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

Civil Air Regulations Amendment 21-6
Effective: May 1, 1949
Adopted: April 28, 1949

PERSONNEL LICENSING STANDARDS

On April 2, 1949, there was published a notice of proposed rule making (14 F.R. 1545) indicating our intention to implement those portions of the Personnel Licensing Standards adopted by the International Civil Aviation Organization (ICAO) deemed suitable for domestic aviation.

The following amendments to Part 21 are deemed necessary for such implementation. One amendment adopts definitions of aircraft category, class, and type, flight time, pilot in command, solo flight time, etc. This change is fundamental if any sound basis is to exist for comparing airman certificates issued by the United States with Annex 1 standards so that other Member States shall be obliged to recognize them. Another amendment requires an applicant for an airline transport pilot rating to demonstrate knowledge of radio communication procedure as applied to aircraft operation and knowledge of the basic principles of loading and weight distribution and its effect on flight characteristics, in addition to the aeronautical knowledge requirements of current Part 21.

The aeronautical experience requirements are amended to require an applicant for an airline transport pilot rating to have 100 hours of night flight time and 75 hours of instrument time of which 50 hours shall have been in actual flight; and an applicant shall also show that at least 250 hours of the required total flight time shall have been flown as pilot in command, of which 100 hours shall have been cross-country flight time, and at least 25 hours shall have been night flight time. The current requirements provide for 100 hours of night flight time of which 50 hours shall have been cross country; or at least 150 hours as pilot in command of airplanes in scheduled air carrier operations and, within the year preceding application, 10 take-offs and 10 landings at night; and for 20 hours of instrument flying instruction.

A further amendment provides that an applicant shall, in addition to meeting the current radio skill requirements, demonstrate his competency to interpret International Morse Code signals.

These changes in knowledge and skill requirements do not constitute important substantive changes, but are made in the belief that the amended requirements more nearly conform to those established by ICAO. It is believed that practically all current holders of airline transport pilot ratings can meet such requirements.

In addition, this part is amended to provide for type (formerly "make and model") ratings for aircraft of over 12,500 lbs. maximum certificated take-off weight.

It will be noted that while the provisions of the Convention on International Civil Aviation will permit the holder of a pilot certificate issued prior to May 1, 1949, to exercise the privileges as currently authorized until May 1, 1953, such certificate need not after that date be recognized by foreign States. Thus, it will be necessary for current certificate holders to obtain a new certificate issued under the amended provisions of this part. Moreover, it will not be necessary, until such date, for such a certificate holder to obtain a type rating for aircraft of over 12,500 lbs. maximum certificated take-off weight, provided that his current "type" (amended to "category") and "category" (amended to "class") ratings authorize operation of the aircraft. Conversely, it will be noted that class and category ratings issued after May 1, 1949, will not authorize piloting aircraft of over 12,500 lbs. and that type ratings for any such aircraft will be required for which the holder of the certificate is not currently rated by virtue of his current "type" and "class" ratings.

Moreover, in view of the fact that the new requirements are substanially the same as the current requirements, it is not believed that such holder will have any difficulty in obtaining a new certificate. It is anticipated that the Administrator will, in due time, issue instructions with regard to the exchange of such certificates.

These amendments shall be effective May 1, 1949. It will be noted that Annex 1 will become effective on May 1, 1949, and that the United States is obliged by the terms of the Convention on International Civil Aviation to bring its regulations into compliance with Annex 1, in so far as it has not filed notice of differences thereto, by that date. In the notice of proposed rule making referred to above it was indicated that these amendments would be made effective on May 1, 1949; thus the public was fully advised of the intended effective date.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented. For the reason above stated, the Board finds that good cause exists for making this amendment effective on less than 30 days' 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 May 1, 1949, as follows:

1. By deleting the word "type" from every section in which it appears in this part and inserting the word "category" in lieu thereof.

2. By deleting the words "model," "models," "make," or "make and model" from every section in which any or all of such words appear in this part and inserting the word "type" in lieu thereof.

3. By adding §§ 21.1511 (l) and 21.1512 (m) to read as follows:

21.1511 (l) Radio communication procedure as applied to aircraft operation.

21.1512 (m) The basic principles of loading and weight distribution and its effect on flight characteristics.

4. By amending §§ 21.16 through 21.163 (d) to read as follows:

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 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 had 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;

(d) 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; and

(e) 250 hours of the preceding requirements shall have been as pilot in command, of which 100 hours shall have been cross-country flight time and at least 25 hours shall have been night flight time.

5. By deleting the words "in solo flight" from § 21.17.

6. By amending § 21.178 to read as follows:

21.178 Radio skill. 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:

7. By amending § 21.20 to read as follows:

21.20 Existing aircraft ratings. Every pilot having an airline transport pilot rating with appropriate aircraft category and class, and horsepower ratings, issued by the Administrator prior to May 1, 1949, may continue to operate aircraft in accordance with the limitations

of such rating until the expiration, suspension, revocation, or surrender of the rating: Provided, That after May 1, 1953, each such pilot shall comply with § 21.351. 1/

8. By amending § 21.200 to read as follows:

21.200 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 12,500 lbs. or more 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.

9. By amending § 21.222 to read as follows:

21.222 Instruction in air transportion 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.

10. By amending § 21.35 to read as follows:

21.35 Airplane class and type rating.

11. By amending § 21.351 to read as follows:

21.351 Type rating. An aircraft type rating shall be issued for each type of aircraft having a maximum certificated take-off weight of over 12,500 lbs.

12. By deleting § 21.352.

13. By deleting § 21.421.

1/ Annex 1 to the Convention on International Civil Aviation (Personnel Licensing Standards) requires a pilot to have a type rating for all aircraft of a maximum certificated take-off weight of over 12,500 lbs. However, by the terms of the Convention, a holder of a pilot certificate issued prior to May 1, 1949, may, until May 1, 1953, exercise all of the privileges of such certificate both in the United States and internationally without compliance with such international standard.

14. By amending § 21.422 to read as follows:

21.422 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. A certificated airline transport pilot shall not pilot such aircraft between sunset and sunrise unless he has made at least one of the 3 required take-offs and landings between sunset and sunrise.

15. By amending § 21.423 to read as follows:

21.423 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.

16. By amending § 21.441 to read as follows:

21.441 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.

17. By amending § 21.442 to read as follows:

21.442 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 copilot.

18. By adding a new § 21.50 to read as follows:

21.50 Definitions.

(a) As used in this part the words listed below shall be defined as follows:

(1) Category. Category shall indicate a classification of aircraft such as airplane, helicopter, glider, etc.

(2) Class. Class shall indicate a difference in basic design of aircraft within a category, such as single-engine land, multi-engine sea, etc.

(3) Flight time. Flight time shall mean 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).

(4) Maximum certificated take-off weight. The maximum certificated take-off weight shall mean the maximum take-off weight authorized by the terms of the aircraft airworthiness certificate.

(5) Night. Night is the time between the ending of evening twilight and the beginning of morning twilight as published in the Nautical Almanac converted to local time for the locality concerned. 2/

(6) Pilot in command. Pilot in command shall mean the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

(7) Solo flight time. Solo flight time shall mean the flight time during which a pilot is the sole occupant of an aircraft.

(8) Type. Type shall mean all aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.

(Secs. 205 (a), 601, 602, 52 Stat. 984, 1007, 1008; 49 U.S.C. 425 (a), 551, 552)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

(SEAL)

M. C. Mulligan
Secretary

2/ The Nautical 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 concerning such tables is also available in the offices of the Civil Aeronautics Administration or the U. S. Weather Bureau.
