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

Civil Air Regulations Amendment 20-12
Effective: August 1, 1951
Adopted: May 3, 1951

KNOWLEDGE, EXPERIENCE, AND SKILL REQUIREMENTS FOR PRIVATE PILOT RATING, TOGETHER WITH IMPLEMENTATION OF ANNEX 1, AMENDMENT 65, TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION - PRIVATE GLIDER PILOT

A study of accidents in 1948 and 1949 involving private pilots, which was recently conducted by the Civil Aeronautics Administration, indicates the need for revision in our standards of aeronautical knowledge, experience, and skill for applicants for a private pilot rating. Pilot error was shown to be the principal or contributing cause of most of these accidents, owing, in the main, to the possession of insufficient information, instruction, or experience. Seventy-six percent of the accidents studied involved pilots with not more than 51 to 300 hours of flying experience. Their errors arose frequently in the course of cross-country flying while mishandling flight controls, or landing on or taking off from unsuitable terrain, or they were the result of faulty flight planning, especially in reckoning with weather, faulty navigation, or violations of Civil Air Regulations.

A number of the following regulations are intended to require applicants for a private pilot rating: (1) to pass a more comprehensive written examination, including questions on regulations affecting the safe operation of aircraft, and (2) to gain special instruction and experience in dealing with the problems attendant upon cross-country flight. It is believed that, consistent with the best interests of safety, these amendments will serve to reduce the number of accidents caused in whole or in part by pilot error by raising the required level of competence among private pilots.

In addition, certain of the following regulations, together with concurrent amendments of Parts 43 and 50, are intended to revise, as far as practicable, our standards of aeronautical knowledge, experience, and skill for applicants for private glider pilot ratings, so that they shall be consistent with international standards established under Amendment 65 of Annex 1 to the Convention on International Civil Aviation. The principal changes effected by these regulations concern an increase in the age minimum from 14 to 16 years and the inclusion of meteorology, theory of flight, and glider operating limitations among our knowledge requirements.

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.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 20 of the Civil Air Regulations (14 CFR, Part 20, as amended) effective August 1, 1951:

1. By amending § 20.20 (b) to read as follows:

20.20 Age. * * *

(b) Glider: 16 years.

2. By amending § 20.24 to read as follows:

20.24 Aeronautical knowledge.

(a) Powered aircraft. An applicant for a powered aircraft rating shall have passed within the preceding 24 months a written examination based on Parts 43, 60, and 62 of the Civil Air Regulations and on practical aspects of cross-country flight planning, weather recognition, pilotage, dead reckoning, and general safety practices in the operation of aircraft.

(b) Glider. An applicant for a glider rating shall demonstrate a knowledge of such portions of Parts 43, 60, and 62 as are pertinent to glider operations and of aeronautical charts, meteorology in relation to glider flights, navigation and other instruments used in the operation of gliders, theory of flight, and glider operating limitations.

3. By amending § 20.25 to read as follows:

20.25 Aeronautical experience.

(a) Powered aircraft. Each applicant for a powered aircraft rating, whether he has obtained his flight experience in spinnable, non-spinnable, two-control, or three-control aircraft, shall have not less than 25 hours of solo flight time and 15 hours of dual instruction time given by a rated flight instructor: Provided, That if the applicant holds a private or commercial pilot certificate with a glider rating, he may receive credit for not more than 10 hours of the required solo flight time for equal flight time obtained in gliders. Each applicant shall in addition meet the requirements of subparagraphs (1) through (3).

(1) At least 10 hours of the required solo flight time shall be cross-country flight time. Each solo cross-country flight shall include a landing at a point more than 25 miles from the point of departure, and at least one flight shall include a landing at a point more than 100 miles from the point of departure.

(2) After the applicant's first solo flight, at least 5 hours of dual instruction time shall be given in cross-country flying, of which not less than 3 hours shall be given before his first solo cross-country flight.

(3) Dual instruction time shall include instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.

(b) Glider. Each applicant for a glider rating shall have made at least 100 glider flights, or have acquired 10 hours of glider flight time including at least 50 glider flights. The total number of required flights shall include at least (1) 25 glider flights during each of which a 360° turn is made; (2) 1 hour of flight instruction in the recovery from stalls entered from all normally anticipated flight attitudes; (3) 2 hours in the aggregate during which the applicant is the solo occupant of the glider; and (4) at least 3 hours in a glider suitable for cross-country flight.

4. By amending §§ 20.26 to read as follows:

20.26 Aeronautical skill. An applicant shall exercise reasonable judgment, coordination, and smoothness in the execution of all flight maneuvers, any of which, however, may be modified or eliminated if not consistent with the characteristics of the aircraft used in the flight test and if appropriate operation limitations are entered on the rating record. If an applicant's medical certificate shows a structural defect or limitation, such additional maneuvers and tests shall be required as may be necessary to demonstrate the competence of the applicant to pilot aircraft safely, and appropriate operation limitations shall be entered on the rating record. Except as thus provided, each applicant shall satisfactorily accomplish a practical examination with respect to the following procedures and maneuvers:

(a) Airplane.

(1) Preflight inspection, starting, taxying, and run-up check of aircraft before take off;

(2) Planning of a cross-country flight to a specified destination, reckoning with weather conditions, fuel requirements, check points, estimated time of arrival, and available alternate airports, and accomplishing such portion of the planned flight, including change of course to an alternate airport, as is necessary to demonstrate proficiency in cross-country flying;

(3) Straight and level flight, left and right medium banked turns, left and right climbing and gliding turns at normal and at minimum controllable speeds, and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes;

(4) Turns while maintaining a constant radius, or track, around a point, or area, including a 720° turn in each direction in a banked attitude of more than 45°;

(5) Normal and cross-wind take-offs and landings following appropriate traffic control procedures of the airport involved, using power, flaps, and slips at the applicant's discretion for assistance in landing;

(6) Simulated emergencies, including one short or soft-field take-off, and one landing, if in single-engine aircraft, with engine throttled and using flaps, slips, or both, for assistance; or, if in multi-engine aircraft, in accordance with proper engine-out procedure.

(b) Glider.

(1) At least 2 flights, one of which shall include a 360° approach to the right and one to the left, landing each time within 200 feet beyond a designated line or point;

(2) recovery from stalls entered from all normally anticipated flight attitudes. (Stall maneuvers may be demonstrated in airplanes.)

(c) Rotorcraft. As prescribed by the Administrator appropriate to the type of rotorcraft used.

5. By amending § 20.40 (b) to read as follows:

20.40 Aircraft rating competence. * * *

(b) A private pilot limited by his rating to nonspinnable airplanes may have this limitation removed by making application to the Administrator and by showing that he meets the experience requirements of § 20.25. In this case the dual cross-country instruction required need not have been received before any solo cross-country flight.

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

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

M. C. Mulligan
Secretary

(SEAL)

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