connection with the original issuance of any airline transport pilot certificate the physical examination prescribed shall be accomplished by a medical examiner of the Administrator of Civil Aeronautics, duly authorized to so examine such pilots, before any practical or theoretical test or other examination will be given, and shall be completed within the 6 months preceding the date of filing application for such pilot certificate.

§ 21.32 *Time and place.* All examinations and tests will be held at such times and places as the Administrator may designate.

§ 21.33 *Aircraft used in tests.* The applicant shall furnish a certificated aircraft for any flight test involved. Each such aircraft, used in any test for an airline transport pilot certificate shall be equipped with dual controls and shall accommodate the applicant and the inspector. 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. Each such aircraft shall have adequate vision for the pilot and check pilot.

§ 21.34 *Aircraft category rating.* For purposes of specifying the category of aircraft which the applicant is deemed competent to pilot and for convenience in examining and rating the applicant with respect thereto, aircraft are categoried as follows:

(a) Airplane;
(b) Autogiro;
(c) Glider;
(d) Lighter-than-air aircraft.

§ 21.35 *Airplane class and type rating*—(a) *Airplane class rating.* For purposes of specifying the class of airplane which the applicant is deemed competent to pilot and for convenience in examining and rating the applicant with respect thereto, airplanes are classed as follows:

(1) Single-engine, land;
(2) Single-engine, sea;
(3) Multiengine, land;
(4) Multiengine, sea;
(5) Unconventional.

(b) *Type rating.* An aircraft type rating shall be issued for each type of aircraft having a maximum certificated take-off weight of more than 12,500 lbs.

§ 21.36 *Inspection.* The applicant for an airline transport pilot certificate shall offer full cooperation in respect of any inspection or examination which may be made of said applicant upon proper demand by any authorized representative of the Administrator prior or subsequent to the issuance of such certificate.

§ 21.37 *Standard of performance.* Every practical and theoretical examination and test shall be accomplished to the satisfaction of the Administrator and the minimum passing grade in the subject of examination or test shall be 70 percent. Each flight maneuver will be graded separately. Other examinations will be graded as a whole.

§ 21.38 *Reports.* The person giving any examination or test in behalf of the Administrator will report the result thereof upon an appropriate form to the Administrator and all data collected incident to such examination or test will be considered as of a confidential nature by such person and by all employees of the Civil Aeronautics Administrator.

PILOT REGULATIONS

§ 21.40 *Certificated airline transport pilots*—(a) *Rating limitations.* No certificated airline transport pilot shall operate any aircraft other than in accordance with the rating limitations set forth in his pilot certificate: *Provided,* That the holder of a valid airline transport pilot certificate may pilot airplanes:

(1) As a second pilot without an airplane class and horsepower rating for the particular airplane operated;

(2) As a first pilot of a class or within a horsepower range other than that specified in his airline transport pilot certificate, but he shall not carry any person in such airplanes other than members of the crew thereof, certificated airmen carried in air carrier airplanes in furtherance of their official duties, or a certificated instructor rated for the airplane operated.

(b) *Periodic physical examinations.* A certificated airline transport pilot shall not pilot an aircraft in operations for which he is required to possess an airline transport pilot rating unless, within the preceding 6 calendar months, he has met the physical requirements of this part by passing an examination given by an authorized airline medical examiner of the Administrator.

(c) *Medical certificate.* A medical certificate issued by an authorized airline medical examiner of the Administrator or other evidence satisfactory to the Administrator that the pilot has met the physical requirements of this part shal' be carried by such pilot while piloting aircraft.

§ 21.41 *Passenger carrying.* A certificated airline transport pilot shall not pilot any aircraft carrying any person other than members of the crew thereof, certificated airmen carried in air carrier aircraft in furtherance of their official duties, or a certificated instructor rated for the aircraft operated, unless, within the 90 days immediately preceding, he shall have made at least 3 take-offs, and 3 landings to a full stop, in an aircraft of the same category (§ 21.34) and if an airplane, within the same class (§ 21.35 (a)) as that of the aircraft in which any such person is carried.

§ 21.42 *Recent experience requirements*—(a) *Passenger flight (day and night).* A certificated airline transport pilot shall not pilot an aircraft carrying any person other than the members of the crew thereof, certificated airmen carried in air carrier aircraft in furtherance of their official duties, or a certificated instructor rated for the aircraft operated, unless within the preceding 3 calendar months he shall have made and logged at least 3 take-offs and landings to a full stop in an aircraft of the same category, class, and type as that of the aircraft in which such person is carried.

(b) *Instrument flight.* A certificated airline transport pilot, who within the preceding 6 calendar months has not flown and logged at least 2 hours of flight time solely by reference to instruments under either actual or properly simulated instrument flight conditions, shall not pilot an aircraft under such conditions until he has flown and logged at least 2 hours of such flight time accompanied by a certificated pilot of at least private grade holding an appropriate category, class, and type rating for the aircraft and authorized to operate aircraft under instrument conditions.

§ 21.43 *Instruction.* No person holding a valid airline transport pilot certificate shall give flying instruction, except as provided for in § 21.22 (c), unless possessed of a valid instructor rating.

§ 21.44 *Logbooks.* The following rules will govern pilot logbooks:

(a) *General.* Every certificated airline transport pilot shall keep an accurate record of his flying time in a logbook in which the entries as to solo flying time have been certified to by him and the entries as to instruction have been certified to by his instructor. Logbooks shall be bound records and the entries shall be accurate, legible, in ink or indelible pencil, and so arranged as to facilitate easy reference thereto.

(b) *Contents.* The logbook shall contain the date of flight, the category, class, and type of aircraft flown, the aircraft certificate number, a statement of pilot in command, dual instruction, instrument and night flight time, the duration of the flight, the points between which such flight was made, and, in addition, when any flight results in serious damage to the aircraft, a notation to this effect. Dual instruction time shall be logged in the same manner and, in addition, the instructor shall make complete entries in the logbook 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, pilot certificate number, and pertinent rating. This logbook shall be presented for inspection, upon demand and reasonable notice, to any authorized representative of the Administrator or Board or State or municipal officer enforcing local regulations or laws involving Federal compliance.

(c) *Logging of pilot flight time.* The holder of an airline transport pilot certificate may log the total flight time while acting as pilot in command or co-pilot.

(d) *Logging instrument flight time.* Instrument flight time may be logged as such only when the aircraft is flown

solely by reference to instruments either under actual or properly simulated flight conditions. (Over-the-top flying shall not be logged as instrument flight time.)

(e) *Reports.* The holder of an airline transport pilot certificate shall furnish the authorized airline medical examiner of the Administrator, at the time of each physical examination to be forwarded by him to the Administrator, a report setting forth the amount and type of his aeronautical experience and such other pertinent data as the Administrator may require since his last preceding report.

[F. R. Doc. 56-8515; Filed, Oct. 22, 1956; 8:55 a. m.]

NOTICE

Inform the Publications Section, 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 and whether you wish to receive copies of amendments which may be issued in the future.

☆U. S. GOVERNMENT PRINTING OFFICE: 1956 O—406720

UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 21-1
Effective: December 21, 1956
Adopted: December 21, 1956

AIRLINE TRANSPORT PILOT RATING

CLARIFICATION OF AGE REQUIREMENT
FOR ISSUANCE OF RATING

Currently effective §§ 21.10 of Part 21 of the Civil Air Regulations specifies that an applicant for an airline transport pilot rating shall be at least 23 years of age.

This provision could be construed to mean that a person must be 23 years old before he can apply for an airline transport pilot rating, although the intent of the Board in adopting the provision was to require only that the applicant reach 23 years of age before being issued such rating.

Since the present minimum age provision may be construed to prevent a person from applying for an airline transport pilot rating before reaching the prescribed minimum age, the wording of this provision is being modified to make it clear that the minimum age requirement applies only to the actual issuance of the rating. This modification in language will not adversely affect safety since the minimum age for the issuance of an airline transport pilot rating is not reduced and the privileges associated with such rating remain unchanged.

Since this amendment is minor in nature and imposes no additional burden on any person, notice and public procedure hereon are unnecessary and it may be made effective without prior notice.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 21 of the Civil Air Regulations (14 CFR Part 21, as amended) effective December 21, 1956:

By amending § 21.10 to read as follows:

21.10 Age. 23 years is the minimum age for the issuance of an airline transport pilot rating.

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 602, 52 Stat. 1007, 1008, as amended; 49 U.S.C. 551, 552)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

Part 21 last printed October 20, 1956

UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 21-2
Effective: July 1, 1958
Adopted: April 2, 1958

AIRLINE TRANSPORT PILOT RATING

HELICOPTER CATEGORY RATING

The Civil Aeronautics Act of 1938, as amended, requires that the certificate issued to pilots serving in scheduled air transportation be designated "airline transport pilot." In view of this provision, Part 21 of the Civil Air Regulations sets forth the present requirements for the issuance of an "airline transport pilot" certificate with appropriate ratings.

This amendment to Part 21 establishes provisions for the issuance of an airline transport pilot certificate with a helicopter category rating, including provisions for the issuance of a helicopter rating to persons presently holding an airline transport pilot certificate with an airplane rating. In promulgating this amendment, careful consideration has been given to comment received in response to Civil Air Regulations Draft Release No. 53-13, circulated July 23, 1953, the results of a public meeting held in Washington, D. C., in June of 1954, and comment received in response to Civil Air Regulations Draft Release No. 56-3, circulated January 19, 1956.

This amendment differs from the detailed proposals circulated in Draft Releases 53-13 and 56-3 in some respects. For example, it does not require an applicant for an airline transport pilot certificate with a helicopter category rating to have an instrument rating. Inasmuch as no helicopters are presently approved for instrument flight and no helicopter instrument operations are authorized, to require an instrument rating would make it necessary for a helicopter pilot to secure the rating in an airplane, thus imposing an unnecessary and unreasonable financial burden upon the applicant. It is considered necessary, however, that there be indicated on each certificate with a helicopter category rating that the holder thereof is authorized to pilot helicopters in accordance with VFR flight rules only. At such time as the Board by regulation authorizes helicopter IFR operations, Part 21 will be amended to require all holders of an airline transport pilot certificate with a helicopter category rating to qualify for an instrument rating by demonstrating competence and knowledge of the appropriate procedures involving instrument flight in helicopters.

A person holding a valid airline transport pilot certificate with an airplane category rating is required, among other things, to have at least 15 hours of night flight time in a helicopter to qualify for a helicopter category rating. Such a requirement is considered necessary in the interest of safety in view of the flight characteristics of the helicopter; the degree of proficiency required for night operations, particularly in autorotative landing configurations; and the low weather minimums authorized for night operations.

In addition, a holder of an airline transport pilot certificate with an airplane category rating who desires to obtain a helicopter category rating is required to complete 100 hours of helicopter flight time as pilot in command or complete a training program conducted by a certificated air carrier or other approved agency requiring at least 75 hours of helicopter flight time. The Board considers that 75 hours of flight time under the supervision of an approved agency or certificated air carrier will provide a degree of proficiency on the part of the pilot at least the equivalent of that which would be provided by 100 hours of unsupervised helicopter flight time as originally proposed.

In establishing these minimum experience requirements for an additional category rating, the Board has taken into consideration the 1,200-hour experience requirement already met by the applicant, and the fact that prior to serving in scheduled air transportation each pilot must comply with the training program required by the several air carrier operating parts of the Civil Air Regulations.

Further, it is the Board's opinion that insofar as safety is concerned, no useful purpose would be served by requiring pilots presently serving as pilots in command in scheduled air carrier helicopter operations to accomplish the written and flight examinations set forth in this amendment. It is considered that a satisfactory level of competence has been assured by the accomplishment of the required periodic flight checks, the requirement for 100 hours as pilot in command in scheduled air carrier operations, and by participation in the various air carrier training programs.

Interested persons have been afforded an opportunity to participate in the making of this regulation (21 F. R. 630), and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 21 of the Civil Air Regulations (14 CFR Part 21, as amended) effective July 1, 1958.

USCOMM-DC-10881

1. By adding new §§ 21.19, 21.19a, 21.19b, 21.19c, and 21.19d to read as follows:

21.19 Airline transport pilot certificate (helicopter). An applicant for an airline transport pilot certificate with a helicopter rating authorizing the piloting of a helicopter under VFR flight rules only shall meet the aeronautical requirements of §§ 21.19a through 21.19c in lieu of §§ 21.15 through 21.18: Provided, That an airline transport pilot certificate with a helicopter category rating and appropriate class and type ratings will be issued to a pilot who has served for at least 100 hours as pilot in command in scheduled air carrier helicopter operations within the 12 months immediately preceding the date of application and who otherwise meets the qualification requirements of this part.

21.19a Aeronautical knowledge. Applicant shall be familiar with and shall accomplish a satisfactory written examination on:

(a) Provisions of the Civil Air Regulations pertinent to the air carrier operation of helicopters;

(b) Helicopter design, components, systems, and performance limitations;

(c) Basic principles of loading and weight distribution and their effect on helicopter flight characteristics;

(d) Air traffic control systems and procedures pertinent to the operation of helicopters;

(e) Procedures for the operation of helicopters in potentially hazardous meteorological conditions; and

(f) Theory of flight as applicable to helicopters.

21.19b Aeronautical experience. Applicant shall hold a valid commercial pilot certificate or equivalent as determined by the Administrator, and shall have had at least 1,200 hours of flight time as pilot within the last 8 years, of which:

(a) 5 hours shall have been in helicopters within 60 days immediately preceding the date of application;

(b) 500 hours shall have been cross-country flight time;

(c) 100 hours shall have been night flight time, of which at least 15 hours shall have been in helicopters; and

(d) 200 hours shall have been in helicopters, of which 75 hours shall have been as pilot in command of a helicopter, or as copilot actually performing the duties and functions of a pilot in command under the surveillance of a pilot in command, or any combination thereof.

21.19c Aeronautical skill. Applicant shall demonstrate to the satisfaction of the Administrator his ability to pilot helicopters. Such demonstration shall include at least the following:

(a) Maneuvers consisting of normal take-offs and landings, cross-wind landings, climbs and climbing turns, steep turns, maneuvering at minimum speed, rapid descent, and quick stops;

(b) Simulated emergency procedures including failure of an engine or other components or systems, fire, ditching, evacuation, and operation of emergency equipment;

(c) Autorotative approaches and landings with simulated one engine inoperative; and

(d) Such other maneuvers as the Administrator may deem necessary to demonstrate the competence of the applicant.

21.19d Additional category ratings.

(a) A person holding a valid airline transport pilot certificate with an airplane category rating who applies for a helicopter category rating authorizing the piloting of a helicopter under VFR flight rules only shall:

(1) Comply with the provisions of §§ 21.19a and 21.19c; and

(2) Have completed at least 100 hours, including 15 hours at night, of helicopter flight time as pilot in command of a helicopter, or as copilot actively performing the duties and

functions of a pilot in command under the surveillance of a pilot in command who holds a valid airline transport pilot certificate with the appropriate helicopter rating, or any combination thereof; or have completed a training program conducted by a certificated air carrier or other approved agency requiring at least 75 hours of helicopter pilot-in-command, copilot, solo, or dual instruction time, or any combination thereof of which 15 hours shall have been at night.

(b) A person holding a valid airline transport pilot certificate with a helicopter category rating who applies for an airplane category rating shall:

(1) Comply with the provisions of §§ 21.15 through 21.18; and

(2) Have completed at least 100 hours, including 15 hours at night, of airplane flight time as pilot in command of an airplane, or as copilot actively performing the duties and functions of a pilot in command under the surveillance of a pilot in command who holds a valid airline transport pilot certificate with the appropriate airplane rating, or any combination thereof; or have completed a training program conducted by a certificated air carrier or other approved agency requiring at least 75 hours of airplane pilot-in-command, copilot, solo, or dual instruction time, or any combination thereof, of which 15 hours shall have been at night.

2. By amending § 21.34 by adding a new paragraph (e) to read as follows:

21.34 Aircraft category rating. * * *

(e) Helicopter.

3. By amending § 21.35 by adding a sentence to the end of paragraph (b) to read as follows: "A helicopter type rating shall be issued for each type of helicopter."

(Sec. 205 (a), 52 Stat. 984; 49 U.S.C. 425 (a). Interpret or apply secs. 601, 602, 52 Stat. 1007, 1008; as amended, 49 U.S.C. 551, 552)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

Part 21 last printed October 20, 1956.