

## Title 14—AERONAUTICS AND SPACE

### Chapter I—Federal Aviation Agency

[Regulatory Docket No. 4081; Amdt. Nos. 1-9;  
61-18]

#### PART 1—DEFINITIONS AND ABBREVIATIONS

#### PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS

#### Biennial Expiration and Renewal of Flight Instructor Certificates and In- creased Supervision of Student Pil- ot Activities

The purpose of these amendments to Parts 1 and 61 of the Federal Aviation Regulations is to provide for higher standards of flight instruction and closer control over student pilot activities. This action was published as a notice of proposed rule making and circulated as a Federal Aviation Agency Notice No. 64-18 (29 F.R. 4738).

It was proposed in Notice No. 64-18 to delete the definition of "dual instruction" now contained in Part 1 and to make certain amendments to Part 61 that will—

(1) Prohibit the giving of flight instruction required to qualify for a pilot certificate or rating by any person except a certificated flight instructor;

(2) Provide improved standards for the certification of flight instructors and raise the standards of flight instruction;

(3) Give a certificated flight instructor additional responsibilities; and

(4) Provide for closer supervision of student pilot activities. The comments received in response to Notice 64-18 were generally favorable to the proposed amendments.

The biennial expiration and renewal of flight instructor certificates (§ 61.9 (b)) was the most controversial item in the proposed amendments. Many arguments, for and against, were received in response to this item. However, while some of the comments that opposed the amendment were based upon the opinion that the renewal was unnecessary, others were based on an assumption that a retesting on all items of the oral and flight test would be required for each renewal, regardless of the experience and competency of the applicant. Comments favoring the renewal requirement expressed a belief that there is a need for higher standards of flight instruction and that the proposed requirement should result in more proficient instructors and safer pilots. In view of the importance of this aspect of the proposal, the Agency carefully evaluated its position as set forth in the proposal and believes that the rule should be adopted as proposed. Under the proposed § 61.177,

and as adopted in this rule, an applicant for the renewal of a flight instructor certificate should be prepared to take the practical tests prescribed by § 61.173 if his certificate has expired at the time of his application for renewal.

An applicant holding a current certificate at the time of application should also be prepared to take the practical tests prescribed in § 61.173. However, in the case of a flight instructor with a record of satisfactory training and performance by his students, the rule permits little or no retesting for the renewal. On the other hand, in the case of an instructor who has had little or no instructing activity, or if the performance of his students indicates a possible deficiency in his instructing techniques, a renewal test will be given the applicant on those items of the test prescribed in § 61.173 that the examining inspector believes are necessary to determine the applicant's continued competency. Instructions for the handling of renewal applications by inspectors and pertinent advisory material to the public will be issued well in advance of the time when renewals will first be required.

Section 61.21 (a) (4) excepts an applicant for a type rating only from having a flight instructor's recommendation. In order to keep the requirements consistent in the case of retesting an applicant for a type rating only after failure, § 61.27 (b) is amended to exclude the applicant for a type rating only from the requirements of obtaining a qualified flight instructor's recommendation before retesting.

The proposed general limitations in § 61.73 (c) were generally favored by persons commenting on Notice No. 64-18. However, some expressed opposition to the requirements for flight instruction within the preceding 90 days and flight instructor authorization for each solo cross-country flight by a student pilot. The purpose of these requirements is to insure that the student pilot avails himself of the advice and counsel of a flight instructor during the important formative period of his training.

The Agency has considered the comments on these items and has determined that these requirements should not apply after a student pilot has acquired the aeronautical experience required for a private pilot certificate, and he has an endorsement by a flight instructor that the student pilot is considered capable of exercising solo cross-country privileges without a flight instructor's supervision and is considered competent to make solo flights, or solo cross-country flights, or both, without mandatory periodic flight checks. Present paragraph (c) is retained and proposed paragraphs (c) and (d) have been amended to provide for this exception and are redesignated as paragraphs (d) and (e) to § 61.73.

Some comments indicate that the words "flight plan" as used in proposed § 61.73 (d) were misinterpreted as mean-

ing a flight plan filed with air traffic control. The Agency, of course, encourages the filing of VFR flight plans; however, the words "flight plan" in this section meant the student's preflight preparation or planning for his flight. In order to eliminate misinterpretation, the words "student's preflight preparation and planning" are substituted for "flight plan" in new § 61.73 (e).

A number of persons misinterpreted proposed § 61.170 as requiring that a flight instructor who instructs in airplanes must hold an instrument rating on his pilot certificate. An instrument rating is required only if the applicant wishes to be rated to give instrument flight instruction.

The proposed § 61.179 provides that required glider flight instruction may be given only by certificated glider flight instructors. However, a provision was included that would allow a commercial glider pilot to obtain a flight instructor certificate with a glider rating or a certificated flight instructor to obtain a glider rating on his certificate, if the applicant has given at least 10 hours of glider flight instruction as a commercial glider pilot within the 12 months before the date of his application. Representatives of several soaring clubs recommended a reduction in the 10-hour instruction requirement. They pointed out that most people who learn to fly gliders have had previous powered aircraft experience and, therefore, require little instruction for a glider checkout. The Agency has considered these comments and has determined that a requirement of 2 hours of flight instruction in gliders, including at least 10 flights, provides a reasonable basis on which to issue certificates or ratings under this special issue provision. Section 61.179 has been amended to indicate this change.

Proposed § 61.173 (b) (2) in Notice 64-18 stated that an applicant would be tested on flight maneuvers appropriate to the instructor rating sought. The Agency intended to implement this section by issuing advisory material and guidelines covering the specific maneuvers. However, after considering comments received on this method, the Agency has determined that the specific maneuvers should be listed in the rule in order to give the widest circulation to the public. Advisory material and guidelines will be issued in addition to inserting the lists in the rule. Section 61.173 (b) (2) has been changed to include lists of the appropriate flight maneuvers. These lists are substantially the same as those contained in the present regulations; however, they have been presented in a format that indicates more specific testing categories.

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

(As published in the Federal Register 30 F.R. 8256 on June 29, 1965)

In consideration of the foregoing, Parts 1 and 61 of the Federal Aviation Regulations are amended effective September 26, 1965, as follows:

1. By striking out the definition "Dual instruction" in § 1.1 of Part 1.

2. By redesignating paragraphs (d) and (e) of § 61.3 of Part 61 as paragraphs (e) and (f), respectively, and adding a new paragraph (d) reading as follows:

**§ 61.3 Certificates and ratings required.**

(d) *Flight instructor certificates.* Except in the case of lighter-than-air flight instruction or as otherwise specifically provided, no person other than the holder of a flight instructor certificate issued by the Administrator with an appropriate rating on that certificate may—

(1) Give any of the flight instruction required to qualify for a solo flight, solo cross-country flight, or for the issue of a pilot or flight instructor certificate or rating;

(2) Endorse a pilot logbook to show that he has given any flight instruction; or

(3) Endorse a student pilot certificate.

Notwithstanding any other provision of this part, the holder of a commercial pilot certificate with a glider rating that was valid on September 25, 1965, may exercise the privileges of the holder of a flight instructor certificate with a glider rating on that certificate until September 26, 1966.

3. By amending § 61.9(b) to read as follows:

**§ 61.9 Duration of certificates.**

(b) *Flight instructor certificates.* (1) A limited flight instructor certificate expires at the end of the 24th month after the month in which it was issued, but the holder of an expired limited flight instructor certificate may obtain a flight instructor certificate under § 61.176.

(2) A flight instructor certificate issued before September 26, 1965, expires at the end of the holder's next birth month following September 1966, but the holder thereof may obtain another certificate under § 61.177.

(3) A flight instructor certificate issued or renewed after September 25, 1965, expires at the end of the 24th month after the month in which it was issued or renewed, but the holder thereof may obtain another certificate under § 61.177.

(4) A flight instructor certificate is effective only while the holder has a current pilot certificate as prescribed in § 61.172.

4. By striking out the words "or a commercial glider pilot" in § 61.17(c).

5. By amending § 61.21 to read as follows:

**§ 61.21 Prerequisites for flight tests.**

(a) To be eligible for a flight test for a certificate, or an aircraft or instrument rating issued under this part, the applicant must—

(1) Have passed the written test (if required) within the 24 months before the date he takes the flight test;

(2) Have the applicable aeronautical experience prescribed in this part;

(3) Hold a medical certificate appropriate to the certificate he seeks; and

(4) Except when applying for a type rating only, have a written statement (from a certificated flight instructor with an appropriate rating on his flight instructor certificate) certifying that he has given the applicant flight instruction in preparation for the flight test and considers him ready to take the test.

(b) Notwithstanding subparagraphs (1) and (4) of paragraph (a) of this section, an applicant for an airline transport pilot certificate who has been continuously employed as a pilot or as a pilot assigned to flight engineer duties by, and has continuously participated in an approved pilot training program of, a U.S. air carrier or commercial operator since no later than 24 months after passing the written test, or has been continuously employed as a pilot by, and has continuously participated in a pilot training program of, a U.S. scheduled military air transportation service after passing the written test, may take the flight test for that certificate as long as he continues in that employment and pilot training program. In addition, subparagraph (4) of paragraph (a) of this section does not apply to an applicant for a pilot certificate with a lighter-than-air category or associated class rating.

6. By amending the parenthetical expression in § 61.27(a) to read "(other than an airline transport pilot certificate or associated rating or a pilot certificate with a lighter-than-air category or associated class rating)" and by amending § 61.27(b) to read as follows:

**§ 61.27 Retesting after failure.**

(b) *Flight test.* An applicant for a certificate or rating under this part (other than an applicant for a type rating only, an airline transport pilot certificate or associated rating, or a pilot certificate with a lighter-than-air category or associated class rating) who fails a flight test for that certificate or rating may apply for retesting upon presenting a statement from a certificated flight instructor with an appropriate rating on his flight instructor certificate that he has given additional instruction to the applicant and now considers the applicant ready for retesting.

7. By striking out the reference "§§ 61.47 or 61.177(c)" in § 61.39(a) and inserting the reference "§ 61.47" in place thereof.

8. By striking out the words "or a commercial glider pilot" in § 61.63(a) (2) (iii).

9. By striking out the parenthetical expression "(or a commercial glider pilot in the case of gliders)," in § 61.63(a) (3).

10. By striking out the word "and" at the end of § 61.65(b) (6) and adding a new subparagraph (8) reading as follows:

**§ 61.65 Airplane operations: flight area limitations.**

(8) The use of the magnetic compass; and

11. By striking out the word "and" at the end of § 61.67(b) (2) and adding a new subparagraph (4) reading as follows:

**§ 61.67 Rotorcraft operations: flight area limitations.**

(4) The use of the magnetic compass; and

12. By amending § 61.69(b) to read as follows:

**§ 61.69 Glider operations: flight area limitations.**

(b) He has received flight instruction (from a certificated flight instructor with an appropriate rating on his flight instructor certificate) in cross-country navigation by reference to aeronautical charts and the magnetic compass; and

13. By striking out the words "or a commercial glider pilot," in § 61.69(c).

14. By adding the following new paragraphs at the end of § 61.73:

**§ 61.73 General limitations.**

(d) A student pilot may not operate an airplane or rotorcraft in solo flight unless within the preceding 90 days—

(1) He has received flight instruction in that category of aircraft from a certificated flight instructor with an appropriate rating on his flight instructor certificate;

(2) He has demonstrated to that flight instructor that he is competent to solo that category of aircraft; and

(3) That flight instructor has endorsed in the student pilot's logbook that he has given that flight instruction and found the student competent for solo flight.

However, this paragraph does not apply if the student pilot meets the requirements of paragraph (c) of this section, has acquired the aeronautical experience required for a private pilot certificate, and obtains an endorsement by a flight instructor that the student pilot is considered competent to make solo flights without mandatory periodic flight checks.

(e) A student pilot may not operate an airplane or rotorcraft in solo cross-country flight until a certificated flight instructor with an appropriate rating on his flight instructor certificate has reviewed the student's preflight preparation and planning, determined that the student is competent to make the flight, and has so endorsed the student's pilot logbook. The student must carry that logbook on each solo cross-country flight. However, a student pilot may perform repeated solo cross-country flights over a specified course of not more than 50 miles in length, without an endorsement for each flight, if a certificated flight instructor with an appropriate rating on his flight instructor certificate has—

(1) Given him flight instruction over the course in both directions, and in takeoffs and landings at both landing areas involved; and

(2) Found that the student is competent to make flights over the course without an authorization for each flight and has so endorsed the student's pilot logbook.

However, this paragraph does not apply if the student pilot has acquired the aeronautical experience required for a private pilot certificate and obtains an endorsement by a certificated flight instructor that the student pilot is considered competent to exercise solo cross-country privileges without a flight instructor's supervision.

15. By striking out the first sentence of § 61.131(d).

16. By amending Subpart F of Part 61 to read as follows:

#### Subpart F—Flight Instructors

Sec.

- 61.170 Eligibility requirements: general.
- 61.171 Aeronautical knowledge.
- 61.172 Aeronautical experience.
- 61.173 Aeronautical skill.
- 61.174 Flight instructor records.
- 61.175 Flight instructor ratings on pilot certificates.
- 61.176 Limited flight instructor certificates.
- 61.177 Renewal of flight instructor certificates.
- 61.178 Additional flight instructor ratings.
- 61.179 Special issue of a flight instructor certificate with a glider rating.
- 61.180 Limitations.

**AUTHORITY:** The provisions of this Subpart F issued under secs. 313(a), 601, and 602 of the Federal Aviation Act of 1958; 49 U.S.C. 1354, 1421, 1422.

#### § 61.170 Eligibility requirements: general.

To be eligible for a flight instructor certificate with an airplane, rotorcraft, or glider category rating, or an instrument rating, a person must hold a pilot rating in that category of aircraft, or an instrument rating or airline transport pilot certificate, as appropriate, and meet the aeronautical knowledge, experience, and skill requirements of this subpart.

#### § 61.171 Aeronautical knowledge.

An applicant for a flight instructor certificate must pass a written test on—

(a) The fundamentals of flight instruction; and

(b) The performance and analysis of flight training maneuvers appropriate to the instructor rating sought.

#### § 61.172 Aeronautical experience.

An applicant for a flight instructor certificate must hold a current—

(a) Airline transport pilot certificate;

(b) Commercial pilot certificate without ICAO instrument or night flight limitations endorsement; or

(c) Private pilot certificate and—

(1) Meet the aeronautical knowledge, experience, and skill requirements for the issue of a commercial pilot certificate appropriate to the category of aircraft in which he desires to give flight instruction; and

(2) Meet the ICAO commercial pilot night flight requirements if he seeks an airplane category rating.

#### § 61.173 Aeronautical skill.

An applicant for a flight instructor certificate must perform the following

procedures and maneuvers with regard to the giving of flight instruction appropriate to the rating sought:

(a) *Phase I—Oral and preflight tests.*

(1) Flight instructor procedures and responsibilities.

(2) Factors, conditions, and principles which control the learning process.

(3) Essential elements, objectives, and limitations of a lesson plan.

(4) Preparation of a lesson plan for flight instruction for a presolo student who has had little flight instruction or a lesson plan including the use of flight instruments, radio aids, and IFR flight clearances if the applicant is seeking an instrument rating. The lesson planned under Phase I is conducted under paragraph (b) of this section, with the examining FAA inspector acting as the student.

(b) *Phase II—Flight test.* The applicant must perform any of the following maneuvers (appropriate to the rating sought) as may be requested by the FAA inspector.

(1) Airplane:

(i) Normal Operations.

Preflight operations.  
Radio communications.  
Taxiing or sailing and docking.  
Normal takeoffs and landings.  
Straight and level flight.  
Medium turns.  
Steep turns.  
Climbs and climbing turns.  
Descents, with and without power, in straight flight and in turns.

(ii) Ground Reference Maneuvers.

Crosswind takeoffs and landings.  
Short-field takeoffs and landings.  
Soft-field takeoffs and landings.  
Full-stall landings (nosewheel-type airplanes).  
Wheel landings (tailwheel-type airplanes).  
Power approaches.  
Accuracy approaches and spot landings.  
S turns across a road.  
Turns about a point.  
Pattern eights.  
Rectangular courses and airport traffic patterns.  
Slips.

(iii) Coordination Maneuvers.

720° power turns.  
Gliding spirals.  
Stalls and slow flight.  
Chandelles.  
Lazy eights.  
Pylon eights.

(iv) Emergency Operations.

Forced landings.  
Flight emergencies.  
Emergency operation of aircraft equipment.  
Engine-out emergencies (if multiengine airplane is used).  
Control of airplane by reference to flight instruments.

(v) Cross-Country Navigation.

Dead reckoning.  
Pilotage.  
Radio navigation.

(vi) Spins. (The inspector may accept a logbook record of spin flight instruction in lieu of a demonstration. Such a record must indicate that the applicant has demonstrated satisfactory entries and recoveries from spins in both directions, and shall be certified by the flight instructor who conducted the flight instruction.)

(2) Rotorcraft (if helicopter used):

(1) Normal Operations.

Preflight operations.  
Taxiing.  
Vertical takeoff to hover.  
Vertical landing from hover.  
Normal departures from a hover.  
Normal approaches to a hover.  
Medium banked turns.

(ii) Precision Maneuvers.

Hovering; upwind, crosswind, and downwind.  
Hovering turns.  
Pattern flying, with constant and with changing headings.  
S turns (at 500' altitude).  
Rapid decelerations (quick stops).

(iii) Special Operations.

Simulated high-altitude takeoff.  
Roll-on landing.  
Crosswind takeoffs and landings.

(iv) Emergencies.

Emergency operation of equipment.  
Autorotative landings, both to touchdown and with power recovery.  
Loss of lift at altitude.  
Engine failure in a hover.

(3) Rotorcraft (if gyroplane used):

(1) Normal Operations.

Preflight operations.  
Taxiing or sailing and docking.  
Normal takeoff and landing.  
Airport traffic patterns.  
Use of radio for voice communications.

(ii) Precision Maneuvers.

Turns about a point (45° bank at steepest point).  
Gliding spirals about a point on the ground.  
Right and left 720° power turns.  
Maneuvering at minimum level flight airspeed.  
Accuracy approaches and spot landings.

(iii) Special Operations.

Soft-field takeoff and landing (jump takeoff if gyroplane has this capability).  
Roll-on landing and full flare landing.  
Short-field takeoff and power approach and landing.  
Entry and recovery from high rates of descent with and without power (recovery to be completed not lower than 300 feet above the surface).

(iv) Emergencies.

Forced landings (single engine only) and simulated emergencies.  
Emergency operation of gyroplane equipment.

(v) Cross-Country Flight.

Cross-country flight planning.  
Cross-country flying.  
Cross-country flying emergencies.  
Use of radio aids to VFR navigation.  
Two-way radio communication.

(4) Glider:

(i) Preflight operation.  
(ii) Aircraft tow.  
(iii) Auto or winch tow.  
(iv) Stalls and slow flight.  
(v) Accuracy 180° approaches and landings.

(vi) Spins. (The inspector may accept a logbook record of spin flight instruction in gliders or light airplanes in lieu of a demonstration. Such a record must indicate that the applicant has demonstrated satisfactory entries and recoveries from spins in both directions, and shall be certified by the flight instructor who conducted the flight instruction.)

(vii) Spirals.

(5) Instrument:

(i) IFR Flight Planning.

Preparing an IFR flight log.  
Preparing and filing an instrument flight plan.  
Evaluating aircraft performance, range, and fuel requirements.  
Use and limitations of required instruments and equipment.

(ii) IFR Flight Maneuvers.

Straight and level flight.  
Turns, climbs, and descents.  
Maneuvering at approach speeds, and stalls.  
Steep turns.  
Recovery from unusual attitudes.

(iii) Engine-out Maneuvers. (If test is taken in multiengine airplane.)

(iv) En route Procedures.

Copy and read-back of instrument flight plans.  
Radio navigation, VOR, ADF, or LF ranges.  
Radio orientation.  
IFR emergencies, including use of partial panel.

(v) Terminal Area Operation.

Holding procedures.  
Missed approach procedure.  
Use of radar vectors and DF steers.  
Compliance with departure and approach control instructions.

(vi) Standard Instrument Approach to authorized minimums (not more than 500 feet and 1 mile).

ILS.  
VOR.  
ADF.  
LF range.

§ 61.174 Flight instructor records.

Each certificated flight instructor shall—

(a) Sign each person's logbook for each period of flight instruction that he has given that person;

(b) Record the name of each person to whom he has given flight instruction or whose student pilot certificate he has endorsed as well as the date and type of each flight instruction period or endorsement;

(c) Record the name of each person for whom he has signed a recommendation for a written or practical test under this part, the kind of tests, and the date of recommendation; and

(d) Keep each record required by paragraphs (b) and (c) of this section separately, or in his logbook, for at least 3 years.

§ 61.175 Flight instructor ratings on pilot certificates.

A person who has a flight instructor rating endorsed on his pilot certificate may not exercise the privileges of that rating, but may be issued a flight instructor certificate if he passes the appropriate tests prescribed in § 61.173.

§ 61.176 Limited flight instructor certificates.

The holder of an expired limited flight instructor certificate may be issued a flight instructor certificate with the ratings previously held on his limited flight instructor certificate, if he passes the appropriate tests prescribed in § 61.173.

§ 61.177 Renewal of flight instructor certificates.

An applicant for the renewal of a flight instructor certificate must pass the practical test prescribed in § 61.173. However, if the applicant's certificate has not expired at the time application is made for renewal, the Administrator may, based upon the flight instruction record of the applicant, limit the test to those items that he finds are necessary to determine the continued competency of the applicant.

§ 61.178 Additional flight instructor ratings.

(a) The holder of a flight instructor certificate who applies for an additional rating on that certificate must—

(1) Hold a pilot rating in that category of aircraft, or an instrument rating or airline transport pilot certificate, as appropriate to the rating sought; and

(2) Pass the written and practical tests prescribed by §§ 61.171(b) and 61.173.

(b) The holder of a flight instructor certificate issued under § 61.179(b) must also show by satisfactory evidence that he has passed the written test prescribed by § 61.171(a).

§ 61.179 Special issue of a flight instructor certificate with a glider rating.

If the holder of a commercial pilot certificate with a glider rating shows the Administrator that he has given 2 hours of flight instruction, including at least 10 flights, as a commercial glider pilot within the 12 months immediately preceding the date of his application and before September 26, 1966, he is entitled to—

(a) A glider rating on his flight instructor certificate, if he holds a current flight instructor certificate; or

(b) A flight instructor certificate with a glider rating.

§ 61.180 Limitations.

(a) A certificated flight instructor may endorse a student pilot certificate for solo flight only if he determines that the holder has complied with section 61.63 or 61.71, as applicable, and is otherwise able to make solo flights.

(b) A certificated flight instructor may endorse a student pilot certificate for solo cross-country flight only if he determines that the holder has complied with section 61.65, 61.67, or 61.69, as applicable, and is otherwise able to make solo cross-country flights.

(c) A certificated flight instructor may endorse a student pilot certificate for solo flight in a different make or model of aircraft only if he determines that the holder can make solo flights safely in that aircraft.

(d) A certificated flight instructor may not authorize a student pilot to operate an aircraft in solo flight without first endorsing his student pilot certificate, unless it has previously been endorsed for that privilege by a certificated flight instructor.

(e) A certificated flight instructor may not give more than 8 hours of flight in-

struction a day nor more than 36 hours in any 7-day period.

The reporting and/or recordkeeping requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

(Secs. 313(a), 601, and 602 of the Federal Aviation Act of 1958; 49 U.S.C. 1354, 1421, 1422)

Issued in Washington, D.C., on June 21, 1965.

N. E. HALABY,  
Administrator.