DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 1, 61, 141, and 143

[Docket No. 25910; Amendment Nos. 1–47, 61–102, 141–8, 143–6]

RIN 2120–AE71

Pilot, Flight Instructor, Ground Instructor, and Pilot School Certification Rules

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This rule revises the Federal Aviation Regulations (FAR) that prescribe the certification, training, and experience requirements for pilots, flight instructors, and ground instructors, and the certification requirements for pilot schools approved by the Federal Aviation Administration (FAA). This rule updates these requirements to enhance the ability of pilots to meet the evolving demands of the National Airspace System (NAS) and operate safely and effectively in this environment.

DATES: This rule is effective August 4, 1997. Comments must be submitted on or before June 3, 1997.

ADDRESSES: Comments on the proposals may be delivered or mailed in triplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC–10), Docket No. 25910, 800 Independence Avenue, SW., Washington, DC 20591. All comments must be marked ''Docket No. 25910.'' Comments may be examined in the Rules Docket, Room 915G, weekdays between 8:30 a.m. and 5 p.m., except on Federal holidays.

FOR FURTHER INFORMATION CONTACT: John Lynch, Certification Branch, AFS–840, General Aviation and Commercial Division, Flight Standards Service, FAA, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267–3844.

SUPPLEMENTARY INFORMATION:

Comments Invited

This final rule contains amendments that were not proposed in Notice of Proposed Rulemaking (NPRM) No. 95–11 which was published in the **Federal Register** on August 11, 1995 (60 FR 41160). The amendments extend the applicability of the ''Age 60 Rule'' (14 CFR 121.383(c) for operational requirements, and § 61.77 for certification requirements) to 10–30 seat aircraft, for holders of U.S. pilot certificates and holders of special purpose pilot authorizations. In addition, these amendments extend the compliance date for these pilots to meet these provisions. These amendments are discussed fully in the preamble of 14 CFR 61.3 and 61.77. Because these issues were set forth in previous rulemaking actions and interested persons commented on these issues, these amendments are being adopted without prior notice and prior public comment. However, the Regulatory Policies and Procedures of the Department of Transportation (DOT) (44 FR 1134; February 26, 1979) provide that, to the maximum extent possible, operating administrations for the DOT should provide an opportunity for public comment on regulations issued without prior notice.

Accordingly, interested persons are invited to participate in this rulemaking by submitting such written data, views, or arguments as they may desire regarding the FAA expanding the applicability of the ''Age 60 Rule'' in 14 CFR part 61 to include 10–30 seat aircraft. Comments may be delivered or mailed, in triplicate, to the FAA, Office of the Chief Counsel, Attn: Rules Docket (AGC–200), Docket No. 25910, 800 Independence Avenue SW., Room 915G, Washington, DC 20591. Comments submitted to this rule must be marked: Docket No. 25910. Comments also may be sent electronically to the following Internet address: 9-nprm-cmts@faa.dot.gov. Comments may be examined in Room 915G between 8:30 a.m. and 5:00 p.m. on weekdays, except Federal holidays.

All comments received, as well as a report summarizing each substantive public contact with FAA personnel on this rulemaking, will be filed in the public docket. The docket is available for public inspection before and after the comment closing date. This amendment may be changed in light of the comments received on this final rule.

Commenters who want the FAA to acknowledge receipt of comments submitted on this rule must submit a preaddressed, stamped postcard with those comments on which the following statement is made: ''Comments to Docket No. 25910.'' The postcard will be date-stamped by the FAA and will be returned to the commenter.

Good Cause for Immediate Adoption

The FAA finds that notice and public comment on the above amendments are unnecessary. As stated in the preamble to Notice No. 95–11, the changes to the age 60 requirements in part 61 were intended to be similar to the age 60 requirement in 14 CFR part 121. Since the covered operations in part 121 have been changed, the operations in part 61 that are subject to an age limitation have been similarly changed. These are, in essence, technical amendments. The FAA does not believe that these amendments will cause undue hardship.

For these reasons, notice and public comment procedures are impracticable, unnecessary, and contrary to the public interest. As a result, the FAA, for good cause, finds that ''notice and public procedures thereon'' are unnecessary within the meaning of 5 U.S.C. 553(b)(B) of the Administrative Procedure Act. Individuals will have an opportunity to submit comments concerning these amendments by June 3, 1997.

Availability of Final Rule

Any person may obtain a copy of this rule by submitting a request to the FAA, Office of Rulemaking, Attention: ARM–1, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267–9680. Requests should be identified by the amendment number or docket number.

Using a modem and suitable communications software, an electronic copy of this document may be downloaded from the FAA regulations section of the FedWorld electronic bulletin board service (telephone: 703–321–3339), the **Federal Register's** electronic bulletin board service (telephone: 202–512–1661) or the FAA's Aviation Rulemaking Advisory Committee Bulletin Board service (telephone: 202–267–5948).

Internet users may reach the FAA's web page at http://www.faa.gov, or the **Federal Register's** web page at http://www.access.gpo.gov/su__docs for access to recently published rulemaking documents.

Outline of Final Rule

I. General Aviation Policy Statement
II. Background
III. Proposed Rule and General Description of Comments
IV. Discussion of Major Issues
A. The exercise of recreational pilot certificate privileges
1. Medical requirements for recreational pilots and holders of higher pilot certificates exercising the privileges of a recreational pilot certificate
2. Elimination of the 50-nautical mile limitation for recreational pilots
B. Recent flight experience
1. Takeoffs and landings
2. Recent instrument experience
C. Lighter-than-air flight instructor certificate
D. New instrument ratings
1. Single-engine and multiengine ratings
2. Airship

3. Powered-lift
E. Requirements for instrument ratings
F. New aircraft category and class ratings
1. Powered-lift
2. Glider class ratings
G. English language requirements
H. Areas of operation
V. Section by Section Analysis

I. General Aviation Policy Statement

On September 8, 1993, the FAA Administrator issued a general aviation policy statement in which he recognized that the general aviation industry is a critically important part of the nation's economy and the national transportation system. The Administrator stated the following:

> General aviation plays a crucial role in flight training for all segments of aviation and provides unique personal and recreational opportunities. It makes vital contributions to activities ranging from business aviation, to agricultural operations, to warbird preservation, to glider and balloon flights. Accordingly, it is the policy of the FAA to foster and promote general aviation while continuing to improve its safety record. These goals are neither contradictory nor separable. They are best achieved by cooperating with the aviation community to define mutual concerns and joint efforts to accomplish objectives. We will strive to achieve the goals through voluntary compliance and methods designed to reduce the regulatory burden on general aviation.

The FAA's general aviation programs will focus on:

1. Safety—To protect recent gains and aim for a new threshold.
2. FAA Services—To provide the general aviation community with responsive, customer-driven certification, air traffic, and other services.
3. Product Innovation and Competitiveness—To ensure the technological advancement of general aviation.
4. System Access and Capacity—To maximize general aviation's ability to operate in the NAS.
5. Affordability—To promote economic and efficient general aviation operations, expand participation, and stimulate industry growth.

Accordingly, this rulemaking project is designed to meet these general aviation goals and to provide economic relief from unnecessary, burdensome regulations. Throughout this process, the FAA has been in a partnership with the general aviation community in developing and revising the rules in 14 CFR parts 61, 141, and 143 to ensure aviation safety, and yet delete unnecessary, burdensome rules. The FAA is committed to developing rules that are fair and reasonable, and yet promote a high level of pilot training and qualification.

II. Background

This rule is based on the proposals contained in Notice of Proposed Rulemaking (NPRM) No. 95–11, ''Pilot, Flight Instructor, Ground Instructor, and Pilot School Certification Rules,'' which was published in the **Federal Register** (60 FR 41160) on August 11, 1995.

Since September of 1987, the FAA has been conducting a regulatory review of parts 61, 141, and 143. These regulations pertain to certification and training requirements for pilots, flight instructors, and ground instructors, and the certification and operation of pilot schools that are approved by the FAA. This regulatory review was initiated in response to advancements in aviation technology, training, and changes in the NAS that have occurred since the last major revisions to these regulations in the early 1970's. The FAA has received numerous petitions for exemption and letters from the public suggesting changes to the current regulations. At the time the NPRM was issued, there had been 41 amendments and approximately 3,616 exemption actions to parts 61 and 141. Recommendations and comments from the National Transportation Safety Board (NTSB), the public, and the FAA also have demonstrated the need for the regulatory review. A major goal of the review has been to identify differences between the rules and the level of training demanded of pilots in today's aviation environment.

In support of this regulatory review, the FAA completed an historical review of parts 61, 141, and 143 in January 1988. During this review, the FAA received comments from pilot schools and college and university aviation departments operating under parts 61 and 141. Three major areas were identified during the review: issues of immediate concern recommended by the NTSB and public comments; the requirements for aircraft operations in today's environment; and the requirements for pilots in the year 2010 and beyond. Accordingly, the regulatory review was divided into three phases corresponding to these needs. The final rule, based on Phase 1 of this review (56 FR 11308; March 15, 1991), contained the following:

1. A requirement to obtain training and a flight instructor endorsement to serve as pilot in command of a tailwheel airplane;
2. A requirement to obtain training and a flight instructor endorsement to serve as pilot in command of a pressurized airplane capable of high altitude flight above 25,000 mean sea level (MSL);
3. A requirement for an applicant to complete a training curricula and receive a flight instructor endorsement prior to qualifying in an airplane that requires a type rating;
4. A provision to permit pilots to complete a phase of an FAA-sponsored pilot proficiency program (WINGS program) in lieu of a biennial flight review (BFR);
5. A requirement for pilot applicants to receive ground training on stall awareness, spin entry, spins, and spin recovery techniques;
6. A requirement for pilot applicants to receive flight training on flight at slow airspeeds with realistic distractions and the recognition of, and recovery from, stalls;
7. A requirement for flight instructor applicants to receive actual spin training;
8. A requirement for flight instructor applicants to perform a spin demonstration on retests when the reason for the previous failure was due to deficiencies of knowledge or skill relating to stall awareness, spin entry, spins, or spin recovery techniques;
9. A provision that FAA inspectors and designated pilot examiners may accept an instructor endorsement in lieu of a spin demonstration on a practical test for the flight instructor certificate;
10. A requirement in part 141 that a chief or assistant chief flight instructor be available by telephone, radio, or other electronic means only during the time that instruction is given for an approved course of training;
11. A provision in part 141 to permit the initial designation of assistant chief flight instructors who possess half the experience requirements of chief flight instructors;
12. A provision to eliminate the 100-hour currency requirements in part 141 for obtaining initial designation as a chief flight instructor; and
13. A provision to eliminate the 25-mile distance restriction for establishing satellite bases in part 141.

This final rule reflects the results of Phase 2 of the regulatory review. Phase 2 addressed issues affecting parts 1, 61, 141, and 143. Prior to publishing this rule, the FAA issued a notice of meeting (54 FR 22732; May 25, 1989) that announced four public meetings and outlined the general topics to be considered for this final rule. The four public meetings were held before the drafting of this rule and were held in Washington, DC (September 12–13, 1989); Chicago, Illinois (September 19–20, 1989); Los Angeles, California (October 3–4, 1989); and Orlando, Florida (October 16–17, 1989).

Phase 2 also involved a Pilot and Flight Instructor Job Task Analysis (JTA), completed on March 31, 1989, which consolidated the results of a study on areas of pilot knowledge, skills, abilities, and attitudes required in today's aviation environment. The JTA provided the framework for this phase of the regulatory review and information for use in training programs and practical test standards. Most of the JTA consisted of data, based on experts' opinions, used to quantify the relative importance of knowledge, skills, abilities, and attitudes. The JTA also included a panel that discussed current and future pilot training needs and whose objective was to project pilot training needs 3 to 10 years into the future. The panel discussed changing technology, airline pilot requirements, airspace, training, instructors, and aviation economics. A copy of the JTA is available for examination in Docket No. 25627.

On February 9 and 10, 1993, the FAA conducted information-gathering meetings with a number of aviation organizations and schools on the comments received in Docket No. 25627. These meetings concerned issues raised during the earlier public meetings and the information received during the JTA. The invitees were selected as a result of their organizations' and schools' past involvement in this regulatory review. The following organizations and schools attended these meetings: General Aviation and Manufacturing Association (GAMA), National Air Transport Association (NATA), Jeppesen-Sanderson, National Association of Flight Instructors (NAFI), Balloon Federation of America (BFA), Farrington Aircraft, Aircraft Owners and Pilots Association (AOPA), AOPA Safety Foundation, Experimental Aircraft Association (EAA), Helicopter Association International (HAI), Soaring Society of America (SSA), Embry Riddle Aeronautical University (ERAU), Parks College of St. Louis, and American Flyers. This rule incorporates many of the concepts developed through the public meetings, the JTA, and the public comments received in Docket Nos. 25627 and 25910. Additional amendments to ensure that Title 14, Code of Federal Regulations, conforms with the provisions of this final rule will be the subject of a rulemaking action in the immediate future.

Experimental Aircraft Association (EAA) Petition

On January 3, 1994, the FAA published, without comment or endorsement, a petition for rulemaking submitted by EAA (59 FR 31). In their petition, the EAA requested the following:

1. Eliminating the requirement that a recreational pilot hold at least a third-class medical certificate;

2. Requiring a recreational pilot to self-certify that he or she has no known medical deficiency that would make him or her unable to fly;

3. Eliminating the 50-nautical mile limitation for those recreational pilots who obtain additional training;

4. Permitting a pilot with a higher certificate or rating who no longer has a medical certificate, but who self-certifies that he or she is physically fit to fly, to exercise the privileges of a recreational pilot certificate, subject to the limitations of the recreational pilot certificate; and

5. Eliminating the recreational pilot certificate limitations for cross-country, night flight, and flight into airspace requiring communication with air traffic control for those pilots with higher certificates and ratings who no longer have medical certificates, but who self-evaluate that they are physically fit to fly.

The comment period for the EAA petition closed on March 4, 1994. Over 1,000 comments were received, and the majority of commenters voiced overwhelming support for the petition. Some commenters, including the Civil Aviation Medical Association (CAMA), opposed the EAA petition. CAMA expressed concern with the impact on public health and welfare of the elimination of medical standards for pilots who exercise the privileges of a recreational pilot certificate. One specific concern of those commenters who opposed the EAA petition was the carrying of passengers by a pilot who does not hold a medical certificate. The FAA has reviewed all comments received in response to EAA's petition in developing this rulemaking action. The vast majority of commenters responding to this petition were individual members of the aviation community and many were members of the EAA.

In this final rule, the FAA is adopting one very significant change requested by the EAA: elimination of the 50-nautical-mile limitation for those recreational pilots who obtain additional training. For reasons discussed in section IV,A of this preamble, the FAA has decided not to adopt those other elements of the EAA proposal that were proposed in Notice No. 95–11.

Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking at Training Centers; Final Rule

On July 2, 1996, the FAA issued Amendment Nos. 1–45, 61–100, 91–251, 121–259, 125–27, 135–63, 141–7, 142, and SFAR 58–2, ''Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking at Training Centers; Final Rule'' (61 FR 34508–34568), subsequently referred to as Amendment No. 61–100. Those provisions of Amendment No. 61–100 that revised part 61 and Amendment No. 141–7 that revised part 141 have been included in this rule. In addition, some of the provisions of Amendment Nos. 61–100 and 141–7 have been modified to conform with changes adopted in this final rule and to correct several mistakes and omissions that were contained in Amendment Nos. 61–100 and 141–7.

Amendment No. 61–100 redesignated §§ 61.2, 61.3, and 61.5 as §§ 61.3, 61.5, and 61.6, respectively. In addition, that amendment added a new section, § 61.2, Definition of terms. In this final rule, § 61.1 includes both the applicability provisions and the definitions of terms currently found in § 61.1 and § 61.2. Accordingly, §§ 61.2, 61.3, 61.5, and the preamble discussion of those sections in this final rule reflect the structure of part 61 prior to the adoption of Amendment No. 61–100 and the organization of part 61 proposed in Notice No. 95–11.

III. The Proposed Rule and General Description of Comments

In Notice No. 95–11, the FAA proposed a major revision to the training and certification requirements applicable to pilots, flight instructors, ground instructors, and those pilot schools approved by the FAA. The intent of the proposal was to make the regulations more compatible with the current operating environment and the evolving demands of the NAS. The proposals included measures to update training, certification, and recency of experience requirements, and a number of the proposals were intended to promote and encourage increased pilot training activities.

The major proposals in the NPRM included: (1) Clarification and standardization of terminology; (2) establishment of a new powered-lift category for pilot certification; (3) separation of class ratings for nonpowered and powered gliders; (4) a new flight instructor certificate in the lighter-than-air category; (5) creation of separate instrument ratings for single-engine and multiengine airplanes, airships, and powered-lifts; (6) revisions

to the recency of experience requirements, particularly related to recent takeoffs and landings, and instrument currency; (7) revisions to the recreational pilot certification and authorization requirements, including the elimination of the 50-mile limit on flights; (8) human factors training requirements for all certificates and ratings; (9) replacement of flight proficiency requirements for training and certification with more general approved areas of operation; (10) revision of the minimum training times for the aeronautical experience requirements to permit training to a standard; (11) placement of ground instructor requirements in part 61 rather than in part 143; (12) requirement for ground instructor certificates to be based on aircraft category; (13) establishment of a practical test for ground instructor applicants; (14) revision of the certification and test courses in part 141 to accommodate all aircraft categories and new technology; (15) establishment of a check instructor position for student and instructor checks and tests at pilot schools operated under part 141; (16) deletion of exceptions that permit pilots to be certificated without meeting English language fluency requirements; (17) revision of medical certificate requirements to permit applicants for all certificates and ratings to hold a third-class medical certificate rather than the medical certificate required to exercise the privileges of the certificate; and (18) elimination of the requirement for recreational pilots to hold any medical certificate.

In response to Notice No. 95–11, the FAA has received over 5,400 comments from the public. The majority of those responding were pilots. Commenters also included associations representing air carriers, general aviation, and universities, including the following organizations: Aerospace Medical Association (AsMA), Aero Sports Connection (ASC), Air Line Pilots Association (ALPA), Air Transport Association of America (ATA), Aircraft Owners and Pilots Association (AOPA), American Diabetes Association (ADA), Auxiliary-powered Sailplane Association (ASA), Balloon Federation of America (BFA), Civil Air Patrol (CAP), Civil Aviation Medical Association (CAMA), Deaf Counseling Advocacy and Referral Agency (DCARA), Department of Veterans/ Veterans Benefits Administration (VA), Experimental Aircraft Association (EAA), General Aviation Manufacturers Association (GAMA), Helicopter Association International (HAI), International Deaf Pilots Association (IDPA), National Air Transportation Association (NATA), National Association of Flight Instructors (NAFI), National Business Aircraft Association, Inc. (NBAA), National Fraternal Society of the Deaf (NFSD), Paralyzed Veterans of America (PV), Seaplane Pilots Association (SPA), the Soaring Society of America (SSA), and United States Ultralight Association, Inc. (USUA). Comments also were received from public officials, including the Governor of Nebraska and the Mayor of Omaha.

Most respondents address specific issues rather than the NPRM overall. However, of the approximately 5,400 comments on the NPRM, about 130 express general support for the proposed rulemaking, and more than 220 express general opposition to the NPRM. Many of the commenters, particularly those who support the proposals to eliminate the medical certification requirement for recreational pilots as well as elimination of the 50-mile flight limitation on recreational pilots, urge immediate completion of the recreational pilot provisions of the rulemaking. Others state that the proposal would promote the growth of aviation.

However, some commenters who express general opposition to Notice No. 95–11 state that it is too voluminous and complex. One commenter states that while he originally supported Notice No. 95–11 based on the proposed liberalization of requirements related to recreational pilot certification, a subsequent detailed reading of what he termed ''numerous new restrictions'' in the rest of Notice No. 95–11 changed his mind. Other comments in opposition to Notice No. 95–11 state that the proposal would create burdensome and onerous new regulations and restrict the growth or threaten the continuation of certain aviation activities. One commenter criticizes the proposal for ''granting the FAA Administrator more power.'' Some commenters state that no safety data has been presented in support of the new requirements. One of the most controversial areas, for example, was the proposal to create a flight instructor certificate for the lighter-than-air category.

About 40 commenters express mixed reaction, including proposing their own variations on some of the FAA-proposed amendments. One hundred and fourteen commenters suggest technical, grammatical, and typographical corrections, which the FAA has considered in revising the proposed rule language. Some commenters state that the structure of the rule language is difficult to follow because of the numbering system and length of some of the sections. The FAA also considered this issue in drafting the final rule. Several commenters also object to the length of the proposal, stating that it is difficult to properly digest and respond to the large volume of material.

AOPA comments that Notice No. 95–11 is extremely complex and unmanageable from a public comment perspective. From a review of the comments submitted to the docket, AOPA concludes that the general aviation community has not been made fully aware of the significant impact of the proposals, and the association does not believe that it is possible for the FAA to adequately respond to all of the public's comments without reissuing another NPRM on part 61. According to AOPA, the public's misconceptions are the result of the incomplete nature of the NPRM's preamble. AOPA states that many of the changes were not addressed in the preamble or were labeled as editorial and format changes. The association contends that some of the editorial changes will have the greatest impact on pilots. AOPA also states that attempts to codify existing policy have often created significant restrictions not currently found in the regulations and, in some instances, do not reflect current FAA policy. AOPA believes that a more efficient approach would be to address issues in smaller, more manageable sections that would afford the public a better opportunity to provide complete and meaningful comments. According to AOPA, the proposal imposes burdensome new requirements on general aviation in excess of any benefits it might provide. The association recommends that the FAA identify which changes received widespread public support and separate them for expeditious publication as a final rule.

EAA states that Notice No. 95–11 contains many additional rules that increase the complexity and cost of learning to fly and maintaining currency. EAA is particularly concerned that the proposal will burden flight instructors. The association also comments that the rules appear to be changed in an effort to make enforcement easier.

In its comment, GAMA strongly supports the FAA's efforts to review parts 61 and 141. GAMA states that many of the proposals will maintain or increase the margin of safety while benefiting students and the training industry as a whole. The association recommends that, because Notice No. 95–11 is extremely complex, the FAA expedite a final rule incorporating the less complex and controversial issues,

such as the elimination of the third-class medical certificate requirement for recreational pilots and the pilot training requirements for operating newly certificated aircraft. GAMA feels that the more complex or controversial issues should be addressed in a subsequent final rulemaking.

NBAA believes that this proposal is a comprehensive measure to modernize pilot, flight instructor, ground instructor, and pilot school certification rules. The association adds that this proposal is a valid effort to promote general aviation, improve safety, and reduce costs to aviation consumers, and provide for large improvements in aviation training.

NATA comments that, although it generally is pleased with Notice No. 95–11, it strongly supports maintaining the distinct difference between parts 61 and 141 schools. The association disagrees with the elimination of some of these differences and believes the economic viability of part 141 schools is dependent on maintaining this distinction.

SSA states that the proposed changes answer many past comments and, for the most part, benefit safety. However, SSA feels that certain sections of Notice No. 95–11 do not comply with the FAA's goal of reducing regulatory burdens, nor do they demonstrate the FAA's faith that the soaring community will voluntarily improve its safety record. According to SSA, some of the proposals will have a detrimental effect on the cost of learning to fly sailplanes, without enhancing safety.

HAI states that its comments are based on a compilation of member comments and consultations with other general aviation associations. HAI chose not to comment on part 1, in the belief that the FAA will reference changes to the affected rule and make appropriate changes to definitions in part 1.

The public comments received on specific proposals and the FAA's response to these comments are addressed in sections IV and V. Each discussion includes a summary of the issue, a summary of the public comments, the FAA response, and disposition of the issue for purposes of the final rule. All comments were reviewed and considered during FAA deliberations regarding the rule and are available for public examination in Docket No. 25910.

IV. Discussion of Major Issues

A. The Exercise of Recreational Pilot Certificate Privileges

1. Medical Requirements for Recreational Pilots and Holders of Higher Pilot Certificates Exercising the Privileges of a Recreational Pilot Certificate

Summary of proposal/issue: In Notice No. 95–11, the FAA proposed to allow the following persons to operate aircraft without a medical certificate: pilots who hold recreational pilot certificates, student pilots operating within the limitations of a recreational pilot certificate, and those higher-rated pilots (private, commercial, and airline transport pilot) who elect to exercise only recreational pilot privileges. In lieu of the requirement to hold a medical certificate, each pilot would be allowed to evaluate his or her own medical condition and determine if he or she is fit to fly. This proposed approach of relying on the judgment of an individual pilot regarding his or her fitness represented a departure from past FAA policy for powered aircraft. The FAA has required that pilots, except for glider and balloon pilots, hold medical certificates to ensure the safety of pilots, passengers, and people and property on the ground.

This proposed change to FAA policy set forth in Notice No. 95–11 was made after consideration of a petition for rulemaking from the Experimental Aircraft Association (EAA), and comments received in response to that petition. The EAA petitioned the FAA to eliminate medical requirements for pilots exercising the privileges of a recreational pilot certificate (59 FR 31; January 5, 1994).

General Comments: In Notice No. 95–11, the FAA asked a number of questions that were designed to elicit comment on whether self-evaluation should be permitted for the pilots discussed. With respect to the general concept of self-evaluation, the majority of individual commenters voice support for eliminating the medical requirement for recreational pilots and holders of a higher pilot certificate exercising the privileges of a recreational pilot certificate. Supporting this proposal are the Aircraft Owners and Pilots Association (AOPA), Experimental Aircraft Association (EAA), American Diabetes Association (ADA), Aero Sports Connection (ASC), General Aviation Manufacturers Association (GAMA), National Association of Flight Instructors (NAFI), and Soaring Society of America (SSA).

AOPA states that it supports this departure from previous FAA policy as being ''beneficial to the economic well-being of general aviation by providing a potential stimulus for new flight activity and training'' and ''that removing the requirement for the medical certificate from the regulations will not have a significant impact on general aviation safety.''

Individual commenters who favor the proposal state that medical self-evaluation would eliminate the paperwork and expense of medical examinations. Commenters argue that overall there is a small number of aviation accidents related to medical causes. Many of these commenters cite the accident experience of balloon and glider pilot operations and note that no medical certification is required for these operations.

The commenters who oppose allowing pilots to exercise the privileges of a recreational pilot without a medical certificate cite general safety concerns as the basis for their disapproval. Specifically, opposing the proposal are the Aerospace Medical Association (ASMA), Air Line Pilots Association (ALPA), Civil Aviation Medical Association (CAMA), and Helicopter Association International (HAI).

The medical associations raised various concerns. CAMA indicates that there are a number of medical problems that cannot be recognized by an individual who evaluates himself or herself and that are incompatible with safe flight. CAMA also states that ''[s]ome individuals can be expected to deny to themselves the seriousness of their medical problems.'' CAMA believes medically related accidents inevitably would follow the adoption of this proposal, but they also acknowledge that medically caused accidents are rare. CAMA also states its concern that the proposal is not in the long term interests of any pilot because ''[m]inor problems will be detected on the FAA medical examination and managed before they become major problems. For example, early hypertension will be apparent and can be treated promptly.''

ASMA argues that although all pilots exercise a degree of self-evaluation before every flight, ''the experience of practicing aviation medical examiners is that private or recreational pilots are most often the ones who proceed to fly with existing medical problems.''

HAI states its opposition to the proposal arguing that ''[t]he medical is a necessary evil in aviation'' and that ''if you want to fly, get a medical.'' Several individual commenters also disagree with the proposal. One commenter

expresses disagreement with the proposal indicating that self-evaluation would allow pilots to lie about their health and endanger their passengers and people in the areas they overfly. Another commenter states that he prefers the current third-class medical certificate requirements and does not see how the FAA will be able to enforce the proposed self-evaluation without any standard in the rule. This same commenter states that the balloon and glider accident records cited by supporters of the proposal are not indicative of the larger group of general aviation pilots.

Comments to Specific Questions

Safety Data. In Notice No. 95–11, the FAA asked a number of questions regarding medical self-evaluation. The FAA requested data on any safety or other public interest concerns that may arise from the recreational pilot self-evaluation proposal. No such data were submitted.

Need for Medical Standards. A majority of commenters (including AOPA and EAA) state that they generally oppose the FAA having specific medical standards for self-evaluation arguing that a list of disqualifying conditions would be tantamount to creation of a new kind of medical certificate. EAA states that ''specific standards are inappropriate (in fact, contradictory) for self-certification'' and that they ''are not necessary for safety and therefore would only institute additional unnecessary regulation.'' AOPA states that ''[it] is deeply opposed to any regulated restrictions on medical self-certification for recreational pilots'' arguing that ''[d]oing so, will only create what is in effect, yet another class of medical certificate, defeating any benefits that could be derived from this proposal.''

Some individual commenters who oppose listing disqualifying conditions for pilot self-evaluation state that they believe the limitations of the recreational pilot certificate restrict the pilot to less stressful types of operations that pose minimal risks to other persons and property. Numerous commenters state that self-evaluation, with no listing of conditions or constraints, has worked well for glider and balloon pilots for many years. They argue that the same self-evaluation process should be adopted for recreational pilots.

A few commenters state that only certain medical conditions should be disqualifying. ALPA and AsMA support a list of disqualifying medical conditions. Of these commenters, however, there was no consensus on what medical conditions should be disqualifying. CAMA states that further study should be done before adopting the proposal.

Failure of a Medical Exam. Most commenters state that pilots who have failed a medical examination by the FAA should not necessarily be prevented from claiming that they have no known medical deficiencies that would make operating an aircraft unsafe. In addition, a majority of commenters state that any pilot who has had a medical certificate revoked or suspended, or who has held a special issuance of a medical certificate should not automatically be prohibited from claiming that that pilot has no known medical deficiencies that would make operating an aircraft unsafe. AOPA does state, however, ''that it has some concern that the publicity surrounding the self-evaluation proposal may have built an unintended expectation in the pilot community that anyone will be able to fly under the proposed rule,'' and that AOPA ''would encourage any pilot who has been denied a medical certificate or who holds a special issuance certificate to consult a physician.''

ALPA and AsMA support prohibiting any pilot from claiming that he or she has no known medical deficiencies if that pilot has failed a medical examination by the FAA, had a medical certificate revoked or suspended, or holds or has held a special issuance of a medical certificate.

Disclosure to Passengers. Most commenters (including AOPA and EAA) state that the FAA should not require pilots to disclose to their passengers that they do not hold a medical certificate but that they have evaluated themselves as medically fit to fly.

Medical History or Records. Most commenters (including AOPA and EAA) also argue that these pilots should not be obligated to provide the FAA with their medical history or records upon request as part of a specific investigation or randomly as part of a compliance program, nor should they be required to undergo medical testing when any uncertainty exists as to whether or not they have any medical problems.

Surrender of Pilot Certificates. In addressing the issue of whether a pilot with known medical deficiencies should be required to surrender his or her pilot certificate to the FAA, nearly all of the commenters oppose the mandatory surrender of a pilot certificate, in such a case. AsMA, however, supports mandatory surrender of pilot certificates. In addition, the vast majority of the commenters (including AOPA and EAA) state that the FAA should not require a pilot who has known medical deficiencies to have his or her pilot certificate stamped with a statement that the pilot certificate is not valid unless accompanied by a current medical certificate. ALPA and AsMA support such a stamping requirement.

FAA Response: The FAA carefully considered all comments pertaining to the proposal that pilots who hold recreational pilot certificates, student pilots operating within the limitations of a recreational pilot certificate, and those higher-rated pilots who elect to exercise only recreational pilot privileges be permitted to operate an aircraft without holding a medical certificate. Although the FAA acknowledges that most of the comments favored eliminating the third-class medical certificate requirement for such pilots, few of these comments contained supporting data or analysis. Safety is the FAA's overriding regulatory concern, and before such a significant change can be adopted, the FAA must ensure that the level of safety will not be degraded.

The comments of the medical associations, AsMA and CAMA, raised serious safety concerns regarding the limitations of self-evaluation. Furthermore, in reviewing the comments, the FAA noted that there is controversy regarding alternative methods of implementing and enforcing self-evaluation in lieu of medical certification. The FAA has determined that additional scrutiny of the proposal is needed to ensure that it would raise or maintain the current level of safety; therefore, the FAA has withdrawn the proposed change from the final rule. The FAA intends to conduct additional study on this proposal and may issue a separate rulemaking action in the future.

2. Elimination of the 50-Nautical Mile Limitation for Recreational Pilots

Summary of proposal/issue: In Notice No. 95–11, the FAA proposed to permit a recreational pilot to operate an aircraft in cross-country flight more than 50 nautical miles from that pilot's base of training if the pilot receives ground and flight training and the equivalent to that required for the exercise of cross-country flight privileges by a private pilot and receives the appropriate flight instructor endorsements. This change was intended to increase the utility of the recreational certificate and to promote general aviation.

Comments: More than 2,000 comments addressed the proposal. Virtually all commenters (over 99 percent) favor the proposed change.

EAA and NAFI support eliminating the 50-mile flight limit because it will help attract and retain recreational

pilots. These commenters also believe the proposal will improve safety. AOPA also supports the proposal and states that a valuable benefit will be given to recreational pilots without compromising safety. ASC supports removing the mileage limitation with an endorsement from a CFI. Other commenters state that this limitation has been a main factor in discouraging interest among prospective pilots from earning the recreational pilot certificate, and that the proposal would revitalize sport aviation with no adverse impact on safety.

GAMA opposes lifting the 50-mile flight limit. It believes that the proposal fails to provide an adequate amount of training for the recreational pilot to competently and safely exercise the privileges of the certificate. GAMA states that safety is a critical factor, and, coupled with the reduction in solo flight time, the provision could prove dangerous. According to GAMA, there should be no increase in recreational pilot privileges, and instead the FAA should encourage advanced training. One of the few individual commenters who objects to the proposal states that the recreational pilot certificate was intended for people who want to fly airplanes ''for the fun of it,'' but if they want private pilot privileges, they should obtain the training necessary for the private pilot certificate.

FAA Response: The FAA notes the overwhelming support of the commenters for this specific proposal. GAMA's concerns that recreational pilots will lack the necessary skill due to the revised aeronautical experience requirements have been considered. However, the FAA has determined that an acceptable level of safety will be maintained because recreational pilots will receive additional training equivalent to that of a private pilot, and other recreational pilot restrictions will continue to apply. The rule change will benefit general aviation by stimulating interest in recreational flying, encouraging recreational pilots to seek additional certificates and ratings, and promoting additional pilot training. The proposal is therefore adopted in the final rule.

B. Recent Flight Experience

1. Takeoffs and Landings

Summary of proposal/issue: The FAA proposed to revise the recency of experience requirements in § 61.57. The proposed revisions in Notice No. 95–11 included requiring all landings, not just night landings, to be conducted to a full stop. The proposal also required that these landings involve flight in the traffic pattern at the recommended traffic pattern altitude for the airport.

Comments: More than 170 comments address the takeoff and landing aspect of recency of experience. Approximately 65 percent of the comments oppose the proposal.

Most of the opposition concerns the proposal to require all landings to be conducted to a full stop and to involve flight in the traffic pattern and at the recommended traffic pattern altitude for the airport.

AOPA expresses opposition to the requirement for full-stop landings. The commenter does not believe that the FAA has presented any evidence that full-stop landings are safer than touch-and-go landings. According to AOPA, the proposal will cause a significant increase in airport congestion and pollution, in training time spent on the ground, and in the overall costs of maintaining proficiency. The commenter also states that there is no safety evidence to support the requirement that the landings be performed in the traffic pattern from the recommended pattern altitude. AOPA comments that rotorcraft rarely fly a complete traffic pattern, because to do so would create a hazardous mix of dissimilar aircraft. According to the commenter, the proposal also would lead to decreased efficiency for glider operations and emergency procedures training.

NBAA comments that the requirement for full-stop landings eliminates the efficient touch-and-go maneuver without justification, while adding to airport congestion and aircraft operators' costs. NBAA also objects to the language of proposed § 61.57(a)(iii), because it can be interpreted as requiring ''a circuit in the traffic pattern.'' The commenter states that most pilots combine currency landings with other flight operations rather than full circuits in the traffic pattern, and the proposal might require dispatching aircraft and crews specifically for currency takeoffs and landings, thereby adding time and expense.

HAI expresses opposition to proposed § 61.57(a)(1)(iii) requiring that all takeoffs and landings be conducted in the traffic pattern at the recommended traffic pattern altitude. The commenter states that helicopters do not always fly to or from airports, or operate in the traffic pattern if at an airport. HAI suggests modifying the proposed rule to require each takeoff and landing to be separated by an en route phase of flight.

SSA states that, at some gliderports, the currency landings are performed on a nonactive runway to avoid conflicts with the normal traffic patterns. SSA suggests modifying § 61.57 to reflect this practice.

Generally, individual commenters express opinions similar to those of the associations. Several individual commenters state that the proposed requirements are not applicable to balloon operations, and therefore the current rule should be retained. They cite operations in an airport traffic pattern, for example, and one commenter asks what ''full stop'' means in relation to balloons.

FAA Response: After consideration of the comments, the FAA has decided to withdraw the proposed requirement that landings involve flight in the traffic pattern and at the recommended traffic pattern altitude for the airport. In addition, the FAA will not go forward with the requirement for full-stop landings because, as indicated by the commenters, there is no cost justification for the measure, and it will result in increased congestion at airports. However, the FAA is retaining the current full-stop requirements for tailwheel aircraft, as well as for night landings.

2. Recent Instrument Experience

Summary of proposal/issues: The FAA proposed to revise the instrument recency of experience requirements of § 61.57 by eliminating the requirement for 6 hours of flight in actual or simulated instrument conditions every 6 months. For aircraft other than gliders, the proposal required that a pilot, within the preceding 6 calendar months, perform and log at least six instrument approaches; holding procedures; intercepting and tracking of very high frequency omnirange (VOR) radials and nondirectional beacon (NDB) bearings; recovery from unusual flight attitudes; and flight by reference to instruments. The preamble to the NPRM stated that these maneuvers and procedures would not be required to be performed in actual or simulated instrument flight conditions.

Comments: More than 385 comments were received on this issue. The comments reflect widely disparate opinions. More than 200 comments express clear opposition to the proposal. Nearly as many comments take issue with parts of the proposal, and propose variations to it. Approximately 60 comments agree with the proposal. Some commenters indicate that they believe the proposal would make it more difficult and costly to remain current for operations under IFR. One commenter, however, says he believes the proposal will permit pilots who do not fly as frequently to stay current and

continue to have access to the IFR system.

GAMA supports the elimination of the minimum hour requirement for instrument currency. GAMA, however, believes that a minimum of 50 percent of the time spent performing maneuvers should be in actual or simulated instrument flight conditions, or in an approved flight simulator or flight training device.

In its comment, ALPA expresses concern regarding several aspects of the proposed instrument currency requirements. According to ALPA, the requirement for the use of NDBs may not be practical because NDBs are being removed from service. The commenter also believes that there should be an option to allow operations using the global positioning system (GPS). Although ALPA agrees with the need for unusual attitude training, the commenter states that there needs to be FAA guidance on practice methods and procedures. ALPA also contends that recency of experience maneuvers should be performed in either instrument or simulated instrument conditions.

NAFI opposes specifying the use of any particular equipment, such as VORs and NDBs, for instrument currency and suggests the requirement should simply be for ''navigation by reference to instruments.'' It is NAFI's position that unusual attitude training is appropriate for flight reviews, not currency requirements, and should not be performed without a safety pilot.

NATA opposes several aspects of § 61.57. The commenter contends that unusual attitude maneuvers belong in instrument training and BFR requirements, not in instrument currency requirements. NATA also believes that the requirement that VORs and NDBs be used for several tasks is too restrictive. NATA recommends that the tasks be performed ''with the available navigational technology.'' NATA, however, supports requiring six approaches rather than the 6 hours for currency.

In its comments, NBAA recommends that the number of approaches for currency purposes should be left at 6 rather than 12, as noted in the preamble to the NPRM. NBAA also contends that references to VORs and NDBs should be deleted because these navigational aids are rapidly becoming obsolete. In addition, the commenter opposes unusual attitude training.

AOPA comments that the elimination of the 6 hours of required instrument time will benefit general aviation economically. The commenter also finds the requirement for six approaches to be an acceptable minimum for proficiency. With regard to holding procedures, the association has no strong objection to the proposal but questions the need for such a requirement. AOPA states there is no current safety problem in this area and, except for airline pilots, holding procedures are rarely encountered. Also, according to AOPA, it is not appropriate to specify the types of navigational aids that should be used for instrument currency because of the transition to newer technologies such as GPS. AOPA also points out that many aircraft are not equipped with an ADF receiver. The commenter objects to the requirement for unusual attitudes currency for the same reasons expressed by NAFI. Like ALPA and GAMA, AOPA believes that the instrument currency procedures should be performed in either actual or simulated conditions. The commenter states that if the FAA does not intend to require flight in actual or simulated conditions, § 61.57(c)(2) should be clarified to prevent varying interpretations of the rule. AOPA also strongly supports the use of simulators and flight training devices, including some PC-based simulators, for currency and proficiency.

Like many of the other commenters, HAI objects to the requirement for recovery from unusual attitudes. The commenter also states that commercial or corporate pilots will not be able to maintain currency in the normal course of flight because of the proposals. HAI supports eliminating the 6 hours of instrument time for currency, but proposes deleting holding procedures and unusual altitude currency, and changing the requirement to track VORs radials and NDB bearings to ''intercepting and tracking electronic navigation aids.''

Comments from individual commenters, for the most part, agree with the positions advanced by the associations.

FAA Response: After consideration of the comments, the FAA has decided to withdraw the requirement for recovery from unusual attitudes. The FAA agrees with commenters who point out that practicing these maneuvers would require a safety pilot and increase the cost of maintaining instrument proficiency with only questionable safety benefits.

In addition, the FAA has determined that the requirement for intercepting and tracking VOR radials and NDB bearings should be modified. The final rule requires pilots to intercept and track ''courses through the use of navigation systems.'' As noted by the commenters, advances in air navigation technology support deleting the reference to specific navigation systems. The FAA maintains that requiring completion of specific training tasks, such as intercepting and tracking courses and holding procedures, provides a safety benefit by improving operational currency and the proficiency of pilots. For this reason, the final rule includes the requirement for holding procedures. The proposed requirement for six approaches also is incorporated into the final rule.

The FAA has decided to retain the current requirement that the tasks to meet recent instrument experience requirements be performed and logged under actual or simulated instrument conditions. This requirement can be met in an aircraft of the appropriate category, in an approved flight simulator, or a flight training device that is representative of the aircraft category.

As proposed in the NPRM, the final rule will not include a minimum hour requirement to meet instrument currency. The elimination of this requirement will provide pilots economic relief by permitting currency requirements to be completed in less time.

Other proposed changes to § 61.57 are discussed in the section-by-section analysis of § 61.57.

C. Lighter-Than-Air Flight Instructor Certificate

Summary of proposal/issue: The FAA proposed to amend § 61.5 to establish new flight instructor ratings for lighter-than-air category aircraft. Section 61.3 included a provision to permit holders of a commercial certificate with an airship or free balloon class rating to conduct training in the appropriate aircraft for 2 years after issuance of the final rule; the 2-year conversion process was contained in proposed § 61.201. Proposed § 61.187 required that a person who trains an applicant for a lighter-than-air flight instructor certificate meet requirements comparable to flight instructor applicants training in other aircraft categories. The proposal was partly a result of input received from balloon operators and organizations in public meetings held during the regulatory review in 1989, and from public comments filed in the docket during this regulatory review and prior to the issuance of Notice No. 95–11.

Comments: More than 880 comments were submitted on this issue, the majority regarding the proposed requirement's effect on balloon flight training rather than airship flight training. Many of those commenters oppose the proposal. (One commenter includes a petition opposing the

proposal and signed by over 400 persons.) Commenters identify themselves as individual pilots and representatives of businesses involved in ballooning, including manufacturers and providers of balloon flights and training.

In general, many of these commenters contend that the current system of commercial balloon pilots providing flight instruction works well, and that because of the small numbers of balloons, pilots, and days with acceptable weather for balloon flight, ballooning should be treated differently than other aircraft categories. Some commenters ask what specific quality-of-instruction issues the FAA meant to address with the proposal. The commenters contend that ballooning has an outstanding safety record, and that creation of the new flight instructor certificate would make training harder to obtain, for both initial pilot certification and for flight reviews.

The BFA strongly opposes the proposal, stating that the proposal would ''lead to severe economic, safety, and time burdens to all balloon pilots, to the point where it will cause a significant decline in our sport.'' The BFA's comment states that there is no current safety problem to justify the proposal, and that consistent use of the Practical Test Standards by designated examiners has ensured that balloon instructors obtain necessary skills. The BFA states that the safest learning scenario is for student pilots to train in the area where they will do most of their flying, so that they can learn local weather and terrain conditions. This will not be feasible if prospective pilots, except those who live in the few major urban centers where there is a large amount of balloon activity, are forced to obtain training from nonlocal training facilities. The BFA also states that students in such circumstances probably would lose the benefit of more frequent training sessions.

SSA and NAFI also oppose the proposal. SSA comments that there has been no demonstrated safety degradation under the current system, and NAFI states that the FAA has failed to provide supporting evidence of a need for the change. SSA points out that the BFA provides training material and self-polices in a manner similar to the United States Hang Gliding Association (USHGA).

AOPA objects to proposed § 61.7, which addresses obsolete certificates and ratings, because it would effectively invalidate all balloon certificates issued before 1973. AOPA maintains that all certificated airmen should be able to retain the privileges they currently hold.

Individual commenters contend that few commercial balloon pilots will seek the instructor certificate, partly because few areas of the country have enough students to justify the expense of obtaining and keeping the certificate current. They state that one of the methods of flight instructor certificate renewal is particularly unrealistic in ballooning: the provision in proposed § 61.197(b)(1) to show a record of training for at least five students in 24 months, at least 80 percent of whom passed the practical test on the first attempt. Several commenters indicate that one student per year per commercial-pilot instructor is more typical. One commenter also states that flight instructor refresher courses for balloonists would be cost prohibitive and impractical because there would be so few balloon instructors.

The commenters believe that the lack of flight instructors would result in fewer instructors familiar with local flying conditions. They believe that the lack of flight instructors also would force potential students and pilots requiring flight reviews to travel long distances to find flight instructors. Commenters also state that the low number of suitable flying days would make the instructor hour requirements hard to meet. Commenters generally contend that the proposal would have a devastating impact on the industry by reducing the availability of instruction, overall flight activity, balloon sales, and revenue related to locally-sponsored balloon events. The Governor of Nebraska, who opposes the proposal, states that the ''imposed hardship may eliminate the sport of balloon flying in Nebraska.'' The Mayor of Omaha also opposes the proposal because ''there is no evidence that the current system is not working.'' The Nebraska Department of Aeronautics also opposes the proposal.

Some commenters state that the FAA had previously made and rejected this proposal, and that no further economic or safety studies were made to justify proposing the flight instructor requirement again. Another commenter suggested, as an alternative to creating a flight instructor certificate, that instruction be given only by commercial balloon pilots with at least 200 hours flight time and who fly at least 50 hours per year. Another commenter with a similar suggestion added that the commercial pilots could be required to pass the advanced ground instructor written (knowledge) test. Other commenter-suggested alternatives included increasing the flight hour requirements for certification, particularly at the commercial pilot (balloon) level, and requiring commercial pilots who instruct to use a written syllabus and maintain records of the training.

Representatives of Balloon Excelsior, a balloon flight school and repair station, state that the proposal would result in better-trained, safer, balloon pilots and would encourage the growth of ballooning. They state that most balloon flight instruction under part 61 is ''casual'' and accomplished without a curriculum or proper documentation, often during paid passenger sightseeing flights with inadequate attention given to the student. These commenters state that while many instructors do a fine job, many do not, and send their students to take practical tests unprepared. According to these commenters, one result of the proposal would be better performance on biennial flight reviews, and that renewal requirements could be met through flight instructor refresher clinics, which are not cost prohibitive. One commenter states that he supports the proposal even though a scarcity of qualified pilots would initially hurt his balloon operation. He believes that the proposal would benefit the industry in the long run by increasing professionalism and improving safety. Another commenter who supports the proposal, with reservations, recommends reducing the number of students an instructor would have to endorse for renewal of the instructor certificate from five to two, every 24 months, but with a passing rate of 100 percent.

FAA Response: The FAA has decided to withdraw the proposed flight instructor certificate in the lighter-than-air category. After further review of the proposal, the FAA has concluded that operational requirements and accident/incident data do not establish a sufficient safety justification for the increased regulatory and economic burden. Section 61.133 of the final rule provides that a person with a commercial pilot certificate with a lighter-than-air category rating may: (1) Give flight and ground training in an airship or balloon for the issuance of a certificate or rating; (2) give an endorsement on a pilot certificate for an airship or balloon; (3) endorse a student pilot certificate or logbook for solo operating privileges in an airship or balloon; and (4) act as pilot in command of an airship under IFR or in weather conditions less than the minimum prescribed for VFR flight.

D. New Instrument Ratings

1. Single-Engine and Multiengine Ratings

Summary of the proposal/issue: The FAA proposed to amend § 61.5 to establish additional instrument ratings for single-engine and multiengine airplanes. For airplanes, currently only one instrument rating exists. Additionally, the FAA also proposed to establish single-engine and multiengine instrument ratings for flight instructors. The FAA requested public comment on its proposed conversion process for current holders of airplane instrument ratings to the new system.

Comments: Approximately 200 comments oppose the new instrument ratings for single-engine and multiengine airplanes. Approximately 20 commenters favor the proposal. Approximately 160 comments are in opposition to the single-engine and multiengine airplane instrument ratings for flight instructors.

ALPA supports the proposed instrument ratings for single-engine and multiengine aircraft. ALPA finds the proposal particularly important in light of the removal of the minimum-hour requirement for an instrument rating. The association contends that it would be inappropriate for very low time pilots to have their single-engine instrument rating also apply to multiengine airplanes.

GAMA supports class-specific instrument instructor ratings for single-engine and multiengine airplanes. GAMA asks why the FAA does not simply prohibit instrument instructors who do not hold a multiengine instructor rating from giving instrument instruction in multiengine aircraft. According to GAMA, this could be accomplished by adding a limitation on the CFI's certificate that states ''instrument instruction privileges are limited to single-engine aircraft.'' GAMA believes that flight instructors holding multiengine instrument instructor ratings should be able to provide instrument training in single-engine aircraft. The commenter states that all pilots possessing both multiengine and instrument instructor ratings on the effective date of the rule should be ''grandfathered'' and issued an instrument multiengine airplane rating without further examination or testing.

EAA, NAFI, and NATA oppose the proposal. EAA states that there is no safety justification for the change and that it will cause additional training and expense. NAFI expresses concern about current instrument pilots and instrument instructors who do not comply with the proposed certificate exchange procedures. NATA contends that the current system is safe and efficient, and states that the proposal would place an undue financial burden on those who wish to obtain the new ratings. NATA estimates the cost of the new multiengine rating at $1,250 for training (10 hours at $125/hour), and $300 for the practical test and designated examiner. NATA states that the current system, in which instrument proficiency is demonstrated during a multiengine instructor check ride, is sufficient. NATA also contends that any conversion of current flight instructor certificates and ratings should award any pilot holding a CFII and MEI certificate the new certificates upon implementation of the new regulations.

AOPA also objects to the proposal. The association believes that the current system, which requires an applicant for a multiengine airplane class rating or multiengine airplane instructor rating to demonstrate instrument or instrument instruction competency during the practical examination, is sufficient. AOPA comments that it appears from the NTSB investigation of the 1981 multiengine accident cited by the FAA in the NPRM that the pilot became disoriented in instrument meteorological conditions (IMC). AOPA believes that the accident had little to do with the adequacy of the pilot's training in instrument procedures for multiengine aircraft. AOPA maintains that the FAA should not make drastic policy changes based on a single event. According to AOPA, the proposal will be very costly for the pilot community and would discourage pursuit of the multiengine instrument rating. AOPA also states that if the FAA's intent in the proposed regulation is to close an apparent loophole that permits a CFII who is not an MEI to give instrument instruction in a multiengine airplane, then the regulation should state this rather than requiring the new certificates.

In its comment, AOPA also expressed concern about inconsistencies in the preamble to the NPRM and the actual language in the provisions for conversion of existing instructor certificates. AOPA notes that the preamble indicates that a person may exchange his or her existing instrument certificate for the new instrument airplane multiengine rating if one of three conditions is met. AOPA states that the third condition, which provides for the ''grandfathering'' of a person who held an airplane multiengine class rating and had satisfactorily completed the practical test for an instrument rating in a single-engine airplane before October 4, 1984, was omitted from the proposed rule. It is AOPA's position that the only pilots who should not receive automatic conversion to the new certificate are those who currently have a limitation on their certificates that states that operations are restricted to ''Airplane Multiengine VFR only.'' AOPA also contends that the conversion provisions favor instructors who teach full-time at flight schools, and that the provisions will result in a majority of multiengine airplane instructors losing their instruction privileges. According to AOPA, very few multiengine instructors actually provide instrument instruction in multiengine airplanes, and, therefore, they would be unable to meet the requirement of 20 hours of such instruction. AOPA further notes that a vast number of CFIIs have never endorsed a student for an instrument airplane practical test, and would also be unable to meet the conversion requirement for both the single-engine and multiengine CFII privileges. AOPA recommends that all current CFII-MEI instructors should be ''grandfathered'' under the new system.

Individual commenters who oppose the proposal in Notice No. 95–11 to create separate instrument ratings for single-engine and multiengine airplanes contend that the number of engines issue and the instrument procedures issue are independent, and that instrument procedures, including engine-out approaches, normally are part of the multiengine practical test. These commenters contend that instrument procedures do not essentially change from a single-engine to a multiengine airplane. Some commenters state that the proposal does not seem justified by the NTSB's recommendation, which was followed when the FAA instituted a policy to require that multiengine airplane rating candidates demonstrate proficiency in instrument procedures or receive a ''VFR only'' limitation with their multiengine rating.

One commenter who favors the two new instrument ratings states that the system would make instrument flying safer and instrument operations in a multiengine airplane ''easier.'' Echoing AOPA's comments, one individual commenter notes that instrument instructors who routinely instruct in multiengine airplanes typically do not endorse students for instrument rating practical tests. Such instruction is one of the conditions proposed for converting a current airplane instrument flight instructor certificate to the new system. However, the commenter states that such instructors may teach advanced courses for instrument- and

airline transport pilot (ATP)-rated pilots. Another commenter states that the proposed system of conversion to the new flight instructor airplane single-engine and multiengine ratings would place an unwarranted economic burden upon relatively new, part-time, or independent flight instructors. One commenter states that the FAA did not provide supporting safety data in the NPRM indicating that multiengine instrument instruction has been inadequate, and a number of commenters assert that there would be no safety benefit from the proposal. Consistent with AOPA's position, individual commenters state that they believe many flight instructors currently providing multiengine airplane instrument instruction would not qualify under the proposal. One commenter also notes that multiengine examiners may not qualify under the proposal either. One commenter suggests changing proposed § 61.201(h)(2)(i) to include time providing instrument competency checks in multiengine airplanes, while a number of commenters request a more liberal ''grandfather'' clause.

Another individual commenter expresses concern that the proposal would require an additional practical test in a multiengine airplane (apparently referring to separate practical tests for the multiengine rating and the multiengine instrument rating). He states that the current policy (of requiring demonstration of instrument proficiency on the multiengine practical test) is sufficient.

FAA Response: The FAA is persuaded by the public comments regarding the unintended negative effects that would result from the creation of multiengine and single-engine instrument and instrument instructor ratings. Current accident/incident data show that there are no safety problems resulting from the existing rules. Therefore, the FAA finds that there is insufficient safety justification for the increased regulatory and economic burden, and has eliminated the proposal from the final rule.

2. Airship

Summary of proposal/issue: The FAA also proposed to amend § 61.5 to establish an instrument rating for airships. The FAA noted that smaller, foreign' built airships are operated in the United States, and it was hoped that industry growth would be accompanied by the need for more airship pilots. A separate airship instrument rating was intended to remove an obstacle from the certification of commercial airship pilots desiring to fly smaller, non-IFR-equipped airships, and to help foster growth of this small segment of the aviation industry.

Comments: NAFI and AOPA oppose the proposed requirement for an instrument rating to instruct in an airship. The commenters state that there is no problem with existing training, which is conducted almost entirely in VFR conditions. AOPA also comments that such a requirement would increase training costs with no increase in safety. Individual commenters echoed the association's position on this issue. One individual commenter supports the proposal because it may foster the growth of the United States airship industry.

FAA Response: The FAA has decided not to establish an instrument rating for airships, because operational requirements and accident/incident data do not establish a sufficient safety justification for the increased regulatory and economic burden.

3. Powered-Lift

Summary of proposal/issue: The FAA proposed to amend § 61.5 to establish an additional instrument rating for powered-lifts, with a corresponding instructor rating.

Comments: Some commenters oppose the instrument rating requirements for powered-lifts. However, most commenters objected in general to the additional powered-lift category of aircraft.

FAA Response: As discussed in section IV,E of this preamble, the FAA is confident that powered-lifts will be useful in civilian operations in the future, and a separate instrument rating will be required, which is incorporated into the rule.

E. Requirements for Instrument Ratings

Summary of proposal/issue: The FAA proposed numerous revisions to § 61.65, the most significant of which was revising the eligibility criteria for applicants for the instrument rating to parallel standards set by the International Civil Aviation Organization (ICAO). The proposal eliminated the requirement for a minimum of 125 hours of total flight time, including 50 hours of pilot-in-command cross-country time. This proposed change to § 61.65, comments received regarding the proposal, and the FAA response are discussed here as one major issue. Other changes to § 61.65 are discussed in the section-by-section discussion.

Comments: Approximately 150 comments address the proposed elimination of the minimum 125-hour requirement. Of these, approximately 110 favor the proposal, and the rest are either in opposition or suggest an alternative. Approximately 120 comments specifically address the 50-hour cross-country experience requirement, with 75 of those supporting the proposal and the rest either in opposition or suggesting an alternative. The commenters' reasoning on the two proposals follow essentially the same lines. Those who favor eliminating the requirements consider them arbitrary and unnecessary obstacles for pilots who seek the instrument rating, which can make them safer pilots. Those who favor maintaining the requirements state that exposure to different operating environments is important for ''seasoning'' pilots so they are better prepared for flight under IFR.

GAMA supports eliminating the 125-hour total time requirement for an instrument rating. GAMA comments that a disproportionate number of general aviation accidents occur when VFR pilots encounter IFR weather conditions, and allowing pilots to begin instrument training sooner will positively impact safety. GAMA also supports eliminating the 50-hour cross-country requirement for similar reasons. AOPA echoes GAMA's comments and states that encouraging such training is probably the single greatest step in decades toward reducing the general aviation accident rate.

FAA Response: The FAA has determined that eliminating the 125-hour total time requirement removes burdensome regulations that add cost without demonstrated need, parallels ICAO standards and recommended practices, and will encourage more pilots to receive instrument training at an earlier stage in their career. This proposal is adopted in the final rule. After further review, the FAA has decided to retain the 50 hours of cross-country pilot-in-command time required for the instrument rating. The FAA deems that this change is necessary in order to comply with minimum requirements under Annex 1 to the Convention on International Civil Aviation and for U.S. pilot certificates with an instrument rating to be recognized internationally.

F. New Aircraft Category and Class Ratings

1. Powered-Lift

Summary of the proposal/issue: The FAA proposed to add a powered-lift category for the private pilot through ATP certificates, as well as for the flight instructor certificate. Minimum experience requirements for the

powered-lift ratings were developed based on the current minimum experience requirements for airplane ratings.

Comments: Approximately 65 comments addressed the establishment of the powered-lift category. Of these comments, over 40 oppose the proposal and more than 20 express support, while the rest either do not express a clear opinion or offer other suggestions.

Both NAFI and EAA oppose the proposal. NAFI states that there is insufficient information available for the aviation industry to properly evaluate the establishment of powered-lift requirements, and recommends deleting all references to powered-lifts from the proposed regulations. EAA indicates its support for NAFI's comments.

AOPA also questions the need for a separate airman certificate category for powered-lifts. They believe that the implementation of the new category is premature, if not entirely unnecessary, because there are no viable aircraft of this type on the market today. AOPA states that the skills necessary to fly this type of aircraft would duplicate those of the nearly 1,200 ATPs who are already certificated in both airplanes and rotorcraft. AOPA suggests that the proposal be amended to require future powered-lift airmen to possess ratings in both airplanes and helicopters, and specifically type rate these individuals when and if powered-lifts reach the market. According to AOPA, this approach would eliminate a myriad of testing, licensing, and certification requirements that will likely remain dormant for many years. AOPA recommends withdrawing all sections in the proposed rule relating to powered-lift aircraft until it becomes evident that such aircraft will find applications in the civil marketplace.

FAA Response: The FAA has determined that a new powered-lift category should be established. Industry is currently developing powered-lifts, and current pilot certification standards do not adequately reflect the certification requirements for powered-lifts. Current certification standards were not drafted with the intent of certificating powered-lift pilots. The FAA recognizes the importance of anticipating further developments in aviation technology. Therefore, the FAA contends that these new regulations are necessary to respond to future needs of aviation. The proposal is adopted in the final rule and modified to include provisions permitting the use of approved powered-lift flight simulators and approved powered-lift flight training devices to satisfy certain training and aeronautical experience requirements for persons seeking certification to pilot powered-lifts.

2. Glider Class Ratings

Summary of the proposal/issue: The FAA proposed to establish class ratings for powered gliders and nonpowered gliders within the glider category for the private pilot through commercial pilot certificates, as well as the flight instructor certificate.

Comments: Approximately 85 comments are in opposition to the new glider class ratings and approximately 40 are in favor. Another 20 comments do not express a clear opinion on the question or suggest alternative proposals. However, many of these 20 comments appear to favor the concept of the two class ratings, but contend that glider pilots who have nonpowered glider experience as well as an airplane pilot certificate should be considered qualified for the powered glider rating. One commenter states that glider flight instructors who performed their practical test in a nonpowered glider should not be required to demonstrate 20 hours of instruction experience in that class to convert their flight instructor certificates as proposed in § 61.201.

A number of the proposal's supporters submitted signed form letters. The letters recommend dividing the glider category into nonpowered glider and powered-glider classes, and call for the incorporation of the powered glider flight and test requirements of Advisory Circular (AC) No. 61–94 into the regulation. The form letter proposes a different conversion system from current certificates to the new certificates than what was proposed in §§ 61.5 and 61.201. The letter recommends that flight instructors be permitted to add the powered-glider class rating to their certificates after completing 20 hours of flight time in a powered glider and completing training and testing in accordance with AC No. 61–94; or by holding a flight instructor airplane single-engine land rating and logging 20 hours in a powered glider. The same letter recommends that holders of private or commercial glider pilot certificates be permitted to receive the powered glider rating if they have logged either a minimum of 25 hours, including at least 10 flights in a powered glider during the preceding 24 months, have a current flight review, and have a logbook entry showing completion of training in accordance with AC No. 61–94. The form letter also recommends that holders of glider pilot certificates be able to convert to the new certificate with a nonpowered glider class rating if they have completed a current flight review.

ASA's comment opposes the separation of the glider category into powered and nonpowered-glider classes. The commenter states that auxiliary-powered sailplanes are, for all practical purposes, nonpowered gliders, except for the ability to self-launch. ASA suggests changes to the proposed regulations that would meet the goals of the NPRM, with respect to gliders, without requiring the creation of separate classes within the glider category. ASA recommends that training requirements for gliders be consolidated under a single glider category with subheadings listing additional training for powered sailplanes. ASA proposes that AC No. 61–69, which addresses powered sailplanes, should be referred to in the regulation specifying the areas of operation for glider category ratings. Pilots seeking to obtain a powered-glider rating should first be required to complete the training required for a nonpowered glider rating. ASA proposes expanded definitions of ''flight time'' and ''flight training'' that take gliders into account.

ASA also comments that pilots and flight instructors with glider category ratings, including those currently experienced in auxiliary-powered sailplanes, should retain their ratings and should not be required to take an additional practical test. ASA also states that the proposed conversion requirements for glider flight instructors do not consider the fact that much advanced glider instruction takes place entirely in single-seat gliders, with the instructor in one glider and a student following the instructor in another glider. ASA believes a statement authorizing such training as flight instruction is necessary.

SSA opposes the division of the glider category into two classes because the flight characteristics of gliders, whether powered or nonpowered, are essentially the same. SSA acknowledges that powered gliders may require knowledge levels similar to those of powered aircraft, but believes that there are similarities between all aircraft, and that these similarities are addressed in the knowledge and flight tests. SSA is concerned that the FAA does not recognize the efforts expended by instructors and flight schools to ensure pilots are adequately trained in these areas. SSA notes that the existence of AC No. 61–94, which, the commenter states, has been instrumental in achieving safe operation of auxiliary-powered sailplanes. SSA contends that there are only 200 licensed powered sailplanes in the United States, and that

there is an inadequate distribution of two-place powered sailplanes to respond to the NPRM's requirements. SSA states that it ''seems beyond the scope of lessening the burden of regulatory reform to establish a class rating for such a minimal size group who has not shown a propensity to denigrate safety.'' SSA suggests that pilots should be required to acquire a ''certificate with a glider category,'' obtain a logbook endorsement for each launch method demonstrated, and follow a syllabus to reach certification.

EAA supports SSA's comments to the proposed class ratings for powered and nonpowered gliders and believes there is no safety justification to support the proposal. EAA specifically objects to the proposed powered glider rating for private pilots as set forth in § 61.109(b)(5), and recommends incorporating a power glider endorsement rather than adding a rating.

NAFI and AOPA also object to the establishment of separate glider class ratings. According to these commenters, an endorsement specifying ''self-powered launch'' privileges would be sufficient. NAFI also states that the FAA has failed to provide evidence justifying the proposal on safety grounds. The commenters contend that if the proposal is adopted, all present glider pilots should automatically receive a new certificate with both powered and nonpowered glider privileges. NAFI also states that an individual who holds a glider rating and an airplane category rating should be able to obtain a powered glider rating without a further showing of proficiency.

Some of the individual commenters who oppose the proposal state that AC No. 61–94 addresses the issue of flight instructors endorsing pilots to fly powered gliders. One commenter states that most glider instructors are also rated in powered aircraft, and that the proposed system would make it more difficult to find an appropriate instructor.

FAA Response: After reviewing the comments, the FAA has decided not to create separate class ratings for nonpowered and powered gliders. Instead, the FAA has decided to accept the alternative suggested by industry that would establish training and endorsement requirements for specific glider operations in lieu of placing limitations on pilot certificates as is currently required. This change will reduce the regulatory burden on the public, as well as the administrative burden for the FAA, while providing a level of safety equivalent to the current regulations. The FAA has added paragraph (k) to § 61.31, which provides training and endorsement requirements for operating gliders.

G. English Language Requirements

Summary of the proposal/issue: The FAA proposed to delete exceptions to requirements for applicants to be able to read, speak, write, and understand the English language at all certificate levels and ratings, as well as in the case of certificates issued on the basis of foreign pilot licenses under § 61.75. The FAA also proposed to delete references to the ability to write in English and to speak without accent or impediment that would interfere with two-way radio communication at the ATP certificate level in § 61.151.

Comments: ALPA and NAFI support the proposed English language requirements. NAFI believes the potential for communications error will decrease under the proposal.

IDPA states that, while it would support a proposal to standardize the English language fluency requirements, it cannot support the proposed change because it would discriminate against individuals who are deaf, hard of hearing, or otherwise speech impaired. IDPA opposes eliminating the provision that allows special limitations to be placed on pilot certificates restricting operations in airspace where the English language is required. IDPA suggests that the proposal be modified to allow the retention of the special limitation provisions for Americans fluent in the English language who are deaf, hard of hearing, or speech impaired.

The NSFD states that it supports the opinions expressed by IDPA. The DCARA joins in these concerns and states that there is no reason to restrict deaf and speech-impaired pilots from flying in airspace where communications are not necessary.

PVA opposes the effect of the proposed changes to the English language requirements on individuals with hearing or speech impairments, and states that the changes would make these individuals ineligible for pilot certification under §§ 61.96, 61.103, or 61.123 on the basis of their disability. PVA urges the FAA to ensure that the eligibility requirements do not arbitrarily discriminate on the basis of a disability.

In its comment, AOPA states that it supports the position of IDPA. AOPA states that qualifying language that made special provision for hearing and speech impaired individuals has been inappropriately deleted from §§ 61.103(b) and 61.213(a)(2). AOPA further comments that §§ 61.83(c), 61.96(b), and 61.123(b) also single out qualified pilots with speech and hearing impairments, and are likely to be in violation of the Americans with Disabilities Act of 1990.

HAI also expresses a concern that someone who is speech or hearing impaired would not meet the requirements to read, write, speak, and understand the English language. The commenter also objects to proposed § 61.83, because many foreign students who train in the U.S. do not become more fluent until later in their training, and would therefore be eliminated from eligibility under the proposed change. HAI recommends retaining the language of the existing rule.

Individual commenters also express concern about the proposal's effect on speech and hearing impaired individuals. Other commenters who did not address the implications for speech and hearing impaired individuals support the proposal, stating that it would improve communications and safety. One commenter feels that the FAA should not eliminate the rule language requiring ATP applicants to speak English without accent or impediment and disagrees with the FAA's statement that the rule language is superfluous in light of the proposed changes to the rule.

FAA Response: The FAA agrees that there was an unintended effect in the proposed rule change that would prevent deaf pilots, and pilots with other medical conditions that have a command of the English language, from meeting the eligibility requirements for a pilot certificate. The FAA has determined, however, for safety concerns, that operations in the NAS do require a basic command of the English language. Therefore, as proposed, the FAA is removing the exceptions that permit pilots to be certificated without a basic command of the English language. The FAA has added a provision to the eligibility requirements for pilot certification to permit individuals who have a command of the English language, but who may not be able to meet the proposed requirements due to a medical condition, to have limitations placed on their pilot certificates that would continue to permit them to exercise the privileges of their certificate.

H. Areas of Operation

Summary of the proposal/issue: In Notice No. 95–11, the FAA proposed general areas of operation to be addressed in training and on practical tests, for all pilot and instructor certification. This was a departure from specifying the required maneuvers and procedures in the FAR. The specific

tasks to be performed would be contained in the practical test standards (PTS), based on the areas of operation listed in the regulations.

Comments: Approximately 65 comments address the proposal to use generalized areas of operation in the regulations, and a large majority opposed the proposal. Commenters object that the FAA could revise requirements for certificates and ratings without issuing an NPRM and soliciting public comments. One commenter states that this change would not be in compliance with the Administrative Procedures Act. One commenter questions the proposed terminology and states that while the proposal refers to performing areas of operation, pilots actually perform tasks within areas of operation, which the commenter states should clearly be referred to in the regulation as those specified in part 61.

SSA supports the FAA's decision for the FAR to refer to those areas of operation and tasks that coincide with the PTS. SSA believes that this change will eliminate the confusion between the PTS and the FAR. However, SSA expresses a concern that this proposed change will only result in the promulgation of more tasks for each area of operation. According to SSA, the cost of learning to fly has significantly increased because the amount of required training has changed over the years, and the commenter does not believe that these increased requirements have resulted in a significant decrease in accidents.

FAA Response: The FAA is adopting this proposal in order to be more responsive to advances in training and technology, and to accident and incident trends. While the FAA recognizes the commenters' concerns, the FAA finds that they are unfounded. Changing the hour requirements for certification in the future would need to be conducted using a formal rulemaking process with its associated notice and comment procedures. When revising the PTS, the FAA's Flight Standard Service actively seeks comments from the public, and continuously accepts comments requesting changes for future PTS revisions.

V. Section By Section Analysis

Part 1—Definitions and Abbreviations

Section 1.1 General definitions.

The FAA proposed revising the definitions of balloon, flight time, and pilot in command.

Comments: Individual commenters agree with the FAA's concept of distinguishing between the requirements for gas balloons and balloons with airborne heaters, but suggest variations on use of the terminology. One commenter, for example, suggests using ''gas balloon'' and ''hot air balloon;'' another, however, suggests ''balloon'' and ''balloon with airborne heater.''

FAA Response: After reviewing the comments, the FAA has decided to modify the language defining ''balloon'' to state ''a lighter-than-air aircraft that is not engine driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.'' In addition, the FAA has modified the definition of ''pilot in command'' in proposed paragraph (b)(4), withdrawing the reference to ''actual flight conditions.'' A number of commenters oppose the use of this language in the proposed rule. Their comments are addressed in the discussion of § 61.1. The definition of flight time was adopted as proposed except for a modification that replaced the term ''nonpowered glider'' in the proposed definition with ''glider without self-launch capability.'' The FAA also determined that the definition of ''powered-lift'' should be added to this section because the new powered-lift category is adopted in the final rule.

The proposal is adopted with the changes discussed and with other minor editorial and formatting changes.

Discussion of Specific Proposals

The FAA proposes to change the title of part 61 to ''Certification: Pilots, Flight Instructors, and Ground Instructors,'' because part 143 has been eliminated and the rules governing the certification of ground instructors have been moved to part 61.

Special Federal Aviation Regulations

SFAR No. 58 Advanced Qualification Program

The final rule retains the reference to SFAR No. 58.

SFAR No. 73 Robinson R–22/R–44 Training and Experience Requirements

The final rule retains the provisions of SFAR No. 73.

Subpart A—General

Section 61.1 Applicability and definitions.

Section 61.1(a)

Section 61.1 is revised by adding the provision in paragraph (a)(2) for pilot authorization, as well as deleting the reference to § 61.71 and inserting a reference to ''courses approved by the Administrator under other parts of this chapter'' to incorporate training programs under SFAR No. 58, proposed training centers, and part 141 pilot schools.

Section 61.1(b)

In Notice No. 95–11, the FAA proposed to create a new section, 61.1a, to clarify 15 terms used throughout part 61 as follows: aeronautical experience; airman certificate; authorized ground instructor; authorized flight instructor; cross-country time; examiner; flight training; ground training; instrument approach; instrument training; knowledge test; pilot time; practical test; supervised pilot-in-command time; and training time. For ease of reference, proposed § 61.1a and the definition of terms contained in current § 61.2 as adopted in Amendment No. 61–100, ''Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking at Training Centers,'' have been incorporated into § 61.1.

Comments: Approximately 200 comments were received in response to the clarification of terms. SSA comments that part 1 is the appropriate place to define terms, instead of § 61.1a. One commenter, who was in general agreement with the proposed clarification of terms section, requests that the FAA define ''training'' for purposes of logbook entries. Another requests that ''compensation or hire'' be defined in § 61.1(a). Another commenter requests that the FAA define the term ''route'' as used in proposed § 61.129(a)(4)(ii). Other comments specifically address the proposed terms and definitions.

AOPA opposes the exclusion of student pilot certificates from the definition of airman certificates because these certificates are subject to most of the part 61 provisions for airman certification.

SSA supports the adoption of the term ''supervised pilot in command'' because it will help eliminate the confusion surrounding ''solo flight'' and reinforces the principle that the CFI supervises all solo flights by students. GAMA supports allowing student pilots to log pilot-in-command time under certain conditions, but it finds the definition of ''supervised pilot in command'' vague and open to varying interpretations.

AOPA urges the FAA to withdraw the entire concept of ''supervised pilot in command'' and retain the current definitions of dual and solo instruction time. Although the commenter supports clarifying the policy with respect to permitting student pilots to log solo time as pilot-in-command time toward future certificates and ratings, AOPA believes that there are numerous conflicts between the application of this new term and many sections in part 61.

According to the commenter, the term creates confusion as to what truly is ''solo'' time. AOPA also states that the proposed definition raises liability concerns for instructors because of the use of the term ''supervised'' for flights when an instructor does not truly supervise a student or pilot. The commenter notes there is no provision in proposed § 61.51 for logging supervised pilot-in-command time.

NAFI opposes the wording of the definition of ''supervised pilot in command.'' NAFI states that, except for aircraft type certificated for more than one crewmember, ''a flight instructor should not be on board an aircraft when a student is conducting a supervised pilot-in-command flight.'' NATA states that it supports permitting student pilots to log pilot-in-command time but that proposed § 61.51 provides adequately for this. NATA recommends retaining the term ''solo'' to eliminate any confusion associated with the new term. NATA also states that the proposed term does not clearly indicate whether an instructor is permitted to be on board an aircraft. NATA also states that the term does not appear to be applicable to advanced training.

HAI comments that the proposed term leads to confusion in other areas of the regulations and recommends retaining the term ''solo.'' The commenter asks whether pilot-in-command time counts as supervised pilot-in-command time.

FAA Response: In response to the cited comments, the FAA acknowledges that certain definitions would not clarify part 61. Therefore, the FAA has decided to not include the definitions for ''airman certificate,'' ''authorized ground instructor,'' ''authorized flight instructor,'' and ''supervised pilot in command'' in the final rule. The FAA agrees that the definition of ''airman certificate'' conflicts with the U.S. Code and the FAR, and should be deleted. The FAA has removed the definitions for ''authorized flight instructor'' and ''authorized ground instructor'' and replaced them with a single definition for ''authorized instructor'' as explained in the analysis of § 61.1(b)(2) below. The concept of supervised pilot in command was created only to permit the logging of student solo time as pilot-in-command time under § 61.51. The proposed definition created difficulty in determining when supervision was occurring, and has been removed.

Section 61.1(b)(1) Aeronautical experience.

The FAA proposed a definition of aeronautical experience as pilot time obtained in an aircraft, flight simulator, or flight training device for meeting the appropriate training and flight time for an airman certificate, rating, flight review, or recency of flight experience.

Comments: Although pilot time in a flight simulator or flight training device is addressed in certain definitions such as ''aeronautical experience,'' one commenter points out that there is no specific definition to provide for training conducted in a simulator.

FAA Response: The intent of the section is to ensure more consistent use of terms throughout part 61. The FAA finds that the commenter's statement is outside the scope of Notice No. 95–11, and that the definition of ''aeronautical experience'' clarifies the rule and should be adopted as proposed.

Section 61.1(b)(2) Authorized instructor.

The FAA proposed definitions for ''authorized flight instructor'' and ''authorized ground instructor'' in §§ 61.1a (c) and (d).

Comments: ATA expresses concern regarding the use of the term ''authorized flight instructor'' in proposed § 61.1a(d). ATA notes the use of the term ''authorized instructor'' in § 61.157(f) and states that the term was not intended by the FAA to mean the holder of a flight instructor certificate. Rather, ATA states that the FAA meant that the term ''authorized instructor'' could also include an instructor qualified under the air carrier regulations of part 121.

AOPA strongly opposes the proposed change from the term ''certificated flight instructor'' to ''authorized flight instructor.'' AOPA notes that references are made to CFIs in thousands of publications, videos, books, and government manuals. The commenter also is concerned that the proposed terminology could have a deleterious effect on the liability exposure of flight instructors. In addition, AOPA comments that it appears that the FAA is relinquishing its role as the sole certificator of airmen, and that FAA counsel is attempting to circumvent the established procedures for certificate enforcement actions since there are no formal legal procedures in place for the removal of an authorization. The commenter believes that this could compromise a flight instructor in any certificate or civil action. The commenter contends that no justification is presented for this proposed change.

NAFI also opposes this proposed change in terminology. Consistent with AOPA's comment, NAFI states that the term ''CFI'' would have to be replaced in every reference at considerable expense to government and industry.

Six other individual commenters oppose the proposed definition of ''authorized flight instructor.'' Some of the commenters state there is no reason to change from the commonly used term ''certified (certificated) flight instructor'' (CFI) to ''authorized flight instructor,'' or ''AFI.'' One commenter adds that the ''marginal clarification'' intended by the new term does not warrant the confusion likely to result among students as well as the need to revise books, videos, and other training materials.

FAA Response: The FAA has removed the definitions of ''authorized flight instructor'' and ''authorized ground instructor'' and replaced them with a new term, ''authorized instructor,'' which encompasses commercial lighter-than-air pilots and ATP certificate holders who may also provide training. Additionally, the FAA has modified the definition to include persons providing training under part 142. With respect to the commenters' fear that the term ''certificated flight instructor'' will no longer be valid due to the change, the FAA stresses that flight and ground instructors are still certificated under part 61, and therefore will remain certificated instructors.

Section 61.1(b)(3) Cross-country time.

In Notice No. 95–11, cross-country time was defined for three separate circumstances: (1) For persons who hold a private, commercial, or airline transport certificate; (2) for persons applying for a private or commercial pilot certificate or instrument rating; and (3) for military pilots.

Comments: NAFI indicates approval for the clarification of this term. HAI recommends removing the requirement for cross-country flight time to require landing by changing proposed § 61.1a(e)(1)(ii) ''landing point'' to ''destination.'' HAI's justification for the modification is that many CFIs, CFIIs, and aerial photographers may fly long distances without landing at any point other than their point of departure. The commenter states that its proposed change will permit these pilots to log cross-country time. The commenter also points out that the proposed 50-nautical mile requirement for all cross-country flights is inconsistent with the 25-nautical mile cross-country flight requirement for pilots seeking certification in helicopters.

AOPA supports clarifying what constitutes cross-country flight time based upon the certificate held by a pilot. The commenter, however, opposes the cross-country definition because it relies upon the undefined term ''actual flight.'' AOPA is concerned

that the definition effectively excludes taxi, run-up, takeoff, and landing roll as loggable flight time. According to AOPA, this unloggable time could be significant if full-stop landings are required for currency training.

While one individual commenter expresses agreement with the proposed definition, others propose changes that would make the definition more appropriate for different categories of aircraft and types of operations. Commenters state that the definition is not appropriate for balloon operations, which do not necessarily use airports and in which a 50-nautical mile flight may be unusually far, or for glider operations, which may cover long distances but begin and end at the same site. One commenter suggests treating ''mission pilots,'' such as those conducting fish-spotting and fire and pipeline patrol operations, the same as military pilots. To account for such cases, one commenter suggests provisions under which cross-country flight would include any flight that departs an airport and its traffic pattern and lands at another location, or, for a flight that does begin and end at the same location, would include any flight of more than 50 nautical miles in powered aircraft, or 25 nautical miles in nonpowered aircraft. That commenter states the proposal would apply to flights in which dead reckoning, pilotage, electronic, or radio navigation aids were used.

FAA Response: In response to the commenters' concerns, the FAA has modified the definition of ''cross-country time'' to remove any distinction between flight and actual flight. The definition was also modified to permit flights of 25 nautical miles for a private rotorcraft rating to be considered as cross-country flights. The definition was modified to include references to future navigation systems rather than restricting cross-country navigation to present methods and systems. In response to comments received, the FAA modified the definition of cross-country time to permit a commercial pilot, airline transport pilot, or military pilot qualified for a commercial pilot rating to log cross-country time without requiring a landing at a point 50 nautical miles from the original point of departure.

Section 61.1(b)(4) Examiner.

In Notice No. 95–11, the term referred to persons authorized to conduct practical tests or knowledge tests under part 61. However, the FAA has modified the definition in the final rule to include persons who conduct pilot proficiency tests.

Section 61.1(b)(5) Flight simulator.

The FAA has modified and combined the current definitions of ''flight simulator, airplane'' and ''flight simulator, helicopter,'' as adopted in Amendment No. 61–100, to include all categories of aircraft.

Section 61.1(b)(6) Flight training.

In Notice No. 95–11, the term ''flight training'' was defined as training other than ground training received from an authorized flight instructor in actual flight in an aircraft.

Comments: For the same reasons expressed in its comment on the use of the term ''actual flight'' in defining cross-country time, AOPA opposes the use of the term in the definition of ''flight training.'' SSA does not object to this definition, but notes that it narrows the ''perception of dual time,'' which could include simulators.

FAA Response: The intent of the section is to ensure more consistent use of terms throughout part 61. The FAA believes the definition achieves this goal and should be adopted as proposed with a modification to remove any distinction between flight and actual flight in response to commenters' concerns.

Section 61.1(b)(7) Flight training device.

The FAA has modified the current definition of ''flight training device,'' as set forth in Amendment No. 61–100, to include all categories of aircraft.

Section 61.1(b)(8) Ground training.

In Notice No. 95–11, the term ''ground training'' is defined as training other than flight training received from either an authorized ground instructor or an authorized flight instructor. However, the FAA has modified the definition in the final rule to replace the phrase ''authorized ground or flight instructor'' with the term ''authorized instructor.'' This change was discussed in the analysis of § 61.1(b)(2). Except for this change, the definition is adopted as proposed. No substantive comments were received.

Section 61.1(b)(9) Instrument approach.

Notice No. 95–11 described the instrument approach as an approach procedure, defined in 14 CFR part 97, conducted to an established minimum descent altitude (MDA) or decision height (DH) or, if necessary, to a higher altitude selected by the air traffic control (ATC) facility with jurisdiction over that airspace for safety reasons.

Comments: AOPA believes that there is a potential conflict between the proposed definition of ''instrument approach'' in § 61.1a(i) and the instrument proficiency requirements of § 61.57(c)(1)(i) because the definition requires that the approach be flown to MDA or DH. The commenter also is concerned that under the proposed definition, an approach not flown to MDA or DH could be logged only if ATC considered it unsafe. AOPA believes that a pilot is in a better position to determine safety issues. AOPA also points out that the majority of training flights are conducted in VFR conditions with the aid of air traffic services. According to the commenter, the proposal would pose an economic and safety threat by forcing pilots to continue an approach under unsafe conditions in order to log it and avoid the cost of repeating the approach, or to terminate the approach for safety reasons before it could be logged.

NAFI also opposes the wording in this provision, because a typical descent in which the aircraft breaks out of the overcast before reaching MDA would not be loggable.

Some individual commenters also state that this definition may be overly restrictive, because practice approaches often are conducted under VFR and without involvement of ATC. These commenters state that the pilot, safety pilot, or flight instructor may determine the need to terminate the approach prior to reaching MDA or DH for safety reasons. Another commenter states that it is beneficial for beginning instrument students to complete some approaches visually so they better understand issues related to transitioning from instruments to visual flight. That commenter also indicates that in approaches conducted under IFR, pilots may sight the airport or runway prior to reaching MDA or DH if weather conditions permit. One commenter suggests revising the definition to permit the pilot to terminate the approach prior to DH or MDA for safety reasons. Another commenter proposes to define ''instrument approach'' as ''* * * an approach procedure defined in part 97 and conducted in accordance with that procedure or as directed by ATC to a point beyond an initial approach fix defined for that procedure.'' The commenter explains that this definition would allow for logging instrument approaches that require some portion of the published approach procedure to be followed in order for the pilot to establish visual references to the runway. The commenter suggests that for specific purposes such as training or currency requirements, the term could refer to descent to the MDA or DH, or to the

missed approach point, which may occur after the MDA is reached.

FAA Response: To address the public's concerns, the definition of ''instrument approach'' was modified to remove any requirement that the approach be conducted to DH, MDA, or to a higher altitude selected by ATC in order to be considered an instrument approach.

Section 61.1(b)(10) Instrument training.

Notice No. 95–11 defines instrument training as that time in which instrument training is received from an authorized flight instructor under actual or simulated instrument flight conditions.

Comments: One commenter expresses concern regarding the lack of a sufficient provision for training conducted in simulators, and suggests a definition for ''simulated flight'' and for ''instrument training,'' which would encompass training received in a flight simulator or flight training device. Another commenter states that the proposed definition does not refer to authorized ground instructors.

FAA Response: Training received in flight simulators is outside the scope of the rule, and is addressed in another rulemaking project (Notice No. 92–10), as explained in section II. The term ''authorized instructor'' is used as explained in the analysis of § 61.1(b)(2), and the definition of instrument training has been modified to reflect this change.

Section 61.1(b)(11) Knowledge test.

The term ''knowledge test'' replaces ''written test,'' because the FAA believes the term ''knowledge test'' is a more inclusive term that incorporates the use of computer testing on the aeronautical knowledge areas in part 61. No substantive comments were received, and the definition is adopted as proposed.

Section 61.1(b)(12) Pilot time.

The FAA inadvertently failed to discuss this proposed definition in the NPRM preamble. However, in response to requests for legal interpretations as to what constitutes ''pilot time,'' the FAA included the definition of ''pilot time'' in the proposed rule.

Comments: A commenter expresses strong opposition to the inclusion of training given in an approved flight simulator or approved flight training device in the proposed definition of ''pilot time.''

FAA Response: Since the early 1980's, the FAA has recognized the importance of flight simulators and flight training devices, and has issued over 30 exemptions to provide for the use of simulators and flight training devices. Therefore, the final rule reflects established FAA policy.

Section 61.1(b)(13) Practical test.

The proposed definition included both oral and flight testing or testing in an approved flight simulator or flight training device on the areas of operation for an airman certificate, rating, or authorization. The definition is changed in the final rule to remove the reference to ''actual flight.'' Except for this change, the definition is adopted as proposed. No substantive comments were received.

Section 61.1(b)(14) Set of aircraft.

The FAA has modified the current definition originally set forth in Amendment No. 61–100 from ''set of airplanes or rotorcraft'' to ''set of aircraft'' to include all categories of aircraft.

Section 61.1(b)(15) Training time.

Notice No. 95–11 discussed ''training time'' as training received in actual flight from an authorized flight instructor, on the ground from an authorized ground or flight instructor, or in a flight simulator or flight training device from an authorized ground or flight instructor.

Comments: AOPA opposes the use of the term ''actual flight'' in the definition of ''training time'' because it effectively excludes taxi, run-up, takeoff, and landing roll as loggable flight time. According to AOPA, this unloggable time could be significant if full-stop landings are required for currency training.

FAA Response: The definition of ''training time'' was modified in the final rule to remove any distinction between flight and actual flight. Taxi and run-up time performed for the purpose of flight can be logged as training time.

Section 61.2 Certification of foreign pilots, flight instructors, and ground instructors.

In Notice No. 95–11, the FAA proposed to revise § 61.2 to include a provision for ground instructor certificates. As previously noted, Amendment No. 61–100 redesignated this section as current § 61.3. The FAA also proposed to permit a person who is not a citizen of the United States or a resident alien of the United States to: (1) complete a knowledge or practical test outside the United States; (2) be issued an additional category, class, instrument, or type rating, as applicable on a U.S. pilot certificate; and (3) be issued an additional renewal, or reinstatement of a category, class, or instrument rating for a U.S. flight instructor or ground instructor certificate.

Comments: ALPA expresses concern over proposed § 61.2, which, the commenter states, makes it easier for a person who is neither a U.S. citizen nor a resident alien to obtain a U.S. pilot certificate. ALPA urges further amendment of this regulation as follows: ''A certificate issued under this subsection may not permit the holder to serve as a required crewmember on an aircraft in the commercial operations of a U.S. carrier.'' ALPA cites ''the need to protect quality piloting jobs for U.S. citizens and resident aliens.'' According to ALPA, future growth in U.S. air carrier operations will be on international routes, and there are indications that U.S. carriers are considering hiring noncitizen, nonresident aliens as flight crew for these operations.

AOPA opposes the wording of proposed § 61.2 because it appears that the current regulation has been changed to the detriment of foreign pilots seeking U.S. certification. According to AOPA, the proposed language places a different emphasis on the word ''need,'' implying that the discretion to determine whether a pilot really ''needs'' a certificate is left to the Administrator. The commenter recommends retaining the original language. It is AOPA's position that, instead of attempting to limit the issuance of U.S. pilot certificates to foreign airmen, the FAA should aggressively pursue reciprocal rights for U.S. certificated pilots in foreign countries because U.S. certificates are not normally recognized as the equivalent of certificates issued in other countries.

FAA Response: The FAA notes ALPA's concerns but does not find the commenter's specific proposal to be within the scope of this rulemaking. As explained in the preamble to Notice No. 95–11, the existing provisions of § 61.2 limit U.S. training and airplane manufacturing companies from expanding their business into the international aviation market. The proposed rule was written to address this problem. With regard to AOPA's comment concerning the language of the proposed rule, the FAA finds that the proposed rule does not differ substantively in this regard from the existing rule. The rule is adopted as proposed.

Section 61.3 Requirement for certificates, ratings, and authorizations.

As previously noted, Amendment No. 61–100 redesignated this section as current § 61.5.

Section 61.3(a) Pilot certificate.

The FAA clarified the requirement in § 61.3(a) that a pilot certificate must be in the person's ''personal possession'' whenever the person exercises the privileges of the certificate.

Comments: ALPA supports the requirements of proposed § 61.3(a) on the possession of certificates.

HAI comments that while the loss of a pilot certificate during a trip may be considered remote, it has occurred. The commenter contends that because the loss of a certificate does not affect the safety of an operation, a pilot should not be unduly penalized. HAI recommends modifying § 61.3(a) to provide an exception in the case of operations under part 121 or part 135 where a procedure has been approved for interim operations after the accidental loss of a pilot certificate. HAI notes that while the conditions for granting an approval for such a procedure for part 121 and 135 operators are beyond the scope of Notice No. 95–11, the proposed exception can be implemented immediately, and details associated with the procedures could be included in an AC or in FAA handbook material, pending the determination of the need to change part 121 or part 135.

EAA and NAFI oppose the proposal and contend that pilot records can be obtained at any time through the use of computers and electronic media. These commenters do not believe the proposal will enhance safety and, instead, might expose pilots to inadvertent violations and enforcement actions. EAA also states that under the proposal, pilots who lose their certificates on a cross-country flight would be unable to return home.

It is AOPA's position that, although proposed § 61.3 is a slight improvement over the existing regulation, the FAA should withdraw this requirement entirely. AOPA recommends that the FAA qualify the language in § 61.3 concerning ''required crewmember'' to state that the instructor may not act as a ''crewmember required under the aircraft's type certificate'' without a valid medical certificate. AOPA believes that this modification would permit a flight instructor to provide instrument instruction and act as a safety pilot under the regulations without a medical certificate.

One individual commenter agrees with the need for clarification, but states that the proposal still is ambiguous. He states that ''physical possession'' should be defined in § 61.1a or replaced with ''a valid airman certificate in the aircraft and readily accessible when exercising * * *''

FAA Response: The FAA is persuaded by the public comments that contend the proposed section could create difficulties in certain situations. As provided for in § 61.29, the FAA will permit a pilot to use a facsimile received from the FAA to satisfy the requirements of § 61.3(a). In response to AOPA's comment regarding instructors who act as safety pilots not being required to have a medical certificate, the FAA notes that § 91.109 specifies that a safety pilot is required to conduct simulated instrument flight, which makes the safety pilot a required crewmember. Therefore, an instructor in such situations would be required to hold a medical certificate. In addition, AOPA requests that safety pilots operating under § 91.109 be excepted from holding medical certificates. The FAA has decided not to address this request here, as it is beyond the scope of this rulemaking.

Section 61.3(b) Required pilot certificate for operating a foreign registered aircraft.

In Notice No. 95–11, the FAA proposed formatting and editorial changes to this paragraph. The rule change addresses the pilot certificate requirements for operating aircraft of foreign registry within the United States, and is adopted as proposed. No substantive comments were received.

Section 61.3(c) Medical certificate.

This section was clarified in Notice No. 95–11, and set forth the requirements for persons to have their medical certificate in their physical possession or readily accessible in the aircraft. It also specifically identified when it is permitted for persons not to have their medical certificate in their physical possession or readily accessible in the aircraft.

Comments: HAI suggests modifying proposed § 61.3(c)(1)(ii) to cover the accidental loss of a medical certificate. Similarly, GAMA suggests adding the language ''except for renewal or replacement'' to proposed § 61.3(c)(1)(ii).

Approximately 30 commenters address proposed medical certification requirements from the point of view of glider operations, nearly all of them in favor of Notice No. 95–11. Most commenters feel the proposal confirms that medical certificate requirements would continue not to apply to glider pilots, a policy they support. ASA, SSA, AOPA, and EAA support retaining medical self-evaluation for glider pilots. ASA states its opposition to the imposition of any standards for medical self-evaluation, while SSA opposes the listing of disqualifying conditions.

AOPA states that by not including powered gliders in proposed § 61.3(c)(2)(i), the FAA will be revoking the currently held privilege of operating powered gliders without a medical certificate. AOPA is unaware of any documented problem with medical incapacitation-related accidents for powered gliders that could justify implementation of a new medical certificate requirement for this group of airmen. NAFI also states that powered gliders should be included in this regulation.

FAA Response: The FAA has considered the public comments that indicate the proposed section could create difficulties for certificate holders who are awaiting the replacement of lost or destroyed certificates. Therefore, the phrase ''or other documentation acceptable to the Administrator'' has been added to the final rule. With regard to AOPA's concern over medical certificate requirements for pilots flying powered gliders, as explained in section IV,F, the FAA is not adopting the proposed separation of the glider category into powered and nonpowered classes.

However, for reasons discussed in section IV,A of this preamble, the final rule includes medical certificate requirements for recreational pilots, and student pilots seeking recreational pilot certificates.

Section 61.3(d) Flight instructor certificate.

In Notice No. 95–11, the FAA clarified the requirement that a flight instructor certificate must be in the person's ''personal possession'' whenever the person exercises the privileges of the certificate. This section also provided that a flight instructor certificate is not necessary if: (1) The training is given in accordance with a part 121 or part 135 air carrier approved training program; (2) the training is given by the holder of an ATP certificate under § 61.169 of this part; and (3) the person receiving the training and the person giving the training are employees of that air carrier. This proposal also provided that a flight instructor certificate is not necessary if the training is conducted in accordance with the provisions of § 61.41.

Comments: GAMA and AOPA are concerned that the proposal would present problems for flight instructors

participating in renewal programs that require instructors to turn in their CFI certificate when they mail in their course documentation. AOPA believes the proposed rule could ground these instructors while they await their certificates.

ATA states that the language in the NPRM preamble regarding proposed § 61.3 implies that a flight instructor certificate is not necessary if the training is in accordance with a part 121 air carrier approved training program, and the persons receiving and giving the training are employees of the air carrier. ATA notes that many part 121 air carriers provide training to other part 121 air carriers. The commenter recommends modifying the regulation to exclude the language ''person receiving the training'' and include a statement that would allow a part 121 air carrier with an approved training program to train another part 121 air carrier's pilots.

FAA Response: Based on public comments that argue the proposed section could create difficulties in situations where flight instructor certificates are mailed in upon completion of a renewal course, the FAA has decided to add the phrase ''or other documentation acceptable to the Administrator,'' which would permit a flight instructor to use a copy of a graduation certificate from a CFI refresher course and a copy of the completed application for renewal to meet this requirement. The FAA also agrees with ATA's comment, because the practice that ATA refers to is currently permitted, and the FAA did not intend to revoke it. Therefore, the FAA has changed the final rule to permit an air carrier conducting operations under part 121 or 135 with an approved training program to train another air carrier's pilots. Additionally, the FAA has added provisions stating that a flight instructor certificate is not necessary for certain training given by the holder of a commercial pilot certificate with a lighter-than-air rating, a person qualified in accordance with subpart C of part 142, a person as provided in § 61.41 of this part, and the holder of a ground instructor certificate.

Section 61.3(e) Instrument rating.

This section replaced the references to the instrument rating needed for each class of aircraft category with the phrase ''appropriate aircraft category, class, type, and instrument rating.'' Under the proposed rule change that established an instrument rating for airships, the existing requirement for a pilot to hold a commercial certificate with a lighter-than-air category and airship class rating to operate an airship under IFR or IMC was deleted. The proposal also required pilots of gliders to hold an instrument rating for a single-engine airplane. The FAA has decided to eliminate the proposed airship instrument rating proposed in § 61.3(k)(4). Instead, the FAA is retaining the current requirements for pilots to possess a lighter-than-air commercial pilot certificate with an airship rating to be permitted to fly airships under IFR, because the FAA concluded that operational requirements and accident/incident data did not establish a sufficient safety justification for increased regulatory or economic burdens resulting from the proposed change to the rule. This section is changed to reflect the elimination of the proposed separation of single- and multiengine instrument ratings, as well as the elimination of the powered glider class rating, as explained in section IV,D and section IV,F, respectively.

Section 61.3(f) Category II pilot authorization.

The proposed rule contained only editorial and format changes, and is adopted as proposed.

Section 61.3(g) Category III pilot authorization.

The provisions set forth in current § 61.5(i) as adopted in Amendment No. 61–100 have been retained with only minor editorial and format changes.

Section 61.3(h) Category A aircraft pilot authorization.

The proposed rule contained only editorial and format changes, and is adopted as proposed.

Section 61.3(i) Ground instructor certificate.

The FAA proposed to include the certification of ground instructor certificates and ratings in part 61, and replaced the phrase ''personal possession'' with ''physical possession, or immediately accessible when exercising the privileges'' of the ground instructor certificate. Except for a minor modification to clarify that a ground instructor can only provide endorsements for a knowledge test, the final rule is adopted as proposed.

Section 61.3(j) Age limitation.

Notice No. 95–11 proposed to align the age 60 rule for pilots with the requirements of part 121 for all U.S. and foreign pilots who are employed by foreign carriers that operate U.S.-registered civil aircraft. Section 121.383(c) provides that no certificate holder may use the services of, and no person may serve as, a pilot under part 121 if that person has reached his or her 60th birthday. That section, however, applies only to pilots serving with U.S. air carriers certificated under part 121. There are some U.S.-registered aircraft operated by non-U.S. air carriers. Under Annex 1 to the Convention on International Civil Aviation, the pilots of these aircraft must hold U.S. pilot certificates or a U.S. validation of their foreign pilot license. The special purpose pilot authorization under § 61.77 provides for validation of a foreign license and applies an age 60 limitation similar to that in part 121. However, there has not been an age 60 rule applied to the holders of regular U.S. pilot certificates while operating U.S.-registered aircraft for non-U.S. air carriers. This rule provides such a limitation.

In operations specifications issued under part 129, the FAA does require that foreign air carriers under part 129 apply to their pilots in command the age 60 limitation in Annex 1. This applies only to operations in the United States, however, and does not apply to seconds in command. It also applies to all airplanes operated by the foreign air carrier, not just U.S.-registered airplanes. Section 61.3(j) applies to all pilots, applies to certain operations both inside and outside the United States, and applies only to the operation of U.S.-registered airplanes.

Section 61.3(j) proposed to apply the age 60 rule to specific operations, including any scheduled international air services, nonscheduled international air transportation, or common carriage operations for compensation or hire in civil airplanes having a (1) passenger seating configuration of more than 30 seats, excluding any required crewmember seat, or (2) payload capacity of more than 7,500 pounds. This was arrived at by merging the operations covered at that time by the part 121 age 60 rule, and those operations covered by the Annex 1 age 60 standard. Part 121 included scheduled and nonscheduled operations of civil airplanes having a passenger seating configuration of more than 30 seats, excluding any required crewmember seat, and all-cargo operations with airplanes having a payload capacity of more than 7,500 pounds. The Annex 1 standard covers aircraft engaged in scheduled international air services and nonscheduled international air transportation operations for remuneration or hire.

However, since Notice No. 95–11, the applicability of part 121 has been amended to include certain commuter

airplanes (60 FR 65832; December 20, 1995.) In order to align § 61.3(j) with part 121, as was proposed, this final rule applies to the following:

(i) Scheduled international air services carrying passengers in turbojet-powered airplanes;

(ii) Scheduled international air services carrying passengers in airplanes having a passenger-seat configuration of more than 9 passenger seats, excluding each crewmember seat;

(iii) Nonscheduled international air transportation for compensation or hire in airplanes having a passenger-seat configuration of more than 30 passenger seats, excluding each crewmember seat; or

(iv) Scheduled international air services, or nonscheduled international air transportation for compensation or hire, in airplanes having a payload capacity of more than 7,500 pounds.

''International air service'' is defined as in Article 96 of the Convention of International Civil Aviation (Chicago Convention) as scheduled air service performed in airplanes for the public transport of passengers, mail, or cargo in which the service passes through the air space over the territory of more than one country. ''International air transportation'' is defined as air transportation performed in airplanes for the public transport of passengers, mail, or cargo in which the service passes through the air space over the territory of more than one country.

In the part 121 amendment, the FAA delayed the compliance date for pilots on operations that were not subject to an age limitation in the past but now are subject to the age 60 rule (see 60 FR 65843, as amended, 61 FR 2608; January 26, 1996). Because § 61.3(j) is a new age limitation, and does not just add additional operations to an existing age limit, the FAA is applying the same delayed implementation dates to all operations. However, until December 20, 1999, a person may serve as a pilot in operations covered by this paragraph after that person has reached his or her 60th birthday, if, on March 20, 1997, that person was employed as a pilot in operations covered by this paragraph.

While Notice No. 95–11 proposed to align the age 60 limitation in § 61.3(j) with that in part 121, at that time the changes to part 121 had not been made final, and Notice No. 95–11 did not specifically include the new part 121 airplanes. Accordingly, the FAA invites comments on the inclusion of additional airplane operations under § 61.3(j).

Comments: Five comments were received. One commenter supports clarifying the age 60 rule. Another commenter objects that the age 60 rule is an operational rule and should not appear in part 61 because it does not constitute a general aviation rule. Two commenters state that they believe the safety benefits of an age 60 limitation is not established, and three commenters note that the age 60 rule has been challenged in court.

FAA Response: The FAA has treated the age 60 rule in the past as both an operational rule (§ 121.383(c)) and a certification rule (§ 61.77). Annex 1 places the limitation in its certification standards. Part 61 contains not only general aviation rules, but also rules that apply to airline transport pilots and commercial pilots. The FAA has decided to include the age limitation in § 61.3(j) as a convenient location where affected persons may easily find it.

Recently the FAA reconsidered the age 60 rule and decided not to propose to change it (60 FR 65977; December 20, 1995). There is no reason to reexamine that decision at this time. While a petition for review of that decision has been filed in the United States Court of Appeals, there is no need to further delay implementation of age limitations.

Section 61.3(k) Special purpose pilot authorization.

The proposed rule required pilots who hold a special purpose pilot authorization issued in accordance with § 61.77 to have that authorization in their possession in the aircraft when exercising the privileges of that authorization. The rule is adopted as proposed. No substantive comments were received.

Section 61.3(l) Inspection of certificate.

This section, as proposed, permitted certain exceptions during the proposed 2-year transition period for the implementation of flight instructor certificates in the lighter-than-air category. Because those ratings have not been adopted in the final rule, proposed paragraph (k) has been withdrawn. Proposed paragraph (l) is adopted as proposed. No substantive comments were received.

Section 61.4 Approval of simulators and flight training devices.

Although this section was not proposed in Notice No. 95–11, it was set forth in Amendment No. 61–100. It is modified to refer to the approval of flight simulators and flight training devices. The current section has been revised to provide that any device used for flight training, testing, or checking that has been found to be acceptable to or approved by the Administrator prior to August 1, 1996, is considered to be a flight training device, provided it can be shown to function as originally designed and is used for the same purpose for which it was originally accepted or approved. The FAA notes that only devices that were accepted in accordance with AC No. 61–66, ''Annual Pilot in Command Proficiency Checks,'' may be used to satisfy the requirements of § 61.56. All other devices may be used only to the extent to which they had received acceptance or approval prior to August 1, 1996. This final rule also includes a provision stating that the Administrator may approve devices other than flight simulators or flight training devices for specific purposes.

Section 61.5 Certificates and ratings issued under this part.

The FAA proposed significant changes to this section. The FAA has decided to withdraw the conversion provisions proposed in paragraphs (e) through (h) from the final rule because the ratings proposed in those paragraphs were not adopted.

Section 61.5(a)

In Notice No. 95–11, the FAA proposed to include the ground instructor certificate in part 61. The specific provisions regulating the ground instructor certificates are discussed in the section-by-section analysis of §§ 61.211–61.217.

Section 61.5(b)

Section 61.5(b) proposed to establish a powered-lift category rating; an instrument rating for powered-lifts, nonpowered, and powered class ratings under the glider category; separate instrument ratings for single-engine and multiengine airplanes; and an instrument rating for airships. As discussed in section IV,D and section IV,F, the proposals for a powered-lift category rating and an instrument rating for powered-lift are adopted. As previously discussed in section IV,F, the FAA has decided to withdraw the proposals for separate ratings under the glider category, separate instrument ratings for single-engine and multiengine airplanes, and an instrument rating for airships.

In Notice No. 95–11, the FAA proposed to delete from this paragraph the word ''small'' in the reference to turbojet airplanes in the paragraph that applies to aircraft type ratings. The FAA also proposed to eliminate the reference to AC No. 61–1, ''Aircraft Type Ratings.'' The reference is obsolete because the AC has been revised. The list of type ratings is incorporated into AC No. 61–89D, ''Pilot Certificates:

Aircraft Type Ratings,'' which also consists of type-rating curricula. The FAA is adopting the proposed changes in the final rule.

The FAA proposed to delete from this paragraph the specific reference to type ratings in small helicopters for pilots with ATP certificates. The FAA is adopting this change in the final rule.

Section 61.5(c)

In Notice No. 95–11, the FAA proposed to establish the following ratings for flight instructor certificates: a powered-lift category rating, lighter-than-air category and class ratings, powered and nonpowered glider class ratings, and instrument ratings for airship, single-engine and multiengine airplanes, and powered-lift. For the reasons discussed in section IV,C and section IV,F, the lighter-than-air category and class ratings, and glider class ratings for the flight instructor certificate are withdrawn. For the reasons delineated in section IV,D, the separate instrument instructor ratings for airships and single-engine and multiengine airplanes also are withdrawn. The powered-lift category rating and instrument rating are adopted as proposed. The powered-lift category proposal is discussed in section IV,F.

Section 61.5(d)

Notice No. 95–11 revised ground instructor certificates to distinguish ratings on the basis of aircraft category (airplane, rotorcraft, glider, lighter-than-air, glider, and powered-lift).

Comments: AOPA opposes the change from the current ground instructor certificates (basic, advanced, and instrument) to the proposed ratings.

FAA Response: After further review, the FAA has decided to retain the current ground instructor ratings. The FAA found that operational requirements and accident/incident data do not establish sufficient safety justification for the increased regulatory and economic burden.

Section 61.7 Obsolete certificates and ratings.

In Notice No. 95–11, the FAA proposed to revise § 61.7 by adding a new paragraph (c) that would list five certificates and ratings that were proposed to be eliminated. However, the FAA has decided not to adopt separate classes of airplane instrument ratings, separate the glider category into a powered or nonpowered class rating, or establish new ground instructor ratings, because there is insufficient safety justification for the increased regulatory and economic burden. No substantive comments were received regarding this section, and except for the above changes, the final rule is adopted as proposed.

Section 61.9 [Reserved.]

In Notice No. 95–11, the FAA proposed that this section be titled ''Written syllabus for conducting training.'' The FAA also proposed to require that training under part 61 for any airman certificate be conducted according to a written syllabus. Under the proposal, instructors were responsible for ensuring that the syllabus contained all knowledge areas and areas of operation appropriate to the certificate and rating sought, and that the student completed all applicable lessons prior to receiving any endorsements. A copy of the syllabus was required to be furnished to the student, and an itemized written record of training also was required to be provided whenever a student completed the curriculum or terminated training.

Comments: NAFI recognizes the benefits of a written syllabus, but opposes the proposal because of the associated recordkeeping requirements and enforcement potential. NAFI states that the recordkeeping requirements are onerous, and the time limits for the retention of these records are not specified. According to NAFI, the proposal would make instructors liable for enforcement action and litigation in the event a training syllabus is lost. NAFI believes that the PTS is a sufficient guide to ensure coverage of training requirements.

NATA states that the proposed written syllabus requirement is a good concept, but the commenter also opposes the proposal because of the recordkeeping requirements. NATA recommends that the references in proposed § 61.9(a) (1) and (2) to providing total training or lesson time schedules to a student pilot be omitted in order to lessen the pressures on students and instructors to complete training within a time frame. To ensure the use of a written syllabus, NATA proposes that student pilots be required to submit the written syllabus to the designated examiner during the practical test.

AOPA agrees in principle that most flight training should be organized into a format that ensures each student is taught the necessary aeronautical skills. The commenter, however, opposes the proposed written syllabus requirement and the associated recordkeeping and transfer requirements. According to AOPA, the FAA does not provide any justification for the burdens of the proposal. The commenter is also concerned about the liability implications of proposed §§ 61.9(a)(1) and 61.9(c) for flight instructors. According to AOPA, the proposals may create a de facto contractual relationship between the instructor and the student to provide flight or ground instruction in a specific amount of time. AOPA points out that each student is different, and these differences may not be apparent at the beginning of a syllabus curriculum. The commenter believes that it would be better to provide the prospective student with a copy of the PTS for the certificate or rating sought and to familiarize the student with the standards to which he or she will be expected to perform.

AOPA also opposes the recordkeeping requirements of this provision. The commenter states that proposed § 61.9(f) creates strict liability compliance on the part of the instructor by requiring the instructor to provide the student with an itemized written record of the training accomplished when the student decides to terminate training. AOPA notes that the student is not obligated to give notice of his or her decision to terminate training to the instructor. AOPA believes that the current required logbook entries are sufficient documentation and that no further regulation is necessary. According to the commenter, the recordkeeping requirements also represent a significant addition of time and costs to training without any increase in safety.

HAI comments that the proposed written syllabus requirement is a good concept, but that it will create difficulties for both flight instructors and flight schools because of the training time constraints and recordkeeping requirements, especially because there are many part-time and occasional students with special requirements. HAI recommends deleting any references to the instructor providing total training or lesson time to a student pilot.

SSA opposes the proposed written syllabus requirement in its current form. SSA contends that glider instruction is unique in that it is virtually impossible to follow a written syllabus. Glider instructors cannot predict the training time of each flight, the length of total training time, the maneuvers and procedures that will maximize each training session, or the knowledge areas that will be covered on each flight because of weather constraints and scheduling realities. SSA also states that glider school operators feel it is unreasonable to present students with a complete package prior to beginning training because many students do not progress past the first flight.

GAMA supports requiring flight instructors to use a written syllabus for pilot training. GAMA comments that, while the recordkeeping requirements may appear somewhat burdensome, the benefits to safety outweigh the administrative burden. According to GAMA, a written syllabus would improve communication between the student and instructor, and it would contribute to a higher quality of training. The commenter also believes that the syllabus could prove useful to accident investigators and other safety personnel in understanding a pilot's training background. GAMA notes, however, that the training records should not be used for enforcement purposes.

Several individual commenters also cite concerns about burdensome recordkeeping, and one states that the PTS are sufficient to follow. One commenter suggests that the FAA publish an AC on the issue rather than adopting a regulation. One commenter states that the proposed requirement for the syllabus to contain planned training times for lessons are impossible to determine for all students; another adds that specifying planned training times could be misconstrued as a written contract. Comments supporting the proposal state it would cut down on unprepared instructors and would promote an organized, logical approach toward meeting certification and rating requirements. One commenter supports the proposal for use of a written syllabus, but opposes the associated recordkeeping requirements as unnecessarily burdensome. On a related issue, another commenter stated that the current requirement for flight instructors to retain records for 3 years is unnecessary.

FAA Response: After further review of the proposal, the FAA has concluded that operational requirements and the accident/incident data do not establish a sufficient safety justification for the increased regulatory and economic burden resulting from the proposed rule. Therefore, the proposal has been withdrawn.

Section 61.11 Expired pilot certificates and reissuance.

Minor editorial and format changes were proposed for this section. No substantive comments were received, and the final rule is adopted is proposed.

Section 61.13 Issuance of airmen certificates, ratings, and authorizations.

In Notice No. 95–11, the FAA proposed to replace the title of § 61.13, ''Application and qualification,'' with ''Awarding of airman certificates, ratings, and authorizations,'' and to revise the format of this section.

The significant proposed changes in this section were as follows: (1) Replacement of the phrase ''flight proficiency requirements'' with ''approved areas of operation''; (2) deletion from this section of the rule's provision that permits the use of aircraft for a practical test that cannot perform all of the approved areas of operation for that practical test because of limitations listed in that aircraft's type certificate; and (3) clarification that a limitation placed on a person's airman certificate may be removed if the pilot demonstrates to an examiner satisfactory proficiency in the area of operation for which the airman certificate and rating are sought.

For reasons of clarity, the final rule changes the proposed section title word ''awarding'' to ''issuance''. Except for these and other editing changes applicable to Category III operations and the use of approved flight simulators and approved flight training devices, the final rule is adopted as proposed. No substantive comments were received.

Section 61.14 Refusal to submit to a drug test.

In Notice No. 95–11, the FAA inadvertently set forth the pre-March 1994 regulatory language contained in § 61.14.

Comments: In its comments, AOPA opposes proposed § 61.14(b) because it seems to allow certificate action against any person who refuses to take a drug or alcohol test, regardless of whether the person is required under the rule to take a test. While AOPA believes that the intent of this rule is obvious, it is uncomfortable with the removal of the qualifying language and recommends retaining the current language. NAFI also comments about this proposed section, and states that courts have made determinations equating an adulterated test sample with refusal to take a test. NAFI is concerned that, because test samples might be adulterated in many ways other than by the person taking the test, the wording of the regulation might place pilots at risk of a violation and certificate revocation ''for reasons beyond their control.''

FAA Response: As previously noted, no modifications were intended for § 61.14. The final rule sets forth the existing regulation in its correct form.

Section 61.15 Offenses involving alcohol or drugs.

No modifications were proposed for this section.

Section 61.16 Refusal to submit to an alcohol test or to furnish test results.

In Notice No. 95–11, the FAA proposed an editorial change to correct the reference to § 91.11(c) in the existing rule to § 91.17(c). The final rule is adopted as proposed.

Section 61.17 Temporary certificate.

In the preamble to Notice No. 95–11, the FAA proposed to revise this section to include the ground instructor certificate. Although the actual revision to the rule language was omitted inadvertently from the proposed rule, the final rule includes the appropriate references to the ground instructor certificate. The proposed rule also made some minor editorial changes. No substantive comments were received on this proposal, and it is adopted as proposed.

Section 61.19 Duration of pilot and instructor certificates.

In Notice No. 95–11, the significant proposed changes in this section were: a change in the title of proposed § 61.19 from ''Duration of pilot and flight instructor certificates'' to ''Duration of pilot and instructor certificates''; deletion of the existing rule's language specifying that a flight instructor certificate is only effective when accompanied by a medical certificate appropriate to the privileges being exercised; inclusion of ground instructor certificates under part 61; and the addition of the language ''or otherwise terminated'' to the list of conditions under which a certificate may be terminated.

Comments: AOPA supports the inclusion of ground instructor certificates without a specific expiration date, but objects to, and requests the deletion of, the language ''or otherwise terminated'' in proposed § 61.19(f). AOPA states that the law provides protective procedures in the event of suspension or revocation, and the commenter is unaware of any method of certificate termination other than the methods specified in the existing rule. Individual commenters also express concern about the addition of the new language.

FAA Response: After further review and in response to the objections of AOPA and some individual commenters, the final rule deletes the proposed language ''or otherwise terminated.'' Except for this change, the final rule is adopted as proposed.

Section 61.21 Duration of a Category II and a Category III pilot authorization (for other than part 121 and part 135 use).

The FAA proposed minor editorial and format changes to § 61.21. No substantive comments were received, and, except for editorial changes to include references to Category III operations, the final rule is adopted as proposed.

Section 61.23 Medical Certificates: Requirement and duration.

The FAA proposed to change the title of this section from ''Duration of medical certificates'' to ''Duration and requirement for a medical certificate'', and to redesignate the paragraphs within it.

Proposed paragraph (a) set forth the duration of each class of medical certificate, and proposed paragraph (b) set forth the medical certificate requirements for each type of pilot operation. Proposed paragraph (b)(3)(iii) clarified the existing requirement that a person who is exercising the privileges of his or her flight instructor certificate while serving as a pilot in command, or as a required crewmember, must hold a third-class medical certificate. However, if the flight instructor is not serving as pilot in command or as a required crewmember, then that person would not be required to hold a medical certificate. The FAA proposed in paragraphs (b)(4)(i) and (b)(4)(ii) to permit student pilots who are seeking a recreational pilot certificate and certificated recreational pilots to operate on aircraft without holding a medical certificate, provided they have an application for an airman certificate on file with the FAA that certifies they do not have any known medical deficiencies that would make them unable to pilot the aircraft. The proposal also afforded higher-certificated pilots exercising the privileges of a recreational pilot certificate these same privileges.

The FAA also proposed editorial and format changes to the paragraph concerning the duration of medical certificates.

Comments: NAFI supports the proposal to permit flight instructors to teach with only a third-class medical certificate. NAFI and AOPA express support for permitting flight instructors to teach without a medical certificate if the instructor is not acting as a required crewmember or pilot in command. AOPA, however, believes there is a discrepancy that is potentially unfair. The commenter points out that § 91.109 requires a safety pilot any time a civil aircraft is operated in simulated instrument flight, and, under these circumstances, AOPA contends that the safety pilot becomes a required crewmember. According to AOPA, an instructor becomes a required crewmember as soon as a pilot receiving instruction puts on a hood or other vision-limiting device. Therefore, AOPA reasons that a flight instructor who does not possess a medical certificate cannot give any form of instruction involving flight by reference to instruments under simulated instrument conditions. The commenter recommends permitting an instructor to act as a safety pilot without a medical certificate.

GAMA, NATA, HAI, and AOPA oppose the language of proposed § 61.23 concerning the duration of the different classes of medical certificates, and recommend retaining the current language of the regulation. NATA believes the proposed language is unclear and could lead to misinterpretations. Other individual commenters have echoed this position and state that, under the proposed language, it appears that if a pilot's first-class medical certificate expires, the pilot will not be able to exercise the privileges of pilot certificates requiring second-class and third-class medical certificates.

FAA Response: In the final rule, the title was changed to ''Medical Certificates: Requirement and duration,'' and the section was further reformatted and edited. The FAA reviewed AOPA's concerns regarding the ability of flight instructors to act as safety pilots without medical certificates. The FAA has determined that safety requires all required crewmembers, including safety pilots, to possess valid medical certificates.

The FAA agrees with the concerns of GAMA, NATA, HAI, and AOPA regarding problems in the proposed language for the duration of medical certificates and has modified the final rule to restore the provisions of the existing rule. The FAA has also retained its proposal to require that an applicant for a private, commercial, or ATP certificate possess only a third-class medical certificate; but after further review, has determined that the medical certificate requirements that were proposed to be contained in the eligibility requirements listed under each pilot certificate subpart should be placed in § 61.23. The purpose of this change is to reflect the FAA's position that a medical certificate applies to the type of pilot operation being conducted.

Most commenters support the FAA's proposal, which provides that applicants would only need a third-class medical certificate to be eligible to apply for a private, commercial, airline transport pilot, or flight instructor certificate. This change also was made in § 61.39, but is discussed here. These commenters feel that the proposal would encourage pilots to seek advanced training, even if they did not intend to exercise the privileges of the higher certificate. AOPA, GAMA, and NAFI support permitting applicants for a commercial or ATP certificate to hold only a third-class medical certificate. Like the other commenters, these associations felt that the proposal would encourage training toward advanced certificates and would improve safety.

With respect to the holding of medical certificates by a flight instructor, the FAA has determined that the compensation a certificated flight instructor receives for flight instruction is not compensation for piloting the aircraft, but rather is compensation for the instruction. A certificated flight instructor who is acting as pilot in command or as a required flight crewmember and is receiving compensation for his or her flight instruction is only exercising the privileges of a private pilot. A certificated flight instructor who is acting as pilot in command or as a required flight crewmember and receiving compensation for his or her flight instruction is not carrying passengers or property for compensation or hire, nor is he or she, for compensation or hire, acting as pilot in command of an aircraft. Therefore, because a certificated flight instructor who is acting as pilot in command or as a required flight crewmember and is receiving compensation for his or her flight instruction is exercising the privileges of a private pilot, he or she only needs to hold a third-class medical certificate. In this same regard, the FAA has determined that a certificated flight instructor on board an aircraft for the purpose of providing flight instruction, who does not act as pilot in command or function as a required flight crewmember, is not performing or exercising pilot privileges that would require him or her to possess a valid medical certificate under the FARs.

The changes implemented by the FAA still require a person who is involved in pilot operations requiring an ATP certificate (i.e., part 121 air carrier operations) to hold a first-class medical certificate. In addition, a person who is involved in pilot operations requiring a commercial pilot certificate (i.e., part 135 on-demand operators) will be required to hold a second-class medical certificate.

For reasons discussed in section IV,A of this preamble, the final rule retains the requirement that any pilot exercising the privileges of a recreational pilot certificate possess a third-class medical certificate.

As a result of a legal interpretation that permits applicants and check airmen, under parts 121 and 135, to perform the practical tests for a type rating in a flight simulator without either person holding a medical certificate, the FAA has modified § 61.23 to permit applicants, examiners, and check airmen to perform a practical test or check without being required to hold a medical certificate, provided that the test or check is only being conducted in a flight simulator or a flight training device.

Section 61.25 Change of name.

In Notice No. 95–11, minor format and editorial changes were proposed. No substantive comments were received. Except for a minor editorial correction, the final rule was adopted as proposed.

Section 61.27 Voluntary surrender or exchange of certificates.

The FAA proposed to revise the format of this section. No substantive comments were received on this proposal, and it is adopted as proposed.

Section 61.29 Replacement of a lost or destroyed airman or medical certificate or knowledge test report.

In Notice No. 95–11, the FAA proposed to revise the title of this section and delete some language concerning the procedures for replacing lost or destroyed airman or medical certificates.

Section 61.29 (a), (b), and (c)

The FAA proposed to delete the stated fee for replacement of a lost or destroyed airman or medical certificate. The proposal also established the procedures for obtaining copies of lost or destroyed airman and medical certificates and knowledge test reports.

Comments: EAA and NAFI disagree with proposed § 61.29 because it does not state what the fee is for replacement of a lost certificate. EAA believes that requiring an airman to call the Airman Certification Branch for fee information is unreasonable. These commenters also are concerned that the fee could be raised without sufficient public oversight. AOPA also opposes the deletion of the fee information and states that the rule contains no reference to where fee information can be found. The commenter contends that it is impractical to use the mail for the urgent replacement of an airman certificate.

FAA Response: The cost for replacement of a lost or destroyed airman certificate, medical certificate, or knowledge test report is contained in 14 CFR part 187. In response to commenters' concerns, the FAA notes that any changes to part 187 would be subject to public comment. The FAA will accept a facsimile of the letter requesting replacement of these certificates or reports in urgent cases.

Section 61.29(d)

In the final rule, paragraph (d)(2) has been revised to incorporate current policy, which is not to accept a post office box as part of a permanent mailing address. Minor editorial changes were also made in the final rule.

Section 61.29(e)

Proposed paragraph (e) provided that a person who has lost an airman certificate, medical certificate, or knowledge test report may obtain a facsimile from the FAA confirming it was issued. No changes were made to this paragraph in the final rule.

Section 61.31 Type rating requirements, additional training, and authorization requirements.

The FAA proposed several new or revised training and instructor endorsement requirements, and deleted the provision requiring a type rating in helicopters for operations requiring an ATP certificate. The proposed requirements included changes in endorsement requirements, special aircraft training, aircraft type specific training, and flight instructor endorsements for any aircraft specified by the Administrator.

Comments: Approximately 55 comments address issues of endorsements, about 44 percent of which oppose the proposals, 37 percent agree, and 19 percent offer alternatives. An individual commenter also suggests an additional requirement for an airplane pilot to have training and a flight instructor endorsement to serve as pilot in command in an amphibious airplane.

FAA Response: The FAA has made various clarifying changes to these sections and modified terminology because of changes implemented elsewhere in the rule. The commenter's proposal for an additional requirement for amphibious airplane pilots is outside the scope of Notice No. 95–11 and cannot be included in the rule without comment under the standard regulatory process. In addition, the FAA has added a paragraph describing additional training required for operating a glider. The reasons for this action are discussed in section IV, F.

Section 61.31(a) Type ratings required.

This paragraph listed those aircraft for which a type rating is required and is adopted without change. No substantive comments were received.

Section 61.31(b) Authorization in lieu of a type rating.

This paragraph listed the circumstances under which a pilot may be authorized to operate, for up to 60 days, an aircraft without holding the appropriate type rating. The provisions are adopted without change. No substantive comments were received.

Section 61.31(c) Aircraft category, class, and type ratings: Limitations on the carriage of persons or operating for compensation or hire.

This paragraph provided limitations on the carriage of persons for compensation or hire. The provisions are adopted without change. No substantive comments were received.

Section 61.31(d) Aircraft category, class, and type ratings: Limitations on operating an aircraft as the pilot in command.

This paragraph provided limitations on operating an aircraft as the pilot in command.

Comments: AOPA opposes the language in proposed § 61.31(d)(1), which states that a pilot must be ''enrolled in a course of training'' for a certificate or rating and be under the supervision and endorsement of a flight instructor in order to operate, as pilot in command, an aircraft for which the person does not hold category and class privileges on his or her certificate. AOPA believes that the use of the language ''enrolled in a course of training implies that only a part 141 or 142 school would be able to provide this authorization.'' AOPA recommends replacing this language with words that recognize that the airman is ''receiving training'' toward a certificate or rating. An individual commenter also questions how a person would enroll in a course of training not associated with part 141, as described in proposed § 61.31(d)(1). NAFI also makes the same point and proposes that proposed § 61.31(d)(1) be changed to read ''Be under the supervision of a certified flight instructor.''

FAA Response: After considering AOPA's and NAFI's comments, the FAA has decided to change the references from ''enrolled in a course of training''

to ''receiving training'', which is more generic and avoids the implication that a pilot must receive training in an FAA-certificated school.

Section 61.31(e) Exceptions.

This paragraph was modified because there is no longer a separation of powered and nonpowered glider class certificates as in the proposed rule, for the reasons stated in section IV, F. Therefore, gliders were added to the list of aircraft that do not require class ratings. Minor editorial changes were also made to this paragraph in the final rule.

Section 61.31 (f) and (g) Additional training for operating complex airplanes, and additional training for operating high-performance airplanes.

The FAA proposed to separate endorsements for high performance and complex aircraft. Proposed § 61.31(g) replaced the current requirement for a pilot to receive training and an endorsement in an airplane with ''more than 200 horsepower'' to ''200 horsepower or more''.

Comments: Some commenters object to the proposal in § 61.31 that would separate the endorsements for the operation of airplanes with retractable landing gear, flaps, and a controllable propeller, and airplanes with engines of 200 horsepower or more, and state that pilots with the current endorsement should be covered by a ''grandfather'' clause.

NATA and GAMA support the proposed separation of endorsements for complex and high-performance aircraft but oppose the proposed definition of ''high performance.'' EAA and NAFI also object to the proposed definition of ''high performance'' and state that the inclusion of aircraft with 200 horsepower engines will add considerable cost for thousands of aircraft owners. These commenters contend that there is no safety evidence to support the proposed definition. Some individual commenters also suggest maintaining the regulatory reference to engines of more than 200 horsepower.

In its comment, AOPA states that the FAA has offered no justification for the separate endorsements for complex and high-performance aircraft, and the commenter is unaware of any serious accident history to support the proposal. According to AOPA, the aircraft insurance industry has effectively regulated this area by requiring training and instruction far in excess of that proposed by the FAA. AOPA also objects to the inclusion of aircraft with 200 horsepower engines in the definition of high performance.

FAA Response: The FAA believes the operating characteristics of complex aircraft and high-performance aircraft are so different as to justify separate endorsements. There are now turbine-powered aircraft that are high-performance aircraft but that are not considered complex aircraft. Also, training in one type of aircraft does not necessarily transfer to training in another type of aircraft. However, the FAA finds persuasive the commenters'' objections to the proposed change in the requirement of ''200 horsepower or more.'' Therefore, the rule will only require a separate endorsement for airplanes with ''more than 200 horsepower.''

Section 61.31(h) Additional training required for operating pressurized aircraft capable of operating at high altitudes.

The FAA proposed to require pilots to receive additional training for operating ''pressurized aircraft'' because current provisions only require pilots to receive additional training in ''pressurized airplanes.'' This proposal captures the possible development of pressurized aircraft that are not airplanes and may be manufactured in the future.

Comments: AsMA urges an adoption of a broader view of what encompasses human factors, and suggests specific areas to include in such training. AsMA recommends that instructor pilots be required to attend special human factors seminars and that the FAA evaluate these new training efforts. The commenter also states that § 61.31(f)(1)(i) is too limited in scope because it requires only those pilots flying a pressurized airplane that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 feet MSL to complete aviation physiology training. AsMA contends that the physiological stresses of flight can occur at lower altitudes, and other environmental and operational stresses can cause problems while flying at any altitude. According to the commenter, proposed § 61.31(h)(1) (ii) through (vii) perpetuates these shortcomings and takes an additional step in the wrong direction by eliminating the last sentence (''and any other physiological aspects of high-altitude flight'') from the existing rule. AsMA recommends modifying existing § 61.31(f) to mandate that all U.S. civil aviation pilots be required to complete ground training on basic aviation physiology.

GAMA supports requiring one-time, high-altitude physiology and emergency procedures training for a pilot in command of any aircraft capable of operating above 25,000 MSL. According to GAMA, this training has already been incorporated into many training courses, therefore making it a formal requirement that should not impose an undue burden. GAMA, however, recommends that the grandfather clause exempting pilots who have flown as pilot in command in a pressurized aircraft be extended to the date of final rulemaking instead of April 15, 1991, as proposed.

FAA Response: After considering AsMA's comments, the FAA has retained the phrase ''and any other physiological aspects of high altitude flight'' in the final rule. However, GAMA's comment addresses a clause that was not modified in Notice No. 95–11 and is beyond the scope of this rulemaking. The proposal is adopted as modified.

Section 61.31(i) Additional training required by the aircraft's type certificate.

The proposed paragraph required additional training and a flight instructor endorsement for a person to serve as pilot in command of an aircraft that the Administrator has determined requires type specific training.

Comments: EAA and NAFI oppose the proposed requirement for type-specific training because the FAA has the ability to require additional training for a specific aircraft when the type certificate for that aircraft is issued. EAA states that training in aircraft that have been in use for many years should not be required.

AOPA also objects to the type-specific training requirement on the grounds that the proposal grants the Administrator blanket authority to require this additional training and would permit the FAA to permanently regulate airman certification by policy without the benefit of public comment.

GAMA states that the proposed requirement for type-specific training will require an appropriate level of training, determined on a model-by-model basis, and will significantly improve safety. The commenter contends that a number of unfortunate incidents and accidents have been caused by the pilot's lack of type-specific training in an aircraft that is more ''advanced'' than the pilot has previously flown. GAMA states that the aircraft may not be so different that a type rating is needed, yet a high-performance/complex endorsement may be grossly inadequate, especially as new aircraft designs are introduced.

A representative of the Texas Department of Aviation supports the proposal in § 61.31(i) for type-specific

training, but requests additional details as to how such aircraft would be identified, how the additional training ''would be treated,'' and who would be qualified to give such training.

Several individual commenters also oppose the type-specific training proposal; two commenters state that the provision is vague and vests too much discretion with the Administrator.

FAA Response: It is the FAA's position that granting the Administrator the authority to require type-specific training, on any aircraft that the Administrator deems appropriate, provides the Administrator with the minimum means necessary to rapidly address safety concerns without the delay incurred by rulemaking. The intent of the rule is for the Administrator to only exercise this power in limited circumstances. Flight characteristics of certain aircraft may necessitate the rapid implementation of additional training. Recent Piper Malibu and Robinson R–22 accidents demonstrate the need for this requirement. When the Flight Standards Board (FSB) meets, a notice to the public is published in the **Federal Register**, and the opportunity for public comment is provided. The FAA believes that this will permit the FAA to be more responsive to patterns of accidents in the future, and the proposal is adopted with minor editorial changes.

Section 61.31(j) Additional training required for operating tailwheel airplanes.

This paragraph listed the additional training required for operating tailwheel airplanes. The proposed rule contained formatting changes and has been adopted with only minor editorial changes. No substantive comments were received.

Section 61.31(k) Additional training required for operating a glider.

The FAA has added this paragraph because the proposal to separate the glider category into powered and nonpowered class ratings as proposed in Notice No. 95–11 has been withdrawn, and additional endorsements required for flying gliders have been adopted instead. The reasons for this action are discussed in section IV, F.

Section 61.33 Tests: General procedure.

In Notice No. 95–11, a minor editorial change was proposed to language of this section.

Comments: AOPA objects to the proposed § 61.33 provision that the Administrator shall designate the time, location, and examiner for conducting tests. AOPA believes that this subtle language change implies that the FAA is going to assign applicants for knowledge and practical tests to a specific examiner. AOPA recommends retention of the current language even if this is not the intent of the change because the new language is subject to this interpretation. HAI and individual commenters echo AOPA's concerns.

FAA Response: The proposed change replaced the phrase ''persons, designated by the Administrator'' with the word ''examiners.'' FAA notes the commenters'' concerns and has retained the existing rule's language in the final rule.

Section 61.35 Knowledge test: Prerequisites and passing grades.

In Notice No. 95–11, § 61.35 was retitled to read ''Knowledge test: Prerequisites and passing grades,'' instead of ''Written test prerequisites and passing grades.'' The FAA proposed that the term ''written test'' be replaced with ''knowledge test'' to reflect computer testing and to be consistent with FAA policy, as discussed in the analysis of § 61.1(b)(11).

Proposed paragraph (a)(1) set forth a requirement that an applicant receive an endorsement certifying the completion of ground training or a home study course on the aeronautical knowledge requirements for each certificate or rating, and that the applicant is prepared for the knowledge test. An applicant would no longer be able to present evidence of completion of a home study course for review by an FAA Flight Standards District Office (FSDO) as a basis of eligibility to take the knowledge test. This practice is a role more properly filled by ground or flight instructors. Home study would continue to be acceptable; however, the instructor rather than the FSDO would review completion of the home study course.

In proposed paragraph (a)(2), the current requirements for the presentation of personal identification found in FAA Order 8700.1, ''General Aviation Operations Inspector's Handbook,'' were included and clarified. These identification procedures were established in response to the Drug Enforcement Assistance Act of 1988 (Pub. L. 100–690, November 18, 1988). The proposal required an applicant to present identification consisting of the applicant's photograph, signature, and date of birth showing that the applicant meets or will meet the age requirements for the certificate sought before the expiration date of the knowledge test report. The proposal would also require an applicant to present identification containing his or her actual residential address, if different from the applicant's mailing address. Acceptable types of identification include, but are not limited to, a driver's license, a government identification card, a passport, or other forms of identification that meet these personal identification criteria. The photograph of the applicant would be reproduced on the airman identity card portion of the airman certificate.

The FAA also proposed that applications for ATP certificates and ratings be included in § 61.35. In the existing rule, § 61.35 did not apply to the written test for an ATP certificate or a rating associated with that certificate. The passing requirements for a written test for an ATP certificate or a rating associated with that certificate were found in the existing § 61.167. Existing § 61.167 stated that an applicant for an ATP certificate or rating must pass the test with a 70 percent minimum passing grade.

Comments: NAFI, NATA, and AOPA oppose the proposal to require that an applicant receive an endorsement from an instructor certifying that the applicant is prepared for the knowledge test. The commenters state that the fee is sufficient incentive for a student to prepare for the test. HAI also objects to this requirement and notes that students commencing ground school before their flight training may not yet have logbooks, or might lose their logbooks and then be unable to find the instructor who provided the endorsement. NATA contends that computer testing has lifted the administrative burden of test scoring from the FAA. AOPA also opposes the proposal to remove the minimum passing grade for a knowledge test from the regulations. AOPA believes that this information should be a matter of public record. The commenter is concerned that the FAA could revise the passing grade requirements without issuing an NPRM and soliciting public comment.

GAMA states that the FAA should eliminate the requirement for an endorsement to take a knowledge test. According to GAMA, the FAA's proposal fails to consider the high quality of training materials offered today, most of which provide a means for the home study applicant to complete practice tests at home before taking the FAA knowledge test. In spite of this, GAMA feels that an instructor may feel reluctant to provide an applicant with an endorsement based on a one-time meeting. GAMA contends that if home study is permitted, an applicant should be allowed to test

when he or she feels ready. The commenter believes that the testing fee will act as the deterrent to premature testing.

One individual commenter who agrees with the proposal to require an instructor endorsement for the knowledge test suggests that § 61.35 state that the instructor must certify that the student is competent to take the test, so that the instructor can charge for the service. Another commenter opposes this proposal.

FAA Response: In the general discussion of the preamble, the FAA inadvertently stated that a ''logbook'' endorsement was required for a knowledge test. The rule, however, did not include this provision and it was not the FAA's intent to require a ''logbook'' endorsement. The FAA notes the commenters' objections to the requirement for an endorsement as a prerequisite to the knowledge test. However, the current rule requires an applicant to show satisfactory completion of the required ground instructor or home study course. This is accomplished through the use of an endorsement. The FAA has repeatedly held that this requirement is necessary to ensure a high quality of training, and the final rule is adopted as proposed with minor editorial changes.

Section 61.37 Knowledge tests: Cheating or other unauthorized conduct.

In Notice No. 95–11, the FAA proposed that the phrase ''Except as authorized by the Administrator'' be deleted from this section. Current paragraph (a)(4) was inadvertently deleted from the proposed rule and has been included in the final rule. Minor editing and formatting changes were also proposed. No substantive comments were received, and the final rule is adopted as proposed.

Section 61.39 Prerequisites for practical tests.

In proposed § 61.39, the FAA replaced the words ''flight test'' and ''oral test'' with the words ''practical test''. The words ''written test'' were replaced with ''knowledge test''. These proposed changes were consistent with the changes discussed in § 61.1, ''Applicability and Definitions.'' The FAA also proposed to clarify the eligibility prerequisites for practical tests.

Section 61.39(a)

The FAA proposed to permit an applicant to hold at least a third-class medical certificate to be eligible for a practical test and to clarify the age requirement for an applicant for an ATP certificate. The proposal also included the current prerequisites for practical test procedures found in FAA Order 8700.1. Comments relating to the third-class medical certificate requirement are addressed in the discussion of § 61.23. The FAA made minor editorial changes to the final rule to reflect the use of the term ''authorized instructor.''

Section 61.39 (b) and (c)

Proposed paragraphs (b) and (c) revised and clarified the current eligibility provisions for applicants for ATP certificates and ratings. Minor editorial changes were incorporated into this paragraph of the final rule.

No substantive comments, other than those addressing the third-class medical certificate requirement, were received, and the proposal is adopted with minor editorial changes.

Section 61.39 (d) and (e).

Although not proposed in Notice No. 95–11, paragraphs (d) and (e) include provisions relating to the completion of all increments of the practical test that were adopted in Amendment No. 61–100.

Section 61.41 Flight training received from flight instructors not certificated by the FAA.

The FAA proposed minor editorial changes to this section. The proposal replaced the word ''instruction'' with the word ''training,'' and, in proposed paragraph (a), clarified that training received from a flight instructor of an Armed Force must have been obtained in a program for training military pilots. In proposed paragraph (b), the FAA clarified that flight instructors not certificated by the FAA are only authorized to give endorsements to show training given, but may not give any of the endorsements required under part 61 to take a written or practical test for a pilot certificate or rating, or for the exercise of a certificate privilege. No substantive comments were received, and apart from minor editing changes, the final rule was adopted as proposed.

Section 61.43 Practical tests: General procedures.

In Notice No. 95–11, the FAA proposed to replace the term ''flight test'' with ''practical test'', and the phrase ''maneuvers and procedures'' was replaced with ''approved areas of operation''. Applicants for ATP certificates or ratings were to be included in the rule by replacement of the phrase ''an applicant for a private or commercial pilot certificate, or for an aircraft or instrument rating on that certificate'' with ''an applicant for a certificate or rating, issued under this part.'' Additional changes were made to the language in order to clarify and simplify the section.

In proposed § 61.43(a), an applicant for a practical test was required to: perform the approved areas of operation for the certificate or rating sought within the approved standards; demonstrate mastery of the aircraft with the successful outcome of each task performed never seriously in doubt; demonstrate satisfactory proficiency and competency; demonstrate sound judgment; and demonstrate single-pilot competence if the aircraft is type certificated for single-pilot operations.

With regard to the demonstration of single-pilot competence listed in proposed paragraph (a)(5), most aircraft that are type certificated for one pilot are currently operated by one pilot. However, some aircraft (e.g., the Cessna Citation 501 and 551) are type certificated for one pilot, but are operated by either one- or two-pilot crews. The FAA realized that some pilots may desire to operate an aircraft type certificated for one pilot with a two-pilot crew. In this situation, the applicant would have the option, contained in proposed paragraph (b), not to demonstrate single-pilot competence, but a limitation would be placed on the applicant's airman certificate that states a second in command is required. This limitation could later be removed if the pilot demonstrates single-pilot competence. This proposal was consistent with FAA Order 8700.1 regarding aircraft that are type certificated for one pilot, but operated with one- and two-pilot crews. The proposal did not change regulations for applicants that apply for a certificate or rating in aircraft that are usually operated by one pilot. These applicants currently are required to demonstrate single-pilot competence during the practical test.

In paragraph (e), the proposal codified the procedures, which are currently found in FAA Order 8700.1, that address those situations under which an examiner or applicant may discontinue the practical test due to inclement weather conditions, aircraft airworthiness, or other flight safety concerns.

Comments: AOPA supports proposed § 61.43(f)(1) permitting applicants whose first test was discontinued for any reason to credit those areas of operation that were performed satisfactorily to a rescheduled test if the remainder of the practical test is performed within 60 days.

FAA Response: The FAA notes AOPA's comment of support. Except for

minor editing changes, the final rule is adopted as proposed.

Section 61.45 Practical tests: Required aircraft and equipment.

In Notice No. 95–11, the FAA proposed that § 61.45 be retitled to read ''Practical tests: Required aircraft and equipment'' instead of ''Flight tests: Required aircraft and equipment''. The FAA also proposed to revise this section by replacing the term ''flight test'' with ''practical test'' and ''flight proficiency requirements'' with ''approved areas of operation''.

Proposed paragraph (a)(1) permitted the use of aircraft with a primary airworthiness certificate to be used for a flight test. This proposal corrects an oversight that occurred during the issuance of the Primary Aircraft Final Rule (57 FR 41360; September 9, 1992). In the ''Supplementary Information'' section (in the paragraphs entitled ''Rental and Flight Instruction'' and ''Pilot Certification'') of that final rule, the FAA stated that the use of primary aircraft are permitted to be used for rental, flight instruction, and pilot certification. However, the FAA did not provide for their use in that rule.

The FAA notes that the proposal excluded the use of ultralights and hang gliders as acceptable aircraft for use in practical tests. The use of ultralights and hang gliders are unacceptable aircraft for use in pilot certificate tests. Ultralights are not required to meet the airworthiness certification, pilot certification, aircraft registration, or aircraft marking requirements of the other aircraft.

In paragraph (b), the FAA proposed to exclude balloons from the current requirement that an aircraft used for the practical test have pilot seats. The existing § 61.45 required that the aircraft used for a flight test have ''pilot seats with adequate visibility for each pilot to operate the aircraft safely.'' Most balloons do not have seats, and this requirement was waived for balloon practical tests.

In proposed paragraph (b)(3), the FAA required that applicants for any practical test, other than a practical test in a balloon, perform the test in a two-place aircraft. This would eliminate the existing provision for an applicant for a gyroplane class rating to accomplish the practical test in a single-place gyroplane. In the past, the FAA has permitted examiners to observe the practical test from the ground when the aircraft was a single-place aircraft. Most gyroplanes are single-place aircraft that require examiners to monitor their use in a practical test from the ground.

In paragraph (c)(3), the FAA proposed to require that the required controls in lighter-than-air aircraft used for a practical test be easily reached and operable in a normal manner by both pilots. An examiner would be permitted to waive the requirement; however, the examiner would have to determine that the lighter-than-air aircraft used for the practical test could be operated safely.

Comments: EAA, NAFI, and AOPA oppose proposed § 61.45(b)(3) requiring that an aircraft have two pilot seats for use in a practical test. NAFI and AOPA comment that the proposed rule is especially unfair to gyroplane applicants who currently are examined with the examiner observing on the ground and communicating by radio. AOPA disputes the FAA's claim that two-place gyroplanes are amply available. AOPA, NAFI, and EAA, however, approve of § 61.45(a)(1), which provides that a practical test may be taken in a primary category aircraft. NAFI states this would lower costs without reducing safety. AOPA states that primary category aircraft can be used in commercial flight operations.

FAA Response: After discussions with many of the manufacturers of gyroplanes, the FAA believes that there are an adequate number of two-place gyroplanes available to permit the FAA to require that a practical test in a gyroplane be taken in a two-place aircraft. The FAA notes the concerns of EAA, NAFI, and AOPA. The FAA believes the importance of the practical test makes it extremely necessary that examiners be able to observe applicants during the practical test. In addition, the FAA replaced the words ''pilot seats'' with ''pilot stations''. Balloons have pilot stations, and, therefore, this change eliminates the need for an exception to be specifically stated in the rule. Except for these changes and other editorial changes to include provisions relating to the use of approved flight simulators and approved flight training devices, the final rule is adopted as proposed.

Section 61.47 Status of an examiner who is authorized by the Administrator to conduct practical tests.

In Notice No. 95–11, the FAA proposed to change the title of this section. The proposal also contained editorial and format revisions, including proposed paragraph (b), which stated that ''The student is the pilot in command of the aircraft during the practical test unless the examiner or another person has been so designated before the flight.''

Comments: AOPA opposes the change in the language of § 61.47(b). The commenter notes that the current rule states that the examiner or inspector is not the pilot in command. AOPA contends that the proposed language creates some ambiguity as to who is pilot in command and notes this ambiguity was addressed in the 1966 amendment to § 61.47, which adopted the existing rule language. HAI suggests modifying proposed § 61.47(b) by replacing the word ''student'' with ''applicant'' because the individual taking the test may have progressed beyond the stage of student.

FAA Response: After reviewing AOPA's comment, the FAA has concluded that the language in proposed paragraph (b) is ambiguous and should be withdrawn and replaced with language equivalent to the existing rule. The proposal is adopted with these changes.

Section 61.49 Retesting after failure.

In Notice No. 95–11, the FAA proposed to delete the requirement for an applicant to wait 30 days before reapplying for a written or practical test following a second and subsequent disapprovals, and, in lieu of the 30-day waiting period, the applicant would be required to receive an endorsement from an authorized ground or flight instructor, as appropriate. The FAA also proposed to reformat this section.

Comments: ATA approves of the proposal to delete the 30-day waiting requirement. AOPA also supports removal of this requirement from the rule. AOPA believes that the requirement caused unnecessary delays in the certification process with no benefit to safety or pilot proficiency.

FAA Response: The proposal is adopted as proposed except for minor editorial changes incorporated into the final rule.

Section 61.51 Pilot logbooks.

In Notice No. 95–11, the FAA proposed to revise and reorganize § 61.51, largely in response to numerous requests for interpretation from the public regarding various aspects of the rules on logging flight time. The changes were intended to clarify procedures as well as to ensure consistency with other changes to part 61.

A significant change proposed was the elimination of the distinction between the concept of acting as pilot in command and the logging of pilot-in-command time. This represented a fundamental change to a 30-year policy, and although one intent was to eliminate much confusion over the proper logging and authority over a flight, the change was directed toward reestablishing the FAA's original intent

that pilot-in-command time should require a pilot to have authority over the flight, and that the pilot not merely be manipulating the controls.

The FAA proposed two paragraphs in Notice No. 95–11; § 61.51(e) ''Two people logging pilot-in-command time,'' and § 61.51(f) ''Student pilots logging pilot-in-command time'' which have been eliminated from the final rule as discussed below.

Proposed § 61.51(e) Two people logging pilot-in-command time.

Proposed paragraph (e) was intended to clarify that when a flight instructor and a certificated pilot are on board an aircraft at the same time, each may log pilot in command flight time. It also was intended to specify the requirements that a flight instructor would need to meet in order to log pilot in command flight time. Although the existing regulation also specified that a flight instructor may log all flight time during which the person acts as a flight instructor as pilot-in-command time, the proposed rule provided more detail regarding the conditions under which this could occur.

Comments: AOPA's objection to the elimination of the concept of ''sole manipulator of the controls'' as a basis for logging pilot-in-command time, discussed below with respect to the final rule's paragraph (e), is also referenced in this proposed paragraph. AOPA and NAFI further disagree with proposed § 61.51(e)(2)(i) because it precludes the logging of instruction time if it is not in a course of training for issuance of a certificate or rating or to obtain the recency of experience requirements. NAFI believes that the proposal penalizes CFIs who give recurrency training or additional instruction such as aircraft transition training. AOPA states that the proposal will provide a strong disincentive for instructors to give the type of training that most contributes to general aviation safety. NBAA also states that the language in proposed § 61.51(e)(2) (i) and (ii) is too prohibitive and recommends deleting the requirement that instruction be ''in a course of training for the issuance of a certificate or rating.'' HAI recommends eliminating all wording after ''flight instructor'' in proposed § 61.51(e)(2)(i), as well as corresponding changes to § 61.51(i), to allow an instructor to log time spent as pilot in command giving aircraft checkouts and currency training. Individual commenters also express the view that the requirement in § 61.51(e)(2)(i) that the training be toward a certificate or rating is too restrictive.

NATA opposes proposed § 61.51(e)(2)(ii) and states that the proposal will eliminate the ability of an instrument student to log instrument training time as pilot-in-command time. This will place an undue financial burden on the student and possibly create a safety hazard if students logging time for their commercial requirements are forced to fly extra hours as pilot in command. NATA does not believe this was the FAA's intent, and the commenter recommends eliminating this language. HAI echoes NATA's concern by stating that the proposed rule effectively prohibits instrument students from logging time spent under IFR as pilot-in-command time, even when the student is the sole manipulator of controls, because the proposed § 61.51(e)(2)(ii) requirement for the student to be qualified in accordance with the operating rule would mean compliance with the proposed § 61.3(e)(1). That rule would dictate possession of an instrument rating in that case. HAI therefore recommends deletion of proposed § 61.51(e)(2)(ii).

AOPA expresses concern about proposed § 61.51(e)(3), which requires that aircraft used for flight training must have dual functioning flight controls and engine controls that can be reached from either pilot station in order for both the student and instructor to log pilot-in-command time. The commenter encourages the FAA to clarify which engine controls must be accessible. According to AOPA, there are many cases when training is conducted in a tandem seat aircraft where there are throttles available to both airmen; however, the mixture control and magneto switch are only accessible from the front seat. AOPA believes that both student and instructor should be able to log pilot-in-command time when instruction is given in such an aircraft. The commenter also states that the proposal does not address the fact that balloons do not have dual functioning controls.

An individual commenter states that the requirement in proposed § 61.51(e)(3) for dual functioning flight controls contradicts § 91.109(a). Another commenter requests clarification of proposed § 61.51(e)(3) to specify which engine controls must be reachable from either pilot station when a pilot and authorized flight instructor both log pilot-in-command time. Echoing AOPA's concerns, the commenter points out that for some tandem seat airplanes, the mixture and ignition controls can only be reached from the front seat. Several individual commenters also point out that it would be impossible for balloons to comply with the dual-control requirement.

Several individual commenters object to the proposed requirement that flight instructors possess at least a third'class medical certificate to log instruction time, stating that for advanced instruction this is unjustified.

FAA Response: After further review, the FAA has determined that the increased regulatory and economic burden resulting from this proposal does not sufficiently establish a safety justification based on operational requirements and accident/incident data. Therefore, the proposed paragraph has been eliminated from the final rule.

Proposed § 61.51(f) Student pilots logging pilot-in-command time.

The FAA proposed to permit student pilots who meet certain provisions to log pilot in command flight time when they: are the sole occupant of the aircraft; have a supervised pilot in command flight endorsement; and are undergoing a course of training for a pilot certificate or rating or are logging pilot-in-command time toward a certificate or rating.

Comments: HAI objects to the wording of proposed § 61.51(f) because it does not provide for students logging pilot-in-command time beyond that needed for experience requirements. HAI asks for clarification as to how the additional time would be logged. AOPA finds the issue of supervised pilot-in-command time unclear with regard to logging of flight time.

FAA Response: For the reasons previously discussed, the FAA is not adopting the proposal to establish supervised pilot-in-command time. However, the final rule still permits student pilots to log solo time as pilot-in-command time according to the provision in § 61.51(e)(4) of the final rule.

Section 61.51(a) Training time and aeronautical experience.

The FAA proposed minor editorial and format changes to this paragraph.

Comments: EAA and NAFI disagree with the removal of the existing rule's phrase ''The logging of other flight time is not required'' from proposed § 61.51(a), stating that the deletion may impose a significant burden on the high time and sport aviation pilot. The commenters state that there is no safety reason to require the logging of all flight time, and the elimination of this provision will only create more enforcement actions against pilots.

FAA Response: The FAA notes the concern of EAA and NAFI, but feels that the existing phrase was redundant, and

that its deletion does not impose costs or burdens on pilots. The rule was revised to clarify what flight time is required to be logged. Other flight time can be logged at the pilot's option, but it is not required. The final rule is adopted as proposed.

Section 61.51(b) Logbook entries.

The FAA proposed to delete the reference to ''solo time'' because of the proposed deletion of that term as discussed in the analysis of § 61.1. The FAA also proposed format changes to the existing rule.

Comments: AOPA comments that ''total time of flight'' in proposed § 61.51(b)(1)(ii) is not defined in the regulations, although it has historically been taken as synonymous with the existing and proposed definition of ''flight time'' in part 1, a term which AOPA states is equated with ''block time'' in most of the industry. AOPA is concerned that, without such a definition, the proposed rule's use of the term ''in actual flight'' confuses the meaning of ''total time of flight.''

FAA Response: As discussed in the analysis of § 61.1, the FAA has decided to retain ''solo time'' in this paragraph of the final rule. The FAA notes AOPA's concern, and has decided to use the less ambiguous term ''flight time'' in the final rule instead of the phrase ''total time of flight''. The final rule also deletes the language ''and the certificate number of the safety pilot'', as explained in the analysis of § 61.51(g), and includes language pertaining to logbook entries for flights conducted in approved flight simulators and approved flight training devices.

Section 61.51(c) Logging of pilot time.

In Notice No. 95–11, the FAA set forth provisions regarding the use of pilot time. No substantive comments were received, and the final rule is adopted as proposed.

Section 61.51(d) Logging of solo flight time.

In Notice No. 95–11, the FAA proposed to eliminate the term ''solo flight time'' and replace it with the term ''supervised pilot-in-command time'' as discussed in the analysis of § 61.1. The existing rule's provisions for logging solo time were therefore also deleted in the proposed rule.

Comments: AOPA states that no provision exists in proposed § 61.51 for logging supervised pilot-in-command time, even though such time is proposed to be required for both primary and advanced certificates. HAI echoes these concerns and asks whether dual pilot-in-command time meets the supervised pilot in command requirements. AOPA states that the definition of supervised pilot-in-command time is unclear, and that introducing the term at the expense of the existing concept of solo time confuses rather than clarifies matters. The commenter states that the change from solo to supervised pilot in command creates problems with respect to numerous other proposed regulations. Many individual commenters shared the concerns of these associations.

FAA Response: The FAA notes the concerns of AOPA, HAI, and other commenters, and is not adopting the new term ''supervised pilot-in-command time'' in the final rule. Accordingly, the final rule adds § 61.51(d), ''Logging of solo flight time,'' which reiterates the provision of existing § 61.51(c).

Section 61.51(e) Logging of pilot-in-command flight time.

In Notice No. 95–11, the FAA clarified the procedures for logging pilot in command flight time in proposed § 61.51 (d) and (e). The FAA specified that, except when a flight instructor provides flight training, only one person may log pilot in command flight time. This provision was intended to eliminate confusion under the existing rule, particularly regarding the provision that permits any pilot to log pilot-in-command time while acting as pilot in command of an aircraft for which more than one pilot is required. The FAA proposed that the holder of a pilot certificate may log pilot-in-command time only when that pilot: (1) Has the final authority and responsibility for the operation and safety of the flight; (2) holds the appropriate ratings; (3) has been designated pilot in command before the flight; and (4) the pilot-in-command time occurred in actual flight conditions and in an aircraft.

Comments: AOPA states that it finds the most notable change to the rules for logging pilot-in-command time to be the elimination of the term ''sole manipulator of controls.'' AOPA notes that there is no longer a distinction between the pilot operating the aircraft and the pilot who has ultimate authority over the flight (acting pilot in command). The commenter urges rethinking the entire pilot in command issue. AOPA also expresses concern about proposed § 61.51(d)(4), which provides that pilot-in-command time may only be logged when the flight time ''occurs in actual flight conditions.'' The commenter notes that proposed § 61.51(b) provides that for purposes of training time and aeronautical experience toward a certificate or rating, a person must enter the ''total time of flight,'' which AOPA states has been historically interpreted as the equivalent of ''flight time'' as defined in part 1. Part 1 defines ''flight time'' as ''the time beginning when an aircraft moves under its own power for purposes of flight and ending when the aircraft comes to rest after landing.'' AOPA contends that the difference between the two provisions may require two separate logbook entries after one flight: one entry for the time the aircraft is in actual flight and another entry for the ''block'' or Hobbs meter time. NBAA joins with AOPA in its concerns regarding use of the term ''actual flight conditions'' in proposed § 61.51(d)(4) as possibly prohibiting taxi time from counting towards flight time. NBAA states that this would discourage learning opportunities during a phase of flight that is critical to safety, especially for avoidance of runway incursions. HAI echoes these concerns, requesting the alignment of the definition of flight time in proposed § 61.51(d)(4) with the definition in § 1.1. HAI also recommends a provision to cover a rated pilot operating solo, such as an additional paragraph in § 61.51(d).

FAA Response: After further review, the FAA has decided not to adopt the proposal to change the provisions for the logging of pilot-in-command time. The FAA has determined that the increased regulatory and economic burden resulting from this proposal is not sufficiently supported by a safety justification based on operational requirements and accident/incident data. However, the FAA would like to take this opportunity to clarify the proper logging of pilot-in-command time for recreational, private, and commercial pilots. The FAA acknowledges there has been confusion in the past regarding the logging of pilot-in-command time by these pilots and that inconsistent policy opinions have been issued by the FAA. The FAA has determined that clarity is necessary to preserve the value of pilot-in-command time. In light of the inconsistent policy opinions issued by the FAA, however, this clarification is meant to be prospective and not to require pilots to ''revisit'' past logging. The FAA's position regarding the proper logging of pilot-in-command time for a recreational, private, or commercial pilot applicable after the effective date of this final rule is set forth in this response.

There are only three ways for a recreational, private, or commercial pilot to properly log pilot-in-command time in accordance with section § 61.51. These pilots may properly log pilot-in-command time: (1) When the pilot is the

sole manipulator of the controls of an aircraft for which the pilot is rated; (2) when the pilot is the sole occupant of the aircraft; or (3) except for recreational pilots, when the pilot is acting as pilot in command of an aircraft for which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

As noted in Notice No. 95–11, there has been a distinction between acting as pilot in command and logging of pilot-in-command time. ''Pilot in command,'' as defined in part 1, ''means the pilot responsible for the operation and safety of an aircraft during flight time.'' Section 61.51 is a flight-time logging regulation under which: (1) pilot-in-command time may be logged by someone who is not actually the pilot in command as defined in part 1 (e.g., when the pilot is the sole manipulator of the controls of an aircraft for which the pilot is rated but is not the pilot in command as defined in part 1); and (2) pilot-in-command time may not be logged by someone who is the actual pilot in command as defined in part 1 (e.g., when the pilot acting as pilot in command of an aircraft on which more than one pilot is not required under the type certification of the aircraft or the regulations under which the flight is conducted is not the sole manipulator of the controls of the aircraft, and the pilot who is the sole manipulator of the controls is logging that time as pilot-in-command time).

Two recreational, private, or commercial pilots may not simultaneously log pilot in command flight time when one pilot is acting as pilot in command as defined in part 1, and the other pilot is the sole manipulator of the controls, unless the aircraft type certification or the regulations under which the flight is conducted require more than one pilot. In contrast, an ATP may log all flight time as pilot-in-command time when that pilot is acting as the pilot in command as defined in part 1 during an operation requiring an ATP certificate regardless of who is manipulating the controls of the aircraft. This distinction between the concept of acting as pilot in command and the logging of pilot-in-command time will continue in this final rule.

The FAA also notes the concern of AOPA and NBAA regarding the wording ''actual flight conditions'' in proposed § 61.51(d), redesignated as § 61.51(e) in the final rule, and has deleted the objectionable language. The FAA notes that the Amendment No. 61–100 did not include a provision to permit a student pilot to log pilot-in-command time when that student is the sole occupant of the aircraft. Section 61.51(e)(4) includes such a provision.

Section 61.51(f) Logging second-in-command flight time.

The FAA proposed to require a pilot who logs second-in-command flight time to meet the requirements of § 61.55.

Comments: AOPA expresses concern that changes to other regulations made this requirement onerous with respect to safety pilots. Several individual commenters echo AOPA's concerns.

FAA Response: The FAA addressed concerns to this rule by modifying proposed § 61.55 in the final rule, as discussed below, and therefore no major changes were necessary to this paragraph. The FAA has added the phrase ''the regulations under which the flight has been conducted'' in paragraph (f)(2) to permit, for example, safety pilots complying with § 91.109 to be allowed to log second in command time.

Section 61.51(g) Logging instrument flight time.

The FAA proposed to clarify the information required for the logging of instrument experience to meet the instrument currency requirements. The proposal did not significantly alter the current requirements regarding the logging of instrument time. However, the proposal stated that if a safety pilot is required, the name and pilot certificate number of the safety pilot, and the location and kind of each completed instrument approach must be recorded. The existing rule did not require the recording of the safety pilot's certificate number in the logbook of the person logging instrument flight time.

Comments: Some individual commenters disagree with the proposed requirement that the certificate number as well as the name of the safety pilot be logged, stating that this would not improve safety. Commenters note that the certificate number is often the pilot's social security number, which many would hesitate to disclose every time they act as a safety pilot.

FAA Response: The FAA notes the privacy concerns of individual commenters and has therefore deleted the proposed language ''and pilot certificate number'' from the final rule. The final rule also includes language relating to the use of approved flight simulators and approved flight training devices.

Section 61.51(h) Logging training time.

The FAA proposed specific requirements for a pilot to log training time toward a certificate, rating, or flight review. The proposal required that the instructor be properly authorized to give the training, and that the information recorded include a description of the training given, the length of the lesson, and the instructor's signature, certificate number, and certificate expiration date.

Comments: AOPA objects to the proposed language apparently restricting the logging of training time solely to ground or flight instruction time leading toward a certificate, rating, or currency requirements. HAI joins in opposition to this proposal because it does not include provisions for pilots receiving dual training in a simulator or flight training device unless the training is for the purpose of meeting experience requirements. AOPA also asks for clarification as to whether the ''training time'' logged is to be ''flight time'' as defined in part 1, or time in ''actual flight.''

FAA Response: The FAA notes the concerns of AOPA and HAI, and therefore has deleted the proposed language ''for the purpose of obtaining a certificate, rating, or recency of experience requirements, of this part'' from the final rule. AOPA's concern regarding the confusion between ''flight time'' and ''actual flight'' was addressed through the elimination of the wording ''actual flight'' elsewhere in paragraph (b) of this section, as previously discussed.

Section 61.51(i) Presentation of required documents.

In the proposal, the FAA set forth the documents a person would have to present, in addition to the logbook, upon the request of an authorized official. These documents included the person's pilot certificate, medical certificate, or any other record required under part 61. The proposal added Federal law enforcement officials to the list of officials to whom a pilot must present his or her records if requested. The proposal also set forth the documents student and recreational pilots must carry.

Comments: AOPA expresses concern about the deletion of the word ''reasonable'' from this proposal. Citing the constitutional protection against unreasonable search and seizure, the commenter states that this could lead to abuse by law enforcement officials. AOPA questions the addition of ''Federal'' law enforcement officials to the list of officials to whom a logbook must be presented as well as the inclusion of pilot and medical certificates in this proposed rule. AOPA further contends that the inspection of such certificates is adequately addressed in existing § 61.3(h) and proposed

§ 61.3(l). Individual commenters oppose this proposed provision permitting inspection by the FAA, the NTSB, or law enforcement officers. HAI objects to the requirement in proposed § 61.51(j)(2)(i) that a student pilot must carry his or her logbook to exercise the privileges of his or her certificate. Individual commenters object to the requirement that recreational pilots carry logbooks for flight at night and in airspace in which communications are required.

FAA Response: The proposal inadvertently deleted the word ''reasonable'' before ''request.'' In the final rule, the phrase ''reasonable request'' has been retained. The FAA has noted HAI's concern, but is not persuaded that student pilots should be exempt from carrying logbooks on all flights. However, in partial response to HAI's concern, as well as that of individual commenters, the FAA has decided to delete the proposed logbook-carrying requirements for recreational pilots, except for flights of more than 50 nautical miles from the point of departure. In addition, the FAA has changed the heading of this paragraph for clarity, because a student is required to present more than a logbook. The FAA notes that this requirement is contained in the existing rule. Except for these changes, the final rule is adopted as proposed.

Other § 61.51 issues.

The issue of logging safety pilot time did not directly affect any particular paragraph of § 61.51 and is discussed here.

Comments: AOPA feels that proposed § 61.51, in combination with other proposed changes, fails to provide for the logging of safety pilot time. According to the commenter, when a safety pilot also functions as the designated pilot in command, the pilot actually flying the aircraft is not permitted to log pilot-in-command time, nor can the pilot log second in command time since he or she is not a required flight crewmember. It is unclear to the commenter how tasks such as instrument approaches conducted for proficiency can be logged. It also appears to AOPA that the only provision for a safety pilot to log flight time is as second in command under § 61.51(g)(2). The commenter is concerned that a safety pilot acting as a required crewmember in simulated instrument conditions could possibly be subject to the second in command training and recurrency requirements in § 61.55(d). An individual commenter echoes AOPA's concern, stating that proposed § 61.51 fails to address if, when, or how a safety pilot may log flight time.

FAA Response: The FAA did not intend to prevent safety pilots from logging second in command time or to require them to comply with the requirements of proposed § 61.55. The FAA has noted the concerns of AOPA and others, and has modified § 61.51(f)(2) of the final rule to permit safety pilots to log second in command time.

Section 61.53 Operations during medical deficiency.

The FAA proposed to divide this section into two paragraphs. Proposed paragraph (a) applied to operations that require pilots to hold medical certificates issued under part 67. Proposed paragraph (b) applied to operations in which pilots are not required to hold a medical certificate, was developed primarily in response to EAA's petition to permit a pilot without a medical certificate to exercise the privileges of a recreational pilot certificate. Proposed paragraph (b) also applied to glider and balloon operations. The FAA also proposed language specifying that a pilot may not act as pilot in command or as a required flight crewmember while taking medication or receiving other treatment for a medical condition that would make the person unable to meet the medical requirements for the certificate held or to operate an aircraft in a safe manner, as appropriate.

Comments: EAA, AOPA, and NAFI object to the proposed language of § 61.53(a)(1) and (b)(1), which states that a pilot may not act as pilot in command, or as a required crewmember, if that person ''has reason to know of any medical condition that would make the person unable to meet the requirement for the medical certification held.'' These commenters believe that the new standard is very subjective and may produce unnecessary enforcement actions. AOPA states that the language effectively holds an airman to a negligence standard concerning the exercise of the privileges of an airman certificate. NATA joins in the concerns expressed by the other commenters regarding this language and states that it should be changed to reflect ''definitive knowledge'' or eliminated from the rule. GAMA finds this language ambiguous and recommends it be clearly defined or deleted.

FAA Response: After consideration of the comments, the FAA has determined that the disputed language, ''knows or has reason to know'' is necessary to ensure that pilots seriously evaluate their health prior to operating an aircraft. The FAA does not believe that the disputed language imposes an additional burden on pilots because § 61.53 already requires pilots to evaluate their health prior to each flight. The proposed language merely clarifies this existing requirement. The FAA acknowledges that the language is subjective and is relying on pilots to use reasonable judgment. After further review, the FAA has determined that for operations that do not require a medical certificate, the language referring to medication or treatment would effectively establish standards for self-evaluation. Therefore, this language has been deleted for operations that do not require a medical certificate. The FAA has decided to retain the two-paragraph format of the proposed rule because it clarifies a pilot's responsibilities for medical self'evaluation, regardless of whether or not a pilot is required to hold a medical certificate.

The proposal is adopted with minor editorial changes and the changes noted above.

Section 61.55 Second-in-command qualifications.

This proposal was intended to clarify the requirements under § 61.55 for pilots serving as second in command of an aircraft that requires more than one pilot.

Comments: ALPA supports the second in command training requirements of proposed § 61.55. GAMA comments that the addition of flight deck management training is a very positive change. GAMA believes, however, that the desired level of structure and standardization can best be achieved by requiring that the § 61.55 authorization be approached with the same level of control as provided in §§ 61.58 and 61.157. According to GAMA, second in command training should be conducted with an approved syllabus by authorized instructors using established standards of performance.

AOPA is concerned that safety pilots acting as required crewmembers in simulated instrument conditions may be subject to the second in command requirements. The commenter notes that proposed § 61.55(b) provides that no person may act as second in command in ''operations requiring a second in command'' unless that person meets the second in command training and recurrency requirements. AOPA contends that § 91.109 makes a safety pilot a required crewmember in simulated instrument conditions. AOPA states that ''under the proposal the safety pilot may not log pilot-in-command time but that person is required for the operation; therefore the

safety pilot must be second in command.'' AOPA does not believe that a safety pilot should be subject to the second in command qualification requirements and, therefore, recommends that the safety pilot be added to the list in § 61.55 for whom the training requirements of § 61.55(b) do not apply.

FAA Response: After consideration of the comments, the FAA has determined that the proposed second in command training requirements should be adopted with the addition of paragraph (d)(4) to except a person designated as a safety pilot as required by § 91.109(b). The final rule also incorporates other editorial changes and provisions permitting the use of approved flight simulators and approved flight training devices to meet the requirements of this section.

Section 61.56 Flight review.

The FAA did not propose any changes to this section in Notice No. 95–11.

Comments: NAFI recommends modifying proposed § 61.56(f) to except flight instructors who have given 10 or more flight reviews or have recommended 10 or more students for flight tests from the required flight review requirement.

AOPA comments that the current and proposed language of this section is confusing and should be reworded, using the instrument currency requirements as an example.

NAFI suggests that a flight review should not be required for pilots who fly only single-seat aircraft (gyroplanes, for example), because finding a training aircraft and an instructor might be difficult or impossible.

Another commenter opposes the current and proposed language in paragraph (b), which requires a glider pilot who substitutes three instructional flights in lieu of the 1 hour of flight instruction provided for in paragraph (a) to perform 360-degree turns during each of the flights. The commenter states that the requirement for 360-degree turns causes instructors to limit the types of maneuvers conducted during the review.

FAA Response: As adopted in Amendment No. 61–100, this section includes provisions for the use of approved flight simulators and approved flight training devices. The FAA notes that Amendment No. 61–100 omitted the provision permitting a pilot to complete a phase of an FAA-sponsored pilot proficiency award program (i.e., Wings Program) in lieu of accomplishing a flight review. Such a provision is included in paragraph (e).

In response to the comment concerning the performance of 360-degree turns, the FAA has modified the language in paragraph (b) to permit three instructional flights in a glider, each of which requires flight to traffic pattern altitude, in lieu of the 1 hour of flight training required in paragraph (a). This modification should provide instructors with greater flexibility during the conduct of a flight review for glider pilots. The FAA expects that each instructional flight to traffic pattern altitude will consist of a launch, climb, level off, turns, descent, and landing to ensure that the pilot can demonstrate proficiency in each phase of flight.

Section 61.57 Recent flight experience: Pilot-in-command.

Section 61.57(a) General experience.

The FAA proposed to require pilots to make at least three takeoffs and three landings to a full stop within the preceding 90 days to meet the recent flight experience requirements of this section. The FAA also proposed that these takeoffs and landings involve flight in the traffic pattern at the recommended traffic pattern altitude for the airport. For the reasons discussed in section IV,B, the proposal for full-stop landings and the requirement for flight in the traffic pattern at the recommended traffic pattern altitude have not been adopted in the final rule. The existing requirement for full-stop landings in a tailwheel airplane is retained, as well as the recently enacted provisions relating to the use of approved flight simulators and approved flight training devices.

Section 61.57(b) Night takeoff and landing experience.

In Notice No. 95–11, the FAA proposed to delete the reference to the term ''night'' from this paragraph.

Comments: AOPA objects to the elimination of the definition of ''night'' from this section of the regulations because most airmen do not have access to the ''Aeronautical Almanac'' referenced in the part 1 definition of ''night.''

FAA Response: Upon consideration of this comment, the FAA retained the language of the existing rule.

Section 61.57(c) Recent instrument experience.

The FAA proposed to revise the requirements for recent instrument experience to include six instrument approaches, holding procedures, intercepting and tracking VOR radials and NDB bearings, recovery from unusual flight attitudes, and flight by reference to instruments. Under the proposal, these maneuvers were not required to be performed under actual or simulated instrument flight conditions. The proposal also eliminated the requirement for a pilot to log 6 hours of instrument time under actual or simulated flight conditions to meet recent instrument experience requirements. In paragraph (c)(3), the FAA proposed to revise the provisions regarding recent instrument experience for glider pilots.

Comments: According to GAMA, instrument currency in a multiengine airplane should be accepted for instrument currency in a single-engine aircraft, but not the converse. NBAA proposes 12-month currency requirements because most business aircraft operators currently conduct their simulator refresher training on an annual basis. AOPA states that the proposed language is unclear concerning the requirement that if a glider pilot carries passengers, the pilot must have at least 3 hours of instrument time in gliders. The commenter recommends retaining the language of the current rule.

FAA Response: As discussed in section IV,B, the FAA has decided to retain the existing requirement that recent instrument experience be performed in actual or simulated conditions, and withdraw the proposed requirements for recovery from unusual flight attitudes, and the intercepting and tracking of VOR radials and NBD bearings. In lieu of the latter requirement, § 61.57(c)(1)(iii) is modified to require a pilot to intercept and track courses through the use of navigation systems. The FAA modified § 61.57(c)(1) to require instrument experience ''under actual or simulated instrument conditions either in flight appropriate to the category of aircraft for the instrument privileges sought or in an approved flight simulator or flight training device that is representative of the aircraft category for the instrument privileges sought. * * *'' The FAA notes that GAMA's comment would impose an additional economic burden on pilots, and would therefore continue to require that flight time used to satisfy instrument recency experience be in the category but not the class of aircraft for which instrument privileges are sought. The FAA believes that the removal of the proposed requirement to perform and log recovery from unusual attitudes should relieve the concern expressed by NBAA since compliance with the remaining requirements should be achievable in normal flight operations. In consideration of AOPA's comment, the FAA has clarified the language of paragraph (c)(2) in the final rule. The

FAA also included in paragraph (c)(2) the requirement that the instrument experience be performed and logged under actual or simulated instrument conditions.

Section 61.57(d) Instrument proficiency check.

The FAA proposed to clarify this paragraph by requiring that the instrument proficiency check include a representative number of the tasks required for original certification of an instrument rating and by replacing the term ''instrument competency check'' with ''instrument proficiency check''.

Comments: GAMA states that the instrument proficiency check will be better defined by the inclusion of the tasks listed in § 61.57 (c)(1)(i) through (c)(1)(v). NAFI, however, objects to the requirement that the check consist of a representative number of the tasks required in the instrument rating practical test. NAFI states that a proficiency check should be restricted to those items a pilot is likely to encounter in his or her flying environment.

Some individual commenters express uncertainty regarding the change in terminology from ''instrument competency check'', in the current regulation, to ''instrument proficiency check'', as specified in the proposed rule language. They point out that this check is referred to as an ''instrument proficiency test'' in the preamble. At least one commenter advocates that instrument-rated pilots should undergo a ''check'' every 6 months.

FAA Response: After consideration of the comments, the FAA has determined that the requirement to perform a representative number of tasks required by the instrument rating practical test will promote safety, and that a required ''check'' every 6 months, as proposed by one commenter, would impose an unwarranted economic burden on pilots seeking to retain instrument privileges. To maintain consistency in terminology throughout the rule, the proposal to change the term ''instrument competency check'' to ''instrument proficiency check'' is also adopted. In addition, the FAA has modified the language in paragraph (d) to reflect that an instrument proficiency check need only be accomplished in the category of aircraft for which instrument privileges are sought. Amendment No. 61–100 inadvertently required that this check be accomplished in the class of aircraft for which privileges are sought.

Section 61.57(e) Exceptions.

The FAA proposed to extend the exception requirements for the general and night recency experience requirements of § 61.57 to pilots in command in part 125 operations.

Comments: HAI questions why takeoff and landing currency does not apply to part 121, 125, or 135.

FAA Response: In response to HAI's query, § 61.57(e) excepts these pilots because they are required to meet recent experience requirements under §§ 121.439, 125.285, and 135.247. In Notice No. 95–11, the FAA inadvertently omitted the references to §§ 121.437, 121.439, 135.243, and 135.247 from this paragraph and has therefore included them in the final rule. In addition, the final rule modifies paragraph (e)(1) to require explicitly that pilots operating under the exception for pilots employed by part 125 operators comply with §§ 125.281 and 125.285, because the FAA has determined that pilot in command qualifications and the recent experience requirements under part 125 are equivalent to the general and night recency requirements under part 61.

The proposal is adopted with the changes discussed above and minor editorial changes.

Section 61.58 Pilot-in-command proficiency check: Operation of aircraft requiring more than one required pilot.

The FAA proposed minor editorial and format modifications to this section in Notice No. 95–11, including a proposal to revise former § 61.58 (b)(3), (c)(2), and (e) by eliminating references to part 127, because no certificate holders currently operate under part 127. Furthermore, the FAA proposed to add part 125 operators to existing § 61.58 (b)(3), (c)(2), and (e) in reference to persons conducting operations under part 125. Part 125 operators were not addressed in this section when the part was initially established, therefore, the FAA proposed to include part 125 pilots.

Additionally, the proposal required a pilot seeking an aircraft type rating to perform to ATP standards, which codified the existing policy for FAA pilot certification standards. The FAA also proposed to remove the obsolete reference to part 123 and part 127 operators.

The FAA has modified the final rule so that § 61.58 is substantially equivalent to the provisions set forth in Amendment No. 61–100. No substantive comments were received.

Section 61.59 Falsification, reproduction, or alteration of applications, certificates, logbooks, reports, or records.

Minor editorial changes were proposed to this section, and it is adopted as proposed.

Section 61.60 Change of address.

The FAA proposed editorial and format changes to this section. The FAA also proposed to revise this section to include ground instructor certificates.

Comments: AOPA objects to the proposed language in this section that provides that an airman may not exercise the privileges of a certificate unless he or she notifies the FAA of the change within 30 days. AOPA believes that the use of the word ''unless'' could be interpreted to permanently prohibit the exercise of privileges if the notification was not made in 30 days. The commenter also points out that ground instructor certificates were not included in the proposal.

FAA Response: The FAA did not intend the interpretation suggested by the commenter and does not believe that the language reasonably would be interpreted in this manner. Similar language was used in the existing rule without any such confusion. Although the FAA acknowledges that the reference to ground instructor certificates was not specifically stated, the term ''airman certificate'' includes ''ground instructor certificate.'' However, the final rule is modified by replacing ''Persons who hold an airman certificate'' with ''The holder of a pilot, flight instructor, or ground instructor certificate'' to avoid any possible confusion. In addition, the reference to ''new address'' has been clarified to incorporate current policy, which is to not accept post office box numbers as the permanent mailing address.

The proposal is adopted with the above modification and minor editorial changes.

Subpart B—Aircraft Ratings and Pilot Authorizations

Section 61.61 Applicability.

The FAA proposed to delete the words ''or instructor'' from this section because the issuance of an additional rating for a flight instructor certificate is contained in subpart H of part 61.

No substantive comments addressing this proposal were received. The FAA deleted the reference to ''special purpose authorizations'' from the final rule and substituted the term ''pilot authorizations'' because subpart B applies to additional pilot authorizations.

Section 61.63 Additional aircraft ratings (other than airline transport pilot.)

In Notice No. 95–11, the FAA proposed to revise the title of this section, reformat the section for clarity, and revise the required aeronautical experience and training requirements for persons seeking an additional category and class rating. The proposal also clarified when an applicant would be required to accomplish a knowledge test. In addition, the FAA proposed to restrict the issuance of a ''VFR only'' limitation for an aircraft type rating to only those aircraft that cannot be used to accomplish the practical test under IFR because its type certificate makes the aircraft incapable of operating under IFR.

Comments: HAI states that proposed § 61.63(a)(1) seems to contradict proposed § 61.63(a)(5), which states that supervised pilot in command is not required. The commenter asks whether it is the FAA's intention that no solo time be required for an additional category rating. HAI states that in such a circumstance, a rated airplane pilot transitioning to helicopters ''would never experience picking the aircraft up with an empty seat.'' HAI asks that proposed § 61.63(a)(5) be deleted because some solo time in a different category or class aircraft should be required.

FAA Response: The FAA agrees with HAI's position and has deleted proposed § 61.63(a)(5) from the final rule. In addition, the FAA has modified the rule to ensure that pilots are required to meet the aeronautical experience requirements for the pilot certificate and class rating sought. Also, the FAA has included the provisions of § 61.64 adopted in Amendment No. 61–100 in this section and added provisions applicable to the use of a flight simulator or flight training device to obtain an additional rating in a powered-lift. Section 61.64 has been reserved.

Additionally, the FAA has corrected an inadvertent omission in existing § 61.64 (h) and (i) by permitting a type rating for a single station airplane to be obtained in a multiseat version of that airplane. The final rule also eliminates an error noted in § 61.64 as adopted in Amendment No. 61–100. The existing rule incorrectly requires all applicants for an additional category rating or class rating to take a knowledge test.

Section 61.65 Instrument rating requirements.

In Notice No. 95–11, the FAA proposed revisions to § 61.65, including changes to the specified aeronautical knowledge areas, areas of operation, aeronautical experience requirements, and instrument training requirements. Significant changes proposed included elimination of the existing aeronautical experience requirements of 125 hours total time and 50 hours pilot in command cross-country time; an increase in the required instrument training time received from an instrument instructor to 40 hours compared to 15 hours in the existing rule; and the addition of new category- and class-specific requirements for airplanes, helicopters, and powered-lift. The proposed changes, comments received, and the FAA response to the elimination of the existing 125-hour total time and 50-hour pilot in command cross-country time requirements are discussed in greater detail in section IV, E.

In the FAA proposal, the section was organized by listing requirements in a more concise format. The FAA believes this will help the applicant and the examiner know more readily which requirements are to be met.

The FAA added a requirement in proposed paragraph (a)(2) for applicants to be able to write in the English language, while deleting existing provisions for the Administrator to place a limitation on the certificates of those unable to meet the English language requirements.

In proposed paragraph (a)(4), the FAA required an applicant to receive training or complete a home-study program, and receive an endorsement from a ground or flight instructor certifying that the applicant received training on the required aeronautical knowledge areas of this section that are appropriate to the instrument rating sought. The paragraph also specified that an applicant for a practical test must receive an endorsement from the flight instructor who gave the applicant training certifying that the applicant is prepared for the practical test.

Proposed paragraph (a)(7) specified that an applicant who completes an instrument practical test in a multiengine airplane and who holds an airplane category and single-engine class rating is considered to have met the requirements for an instrument rating in a single-engine airplane.

In the aeronautical knowledge requirements of proposed paragraph (b) added requirements included training in windshear avoidance, aeronautical decision making and judgment in the aeronautical knowledge requirements, and flight deck resource management, to include crew communications and coordination.

In proposed paragraph (c), the term ''flight proficiency requirements'' is replaced with ''areas of operation''. The new requirements included a change from existing language for specific training in the VOR, ADF, and ILS systems to a more general requirement for training in instrument approach procedures.

In proposed paragraph (d)(1), the FAA required 40 hours of instrument training from an instrument instructor. Although the existing rule required 40 hours of simulated or actual instrument time, only 15 hours of instrument flight instruction from a CFII were required. Proposed paragraph (d)(3) required that 5 hours of instrument training be received in the appropriate category and class, while paragraph (d)(4) required 3 hours of such class-specific training within 60 days preceding the test. In proposed paragraph (d)(5), the FAA revised the 250-nautical-mile, cross-country requirement of instrument rating-airplane applicants. It was specified that at least one leg, measured as a straight-line distance, be greater than 100 nautical miles between airports, and that the cross-country be conducted under IFR. However, the proposal deleted the existing requirement that this flight be conducted under simulated or actual instrument conditions, and specified three different kinds of approaches be conducted during the flight instead of VOR, ADF, and ILS systems, as provided for in the existing rule. Similar changes were proposed in paragraph (d)(6) for the instrument rating helicopter requirements, in which the required cross-country flight was 100 nautical miles with one segment of more than 50 nautical miles. Paragraphs (d)(7) and (d)(8) proposed similar requirements, with specified distances for airship and powered-lift instrument ratings, respectively.

Comments: Citing § 61.65(a)(4)(iv), HAI comments that the language requiring an applicant to ''have received an endorsement from the instructor who gave the training'' occurs frequently and could be interpreted to mean that all training required for the rating must be from one instructor. HAI states that this could be a problem if an instructor becomes unavailable during training.

AOPA expresses concern that, in proposed paragraph (b), the FAA failed to include its new aeronautical knowledge area of planning for air traffic delays. The commenter states that this requirement was included inappropriately for recreational and private pilots, while instrument-rated pilots are far more likely to encounter air traffic delays.

HAI objects to the requirement in proposed § 61.65(d)(1) that 40 hours of instrument training be obtained from a CFII or instrument ground instructor. The commenter states that currently part of this training can be logged with either a safety pilot or from a CFI.

NAFI opposes the proposed paragraph (d) cross-country requirements, especially the 100-nautical-mile leg requirement. NAFI does not see a need for this requirement and states that it would preclude a cross-country of three relatively equal legs. NAFI comments that cross-country flight already would have been demonstrated during private pilot training. According to NAFI, it also may be difficult to meet the requirement for three different types of approaches, as well as an instrument approach 100 nautical miles away, in some parts of the country. AOPA also objects to the 100-nautical-mile leg requirement, because it would limit training flexibility. AOPA comments that most learning during instrument training results from entering and exiting the terminal environment. An individual commenter echoes AOPA's concern.

NATA is in opposition to two aspects of the proposed requirements for the instrument rating long cross-country flight. According to NATA, the requirement in proposed § 61.65(d)(5) that the flight be performed in a class-specific aircraft ''poses an unnecessary economic burden on the student, with no benefit.'' NATA also opposes the elimination of any requirement for specific types of approaches and states that at least one precision approach should be required.

AOPA states that the proposed requirement for the instrument cross-country flight to be conducted under ''IFR'' creates significant confusion because the term ''IFR'' is not defined in part 1 or part 61. AOPA interprets the new language to require the flight to be conducted under IMC or that a flight plan be filed. The commenter states that, under its interpretation of the proposal, the flight instructor would need to posses a medical certificate since the instructor would have to be pilot in command for purposes of filing a flight plan. AOPA urges the retention of the current language, which requires the flight to be conducted under ''actual or simulated IFR conditions.''

HAI states that training helicopters such as the R–22 are not certificated for flight in instrument conditions. The commenter asks whether a helicopter not certificated for flight in IMC can legally be flown on an IFR flight plan, and adds that, if the flight is done under IFR, and VMC cannot be maintained, then the pilot will need to cancel IFR and reattempt to meet this requirement.

Additionally, several comments oppose the proposal to eliminate the requirement that the cross-country flight be flown under actual or simulated instrument conditions. One individual commenter states that the visual reference removes the need for maintaining spatial orientation and a consistent scan of the panel, and that the requirement would reduce the flight to just another VFR flight. Commenters recommend a requirement for 2 to 5 flight-time hours in actual instrument conditions.

In addition, commenters offer various views on the use of flight simulators or ground training devices, advocating either less or more use of such equipment during the instrument training. GAMA comments that simulators and flight training devices provide much more effective training than simply requiring the pilot to log a certain amount of ''unfocused'' flight time. GAMA, the FAA, and university research, as well as the U.S. military, have demonstrated that, with the proper instruction, relatively low-time pilots can readily learn instrument flying skills. AOPA, NBAA, and several individual commenters echo these views and encourage the FAA to expedite the integration of personal computer-based flight training devices for instrument training and proficiency.

FAA Response: The FAA acknowledges HAI's concern regarding the language ''the instructor who gave that person the training'' and therefore has deleted the objectionable language. The FAA has changed the language in the recreational and private pilot aeronautical knowledge area requirements so that it now refers to delays rather than specifically to ATC delays. ATC delays concerning instrument rated pilots are addressed in § 61.65(b)(3), which provides for training in the air traffic control system and procedures for instrument flight operations. The FAA notes HAI's objection to proposed § 61.65(d)(1). The change resulted in an inadvertent increase in the amount of instrument time that must be obtained from a CFII. The FAA has noted this error and corrected it in the final rule. The FAA is adopting in the final rule the proposal to eliminate the existing 125-hour total time requirement, but is not eliminating the 50-hour pilot in command cross-country time requirement, as discussed in section IV,E.

In response to NATA's concerns regarding class-specific aircraft requirements within the proposed rule, the FAA has withdrawn the proposed class-specific instrument rating, with the exception of the powered-lift instrument rating, as explained in section IV,F. NATA's other objection regarding the elimination of the requirements for specific types of approaches, including precision approaches, is addressed in § 61.65(c)(6). The requirement for specific types of approaches was deleted from the aeronautical experience requirements in § 61.65; precision approaches are still covered in the PTS. The objections of AOPA and NAFI to the 100-mile leg requirement are noted, and the FAA has decided to withdraw the proposal and return to current requirements. The FAA's intent was to clarify the regulation but, based on the comments submitted, the provision resulted in greater confusion and did not provide the flexibility for pilots to plan their cross-country flights according to individual situations. In addition, based on the above, the FAA has decided to remove from the final rule the 50-mile leg requirement for helicopters. In response to AOPA's and HAI's comment regarding the use of the term ''IFR,'' it is the FAA's intent to require a person to file an instrument flight plan and perform a flight under IFR, although not necessarily under IMC. Therefore, the FAA is going forward with the proposal. The objections raised by commenters regarding the need for instrument training in actual or simulated conditions are not valid because the definition of instrument training includes a requirement for actual or simulated conditions.

Addressing concerns raised throughout the proposed regulations, the final rule modifications to this section also include the insertion of language restoring the ability of the Administrator to place operating limitations on an applicant unable to meet the English language requirements, as discussed in section IV,G; and deletion of provisions for the proposed instrument airship rating, because that rating was not adopted, as discussed in section IV,D. Similarly, as discussed in section IV,D, the FAA is not adopting the proposal to separate the instrument rating into single and multiengine classes, the proposed paragraph giving single-engine instrument privileges to applicants who pass the instrument rating practical test in multiengine practical test is redundant and therefore deleted.

The use of ground training devices was addressed in Amendment No. 61–100. These provisions are included in the final rule.

Additionally, the final rule corrects several errors noted in paragraph (g) of the existing rule as adopted in Amendment No. 61–100. Existing paragraph (g)(1) erroneously contains the word ''any'' prior to the phrase ''category, class, and type aircraft that is certificated for flight in instrument conditions.'' This incorrectly allows the use of any category, class, and type of aircraft during the practical test; e.g., the use of a helicopter for an airplane instrument rating practical test. Also, that same paragraph in the existing rule contains the phrase ''that is certificated for flight in instrument conditions.'' That language unintentionally precludes practical testing in some aircraft that may not be certificated for flight into instrument meteorological conditions, but which may be operated under instrument flight rules, provided the flight is conducted in weather conditions that meet the requirements for flight under visual flight rules.

In response to a comment received regarding Amendment No. 61–100, requesting clarification on the use of a flight simulator or flight training device during the practical test, the FAA has revised paragraph (a)(8) of the final rule to provide for the use of a flight simulator or a flight training device for the conduct of a practical test if that flight simulator or flight training device is approved for the procedure performed. The final rule also limits the procedures which may be performed in an approved flight training device to one precision and one nonprecision approach provided the flight training device is approved.

The format of the final rule was further changed to accommodate the included modifications.

Section 61.67 Category II pilot authorization requirements.

In Notice No. 95–11, the FAA noted that this section was addressed in a separate NPRM titled ''Aircraft Flight Simulator Use in Pilot Training, Testing, and Checking at Training Centers,'' that was issued on July 15, 1992 (57 FR 35918; August 11, 1992). On July 2, 1996, the provisions contained in that notice were issued as a final rule in Amendment No. 61–100. The provisions of § 61.67 set forth in that rule have also been included in this final rule with only minor editorial changes.

Section 61.68 Category III pilot authorization requirements.

Although this section was not included in Notice No. 95–11, its provisions were adopted as part of Amendment No. 61–100. The provisions of § 61.68 have therefore been included in this final rule with only minor editorial changes.

Section 61.69 Glider towing: Experience and training requirements.

In Notice No. 95–11, proposed § 61.69 was reformatted and revised. The FAA proposed to revise the title of this section to read, ''Glider towing: Experience and training requirements.'' The title of the existing § 61.69 read ''Glider towing: Experience and instruction requirements.''

The FAA proposed in paragraph (a) to clarify the requirements for a pilot who desires to act as a pilot in command of an aircraft towing a glider. Proposed paragraph (b) clarifies the requirements for a pilot who accompanies that person, specifying that the accompanying pilot, not the applicant, is required to have at least 10 flight hours as a pilot in command of an aircraft towing a flight.

The FAA also proposed to eliminate the second alternative of existing § 61.69, which allowed for a person to have made at least three flights as sole manipulator of the controls of an aircraft simulating glider towing flight procedures and at least three flights as pilot or observer in a glider being towed by an aircraft in order to qualify as a pilot in command of an aircraft towing a glider. The FAA proposed to require that to be eligible for glider towing, the pilot must have specified experience actually towing gliders under the supervision of an experienced pilot.

Comments: SSA opposes the elimination of the existing rule's second method for tow endorsement from § 61.69. The commenter states that the elimination of this option would create a severe limitation for commercial operators and clubs that tow with single-place towplanes. SSA contends that the proposed rule would require these operators to have available an aircraft with two pilot seats and a tow hitch to complete a checkout, or to hire a multiplace towplane with a tow hitch from another airport or operator. SSA also believes that the wording of proposed § 61.69(b)(3), which lists the requirements an instructor must meet prior to being authorized to endorse another pilot for towing, is unclear. AOPA, EAA, and NAFI support SSA's comments on glider towing. AOPA adds that § 61.69 refers to towing with a ''single-engine airplane,'' ignoring that it is possible for a multiengine airplane to be used. NAFI echoes this last comment by AOPA. An individual commenter agreed with the objection to eliminating the existing rule's second option, citing it as the only one available when the towplane has a single seat, such as is the case for the Piper PA–25 (Pawnee).

FAA Response: The FAA considered the comments of AOPA, EAA, NAFI, and SSA, which oppose the elimination of the existing rule's method for tow endorsement (simulated tow). After further review of the proposal, the FAA has concluded that operational requirements and accident/incident data do not establish a safety justification sufficient for the increased regulatory and economic burden. Therefore, the existing method has been reinstated.

Addressing AOPA's concern that the proposal's use of the term ''single-engine airplane'' was too specific, the FAA has replaced that term in the final rule. The final rule requires the towing pilot to be certificated in a powered aircraft. The final rule revises the proposed 100-hour pilot-in-command time requirement to specify ''category, class, and type, if required'' rather than the proposed ''single-engine airplanes.'' Other references to ''single-engine airplane'' were replaced by ''aircraft.'' The final rule also restores the recency of experience requirements for glider towing. The proposed rule inadvertently deleted recency of experience requirements for glider towing, although it did include the requirements for the pilots accompanying glider towing trainees. These requirements have been included in the final rule.

Section 61.71 Graduates of an approved training program, other than under this part: Special rules.

In Notice No. 95–11, the FAA proposed to change the title of this section. In addition, the FAA proposed to permit the crediting of training conducted under part 141- or part 142-approved training programs, and the issuance of an ATP certificate, type rating, or both, to a person who has satisfactorily accomplished an approved training program and a pilot in command proficiency check for that aircraft type, in accordance with the pilot in command requirements of subparts N and O of part 121 of this chapter. The proposal also deleted the existing requirement for an applicant seeking an instrument rating who graduates from a pilot school certificated under part 141 to hold a commercial pilot certificate and a second-class medical certificate, and the requirement that graduates of pilot schools with examining authority must apply for a certificate or rating within 90 days.

Comments: AOPA opposes retention of the current requirement in § 61.71(a)(1), which provides a 60-day limitation on graduates from a part 141

or part 142 school to take a practical flight test. The commenter encourages the FAA to increase this period to 90 days to accommodate graduates of university-based schools who may not complete their phase checks until the end of the semester and might have an intervening period for travel or job considerations before they can perform the practical test.

FAA Response: In response to AOPA's recommendations, the FAA has found that the 60-day requirement is adequate and consequently § 61.71, as proposed, is adopted with only minor editorial changes.

Section 61.73 Military pilots or former military pilots: Special rules.

The proposed changes in this section clarified that military and former military pilots would be required to have graduated from a military pilot training course or military pilot flight school, and received official military aeronautical orders before applying for their commercial pilot certificate. In Notice No. 95–11, the provision in existing § 61.73(a) that permitted military pilots to apply for a private pilot certificate was deleted because, historically, military pilots have not chosen a private pilot certificate when a commercial pilot certificate could be issued without complying with any further requirements. Also, existing § 61.73(g)(6) was deleted because Tactical (Pink) Instrument cards were last issued by the Army in 1971. In addition, the content of existing § 61.73(d)(2) was moved to proposed § 61.73(d)(5), and the limitation for ''VFR only'' was deleted because, since 1972, all U.S. military pilot training requires instrument qualification training. The proposed rule also included an administrative clarification for elevating type ratings on the superseded pilot certificate to the ATP certificate level, and implemented minor wording and structure changes.

Comments: One commenter states that although military training surpasses part 61 requirements, pilots should not receive authorization to fly sophisticated piston-engine aircraft without any previous experience with controllable pitch-propeller aircraft.

FAA Response: In answer to the commenter's concern, the FAA already requires additional training and an endorsement to operate complex and high-performance airplanes as provided in § 61.31 of this chapter. To impose additional requirements would be beyond the scope of this rulemaking. Therefore, this proposed section was implemented with only minor clarifying language changes.

Section 61.75 Private pilot certificate issued on basis of a foreign pilot license.

In Notice No. 95–11, the FAA proposed changes to § 61.75 regarding issuance of a U.S. pilot certificate on the basis of a foreign pilot license.

The title of proposed § 61.75 would be changed from ''Pilot certificate issued on basis of a foreign pilot license'' to ''Private pilot certificate issued on basis of a foreign pilot license.''

The FAA proposed in paragraph (b) to delete the existing provision that permitted a pilot with a foreign commercial, senior commercial, or ATP license to apply for a U.S. commercial pilot certificate. The FAA proposed to permit those pilots to apply only for a U.S. private pilot certificate, with appropriate ratings. Proposed paragraph (b)(4) added a provision that would permit an applicant to use his or her medical certificate issued by the country that issued the foreign pilot license in lieu of a medical certificate issued under part 67.

In proposed paragraph (e), the FAA deleted existing language that based pilot privileges on those authorized by the foreign pilot license, while adding a provision in proposed paragraph (e)(2) stating that a holder of a private pilot certificate, issued under this section, is limited to the privileges placed on that certificate by the Administrator. Proposed paragraph (e)(3) added a provision stating that a holder of a private pilot certificate, issued under this section, is subject to the limitations and restrictions on the person's U.S. certificate and foreign pilot license. A provision was added in proposed paragraph (e)(4) that restricts each foreign pilot license holder from exercising the privileges of his or her U.S. pilot certificate while that holder's foreign license is under an order of revocation or suspension.

Proposed paragraph (f) added a provision that would require a pilot with a foreign pilot license to submit a transcription of that foreign pilot license and that pilot's medical certificate in the English language, unless the licenses and limitations are already in the English language.

In proposed paragraph (g), the FAA required an applicant for a U.S. pilot certificate to read, speak, write, and understand the English language. Also deleted in this paragraph was existing language specifically disallowing the U.S. certificate issued under this section to be used for agricultural operations. A provision was added to this paragraph that states that the U.S. private pilot certificate, issued under this section, is valid only when that person has a foreign pilot license in his or her personal possession or readily accessible in the aircraft.

Comments: No substantive comment was received. Therefore, specifically with regard to this section, apart from editing changes, the final rule is adopted as proposed.

Section 61.77 Special purpose flight authorization: Operation of U.S.-registered civil aircraft leased by a person who is not a U.S. citizen.

The FAA proposed to replace the current special purpose pilot certificate for foreign pilots of U.S.-registered aircraft with a special purpose pilot authorization. The FAA recognizes ''authorizations'' as equivalent to certificates issued by the Administrator under 49 U.S.C. § 44711(a)(2), formerly the Federal Aviation Act of 1958, as amended, to be issued by a Flight Standards District Office (FSDO) under § 61.77. In addition, the FAA proposed to clarify § 61.77 to align the ''age 60'' rule for pilots with the requirements of part 121 for all U.S. and foreign pilots who are 60 years of age or older, and who are employed by foreign air carriers that operate U.S.-registered civil aircraft for compensation or hire in scheduled international air services and nonscheduled international air transport operations.

Comments: AOPA, EAA, and NAFI oppose § 61.77(b)(6) and (e)(4) because the proposed age limitation represents ''blatant age discrimination,'' and they believe that it is inappropriate to include such provisions because the matter is at issue in Congress and the courts.

FAA Response: Notice No. 95–11 proposed to align the age 60 rule with similar provisions in part 121. As previously discussed in the analysis of § 61.3, part 121 was revised to include certain commuter operations previously addressed in part 135. Accordingly, the FAA is amending the applicability of the age limitation in § 61.77 to be consistent with current part 121, as well as with § 61.3(j). The FAA invites comments on the inclusion of additional aircraft operations under the age 60 limitation as set forth in § 61.77.

In the past, § 61.77 has applied only to aircraft engaged in part 121 operations; therefore, the age 60 limitation applied to all holders of certificates issued under § 61.77. Because the applicability of § 61.77 is now expanded to all civil aircraft, the age 60 limitation will not apply to all special purpose pilot authorizations, and reaching the age of 60 will not result in the expiration of the authorization.

As discussed in connection with § 61.3(j), the FAA is delaying implementation of the age 60 limitation for pilots of commuter aircraft that now will be governed by part 121. A similar delayed implementation is in § 61.77(g).

Subpart C—Student Pilots

The FAA proposed to establish separate subparts for student pilots and recreational pilots. In addition, the title of subpart C was revised from ''Student and Recreational Pilots'' to ''Student Pilots.'' The final rule includes these changes as proposed.

Section 61.81 Applicability.

The FAA proposed to delete the reference to recreational pilot certificates and ratings in this section, which were included in proposed subpart D. No substantive comments were received, and the rule is adopted as proposed.

Section 61.83 Eligibility requirements for student pilots.

Proposed paragraph (c) added a requirement that an applicant be able to write in the English language. The existing rule only required an applicant to have the ability to read, speak, and understand the English language. In addition, the proposed rule applied to all applicants, eliminating the existing provision that permits applicants who cannot read, speak, and understand the English language to receive a certificate with an operating limitation as deemed necessary by the Administrator.

Proposed paragraphs (d) and (e) included minor revisions to the medical requirements for applicants who desire a rating in a glider or a balloon.

Comments: AOPA and IDPA express the same concerns previously discussed regarding the deletion of the existing language that permitted operating limitations for those applicants unable to read and speak the English language due to medical conditions.

FAA Response: Upon reviewing the concerns of AOPA, IDPA, and other commenters, the FAA has restored language permitting an operating limitation for medical conditions. This issue is discussed in section IV,G. In addition, the FAA has placed the references to medical requirements for student pilots in § 61.23, as discussed in the analysis of that section.

Section 61.85 Application.

In Notice No. 95–11, no substantive changes were made to this section, which would permit an applicant for a student pilot certificate to submit a certification that he or she has no known medical defect that would make him or her unable to pilot an aircraft. As a result of the separation of the student pilot certificate from the medical certificate, all requirements that pertain to the issuance of medical certificates and the conduct of pilot operations during any medical deficiency are contained in §§ 61.23 and 61.53 of the final rule. These requirements are further explained in the analysis of §§ 61.23 and 61.53.

Section 61.87 Solo requirements for student pilots.

In Notice No. 95–11, the FAA proposed to change the title of § 61.87 from ''Solo flight requirements for student pilots'' to ''Supervised pilot in command requirements for student pilots''. Additionally, the term ''solo'' was replaced with ''supervised pilot in command'' for reasons discussed in the analysis of § 61.1.

This section was revised to include separate supervised pilot in command maneuvers and procedures for the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, rotorcraft gyroplane rating, glider nonpowered rating, glider powered rating, lighter-than-air airship rating, lighter-than-air balloon rating, and powered-lift rating. Comments addressed various proposed requirements within this section and are discussed below. For reasons discussed in the analysis of § 61.1, the FAA is retaining the term ''solo.'' The proposed term ''supervised pilot in command'' is being replaced by the existing term ''solo'' throughout the final rule, where appropriate. Additionally, the language of the proposal has been modified for clarity.

Section 61.87(a), General; and Section 61.87(b), Aeronautical knowledge.

Proposed paragraph (a) deleted the existing definition of the term ''solo flight.'' In paragraph (b), the FAA proposed to replace the term ''written examination'' with the term ''test'' to permit the administration of the required test in a format other than on paper (e.g., computer response).

Comments: AOPA and NAFI oppose the requirement in proposed § 61.87(b) that a student take a written test prior to engaging in supervised pilot in command. The commenters state that most instructors conduct this test already, and many insurance companies require flight schools to perform such tests; codifying the provision needlessly adds to an instructor's burden and exposure to enforcement action. AOPA also comments that the FAA has not presented any justification for the proposed change. According to AOPA, there is no indication that the proposal will enhance safety. An individual commenter proposes that the test should not necessarily have to be administered by the instructor, as long as the instructor reviews the test results with the student.

FAA Response: A definition of ''solo flight'' similar to that of the existing rule has been added to paragraph (a) of the final rule. In this new definition, the phrase ''an airship'' has been replaced by ''a gas balloon or an airship''. In paragraph (b), the first proposed reference to the word ''test'' has been replaced with ''knowledge test'', for consistency with new FAA usage. Regarding the existence of the test requirement itself, the FAA notes the concerns of AOPA and NAFI, but points out that the requirement merely reflects the existing rule. Therefore, this final rule is adopted with the changes discussed above.

Section 61.87(c), Pre-solo flight training.

The FAA proposed some minor reformatting of existing requirements but no substantive change to this paragraph.

Comments: SSA recommends modifying proposed § 61.87(c)(1) to provide for supervised pilot in command in single-place gliders. According to SSA, it is very common to solo a student in a two-place glider and, when competent, in a single-place glider of similar characteristics. SSA comments that the existing and proposed versions of § 61.87(c) limit solo flights to aircraft with more than one seat by using the phrase ''in make and model.'' SSA states that Notice No. 95–11 proposes to give an instructor authority to endorse a student for supervised pilot in command in a single-place glider, but the commenter believes that the rule should be explicit on this issue. SSA proposes the following language: ''For single-place aircraft, the pre-supervised pilot in command training must have been received in an aircraft that has two pilot seats and is of the same category, class, and type, as appropriate, and the single-place aircraft must have similar flight characteristics to those of the aircraft with two pilot seats.''

FAA Response: The FAA has modified § 61.87(c)(2) to permit a student pilot to demonstrate flight proficiency in a similar make and model of aircraft to that in which the student pilot will conduct solo flight. The FAA notes that similar make and model aircraft should be of a similar design, with similar operating, performance, flight, and handling characteristics. The

revision made by the FAA to the proposal made in Notice No. 95–11 will apply to all categories and classes of aircraft. As examples, the proposed revision will permit a student pilot to receive flight training in a Schweizer 2–33 and solo a Schweizer 1–26, or receive flight training in a two-place gyroplane but solo in a single-place version of that same gyroplane, even though the single-place version has a slightly smaller powerplant. The FAA also notes that a flight instructor must endorse a student pilot for solo flight in the actual make and model aircraft in which the student pilot will conduct flight operations. Except for this change the final rule is adopted as proposed.

Section 61.87(d), Maneuvers and procedures for pre-solo flight training in a single-engine airplane; § 61.87(e), Maneuvers and procedures for pre-solo flight in a multiengine airplane; and § 61.87(f), Maneuvers and procedures for pre-solo flight training in a helicopter.

The FAA proposed to revise existing requirements. It also proposed to use the term ''slow flight'' in place of the previously used term ''minimum controllable airspeed.'' Details of the maneuvers and procedures to be performed by students would be established through the appropriate practical test standards. The requirement for training on stall entries and recoveries was inadvertently omitted from proposed paragraph (d).

Comments: AOPA states that proposed § 61.87 (d)(9) and (e)(9) could hurt the long-term safety record of general aviation because the requirement for flight at minimum controllable airspeed has been replaced with ''slow'' flight. AOPA points to the FAA's definition of slow flight as 1.2 times the stall speed of the aircraft, which is only marginally slower than the standard approach speed of 1.3 times the stall speed. According to AOPA, stall recognition and handling characteristics of an aircraft at minimum controllable airspeed constitutes ''critical knowledge'' for a student pilot and should not be removed.

AOPA also states that the deletion of requirements for pre-solo stall recovery training is a mistake. Individual commenters echo this view, stating that this omission appeared to be inadvertent.

HAI cites proposed § 61.87(d) and (f) and asks whether these procedures for supervised pilot in command training are intended for solo practice. The commenter believes that student pilots should not perform emergency procedures without an instructor in the aircraft.

FAA Response: The existing requirement for training on stall entries and recoveries was inadvertently omitted from the proposal. A requirement for ''stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall'' has been inserted into paragraphs (d) and (e) of the final rule. AOPA's concerns regarding the deletion of flight at minimum controllable airspeed were reviewed, but the change of terminology to ''slow flight'' was made to provide the FAA with flexibility in determining which specific tasks should be performed in the area of operation. This is issue discussed in section IV,H. Moreover, the FAA has determined that the stall training requirement of the final rule ensures that the student obtains the necessary practice in stall recognition and handling characteristics. HAI's concerns also are noted; however, this section's requirements are explicitly listed as pre-solo training, therefore, these maneuvers would be conducted with an authorized instructor. Except for these changes, the final rule is adopted as proposed.

Section 61.87(g), Maneuvers and procedures for pre-solo flight training in a gyroplane; and § 61.87(h), Maneuvers and procedures for pre-solo flight training in a powered-lift.

In proposed paragraph (g), the FAA deleted provisions for single-seat gyroplanes for reasons discussed in the analysis of § 61.45. Proposed paragraph (h) established student pilot training for the proposed powered-lift category rating. For the same reasons discussed in the response concerning the final rule's paragraphs (d), (e), and (f), a requirement for flight training on stall entries and recoveries was added to paragraph (h). Except for the changes discussed, the final rule is adopted as proposed.

Section 61.87(i), Maneuvers and procedures for pre-solo flight training in a glider.

Proposed paragraphs (i) and (j) established student pilot training for the proposed nonpowered class ratings and for the powered class ratings under the glider category, respectively. No substantive comment directly addressed the proposed paragraph (i). As discussed in section IV,F, the FAA is not proceeding with the separation of the glider category into nonpowered and powered classes. Therefore, the final rule consolidates the proposed separate requirements for gliders into one paragraph. The language of the final rule makes provisions for powered gliders as appropriate, without discussing them as a separate class. Except for these changes, the final rule is adopted as proposed.

Section 61.87(j), Maneuvers and procedures for pre-solo flight training in an airship; and § 61.87(k), Maneuvers and procedures for pre-solo flight training in a balloon.

The FAA proposed minor editorial and reformatting changes. No substantive comments were received. The references to ''vents'' and ''deflation valves'' were added to paragraph (k) of the final rule. Except for these changes, the final rule is adopted as proposed.

Section 61.87(l), Limitations on student pilots operating an aircraft in solo flight; § 61.87(m), Limitations on student pilots operating an aircraft in solo flight at night; and § 61.87(n), Limitations on flight instructors authorizing solo flight.

The proposed paragraphs set forth the limitations on the exercise of student pilot flight privileges.

Comments: HAI objects to the language regarding limitations on flight instructors authorizing supervised pilot in command flight. HAI interprets the rule as requiring that training be completed in the specific aircraft. HAI states that the rule should not require training in a specific aircraft, but merely in the same make and model of aircraft to be flown during supervised pilot in command. The commenter also contends that the rule can be interpreted to mean that an instructor must be physically present to authorize the student pilot to perform each supervised pilot in command flight. HAI recommends modifying the rule to allow supervised pilot in command flight as long as all of the requirements have previously been met and the student's pilot logbook is properly endorsed.

AOPA opposes the proposed requirement that an instructor who authorizes supervised pilot in command flight must endorse the student pilot's certificate every 90 days. AOPA states that updating the endorsement would require the issuance of additional student pilot certificates simply to accommodate recordkeeping functions. The commenter contends that an instructor should be able to keep the student current by endorsing only the logbook within the preceding 90 days. One commenter echoed AOPA's objections.

FAA Response: The FAA agrees with part of HAI's concern over possible

misinterpretation of the requirement that training be conducted in a specific aircraft, therefore, the language in the final rule for the paragraph has been changed from ''in the aircraft'' to ''in the make and model of aircraft''. Additionally, in accordance with the revision made to § 61.87(c)(2) to permit a student pilot to demonstrate flight proficiency in a make and model of aircraft similar to that in which the student pilot will conduct solo flight, the FAA has revised § 61.87(n)(1)(i) to permit an instructor to authorize a student pilot to perform a solo flight if the instructor has given the student pilot training in either ''the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown''.

The FAA also concurs with AOPA's objection to the requirement that certificates be endorsed every 90 days. The final rule has therefore been revised to only require additional 90-day solo endorsements to be recorded in the logbook. The paragraphs pertaining to powered and nonpowered glider class ratings have been restructured because the FAA is not proposing separate powered glider and nonpowered glider ratings as discussed in section IV,F. Except for these changes, the final rule is adopted as proposed.

Section 61.89 General limitations.

The FAA proposed minor editorial changes to this section in Notice No. 95–11. No substantive comments to this section were received; the section is adopted as proposed.

Section 61.93 Solo cross-country flight requirements.

In Notice No. 95–11, the FAA proposed to revise and reformat § 61.93. In the proposal, the title was changed from ''Cross-country flight requirements (for student and recreational pilots seeking private pilot certification)'' to ''Supervised pilot in command cross-country requirements for student pilots''. The FAA proposed to change the term ''solo'' to ''supervised pilot in command'' to reflect the proposed deletion of the term ''solo'' as discussed in the analysis of § 61.1.

The most significant change proposed was the establishment of separate supervised pilot in command cross-country maneuvers and procedures for the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, rotorcraft gyroplane rating, nonpowered glider rating, powered glider rating, lighter-than-air category airship rating, lighter-than-air category balloon rating, and powered-lift rating.

In proposed paragraph (a), the FAA deleted the existing provision that a student pilot may land at an airport other than the airport of takeoff, in an emergency. This provision already exists in § 91.3, ''Responsibility and authority of the pilot in command.''

Proposed paragraph (b)(1) clarified the language of the provision for performing supervised pilot in command flights to and from an airport within 25 nautical miles of the airport from which the flight originated.

Proposed paragraph (b)(2) clarified the provision for performing repeated supervised pilot in command cross-country flights that are no more than 50 nautical miles.

Proposed paragraph (c) clarified existing requirements for endorsements on the student pilot's certificate and in the student pilot's logbook. The requirement for an endorsement on the student pilot certificate would not apply to a pilot with a pilot certificate who seeks privileges in another aircraft category, because a certificated pilot would not hold a student pilot certificate.

Provisions were added in proposed paragraph (d) for the use of radios for VFR navigation and two-way communications, procedures for diverting to alternate airports, and windshear avoidance.

Comments: One commenter states that the requirements of § 61.93(a)(1) for supervised pilot in command cross-country flight should be clarified for balloon operations, which do not originate at an airport and do not land at the departure point.

HAI asks whether the cross-country endorsement section of the student pilot certificate will be revised to allow an endorsement for aircraft make and model as required in proposed paragraph (c)(1), in light of the fact that the current requirement is merely for an endorsement of aircraft category. AOPA also questions the make and model specific requirement of paragraph (c)(1), stating that an endorsement for category alone should be sufficient, since the proposed logbook endorsement of paragraph (c)(2) would accommodate the make and model endorsement. According to AOPA, the proposal would force the FAA to issue more student certificates simply for recordkeeping functions. HAI questions whether the logbook endorsement in proposed paragraph (c)(2) for supervised pilot in command cross-country flight is necessary in light of the requirement for the certificate endorsement.

Individual commenters objecting to both proposed paragraphs (c)(1) and (c)(2) shared the associations' views. One instructor states that the ''make and model'' requirement could be a hardship if a flight school changed equipment in the middle of a student's training, because the student would have to repeat pre-solo maneuvers and cross-country training. The commenter requests retaining the existing rule's reference to aircraft ''category'' only. Another commenter states that the privilege of signing for another flight instructor should be retained under proposed § 61.93 (c)(2)(ii) and (c)(2)(iii). Another commenter requests that proposed § 61.93 contain more useful guidance regarding what is required for a glider pilot to make a cross-country flight.

FAA Response: As discussed in the analysis of § 61.1, the FAA has decided not to adopt the term ''supervised pilot in command.'' Regarding the comment on the possible terminology problem in paragraph (a) with respect to balloons, the FAA points out that it has decided to delete solo cross-country requirements for balloons in the final rule as discussed in the analysis of § 61.107. Upon reviewing the comments of AOPA, HAI, and individuals regarding cross-country endorsements, the FAA has decided to replace the words ''make and model'' with ''category'' in paragraph (c)(1) of the final rule, while retaining them for logbooks in paragraph (c)(2). The intent of the change to the existing rule is to clarify that a student must be properly authorized to conduct not just all solo flights, but also all solo cross-country flights, in a specific make and model.

For reasons similar to those discussed in the section-by-section analysis of § 61.87, the FAA also has modified § 61.93(a)(2)(iii) to permit the pre-solo flight maneuvers and procedures required by § 61.87 to be accomplished in either the make and model of aircraft or a similar make and model of aircraft for which solo cross-country flight privileges are sought. Except for these changes, the final rule is adopted as proposed.

Section 61.95 Operations in Class B airspace and at airports located within Class B airspace.

The FAA did not propose any substantive changes to this section in Notice No. 95–11. This section is adopted as proposed with only minor editorial changes for consistency with other sections of this proposal.

Subpart D—Recreational Pilots

Section 61.96 Applicability and eligibility requirements: General.

The proposed section sets forth the provisions that are applicable to recreational pilot certificates and ratings. The proposal added a new § 61.96a titled ''Eligibility requirements: General.'' The proposal required applicants to be able to write in the English language and eliminated the provision in the existing rule that permitted applicants who could not read, speak, or understand the English language to receive a certificate with the operating limitation deemed necessary by the Administrator. The proposal also deleted the requirement for recreational pilots to hold a medical certificate. The proposal required an applicant to receive an endorsement from the ground instructor or flight instructor who gave the applicant training or reviewed the applicant's home-study course. This endorsement would state that the applicant was prepared for the knowledge test.

Comments: Approximately 1,100 comments address the FAA's proposals regarding the recreational pilot certificate. The overwhelming majority of the commenters agree with the proposal, many of them requesting expeditious implementation of the final rule with regard to the recreational pilot provisions of Notice No. 95–11, without necessarily waiting for other parts of the proposal. Fewer than 20 commenters disagree. Most of the commenters state that the proposal will stimulate interest in flying by making recreational flying more affordable and by eliminating paperwork. They also state that the proposals will boost the general aviation industry without adversely affecting safety.

EAA and NAFI request that the FAA expeditiously review comments on Notice No. 95–11 and move to final rule on the recreational pilot provisions. The commenters note the success of the new Canadian recreational pilot's permit, which they contend has increased training activity and financially benefited FBOs and flight instructors. The United States Ultralight Association, Inc., also states that the proposed changes will benefit general aviation.

However, another commenter, who identifies himself as a flight instructor, objects to the concept of a recreational pilot certificate. He states that it allows inadequately trained pilots to fly.

FAA Response: The FAA has modified the final rule to address the commenters' concerns regarding the unintended effect in the proposed rule change that would prevent deaf pilots and pilots with other medical conditions that have a command of the English language from obtaining a recreational pilot certificate. The English language requirement is further discussed in section IV,G. Although the FAA notes the positive response to the proposal regarding medical self-evaluation by persons exercising recreational pilot privileges, the FAA has decided not to adopt the proposal for reasons discussed in section IV,A of this preamble. In the final rule, medical certificate requirements associated with recreational pilot eligibility and privileges are contained in § 61.23. Proposed § 61.96 was integrated with proposed § 61.96a.

Section 61.97 Aeronautical knowledge.

The FAA proposed additional aeronautical knowledge requirements, including ground training on windshear avoidance, aeronautical decision making and judgment, and the preflight actions found in § 91.103.

Comments: EAA favors the inclusion of windshear, and aeronautical decision making and judgment in the training requirements. EAA and NAFI oppose requirements that mandate training regarding how to plan for alternatives if the flight cannot be completed and possible air traffic delays are encountered. NAFI comments that recreational pilots are unlikely to encounter the need for such training.

AOPA and GAMA support instruction in windshear avoidance, aeronautical decision making, and preflight action in the aeronautical knowledge requirements for recreational pilots. However, AOPA cannot accept the additional training requirements without a description of what they are and how they will be implemented.

In addition, AOPA questions the proposed requirement for training and instruction in planning for air traffic delays because recreational pilots are not permitted to fly in airspace requiring two-way radio communications.

ALPA, GAMA, and NAFI support the requirements for training in aeronautical decision making as do many of the individual commenters. SSA states that including knowledge of decision making and judgment techniques in the training cycle may be a valuable tool in reducing accidents. GAMA and NAFI also support the addition of windshear training requirements. SSA notes that windshear training has several facets including windshears caused by fronts, microbursts, and obstructions. SSA believes that the glider community is aware of the dangers associated with windshear. Most individual commenters also support the proposed requirements for windshear training.

AOPA favors the concept of teaching aeronautical decision making and believes there should be a definition of what must be taught and to what standards. The commenter encourages the FAA to elaborate on this topic in the preamble to any final rule.

FAA Response: The FAA agrees with commenters who state that recreational pilots are unlikely to encounter air traffic delays, and has modified the requirement for training in traffic delay planning to a more general reference to possible delays. Other terminology and changes were implemented in the final rule as well, including revising the reference to the ''Airman's Information Manual,'' which is now titled the ''Aeronautical Information Manual.''

The FAA strongly believes that training in human factors and aeronautical decision making should be required. Approximately 80 percent of all accidents are related to pilot error. Training in human factors, and aeronautical decision making and judgment may decrease the number of accidents attributable to pilot error, because implementation of similar training in air carrier operations has decreased accident rates. Regarding AOPA's concern on the need for guidance material on aeronautical decision making, the FAA points out that AC No. 60–22, ''Aeronautical Decision Making,'' contains such guidance.

Section 61.98 Flight proficiency.

This proposed section established the areas of operation for all aircraft that are permitted to be operated by a recreational pilot. Several commenters raised concerns regarding the principle behind the proposed areas of operation for all certificates. This issue is addressed in section IV,H.

This section is adopted as proposed, with only minor editorial changes.

Section 61.99 Aeronautical experience.

In Notice No. 95–11, the FAA proposed to change the title of this section from, ''Airplane rating: Aeronautical experience,'' to ''Aeronautical experience.'' Proposed § 61.99 included the aeronautical experience requirements for single-engine airplanes, helicopters, and gyroplanes that are permitted to be operated by recreational pilots. The proposed section also revised the minimum amount of solo time required for a person to be eligible for a

recreational pilot certificate. The proposal established more flexible training requirements that permitted flight instructors to determine the number of hours of training each student pilot requires. However, the minimum number of total hours required to obtain a recreational pilot certificate remained unchanged.

Comments: EAA favors the reduction in the minimum hours of solo time for recreational pilot certificate applicants. Both EAA and NAFI support the greater flexibility given to flight instructors.

AOPA does not believe that the reduction in the required number of supervised pilot in command hours represents a significant economic benefit to general aviation, because the aeronautical experience requirements for a recreational pilot certificate dictate the need for more than 3 hours of supervised pilot-in-command time. However, AOPA supports the proposal because it stresses the concept of training to a level of proficiency rather than training based on an arbitrary number of hours.

In contrast, GAMA, NATA, and NBAA oppose the reduction in the minimum amount of supervised pilot-in-command time to 3 hours for recreational pilot applicants. These commenters recommend requiring at least 10 hours of supervised pilot-in-command time. GAMA stresses the importance of flight time as sole manipulator of an aircraft to the development of a safe pilot. According to GAMA, such time bolsters a student's confidence, helps the student become self-reliant, and improves a pilot's decision making skills.

FAA Response: The FAA believes the change in the dual and solo time requirements provides instructors with flexibility in determining the amount of solo and dual training required for each student. This change should not compromise safety, because the total number of hours remains unchanged and should encourage increased training and help reduce overall costs. It appears that some commenters misunderstood the proposal, because their concerns implied that the total number of hours would be reduced, which is not the case. Therefore, this section is implemented in the final rule as proposed, with the exception of the changes noted and minor editorial changes.

Section 61.100 Pilots based on small islands.

In Notice No. 95–11, the FAA proposed to change the existing title of this section from ''Rotorcraft rating: Aeronautical experience'' to ''Pilots based on small islands.'' The proposed aeronautical experience requirements for a rotorcraft category rating were moved to proposed § 61.99. Proposed § 61.100 contained the provisions for pilots based on small islands. These provisions are currently found in § 61.99 of the existing rule.

No substantive comments were received concerning this section. However, the final rule has been modified to restore detailed provisions from the existing rule that were inadvertently omitted from proposed § 61.100.

Section 61.101 Recreational pilot privileges and limitations.

In Notice No. 95–11, the FAA proposed significant revisions to the privileges and limitations for recreational pilots.

In paragraph (a), the FAA proposed to specify the types of operating expenses that a recreational pilot may share with a passenger.

Proposed paragraph (c) deleted the existing restriction that prevents recreational pilots from flying more than 50 nautical miles from an airport where training was received. The paragraph also explicitly permitted such operations, subject to compliance with specific training and endorsement requirements. The proposal to eliminate the 50-mile restriction is discussed in section IV,A.

Proposed paragraph (h) contained a revised version of paragraph (f), maintaining the same basic provisions that are in the existing paragraph, except for changes intended for clarity.

Comments: Many of the comments received on the proposal to codify the sharing of expenses are also directed at similar provisions in proposed § 61.113. Approximately 130 comments address the FAA's proposal to specify the expenses a private pilot may share with passengers. Approximately 95 percent of the comments oppose the proposal, while the remainder either are in favor or discuss other aspects of the proposal.

AOPA, EAA, NAFI, and NATA comment that pilots should be able to share operating expenses with passengers, such as aircraft rental costs. AOPA and NATA state that this is currently allowed under the regulations. Although AOPA supports codifying the expenses that can be shared, it believes the proposed rule represents a significant change. According to AOPA, the new rule will likely stifle activity at flight schools and FBOs. SSA also supports including the cost of aircraft rental in the expenses that can be shared. According to SSA, a glider uses minimal fuel but has direct costs for tows and glider rentals that can be specifically documented.

GAMA and HAI also recommend adding operating costs to the list of expenses that may be shared. GAMA contends that individuals currently are allowed to divide the rental costs of an aircraft including fuel, oil, airport expenditures, and operating costs.

In its comment, NBAA states that proposed § 61.113(c) is too prohibitive and could add costs for the private pilot. The commenter states that the proposal fails to take into account the potential added fees that general aviation may face in the future. NBAA recommends deleting all the language after the word ''passengers.''

Most of the individual commenters who oppose the proposal also point out that for pilots who rent aircraft it may be difficult to isolate the fuel, oil, and airport expenses from other expenses. They state they should be permitted to share rental expenses. Another commenter states that for aircraft that are not rented, provisions should be made for sharing the cost of the ''engine reserves'' (i.e., a pro-rated allotment per hour toward engine overhaul cost). A commenter points out that the definition would preclude pilots of gliders from sharing expenses. Another commenter states that there is no reason to require that expenses be shared equally, if either the pilot or a passenger wants to pay a greater share.

Some commenters also request additional privileges for recreational pilots, subject to appropriate training and flight instructor endorsement. One of the key additional privileges cited in the comments—requested by approximately 210 commenters—is flight into airspace requiring communications with ATC, such as Class C and Class D airspace. EAA supports permitting recreational pilots to obtain an endorsement to enter Class D airspace because many areas do not have nontowered airports within a reasonable distance. Other commenters state that often a pilot's home base or needed maintenance facilities are in Class D airspace areas, or there may be safety reasons for communicating with ATC. They also cite the possibility of pilots with higher certificates and commensurate training exercising the privileges of recreational pilots. Commenters also seek to expand recreational pilot privileges to include operation of aircraft with more than 180 horsepower and retractable landing gear and night flying. EAA states that recreational pilots should be able to obtain an endorsement for amphibious operations because many newly produced, very light aircraft are

amphibious. Commenters also mentioned demonstration flight for prospective aircraft purchasers. However, several commenters suggest setting the limitation at 2,400 pounds gross weight, with 180 horsepower or less, which is not ''complex.'' One commenter asks how the FAA justifies limiting a four-place aircraft to one passenger for recreational pilots.

Others request raising the ceiling of permitted recreational pilot operations, stating that the limitation of 10,000 feet MSL or 2,000 feet AGL, whichever is greater, is too low for mountain areas. Some commenters suggest alternative privileges and limitations not based on the recreational and private pilot certificates.

FAA Response: The FAA inadvertently omitted ''aircraft rental fees'' from the list of expenses that private and recreational pilots may share. This is current FAA policy. Therefore, § 61.101(a) is appropriately modified in the final rule. In response to those commenters who want additional operating costs shared, only direct operating and rental expenses may be shared. To avoid a pilot receiving compensation for a flight, indirect operating costs, such as maintenance expenses, are not permitted to be shared. In response to the comment regarding the equal sharing of expenses, the FAA has determined that a pilot may not pay less than the pro rata share of operating expenses. The rationale is that if pilots pay less, they would not just be sharing expenses but would actually be flying for compensation or hire. The rule has been modified accordingly.

Proposed paragraph (h) is modified and a new paragraph (i) is added to maintain provisions of the existing rule. The reference to paragraph (d) is removed from paragraph (h). Paragraphs (h) and (i) address only operations at night or in airspace requiring communication with ATC. The phrase ''for the purpose of obtaining an additional certificate'' also is added to this paragraph to indicate that this privilege is only available to a recreational pilot seeking an additional certificate.

In response to the comments requesting expansion of the recreational pilot privileges, the FAA acknowledges these concerns, but has determined that these requests for changes to existing regulations are beyond the scope of this rulemaking.

Apart from these changes and various editorial changes, the final rule is adopted as proposed.

Subpart E—Private Pilots

The proposed establishment of separate subparts for student pilot certificates and recreational pilot certificates required the regulations pertaining to private pilot certificates and ratings to be moved from subpart D to subpart E.

Section 61.102 Applicability.

The FAA did not propose any substantive changes for this section, nor were any substantive comments received. The final rule is adopted as proposed.

Section 61.103 Eligibility requirements: General.

The FAA proposed to revise this section and include new eligibility requirements for private pilot applicants.

In proposed paragraph (b), the FAA added a requirement that an applicant be able to write in the English language. In addition, all applicants would have been required to meet the English language requirements, eliminating the existing provision under which an applicant who cannot read, speak, and understand the English language may receive a certificate with an operating limitation, as deemed necessary by the Administrator.

In proposed paragraph (c), the language pertaining to the medical requirements for applicants who desired a rating in a glider or balloon was clarified.

Proposed paragraph (d) required an applicant to specifically receive an endorsement from the ground instructor or flight instructor who gave the applicant training or reviewed the applicant's home study, certifying that the applicant is prepared for the knowledge test.

Proposed paragraph (h) required an applicant to meet the proposed aeronautical experience requirements for the category and class rating sought, before applying for the practical test.

Comments: Most of the substantive comments received regarding this section related to paragraph (a), especially the possible discriminatory effect of the change in English language proficiency requirements. For a discussion of these comments and the FAA's response, see section IV,G. Some commenters objected to proposed paragraph (c) regarding the revised language pertaining to the medical requirements for pilots of gliders and balloons, interpreting them as new requirements.

FAA Response: For reasons discussed in section IV,G, the final rule includes language restoring the option for the Administrator to place an operating limitation on an applicant's pilot certificate, waiving the applicant's English language requirements on medical grounds. In addition, the language on medical requirements for private pilots is deleted from this section and placed in § 61.23. This topic is discussed in the analysis of § 61.23. The FAA also made other minor editorial and formatting changes to this section of the final rule.

Section 61.105 Aeronautical knowledge.

The FAA proposed to establish aeronautical knowledge requirements that are applicable to applicants for all private pilot certificates. The FAA also proposed to add aeronautical knowledge requirements, including ground training on additional subjects such as windshear avoidance, aeronautical decision making and judgment, and the preflight actions found in § 91.103.

Comments: GAMA and NAFI support the inclusion of training on windshear avoidance, aeronautical decision making, and preflight actions in the aeronautical knowledge requirements for private pilots.

AOPA also supports such training; however, AOPA cannot accept additional training requirements without a description of what they are and how they will be implemented. AOPA also questions the proposed requirement in § 61.105(b)(12) for training and instruction in planning for air traffic delays because such training is more appropriate for commercial, instrument, and ATP applicants.

FAA Response: The FAA agrees with commenters who state that private pilots are less likely to encounter air traffic delays, and has modified the requirement for training in traffic delay planning to a more general reference to possible delays.

The FAA strongly believes that training in human factors and aeronautical decision making should be required. Approximately 80 percent of all accidents are related to pilot error, and training in human factors, and aeronautical decision making and judgment may decrease the number of accidents attributable to pilot error, because implementation of similar training in air carrier operations has decreased accident rates. Regarding AOPA's concern on the need for guidance material on aeronautical decision making, the FAA points out that AC 60–22, ''Aeronautical Decision Making,'' contains such guidance.

Section 61.107 Flight proficiency.

In this section, the FAA proposed separate and revised areas of operation for the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, rotorcraft gyroplane rating, glider powered rating, glider nonpowered rating, lighter-than-air airship rating, lighter-than-air balloon rating, and powered-lift rating. In addition, the proposal specifically required applicants for a glider category rating to receive training on launches, approaches, and landings, if applying for a nonpowered class rating; or, takeoffs, landings, and go-arounds, if applying for a powered class rating.

Comments: NAFI comments that proposed § 61.107 clarifies aircraft category and training requirements.

Approximately 30 commenters take issue with the FAA's use of the term ''balloonport'' in the proposed rule. This term is not addressed in proposed § 61.1(a), but as one commenter notes, the term is used in proposed §§ 61.107, 61.127, and 61.187. Two commenters state that the term is known principally as a commercial name or a proprietary name for a dealership of one brand of balloon. Commenters ask that another term be defined and used, such as ''launch and landing field'' or ''launch and landing site.'' Commenters note that balloonists use fields, parks, or airports for their operations, and the term used should not be restrictive as to the takeoff or landing location.

FAA Response: In response to commenter concerns, the term ''balloonport'' was replaced with the term ''airport'', and the term ''lift offs'' was replaced with the term ''launches''. The FAA also is not proposing separate flight proficiency requirements for powered and nonpowered gliders. This issue is discussed in section IV,F.

Section 61.109 Aeronautical experience.

The FAA consolidated all aeronautical experience requirements for private pilots in proposed § 61.109. The FAA proposed to change the title of this section from ''Airplane rating: aeronautical experience'' to ''Aeronautical experience'' to reflect the consolidation of these requirements.

The FAA also proposed separate aeronautical experience requirements for each aircraft category and class rating. An applicant seeking a single-engine or multiengine airplane rating would be required to meet the aeronautical experience requirements in a single-engine airplane, and an applicant for a private pilot multiengine rating would be required to meet these requirements in a multiengine airplane. The FAA also proposed revisions to the aeronautical experience requirements for private pilots by establishing more flexible training requirements for private pilot applicants and integrating the concept of supervised pilot in command into specific aeronautical experience requirements. The proposal decreased the amount of solo time an applicant would be required to possess prior to obtaining a certificate, added additional night-flight training requirements, decreased the length of required cross-country flights, and increased instrument flight training requirements. The proposal also established aeronautical experience requirements for a powered-lift rating. The minimum number of total hours required to obtain a private pilot certificate remained unchanged.

Comments: Approximately 140 comments address issues related to private pilot training requirements proposed in Notice No. 95–11.

AOPA comments that, although it believes 5 hours of supervised pilot in command is an excessively low figure, it supports the proposal because it stresses the concept of training to a level of competency rather than training consisting of an arbitrary number of hours. AOPA also supports the reduction in the distance requirement for the solo cross-country flight from 300 nautical miles to 100 nautical miles. AOPA believes that there is no merit in requiring three takeoffs and three landings to a full stop at an airport with an operating control tower, and that this proposed requirement will constitute a burden in cases where a towered airport is not available within a reasonable distance.

In its comment, AOPA expresses concern about § 61.109(a)(2)(v), which proposes supervised pilot in command training requirements in multiengine aircraft for the issuance of a private pilot certificate with a multiengine rating. AOPA states that it is unaware of any insurance company that will insure, or an FBO that will allow, a pilot to fly solo in a multiengine aircraft without a multiengine rating. According to AOPA, if the intent of the provision is to require an applicant to log supervised pilot in command flight while the sole occupant of the aircraft, this will result in a serious obstacle to multiengine training. The commenter states that this proposal is an example of how the change of terminology from ''solo'' and ''dual'' to ''training time'' and ''supervised pilot in command'' results in confusion.

SSA believes that the proposal to allow tailoring of instruction to more closely match a student's needs emphasizes dual instruction over solo flight. According to SSA, solo time reinforces the principle of responsibility that is so important to safe flight and provides the student with an opportunity to find areas of weakness. SSA comments that two supervised pilot in command flights, or even 5 hours of supervised pilot in command flight, is inadequate. SSA urges the FAA to recognize the importance of supervised pilot-in-command time. The commenter also opposes the flight time requirements for a glider rating set forth in § 61.109(b)(2), and states that they are ''oppressive.'' SSA contends that if these requirements are adopted many individuals who are planning to learn to fly will not do so because of the increased costs.

NAFI also supports the reduction in cross-country distance requirements and the addition of night cross-country training. NAFI, however, disagrees with the reduction in solo flight time requirements. According to the commenter, applicants with no solo experience should be required to obtain 15 hours of solo time before carrying passengers. However, NAFI recommends developing a system to credit solo time in flight vehicles ''other than certificated aircraft,'' such as ultralights, to satisfy part 61 requirements.

NBAA states that the proposed reduction in supervised pilot-in-command time is excessive and recommends a minimum of 10 hours. HAI also expresses concern about the reduction in this requirement because it will result in private pilots with a low level of experience.

NATA comments that 5 hours of supervised pilot-in-command time is insufficient to build a private pilot's confidence and recommends that at least 15 hours be required. NATA further states that a single supervised cross-country flight of 100 nautical miles is inadequate to acquire cross-country skills. The commenter recommends requiring at least three cross-country flights, including one flight of at least 250 nautical miles with at least one leg of 100 nautical miles.

GAMA opposes the reduction of the minimum supervised pilot-in-command time to 5 hours for private pilots. GAMA feels that flight time as the sole manipulator of an aircraft's controls is critical to the development of a skilled, safe pilot. GAMA agrees with the proposal of NAFI and NATA to require at least 15 hours of supervised pilot-in-command time. GAMA states that, while a minimum number of supervised pilot in command cross-country hours is

not necessary, the number of required flights should be revised to ensure proper training and the fostering of skill and experience. GAMA recommends that the rule require a minimum of three cross-country flights including two flights with a landing point more than 50 nautical miles from the original departure point, and one flight of at least 300 nautical miles, with landings at a minimum of three points, one of which should be at least 100 nautical miles from the original departure point. GAMA states that because a disproportionate number of accidents involving private pilots occur at night, requiring a dual, night cross-country flight would add to the margin of safety.

HAI points out that meeting the cross-country flight requirement for helicopters does not require a flight of 50 miles between takeoff and landing points, and that the cross-country definition in proposed § 61.1a(e), which specifies 50 miles, is not consistent with this provision.

Some individual commenters also disagree with changes to the proposed supervised pilot in command cross-country requirement, advocating retention of the existing requirement for 10 hours of cross-country time which includes at least one long cross-country flight. Some commenters state that the proposed supervised pilot in command experience hour requirement is too low.

One commenter suggests that the requirement for one 100-nautical-mile cross-country flight could be impractical in certain areas during certain times of the year. The commenter agrees with the proposal for 3 hours of instrument training for private pilot applicants. Another commenter opposes the proposed requirement in § 61.109 for 3 hours of instrument dual instruction in an airplane for private pilot training.

Individual commenters take issue with the night flight proposals; some state that night flight in a single-engine airplane is too hazardous. At least one commenter believes that the night cross-country flight training requirement proposed under § 61.109(a)(1) would not require that a flight instructor be on board, and suggests that a flight instructor be required. Another opposes the night cross-country requirement for single-engine airplanes completely, while another advocates reducing the requirement from 100 nautical miles to 50 nautical miles.

GAMA, NAFI, and NATA support the proposed night cross-country requirements and state that safety will be enhanced by the adoption. NATA also approves of the proposed night takeoff and landing requirements and states that student confidence would be increased if this proposal were adopted. GAMA states that the requirement would provide an important educational experience by exposing the pilot to a much broader flight environment under a supervised situation.

AOPA generally supports placing greater emphasis on night training for private pilot applicants and states that the proposed night cross-country flight training requirement will increase safety. The commenter, however, requests clarification concerning the term ''duration'' and asks whether the cross-country flight is intended to be 100 miles total (50 miles out and 50 miles return) or if the flight is to be 100 miles from the point of departure (200 miles total). AOPA supports a 100-mile round trip because the longer flight would be difficult to achieve in the summer months. The commenter would oppose the proposal if it required a flight of 200 miles total distance.

Some commenters suggest raising the minimum flight hour requirements for the private certificate with a balloon rating. One commenter suggests that 15 hours rather than 10 hours should be required because much time is spent reviewing and relearning, apparently due to weather-caused interruptions in training. Two commenters state that the requirements of proposed § 61.109(d)(2)(i) for two flights within 60 days of application for a private balloon rating are excessive, because of the nature of balloon operations and scheduling difficulties.

NAFI opposes the new requirements under § 61.109(c) for airship instrument training because some ''hot air blimps'' currently are being built as ultralight and experimental aircraft, and these aircraft do not have sufficient electrical power for IFR instrumentation. NAFI states that the proposal would effectively eliminate all private pilot training for ''hot air blimps,'' and pilots would be forced to operate the aircraft as ultralights, possibly without the benefit of training from a certificated flight instructor. NAFI comments that this would not advance safety. One individual commenter also states that the instrument training proposed for private pilot certification under § 61.109(c) should not be required because many airships are not equipped for instrument flight.

NAFI opposes the new night flight requirements of proposed § 61.109(c) for airship training. NAFI states that these aircraft do not have sufficient electrical power for navigation lights, in some cases.

FAA Response: The FAA believes the change in the composition of dual and solo time, within the total number of hours required for each certificate, provides instructors with flexibility in determining the amount of dual and solo training required for each student. The FAA has decided not to adopt the concept of supervised pilot in command as set forth in Notice No. 95–11, and has therefore replaced references to ''supervised pilot in command'' time with ''solo'' time.

The proposal does not compromise safety because the total number of hours required for the issuance of a private pilot certificate remains unchanged. The rule should encourage increased training and help reduce overall costs. It appears that some commenters misunderstood the proposal, because their concerns implied that the total number of hours would be reduced, which is not the case. The FAA has, however, increased solo flight time requirements and solo cross-country flight distance requirements in the final rule in order to meet the minimum requirements under Annex 1 to the Convention on International Civil Aviation.

The FAA believes that night cross-country training should be required for private pilot applicants because a private pilot may later be placed in circumstances where the pilot may inadvertently fly at night, without appropriate night training. This issue was identified as an area of concern in the FAA's Job Task Analysis. Increased night flight training will reduce the issuance of certificates with a night flying limitation, as well the associated administrative costs to the FAA in reissuing such certificates when the limitation is removed. In response to AOPA's request, the FAA has clarified the cross-country requirements in this section by replacing the word ''duration'' with the term ''total distance.''

Regarding the proposal for required solo flight in multiengine aircraft for pilots seeking that rating, the FAA is convinced by the commenters' arguments and has modified the final rule to require that an applicant accomplish solo flight in an airplane. This would allow an applicant for a multiengine rating to accomplish solo flight time requirements in a single-engine airplane. The FAA believes that a similar problem to that presented by the commenters could arise for powered-lifts, and has made a similar modification to the regulations applicable to those aircraft requiring that solo flight time be accomplished in an airplane or powered-lift. The FAA recognizes HAI's concern regarding an inconsistency with the definition of ''cross-country,'' and has revised the

cross-country requirements for rotorcraft accordingly.

Currently the FAA requires training within 60 days of application for a practical test in a balloon. The FAA, in order to clarify what is meant by ''training,'' is requiring a minimum of two flights within 60 days of application. The FAA considers this requirement reasonable to ensure proper preparation for the practical test.

The FAA disagrees with NAFI regarding night flight requirements for airships, and finds that the majority of airships do have sufficient electrical power to operate at night. The FAA believes that night flight training should be required for airships as these aircraft currently operate at night in the NAS. Therefore, the FAA will require night training in airships.

To address commenters' arguments against required instrument training in airships that may not be equipped for instrument flight, the FAA has modified the requirements to state only that instrument training is required, without referring specifically to airships.

The FAA also has modified the proposed requirements for the issuance of a glider rating to be consistent with the decision not to establish separate class ratings for powered and nonpowered gliders. Additionally, the FAA has included provisions as set forth in Amendment No. 61–100, which permit credit to be given for the use of an approved flight simulator or approved flight training device.

Section 61.110 Night flying exceptions for private pilot certification.

The FAA proposed to establish the night flying exceptions for private pilot certification in § 61.110.

In proposed paragraph (a), an applicant with a medical restriction prohibiting the operation of an aircraft at night would not be required to meet the night flight training requirements and would be issued a certificate with a limitation prohibiting night flying.

It was proposed in paragraph (b) to permit an applicant who accomplishes flight training in Alaska to have 12 months after the issuance of the applicant's temporary airman certificate to comply with the night flight training requirements. Alaska is unique in that 6 months out of the year there is limited nighttime. However, under proposed paragraph (b)(2), an applicant who receives flight training in Alaska and is unable to accomplish the night flying training required by proposed § 61.109 would be issued a temporary pilot certificate for only 12 calendar months, with a limitation ''night flying prohibited.'' That person would be required to comply with the night-flying requirements for the private certificate within the 12-calendar-month period after issuance of the certificate. If that person did not comply with the requirements within that period, the certificate would be suspended until the person complied the requirements.

Paragraph (b)(3) was proposed to explain the night flying experience, endorsement, and practical test portion requirements of § 61.109 that must be met in order to have the ''night flying prohibited'' limitation removed.

Comments: AOPA states that, while it supports the added flexibility of the night flying exception rule, it opposes the language of § 61.110(b)(2) that would suspend the airman's certificate if the pilot does not complete the night training requirements within 12 calendar months. AOPA states that the FAA certificates numerous pilots each year with permanent night flight restrictions, and there is no reason why Alaskan airmen should be singled out for suspension of their certificates simply because they fail to remove their night flight restrictions.

FAA Response: The FAA points out that a change in the proposed and final rules to § 61.109 will disqualify all applicants from being issued certificates without meeting night flying requirements, unless they qualify for an exception under § 61.110. Therefore, the 12-month limit of § 61.110 does not discriminate against Alaskan airmen, but rather allows them a special privilege. In the final rule, the 12-month limitation remains, but the FAA has deleted language referring to the issuance of a 12-month temporary certificate, because existing FAA temporary certificates are valid for 120 days. The FAA has also added a provision that a person seeking to obtain this exception must both receive the flight training for the certificate and reside in the State of Alaska.

By deleting the exception for pilots who have night flying restrictions due to medical conditions, these pilots will now be required to have 3 hours of night flight training. However, the certificates of such pilots will be issued with an operating limitation prohibiting night flying. The FAA has determined that safety will be enhanced because this requirement will reduce the likelihood of pilots later being placed in circumstances where they may be required to engage in flight at night without appropriate night training.

Section 61.111 Cross-country flights: Pilots based on small islands.

In Notice No. 95–11, the FAA only proposed minor editorial changes to this section. No substantive comments were received. The final rule has been modified to restore detailed provisions from the existing rule that were inadvertently omitted in the proposed rule.

Section 61.113 Private pilot privileges and limitations: Pilot in command.

In Notice No. 95–11, the FAA proposed to include the provisions of existing § 61.118 in proposed § 61.113. The revised aeronautical experience requirements for a rotorcraft category rating found in existing § 61.113 were included in proposed § 61.109.

Proposed paragraph (c) specified the flight operating expenses that a private pilot may share with passengers. A more detailed discussion of this proposal, including comments and FAA response, is addressed with regard to the similar proposed change to § 61.101(a).

Proposed paragraph (d) modified the requirements for participation in an airlift sponsored by a charitable organization.

In proposed paragraph (e), private pilots were permitted to receive reimbursement for expenses incurred while performing search and location operations for law enforcement agencies or other organizations that conduct these operations.

Proposed paragraph (f) permitted a private pilot who met the requirements of proposed § 61.69 to act as pilot in command when towing gliders.

Proposed § 61.113 eliminates specific provisions permitting a salesman who has logged at least 200 hours to demonstrate an aircraft in flight to a prospective buyer.

Comments: The commenter's opposition to the proposed paragraph (c) definition of operating expenses that may be shared is discussed in the analysis of the proposed provision of § 61.101(a).

With respect to proposed paragraph (e), the National Headquarters for the Civil Air Patrol (CAP) states that the proposed rule fails to include maintenance expenses as reimbursable for pilots flying humanitarian-type missions, and that the rule incorrectly assumes that such activity is always under the direction of law enforcement agencies. The commenter states that, depending on the definition of ''airport expenditures,'' the omission of maintenance costs in the definition might require the CAP to continue to operate under an exemption in order to maintain current privileges. The commenter also requests that the rule be modified to account for the agencies, other than law enforcement, for which the CAP often flies missions. These

include the FAA, FEMA, the Red Cross, and State and local Emergency Management Agencies. AOPA supports adding search and rescue operations to the list of operations for which private pilots may receive reimbursement. In contrast, HAI objects to the search and rescue provisions in proposed § 61.113(e). HAI contends that this proposal will only encourage the proliferation of this kind of activity. The commenter believes that these kinds of operations are best dealt with through the exemption process.

SSA approves of proposed § 61.113(f) permitting private pilots who meet the requirements of § 61.69 to act as pilot in command of an aircraft towing a glider. SSA points out that the explanation on page 41207 of the Notice No. 95–11 indicates that the pilot will be able to log this time. SSA suggests that § 61.113(f) be modified to this effect.

FAA Response: In response to objections to the language of proposed § 61.101(a) as well as § 61.113(c), the FAA has decided to add ''rental fees'' to this list of allowable shared expenses in both those sections, as discussed in the analysis for § 61.101(a). This language is therefore added to § 61.113(e) in the final rule. The CAP's concerns regarding types of agencies that conduct search and location missions were noted, and the term ''law enforcement'' has therefore been deleted from paragraph (e)(1) in the final rule.

In response to CAP's comments regarding the omission of any provisions permitting a private pilot to be reimbursed for maintenance costs, the proposed rule did not specifically provide for reimbursement of maintenance costs, and neither does the final rule. Any reimbursement for compensation of maintenance costs will be handled on a case-by-case basis through the exemption process. In addition, CAP commented that the rule be modified to account for agencies other than law enforcement agencies for which it operates. In Notice No. 95–11, the FAA proposed to allow pilots under the direction and control of an ''organization that conducts search and location operations'' to be reimbursed. The FAA has determined that this addresses CAP's concerns and is adopting the final rule as proposed.

In response to HAI's comment that search and location operations should remain under the exemption process, since the early 1980's the FAA has permitted private pilots to perform search and location operations, and has continually reissued those exemptions without any known problems. Provided that pilots comply with the requirements in this final rule, which are identical to the exemption's conditions and limitations, the FAA has codified those conditions and limitations in this final rule.

After further review, the FAA has decided to reinstate the provision allowing a private pilot who is an aircraft salesman and who has at least 200 hours of logged flight time to demonstrate an aircraft in flight to a prospective buyer. The FAA has concluded that these operations would not be ''incidental to business,'' and therefore is reinstating this provision into the final rule.

Section 61.115 Balloon rating: Limitations.

Proposed § 61.115 includes the provisions of existing § 61.119. Also, the provisions of existing § 61.115 were included in proposed § 61.109.

The proposed changes to this section were the classification of balloons as either ''gas balloons'' or ''balloons with airborne heaters,'' and the deletion of references to the terms ''hot air balloon without airborne heater'' and ''free balloon.'' The proposed rule also incorporated the existing operating limitations for a private pilot who performs his or her practical test in a gas balloon as opposed to those who perform the test in a balloon with an airborne heater. The language of the operating limitations specified in this section clarified that a person requesting removal of the current operating limitations from his or her certificate would be required to obtain the required aeronautical experience in the specific type of balloon and receive a logbook endorsement from an instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate that balloon.

No substantive comments were received, and the FAA has incorporated this section into the final rule with only minor editorial changes.

Section 61.117 Private pilot privileges and limitations: Second in command of aircraft requiring more than one pilot.

Proposed § 61.117 includes the provisions of existing § 61.120. No substantive comments were received, and the FAA has adopted this section as proposed.

Subpart F—Commercial Pilots

The proposal to establish separate subparts for student pilot certificates and recreational pilot certificates required the regulations for commercial pilot certificates and ratings to be relocated from subpart E in the existing rule to subpart F in the proposed rule.

Section 61.121 Applicability.

The FAA did not propose any substantive changes for this section, nor were any substantive comments received. The FAA has adopted this section as proposed.

Section 61.123 Eligibility requirements: General.

In Notice No. 95–11, the FAA proposed to revise this section and include new eligibility requirements for commercial pilot applicants.

In proposed paragraph (b), the FAA added a requirement that an applicant be able to write in the English language. In addition, applicants would have been required to meet the English language requirements, eliminating the existing provision under which an applicant who cannot read, speak, and understand the English language may receive a certificate with an operating limitation, as deemed necessary by the Administrator.

In proposed paragraph (c), the FAA proposed that an applicant only hold a third-class medical certificate at the time of the practical test. However, as in the existing rule, a commercial pilot was still required to hold a second-class medical certificate for operations requiring a commercial pilot certificate. Also in the proposed paragraph, the existing medical requirements for applicants who desired a rating in a glider or a balloon were revised.

The FAA proposed in paragraph (d) to require an applicant to specifically receive an endorsement from the ground or flight instructor who gave the applicant training or reviewed the applicant's home-study course, stating that the applicant is prepared for the knowledge test.

Proposed paragraph (i) required an applicant to hold a private pilot certificate, before applying for a commercial pilot certificate.

Comments: AOPA objects to the proposal in § 61.123(i) to require commercial pilot applicants to hold a private pilot certificate as a prerequisite for taking the commercial pilot practical examination for all classes and categories of aircraft. AOPA believes that the requirements for the commercial certificate stand alone as adequate preparation for any applicant for the commercial certificate regardless of whether or not they have ever held another certificate. NAFI supports the proposed requirement for commercial applicants to possess a private pilot certificate. According to the commenter, the time and experience acquired in preparation for the private is necessary for pilots to learn their personal

limitations. An individual commenter states that an instrument rating should be listed in the commercial pilot applicant eligibility requirements of § 61.123.

FAA Response: For reasons discussed in section IV,G, the final rule inserts language restoring the option for the Administrator to place an operating limitation on an applicant's pilot certificate, waiving the applicant's English language requirements based on medical reasons. As discussed in the analysis of § 61.23, the rule has placed all medical requirements into that section.

In response to AOPA's comment, the existing rule requires that persons seeking a commercial certificate in airplanes must either hold a private pilot certificate or meet the requirements for holding a private pilot certificate. A commercial pilot applicant is therefore required to have completed the ground and flight training for a private pilot certificate, and have passed the required knowledge and practical tests before making an application for a commercial pilot certificate. Private pilot applicants are tested on a number of tasks that commercial pilot applicants are not tested on. The FAA wants to ensure that all commercial pilots possess the aeronautical knowledge and flight proficiency that must be mastered by all private pilots. The FAA has determined that the requirement will not be an additional regulatory burden or economic burden because experience has shown that nearly all persons seeking commercial pilot certificates already possess at least a private pilot certificate. In the final rule, other minor editorial and formatting changes to the proposed rule were also made. Except for these changes, the final rule is adopted as proposed.

Section 61.125 Aeronautical knowledge.

The FAA proposed to establish aeronautical knowledge requirements that are applicable to applicants for all commercial pilot certificates.

In proposed paragraph (b), the FAA modified the aeronautical knowledge requirements to include training on additional subjects such as windshear avoidance, and aeronautical decision making and judgment.

Comments: GAMA supports the addition of windshear recognition and avoidance, aeronautical decision making, and night and high-altitude operations to the commercial pilot aeronautical knowledge requirements. GAMA believes that the statement ''including recognition and avoidance of wake turbulence'' was unintentionally omitted and should be included in § 61.125(b)(5). AOPA favors the concept of teaching aeronautical decision making and judgment as part of commercial pilot training, but it cannot accept the proposed requirement without a definition of what must be taught and to what standards. AOPA encourages the FAA to elaborate on the specific nature of this training in the preamble to the final rule.

FAA Response: In response to GAMA's concern regarding the exclusion of training in wake turbulence recognition and avoidance, the FAA notes that this training is required to be provided to all private pilots as specified in § 61.105(b)(7). The rule also requires that all applicants for a commercial pilot certificate possess a private pilot certificate, thereby ensuring that such training has been received. Regarding AOPA's concern on the need for guidance material regarding aeronautical decision making, the FAA points out that AC 60-22, ''Aeronautical Decision Making,'' contains such guidance.

Section 61.127 Flight proficiency.

In Notice No. 95–11, the FAA separated and revised areas of operation the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, rotorcraft gyroplane rating, glider nonpowered rating, glider category powered rating, lighter-than-air airship rating, lighter-than-air balloon rating, and powered-lift rating.

The proposal specifically required an applicant for a glider category rating to receive training on launches, approaches, and landings if applying for a nonpowered class rating, in proposed paragraph (g); and takeoffs, landings, and go-arounds if applying for a powered class rating, in proposed paragraph (h). No substantive comments in opposition to this proposal were received.

FAA Response: In the final rule, the proposed ''ground reference maneuvers'' were deleted from the areas of operation for the gyroplane rating, because it is not a task that is required to be tested in gyroplanes and was inadvertently included in the proposal. As a result of the FAA's decision not to adopt flight instructor certificates for the lighter-than-air category, as discussed in section IV, C, the areas of operation associated with flight instruction have been added to the required areas of operation for airship and balloon ratings. The FAA also is not adopting separate flight proficiency requirements for powered and nonpowered gliders. This issue is discussed in section IV,F. Apart from these and minor editing changes, the final rule is adopted as proposed.

Section 61.129 Aeronautical experience.

In Notice No. 95–11, the FAA proposed to consolidate all aeronautical experience requirements for commercial pilots in § 61.129. The FAA therefore proposed to change the title of the existing § 61.129 to ''Aeronautical experience.'' Within proposed § 61.129, the FAA organized these requirements by category and class of aircraft.

Proposed paragraphs (a) through (g) listed revised and separate aeronautical experience requirements for the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, rotorcraft gyroplane rating, glider powered rating, glider nonpowered rating, lighter-than-air airship rating, lighter-than-air balloon rating, and powered-lift rating.

The FAA proposed specific revisions to the aeronautical experience requirements for commercial pilots by establishing more flexible training requirements for commercial pilot applicants and by integrating the concept of supervised pilot in command into the proposed aeronautical experience requirements. The proposal decreased the amount of dual instruction time an applicant would be required to possess prior to obtaining a certificate.

The proposal also established aeronautical experience requirements for a powered-lift rating. The minimum number of total hours required to obtain a commercial pilot certificate remained unchanged.

Within the category-and class-specific paragraphs, where applicable, the FAA revised the existing solo requirements, dual training time requirements, dual cross-country requirements, night flight requirements, and instrument training time requirements, specifying that these requirements actually should be performed in the appropriate category and class of aircraft. Also, two new dual cross-country requirements were added: one for day VFR and one for night VFR flight. For airplanes, the FAA specified that the complex airplane requirements must be class-specific, although a provision was added permitting the use of a turbine-powered airplane in lieu of an airplane that has retractable landing gear, flaps, and a controllable pitch propeller.

Comments: GAMA supports requiring applicants for commercial pilot certificates to have training and demonstrate proficiency in the same category and class of aircraft for which a rating is sought. According to GAMA,

pilots who want to exercise commercial privileges in these types of aircraft will need to undergo this training, so any additional cost is minimal and the margin of safety would be improved.

NATA opposes the requirement in proposed § 61.129 (a)(3)(ii) and (b)(3)(ii) that 10 hours of complex training be class specific in a single-engine airplane and/or a multiengine airplane. NATA believes that due to the high cost of training in complex aircraft, the class-specific requirement greatly increases the financial burden on students without additional training benefits. The commenter specifically states that the prior option available to students of using multiengine time to satisfy single-engine complex time requirements, would be eliminated without justification. The commenter contends that neither aircraft training time nor cross-country time requirements should be class specific.

In its comment, HAI objects to the requirements in proposed § 61.129(a)(4), (b)(4), and (c)(4) for supervised pilot in command on the approved areas of operation listed in § 61.127. The commenter contends that the proposal would require the performance of emergency maneuvers that should not be performed without an instructor. HAI also questions the 5 hours of night supervised pilot in command required in proposed § 61.129(a)(4)(iii), (b)(4)(iii), and (c)(4)(ii). The commenter questions whether it is wise to have private or nonrated pilots flying at night without an instructor. With regard to the commercial helicopter rating, HAI recommends removing proposed §§ 61.129(c)(3)(iii) and 61.129(c)(4)(ii), and combining these sections into a new paragraph (5) that would require 5 hours of flight time in night VFR conditions, which would include: one cross-country flight in a helicopter of at least 2-hours duration and a total straight line distance of more than 50 nautical miles from the original point of departure; and 10 solo takeoffs and landings, each involving an en route phase of flight. Most helicopters are not equipped for instrument flight, and HAI contends that its recommended change will prevent the safety hazard of low-time helicopter pilots and students flying helicopters away from an airport at night without an instructor on board the aircraft.

HAI also addresses the proposed instrument training requirements for helicopters in § 61.129(c)(3)(i). The commenter states that, while the need for instrument training in a helicopter is necessary, the availability of helicopter CFIs is very limited. HAI therefore suggests expanding the types of flight instructors who can provide the required instrument training. The commenter states that most helicopter instructors are not instrument instructors or even instrument rated, and, therefore, a transition period will be necessary to train instructors to give this instruction. In addition, HAI recommends deleting the instrument training requirement for gyroplanes in proposed § 61.129(d)(3)(1) on the grounds that there are no instrument-equipped gyroplanes at this time.

AOPA also references HAI's comments regarding rotorcraft commercial pilot certification, and expresses similar concerns with respect to the instrument requirements for the commercial airship rating. AOPA reiterates concerns similar to those raised in its comments regarding the requirements for supervised pilot in command training for private pilots with multiengine ratings.

Many individual commenters echoed AOPA's concerns regarding supervised pilot in command training for pilots seeking multiengine ratings. These commenters express concerns regarding the safety and ability to obtain insurance coverage for such flights. One commenter states that the proposal contains requirements for training that are not appropriate to the category and class of aircraft specified. Some individual commenters also state that the instrument training in proposed § 61.129(c)(3)(i) should not be required because many helicopters are not equipped for instrument flight. For example, a commenter notes that proposed § 61.129(d)(3) would require 5 hours of instrument training for the gyroplane rating, and a 2-hour cross-country flight. But the commenter states that there are no gyroplanes equipped for IFR flight, and there are no gyroplane instrument ratings or instrument instructors. The commenter states that the only two certified gyroplanes used for training, the McCullock J2 and Air & Space 18A, are not capable of a 2-hour flight with reserves. The individual commenter also takes issue with the proposed requirement under § 61.129(d)(3) for 20 hours of training in the areas of operation under § 61.127(e), stating there is no reason to increase the required training hours, especially given that private pilot requirements would be reduced.

SSA opposes proposed § 61.129(f) and suggests different requirements for a commercial certificate with a glider rating.

Several individual commenters opposed proposed § 61.129(a) requirements because they believed that the option of obtaining a commercial pilot certificate without an instrument rating was being eliminated.

FAA Response: The FAA has retained the requirements for class-specific training, however the final rule is revised to permit certain requirements such as the solo flight requirements for the multiengine airplane rating, to be met in any class of aircraft within an aircraft category. In response to HAI's comment regarding the performance of emergency maneuvers without an instructor on board the aircraft, the FAA notes that other training maneuvers such as stalls and slow flight, that are routinely performed in solo flight by pilot applicants may, when improperly performed, result in situations that adversely affect the safety of a flight. The FAA contends that these maneuvers when properly performed pose no adverse risk to the safety of the flight. Flight instructors should ensure that emergency maneuvers, like other maneuvers, only be performed in solo flight after an instructor determines that such maneuvers may be safely performed by the applicant, and under any restrictions that may be established by the instructor to ensure the safety of the flight.

The FAA acknowledges AOPA's argument that solo time in multiengine airplanes may be impractical due to liability and insurance concerns, and is therefore replacing the term ''supervised pilot in command flying'' with ''flight time performing the duties of pilot in command with an authorized instructor'' for multiengine airplanes. The FAA has therefore deleted any requirement for solo flight time in a multiengine aircraft.

In response to the concerns of HAI and others regarding the hazards of increased night training, the FAA reiterates its view that safety will be enhanced because it increased night training requirements, which will reduce the likelihood of pilots later being placed in circumstances where they may be required to engage in flight at night without appropriate experience.

The FAA concurs with the comments of HAI and others that instrument training may be impractical in helicopters and gyroplanes and has accordingly removed category and class-specific references to the instrument training requirements in § 61.129 for helicopters and gyroplanes. Similarly, in response to AOPA and other commenters, the FAA has modified the instrument requirements for airships.

Upon reviewing SSA's comments, and as a result of the FAA's decision not to adopt the proposed separation of the glider category into powered and

nonpowered classes in the final rule, as discussed in section IV,F, the requirements for gliders are clarified and consolidated under one paragraph.

The FAA has also included provisions set forth in Amendment No. 61–100, which permit credit to be given for the use of an approved flight simulator or approved flight training device. The FAA notes that Amendment No. 61–100 inadvertently omitted the requirement for an applicant for a commercial pilot certificate with an airplane rating to log at least 100 hours of flight time in powered aircraft, at least 50 hours of which must be in airplanes. This requirement has been reinstated in this final rule.

In addition, the FAA has added language to the existing solo cross-country requirements to ensure pilots meet minimum standards specified under Annex 1 to the Convention on International Civil Aviation. The additional language requires that an applicant for a commercial pilot certificate complete a solo cross-country flight of a total of not less than 300 nautical miles. The existing rule states that a cross-country flight must have landings at a minimum of three points, one of which is at least a straight line distance of 250 nautical miles from the original point of departure. All commercial pilot applicants with a private pilot certificate currently meet the total 300-nautical-mile requirement; however, private pilots certificated after the effective date of this rule will not, due to the decrease in the solo cross-country flight requirements for private pilots set forth in this rule. The FAA wants to ensure that the requirements under Annex 1 to the Convention on International Civil Aviation are specifically met, to facilitate the acceptance of U.S. pilot certificates internationally.

Additionally, because the FAA has withdrawn the proposal to establish a separate airship instrument rating, the FAA is reinstating the instrument aeronautical experience requirements found in existing § 61.135(c) into paragraph (g)(3) of the final rule. An applicant seeking a commercial pilot certificate with an airship rating must have 40 hours of instrument time, of which at least 20 hours must be in flight, with 10 hours of that flight time in airships.

Section 61.131 Exceptions to the night-flying requirements for the commercial pilot certificate.

Proposed § 61.131 deleted the exception for applicants who are not seeking night flying privileges. However, an applicant with a medical restriction prohibiting the operation of an aircraft at night would not have been required to meet the night flight training requirements and be issued a certificate with a limitation prohibiting night flying. In addition, an applicant who accomplished flight training in Alaska would have had 12 months after the issuance of a temporary airman certificate to comply with the night flight training requirements.

The provisions of prior § 61.131 ''Rotorcraft ratings: Aeronautical experience'' were moved to § 61.129.

Comments: AOPA is concerned about the special provisions regarding Alaskan airmen who hold temporary certificates with the limitation ''night flying prohibited.'' AOPA opposes the wording of § 61.131(b)(2), which would suspend an airman's certificate if the pilot does not complete the night training requirements within 12 calendar months. AOPA states that the FAA certificates numerous pilots each year with permanent night flight restrictions, and there is no reason why Alaskan airmen should be singled out for suspension of their certificates simply because they fail to remove their night flight restrictions.

FAA Response: AOPA's objection is noted and addressed in the FAA's response to AOPA's comment in § 61.110. As in that section, the FAA has eliminated the reference to a 12-month temporary certificate from § 61.131 in the final rule, because current FAA temporary certificates are valid for 120 days. In addition, by deleting the exception for pilots who have night flying restrictions due to medical conditions, these pilots will now be required to have 3 hours of night flight training. However, the certificates of such pilots will be issued with an operating limitation prohibiting night flying. The FAA has determined that safety will be enhanced because this requirement will reduce the likelihood of pilots later being placed in circumstances where they may be required to engage in flight at night without appropriate night training.

Section 61.133 Commercial pilot privileges and limitations: General.

The FAA proposed to clarify the privileges for persons who hold a commercial pilot certificate with respect to the exercise of certificate privileges for compensation or hire issue. In Notice No. 95–11, the FAA proposed to add the limitation that was in existing § 61.129 to proposed § 61.133(b), which prohibits commercial pilots with an airplane category rating, but without an instrument airplane rating, from carrying passengers for hire in airplanes on cross-country flights of more than 50 nautical miles or at night. The same limitation was proposed for commercial pilots with a powered-lift category rating, without an instrument powered-lift rating; and a lighter-than-air category and airship class rating, without an instrument airship rating. The FAA also proposed to revise the language ''hot air balloon with airborne heaters'' in existing § 61.139, to ''gas balloons'' and ''balloons with airborne heaters.'' The proposal also revised the language for the operating limitations that restrict the pilot privileges to the type of balloon in which the person accomplishes the practical test.

The FAA also eliminated from § 61.133(c) the privilege in existing § 61.139 for commercial pilots with a lighter-than-air category and associated class rating to give training in an airship or free balloon, because of the proposed flight instructor certificate for the lighter-than-air category.

Comments: AOPA supports the clarification of the language in this paragraph.

FAA response: Paragraph (a) is adopted as proposed with a minor editorial change. As discussed in section IV,D, the FAA has withdrawn the proposal for an instrument airship rating and, consequently, the language relating to this rating was withdrawn from paragraph (b). As discussed in section IV,C, the FAA has decided to withdraw the proposed flight instructor certificate and allow, in paragraph (c), commercial pilots with a lighter-than-air category and associated class rating to give training in an airship or free balloon. Except for the changes previously discussed, as well as format and editorial changes, this section is being adopted as proposed.

Subpart G—Airline Transport Pilots

Section 61.151 Applicability

In Notice No. 95–11, the FAA proposed to establish a section in subpart G specifying the applicability of the subpart. No substantive comments were received on this section, and it is adopted as proposed.

Section 61.153 Eligibility requirements: General

In § 61.153, the FAA proposed that an applicant for any ATP certificate hold a commercial pilot certificate with an instrument rating that is appropriate to the category and class of aircraft for the rating sought. The FAA also proposed to delete the current provision that allows an applicant to be concurrently enrolled in an instrument rating course upon application for the certificate. The

minimum age requirement of 23 years to take the practical test, but not to take the knowledge test, was retained. The FAA also proposed to permit an applicant for an ATP certificate to hold only a third-class medical certificate, while the first-class medical certificate would continue to be required to exercise the privileges of the certificate. In addition, the proposal eliminated the existing requirement for an applicant to be able to ''speak [the English language] without accent or impediment of speech that would interfere with two-way radio conversation.'' However, applicants were required in the proposed rule to read, speak, write, and understand the English language to be eligible to apply for the ATP certificate. The proposal eliminated the requirement that an applicant be a ''high school graduate or its equivalent in the Administrator's opinion, based on the applicant's general experience and aeronautical experience, knowledge, and skill.'' In keeping with procedures for other knowledge tests, proposed § 61.153 permitted applicants to take the ATP knowledge test before obtaining the aeronautical experience necessary for the issuance of an ATP certificate. The proposed rule also included requirements found in existing § 61.155 for applicants who are military pilots, and applicants who hold a pilot license issued by a member State of ICAO.

Comments: ALPA and NATA oppose the deletion of the requirement for ATP certificate applicants to have at least a high school diploma. NATA states that the current requirement is necessary for full comprehension of aircraft information, and it can be used to encourage children who aspire to aviation careers to remain in school. ALPA comments that the complexity of modern air transport increases the need for a strong academic background. A few individual commenters also opposed deletion of this requirement.

AOPA supports elimination of the requirement that an applicant for an ATP knowledge test must have 1,500 hours of flight time and possess a valid first-class medical certificate. GAMA also supports the provision that permits an applicant to hold only a third-class medical certificate when that person applies for an ATP certificate, because it allows flexibility and encourages training without decreasing safety.

HAI opposes proposed § 61.153(e)(1) requiring an applicant for an ATP certificate to hold at least a commercial pilot certificate and an instrument rating. The commenter contends that it is a burden to require applicants, including foreign pilots entering an ATP program to upgrade their certificates, to go through the paperwork to obtain a commercial certificate with an instrument rating if at the end of ATP training the applicants will have exceeded those requirements. HAI proposes that the rule only require an applicant to ''meet'' these requirements instead of ''holding'' the commercial certificate and instrument rating.

Some individual commenters also objected to the elimination of the high school diploma requirement for an ATP applicant. Another commenter endorses the proposed changes under § 61.153.

FAA Response: In response to comments regarding the proposed English language requirements the provisions regarding English language proficiency have been standardized throughout part 61, as discussed in section IV,G. The stated requirement for an applicant for an ATP certificate to possess only a third-class medical certificate has also been placed in § 61.23 as have similar requirements for other pilot certificates. A first class medical certificate however is still required to exercise the privileges of the ATP certificate. The FAA also contends that all ATP applicants should possess the knowledge, skill, and experience required of a holder of a commercial pilot certificate with an instrument rating. This level of initial proficiency in an ATP applicant can only be ensured by requiring an applicant to meet the objective evaluation criteria for the issuance of the commercial pilot certificate with an instrument rating. Regarding ALPA's and NATA's comments on the elimination in this section of the requirement for a high school diploma, the FAA's experience is that ATP certificate applicants typically achieve a higher level of education, which makes the existing requirement obsolete.

Section 61.155 Aeronautical knowledge.

Proposed § 61.155 combined the existing aeronautical knowledge requirements of applicants for airplane and rotorcraft ratings, and updated the list of items of required aeronautical knowledge for ATP applicants. These requirements would also apply to the powered-lift rating. Proposed revisions included deleting references to air navigation facilities on Federal airways, such as rotating beacons, course lights, and radio ranges, and adding requirements such as physiological factors, aeronautical decision making and judgment, windshear, and resource management. The proposal also clarified that an applicant for a type rating would not be required to take an additional knowledge test, if the applicant already held an ATP certificate with the appropriate category rating.

Comments: GAMA supports the inclusion of windshear and microburst awareness, identification and avoidance, flight crewmember physiological factors, aeronautical decision making, and flight deck resource management in the aeronautical knowledge requirements for ATP applicants. GAMA believes that the statement ''including recognition and avoidance of wake turbulence'' was unintentionally omitted and should be included in § 61.155.

AOPA cannot support the proposed requirement for aeronautical decision making and judgment training until such time as the material and standards for this training are disclosed. AOPA believes that consideration should have been given to training in air traffic delays because ATPs are the pilots most likely to need this type of training.

Approximately 40 comments address the general issue of requiring training in human factors, with more than half in opposition. One individual commenter calls the proposal ''needless;'' another states that while such training is worthwhile, it is not a regulatory issue. ALPA, AsMA, and SSA support human factors training for all levels of pilot certification. ALPA recommends adding ''pilot fatigue,'' including both its causes and impact on operations, to the training curriculum. ALPA states that the FAA should provide pilots and instructors with specific guidance and references for study. SSA notes that crew resource management applies even to single-place aircraft by emphasizing the importance of an organized cockpit. According to SSA, the soaring community recognizes that hypoxia, hypothermia, and other conditions affect the pilot, and training on the use of oxygen is addressed in areas where flights above 10,000 feet may be conducted regularly. SSA states that additional regulation in this area is not required.

FAA Response: The FAA purposely deleted the recognition and avoidance of wake turbulence as an aeronautical knowledge area for the ATP certificate. This training was deleted because it is provided at lower certificate levels (student and private) and requiring it in § 61.155 would be duplicative of these requirements. The FAA, through this regulatory review, has made an effort to eliminate repetitive requirements, and conform with the ''step-by-step building block'' concept of pilot certification. Also, the FAA has replaced the term ''flight crewmember physiological factors'' with ''human factors'' because the latter term encompasses the former,

and is more commonly recognized and understood in the aviation community. As stated in the FAA's previous discussion of this issue, the FAA believes that training in human factors and aeronautical decision making may decrease the number of accidents attributable to pilot error, because the implementation of similar training in air carrier operations has decreased accident rates. This is further discussed in section IV,H. In response to ALPA's comment, the FAA provides pilots and instructors with guidance materials regarding human factors and aeronautical decision making in: AC 67–2, ''Medical Handbook for Pilots''; AC 61–107, ''Operations of Aircraft at Altitudes Above 25,000 feet MSL and/or MACH numbers (Mmo) Greater Than .75''; and in the Airline Transport Pilot, Aircraft Dispatcher, and Flight Navigator Knowledge Test Guide.

Section 61.157 Flight proficiency.

Proposed § 61.157 established the flight proficiency requirements for applicants for airplane and rotorcraft ratings, and included separate and revised areas of operation for the airplane single-engine rating, airplane multiengine rating, rotorcraft helicopter rating, and the proposed powered-lift rating. The proposed rule also included specific approved areas of operation for each rating. In addition, the proposed rule clarified that the type ratings on a superseded pilot certificate would be elevated to the ATP certificate level, for the category and class of aircraft in which a pilot satisfactorily accomplished the ATP practical test.

No substantive comments to this section were received. This section has been adopted as proposed and modified to include the provisions of §§ 61.153 and 61.158, which pertain to the use of approved flight simulators or approved flight training devices to obtain an airplane or helicopter rating. The changes were set forth in Amendment No. 61–100. The proposal has also been modified to include the provisions for the use of approved flight simulators or approved flight training devices to obtain a rating in a powered-lift. This section also has been revised to include appropriate limitations for appropriate tests not taken under instrument flight rules.

The FAA notes that Amendment No. 61–100 permits a proficiency check conducted under § 121.441 or checks conducted under §§ 135.293 and 135.297 to satisfy the requirements of § 61.157. This final rule specifies that these checks must include all maneuvers and procedures required for the issuance of a type rating, and that any check must be evaluated by a designated examiner or FAA inspector.

Section 61.159 Aeronautical experience: Airplane category rating.

The FAA proposed that § 61.159 include the prior aeronautical experience requirements for an airplane category rating with no substantive changes.

Comments: AOPA states that although this section was not changed in Notice No. 95–11, proposed § 61.159(a)(3), which is based on an existing § 61.155(a)(3), is the source of considerable misinterpretation by airmen and FAA personnel, and should be clarified. The problem lies in the use of the phrase ''in actual flight,'' which has been interpreted incorrectly to mean that the hours must be flown in actual IMC. AOPA requests that the rule be changed to reflect the ''correct and documented interpretation'' that an applicant for an ATP must have 75 hours of instrument time in actual or simulated IMC, 25 hours of which may have been obtained in a simulator or flight training device. AOPA also objects to proposed § 61.159(c) because there is no provision for crediting second in command time such as safety pilot time. AOPA states that the FAA sought to rectify this situation in Amendment 61–71, which ''clearly states that all second in command time that meets the requirements of the current § 61.153(c) may be credited toward the ATP aeronautical experience requirements.''

FAA Response: The FAA agrees with AOPA's arguments regarding the confusion produced by the phrase ''in actual flight'' and has deleted the word ''actual.'' An incorrect reference to part 119 certificate holders was also eliminated. The FAA also agrees with AOPA's comment regarding safety pilots logging second in command time, and has added § 61.159(c)(1)(iii), which permits a safety pilot to credit second in command time toward the total flight time requirements for an ATP certificate. In addition, the provisions of proposed § 61.167(b) and (c) were placed in § 61.159(d) and (e) in the final rule. Provisions for the use of approved flight simulators and approved flight training devices were also included as set forth in the final rule, Amendment No. 61–100.

Section 61.161 Aeronautical experience: Rotorcraft category and helicopter class rating.

Proposed § 61.161 sets forth the aeronautical experience requirements for an applicant seeking an ATP certificate with a rotorcraft helicopter rating. It includes the aeronautical experience requirements for a rotorcraft category rating. No substantive comments were received. The section is being adopted as proposed, and was modified only to include provisions for the use of approved flight simulators and approved flight training devices.

Section 61.163 Aeronautical experience: Powered-lift category rating.

Proposed § 61.163 sets forth the aeronautical experience requirements for an ATP certificate with a powered-lift category rating. Existing § 61.161, ''Rotorcraft rating: Aeronautical skill,'' was eliminated, and its existing provisions were covered in proposed § 61.153.

Comments: AOPA and NAFI object to the proposed section because of their objection to the FAA's decision to establish a powered-lift category rating.

FAA Response: The FAA responded to objections against the establishment of the proposed powered-lift category rating in section IV,F. In the final rule, the FAA removed the reference to ''actual'' flight and changed the section to include provisions for the use of approved flight simulators and approved flight training devices.

Section 61.165 Additional aircraft category and class ratings.

Proposed § 61.165 contained the provisions of existing § 61.165, ''Additional category ratings,'' and included provisions for a powered-lift category rating.

Comments: AOPA and NAFI object to the proposed section because of their objection to the FAA's decision to establish a powered-lift category rating.

FAA Response: The FAA responded to objections against the establishment of the proposed powered-lift category rating in section IV,F. The FAA adopted this section as proposed, with minor editorial changes.

Section 61.167 Privileges.

Proposed § 61.167 contained the provisions of existing § 61.171. Proposed § 61.167(b) also contained the limitations found in existing § 61.155(d). Those limitations applied to applicants who credit second in command or flight engineer time in meeting the total time requirement for an ATP certificate. No substantive comments were received to this section, therefore, the FAA is implementing the proposed changes. However, the provisions of § 61.167(b) and (c) in the proposed rule were moved to § 61.159(d) and (e) in the final rule, and the title of the section was changed from ''General privileges and limitations'' to ''Privileges'' because there are no

limitations in this paragraph. After further review, the FAA has decided to restate the privileges in existing § 61.169 in order to clarify that an ATP can continue to provide instruction in air transportation service and to include provisions for providing instruction in approved flight simulators and approved flight training devices. Other clarifying and terminology changes were also made to this section.

Subpart H—Flight Instructors

Section 61.181 Applicability.

No substantive changes were proposed for this section, and it is adopted as proposed.

Section 61.183 Eligibility requirements.

In proposed § 61.183, the FAA revised the existing eligibility requirements for flight instructors. In paragraph (b), the FAA proposed that an applicant be able to speak and understand the English language. The existing rule requires an applicant to converse fluently.

In proposed paragraph (c), the FAA added requirements for an applicant for a flight instructor certificate with a helicopter, airship, or powered-lift rating to hold an instrument rating. This was in addition to the existing requirement, which only specified that an applicant for a flight instructor certificate with an airplane or instrument rating hold an instrument rating on his or her pilot certificate.

Proposed paragraphs (d) through (g) revised existing requirements, specifying that an applicant would be required to receive from the ground instructor or flight instructor who gave the applicant training or reviewed the applicant's home-study course, an endorsement that states the applicant is prepared for the knowledge test, and receive from the flight instructor who gave the applicant training, an endorsement that states the applicant is prepared for the practical test.

Proposed paragraph (j) required applicants to have logged at least 15 hours of pilot-in-command time in the category and class of aircraft that is appropriate to the flight instructor rating sought. The existing requirement only applies to flight instructors seeking an additional rating.

Comments: AOPA and NAFI object to proposed § 61.183(c)(2)(iii) and (c)(2)(iv) requirements for flight instructors with helicopter ratings or airship ratings to have an instrument rating, because there is no safety problem under the current system, and because most operations in these aircraft are conducted under VFR. HAI expresses the same opposition with respect to helicopters, and adds that the shortage of helicopters equipped for instrument training would make the requirement burdensome. If the proposal were implemented, HAI recommends a 2-year transition period during which a CFI could continue to teach.

With respect to proposed paragraph (j), SSA supports the requirement that a pilot must log at least 15 hours of pilot-in-command time in the category and class of aircraft prior to receiving an initial flight instructor certificate, but feels it is an excessive requirement in the case of additional ratings. The commenter states that while the economic impact of the 15-hour requirement for an initial instructor rating is minimal, the impact would be significant for additional ratings. SSA proposes a minimum of 20 hours pilot in command flight time and 5 hours in category for an instructor seeking to add a glider rating to a flight instructor certificate.

FAA Response: The FAA concurs with the views of AOPA, HAI, and NAFI that requiring an applicant for a flight instructor certificate with a helicopter possess an instrument rating is unnecessary and burdensome. The FAA is therefore deleting this proposed requirement from the final rule. As the FAA has decided not to establish a flight instructor rating for airships, the proposed requirement that an applicant for a flight instructor rating for an airship possess an instrument rating has also been withdrawn. However, the FAA has decided that the proposal remains valid for powered-lift and instrument ratings. In response to SSA's comment regarding 15 hours of pilot in command experience in category and class for an additional flight instructor rating, the FAA notes that this is an existing requirement as found in § 61.191(b). Additionally, the FAA revised the rule to permit an applicant to forego taking the knowledge test specified in § 61.185(a) if certain equivalent conditions are met by the applicant. The FAA did not propose to change this requirement. Except for these changes and other editorial changes to include the use of approved flight simulators and approved flight training devices, the final rule is adopted as proposed.

Section 61.185 Aeronautical knowledge.

In Notice No. 95–11, the FAA proposed to add the requirement for flight instructor applicants to receive and log ground training on the aeronautical knowledge areas in which ground training is required for a recreational pilot certificate. This was an addition to the existing requirement for a flight instructor applicant to log instruction on the aeronautical knowledge areas relating to the private and commercial pilot certificates.

Proposed paragraph (b)(2) required a flight instructor applicant to receive and log ground training on the aeronautical knowledge areas in which ground training is required for an instrument rating, if that person is applying for a flight instructor certificate in the following categories and classes of aircraft: airplane single-engine, airplane multiengine, airship, powered-lift, or any instrument flight instructor rating.

Comments: NAFI approves of proposed § 61.185(a) requiring a logbook entry for aeronautical knowledge training, but the association feels strongly that this requirement should be waived for certificated teachers. No other substantive comments were received.

FAA Response: The FAA agrees with NAFI's comment and has incorporated language in this section that excepts certain individuals, including certificated teachers, from meeting the requirements of paragraph (a) of this section. Additionally, minor editorial changes have been made to the final rule.

Section 61.187 Flight proficiency.

The FAA proposed to move to § 61.195 the existing requirement within this section addressing the minimum experience requirements for a flight instructor who can train first-time flight instructor candidates.

In Notice No. 95–11, the FAA proposed paragraphs to list those specific areas of operation in which an applicant must receive and log flight instruction or ground instruction prior to taking any practical test for a flight instructor rating. The specific areas of operation are listed for flight instructors with ratings in the following categories and classes of aircraft: airplane single-engine, airplane multiengine, rotorcraft helicopter, rotorcraft gyroplane, powered glider, nonpowered glider, airship, balloon, and powered-lift.

Comments: Substantive comments objected only to the creation of proposed new categories, classes, and/or ratings.

FAA Response: As discussed in section IV,H, the FAA replaced existing flight proficiency requirements for certificates and ratings with general areas of operation. As discussed in section IV,F, the FAA has decided not to adopt the proposal for separate powered and nonpowered glider class ratings, and therefore the final rule

consolidates proposed glider areas of operation within one category. As discussed in section IV,C, the final rule does not adopt the proposal for flight instructor certificates in the lighter-than-air category, therefore, the associated areas of operation have been deleted. Except for these changes, and other editorial changes to include the use of approved flight simulators and approved flight training devices, the final rule is adopted as proposed.

Section 61.189 Flight instructor records.

In Notice No. 95–11, the FAA proposed that a flight instructor must use and retain a syllabus to train all students.

Comments: AOPA opposes the requirement in proposed § 61.189(a) that an instructor must sign the logbook of each person to whom ground training is given. According to AOPA, the proposal would require an instructor giving a presentation to an audience of hundreds to give an endorsement to all attendees. AOPA further opposes the requirement in § 61.189(b)(2) that a flight instructor must maintain a record of the results of each practical test or knowledge test for which an endorsement was provided. It is AOPA's position that it is not an instructor's responsibility to keep track of a student's test results, especially for instructors in weekend ground schools and seminars. The commenter opposes the proposed requirement in § 61.189(b)(3) that a copy of each syllabus used for training be retained, and AOPA asks if this refers to the course syllabus or to each syllabus used for individual students. In addition, AOPA objects to the proposed § 61.189(b)(4) requirement that all records listed in § 61.189 be retained for 3 years. NAFI and NATA similarly object to the requirement for an instructor to keep copies of the syllabus, stating that this would be a burden on instructors and a potential source of litigation. NATA states that student responsibility could best be ensured by requiring the student to present a copy of the syllabus to the designated examiner during a practical test. Individual commenters echoed these associations' views.

FAA Response: The FAA acknowledges the concerns of AOPA regarding logbook entry requirements and the retention of test results, but points out that these are existing requirements. The FAA has withdrawn the proposal for flight instructors to follow a written syllabus; therefore, the recordkeeping requirements of this section pertaining to syllabuses have been eliminated. Apart from these and minor editorial changes, the final rule has been adopted as proposed.

Section 61.191 Additional flight instructor ratings.

No substantive changes to this section were proposed. The requirement in existing § 61.191(a) that a flight instructor applicant for an additional rating must hold a pilot certificate with ratings appropriate to the flight instructor rating sought was placed in proposed § 61.183, which pertains to eligibility requirements. The requirement in existing § 61.191(b) that a flight instructor applicant for an additional rating must have at least 15 hours of pilot-in-command time in the category and class of aircraft that is appropriate to the flight instructor certificate sought was also placed in proposed § 61.183.

Comments: As discussed in reference to proposed § 61.183, SSA opposes applying the requirement for 15 hours of pilot in command in appropriate category and class for additional flight instructor ratings. HAI objects to proposed § 61.191 because it no longer requires a flight instructor to take a knowledge test for additional flight instructor ratings. The commenter recommends retention of the existing rule, ''with a shortened knowledge test for additional category ratings.''

FAA Response: SSA's concerns are addressed in the FAA comments to proposed § 61.183. With respect to HAI's concern, the FAA points out that the knowledge test requirements are incorporated into § 61.183, and that § 61.183(f) requires a flight instructor applicant to pass a knowledge test on the aeronautical knowledge areas listed in § 61.185 (b) and (c) that are appropriate to the rating on the flight instructor certificate sought. The final rule is adopted as proposed.

Section 61.193 Flight instructor privileges.

In Notice No. 95–11, the FAA proposed revising the title of this section from ''Flight instructor authorizations'' to ''Flight instructor endorsements and authorizations.''

The proposal deleted the existing detailed listing of types of instructor endorsements. The listing was replaced by more general language, although a detailed list of the certificates and ratings for which these endorsements apply was provided.

Although no substantive comments were received, the final rule was revised from the proposed rule to eliminate redundant language. Also, the title of this section was revised to read ''Flight instructor privileges'' to more accurately reflect the requirements contained in this section.

Section 61.195 Flight instructor limitations and qualifications.

The FAA proposed revising the title of this section from ''Flight instructor limitations'' to ''Flight instructor limitations and qualifications.''

The FAA proposed to revise, in proposed paragraph (a), the prior limitation that a flight instructor may not conduct more than 8 hours of flight training in a 24-hour period. The FAA also proposed to limit a flight instructor to a total of no more than 8 hours of flight training and commercial flying in a 24-hour period.

Proposed paragraph (b)(2) clarified the current requirement that to give training in an aircraft that requires a type rating, the flight instructor must hold a type rating in that aircraft. The existing rule implied that the flight instructor is required to hold a type rating on the instructor's pilot and flight instructor certificates. The proposal specified that a flight instructor is required to hold a type rating on his or her pilot certificate and not the instructor certificate.

Proposed paragraph (c) clarified that a flight instructor who gives instrument flight training for the issuance of an instrument rating or a type rating that is not limited to VFR is required to hold the instrument rating for the category and class of aircraft for which the instrument training is being given, on the instructor's pilot certificate and flight instructor certificate.

Proposed paragraph (d) revised the existing flight instructor endorsements. The requirement for a flight instructor to endorse a student pilot's certificate and logbook for supervised pilot in command cross-country flight was clarified in paragraph (d)(1). Under this proposal, the flight instructor was required to determine that the flight could be performed within any limitations in the student's logbook that the instructor considered necessary for the safety of flight. The intent of the proposal was to ensure that the flight instructor providing the endorsement is aware of any special limitations pertaining to an individual student.

Proposed paragraphs (d)(5) and (d)(6) clarified that the flight instructor who endorses a pilot's logbook for a flight review or an instrument proficiency test must have conducted that flight review or instrument proficiency test in accordance with all applicable requirements.

Proposed paragraph (f) expanded the existing rule that requires a flight instructor to have at least 5 flight hours

of operating experience as a pilot in command in the specific make and model of multiengine airplane or helicopter, to include powered-lifts. The complexity and flight characteristics of these aircraft require that a flight instructor be proficient in the aircraft and requires that the flight instructor requirements for powered-lifts parallel those requirements for multiengine airplanes and helicopters.

The FAA proposed in paragraph (g)(1) to require a flight instructor to give all training from a control seat that meets the requirements of § 91.109. Proposed paragraph (g)(2) clarified that the aircraft in which training is given should have at least two pilot seats and be of the same category and class for which the rating is sought. The proposal required a flight instructor who trains a person who desires to fly a single-place aircraft to perform the pre-solo training in an aircraft that has two pilot seats, is of the same category and class as the single-place aircraft, and has similar flight characteristics to that of the single-place aircraft.

Proposed paragraph (h) revised the minimum experience requirements for a flight instructor who can train first-time flight instructor candidates. In the existing rule, such requirements are contained in § 61.187. The FAA added minimum ground training experience requirements for an instructor training a first-time instructor applicant, and clarified the requirement that a person not serving as an instructor in an FAA-approved course and providing flight training to a flight instructor candidate, have a minimum of 24 months of experience as a flight instructor. The FAA also proposed that, in FAA-approved courses, flight instructors who give training to applicants for an initial flight instructor certificate may, in lieu of meeting the previously discussed requirements, have a record of having endorsed at least five applicants for a pilot certificate, with at least 80 percent having passed the practical test on the first attempt; and must have given at least 400 hours of instruction in airplanes, rotorcraft, or powered-lifts; 100 hours in gliders; or 40 hours in lighter-than-air category aircraft.

In paragraph (i) of the proposal, the FAA clarified that a flight instructor may not make any self-endorsement for the furtherance of a certificate, rating, proficiency test, flight review, authorization, operating privilege, practical test, or knowledge test.

Comments: AOPA opposes proposed § 61.195(a) restricting the number of hours a flight instructor may fly in a 24-hour period to 8 hours of flight training or any combination of commercial flying and flight training. The commenter does not believe that the FAA has demonstrated a need for such a restriction. According to AOPA, flight instructors are the lowest paid aviation professionals in the industry, and they usually cannot afford to instruct on a full-time basis. AOPA fears that the restriction will force more instructors to leave the profession. HAI also objects to this proposal and recommends that a flight instructor have the same duty-time requirements as other commercial pilots. Commenting on § 61.195(c), HAI asks for clarification as to whether a CFI can give the instrument training for a private certificate or commercial certificate.

With apparent reference to proposed paragraph (f), SPA recommends additional requirements for seaplane instructors. The commenter recommends not only a minimum of 5 hours of pilot in command in category and class but, to ensure that an instructor has appropriate floatplane or flying boat experience, a minimum of 5 hours of training in the type of aircraft in which instruction will take place. SPA also states that the present system fails to limit the authority of a pilot trained in either floatplanes or flying boats ''to act immediately as pilot in command in the other class without any further training.'' An individual commenter suggests a requirement under § 61.195(f) for a flight instructor to have 5 hours experience as pilot in command in the make and model of seaplane and/or gyroplane to give instruction in that aircraft.

One individual commenter opposes the proposed paragraph (g)(1) requirement that an aircraft have dual flight controls for instruction, because this may discourage pilots who own Beechcraft Bonanzas and Barons with throwover control wheels from receiving instruction in their own aircraft. Another commenter opposes the requirement that all flight training must be given from a control seat. The commenter cites instances where this would not be necessary, such as instrument instruction with a qualified safety pilot in the right seat and the instructor in a jump seat, pilot upgrade training with a qualified pilot serving as the other crewmember, and instrument instructor training while giving an instrument student concurrent instruction.

AOPA expresses a concern regarding the requirement in proposed § 61.195(g)(2)(ii) that if supervised pilot in command flight is to be conducted in a single-place aircraft, then all pre-supervised pilot in command training must be conducted in an aircraft with two pilot seats, of the same category and class, and that has ''similar flight characteristics of the single-place aircraft.'' AOPA contends that this language is very subjective and could be a source of litigation. The association recommends deleting this requirement. On a similar issue, an individual commenter states that § 61.195(g)(2)(ii) should provide for cases in which an owner of a single-place powered glider may receive supervised pilot in command flight training in that aircraft.

AOPA and NAFI oppose the existing and proposed requirement in § 61.195(h) that a pilot be an instructor for at least 24 months before teaching an instructor applicant. These commenters state that a minimum amount of instructional experience requirement may be appropriate, but the FAA has failed to prove the need for the specified 200 hours or 24 months of experience required of a flight instructor training a first-time flight instructor applicant in an airplane, rotorcraft, or powered-lift. SSA supports the proposal's elimination of the prior phrase ''immediately preceding'' from the provisions of existing § 61.87(b), because instructors with years of experience, but who have been relatively inactive over the preceding 2 years, would still be eligible to pass that experience to a new instructor candidate. SSA states that these instructors may even be more qualified than an instructor who has only 2 years experience.

AOPA and GAMA suggested that the FAA accomplish its objectives regarding single-engine and multiengine proficiency for instrument flight instructors by means of a limitation in this proposed section, as an alternative to the proposed separation of the instrument instructor rating into single-engine and multiengine classes.

FAA Response: The objections of AOPA and HAI to the proposed flight instructor duty time limitations were reviewed. The FAA agrees, and has decided to delete the proposed wording ''or any combination of commercial flying and flight training'' in the final rule. The FAA acknowledges the objections of AOPA and NAFI to the existing and proposed 200-hour, 24-month experience requirements for instructors who train first time instructor applicants. The FAA did not propose changes to the provisions to the existing rule; therefore, AOPA and NAFI's recommendations are beyond the scope of this rulemaking.

Regarding SPA's comment to require 5 hours of experience as pilot in command in a seaplane or gyroplane for instructors providing flight training in these aircraft, the FAA did not propose

this change in Notice No. 95–11; therefore, the recommended change is beyond the scope of this rulemaking. With respect to objections to the proposed dual control requirements, the FAA points out that throwover yokes are permitted for instrument instruction. The requirement for instruction in an aircraft with dual flight controls is an existing requirement in § 91.109, and this rule merely incorporates that requirement into the provisions of this section. The FAA agrees with the commenter regarding the proposed rule's provisions that require all training to be given from a control seat. Therefore, the FAA has eliminated provisions from the rule that required a flight instructor to occupy a control seat when providing flight training. The FAA has concluded that operational requirements and accident/incident data do not establish a sufficient safety justification for this increased regulatory and economic burden. Regarding AOPA's comment on the proposal to require the use of aircraft with similar flight characteristics when providing presolo training to a pilot seeking solo flight privileges in a single-place aircraft, the FAA has determined that the proposed language is vague and has removed it in the final rule. In addition, the FAA replaced the phrase ''pilot seats'' with ''pilot stations''. The FAA made this change to accommodate balloon category aircraft, which do not have seats, and therefore make applicable all categories and classes of aircraft. In response to AOPA and GAMA, with respect to separate single-engine and multiengine flight instructor instrument ratings, the FAA has withdrawn the proposal as further discussed in section IV,D. References to all flight instructor certificates that were proposed, but not adopted, have also been deleted. Additionally, paragraph (j) was added in accordance with provisions set forth in Amendment No. 61–100. Except for these changes, and various formatting and editing changes, the final rule is adopted as proposed.

Section 61.197 Renewal of flight instructor certificates.

In Notice No. 95–11, the FAA proposed to revise the existing requirements of § 61.197 for the renewal of flight instructor certificates. The proposal clarified that a record of training students used as a method of renewal should indicate that the instructor trained at least five students, with at least 80 percent having passed a practical test on the first attempt. The FAA also proposed to permit a flight instructor to renew the certificate presenting a satisfactory record as a check pilot, chief flight instructor, check airman, or flight instructor in an operation conducted under part 121 or part 135, or a comparable position involving the regular evaluation of pilots. The existing rule does not include a provision permitting an instructor to renew the certificate by presenting a satisfactory record ''in a comparable position involving the regular evaluation of pilots,'' but rather in ''other activity involving the regular evaluation of pilots.'' The FAA also proposed that satisfactory completion of renewal requirements within 90 days of the certificate expiration date would be deemed to have been accomplished in the month of expiration.

Comments: Approximately 100 comments address the proposed modifications to the flight instructor renewal requirements. Approximately 75 percent of the commenters oppose the changes, though in some cases opposition might be based on a misunderstanding of the proposal. A number of commenters state they believe flight instructors might lose their certificates if they are insufficiently active or fail to endorse the requisite number of students for a practical test. Some comments reflect the perception that flight instructor refresher courses could be used for only two consecutive renewals. Several commenters state that experienced flight instructors may not endorse many students for practical tests, but nevertheless remain active giving flight reviews, training in tailwheel or high-altitude airplanes, and instrument competency checks. Another commenter states that flight instructor refresher courses are not sufficient for instructors to maintain competency, and the instructors should demonstrate knowledge and competency to an FAA inspector or examiner for certificate renewal.

AOPA and NAFI object to the removal of the provision that allows flight instructors to renew their certificates by demonstrating competence to the local FAA office. NAFI states that this option is generally used by CFIs in an approved instructor course without a problem. AOPA comments that it is unaware of any safety problems or administrative burdens associated with this option, which is used by full-time instructors at part 141 schools. An individual commenter notes that proposed § 61.197(b)(2) eliminates the regulation's current inclusion of pilots in command of aircraft operated under part 121, stating that all but ''check airmen'' would be deleted by the proposal's listing of air carrier-related activity that would qualify holders of flight instructor certificates for renewal without accomplishing a practical test. Another commenter advocates including activity as a flight instructor at a pilot school approved under part 141.

AOPA expresses support for proposed § 61.197(c), which states that if an instructor takes any of the steps outlined in § 61.197 within 90 days of a certificate's expiration date, then the renewal requirements are considered accomplished within the month due rather than in the month of renewal. The commenter states that the current regulation penalized an instructor for renewing a certificate early.

FAA Response: The FAA points out that completion of a flight instructor refresher clinic will continue to remain a valid renewal option under this final rule, and that its completion may be used for any number of successive renewals. In response to AOPA and NAFI's objection to the removal of provisions that allow flight instructors to renew by demonstrating competence to the local FSDO, the FAA notes that it did not remove these provisions, and that they have been included in § 61.197(a)(2). This paragraph lists what must be contained in an individual's record of instruction and establishes specific criteria upon which certificate renewal will be based. In response to the elimination of the term ''pilot in command'' from the proposed rule, the FAA notes that deletion of the term ''comparable position'' from proposed paragraph (b)(2) would continue to permit a pilot other than a ''check airman'' who is involved in the regular evaluation of pilots to renew a flight instructor certificate under that paragraph's provisions.

In paragraphs (a)(2)(iii) and (b) of the final rule, the FAA has replaced the words ''expiration date'' with ''expiration month''. The proposed change, for example, would permit a certificated flight instructor whose certificate expired on April 30, 1997, to renew that certificate if the person accomplished any one of the renewal options specified in § 61.197 as early as January 2, 1997. The renewal date for the new certificate would be April 30, 1999. This change reflects existing FAA policy. Additionally, paragraph (c) was added to permit the practical test for a flight instructor certificate or additional rating to be conducted in an approved flight simulator or approved flight training device. Except for these changes, the final rule is adopted as proposed.

Section 61.199 Expired flight instructor certificates and ratings.

No substantive changes were proposed in this section. No substantive comments were received, and except for minor editorial changes, the final rule is adopted as proposed.

Section 61.201 [Reserved.]

The FAA proposed that this section be titled ''Conversion to the current flight instructor ratings.'' The FAA proposed that existing § 61.201 include provisions for current certificate holders to obtain new flight instructor certificates and ratings that were proposed in Notice No. 95–11. The proposed certificates are discussed in sections IV,C; IV,D; and IV,F.

Comments: NAFI objects to the creation of the new flight instructor ratings and the proposed conversion requirements for current instructors to obtain those ratings. According to NAFI, many instructors will be unable to meet the conversion requirements, and for some of the ratings, few if any will qualify, effectively revoking the majority of existing FAA flight instructor certificates. The commenter states that the FAA has failed to show a safety problem with the existing system of instruction. NAFI asks that all current instructors be ''grandfathered'' into the equivalent new certificates without any additional requirements.

AOPA also opposes not only the new flight instructor ratings, but the proposed conversion scheme method for current flight instructor certificates. AOPA comments that the proposed method is not a conversion at all but rather a complete set of new requirements that cannot be met except by a small number of instructors. The commenter contends that a large percentage of the country's instructor certificates are being effectively revoked by the proposal, imposing significant economic and administrative burdens on flight instructors. AOPA believes that the FAA has not demonstrated a safety problem with the existing system and insists that all current flight instructors (including commercial balloon pilots) should be granted any equivalent new certificate without any additional experience, training, or testing requirements. NAFI echoes the views of AOPA.

With respect to the proposed multiengine rating for instrument flight instructors, NATA states that although it is opposed to the proposal, all CFIIs who are also MEIs should be given the new certificate.

An individual commenter states that the conversion of certificates provisions proposed in § 61.201 should require an ''unexpired'' flight instructor certificate as a prerequisite for conversion.

FAA Response: Upon review of the comments, as discussed in sections IV,C; IV,D; and IV,F, the FAA has decided not to adopt any new flight instructor ratings. Therefore, no conversion provisions are needed. The proposed section is therefore deleted in the final rule.

The FAA notes that Amendment No. 61–100 reinstated the requirement for ''24 hours of ground and flight training for a flight instructor refresher clinic.'' Paragraph (a)(2)(iii) of this final rule does not contain that requirement.

Subpart I—Ground Instructors

In Notice No. 95–11, the FAA proposed to include revised ground instructor certificates and ratings in part 61. The FAA also proposed establishing ground instructor certificates that were category specific (airplane, rotorcraft, glider, lighter-than-air, and instrument). The proposal contained eligibility requirements for ground instructor certificate applicants, including a requirement that all applicants read, write, speak, and understand the English language.

Comments: Most commenters oppose the category-specific ground instructor ratings. Many commenters also oppose the English language requirement because of its affect on deaf instructors.

FAA response: The FAA is adopting the proposal to move the ground instructor requirements to part 61. However, the FAA is not adopting the category-specific ground instructor certificates as discussed in the analysis of § 61.5(d). Therefore, this subpart has been rewritten to restore the existing basic, advanced, and instrument ground instructor ratings. The proposed sections on aeronautical knowledge, ground instructor proficiency, ground instructor records, additional ground instructor ratings, ground instructor endorsements and authorizations, recency of experience for the holder of a ground instructor certificate, and conversion to current system of ground instructor ratings are not adopted in the final rule. Therefore, a section-by-section analysis of those proposals is not included.

In response to commenters' concerns regarding the English language requirements, the FAA has added language to § 61.213(a)(2) providing that if an applicant is unable to meet one of the English language proficiency requirements for medical reasons, the Administrator may place operating limitations on the applicant's pilot certificate that are necessary for the safe operation of the aircraft. This change is discussed in greater detail in section IV,G.

This subpart reflects existing requirements with editorial and format changes to clarify the privileges and limitations of the ground instructor ratings, and to permit a seamless integration of part 143 into part 61.

Part 141—Pilot Schools

Subpart A—General

Section 141.1 Applicability.

The proposed section contained only format revisions. No substantive comments were received on this section; it is adopted in the final rule with formatting changes.

Section 141.3 Certificate required.

In Notice No. 95–11, the FAA proposed minor format changes. No substantive comments were received on this section; it is adopted in the final rule as proposed.

Section 141.5 Requirements for a pilot school certificate.

In Notice No. 95–11, the FAA proposed to revise pilot school quality of training requirements.

The FAA proposed to replace the existing title ''Pilot school certificate'' with ''Requirements for a pilot school certificate.''

Proposed paragraph (a) specified that the application is to be completed in a manner prescribed by the Administrator.

In proposed paragraph (b), the FAA clarified that an applicant for a pilot school certificate must hold a provisional pilot school certificate for at least 24 calendar months prior to applying for a pilot school certificate.

The FAA proposed in paragraph (d) to modify existing pilot school quality of training requirements, which must be met within 24 calendar months prior to the application. The existing rule states that an applicant must train at least 10 students for a pilot certificate or rating, and that at least 8 of the school's 10 most recent graduates pass the practical test the first time. The FAA proposed to require that the applicant train and recommend 10 students, either for: (1) a knowledge or practical test for a pilot, flight instructor, or ground instructor certificate or rating, in which case at least 80 percent of the applicants must have passed the test on the first attempt on a test conducted by an FAA inspector, or an examiner who is not a school employee; or (2) an end-of-course test for a training course specified in appendix K to this part.

Comments: The operator of a balloon school suggests eliminating the requirement in proposed § 141.5(d)(1) that the examiner be independent of the school. The commenter states that the discussion of part 141 issues indicates that the intent was to require schools that train to a standard to have 80 percent of their students pass a knowledge test or practical test given by an FAA inspector or designated examiner not employed by the school. The commenter states that there is no indication that the intention was to require students of all schools to be examined by nonemployees of the school, but the language of proposed § 141.5(d)(1) would so require. The commenter states that this would create a hardship on balloon schools because of the relative scarcity of qualified, active balloon examiners. The commenter states that the nearest independent examiner to its school is a competitor, and the nearest FAA inspector who also is a qualified balloon examiner is 500 miles away. Another flight school commenter states similar objections to the same paragraph for flight schools in general. According to the commenter, the selection process for FAA-designated examiners, as well as the quality of training requirements specified are an adequate check against an examiner failing to be impartial. Flight schools and students could suffer time and cost burdens due to difficulties in scheduling check rides.

FAA Response: Because of the size of some part 141-approved schools, the FAA does not have sufficient personnel resources to respond to all the demands that would be generated by this proposal. In addition, the FAA considers designated examiners to be representatives of the Administrator, rather than employees of a school, when they are conducting practical tests. This does not preclude these examiners from otherwise being employed by a school. To prevent confusion, the FAA has deleted from paragraph (d)(i) the following language: ''a test that was conducted by an FAA inspector or an examiner who is not an employee of the school'', and replaced this language with ''the required test''. In addition, the FAA reformatted this section and added the phrase ''or any combination of those tests,'' to reflect the FAA's intent with respect to pass rates. Except for these changes, the final rule is adopted as proposed.

Section 141.7 Provisional pilot school certificate.

The FAA did not propose any substantive changes for this section, nor were any substantive comments received. The final rule is adopted as proposed.

Section 141.9 Examining authority.

No modifications were proposed for this section, nor were any substantive comments received. Except for a minor editorial change, the final rule is adopted as proposed.

Section 141.11 Pilot school ratings.

The FAA proposed to change this section by reorganizing the certificate courses in the existing rule and eliminating the test courses. No substantive comments were received. The final rule, however, adds the corresponding appendix references to the list of courses for clarification purposes. This section is adopted in the final rule, with these changes.

Section 141.13 Application for issuance, amendment, or renewal.

Proposed § 141.13 revised the requirement in the existing rule that requires a pilot school to submit three copies of a training course outline for the issuance or amendment of a pilot school certificate or rating. The FAA believes that two copies of the training course outline are sufficient. No substantive comments were received, and this section is adopted in the final rule as proposed.

Section 141.15 Location of facilities.

In Notice No. 95–11, the FAA proposed more permissive language for this section consistent with the proposed changes in § 61.2. No substantive comments were received on this proposal, and it is adopted as proposed.

Section 141.17 Duration of certificate and examining authority.

The FAA proposed to change the title of this section and to add paragraph (a)(5), which stated that a pilot school or provisional pilot school certificate expires whenever ''the Administrator has determined a school has not acted in good faith with a student to whom it has a contractual agreement to provide training.'' The proposal also included minor editorial and format changes.

Comments: GAMA, HAI, and NATA oppose the proposal to permit the FAA to revoke a school's authority if the Administrator determines that the school has not acted in good faith with a student. HAI states that the issue of ''good faith'' is not a regulatory issue. GAMA believes that the FAA should judge a part 141 school by the quality of its training, the performance of its students, and its adherence to the FAR. GAMA states that disputes between a school and a student should be left to the legal system. NBAA recommends deleting the language concerning ''good faith,'' because it would create new problems for the FAA involving ''contract arbitration between flying schools and disgruntled students.'' A balloon school also expresses opposition to the ''good faith'' language.

FAA Response: After review of the comments, the FAA has decided to withdraw proposed paragraph (a)(5) because of the concerns expressed by the commenters. In addition, the FAA deleted the language ''otherwise terminated'' from proposed paragraphs (a) and (c) because the use of the phrase is redundant.

The proposal is adopted with these changes.

Section 141.18 Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances.

The FAA proposed only editorial changes to this section, and no substantive comments were received on the proposal. After further review, the FAA has decided to retain the language used in existing § 141.18 and not to adopt the language proposed in Notice No. 95–11.

Section 141.19 Display of certificate.

In Notice No. 95–11, the FAA proposed format revisions to this section. No substantive comments were received on this proposal, and it is adopted as proposed.

Section 141.21 Inspections.

The FAA proposed format changes to this section. No substantive comments were received on this proposal, and it is adopted with a minor editorial change.

Section 141.23 Advertising limitations.

The FAA proposed to revise this section to clarify that courses are approved under part 141. No substantive comments were received on this proposal. After review, the FAA has decided to delete the language ''otherwise terminated'' from paragraph (c)(2) because the use of the phrase is redundant. The proposal is adopted with this change.

Section 141.25 Business office and operations base.

The FAA proposed only minor format changes to this section. No substantive comments were received addressing this section, and it is adopted as proposed.

Section 141.26 Training agreements.

Although the FAA did not propose this section in Notice No. 95–11, the

section was adopted in Amendment No. 61–100. It is included in this final rule as previously adopted.

Section 141.27 Renewal of certificates and ratings.

In Notice No. 95–11, the FAA proposed revisions to the certificate renewal requirements of § 141.27.

Proposed paragraph (a)(1) eliminated the current requirement that the renewal of a certificate must be obtained no less than 30 days prior to the expiration of the pilot school certificate. The less restrictive wording ''may apply ...within 30 days'' was proposed.

Proposed paragraph (a)(2) specified that renewal of a pilot school certificate and rating is contingent on the Administrator determining that the school meets the requirements of this part with respect to its personnel, aircraft, facility and airport, approved training courses, and training records, as well as the recent training activity and training quality requirements of proposed § 141.5(d). The existing rule is more general, stating only that the Administrator has to determine that the school meets the requirements prescribed for this part. The requirement to meet § 141.5(d) effectively modified the school's quality of training requirements for renewal.

Proposed paragraph (a)(3) clarified that a school that does not meet the proposed renewal requirements may apply for a provisional pilot school certificate if the school meets the requirements of proposed § 141.7 of this part.

The FAA also proposed minor editorial and format changes to paragraph (b).

Comments: A flight school states that the limitations inherent in the proposed rule on the use of school-employed examiners are not justified, and could delay checkrides at great cost to the student. The commenter states that ''the school's POI should be allowed to continue the best course of action concerning the certification process.''

FAA Response: The FAA acknowledges the commenter's concern, and points out that the requirement in § 141.5 that tests be conducted by an FAA inspector or an examiner who is not an employee of the school has been withdrawn from the final rule. The proposed rule is adopted as proposed with minor editorial and format changes.

Subpart B—Personnel, Aircraft, and Facilities Requirements

Section 141.31 Applicability.

No substantive changes were proposed for this section, however, the existing rule was reformatted.

Comments: A balloon school operator states that the proposed § 141.31(b)(2) language ''must have: a written lease agreement of the...airport'' imposes a requirement to lease an airport. The commenter states that this language should be deleted, because it is not possible for it to lease an airport.

FAA Response: The FAA concurs with the commenter's concern and has edited the relevant language in the final rule.

Section 141.33 Personnel.

Proposed paragraph (c) clarified that the assistant chief instructor would be required to meet the requirements of proposed § 141.36.

Proposed paragraph (d) permitted a pilot school to designate check instructors to conduct student stage checks, end-of-course tests, and instructor proficiency checks, subject to specified conditions.

Comments: NATA states that the addition of language in proposed § 141.33(a)(2) appears to mandate the employment of dispatchers, aircraft handlers, or line service personnel. NATA contends the current language only requires that these personnel be trained ''if'' they are employed. HAI and NBAA echo NATA's opposition to this proposed rule. NATA also recommends that the current requirement for a part 141 school to provide a copy of the school's safety procedures and practices be reinstated in the new rule. Individual commenters, including a flight school, express the same concern.

The provisions in proposed paragraph (d) for designating a check instructor apparently confuse certain commenters who may be unsure whether it is an optional change or a mandatory change. One commenter asks for clarification regarding the intent, as well as whether the 50 students are to be enrolled at a given time or within the past year, and whether the proposal means a part 141 school with fewer than 50 students enrolled cannot conduct flight instructor proficiency checks and stage checks.

FAA Response: The FAA did not intend to mandate the employment of the personnel listed in paragraph (a)(2), only that, if employed, they be properly trained. The final rule modifies this language. The final rule also includes references in paragraph (a)(1) and (a)(3) to commercial pilots with a lighter-than-air-rating. In response to the commenter's concerns regarding paragraph (d), the FAA notes that the rule explicitly requires a student enrollment of at least 50 students at the time designation is sought. The FAA has determined that 50 students is the maximum for which one chief instructor or assistant chief instructor could reasonably provide checks, and, therefore, permits a pilot school or provisional pilot school to designate check instructors for conducting student stage checks, end-of-course tests, and instructor proficiency checks.

The proposed rule is adopted with these changes and other minor editorial changes.

Section 141.35 Chief instructor qualifications.

In Notice No. 95–11, the FAA proposed to delete the existing requirement that a person who applies for the position of chief ground instructor have 1 year of experience as a ground instructor at a certificated pilot school.

No substantive comments were received on this proposal. Paragraph (e) was added to the section in the final rule. This paragraph reflects the existing requirement in § 141.35(e), which provides that to be eligible for designation as chief instructor for a ground school course, a person must have at least 1 year of experience as a ground school instructor in a certificated pilot school. The FAA believes it is necessary for instructors to be more experienced. Except for this change and other editing and formatting changes, the final rule is adopted as proposed.

Section 141.36 Assistant chief instructor qualifications.

In this section, the FAA proposed to delete the existing requirement for a person who applies as an assistant chief ground instructor to have 1 year of experience as a ground instructor at a certificated pilot school.

No substantive comments were received on this proposal.

Upon further review, the FAA has decided to reinstate the requirement in existing § 141.36(e). However, this requirement has been modified to provide that to be eligible for designation as an assistant chief instructor for a ground school course, a person must have 6 months experience as a ground school instructor in a certificated pilot school, as opposed to the 1-year experience requirement in the existing rule. The proposed rule is adopted with this change, and other minor editing and formatting changes.

Section 141.37 Check instructor qualifications.

The FAA proposed to include the existing requirements of § 141.37, ''Airports,'' in proposed § 141.38. Proposed § 141.37, ''Check instructor qualifications,'' established the proposed qualifications required for a person to be designated as a check instructor.

The FAA proposed to permit certain schools approved under part 141 to designate check instructors to conduct stage checks and end-of-course tests, and instructor proficiency checks. The designated check instructors would be required to hold appropriate flight or ground instructor certificates.

Comments: A flight school states that the proposal is an ''excellent improvement'' that will facilitate completion of stage checks and end-of-course tests for large flight schools and reduce costs by not requiring assistant chief instructors to travel to FSDOs for testing and approval. The commenter also states it will reduce the workload of annual standardization for chief instructors of large flight schools.

Another commenter requests deletion of the proposed requirement under § 141.37(a)(2)(iii) that a check instructor hold a second-class medical certificate. A flight school commenter questions why only a chief instructor, and not a assistant chief instructor, can give the required proficiency test proposed in paragraph (a)(2)(vi).

FAA Response: References to medical certificate requirements in this section have been deleted from the final rule. For further discussion, see the analysis of § 61.23. After further review, the FAA has decided to permit the assistant chief to give a proficiency test. The assistant chief instructor was included as an individual able to give proficiency tests because, the FAA has determined that an assistant chief instructor has the qualifications necessary to give proficiency tests to check instructors. The final rule reflects this change.

Section 141.38 Airports.

The FAA proposed to include the requirements of the existing § 141.37 in this section. The proposed section also revised the existing rule by permitting pilot schools at airports used for night training flight in seaplanes to use adequate nonpermanent lighting or shoreline lighting approved by the Administrator. The FAA believes that the existing regulation for permanent lighting at all airports used by a pilot school for night training is not necessary at an airport or seaplane base used for night training flight. Adequate nonpermanent lighting or shoreline lighting is available for night seaplane takeoff and landing operations.

No substantive comments were received. Except for the addition of the word ''seaplane base'' in the provisions for seaplane training in the final rule and other editorial changes, the final rule is adopted as proposed.

Section 141.39 Aircraft.

In Notice No. 95–11, the FAA proposed to expand aircraft maintenance requirements and reformat this section.

Proposed paragraph (a)(2) revised the airworthiness certificate requirement. The existing rule requires a standard airworthiness certificate, except for aircraft used for flight instruction and solo flights in a course of training for agricultural aircraft operations, external load operations, and similar aerial work operations. The revised language was more general and required either a standard or primary airworthiness certificate, unless the Administrator determined that, due to the nature of the approved course, an aircraft without such a certificate may be used.

Proposed paragraph (a)(3)(i) stated that aircraft used by a pilot school certificate or a provisional pilot school certificate holder be maintained in accordance with subpart E of part 91. In proposed paragraph (a)(3)(ii), a new requirement was proposed. The school's aircraft were required to be maintained under an inspection program for each airframe, aircraft engine, propeller, appliance, and component part maintained. The details of the required inspection program were listed in proposed paragraph (b).

Proposed paragraph (a)(4) retained the existing requirement that aircraft used in flight training must be at least two-place aircraft with engine-power controls and flight controls easily reached and operated from both pilot stations.

Proposed paragraph (a)(5) required that the school's aircraft used for the demonstration of instrument skills be equipped and maintained for IFR operations.

Comments: NATA suggests deleting the new maintenance requirements for an ''inspection program'' contained in proposed § 141.39(a)(3) and (b). The commenter states that singling out part 141 aircraft is discriminatory and without safety benefits. NATA contends that this proposal would increase the cost of training at part 141 schools and may force many students to switch to part 61 training. HAI and NBAA voice similar concerns over this proposed rule.

GAMA also comments on proposed § 141.39 and states that it does not provide part 141 schools with the option of maintaining and inspecting their aircraft to part 91 standards. GAMA believes that part 91 maintenance requirements and inspections are adequate for this segment of the training industry. The commenter contends that the proposal would provide little benefit but would place a heavy financial burden on an important segment of the aviation industry.

An individual commenter states that the revised maintenance requirements would constitute a hardship for smaller schools; both the progressive inspection system and the system of 100-hour/annual inspections work well, the commenter states.

HAI and NBAA express concern about proposed § 141.39(a)(5), which requires that a school's aircraft used for the demonstration of instrument skills be equipped and maintained for IFR operations. NBAA states that most light helicopters used in instrument training, such as the Robinson R–22, are not certificated or economically capable of being certificated for IFR operations. These commenters suggest that the proposal be modified to ensure that the rule does not impact instrument training under VMC. Specifically, the commenters propose adding the following language: ''However, for instruction in the control and precision maneuvering of an aircraft by reference to instruments, the aircraft may be equipped as provided in the approved course of training. Aircraft not certified for IFR operations may be used for instrument training provided the flight is conducted under VMC.'' Individual commenters joined in HAI's concerns.

Several commenters reference the proposed and existing requirement for access from either pilot station to engine and flight controls. These commenters state that balloons do not have such controls, and that requiring easy access to flight controls prevents instruction in aircraft with throwover yokes, such as the Beechcraft Bonanza.

FAA Response: Commenters' concerns over the proposed inspection program were noted. Upon reviewing the issue, the FAA has decided not to adopt the proposal in the final rule. The inspection program was not proposed for other operations that engage in similar types of training under part 61, and would have increased costs with no commensurate safety benefit. The FAA has determined that compliance with subpart E of part 91 ensures an adequate level of safety. Furthermore, the proposal placed part 141 schools at an

unwarranted economic disadvantage. The concerns of HAI, NBAA, and others, regarding aircraft used for instrument training, also were considered. In response, the FAA has modified the requirement to apply only to aircraft used in a course involving IFR en route operations and instrument approaches. In response to comments on the required accessibility of flight controls, the words ''flight controls'' have been deleted to accommodate throwover yokes. The reference to ''two-place aircraft'' has been changed to ''two-pilot stations'' to include training in balloons. References to the proposed term ''supervised pilot in command'' have been replaced by ''solo'' as discussed in the analysis of § 61.1. The FAA also renumbered this section in the final rule.

The rule is adopted with these changes.

Section 141.41 Flight simulators, flight training devices, and training aids.

In Notice No. 95–11, the FAA proposed to change the title of the existing § 141.41, ''Ground trainers and training aids,'' to ''Flight training devices and training aids.'' The proposed section included no substantive changes.

Comments: A flight school refers to the proposed regulation on flight training devices as ''superfluous,'' stating that it leads to confusion. According to the commenter, flight training devices are well defined in ACs 120–40 and 120–45, as amended. The commenter states that referencing flight training devices in this section puts the FSDO at odds with the national simulator program. Another flight school states that the FAA is not doing enough to increase the use of flight training devices and simulators. The commenter proposes multiple levels of simulators and flight training devices, depending on the task being simulated.

FAA Response: The FAA recently published Amendment No. 61–100. The FAA has revised the title of this section to include flight simulators and revised the section to conform with the definitions of ''flight simulator'' and ''flight training device'' as set forth in that rule. The proposed rule is adopted with these changes. Those flight training devices previously approved under the provisions of this section may continue to be used, provided that they continue to meet the design criteria and functional requirements for which they were originally approved.

Section 141.43 Pilot briefing areas.

The FAA proposed formatting modifications for this section.

Comments: A balloon school operator objects to the wording in proposed paragraph (a) requiring ''use of a briefing area located at each airport,'' because balloon schools and some other types of flight schools may be located at an area other than an airport, or there may be off-airport briefing areas. The commenter requests that balloon schools be excluded from the requirement.

FAA Response: The FAA notes that the commenter refers to an existing requirement. The FAA did not propose to change this requirement, therefore any change would be beyond the scope of this rulemaking. The final rule is adopted as proposed.

Section 141.45 Ground training facilities.

Format modifications were proposed for this section. No substantive comments were received, and the final rule is adopted as proposed.

Subpart C—Training Course Outline and Curriculum

Section 141.51 Applicability.

No modifications were proposed for this section, and it is adopted as proposed.

Section 141.53 Approval procedures for a training course: General.

In Notice No. 95–11, the FAA proposed to change the title of this section. The proposal also required that two copies of each training course outline be submitted to the FAA instead of the three copies required under the existing rule. In addition, the proposal required that, commencing 1 year after the effective date of the rule, an applicant for a pilot school certificate or provisional pilot school certificate would only request approval for the new training courses. The FAA also proposed formatting changes to this section.

No substantive comments were received on this proposal. After further review, the FAA modified the proposal to delete proposed paragraph (c) and replace it with a provision that provides that a training course submitted for approval prior to the effective date of the rule shall, if approved, retain that approval for 1 year. The new provision further provides that an applicant for a pilot school certificate or provisional pilot school certificate may request approval of the training courses listed in 141.11(b). The FAA implemented this change in order to provide adequate time for existing part 141 schools, and schools that are in the process of obtaining approval, to add the new courses to and modify their school certificate.

The proposed rule was adopted with these changes.

Section 141.55 Training course: Contents.

In Notice No. 95–11, the FAA proposed to change the title of this section. In addition, the FAA proposed to permit pilot schools to seek approval of training courses that train to a performance standard and to modify a pilot school's quality of training requirements.

Section 141.55 (a), (b), and (c)

The FAA proposed formatting and editorial changes to these sections. No substantive comments were received on these changes.

Section 141.55(d)

The FAA proposed that, to apply for initial approval of a course that trains students to a standard, the school would be required to meet the following requirements: (1) hold a pilot school certificate and have held that certificate for at least the prior 24 calendar months; and (2) have an FAA inspector or designated examiner who is not an employee of the school give the practical test or knowledge test. Under the proposal, a school could not request approval for a period longer than 24 calendar months. In addition, the proposal required pilot schools to specify planned ground and flight training time requirements for these courses.

Comments: NATA strongly supports the FAA initiative of ''training to a standard'' in part 141. NATA, however, finds that the standards needed to meet the minimum-hour waiver vary in each local FSDO. The commenter feels that this creates unfair discrimination; therefore, NATA recommends that these standards be regulated and approved on a national level but maintained on a local level. GAMA also states that schools training to a standard should not be regulated by a local FSDO because it leads to a situation where one large part 141 school with multiple locations is regulated by several FSDOs, all with different requirements and interpretations of the regulations. GAMA also suggests regulating these schools at the national level with one FSDO appointed as ''lead'' for all locations. According to GAMA, a nationally standardized program would be much more beneficial to students and the training industry, and such a program would continue to provide a strong level of safety.

HAI expresses concerns about the requirements of proposed § 141.55(d). The commenter states that a small flight school may not have 10 students complete the course in the 24-month period, and therefore the school will be unable to have an approved course with less than the part 61 requirements. HAI suggests adding language to permit a school to petition the Administrator for provisional continuance for an additional 24-month period in order to allow a small school to remain competitive with a larger school.

FAA Response: In implementing this proposal, the FAA intends to monitor the approval process to ensure that a uniform national standard is maintained. FAA has added language to paragraph (d)(3) to clarify that a school may not hold examining authority for a training course conducted under this paragraph. Regarding HAI's concerns, if a school is unable to meet the training activity requirements of part 141 it would not be allowed to hold a pilot school certificate. Therefore, the rule is adopted as proposed.

Section 141.55(e)

Under the proposal, a school that received initial approval could receive final approval if the school had held initial approval for at least 24 calendar months and had trained at least 10 students for a pilot, flight instructor, or ground instructor certificate or rating, and at least 80 percent of those students passed the knowledge test or practical test on the first attempt. The test must have been conducted by an FAA inspector, or by a designated examiner who is not an employee of the school. Pilot schools also would be required to specify planned ground and flight training time requirements for the courses.

Comments: A pilot school comments that it is unclear whether paragraphs (d) and (e) require a practical test or a knowledge test to be administered by an FAA inspector, or an examiner who is not an employee of the school, for each applicant or at least 10 students in each course of training. The school recommends that the FAA inspector be required to administer the minimum number of tests necessary.

FAA Response: The FAA has added language to paragraph (e)(4) to clarify that a school may not hold examining authority for a training course conducted under this paragraph because the FAA's philosophy has been to maintain a system of checks and balances to ensure that the schools providing training do not have a conflict of interest with respect to the administering of the practical test. Therefore, in response to the commenter's question, all students must be examined by an FAA inspector or an examiner who is not an employee of the school.

The FAA deleted proposed paragraph (f) from the final rule because, after further review, the FAA has determined that this paragraph is unnecessary. The proposal is adopted with the changes discussed above, and other minor editorial changes.

Section 141.57 Special curricula.

No substantive changes were proposed for this section, and it is adopted with a minor editorial change.

Subpart D—Examining Authority

Section 141.61 Applicability.

In Notice No. 95–11, the FAA proposed format modifications to this section. No substantive comments were received on the proposal. Upon further review, the FAA has decided to retain the format of existing § 141.61.

Section 141.63 Examining authority qualification requirements.

In Notice No. 95–11, the FAA proposed to change the title of this section. The proposal also deleted the requirement that a specific number of graduates pass interim tests for the school to retain examining authority. The FAA proposed to modify the quality-of-training requirements for a pilot school with examining authority. The proposal required 90 percent of the graduates of a flight course, in which the school desires to obtain or retain examining authority, to pass a test on the first attempt, given by an FAA inspector or by a designated examiner who is not an employee of the school. In addition, the proposal specified that pilot schools would not receive examining authority for training courses that train to a performance standard.

Comments: GAMA and NATA oppose the proposal preventing schools that train to a standard from possessing examining authority. NATA states that the FAA has sufficient expertise and manpower to ensure oversight of these schools. GAMA notes that the FAA has granted examining authority to a number of schools that hold exemptions to train to a performance standard. GAMA suggests that § 141.63(b)(3) be modified to permit schools that train to a standard to use examining authority or include language ''grandfathering'' schools with current examining authority. A number of pilot schools and individual commenters join in objecting to the prohibition on examining authority for schools that train to a standard. Jeppesen-Sanderson also opposes this provision. The FAA has met with Jeppesen-Sanderson to obtain clarification of its position on this issue and other issues addressed in its comment.

One pilot school supports eliminating the interim check requirement for retention of examining authority.

FAA Response: After reviewing the comments, the FAA continues to believe that it is important to prohibit pilot schools that train to standard from possessing examining authority. Permitting these schools to have examining authority would not provide an adequate system of checks and balances. The proposal is adopted with minor editorial changes.

Section 141.65 Privileges.

The FAA proposed to permit a pilot school with examining authority to recommend graduates for all pilot, flight instructor, and ground instructor certificates. The proposal eliminated the restriction on examiners from performing practical tests for the flight instructor certificate, ATP certificate, and turbojet type ratings.

No substantive comments were received on this proposal. The proposal is adopted with minor editorial changes to delete those provisions also contained in § 141.67.

Section 141.67 Limitations and reports.

Section 141.67 (a), (b), (c), and (d)

The FAA proposed to delete the current requirement for a student at a pilot school with examining authority to complete all of the training course at the same school. The proposal permitted up to one-half of a student's credits to be transferred from another pilot school. The amount of credits that could be transferred would be based on the student's performance on a test given by the receiving pilot school.

Comments: A pilot school expresses agreement with the proposal based on the assumption that the school from which the student is transferring has examining authority. The school comments that a student could do all of the instrument training at one school, transfer to another school, take a final stage check and graduate from the commercial course of the second school, and never be tested according to the PTS on instrument flight skills.

FAA Response: After review of the proposed rule, the FAA has changed the references in paragraphs (d)(1) and (d)(2) from ''knowledge test'' to ''test'' to make the language consistent with the introductory language of paragraph (d).

Section 141.67(e)

The FAA proposed to revise the recordkeeping requirements of this section. The proposal required pilot schools with examining authority to maintain a record of all temporary airmen certificates it issues with a chronological listing of specific information. In addition, the school would be required to maintain a photocopy record containing each student's: (1) Graduation certificate; (2) airman application; (3) temporary airman certificate; (4) superseded airman certificate, if applicable; and (5) knowledge test and practical test results. The proposal also required that the school make the proposed record of all temporary airman certificates available to the Administrator upon request and to surrender the proposed record of all temporary airman certificates to the Administrator on expiration of each school's examining authority.

Upon further review, the FAA determined that a time limit for maintaining the records required by paragraph (e) should be added to the rule. Paragraph (e) is modified in the final rule to require that these records be maintained for 1 year. This is current FAA policy under Order No. 8700.1, ''General Aviation Operations Inspector's Handbook.''

Section 141.67(f)

The FAA proposed to require pilot schools with examining authority to submit each graduate's application for an airman certificate within 7 days after the graduate passes the required knowledge test or practical test.

Comments: A pilot school states that it may not always be possible to meet the 7-day requirement because a student may take the practical test without meeting all graduation requirements, for example, ground school may not be completed. The school believes that the requirement would place an undue hardship on the school and the student since all students would be attempting to take the final practical test at the same time.

FAA Response: Upon further review, the FAA has decided to delete the 7-day requirement from the final rule. The FAA notes that the schools should submit the required documents to the FAA in a timely fashion. The FAA also has retained the existing requirement for a school to submit a graduate's training record. In the final rule, the FAA added the training record to the list of documents that must be submitted after a student passes the knowledge test or practical test. The proposal is adopted with minor editorial changes.

Subpart E—Operating Rules

Section 141.71 Applicability.

No modifications were proposed for this section, and it is adopted as proposed.

Section 141.73 Privileges.

In Notice No. 95–11, the FAA proposed minor formatting and editing changes to this section.

The only substantive comments on this section concern the issue of examining authority for schools that train to a standard. These comments were addressed in the discussion of § 141.63. The proposal is adopted without change.

Section 141.75 Aircraft requirements.

In Notice No. 95–11, the FAA added the proposed test pilot and special operations courses to the list of courses for which an aircraft certificated in the restricted category may be used. The proposal also permitted the use of aircraft with a primary airworthiness certificate.

No substantive comments were received on this proposal. In the final rule, the term ''solo'' is substituted for the term ''supervised pilot in command'' for reasons discussed in the analysis of § 61.1. The proposed rule is adopted with this change and other minor editorial changes.

Section 141.77 Limitations.

In Notice No. 95–11, the existing reference to ''flight check or written test, or both'' was replaced with the phrase ''proficiency test or knowledge test or both''. The tests could include a flight check, a review of the student's aeronautical knowledge, or both. The FAA also proposed minor editing and formatting changes to existing provisions for the transfer of credits from one part 141-approved school to another part 141-approved school.

Comments: HAI comments on proposed § 141.77(c) regarding the transfer of credits. The commenter recommends retaining current rule language and states that 100 percent of a student's credits should transfer from one part 141 school to another. If the student is transferring from a school not certificated under part 141, then 50 percent of the credits should transfer.

The operator of a balloon school and repair station states that proposed § 141.77(c)(2), which provided that only previous training from a part 141-approved school could be credited in a transfer to a new school, would be a disincentive to students.

FAA Response: The FAA acknowledges the concerns of HAI and other commenters. The FAA notes that the provisions for the transfer of credits set forth in the proposed rule restate the existing requirements. However, in response to these concerns, the final rule includes a provision to allow for up to 25 percent credit for pilot experience and knowledge that was not obtained in a part 141-approved training course. The proposal is adopted with this change, and other minor editing and formatting changes.

Section 141.79 Flight training.

In Notice No. 95–11, the FAA proposed revisions to the instructor proficiency requirements of this section.

Proposed paragraph (c) required the assistant chief instructors, in addition to the chief instructor, to complete at least once every 12 calendar months, an approved syllabus of training consisting of ground training or flight training, or both, or an approved flight instructor refresher course.

Proposed paragraph (d) revised the flight and proficiency checks required of flight instructors.

Proposed paragraph (e) replaced the phrase ''designated chief instructor or his assistant'' with the language ''chief instructor, assistant chief instructor, or check instructor''. This change permitted the assistant chief instructor or check instructor, in addition to the chief instructor, to administer proficiency checks to a school's instructors.

Comments: HAI opposes the requirement in proposed § 141.79 that both the chief and assistant chief flight instructors must attend refresher training. HAI recommends retaining the current requirement that only the chief instructor must attend such training. The commenter also recommends the addition of the wording ''or an equivalent level of training acceptable to the Administrator,'' to allow schools to conduct their own approved refresher training for all instructors.

FAA Response: The final rule includes references to commercial pilots with a lighter-than-air rating in paragraphs (a), (b), and (d). With regard to HAI's comment, the rule does not require the chief or assistant chief flight instructors to attend a commercially sponsored refresher training course. It has always been the FAA's position that schools could develop their own refresher training for chief instructors or assistant chief flight instructors. These courses may be submitted to the FAA for approval. Regarding the proposal for the assistant chief instructor to receive annual training, the FAA believes that in light of the responsibilities and duties of the assistant chief instructor it is

necessary to require that person to maintain currency and proper qualification.

The proposed rule is adopted with these changes, and editing and formatting changes.

Section 141.81 Ground training.

The FAA proposed minor editorial and format changes to this section. The proposal also replaced the phrase ''designated chief instructor or his assistant'' with ''chief instructor'', ''assistant chief instructor'', or ''check instructor'', as appropriate.

No substantive comments were received on this section. The final rule includes references to commercial pilots with a lighter-than-air rating in paragraph (a). The proposed rule is adopted with this change.

Section 141.83 Quality of training.

The FAA proposed to reformat and revise the language of this section. The proposal also modified the quality of training requirements. Each pilot school or provisional pilot school was required to provide training that meets the requirements of § 141.5(d).

No substantive comments were received on this proposal, and it is adopted as proposed with minor editorial changes.

Section 141.85 Chief instructor responsibilities.

The FAA proposed to revise this section to clarify that the chief instructor serves in a supervisory role at a pilot school. The proposal replaced the existing requirements for the chief instructor to ''conduct'' checks and tests with language providing that the chief instructor is to ''ensure'' these checks and tests are accomplished. In addition, the FAA proposed paragraph (c) to permit the chief instructor to delegate authority for conducting stage checks, end-of-course tests, and flight instructor proficiency checks to the assistant chief instructor or a check instructor.

No substantive comments were received on this section. In paragraph (a)(2) of the final rule, the FAA replaced the term ''instructor'' with ''certificated flight instructor, certificated ground instructor, and commercial pilot with a lighter-than-air rating''. The final rule is adopted with this change and other minor editorial changes.

Section 141.87 Change of chief instructor.

The FAA proposed to revise this section to allow the assistant chief instructor to act in the capacity of the chief instructor for 60 days while awaiting the designation and approval of another chief instructor. The proposal permitted the assistant chief instructor or check instructor to perform stage checks and end-of-course tests during this time. Proposed paragraph (d) required a school to cease operations after 60 days if a new chief instructor has not been designated and approved. Proposed paragraph (e) set forth the provisions for reinstatement of the school's certificate.

No substantive comments were received on this section, and it is adopted as proposed with minor editorial changes.

Section 141.89 Maintenance of personnel, facilities, and equipment.

In Notice No. 95–11, the FAA proposed editorial modifications to this section. The FAA also added references to assistant chief instructor and check instructors to proposed paragraph (b).

No substantive comments were received on this section, and it is adopted as proposed with a minor editorial change.

Section 141.91 Satellite bases.

The FAA proposed minor editorial changes for this section. No substantive comments were received on this proposal, and it is adopted as proposed with minor editorial changes.

Section 141.93 Enrollment.

In this section, the FAA proposed to eliminate the requirement for a pilot school to send a copy of each enrollment certificate to the local FAA FSDO. However, the proposal required a school to maintain a monthly listing of persons enrolled in each course at the school.

Comments: NATA opposes the proposed rule's deletion of the prior requirement to furnish students with a copy of its safety procedures and practices, including items as specified in the existing § 141.93(a)(3).

FAA Response: The FAA inadvertently omitted existing paragraph (a)(3). This requirement is retained in the final rule. The proposed rule is adopted with this change.

Section 141.95 Graduation certificate.

Minor editorial modifications were proposed for this section.

Comments: A balloon school states that the requirement in proposed § 141.95(b)(7) that graduation certificates contain ''a statement showing the cross-country training the student received'' does not make sense, especially for balloon training, because virtually all training entails cross-country flight. The commenter states that the requirement should be deleted, because this information is already recorded in the school records and the student's logbook.

FAA Response: The commenter's concerns are noted; however, the disputed language is a continuation of an existing requirement. Except for minor editing changes, the final rule is adopted as proposed.

Subpart F—Records

Section 141.101 Training records.

The FAA proposed to reformat this section. No substantive comments were received, and, except for minor formatting and editing changes, the final rule is adopted as proposed.

Appendix A—Recreational Pilot Certification Course

In this appendix, the FAA proposed to establish criteria for a certification course for recreational pilot certificates. This addition was intended to encourage further general aviation training activity. The course in existing appendix A, ''Private Pilot Certificate Course (Airplanes),'' was moved to proposed appendix B. Under the proposal, a person was also required to hold a student pilot certificate prior to enrolling in the flight portion of the recreational pilot certification course.

The proposed course required a minimum of 20 hours of ground training on the same aeronautical knowledge areas that were proposed in part 61 for a recreational pilot certificate. The proposed course consisted of a minimum of 30 hours of flight training, including 15 hours of training from an authorized flight instructor and 3 hours of supervised pilot in command training. The proposal set forth specific areas of operation for each aircraft category and class rating.

The proposed course was designed to allow schools flexibility in developing their recreational pilot certification course with the individual student in mind. For example, a student who had previous aviation experience and proved particularly competent may be able to complete training for a recreational private pilot certificate with only the minimum 30 hours of flight training time, including the required 15 hours of flight training time from an authorized flight instructor and 3 hours of supervised pilot in command flight time. However, a student pilot who did not have previous aviation experience or who trained infrequently may need more time than the minimum specified hours of flight training time. The student pilot and flight instructor may need to tailor the training to include 27 hours of flight training time from an

authorized flight instructor and 3 hours of supervised pilot in command flight time, or some combination of those hours.

The FAA decided not to specify the maximum time that could be credited for stage checks and end-of-course tests for the approved training course requirements. The FAA believed that the individual school, along with the local FAA FSDO, were better able to determine how much time should be permitted for stage checks and end-of-course tests for each syllabus. After receiving course approval, the FAA and the school would continue to monitor the average length of time that it takes to conduct a specific stage check or end-of-course test, and would be prepared to modify the syllabus when needed.

Comments: EAA and NAFI support the addition of a recreational pilot certification course to part 141.

FAA Response: In the final rule, references to the proposed term ''supervised pilot in command'' are replaced with the term ''solo'' for the reasons discussed in the analysis of proposed § 61.1. The proposed term ''authorized flight instructor'' is replaced with the term ''certificated flight instructor'' to indicate that only instructors certificated under part 61 may provide the training specified in this section. Proposed paragraph (b) of section No. 2, which required that a signed and dated statement be affixed to the application for a recreational pilot certificate certifying that no known medical defect exists that would make the pilot unable to pilot an aircraft, is deleted from the final rule. As discussed in section IV, A of this preamble, § 61.23 of the final rule includes medical certificate requirements for student pilots who seek recreational pilot certificates.

Appendix B—Private Pilot Certification Course

The FAA proposed criteria for a certification course for a private pilot certificate for each aircraft category and class rating. The course in existing appendix B, ''Private Test Course (Airplanes),'' was eliminated.

Proposed appendix B included courses found in existing appendixes A and F. Proposed appendix B reflected the proposals in part 61 to establish a powered-lift category rating, and to establish separate class ratings for powered gliders and nonpowered gliders.

The FAA proposed to require that a person who desired to enroll in the flight portion of a course hold: (1) a student pilot certificate, and (2) a third-class medical certificate, or in the case of course of training for a glider or balloon rating, had a signed and dated application that the person had no known medical defects that made that person unable to pilot a glider or a balloon.

The proposed minimum ground training requirements consisted of the same aeronautical knowledge areas as proposed in part 61 for a private pilot certificate. The proposal set forth specific flight training requirements for each aircraft category and class rating. The proposed flight training requirements consisted of the same approved areas of operation proposed in part 61 for a private pilot certificate. The proposal included reductions in solo flight training time, but preserved the minimum total time requirements in the existing rule. As discussed in the analysis of appendix A, the proposed course was designed to allow schools flexibility in developing course requirements with the individual student in mind, the FAA proposed to permit each school to tailor the course requirements around the student's needs.

Existing appendix A requires an applicant for a private pilot certificate with an airplane category rating to perform five takeoffs and five landings at night, as the sole manipulator of the controls. The FAA proposed to require an applicant for a private pilot certificate with an airplane, rotorcraft, or powered-lift category rating to receive at least 3 hours of night flight training, including one cross-country flight, and to perform 10 takeoffs and 10 landings at night. The proposal included the provisions of proposed § 61.110 of this chapter that exempt certain applicants from the night flying certification requirements.

The proposal also required private pilot applicants for an airplane, powered-lift, and airship rating to complete at least 3 hours of instrument training in the same category and class of aircraft for which the rating is sought.

As noted in appendix B, the FAA decided not to specify the maximum time that could be credited for stage checks and end-of-course tests.

Comments: NATA states that there is no safety evidence to support the requirement in proposed paragraph (2)(a) that a person have a student pilot certificate before enrolling in a part 141 private pilot certification course. The commenter believes that the current requirement to obtain the certificate prior to a student's first solo is adequate. NATA also opposes the reduction in allowable flight training device credit to 10 percent of the total flight training hour requirements. NATA recommends permitting a maximum of 5 flight hours or 15 percent of the approved private pilot course total-hour requirement to be credited, whichever is less.

HAI expresses concern that the proposed supervised pilot in command provisions require students to perform maneuvers involving emergency procedures. A flight school states that the 5-hour minimum supervised pilot in command requirement is inadequate for airplane single-engine and multiengine courses. The commenter suggests 7 hours, with at least two cross-country flights to different locations, and landings at three airports for each cross-country flight. Several flight schools and individual commenters express similar concerns regarding the reduced solo and cross-country time requirements. One flight school recommends at least 10 hours of solo time. Another flight school commenter opposes the proposed requirement for 3 hours of instrument training, stating that this is an especially heavy burden on part 141 schools transitioning students to instrument training immediately upon completion of the private pilot curriculum. This commenter requests permitting part 141 students to complete the requirement in simulators.

Jeppesen expresses concern regarding the overall principle of class-specific training in appendixes B through J. The commenter is concerned that the new system removes any remaining flexibility in part 141 regarding aircraft usage, effectively requiring flight schools, for economic reasons, to offer their courses as either all single-engine courses or all multiengine courses. According to the commenter, this could place part 141 schools at a disadvantage compared to part 61 schools, which retain greater flexibility.

A balloon school objects to the term ''balloonport'' in proposed paragraph (4)(c)(9) because it is not a standardized term, and is a proprietary name for a balloon dealership. The term ''Airport and balloon launch site operations'' is suggested.

FAA Response: In response to NATA's comment regarding the requirement that an individual hold a student pilot certificate before enrolling in a part 141 private pilot certification course, the FAA has determined that this requirement is not unduly burdensome. Under § 61.23, a student pilot is required to obtain a third-class medical certificate once he or she conducts solo flight in an aircraft other than a glider or a balloon.

The objections of some commenters to the reduction in solo flight time required were considered, but the FAA has determined that safety will not be

compromised by a reduction in solo flight time because the total number of hours remains unchanged. The FAA also notes that schools will have more discretion in determining how best to use required training time.

In the final rule, the FAA deleted any requirement for solo flight training in a multiengine aircraft. The final rule requires a student to perform the functions of a pilot in command while under the supervision of a certificated flight instructor. A flight instructor may therefore accompany a student on board the aircraft during this flight time. The FAA notes that solo time in a multiengine aircraft may be impractical due to liability insurance concerns.

The helicopter and gyroplane solo cross-country provision is clarified to require that at least one segment of the flight include a straight-line distance of at least 25 nautical miles between the takeoff location and landing location.

In response to HAI's comment regarding the performance of emergency maneuvers without an instructor on board the aircraft, the FAA notes that other training maneuvers, such as stalls and slow flight, are routinely performed in solo flight by pilot applicants that, when improperly performed, may result in situations that adversely affect the safety of the flight. The FAA contends that these maneuvers, when properly performed, pose no adverse risks to the safety of the flight. Flight instructors should ensure that emergency maneuvers, like other maneuvers, are only performed in solo flight after an instructor determines that such maneuvers may be safely performed by the applicant and under any restrictions that the flight instructor may establish to ensure the safety of the flight.

The FAA has deleted from the final rule the exception to the night training requirement because the exception applies to the individual airman rather than to the course. The FAA also has removed medical certificate requirements from this appendix because these requirements are addressed in § 61.23.

Proposed provisions for separate powered and nonpowered classes within the glider category requirements are consolidated under a single set of requirements for the glider category for reasons discussed in section IV,F.

In the final rule, the FAA has decreased the ascent training requirements from 5,000 feet above the surface to 3,000 feet above the launch site for gas balloons, and from 3,000 feet above the surface to 2,000 feet above the launch site for balloons with airborne heaters. After further review, the FAA has determined that the proposed ascent training procedures exceeded normally accepted industry practices. Additionally, the FAA deleted solo flight requirements for a rating in a gas balloon and an airship. In the final rule, the student is not required to meet any solo flight training requirements, and must perform the duties of pilot in command while under the supervision of a commercial pilot with the appropriate lighter-than-air rating. This change was adopted because insurance companies would not permit solo flights in gas balloons or airships by student pilots.

In response to concerns about the use of the word ''balloonport,'' that term has been deleted from the final rule. The FAA determined that ''balloonport'' is not a commonly used term, and has replaced it with the term ''airport''.

The FAA has modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100. In response to the objections concerning credit for flight simulator and flight training device time, the maximum possible credit for flight simulators that meet the requirements of § 141.41(a) is 15 percent in the final rule. The maximum possible credit for flight training devices that meet the requirements of § 141.41(b) is 7.5 percent in the final rule. These changes correct an inadvertent reduction in the time that could be credited for training received in a flight simulator or flight training device when the FAA changed the basis on which flight time could be credited form hours to a percentage of the flight training time. The FAA also notes that training received in a flight simulator or flight training device may not be used to satisfy more than 15 percent of the flight training requirements in the final rule.

In the final rule, references to the proposed term ''supervised pilot in command'' are replaced with the term ''solo'', where appropriate, for the reasons discussed in the analysis of § 61.1. The proposed term ''authorized instructor'' is replaced with ''certificated flight instructor or commercial pilot with a lighter-than-air rating'', as appropriate, because the term ''authorized instructor,'' while applicable to part 61, is too broad a term for use in part 141.

With regard to Jeppesen's concerns about class-specific training, the FAA notes that part 141 schools will not be placed at a disadvantage because training conducted under part 61 is also class specific.

The rule is adopted with these changes.

Appendix C—Instrument Rating Course

The FAA proposed criteria for an instrument rating course. The proposed appendix included courses found in existing appendixes C, F, and H, as well as courses for the proposed powered-lift, airship, airplane single-engine, and airplane multiengine instrument ratings.

To enroll in the flight portion of the course, the FAA proposed that a student hold: (1) a private pilot certificate with an aircraft category and class rating appropriate to the instrument rating for which the course applies, and (2) at least a third-class medical certificate.

The proposed ground training provisions included the same aeronautical knowledge areas as proposed in part 61 for an instrument rating, including windshear avoidance, and aeronautical decision making and judgment. The proposal retained the existing requirement for 30 hours of ground training for an initial instrument rating. The FAA also proposed a 30-hour ground training requirement for an initial instrument rating. The FAA proposed a requirement for 20 hours of ground training for an additional instrument rating, as opposed to the existing requirement of 15 hours in the test preparation course. The FAA believed the increase was necessary because of proposed reductions in the pilot experience requirements, and the different knowledge, skills, and abilities required for each instrument rating.

The proposal required flight training on the same areas of operation as proposed in part 61 for an instrument rating. In addition, the proposed appendix clarified the existing requirement for cross-country flight by requiring a minimum straight-line distance between airports for one of the segments of the flight.

A minimum of 35 hours of flight training time was proposed for initial instrument ratings. This is the minimum training time currently required for an instrument rating in an airplane or a helicopter. The proposal provided for a percentage of the minimum flight training hours to be obtained in a flight training device.

As discussed in appendix A, the FAA has decided not to specify the maximum time that may be credited toward the total hour course requirements for stage checks and end-of-course tests.

Comments: HAI states that a student should be able to concurrently enroll in private, instrument, and commercial pilot certification courses, and therefore the commenter recommends deletion of paragraph (2)(a). HAI also suggests modifying paragraph (b) of section No. 4 to require a minimum of 10 hours of

the instrument training time in an aircraft for an initial instrument rating, and a minimum of 5 hours of the instrument training time in an airplane for an additional instrument rating.

HAI, NATA, and NBAA object to the provisions for the crediting of time spent training in a flight training device. NATA and NBAA state that the 10 percent credit for the use of flight training devices is insufficient. The commenters argue that part 141 schools would be placed at a disadvantage compared to schools conducting training under part 61, and that trends in simulation technology dictate more, not less, use of flight training devices. NATA recommends a credit of 50 percent of the total flight training time of the approved instrument flight course or of the section, whichever is less. NBAA asks for clarification on whether the 10 percent credit for training in a flight training device also applies to recreational, private, and commercial certificates and, if so, the commenter recommends that those limits be changed to equal those authorized in part 61. NBAA also comments that Notice No. 95–11 does not go far enough to integrate personal computer-based aviation training devices into all phases of flight training. These views are echoed by several large flight schools, including ERAU and UND Aerospace, as well as Jeppesen and several individual commenters. These commenters state that the 10 percent limitation, especially in the case of the instrument rating, drastically reduces the maximum available credit in comparison to the existing rule. One commenter states that the proposed change would reduce the quality of training and raise costs. The commenter states that it can provide more quality training in Frasca 141 and 142 training devices than in aircraft.

GAMA is concerned that under the proposal it appears that the credit allowed for training received in a simulator or flight training device in an instrument rating course would be drastically reduced. According to GAMA, more flight training device credit would be received under part 61 than under the proposed rule for part 141. GAMA believes that this would discourage schools from applying for part 141 approval. GAMA recommends retaining the credit allowed under the existing rules.

HAI objects to the instrument helicopter cross-country requirement in proposed paragraph (4)(c)(3)(i) because training helicopters such as the Robinson R–22 are not certificated for IFR flight.

ERAU states that, while it agrees with the principle of separate requirements for single-engine and multiengine instrument ratings, the requirements for the proposed multiengine instrument rating course are excessive.

FAA Response: In response to HAI's comment regarding the requirement that pilots enrolling in an instrument rating course hold at least a private pilot certificate, the FAA determined that the minimum certificate level for persons to be able to adequately understand instrument training concepts is at the private pilot certificate level. With regard to HAI's concerns about the instrument helicopter cross-country requirements, the FAA notes that it is the FAA's intent to require a person to file an instrument flight plan and perform a flight under IFR, although not necessarily under IMC.

With respect to objections to proposed provisions for separate single-engine and multiengine airplane instrument ratings, the FAA notes that the separate instrument ratings were not adopted in the final rule. This decision was discussed in section IV,D. The proposed provision for an instrument airship rating is deleted from the final rule for the reasons discussed in section IV,D.

The FAA has modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100. Regarding comments on credit for training received in flight simulators and flight training devices, the FAA did not intend to remove the prior provision permitting up to one-half of the instrument training time to be received in an approved ground trainer. Therefore, the maximum possible credit allowed for training in a flight simulator that meets the requirements of § 141.41(a) is 50 percent in the final rule. The maximum credit for training in a flight training device that meets the requirements of § 141.41(b) is 25 percent in the final rule. The FAA also notes that training received in flight simulators or flight training devices may not be used to satisfy more than 50 percent of the instrument flight training requirements in the final rule.

The reference to medical certificate requirements in proposed paragraph (b) of section No. 2 is deleted because medical certificate requirements are now contained in § 61.23. See the analysis of § 61.23 for further discussion.

The proposed rule is adopted with these changes and other minor editorial changes.

Appendix D—Commercial Pilot Certification Course

The FAA proposed criteria for a certification course for a commercial pilot certificate. Proposed appendix D included courses found in the existing appendixes D and F. The proposed appendix included a powered-lift category rating and separate class ratings for powered gliders and nonpowered gliders.

To enroll in the flight portion of the course, the proposal required a person to hold: (1) a private pilot certificate with the category and class rating appropriate to the ratings for which the course applies, and (2) at least a third-class medical certificate, or present a signed and dated statement by the person certifying that the person enrolling has no known medical defect that makes that person unable to pilot a glider or a balloon.

In addition, if the course was for a rating in an airplane, a powered-lift, or an airship, the proposal required the student to: (1) hold an instrument rating appropriate to the aircraft category and class rating for which the course applies, or (2) be concurrently enrolled in an instrument rating course for which the course applies, and satisfactorily accomplish the required practical test prior to completing the commercial pilot practical test.

The proposed ground training consisted of the same aeronautical knowledge areas as proposed in part 61 for a commercial pilot certificate. A minimum of 100 hours of ground training was required for an airplane, powered-lift, or airship rating. One hundred hours of ground training is currently required for an airplane category rating. The proposal retained the existing hour requirements for ground training for a rotorcraft, glider, or balloon rating.

The proposed flight training included the same areas of operation as proposed in part 61 for a commercial pilot certificate. The proposal set forth specific flight training requirements for each aircraft category and class rating. The proposed minimum dual and solo flight training time requirements were far lower than those of the existing appendix D. However, this proposed change was based on the assumption that the applicant would have to also meet the minimum time requirements for part 61. The proposal required that a person meet the aeronautical experience requirements of part 61 for a commercial pilot certificate upon completion of the course. The proposed appendix also included the modifications to the dual cross-country flight requirements in proposed part 61.

The FAA decided not to specify the maximum time that may be credited for stage checks and end-of-course tests for

the same reasons discussed in the analysis of appendix A.

The FAA proposal omitted provisions related to flight instruction in the specified areas of operation for the lighter-than-air category ratings because separate instructor ratings were proposed for those classes.

Comments: HAI states that a student should be able to concurrently enroll in a private, instrument, and commercial pilot certification course.

The Department of Veterans Affairs/ Veterans' Benefits Administration (VA) states that it has received comments from pilot school organizations regarding Notice No. 95–11. These comments express a concern that appendix D would ''require a complete and radical restructuring of current commercial pilot courses.'' The commenter, nonetheless, recommends revising paragraph (2)(a)(4) to make its provisions clear, or that this issue be dealt with in the preamble. Several individual commenters state that the VA prohibits concurrent enrollment in separate flight training courses as permitted by the proposal.

HAI states that there are no advantages for part 141 schools if their students must meet part 61 flight training time requirements. GAMA and NATA express similar concerns and state that the proposal effectively increases the part 141 commercial pilot minimums from 190 hours to 250 hours. GAMA contends that since a private pilot certificate is a prerequisite for enrollment, the newly proposed commercial pilot certification course would not include the elements of the private pilot certification course currently allowed under part 141. NATA believes that the proposal to increase the minimum number of hours in the commercial pilot certification course could hurt the economic viability of many part 141 schools. Several flight schools and other commenters echo these concerns, stating that ''directed training'' at a part 141 school prepares applicants better than less regulated training under part 61, and makes the higher-hour requirement unnecessary for part 141 schools.

HAI opposes the provisions for the crediting of training received in a flight training device. HAI references similar comments it expressed on proposed appendix C. NATA recommends that the rule permit a credit for a maximum of 20 flight hours or 25 percent of the approved commercial pilot course, whichever is less. Flight schools and individual commenters express similar views.

HAI notes that the proposed helicopter cross-country requirements provide for a 250-nautical-mile flight, and recommends that these requirements be aligned with those of part 61. The commenter also expresses the same safety concerns regarding the helicopter night solo requirements that it expressed regarding similar requirements in part 61.

A balloon school expresses several objections to the commercial course requirements. The commenter states that no justification was presented for increasing the number of required flights from 8 flights in the existing rule to 10 flights. The commenter similarly opposes the requirement for two flights in a balloon in preparation for the practical test. The commenter also states that the terms ''weight and balance,'' ''air navigation facilities,'' ''performance maneuvers,'' and ''above the surface'' are inappropriate for balloon operations. The latter term should be replaced with the phrase ''above the launch site''. The same commenter also shares HAI's view that the proposed requirement for maneuvers involving emergency operations in solo flight is hazardous.

FAA Response: In the final rule, the required aeronautical knowledge training time has been modified. For the airplane category, powered-lift category, and airship class rating, the proposed 100 hours has been reduced to 65 hours. For the rotorcraft category, the proposed 65 hours have been reduced to 30 hours. For the glider category, the proposed 25 hours has been reduced to 20 hours. The balloon class rating requirement remains unchanged from the 20 hours proposed.

The FAA did not intend to remove the prior ability of pilots to obtain certificates under part 141 with less than the aeronautical experience requirements specified in part 61. The FAA therefore has withdrawn the requirement that graduates of a part 141 commercial pilot certification course meet the aeronautical experience requirements prescribed in part 61 for commercial pilots. This provision would have resulted in a major shift from the FAA's long standing position that part 141 graduates, even though they may not meet the requirements of part 61, have training equivalent to the training requirements of part 61. As a result of withdrawing this proposal, the FAA had to increase the aeronautical experience requirements from the requirements proposed in Notice No. 95–11. The final rule provides for 155 hours of total flight training time for an airplane, powered-lift, or airship rating; 115 hours of total flight training time for a rotorcraft rating; 6 hours of total flight training time for a glider rating; and 10 flight hours and eight training flights for a balloon rating. The FAA notes that a commercial pilot must hold a private pilot certificate in order to enroll in a commercial pilot certification course, therefore, the requirements in the final rule are equivalent to the current requirements of appendix D.

In the final rule, the FAA also has increased the dual flight training time requirements. The final rule provides for 55 hours of flight instruction for an airplane, powered-lift, or airship rating, and 30 hours of flight instruction for a rotorcraft rating. For a glider rating, the rule requires four hours of flight instruction, including five flights involving launch/tow procedures and the training on appropriate areas of operation. The flight training requirements for a balloon course remain as proposed, except the FAA has decreased the required ascent for gas balloons from 10,000 feet above the surface to 5,000 feet above the launch site. For balloons with airborne heaters, the ascent requirement was reduced from 5,000 feet above the surface to 3,000 feet above the launch site. After further review, the FAA has determined that the proposed ascent training procedures exceeded accepted industry practice.

The title of section No. 5 of this appendix is changed in the final rule from ''supervised pilot-in-command training'' to ''solo training''. As previously discussed, the FAA has decided to retain the term ''solo'' in the final rule. For the reasons previously discussed, the FAA has withdrawn the requirement for solo flight training in a multiengine airplane, an airship, and a gas balloon. The final rule requires a student to perform the functions of pilot in command in a multiengine aircraft while under the supervision of a certificated flight instructor, or in an airship or gas balloon while under the supervision of a commercial pilot with an airship rating or balloon rating, as appropriate.

The solo cross-country requirements for helicopter and gyroplane ratings are decreased in the final rule from 250 nautical miles to 50 nautical miles to conform with part 61 and existing part 141 requirements. The exception for cross-country flights in Hawaii was deleted in light of the reduction in the distance requirement. For the reasons discussed in the analysis of appendix B, the night flying exception of § 61.131 was removed from section No. 5.

The FAA has modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100. The maximum possible credit for flight training received in a flight

simulator that meets the requirements of § 141.41(a) is 20 percent in the final rule. For flight training devices meeting requirements of § 141.41(b), the maximum credit is 10 percent in the final rule. The FAA also notes that training received in flight simulators or flight training devices may not be used to satisfy more than 50 percent of the flight training requirements in the final rule.

For the same reasons discussed in the analysis of proposed § 61.129, category- and class-specific references to the required instrument training time for helicopters and gyroplanes are deleted in the final rule.

In the final rule, the proposed references to medical certificate requirements were removed, because medical certificate requirements are addressed § 61.23. See the analysis of that section for further discussion.

In response to HAI's proposal to permit student pilots to concurrently enroll in a private, instrument, and commercial pilot certification course, the FAA determined that the skills and knowledge gained in a private pilot certification course are necessary prerequisites to enrollment in an instrument or commercial pilot certificate course.

With respect to concerns expressed about concurrent enrollment in the commercial pilot course and the instrument rating course, the FAA notes that concurrent enrollment is not a requirement but an option an individual may choose to exercise, depending on his or her circumstances.

The proposed rule is adopted with these and other editorial changes.

Appendix E—Airline Transport Pilot Certificate Course

The FAA proposed criteria for a certification course for an ATP certificate with an airplane, helicopter, or powered-lift rating. The course in existing appendix E, ''Commercial Test Course (Airplanes),'' was eliminated. Proposed appendix E included requirements found in existing appendix H, and also included provisions for the proposed powered-lift category rating.

To enroll in the flight portion of the course, the FAA proposed that a person be required to: (1) Hold a commercial pilot certificate with the category and class ratings for which the course applies and hold no restrictions; (2) hold at least a third-class medical certificate; and (3) upon completion of the course, meet the aeronautical requirements in part 61 for an ATP certificate that is appropriate to the ratings for which the course applies.

The proposed ground training requirements consisted of the same aeronautical knowledge areas proposed in part 61 for an ATP certificate, including windshear avoidance, and aeronautical decision making and judgment. The course continued to require 40 hours of ground training.

The proposed flight training consisted of the same approved areas of operation as proposed in part 61 for an ATP certificate. The course continued to require 25 hours of flight training with at least 15 hours of instrument flight training. The FAA decided not to specify the maximum time that may be credited for stage checks and end-of-course tests for the same reasons previously stated in appendix A.

Comments: HAI opposes the proposal in paragraph (4)(b), which provides for the crediting of flight training received in a flight training device, and recommends that a minimum time of 10 hours in an aircraft be specified for an ATP course. Several other commenters, including some flight schools, stated that the 10 percent credit is insufficient.

A flight school commenter objects to establishing more stringent requirements for the ATP Certification Course than are normally necessary for training under part 61, and cites the requirement for 25 hours of flight training under part 141, when the average flight training under part 61, according to the commenter, is 10 hours. The commenter also cites the 40 hours of ground training under part 141, compared with no similar requirement under part 61.

FAA Response: The FAA has modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100. Upon review of concerns regarding the credit limitation on training received in a flight simulator or flight training device, the maximum possible credit allowed for training in a flight simulator that meets the requirements of § 141.41(a) is 50 percent in the final rule. The maximum credit for training in a flight training device that meets the requirements of § 141.41(b) is 25 percent in the final rule. The FAA notes that training received in flight simulators or flight training devices may not be used to satisfy more than 50 percent of the flight training requirements of the final rule. These changes were necessary to ensure that the credit provisions in the final rule correspond to the existing credit provision in appendix E.

As previously noted, the medical certification requirements are withdrawn because these requirements are addressed in § 61.23 of the final rule.

The FAA revised the proposed eligibility requirements for enrollment in an airline transport pilot certification course by modifying proposed paragraph (c) of section No. 2 to indicate that an applicant must comply with the requirements of subpart G of part 61 prior to enrollment and not upon course completion as originally proposed. The FAA has also retained the proposal set forth in proposed paragraph (a)(2) of section No. 4 to require at least 25 hours of flight training on the approved areas of operation. Fifteen hours of this training is instrument training. The FAA notes that these requirements are more stringent than those specified in part 61, however, the FAA also notes that a school may obtain approval for a course with fewer hours if the course is approved in accordance with the provisions of § 141.55.

The final rule is adopted with these changes and minor editing and formatting changes.

Appendix F—Flight Instructor Certification Course

The FAA proposed to establish a separate appendix for flight instructor certification courses. The proposed appendix included the proposals in part 61 to establish: (1) A powered-lift category rating, (2) separate class ratings for powered gliders and nonpowered gliders, and (3) a flight instructor certificate for the lighter-than-air category.

To enroll in the flight portion of the course, the FAA proposed that a person must hold: (1) A commercial certificate or an ATP certificate with an aircraft category and class rating appropriate to the rating for which the course applies, and (2) an instrument rating in an aircraft that is appropriate to the aircraft category and class for which the course applies if the course was for an airplane, airship, or powered-lift instructor rating.

The proposed ground training consisted of the same aeronautical knowledge areas as proposed in part 61 for a flight instructor certificate. The course continued to require a minimum of 40 hours of ground training for an initial flight instructor certificate and 20 hours for an additional flight instructor rating.

The proposed flight training consisted of the same areas of operation as proposed in part 61 for a flight instructor certificate. The minimum hours of required flight training varied with the category or class of aircraft. A course for a rating in an airplane, a rotorcraft, a powered-lift, or an airship required a minimum of 25 hours of training. A course for a rating in a powered glider required 10 hours of

training. A course for a rating in a nonpowered glider required 10 hours of training and 10 training flights. A course for a balloon class rating required 8 training flights.

Comments: HAI recommends that the flight instructor course requirement in paragraph (2)(a) of appendix F be revised to require an applicant to either hold a commercial certificate, or be concurrently enrolled in a commercial course and an instrument rating course.

With regard to the minimum hour requirements for the flight instructor certification course, NATA states that the proposed minimum aeronautical training hours are insufficient while the proposed flight training hours are excessive. NATA recommends that the aeronautical training requirement be increased to 60 hours.

NBAA states that the requirement, proposed in paragraph (5)(b) of appendix F, that all airplane flight instructor candidates receive spin training, may be impossible to comply with in the case of multiengine airplanes because few, if any, multiengine airplanes are certificated for spins. NBAA proposes changing the wording to require only ground training, not flight training, for spins in airplanes other than gliders and single-engine airplanes.

In its comment, FSI recommends a reduction to 15 hours for flight training required for the addition of an airplane single-engine or multiengine class rating to a flight instructor certificate. The commenter states that it conducts a 12-hour part 61 flight instructor multiengine add-on course, as well as a flight instructor instrument rating add-on course to the flight instructor certificate. Jeppesen states that reducing the part 141 hour requirement would encourage students to train under an FAA-approved part 141 course instead of under part 61.

University of North Dakota Aerospace (UND) recommends training conducted to a proficiency level rather than to a specific flight-hour requirement for the flight instructor certification course. ERAU also objects to the mandated hours, and states that the FAA should set forth the material to be taught and permit the school to propose the required hours for FAA approval. ERAU states that the appendix is unclear on how or what constitutes an original issuance of a certificate. The ability to issue two ratings on one certificate at one time allows for an economy of time and of expense for students. Training to a standard could also save students considerable time and money.

A balloon school operator states that the 40 hours of training specified in paragraph (3)(a)(1) of appendix F is excessive for balloons because applicants for the instructor rating will already hold a commercial certificate, and instruction will be focused on the fundamentals of instructing, which ''can be effectively taught in 5 hours.'' According to the commenter, this also applies to the material contained in ''Areas of Operation'' in paragraph (4)(c)(9) of appendix F. The same commenter states that the requirement for eight flights in paragraph (4)(a)(4) of appendix F is a meaningless measure for balloons because of the variability of flight time. The commenter recommends that the requirement be specified in hours instead, and proposes 4 hours for this purpose. Finally, this commenter objects to the use of the term ''performance maneuvers'' in paragraph (4)(c)(9)(ix) of appendix F because the term has no meaning for balloons.

FAA Response: In the final rule, references to the proposed term ''supervised pilot in command'' were replaced with the term ''solo'' for reasons discussed in the analysis of § 61.1. Proposed provisions for separate powered and nonpowered classes, within the glider category requirements, have been consolidated under a single set of requirements for the glider class for the reasons discussed in section IV, F. The establishment of a flight instructor certificate for the lighter-than-air category has not been adopted in this section for the reasons outlined in section IV, C.

In response to comments regarding the proposal for an applicant for a flight instructor rating in a rotorcraft to possess an instrument rating, the FAA has determined that such a requirement is not warranted, and has withdrawn that proposal from the final rule.

In response to NATA's comment that the aeronautical knowledge requirement should be increased to 60 hours, the existing rule requires 40 hours. The FAA did not propose raising this requirement, and therefore NATA's recommendation is beyond the scope of this rulemaking. In response to NATA's complaint that the proposed flight training hours are excessive, the FAA points out that this is an existing requirement.

Regarding NBAA's comment concerning spin training in multiengine airplanes, the FAA agrees that few multiengine airplanes are certificated for spins. It was never required or proposed for this training to be conducted in a multiengine airplane. This requirement can be accomplished in a single-engine aircraft that is certificated for spins.

The FAA has reviewed the comments requesting a reduction in the hour requirements for flight training and finds that the comments have offered no significant justification for reducing these hours. Furthermore, the FAA notes that the training requirements reflect the current requirements in appendix H.

The FAA also notes that the eligibility requirements for enrollment in a flight instructor certification course were clarified to reflect that an ATP seeking a flight instructor certificate possess instrument privileges in the aircraft category and class appropriate to that certificate.

In response to the comment from a balloon school operator, the FAA notes that all flight instructor ratings for the lighter-than-air category have been withdrawn as previously discussed.

The FAA has also modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100.

The rule is adopted with these changes.

Appendix G—Flight Instructor Instrument (for an airplane, helicopter, or powered-lift instrument instructor rating) Certification Course

The FAA proposed a separate appendix addressing certification courses for a flight instructor certificate with an instrument rating. This proposed appendix included the proposals in part 61 to establish: (1) A powered-lift category and instrument rating, (2) an instrument rating for airships, (3) instrument ratings for single-engine and multiengine airplanes, and (4) a flight instructor certificate for the lighter-than-air category.

To enroll in the flight portion of the course, the FAA proposed that a person hold: (1) a commercial certificate or an ATP certificate with an aircraft category and class rating appropriate to the rating for which the course applies, and (2) a flight instructor certificate with an aircraft category and class rating that is appropriate to the instrument rating for which the course applies.

The proposed course required a minimum of 15 hours of ground training on the same aeronautical knowledge areas as proposed in part 61 for a flight instructor certificate. The proposed course also required a minimum of 15 hours of flight training on the same approved areas of operation as proposed in part 61 for a flight instructor certificate.

Comments: HAI recommends that the flight instructor course requirement in

paragraph (2)(a) of appendix G be revised to require a person to either hold a commercial pilot certificate or be concurrently enrolled in a commercial course and instrument rating course. HAI opposes the ratio by which time spent training in a flight training device is credited, and recommends deletion of the subparagraphs of paragraph (4)(b) of appendix G.

In its comment, NATA recommends deletion of paragraph (2)(b) of appendix G, and requests that the FAA address initial and add-on training requirements in a similar fashion to proposed paragraphs (3)(a)(1) and (3)(a)(2) of appendix F. This would allow applicants to receive an instrument flight instructor certificate without holding a flight instructor certificate. To this end, NATA recommends a minimum of 45 hours of aeronautical knowledge training for initial flight instructor applicants, and 15 hours for additional flight instructor ratings.

UND objects to the economic burden resulting from the establishment of separate single-engine and multiengine instrument instructor ratings, and questions what the conversion process would be for current multiengine instrument instructors.

FAA Response: In the final rule, references to the proposed terms ''supervised pilot in command'' were replaced with the term ''solo'' for reasons discussed in the analysis of § 61.1. The establishment of an instrument flight instructor rating for the lighter-than-air category has not been adopted in this section for the reasons outlined in section IV,C. Similarly, the proposed separation of single-engine and multiengine instrument instructor ratings has not been adopted for the reasons presented in section IV,D.

In response to HAI's comment recommending that the eligibility provisions of paragraph (2)(b) be revised to permit instrument flight instructor applicants to be concurrently enrolled in a commercial pilot certification and instrument rating courses, the FAA did not propose any changes to the current eligibility requirements that are now contained in existing appendix H. In addition, the FAA questions the benefit of HAI's recommendation to permit an applicant to be concurrently enrolled in three different training courses. The FAA believes that if an applicant were permitted to be enrolled concurrently in a commercial pilot certification course, instrument rating course, and flight instructor-instrument rating course, the applicant would be unable to obtain benefits comparable to enrolling in each course individually.

In response to HAI's recommendation that the FAA revise the provisions for crediting training time received in a flight training device to meet training requirements, the FAA notes that the purpose of establishing percentage computations was to encourage those schools that desire to submit courses that ''train to a standard.'' The FAA has determined that for courses with less than the minimum training hour requirements of part 141, a specific ratio between time spent in an aircraft and time spent in a flight training device should be maintained. The FAA has also modified the appendix to conform with the definitions of ''flight simulator'' and ''flight training device'' set forth in Amendment No. 61–100.

The FAA has considered NATA's comments and decided to withdraw the requirement that a person must hold a flight instructor certificate prior to enrolling in a flight instructor-instrument certification course. The FAA recognizes that it is possible under existing rules for an individual to obtain an instrument flight instructor certificate with an instrument-instructor rating without holding a flight instructor certificate. The FAA also notes that the eligibility requirements for enrollment in a flight instructor-instrument certification course were clarified to reflect that an ATP seeking a flight instructor certificate with an instructor-instrument rating possess instrument privileges in the aircraft category and class appropriate to that certification. The rule is adopted with these changes and other minor editorial and format changes.

Appendix H—Ground Instructor Certification Course

The FAA proposed to establish criteria for approval of a certification course for a ground instructor certificate. An equivalent course is not found in existing part 141 or part 143.

This proposed appendix included the proposals in part 61 to: (1) Revise ground instructor ratings, (2) establish a powered-lift category rating, (3) establish separate class ratings for powered gliders and nonpowered gliders, (4) establish an instrument rating for airships, and (5) establish instrument ratings for single-engine and multiengine airplanes.

The proposed course required ground training on the same aeronautical knowledge areas as proposed in part 61. A person who enrolls for an initial ground instructor certificate was required to receive a minimum of 20 hours of ground training. A person who enrolls in an additional ground instructor rating was required to receive a minimum of 10 hours of ground training. Existing appendix H, ''Flight Instructor Certification Course,'' contained a provision that stated that initial ground training requirements could be lowered by one-half if an applicant had prior related instructional experience. Notice No. 95–11 proposed to apply this provision to ground instructors as well.

No substantive comments were received. In the final rule, the proposed ground instructor ratings were deleted and replaced with the ground instructor ratings provided for in existing part 143—basic, advanced, and instrument. For a discussion of the reasons for these changes to the final rule, see the analysis of subpart I of part 61. The appendix is adopted with these changes.

Appendix I—Additional Aircraft Category or Class Rating Course

The FAA proposed to establish criteria for certification courses for adding either a category rating or a class rating on a pilot certificate. The course in this appendix appeared in sections II and III of existing appendix F. The proposed appendix included the proposals to establish a powered-lift category rating as well as separate class ratings for powered and nonpowered gliders.

The FAA proposed that to enroll in the flight portion of the proposed course, a person would be required to hold: (1) The minimum level pilot certificate that is appropriate to the additional category or class aircraft rating to which the particular course applies, and (2) at least a third-class medical certificate for aircraft ratings that require a medical certificate for that pilot certificate level. To obtain an additional rating at the recreational pilot certificate level or an additional glider or balloon rating, applicants would have to provide a signed and dated statement certifying that they have no known medical defects that would make them unable to pilot a glider or a balloon.

Each course approved under this appendix was required to consist of the minimum requirements found under appendix A, B, C, D, or E for the category rating or class rating for which the course was approved at the appropriate pilot certificate level.

No substantive comments were received. This appendix is being included in the final rule with changes that reflect the elimination of the separate glider classes, as explained in section IV,F. The appendix also reflects changes in the current definitions of ''flight simulator'' and ''flight training device,'' and other minor terminology changes. The references to medical

certificates in proposed section No. 2 were deleted because medical certificate requirements are now contained in § 61.23. See the analysis of § 61.23 for further discussion. The proposed rule is adopted with the changes discussed above, as well as minor formatting and editing changes.

Appendix J—Aircraft Type Rating Course, for Other Than an Airline Transport Pilot Certificate

The FAA proposal established criteria for an aircraft type rating course, for other than an ATP certificate, for a person who desires to add a type rating on his or her private or commercial pilot certificate. The proposed course in this appendix was found in existing appendix F. The course included provisions for the powered-lift category rating as proposed in part 61.

The FAA proposed that to enroll in the flight portion of the proposed course, a person must hold: (1) At least a private pilot certificate; (2) at least a third-class medical certificate, if a medical certificate is required for the type of aircraft rating sought; and (3) an instrument rating, or be concurrently enrolled in a course for an instrument rating in the category and class that is appropriate to the aircraft type rating for which the course applies (if the aircraft does not hold a VFR limitation). A person who is concurrently enrolled in a course for an instrument rating would be required to satisfactorily accomplish the required practical test concurrently with the aircraft type rating practical test.

A minimum of 15 hours of ground training was proposed. A minimum of 25 hours of flight training was proposed, of which at least 15 hours was required to be instrument flight training in the aircraft for which the course applied.

Comments: UND Aerospace reiterates its view, as expressed with respect to appendixes F and G, that there should be no specific hourly training requirement because training should be conducted to a proficiency level. The commenter also recommends revising the language of paragraph (4)(a)(1) to include a reference permitting the use of a flight training device instead of an aircraft.

FAA Response: Upon further review of this appendix, the FAA noted an error in the proposed ground and flight training hour requirements. The proposed requirements of 15 hours of ground training and 25 hours of flight training exceeded existing training requirements. The FAA has determined that there have been no safety problems to require such an increase in training time. Therefore, the final rule reflects the existing requirements of 10 hours of ground training and 10 hours of flight training.

In response to UND's recommendation that this appendix should not provide any specific hourly training requirements, the FAA notes that § 141.55 permits a school to submit a course for approval that contains less training time than in part 141. With regard to UND's recommendation to permit the use of flight training devices, the FAA notes that this appendix provides for the crediting of training time received in flight simulators and flight training devices that meet the requirements of § 141.41 (a) and (b). Flight simulators may be used to receive credit for up to 50 percent of the total flight training hour requirements of this appendix, and flight training devices may be used to receive credit for up to 25 percent of the total flight training requirements of this appendix. The FAA notes that training received in flight simulators and flight training devices may not be used to satisfy more than 50 percent of the flight training requirements of the final rule.

The final rule deletes proposed paragraph (b) of section No. 2, which referred to medical certificates because the medical certificate requirements are included in § 61.23. See the analysis of that section for further discussion.

The proposed rule is adopted with these changes and other minor editorial changes.

Appendix K—Special Preparation Courses

The FAA proposed to establish criteria in appendix K for special preparation courses, similar to those in existing appendix H, ''Test Preparation Courses.'' These proposed courses were similar to the existing test preparation courses, but expanded the concept of specialized courses. The proposed appendix included the proposals in part 61 to: (1) certificate ground instructors under part 61, (2) revise aeronautical knowledge areas, and (3) set forth approved areas of operation.

The proposed appendix included: (1) flight instructor refresher courses, (2) ground instructor refresher courses, (3) special operations courses, and (4) test pilot courses.

The FAA proposed that to enroll in the flight portion of the proposed courses, a person must hold a pilot certificate appropriate to the operating privileges or authorization sought. For example, if after graduation the person operates an aircraft under part 133, ''Rotorcraft External-Load Operations,'' that person was required to hold at least a commercial pilot certificate with a rotorcraft-helicopter rating. Each student enrolled in these courses was required to satisfactorily accomplish stage checks and end-of-course tests to graduate.

The FAA also proposed to require that a person enrolling in the flight portion of the course hold at least a third-class medical certificate, if a medical certificate was required in part 61 of this chapter, or a signed and dated statement by the person certifying that the person enrolling had no known medical defect that makes that person unable to pilot a glider or a balloon.

The proposed agricultural aircraft operations required a minimum of 25 hours of ground training and 15 hours of flight training as found in section No. 8 of existing appendix H. This proposal eliminated the option in appendix H to include up to 5 hours of supervised pilot in command practice. The ground training requirements were clarified and expanded to include training on: (1) Agricultural aircraft operations; (2) safe operating procedures for handling and dispensing agricultural and industrial chemicals, including operating in and around congested areas; and (3) applicable provisions of part 137. The flight training requirements were clarified to include training on agricultural aircraft operations.

The proposed course on rotorcraft external-load operations continued to require a minimum of 10 hours of ground training and 15 hours of flight training, as found in section No. 9 of existing appendix H. The ground training requirements include: (1) Rotorcraft external-load operations; (2) safe operating procedures for external-load operations, including operating in and around congested areas; and (3) the applicable provisions of part 133. The flight training requirements include training on external-load operations.

The FAA proposed to establish basic criteria for a test pilot course. The proposed course requirements included ground training on the following: (1) Aircraft maintenance, quality assurance, and certification test flight operations; (2) safe operating practices and procedures for performing aircraft maintenance, quality assurance, and certification test flight operations; (3) applicable parts of the FAR that pertain to aircraft maintenance, quality assurance, and certification tests; and (4) test pilot duties and responsibilities. The course also required a minimum of 15 hours of flight training on test pilot duties and responsibilities.

The FAA proposed to establish minimum criteria for special operations courses, including pipeline patrol, shoreline patrol, and aerial

photography. The requirements of each course were not specifically designated. The intent of the proposal was to provide an incentive to, and flexibility for, part 141 pilot schools to develop specialized courses and improve business opportunities.

The FAA proposed to revise the pilot refresher course in section No. 7 of existing appendix H. The course continued to require 4 hours of ground training and 6 hours of flight training. The proposed course did not specifically include the current option for up to 2 hours of the 6 hours to be directed solo practice, but permitted the school more flexibility in designing a syllabus that best fits each student's needs. The ground training requirements included: (1) Aeronautical knowledge areas that are applicable to each student's pilot certificate level, aircraft category and class rating, or instrument rating, as appropriate; (2) safe pilot operating practices and procedures; and (3) applicable provisions of parts 61 and 91 for pilots. The flight training requirements were clarified to include flight training on the approved areas of operation that are applicable to the level of each student's pilot certificate, aircraft category and class rating, or instrument rating, as appropriate, for performing pilot in command duties and responsibilities.

On April 6, 1994, the FAA issued Amendment No. 61–95, ''Renewal of Flight Instructor Certificates'' (59 FR 17646). In that final rule, the FAA revised § 61.197(c) by deleting the current 24-hour requirement for an approved flight instructor refresher course. In this appendix, the FAA proposed establishing a flight instructor refresher course consisting of at least 16 hours of ground training, flight training, or any combination of ground and flight training. The ground training included the: (1) Aeronautical knowledge areas of part 61 that apply to student, recreational, private, and commercial pilot certificates and instrument ratings; (2) aeronautical knowledge areas that apply to flight instructors; (3) safe pilot operating practices and procedures, including airport operations and operating in the NAS; and (4) applicable provisions of parts 61 and 91 that apply to holders of pilot and flight instructor certificates. The flight training course included a review of the: (1) approved areas of operations that are applicable to student, recreational, private, and commercial pilot certificates and instrument ratings; and (2) necessary skills, competency, and proficiency for performing flight instructor duties and exercising flight instructor responsibilities.

In addition, the FAA proposed criteria for ground instructor refresher courses. The proposed contents of this course required ground training on: (1) Aeronautical knowledge areas of part 61 that apply to student, recreational, private, and commercial pilot certificates and instrument ratings; (2) aeronautical knowledge areas of part 61 that apply to ground instructor certificates; (3) safe pilot operating practices and procedures, including airport operations and operating in the NAS; and (4) applicable provisions of parts 61 and 91 that apply to pilots and ground instructor certificates.

Comments: A balloon school opposes proposed paragraphs (11) and (12) of the special preparation flight instructor and ground instructor refresher courses, which require 16 hours of ground and/or flight training. The commenter states that, for balloon instructor training, such a course can be completed in 4 hours, and no flight training is necessary.

FAA Response: The FAA acknowledges the balloon school's concerns. As discussed in section IV,C, the FAA is not adopting the proposed flight instructor certificate for the lighter-than-air category, and therefore the proposed appendix requirements would not apply to that school's instructors under the final rule.

In the final rule, the medical certificate requirements for eligibility for a course under this appendix have been deleted because medical certificate requirements are now contained in § 61.23. See the analysis of § 61.23 for further discussion. Additionally, the FAA has modified the appendix to conform with the definitions of ''flight simulators'' and ''flight training device'' set forth in Amendment No. 61–100.

Appendix L—Pilot Ground School Course

In proposed appendix L, the FAA set forth the requirements for the Pilot Ground School course found in existing appendix G. The proposal included an additional general requirement that ground training include those aeronautical knowledge areas needed to ''develop competency, proficiency, resourcefulness, self-confidence, and self-reliance in each student.''

No substantive comments were received, and except for minor editorial changes, the final rule is adopted as proposed.

Regulatory Evaluation Summary

Cost Benefit Analysis

The FAA has considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's regulatory policies and procedures. This rulemaking document was reviewed under Executive Order 12866, ''Regulatory Planning and Review.'' This section has been determined to be ''significant'' under the Department of Transportation's regulatory policies and procedures. The FAA has prepared an economic assessment of the final rule. The FAA has evaluated the anticipated costs and benefits, which are summarized below. For more detailed economic information, see the full regulatory evaluation contained in the docket.

Discussion of Comments

In response to Notice No. 95–11, there were many comments relating to pilot, flight instructor or ground instructor, and pilot school certification requirements. The FAA's response to the technical issues raised by commenters are addressed in the preamble to the rule. The comments on the economic impact of the notice and FAA's response are discussed as follows:

Part-time or ''Free Lance Instructors''. One commenter (No. 30) states that the renewal requirements in the proposed rule will place unwarranted economic burdens upon new flight instructors, those flight instructors who instruct part time, and those ''free lance'' instructors unaffiliated with a fixed base operator (FBO). The commenter also does not believe that the FAA provided any supporting data explaining what safety benefit will result from the proposed conversion/renewal requirements.

FAA Response: The FAA believes that any proposal written would inherently favor some groups over other groups; however, this proposal attempts to minimize any bias. But the bias that the commenter is talking about already exists. (This commenter states that part-time or ''free lance'' instructors are currently a threat and potential source of lost revenue to FBOs. Consequently these instructors have found it difficult to conduct any instruction of any kind in a multiengine airplane unless the instructor or the student provides one.) This specific issue is also outside the scope of the final rule.

With regard to the renewal requirements, the FAA is stating what has been past policy as identified in FAA Order 8700.1. Moreover, the proposed rule (and this final rule) is somewhat less restrictive than the existing rule. The existing rule states that the flight instructor certificate is valid for 2 years from the expiration date. Under the final rule, if the renewal

date is for example, December 31, 1995, then the flight instructor can renew his or her certificate 90 days prior to the expiration date. The expiration date will be based on the December 31, 1995, date in certain cases.

Redundancy of Separate Instrument Ratings for Single Engine and Multiengine Airplanes. One commenter (No. 82) states that separate instrument ratings for single-engine and multiengine airplanes seems to be redundant.

Another commenter (No. 3,800) states that the proposed change adds significantly to the total cost of acquiring a commercial pilot certificate with single-engine and multiengine class ratings. This commenter states that the added costs to him would be about $5,500.

FAA Response: The FAA is withdrawing this proposal. The FAA will continue to enforce current policy and will further clarify that policy in the final rule.

Separate Instrument Rating Certificate for Single-Engine and Multiengine Airplane Instructors. A commenter (No. 639) argues that the FAA is imposing an undue and unnecessary financial burden upon an already depressed industry (by requiring instructors to obtain a special instrument instructor certificate specifically for multiengine aircraft). Other commenters (e.g., No. 4,765) provided similar comments. The commenter argues that the proposed rule will do nothing to improve the quality of multiengine training and will have no impact on safety. Other commenters (e.g., Nos. 933; 1,466; 1,624; 1,661; 3,133) also state that to require a separate checkride for a certified flight instructor, instrument and multiengine (CFII MEI) would add time and cost for the instructor with no significant increase in knowledge or safety. This commenter states that instrument work does not change with the addition of an engine, and CFIs who provide multiengine training must hold a commercial multiengine license with instrument privileges.

FAA Response: The FAA agrees with these commenters and has withdrawn this proposal.

Ratings for Flight Instructors. A commenter (No. 1,661) is opposed to the requirement that existing flight instructors who hold instrument airplane and multiengine ratings on their flight instructor certificates must have given 20 hours of flight training in a multiengine airplane for the issuance of an instrument multiengine airplane rating. In addition, the instructor must have recommended at least one student for the instrument airplane practical test who passes, or the flight instructor must pass a practical test to have his/her flight instructor certificate converted under the proposed changes. The commenter argues that this does not increase public safety but places a huge financial burden on instructors. This commenter states that the cost of an additional multiengine instrument instructor practical test would easily approach $500 per instructor, which includes the rental of a light twin-engine airplane at $150 per hour combined with an average fee of $150 to $200 per designated pilot examiner.

This commenter also states that flight instructors as a whole are highly skilled. The commenter cites a report stating that for 1994, while flight instruction accounted for over 23 percent of flying activity, it accounted for only 4.5 percent of fatal accidents. He concludes that flight instruction is one of the safest of all aviation activities and therefore flight instructors do not need additional testing.

FAA Response: The FAA agrees with the commenters and is withdrawing this proposal.

Passing the Instrument Proficiency Test of § 61.57 in an Airship. A commenter (No. 1,772) states that it is costly and time consuming to take a full-blown proficiency check in an airship. Each instrument approach takes 7 to 10 times the amount of time an airplane or helicopter would take to execute each maneuver, based on the slow groundspeed of the airship. With any wind component, additional time on the ''upwind'' portion of the approach might bring air traffic control (ATC) useable airspace to a standstill during such operations. At a minimum of $500 per hour, the operating costs involved during a proficiency check would take in excess of 5 hours and cost over $2,500. He also argues that the philosophy extends to instrument ''currency'' requirements. Ten to twelve instrument approaches in 2 hours flight time is virtually impossible to complete in a fast-moving airplane, much less in a vehicle moving at less than 30 knots and more, acutely affected by winds.

FAA Response: The existing rule (§ 61.57(e)(i)) covering instrument experience states that the pilot must have logged at least 6 hours of instrument time under actual or simulated IFR conditions, at least three of which were in flight in the category of aircraft involved, including at least six instrument approaches. In other words, the pilot currently must have 6 hours of instrument experience. Under the current rule, the commenter is required to take a proficiency check, therefore this comment is unfounded. The FAA acknowledges, however, that the language contained in the preamble to the proposed rule was unclear. The FAA has corrected the preamble in the rule.

Sharing of Expenses. Commenters (Nos. 3,320; 4,237; and 5,062) believe that the FAA should clarify and relax the interpretation of ''sharing expenses.'' One commenter (No. 3,320) believes that pilots should be permitted to share equally the costs of aircraft rental (or equivalent costs if the aircraft is owned by the pilot), and not simply fuel and oil costs. This commenter states that his hourly cost (based on total direct cost—insurance, maintenance, fuel) runs about $65 per hour, excluding depreciation for his Cessna 172. Fuel and oil costs are about $25 per hour. The cost to rent a similar aircraft in his area is about $70. This commenter states that strict pro rata sharing of only fuel and oil costs discourages pilots from using their aircraft and maintaining piloting skills. Sharing only fuel and oil costs with one passenger means that the pilot assumes 80 percent or more of the true cost of ''sharing expenses.'' Finally, the commenter states that the FAA should encourage pilots to use their skills, rather than financially penalizing them for taking passengers who wish to travel to a common destination. Other commenters (e.g., No. 4,792) are also opposed to the revision regarding shared expenses.

Another commenter (No. 3,407) believes that the revised text ''share equally'' will remove confusion from most private pilots. However, the proposed text does not specifically address rental of an aircraft by a pilot for a flight with passengers, all of whom share a common purpose for taking the flight. The commenter presents an example showing that the pilot would pay a greater share of expenses than each of the passengers. He estimates that a Cessna 172 rents for $50 per hour. The airplane consumes 8 gallons of fuel per hour at $2 per gallon and one-half pint of oil at $3 per quart. The commenter concluded that the proposed rule would reduce revenue at a number of FBOs that depend on aircraft rental revenue and will reduce pilot flight hours since many pilots will not take flights that would otherwise be affordable.

FAA Response: The FAA has rewritten the final rule to allow for the sharing of all expenses specified in § 61.113(c).

Glider Class Ratings and Testing. A commenter (No. 3,707) opposes the FAA dividing the glider category into two classes for pilot certificates and ratings: powered glider and nonpowered glider.

He contends that converting current glider pilot and flight instructor certificates to the new class ratings over a 2-year period does not keep with the stated goal of promoting aviation and reducing the regulatory burden. He states that there are no more than 200 aircraft that could be classified under the proposed ''powered glider'' class. He also states that 15,000 licensed glider pilots would have to be retested at $300 per pilot or $4.5 million total. He's not even sure that there are enough certified flight instructors, ground (CFI–G's) to do this in 2 years.

SSA (No. 5,220) does not believe that the FAA should establish a class rating for powered gliders. The commenter believes that the proposed rule goes beyond the scope of lessening the burden of regulatory reform to establish a class rating for a minimal size group that has not shown a propensity to denigrate safety. The commenter cites statistics from the Soaring Safety Foundation showing that during the period of 1981 through 1995, powered sailplanes were involved in nine accidents which resulted in four fatalities. The commenter also states that there are currently about 200 licensed powered sailplanes, and by 2002 there will be about 214. There are also about 300 active members in the American Soaring Society ''checked out'' in powered sailplanes. This number is expected to increase to 321 pilots by the end of 2002. However, there are currently about 1,000 pilots ''checked out'' in powered sailplanes.

Another commenter (No. 5,411) states that glider class ratings are unnecessary. The commenter notes that a pilot who took his or her test in a traditional glider, and who owns and flies a powered glider would, under this proposal, have to hire an instructor, receive training in an aircraft the pilot is already flying, get an endorsement from the instructor, and take another test in his or her powered glider. This commenter states that there are few powered glider instructors and that they are costly.

FAA Response: The FAA will not create separate class ratings for powered and nonpowered gliders. There is insufficient safety justification to support this change for separate class ratings.

CFI for Lighter-than-air Aircraft. A commenter (No. 4,283) opposes the FAA creating a CFI rating for lighter-than-air aircraft for several reasons. The commenter states that in the state of Michigan during the past 15 years, there have been only three balloon accidents and they were minor in nature with no fatalities. The balloon community will be reduced in size should the FAA require a CFI rating for balloons. The entry costs of flying balloons is about $35,000 for new equipment. Adding the training costs to this would make ballooning too expensive for most people. In addition, for every lesson completed, there are usually two or three scheduled sessions that are ''weathered out.'' Another commenter (No. 4,437), an employee of a hot air balloon manufacturer, says that the proposed rule would result in fewer balloon sales. The commenter believes that as many as 40 employees at their facility would lose their jobs. Other commenters (Nos. 4,642 and 4,903) believe that any increase in costs would limit the growth in ballooning and that it would be impossible to maintain an instructor certificate under the proposed rule because the costs of maintaining a certificate would increase, and often a good flight instructor may only be able to train one student per year and in some cases no students in a given year.

Another commenter (No. 2,807) states that the creation of a lighter-than-air flight instructor rating will make obtaining a gas balloon certificate so expensive that all but the very rich will be eliminated from obtaining a certificate. The current cost of helium for one flight is approximately $3,600 delivered to the site. With a two flight minimum as proposed within 60 days, the nominal cost of the certificate will approach $10,000.

FAA Response: The FAA agrees with these commenters and is withdrawing this proposal. The FAA is not establishing a flight instructor certificate in the lighter-than-air category because operational requirements and accident/incident data do not establish a sufficient safety justification for the increased regulatory and economic burden.

Small Business Impact. A commenter (No. 4,307) questions the FAA conclusion that there would not be a significant economic impact on a substantial number of small entities in the helicopter industry (training). This commenter asks how many of those entities may have the desire or the financial ability to equip and maintain their aircraft to meet these new rules, and if they could, would then be willing to place these aircraft in the areas of risk that are proposed in the new rules. The commenter also states that proposed § 61.129(5)(i) requires 5 hours of instrument training in a helicopter. The added cost would be $1,150 per instructor. The commenter further states that it would force the small operator to purchase ready-equipped aircraft or spend a minimum of about $15,000 per aircraft to bring it up to IFR training capability. In addition, small operators do not have helicopter CFIIs on staff, so either these schools would have to train these otherwise qualified instructors, or replace them with other individuals. If a helicopter instructor is not instrument-rated in another category, the cost for the instrument rating would be over $10,500 per instructor.

FAA Response: The FAA agrees with this commenter. The final rule does not require that the equipment be class specific. An applicant can take the instrument training in any kind of aircraft, flight simulator, or other ground training device.

Cost of Medical. A commenter (No. 144) who flies for pleasure argues that he flies high performance gliders and self evaluates himself because of the cost of obtaining a third-class medical to fly powered aircraft. The commenter states that he had an angioplasty in 1988 and states that the required tests for a third-class medical after his angioplasty cost about $1,800–$2,000 more. He believes that it is as ''safe for powered pilots, flying for pleasure, out of the terminal area, VFR day light, with one passenger, maximum four place 180 H.P. as it is for me to fly high performance gliders, with one passenger for pleasure, and have the same self-certifying ability.''

A second commenter (No. 2,857) states that he has chosen to fly under part 103 in an ultralight to avoid paying the $1,000 per year medical testing.

FAA Response: The FAA carefully considered these cost comments as well as other comments pertaining to the proposal that pilots who hold recreational pilot privileges, student pilots operating within the limitations of a recreational pilot certificate, and those higher-rated pilots who elect to exercise only recreational pilot privileges be permitted to operate aircraft without holding a medical certificate. The FAA's overriding concern is safety, and before such a significant change can be adopted, the FAA must determine that the level of safety will not be degraded. The FAA has decided, therefore, to withdraw the proposed change from the final rule. The FAA intends to conduct additional analysis on this proposal and may issue a separate rulemaking action in the future.

Elimination of ''Simulated Tow'' Option. A commenter (No. 2,295) argues that the elimination of the ''simulated tow'' option found in proposed § 61.69(c)(2) will place a serious operational and financial hardship on many glider operations. The majority of aircraft used for glider towing are single-

place and many two-place aircraft are not well suited for this service. The commenter estimates that over 70 percent of the glider towing in the United States is done with single-place aircraft. The club that the commenter belongs to checks out four to five new tow pilots each year and the closest two-place tow plane is several hundred miles away from their operation. He estimates that the additional cost for the elimination of the ''simulated tow'' option will be $500 per tow pilot.

SSA (No. 5,220) also does not agree with the FAA's belief that safety would be better served by eliminating the second method of tow endorsement in current § 61.69. The commenter states that there are numerous clubs and commercial operators that tow with single-place tow planes and eliminating the second part of § 61.69 would create a severe limitation on those operators. It would require having an aircraft with two pilot seats and a tow hitch available to complete the checkout, or hiring a multiplace tow plane with a tow hitch to do the checkouts.

FAA Response: After the comment period closed, the FAA specifically discussed this issue with SSA in order to gather additional clarifying information. There are about 350 soaring sites in the United States and about 4 tow planes per site. Of the 1,500 tow planes, about 1,000 are single-seat and 500 are two-seat airplanes. Most operators do not use the simulated towing option. For those operators that do, the cost of an approved tow kit is about $600 for parts and another $600 for labor. Some operators may not want to install tow kits on their airplanes because it chops their airplane up. Consequently, some tow pilots may have to travel to other soaring sites to be checked out in a two-place tow plane with a hitch.[1]

After the comment period closed, the FAA also contacted the Memphis Soaring Society (No. 2,295) to clarify their comment.[2] The commenter claims that the most common single place tow aircraft are 235 horsepower Piper PA–25s. This aircraft, originally built for agricultural operations, became available for glider towing when agricultural operators moved up to higher-powered turbine aircraft. Some two-place tow planes are the Piper Super Cub, the Citabria, the Maule, and a model of the Bellanca (all taildraggers). This operator states that they own one Piper PA 25. The nearest two-seat airplane is a Maule, which is 200 miles away. The estimated added cost is $200 for the Maule, and $300 for transportation, overnight accommodations, and meals.

After carefully reviewing this information, the FAA concludes that some operators may incur added costs associated with eliminating this option. Given the lack of safety benefits, the FAA is withdrawing the proposal to eliminate the simulated tow option.

Extensive Use of Ground Trainers and 250-Hour Experience Requirement for Part 141 Schools. A commenter (No. 2,388) uses ground trainers extensively. They have found that they can provide more quality training in this equipment given the cost than they can in aircraft. Their present part 141-approved instrument course has 30.9 hours in airplanes and 28.7 hours in ground trainers. This commenter states that their trainers would meet the requirements of proposed § 141.41(a)(1), but would only be valid for 10 percent of the course. Consequently, their cost per student would increase by $1,000 and training quality would be greatly reduced. Their present course is 58 hours total time, of which 28 hours are in a ground trainer. Ten percent of 58 is only about 6 hours, or 22 hours less than present. The commenter contends that the only way to survive would be to reduce their course time to 35 hours with 3.5 hours in a ground trainer.

Another commenter addressed the 250-hour experience requirement for part 141 FAA approved schools. This commenter (No. 2,554) states that economically the only incentive to retain part 141 status would be the 5-hour reduction in flight time required for the private pilot and instrument rating courses. The small difference in flight hours would not offset the internal cost of completing flight instructor ground training requirements and conducting flight competency check rides.

A third commenter (No. 4,938) argues that proposed part 141 Appendix D—Commercial Pilot Certification Course would now require pilot flight time to increase from 190 hours to 250 hours. At his pilot school, this would increase the cost of the commercial certificate for their students by $3,360 to $4,260 depending on the mix of dual or solo flight time. The only advantage of training under part 141 would be examining authority by the pilot school and not having to pay a designated examiner's fee.

FAA Response: The final rule has been changed to reflect the comments of these individuals. The FAA will allow the use of flight training devices to bring students up to current requirements. Students will be issued a certificate after completing the requirements for a part 141 course. There will be no additional time requirement.

Economic Impact on the Industry. A commenter (No. 3,818) states that the economic impact of this proposed rule has not been addressed and that the cost of training will increase without any clear indication that there will be any benefits.

FAA Response: A summary of the regulatory evaluation to the proposed rule along with the proposed rule and a copy of the regulatory evaluation is available in the public docket. In the past decade (as discussed in the regulatory evaluation) general aviation accidents, both overall accidents and fatal accidents have decreased in number as well as in rate per 100,000 aircraft hours. However, the percentage of total accidents where pilot error is cited as a causal factor has increased. The analysis for Notice No. 95–11 concludes that although other areas of accident causes have been addressed, pilot error has yet to be effectively controlled.

The FAA focused on pilot-error related accidents due to the focus of this rulemaking on pilot training. All accidents where pilot error was cited as a cause or a factor are counted in the above stated percentage of pilot error accidents. For example, accidents occurring due to weather or equipment failure may also be included in the count of pilot error accidents. An accident that occurs due to depletion of fuel that is a result of pilot error is cited as a causal factor. That way, the FAA defines the number of accidents to be considered by eliminating accidents that are solely caused by weather, systems, equipment, instruments, or some other factor not addressed by the proposed rule.

Biennial Flight Review Class Specific. A commenter (No. 4,557) was under the impression that the proposed rule would have required BFRs to be class specific. This commenter provided substantial cost data to the FAA on his costs should the FAA make BFRs class specific.

FAA Response: The FAA did not propose, nor does the final rule require, that BFRs be class specific.

Additional Training Required for Operating High Performance Airplanes. AOPA (No. 5412) discusses the additional training required for operating high performance airplanes.

[1] Based on a record of conversation between Gary Becker, USDT, FAA, APO–310 and James Short, Chairman, SSA Government Liaison Board. April 16 and 17, 1996.

[2] Based on a record of conversation between Duke Shepard, USDT, FAA, APO–310 and Nathan Lemmon, President, Memphis Soaring Society. March 27, 1996.

The current regulation defines high performance as having an engine output of more than 200 horsepower. The proposed rule changed this definition to include aircraft of 200 horsepower or more. AOPA believes that this change will impact thousands of pilots and additional aircraft.

According to AOPA, a significant number of aircraft have been type certified at 200 horsepower and currently are not included in the high performance endorsement requirement. By lowering the requirement only one horsepower, FAA would be placing new training requirements on a large portion of the pilot community with no justification presented for the change. AOPA urges the FAA to maintain the current definition of high performance at more than 200 horsepower.

FAA Response: The FAA has reviewed the information provided by this and other commenters. The FAA has decided to require separate endorsements for complex and high performance aircraft. However, the FAA will not go forward with the proposal to include airplanes with 200 horsepower as high performance airplanes.

Costs and Benefits

The FAA estimates, based on an analysis by Gellman Research Associates, Inc.[3] (GRA), information submitted to the public docket, that the present value cost of this final rule discounted 7 percent over 10 years is $310,000. The only provision adding significant costs is final § 61.101.

Section 61.65, which modifies the flight time requirement for an instrument rating provides the greatest cost savings at $14.6 million annually ($102.54 million discounted or 38.6 percent of $265 million).

The FAA has determined that the final rule is cost-beneficial.

International Trade Impact Analysis

The Office of Management and Budget (OMB) requires Federal agencies to determine whether any rule or regulation will have an impact on international trade. The revisions discussed in this report primarily affect the domestic operations of individual pilots, flight instructors, and ground instructors, not of business entities. In the case of pilot schools or aircraft operators, it is not likely that the services produced by these entities would involve international trade flows of aviation products or services and thus do not impact trade opportunities for U.S. firms doing business overseas and foreign firms doing business in the United States. Thus, the changes will have no impact on trade opportunities for U.S. firms doing business overseas or foreign firms doing business in the United States.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Act) (Public Law 96–354; September 19, 1980) was passed by Congress to ensure that small entities are not overly burdened by government regulations relative to large entities. Because laws and regulations designed for large entities have been applied uniformly to small businesses without regard to scale or resources, Federal rules may impose ''unnecessarily and disproportionately burdensome demands'' upon small entities.

As a result, this Act required all Federal agencies, including the FAA to determine whether any proposed regulation would have ''a significant economic impact on a substantial number of small entities.'' The existence of such an impact might lead to alternative regulatory approaches that would recognize differences between the ability of small and large entities to fulfill regulatory requirements.

All of the major changes to the rules affect pilots, flight instructors, and ground instructors, who are individuals rather than business entities or government entities. The revisions that impact pilot schools do not exceed the cost-threshold level, as found in FAA Order 2100.14A, ''Regulatory Flexibility Criteria and Guidance'' (September 1986). In fact, as this report shows, the final rule would result in net annual cost savings of about $3,000 for all pilot schools. The FAA has determined that the revisions will not have a significant economic impact on a substantial number of small entities.

Federalism Implications

The regulation herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this rule will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number assigned to the collection of information for § 61.3 is 2120–0034. The valid OMB control number assigned to the collection of information for §§ 61.13 through 61.197 is 2120–0021. The valid OMB control number assigned to the collection of information for part 141 is 2120–0009.

Unfunded Mandates Reform Act Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104–4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year. Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officials (or their designees) of State, local, and tribal governments on a proposed ''significant intergovernmental mandate.'' A ''significant intergovernmental mandate'' under the Act is any provision in a Federal agency regulation that would impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of $100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals.

This proposed rule does not meet the cost thresholds described above. Furthermore, this proposed rule would not impose a significant cost on small governments and would not uniquely affect those small governments. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

[3] The basis for this analysis is Work Order No. 27 of Contract DTFA01–88–C–00059 by Gellman Research Associates, Inc. (GRA), titled: ''Regulatory Evaluation, Initial Regulatory Flexibility Determination, and Trade Impact Assessment Notice of Proposed Rulemaking to Revise 14 CFR Part 61, 14 CFR Part 141, and 14 CFR Part 143.'' Jenkinton, Pennsylvania. December 23, 1992.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is a ''significant regulatory action'' under Executive Order 12866. In addition, the FAA certifies that this rule will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This rule is considered significant under DOT Order 2100.5, ''Policies and Procedures for Simplification, Analysis, and Review of Regulations.'' A regulatory evaluation of the rule, including the Regulatory Flexibility Determination and International Trade Impact Analysis, has been placed in the docket.

List of Subjects

14 CFR Part 1

Air transportation.

14 CFR Part 61

Air safety, Aircraft, Aircraft pilots, Airmen, Airplanes, Aviation safety, Compensation, Education, Foreign persons, Helicopters, Pilots, Rotorcraft, Safety, Students, Teachers, Transportation.

14 CFR Part 141

Air safety, Air transportation, Aircraft pilots, Airmen, Airplanes, Aviation safety, Balloons, Education, Educational facilities, Helicopters, Pilots, Rotorcraft, Safety, Schools, Students, Teachers, Transportation.

14 CFR Part 143

Air safety, Air transportation, Airmen, Airplanes, Aviation safety, Education, Educational Facilities, Safety, Students, Teachers, Transportation.

The Amendments

In consideration of the foregoing and under the authority of 49 U.S.C. 44702, the FAA amends parts 1, 61, 141, and 143 of the Federal Aviation Regulations (14 CFR parts 1, 61, 141, and 143) as follows:

PART 1—DEFINITIONS AND ABBREVIATIONS

1. The authority citation for part 1 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

2. Section 1.1 is amended by revising the definitions of balloon, flight time, and pilot in command, and adding the definition of powered-lift to read as follows:

§ 1.1 General definitions.

* * * * *

Balloon means a lighter-than-air aircraft that is not engine driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.

* * * * *

Flight time means:

(1) Pilot time that commences when an aircraft moves under its own power for the purpose of flight and ends when the aircraft comes to rest after landing; or

(2) For a glider without self-launch capability, pilot time that commences when the glider is towed for the purpose of flight and ends when the glider comes to rest after landing.

* * * * *

Pilot in command means the person who:

(1) Has final authority and responsibility for the operation and safety of the flight;

(2) Has been designated as pilot in command before or during the flight; and

(3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.

* * * * *

Powered-lift means a heavier-than-air aircraft capable of vertical takeoff, vertical landing, and low speed flight that depends principally on engine-driven lift devices or engine thrust for lift during these flight regimes and on nonrotating airfoil(s) for lift during horizontal flight.

* * * * *

3. Part 61 is revised to read as follows:

PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS

SPECIAL FEDERAL AVIATION REGULATIONS

SFAR 58 [NOTE]

SFAR 73

Subpart A—General

Sec.

61.1 Applicability and definitions.
61.2 Certification of foreign pilots, flight instructors, and ground instructors.
61.3 Requirement for certificates, ratings, and authorizations.
61.4 Approval of flight simulators and flight training devices.
61.5 Certificates and ratings issued under this part.
61.7 Obsolete certificates and ratings.
61.9 [Reserved]
61.11 Expired pilot certificates and reissuance.
61.13 Issuance of airman certificates, ratings, and authorizations.
61.14 Refusal to submit to a drug or alcohol test.
61.15 Offenses involving alcohol or drugs.
61.16 Refusal to submit to an alcohol test or to furnish test results.
61.17 Temporary certificate.
61.19 Duration of pilot and instructor certificates.
61.21 Duration of a Category II and a Category III pilot authorization (for other than part 121 and part 135 use).
61.23 Medical certificates: Requirement and duration.
61.25 Change of name.
61.27 Voluntary surrender or exchange of certificate.
61.29 Replacement of a lost or destroyed airman or medical certificate or knowledge test report.
61.31 Type rating requirements, additional training, and authorization requirements.
61.33 Tests: General procedure.
61.35 Knowledge test: Prerequisites and passing grades.
61.37 Knowledge tests: Cheating or other unauthorized conduct.
61.39 Prerequisites for practical tests.
61.41 Flight training received from flight instructors not certificated by the FAA.
61.43 Practical tests: General procedures.
61.45 Practical tests: Required aircraft and equipment.
61.47 Status of an examiner who is authorized by the Administrator to conduct practical tests.
61.49 Retesting after failure.
61.51 Pilot logbooks.
61.53 Prohibition on operations during medical deficiency.
61.55 Second-in-command qualifications.
61.56 Flight review.
61.57 Recent flight experience: Pilot in command.
61.58 Pilot-in-command proficiency check: Operation of aircraft requiring more than one pilot.
61.59 Falsification, reproduction, or alteration of applications, certificates, logbooks, reports, or records.
61.60 Change of address.

Subpart B—Aircraft Ratings and Pilot Authorizations

61.61 Applicability.
61.63 Additional aircraft ratings (other than airline transport pilot).
61.64 [Reserved].
61.65 Instrument rating requirements.
61.67 Category II pilot authorization requirements.
61.68 Category III pilot authorization requirements.
61.69 Glider towing: Experience and training requirements.
61.71 Graduates of an approved training program other than under this part: Special rules.
61.73 Military pilots or former military pilots: Special rules.
61.75 Private pilot certificate issued on the basis of a foreign pilot license.

61.77 Special purpose pilot authorization: Operation of U.S.-registered civil aircraft leased by a person who is not a U.S. citizen.

Subpart C—Student Pilots

61.81 Applicability.
61.83 Eligibility requirements for student pilots.
61.85 Application.
61.87 Solo requirements for student pilots.
61.89 General limitations.
61.91 [Reserved]
61.93 Solo cross-country flight requirements.
61.95 Operations in Class B airspace and at airports located within Class B airspace.

Subpart D—Recreational Pilots

61.96 Applicability and eligibility requirements: General.
61.97 Aeronautical knowledge.
61.98 Flight proficiency.
61.99 Aeronautical experience.
61.100 Pilots based on small islands.
61.101 Recreational pilot privileges and limitations.

Subpart E—Private Pilots

61.102 Applicability.
61.103 Eligibility requirements: General.
61.105 Aeronautical knowledge.
61.107 Flight proficiency.
61.109 Aeronautical experience.
61.110 Night flying exceptions.
61.111 Cross-country flights: Pilots based on small islands.
61.113 Private pilot privileges and limitations: Pilot in command.
61.115 Balloon rating: Limitations.
61.117 Private pilot privileges and limitations: Second in command of aircraft requiring more than one pilot.
61.118—61.120 [Reserved].

Subpart F—Commercial Pilots

61.121 Applicability.
61.123 Eligibility requirements: General.
61.125 Aeronautical knowledge.
61.127 Flight proficiency.
61.129 Aeronautical experience.
61.131 Exceptions to the night flying requirements.
61.133 Commercial pilot privileges and limitations.
61.135—61.141 [Reserved]

Subpart G—Airline Transport Pilots

61.151 Applicability.
61.153 Eligibility requirements: General.
61.155 Aeronautical knowledge.
61.157 Flight proficiency.
61.158 [Reserved]
61.159 Aeronautical experience: Airplane category rating.
61.161 Aeronautical experience: Rotorcraft category and helicopter class rating.
61.163 Aeronautical experience: Powered-lift category rating.
61.165 Additional aircraft category and class ratings.
61.167 Privileges.
61.169—61.171 [Reserved]

Subpart H—Flight Instructors

61.181 Applicability.
61.183 Eligibility requirements.
61.185 Aeronautical knowledge.
61.187 Flight proficiency.
61.189 Flight instructor records.
61.191 Additional flight instructor ratings.
61.193 Flight instructor privileges.
61.195 Flight instructor limitations and qualifications.
61.197 Renewal of flight instructor certificates.
61.199 Expired flight instructor certificates and ratings.
61.201 [Reserved]

Subpart I—Ground Instructors

61.211 Applicability.
61.213 Eligibility requirements.
61.215 Ground instructor privileges.
61.217 Currency requirements.

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

SPECIAL FEDERAL AVIATION REGULATIONS

SFAR No. 58

Editorial Note: For the text of SFAR No. 58, see part 121 of this chapter.

SFAR NO. 73—ROBINSON R–22/R–44 SPECIAL TRAINING AND EXPERIENCE REQUIREMENTS

Sections

1. Applicability.
2. Required training, aeronautical experience, endorsements, and flight review.
3. Expiration date.

1. Applicability. Under the procedures prescribed herein, this SFAR applies to all persons who seek to manipulate the controls or act as pilot in command of a Robinson model R–22 or R–44 helicopter. The requirements stated in this SFAR are in addition to the current requirements of part 61.

2. Required training, aeronautical experience, endorsements, and flight review.

(a) Awareness Training:

(1) Except as provided in paragraph (a)(2) of this section, no person may manipulate the controls of a Robinson model R–22 or R–44 helicopter after March 27, 1995, for the purpose of flight unless the awareness training specified in paragraph (a)(3) of this section is completed and the person's logbook has been endorsed by a certified flight instructor authorized under paragraph (b)(5) of this section.

(2) A person who holds a rotorcraft category and helicopter class rating on that person's pilot certificate and meets the experience requirements of paragraph (b)(1) or paragraph (b)(2) of this section may not manipulate the controls of a Robinson model R–22 or R–44 helicopter for the purpose of flight after April 26, 1995, unless the awareness training specified in paragraph (a)(3) of this section is completed and the person's logbook has been endorsed by a certified flight instructor authorized under paragraph (b)(5) of this section.

(3) Awareness training must be conducted by a certified flight instructor who has been endorsed under paragraph (b)(5) of this section and consists of instruction in the following general subject areas:

(i) Energy management;

(ii) Mast bumping;

(iii) Low rotor RPM (blade stall);

(iv) Low G hazards; and

(v) Rotor RPM decay.

(4) A person who can show satisfactory completion of the manufacturer's safety course after January 1, 1994, may obtain an endorsement from an FAA aviation safety inspector in lieu of completing the awareness training required in paragraphs (a)(1) and (a)(2) of this section.

(b) Aeronautical Experience:

(1) No person may act as pilot in command of a Robinson model R–22 unless that person:

(i) Has had at least 200 flight hours in helicopters, at least 50 flight hours of which were in the Robinson R–22; or

(ii) Has had at least 10 hours dual instruction in the Robinson R–22 and has received an endorsement from a certified flight instructor authorized under paragraph (b)(5) of this section that the individual has been given the training required by this paragraph and is proficient to act as pilot in command of an R–22. Beginning 12 calendar months after the date of the endorsement, the individual may not act as pilot in command unless the individual has completed a flight review in an R–22 within the preceding 12 calendar months and obtained an endorsement for that flight review. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(A) Enhanced training in autorotation procedures,

(B) Engine rotor RPM control without the use of the governor,

(C) Low rotor RPM recognition and recovery, and

(D) Effects of low G maneuvers and proper recovery procedures.

(2) No person may act as pilot in command of a Robinson model R–44 unless that person:

(i) Has had at least 200 flight hours in helicopters, at least 50 flight hours of which were in the Robinson R–44; or

(ii) Has had at least 10 hours dual instruction in the Robinson R–44, and has received an endorsement from a certified flight instructor authorized under paragraph

(b)(5) of this section that the individual has been given the training required by this paragraph and is proficient to act as pilot in command of an R–44. Beginning 12 calendar months after the date of the endorsement, the individual may not act as pilot in command unless the individual has completed a flight review in an R–44 within the preceding 12 calendar months and obtained an endorsement for that flight review. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(A) Enhanced training in autorotation procedures,

(B) Engine rotor RPM control without the use of the governor,

(C) Low rotor RPM recognition and recovery, and

(D) Effects of low G maneuvers and proper recovery procedures.

(3) A person who does not hold a rotorcraft category and helicopter class rating must have had at least 20 hours of dual instruction in a Robinson R–22 helicopter prior to operating it in solo flight. In addition, the person must obtain an endorsement from a certified flight instructor authorized under paragraph (b)(5) of this section that instruction has been given in those maneuvers and procedures, and the instructor has found the applicant proficient to solo a Robinson R–22. This endorsement is valid for a period of 90 days. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(i) Enhanced training in autorotation procedures,

(ii) Engine rotor RPM control without the use of the governor,

(iii) Low rotor RPM recognition and recovery, and

(iv) Effects of low G maneuvers and proper recovery procedures.

(4) A person who does not hold a rotorcraft category and helicopter class rating must have had at least 20 hours of dual instruction in a Robinson R–44 helicopter prior to operating it in solo flight. In addition, the person must obtain an endorsement from a certified flight instructor authorized under paragraph (b)(5) of this section that instruction has been given in those maneuvers and procedures, and the instructor has found the applicant proficient to solo a Robinson R–44. This endorsement is valid for a period of 90 days. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(i) Enhanced training in autorotation procedures,

(ii) Engine rotor RPM control without the use of the governor,

(iii) Low rotor RPM recognition and recovery, and

(iv) Effects of low G maneuvers and proper recovery procedures.

(5) No certified flight instructor may provide instruction or conduct a flight review in a Robinson model R–22 or R–44 unless that instructor:

(i) Completes the awareness training in paragraph (2)(a) of this SFAR;

(ii) Meets the experience requirements of paragraph 2(b)(1)(i) of this SFAR for the R–22, or paragraph 2(b)(2)(i) of this SFAR for the R–44;

(iii) Has completed flight training in an R–22, R–44, or both, on the following abnormal and emergency procedures:

(A) Enhanced training in autorotation procedures,

(B) Engine rotor RPM control without the use of the governor,

(C) Low rotor RPM recognition and recovery, and

(D) Effects of low G maneuvers and proper recovery procedures.

(iv) Been authorized by endorsement from an FAA aviation safety inspector or authorized designated examiner that the instructor has completed the appropriate training, meets the experience requirements, and has satisfactorily demonstrated an ability to provide instruction on the general subject areas of paragraph 2(a)(3) of this SFAR, and the flight training identified in paragraph 2(b)(5)(iii) of this SFAR.

(c) Flight Review:

(1) No flight review completed to satisfy § 61.56 by an individual after becoming eligible to function as pilot in command in a Robinson R–22 helicopter shall be valid for the operation of R–22 helicopter unless that flight review was taken in an R–22.

(2) No flight review completed to satisfy § 61.56 by individual after becoming eligible to function as pilot in command in a Robinson R–44 helicopter shall be valid for the operation of R–44 helicopter unless that flight review was taken in the R–44.

(3) The flight review will include a review of the awareness training subject areas of paragraph 2(a)(3) of this SFAR and the flight training identified in paragraph 2(b) of this SFAR.

(d) Currency Requirements: No person may act as pilot in command of a Robinson model R–22 or R–44 helicopter carrying passengers unless the pilot in command has met the recency of flight experience requirements of § 61.57 in an R–22 or R–44, as appropriate.

3. Expiration date. This SFAR expires December 31, 1997, unless sooner superseded or rescinded.

Subpart A—General

§ 61.1 Applicability and definitions.

(a) This part prescribes:

(1) The requirements for issuing pilot, flight instructor, and ground instructor certificates and ratings; the conditions under which those certificates and ratings are necessary; and the privileges and limitations of those certificates and ratings.

(2) The requirements for issuing pilot, flight instructor, and ground instructor authorizations; the conditions under which those authorizations are necessary; and the privileges and limitations of those authorizations.

(3) The requirements for issuing pilot, flight instructor, and ground instructor certificates and ratings for persons who have taken courses approved by the Administrator under other parts of this chapter.

(b) For the purpose of this part:

(1) *Aeronautical experience* means pilot time obtained in an aircraft, approved flight simulator, or approved flight training device for meeting the appropriate training and flight time requirements for an airman certificate, rating, flight review, or recency of flight experience requirements of this part.

(2) *Authorized instructor* means—

(i) A person who holds a valid ground instructor certificate issued under part 61 or part 143 of this chapter when conducting ground training in accordance with the privileges and limitations of his or her ground instructor certificate;

(ii) A person who holds a current flight instructor certificate issued under part 61 of this chapter when conducting ground training or flight training in accordance with the privileges and limitations of his or her flight instructor certificate; or

(iii) A person authorized by the Administrator to provide ground training or flight training under SFAR No. 58, or part 61, 121, 135, or 142 of this chapter when conducting ground training or flight training in accordance with that authority.

(3) *Cross-country time* means that time obtained in flight in an aircraft and, except as provided in paragraph (b)(3)(iv) of this section, each flight must include a landing at a point other than the point of departure, and—

(i) The person must—

(A) Hold a pilot certificate issued under this part; and

(B) Use dead reckoning, pilotage, electronic navigation aids, radio aids, or other navigation systems to navigate to the landing point.

(ii) For the purpose of meeting the cross-country time eligibility requirements for a private pilot certificate (except with a rotorcraft rating), commercial pilot certificate, or an instrument rating, any point of landing must be at least a straight-line distance of more than 50 nautical miles from the original point of departure.

(iii) For the purpose of meeting the cross-country time eligibility requirements for a private pilot certificate with a rotorcraft rating, any point of landing must be at least a straight-line distance of more than 25 nautical miles from the original point of departure.

(iv) For a commercial pilot, airline transport pilot, or a military pilot who is qualified for a commercial pilot certificate under § 61.73 of this part,

cross-country time includes a flight that is at least a straight-line distance of more than 50 nautical miles from the original point of departure and uses dead reckoning, pilotage, electronic navigation aids, radio aids, or other navigation systems.

(4) *Examiner* means any person who is authorized by the Administrator to conduct a pilot proficiency test or a practical test for an airman certificate or rating issued under this part, or a person who is authorized to conduct a knowledge test under this part.

(5) *Flight simulator* means a device that—

(i) Is a full-size aircraft cockpit replica of a specific type of aircraft, or make, model, and series of aircraft;

(ii) Includes the hardware and software necessary to represent the aircraft in ground operations and flight operations;

(iii) Uses a force cueing system that provides cues at least equivalent to those cues provided by a 3 degree freedom of motion system;

(iv) Uses a visual system that provides at least a 45 degree horizontal field of view and a 30 degree vertical field of view simultaneously for each pilot; and

(v) Has been evaluated, qualified, and approved by the Administrator.

(6) *Flight training* means that training, other than ground training, received from an authorized instructor in flight in an aircraft.

(7) *Flight training device* means a device that—

(i) Is a full-size replica of the instruments, equipment, panels, and controls of an aircraft, or set of aircraft, in an open flight deck area or in an enclosed cockpit, including the hardware and software for the systems installed, that is necessary to simulate the aircraft in ground and flight operations;

(ii) Need not have a force (motion) cueing or visual system; and

(iii) Has been evaluated, qualified, and approved by the Administrator.

(8) *Ground training* means that training, other than flight training, received from an authorized instructor.

(9) *Instrument approach* means an approach procedure defined in part 97 of this chapter.

(10) *Instrument training* means that time in which instrument training is received from an authorized instructor under actual or simulated instrument conditions.

(11) *Knowledge test* means a test on the aeronautical knowledge areas required for an airman certificate or rating that can be administered in written form or by a computer.

(12) *Pilot time* means that time in which a person—

(i) Serves as a required pilot;

(ii) Receives training from an authorized instructor in an aircraft, approved flight simulator, or approved flight training device; or

(iii) Gives training as an authorized instructor in an aircraft, approved flight simulator, or approved flight training device.

(13) *Practical test* means a test on the areas of operations for an airman certificate, rating, or authorization that is conducted by having the applicant respond to questions and demonstrate maneuvers in flight, in an approved flight simulator, or in an approved flight training device.

(14) *Set of aircraft* means aircraft that share similar performance characteristics, such as similar airspeed and altitude operating envelopes, similar handling characteristics, and the same number and type of propulsion systems.

(15) *Training time* means training received—

(i) In flight from an authorized instructor;

(ii) On the ground from an authorized instructor; or

(iii) In an approved flight simulator or approved flight training device from an authorized instructor.

§ 61.2 Certification of foreign pilots, flight instructors, and ground instructors.

(a) Except as provided for in paragraph (b) of this section, an airman certificate may not be issued to a person who is not a citizen of the United States or a resident alien of the United States unless that person passes the appropriate knowledge or practical test within the United States.

(b) A person who is not a citizen of the United States or a resident alien of the United States may be issued an airman certificate, and the knowledge test and practical test for that certificate may be administered outside the United States when:

(1) The Administrator determines the person needs a pilot certificate to operate as a required pilot crewmember of a civil aircraft of U.S. registry;

(2) The Administrator determines the person needs a flight instructor certificate or ground instructor certificate to train persons who are citizens of the United States;

(3) The certificate is for an addition of a category, class, instrument, or type rating onto an existing U.S. pilot certificate, provided the certificate is not one that was issued on the basis of a foreign pilot license;

(4) The certificate is for an addition, renewal, or reinstatement of a category, class, or instrument rating onto an existing U.S. flight instructor certificate; or

(5) The certificate is for an addition of a rating onto an existing U.S. ground instructor certificate.

(c) Training centers and their satellite training centers certificated under part 142 of this chapter, may, outside the United States—

(1) Prepare and recommend applicants for additional ratings of and endorsements to certificates issued under this part, and issue additional ratings and provide endorsements within the authority granted to that training center by the Administrator; and

(2) Prepare and recommend U.S. citizen applicants for airman certificates, and issue certificates to U.S. citizens within the authority granted to that training center by the Administrator.

§ 61.3 Requirement for certificates, ratings, and authorizations.

(a) *Pilot certificate*. A person may not act as pilot in command or in any other capacity as a required pilot of a civil aircraft of U.S. registry, unless that person has a valid pilot certificate or special purpose pilot authorization issued under this part in that person's physical possession or readily accessible in the aircraft when exercising the privileges of that pilot certificate or authorization. However, when the aircraft is operated within a foreign country, a current pilot license issued by the country in which the aircraft is operated may be used.

(b) *Required pilot certificate for operating a foreign-registered aircraft*. A person may not act as pilot in command or in any other capacity as a required pilot of a civil aircraft of foreign registry within the United States, unless that person's pilot certificate:

(1) Is valid and in that person's physical possession, or readily accessible in the aircraft when exercising the privileges of that pilot certificate; and

(2) Has been issued under this part, or has been issued or validated by the country in which the aircraft is registered.

(c) *Medical certificate*. (1) Except as provided for in paragraph (c)(2) of this section, a person who is acting as pilot in command or in any other capacity as a required crewmember under any part of this chapter must have a current and appropriate medical certificate, or other documentation acceptable to the Administrator, that has been issued under part 67 of this chapter and is in the person's physical possession or readily accessible in the aircraft.

(2) A person is not required to meet the requirements of paragraph (c)(1) of this section if that person—

(i) Is exercising the privileges of a student pilot certificate while seeking a pilot certificate with a glider category rating or balloon class rating;

(ii) Is holding a pilot certificate with a balloon class rating and is piloting or providing training in a balloon as appropriate;

(iii) Is holding a pilot certificate or a flight instructor certificate with a glider category rating, and is piloting or providing training in a glider, as appropriate;

(iv) Except as provided in paragraph (c)(2)(iii) of this section, is exercising the privileges of a flight instructor certificate, provided the person is not acting as pilot in command or as a required crewmember;

(v) Is exercising the privileges of a ground instructor certificate;

(vi) Is operating an aircraft within a foreign country using a pilot license issued by that country and possesses evidence of current medical qualification for that license; or

(vii) Is operating an aircraft with a U.S. pilot certificate, issued on the basis of a foreign pilot license, issued under § 61.75 of this part, and holds a current medical certificate issued by the foreign country that issued the foreign pilot license, which is in that person's physical possession or readily accessible in the aircraft when exercising the privileges of that airman certificate.

(d) *Flight instructor certificate*. (1) A person who holds a flight instructor certificate must have that certificate, or other documentation acceptable to the Administrator, in that person's physical possession or readily accessible in the aircraft when exercising the privileges of that flight instructor certificate.

(2) Except as provided in paragraph (d)(3) of this section, no person other than the holder of a flight instructor certificate with the appropriate rating on that certificate may—

(i) Give training required to qualify a person for solo flight and solo cross-country flight;

(ii) Endorse an applicant for a pilot, flight instructor, or ground instructor certificate or rating issued under this part;

(iii) Endorse a pilot logbook to show training given; or

(iv) Endorse a student pilot certificate and logbook for solo operating privileges.

(3) A flight instructor certificate is not necessary if the training is given by—

(i) The holder of a commercial pilot certificate with a lighter-than-air rating, provided the training is given in accordance with the privileges of the certificate in a lighter-than-air aircraft;

(ii) The holder of an airline transport pilot certificate with a rating appropriate to the aircraft in which the training is given, provided the training is given in accordance with the privileges of the certificate and conducted in accordance with an approved air carrier training program approved under part 121 or 135 of this chapter;

(iii) A person who is qualified in accordance with subpart C of part 142 of this chapter, provided the training is conducted in accordance with an approved part 142 training program;

(iv) A flight instructor not certificated by the FAA in accordance with § 61.41 of this part; or

(v) The holder of a ground instructor certificate in accordance with the privileges of the certificate.

(e) *Instrument rating*. No person may act as pilot in command of a civil aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless that person holds:

(1) The appropriate aircraft category, class, type (if required), and instrument rating on that person's pilot certificate for any airplane, helicopter, or powered-lift being flown;

(2) An airline transport pilot certificate with the appropriate aircraft category, class, and type rating (if required) for the aircraft being flown;

(3) For a glider, a pilot certificate with a glider category rating and an airplane instrument rating; or

(4) For an airship, a commercial pilot certificate with a lighter-than-air category rating and airship class rating.

(f) *Category II pilot authorization*. Except for a pilot conducting Category II operations under part 121 or part 135, a person may not:

(1) Act as pilot in command of a civil aircraft during Category II operations unless that person—

(i) Holds a current Category II pilot authorization for that category or class of aircraft, and the type of aircraft, if applicable; or

(ii) In the case of a civil aircraft of foreign registry, is authorized by the country of registry to act as pilot in command of that aircraft in Category II operations.

(2) Act as second in command of a civil aircraft during Category II operations unless that person—

(i) Holds a valid pilot certificate with category and class ratings for that aircraft and a current instrument rating for that category aircraft;

(ii) Holds an airline transport pilot certificate with category and class ratings for that aircraft; or

(iii) In the case of a civil aircraft of foreign registry, is authorized by the country of registry to act as second in command of that aircraft during Category II operations.

(g) *Category III pilot authorization*. Except for a pilot conducting Category III operations under part 121 or part 135, a person may not:

(1) Act as pilot in command of a civil aircraft during Category III operations unless that person—

(i) Holds a current Category III pilot authorization for that category or class of aircraft, and the type of aircraft, if applicable; or

(ii) In the case of a civil aircraft of foreign registry, is authorized by the country of registry to act as pilot in command of that aircraft in Category III operations.

(2) Act as second in command of a civil aircraft during Category III operations unless that person—

(i) Holds a valid pilot certificate with category and class ratings for that aircraft and a current instrument rating for that category aircraft;

(ii) Holds an airline transport pilot certificate with category and class ratings for that aircraft; or

(iii) In the case of a civil aircraft of foreign registry, is authorized by the country of registry to act as second in command of that aircraft during Category III operations.

(h) *Category A aircraft pilot authorization*. The Administrator may issue a certificate of authorization for a Category II or Category III operation to the pilot of a small aircraft that is a Category A aircraft, as identified in § 97.3(b)(1) of this chapter if:

(1) The Administrator determines that the Category II or Category III operation can be performed safely by that pilot under the terms of the certificate of authorization; and

(2) The Category II or Category III operation does not involve the carriage of persons or property for compensation or hire.

(i) *Ground instructor certificate*. (1) Each person who holds a ground instructor certificate must have that certificate in that person's physical possession or immediately accessible when exercising the privileges of that certificate.

(2) Except as provided in paragraph (d) of this section, no person other than the holder of a ground instructor certificate with the appropriate rating on that certificate or a person authorized by the Administrator may—

(i) Give ground training required to qualify a person for solo flight and solo cross-country flight;

(ii) Endorse an applicant for a knowledge test required for a pilot, flight instructor, or ground instructor certificate or rating issued under this part; or

(iii) Endorse a pilot logbook to show ground training given.

(j) *Age limitation for certain operations*.

(1) *Age limitation*. Except as provided in paragraph (j)(3) of this section, no person who holds a pilot certificate issued under this part shall serve as a pilot on a civil airplane of U.S. registry in the following operations if the person has reached his or her 60th birthday—

(i) Scheduled international air services carrying passengers in turbojet-powered airplanes;

(ii) Scheduled international air services carrying passengers in airplanes having a passenger-seat configuration of more than nine passenger seats, excluding each crewmember seat;

(iii) Nonscheduled international air transportation for compensation or hire in airplanes having a passenger-seat configuration of more than 30 passenger seats, excluding each crewmember seat; or

(iv) Scheduled international air services, or nonscheduled international air transportation for compensation or hire, in airplanes having a payload capacity of more than 7,500 pounds.

(2) *Definitions*. (i) ''International air service,'' as used in paragraph (j) of this section, means scheduled air service performed in airplanes for the public transport of passengers, mail, or cargo, in which the service passes through the airspace over the territory of more than one country.

(ii) ''International air transportation,'' as used in paragraph (j) of this section, means air transportation performed in airplanes for the public transport of passengers, mail, or cargo, in which the service passes through the airspace over the territory of more than one country.

(3) *Delayed pilot age limitation*. Until December 20, 1999, a person may serve as a pilot in operations covered by this paragraph after that person has reached his or her 60th birthday if, on March 20, 1997, that person was employed as a pilot in operations covered by this paragraph.

(k) *Special purpose pilot authorization*. Any person that is required to hold a special purpose pilot authorization, issued in accordance with § 61.77 of this part, must have that authorization and the person's foreign pilot license in that person's physical possession or have it readily accessible in the aircraft when exercising the privileges of that authorization.

(l) *Inspection of certificate*. Each person who holds an airman certificate, medical certificate, authorization, or license required by this part must present it for inspection upon a request from:

(1) The Administrator;

(2) An authorized representative of the National Transportation Safety Board; or

(3) Any Federal, State, or local law enforcement officer.

§ 61.4 Approval of flight simulators and flight training devices.

(a) Except as specified in paragraph (b) or (c) of this section, each flight simulator and flight training device used for training, and for which an airman is to receive credit to satisfy any training, testing, or checking requirement under this chapter, must be approved by the Administrator for—

(1) The training, testing, and checking for which it is used;

(2) Each particular maneuver, procedure, or crewmember function performed; and

(3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.

(b) Any device used for flight training, testing, or checking that has been determined to be acceptable to or approved by the Administrator prior to August 1, 1996, which can be shown to function as originally designed, is considered to be a flight training device, provided it is used for the same purposes for which it was originally accepted or approved and only to the extent of such acceptance or approval.

(c) The Administrator may approve a device other than a flight training simulator or flight training device for specific purposes.

§ 61.5 Certificates and ratings issued under this part.

(a) The following certificates are issued under this part to an applicant who satisfactorily accomplishes the training and certification requirements for the certificate sought:

(1) Pilot certificates—

(i) Student pilot.

(ii) Recreational pilot.

(iii) Private pilot.

(iv) Commercial pilot.

(v) Airline transport pilot.

(2) Flight instructor certificates.

(3) Ground instructor certificates.

(b) The following ratings are placed on a pilot certificate (other than student pilot) when an applicant satisfactorily accomplishes the training and certification requirements for the rating sought:

(1) Aircraft category ratings—

(i) Airplane.

(ii) Rotorcraft.

(iii) Glider.

(iv) Lighter-than-air.

(v) Powered-lift.

(2) Airplane class ratings—

(i) Single-engine land.

(ii) Multiengine land.

(iii) Single-engine sea.

(iv) Multiengine sea.

(3) Rotorcraft class ratings—

(i) Helicopter.

(ii) Gyroplane.

(4) Lighter-than-air class ratings—

(i) Airship.

(ii) Balloon.

(5) Aircraft type ratings—

(i) Large aircraft other than lighter-than-air.

(ii) Turbojet-powered airplanes.

(iii) Other aircraft type ratings specified by the Administrator through the aircraft type certification procedures.

(6) Instrument ratings (on private and commercial pilot certificates only)—

(i) Instrument—Airplane.

(ii) Instrument—Helicopter.

(iii) Instrument—Powered-lift.

(c) The following ratings are placed on a flight instructor certificate when an applicant satisfactorily accomplishes the training and certification requirements for the rating sought:

(1) Aircraft category ratings—

(i) Airplane.

(ii) Rotorcraft.

(iii) Glider.

(iv) Powered-lift.

(2) Airplane class ratings—

(i) Single-engine.

(ii) Multiengine.

(3) Rotorcraft class ratings—

(i) Helicopter.

(ii) Gyroplane.

(4) Instrument ratings—

(i) Instrument—Airplane.

(ii) Instrument—Helicopter.

(iii) Instrument—Powered-lift.

(d) The following ratings are placed on a ground instructor certificate when an applicant satisfactorily accomplishes the training and certification requirements for the rating sought:

(1) Basic.

(2) Advanced.

(3) Instrument.

§ 61.7 Obsolete certificates and ratings.

(a) The holder of a free-balloon pilot certificate issued before November 1, 1973, may not exercise the privileges of that certificate.

(b) The holder of a pilot certificate that bears any of the following category

ratings without an associated class rating may not exercise the privileges of that category rating:

(1) Rotorcraft.

(2) Lighter-than-air.

(3) Helicopter.

(4) Autogyro.

§ 61.9 [Reserved]

§ 61.11 Expired pilot certificates and reissuance.

(a) No person who holds an expired pilot certificate or rating may:

(1) Exercise the privileges of that pilot certificate or rating; or

(2) Act as pilot in command or as a required crewmember of an aircraft of the same category and class specified on the expired pilot certificate or rating.

(b) The following pilot certificates and ratings have expired and may not be reissued:

(1) An airline transport pilot certificate issued before May 1, 1949, or an airline transport pilot certificate that contains a horsepower limitation;

(2) A private or commercial pilot certificate issued before July 1, 1945; and

(3) A pilot certificate with a lighter-than-air or free-balloon rating issued before July 1, 1945.

(c) A pilot certificate issued on the basis of a foreign pilot license will expire on the date the foreign license expires.

(d) An airline transport pilot certificate issued after April 30, 1949, that bears an expiration date but does not contain a horsepower limitation may be reissued without an expiration date.

(e) A private or commercial pilot certificate issued after June 30, 1945, that bears an expiration date may be reissued without an expiration date.

(f) A pilot certificate with a lighter-than-air or free-balloon rating issued after June 30, 1945, that bears an expiration date may be reissued without an expiration date.

(g) A U.S. pilot certificate issued on the basis of a foreign pilot license that does not have an expiration date may be issued without an expiration date.

§ 61.13 Issuance of airman certificates, ratings, and authorizations.

(a) An applicant for an airman certificate, rating, or authorization under this part must make that application on a form and in a manner acceptable to the Administrator.

(b) An applicant who is neither a citizen of the United States nor a resident alien of the United States:

(1) Must show evidence that the appropriate fee has been paid when that person applies for a—

(i) Student pilot certificate that is issued outside the United States; or

(ii) Knowledge test or practical test for a U.S. airman certificate or rating issued under this part, if the test is administered outside the United States.

(2) May be refused issuance of any U.S. airman certificate, rating, or authorization by the Administrator.

(c) Except as provided in paragraph (b)(2) of this section, an applicant who satisfactorily accomplishes the training and certification requirements for the certificate, rating, or authorization sought is entitled to receive that airman certificate, rating, or authorization.

(d) *Limitations.* (1) An applicant who cannot comply with certain areas of operation required on the practical test because of physical limitations may be issued an airman certificate, rating, or authorization with the appropriate limitation placed on the applicant's airman certificate provided the—

(i) Applicant is able to meet all other certification requirements for the airman certificate, rating, or authorization sought;

(ii) Physical limitation has been recorded with the FAA on the applicant's medical records; and

(iii) The Administrator determines that the applicant's inability to perform the particular area of operation will not adversely affect safety.

(2) A limitation placed on a person's airman certificate may be removed, provided that person demonstrates for an examiner satisfactory proficiency in the area of operation appropriate to the airman certificate, rating, or authorization sought.

(e) *Additional requirements for Category II and Category III pilot authorizations.* (1) A Category II or Category III pilot authorization is issued by a letter of authorization as a part of an applicant's instrument rating or airline transport pilot certificate.

(2) Upon original issue the authorization contains the following limitations—

(i) For Category II operations, the limitation is 1,600 feet RVR and a 150-foot decision height; and

(ii) For Category III operations, each initial limitation is specified in the authorization document.

(3) The limitations on a Category II or Category III pilot authorization may be removed as follows:

(i) In the case of Category II limitations, a limitation is removed when the holder shows that, since the beginning of the sixth preceding month, the holder has made three Category II ILS approaches with a 150-foot decision height to a landing under actual or simulated instrument conditions.

(ii) In the case of Category III limitations, a limitation is removed as specified in the authorization.

(4) To meet the experience requirement of paragraph (e)(3) of this section, and for the practical test required by this part for a Category II or a Category III pilot authorization, a flight simulator or flight training device may be used if it is approved by the Administrator for such use.

(f) Unless otherwise authorized by the Administrator, a person whose pilot, flight instructor, or ground instructor certificate has been suspended may not apply for any certificate, rating, or authorization during the period of suspension.

(g) Unless otherwise authorized by the Administrator, a person whose pilot, flight instructor, or ground instructor certificate has been revoked may not apply for any certificate, rating, or authorization for 1 year after the date of revocation.

§ 61.14 Refusal to submit to a drug or alcohol test.

(a) This section applies to an employee who performs a function listed in appendix I to part 121 or appendix J to part 121 of this chapter directly or by contract for a part 121 air carrier, a part 135 air carrier, or for a person conducting operations as specified in § 135.1(a)(5) of this chapter.

(b) Refusal by the holder of a certificate issued under this part to take a drug test required under the provisions of appendix I to part 121 or an alcohol test required under the provisions of appendix J to part 121 is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of such refusal; and

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

§ 61.15 Offenses involving alcohol or drugs.

(a) A conviction for the violation of any Federal or State statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of final conviction; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

(b) Committing an act prohibited by § 91.17(a) or § 91.19(a) of this chapter is grounds for:

(1) Denial of an application for a certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of that act; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

(c) For the purposes of paragraphs (d), (e), and (f) of this section, a motor vehicle action means:

(1) A conviction after November 29, 1990, for the violation of any Federal or State statute relating to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug;

(2) The cancellation, suspension, or revocation of a license to operate a motor vehicle after November 29, 1990, for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug; or

(3) The denial after November 29, 1990, of an application for a license to operate a motor vehicle for a cause related to the operation of a motor vehicle while intoxicated by alcohol or a drug, while impaired by alcohol or a drug, or while under the influence of alcohol or a drug.

(d) Except for a motor vehicle action that results from the same incident or arises out of the same factual circumstances, a motor vehicle action occurring within 3 years of a previous motor vehicle action is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of the last motor vehicle action; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

(e) Each person holding a certificate issued under this part shall provide a written report of each motor vehicle action to the FAA, Civil Aviation Security Division (AMC–700), P.O. Box 25810, Oklahoma City, OK 73125, not later than 60 days after the motor vehicle action. The report must include:

(1) The person's name, address, date of birth, and airman certificate number;

(2) The type of violation that resulted in the conviction or the administrative action;

(3) The date of the conviction or administrative action;

(4) The State that holds the record of conviction or administrative action; and

(5) A statement of whether the motor vehicle action resulted from the same incident or arose out of the same factual circumstances related to a previously reported motor vehicle action.

(f) Failure to comply with paragraph (e) of this section is grounds for:

(1) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of the motor vehicle action; or

(2) Suspension or revocation of any certificate, rating, or authorization issued under this part.

§ 61.16 Refusal to submit to an alcohol test or to furnish test results.

A refusal to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer in accordance with § 91.17(c) of this chapter, or a refusal to furnish or authorize the release of the test results requested by the Administrator in accordance with § 91.17(c) or (d) of this chapter, is grounds for:

(a) Denial of an application for any certificate, rating, or authorization issued under this part for a period of up to 1 year after the date of that refusal; or

(b) Suspension or revocation of any certificate, rating, or authorization issued under this part.

§ 61.17 Temporary certificate.

(a) A temporary pilot, flight instructor, or ground instructor certificate or rating is issued for up to 120 days, at which time a permanent certificate will be issued to a person whom the Administrator finds qualified under this part.

(b) A temporary pilot, flight instructor, or ground instructor certificate or rating expires:

(1) On the expiration date shown on the certificate;

(2) Upon receipt of the permanent certificate; or

(3) Upon receipt of a notice that the certificate or rating sought is denied or revoked.

§ 61.19 Duration of pilot and instructor certificates.

(a) *General.* The holder of a certificate with an expiration date may not, after that date, exercise the privileges of that certificate.

(b) *Student pilot certificate.* A student pilot certificate expires 24 calendar months from the month in which it is issued.

(c) *Other pilot certificates.* A pilot certificate (other than a student pilot certificate) issued under this part is issued without a specific expiration date. The holder of a pilot certificate issued on the basis of a foreign pilot license may exercise the privileges of that certificate only while that person's foreign pilot license is effective.

(d) *Flight instructor certificate.* A flight instructor certificate:

(1) Is effective only while the holder has a current pilot certificate; and

(2) Except as specified in § 61.197(b) of this part, expires 24 calendar months from the month in which it was issued or renewed.

(e) *Ground instructor certificate.* A ground instructor certificate issued under this part is issued without a specific expiration date.

(f) *Surrender, suspension, or revocation.* Any certificate issued under this part ceases to be effective if it is surrendered, suspended, or revoked.

(g) *Return of certificates.* The holder of any certificate issued under this part that has been suspended or revoked must return that certificate to the FAA when requested to do so by the Administrator.

§ 61.21 Duration of a Category II and a Category III pilot authorization (for other than part 121 and part 135 use).

(a) A Category II pilot authorization or a Category III pilot authorization expires at the end of the sixth calendar month after the month in which it was issued or renewed.

(b) Upon passing a practical test for a Category II or Category III pilot authorization, the authorization may be renewed for each type of aircraft for which the authorization is held.

(c) A Category II or Category III pilot authorization for a specific type aircraft for which an authorization is held will not be renewed beyond 12 calendar months from the month the practical test was accomplished in that type aircraft.

(d) If the holder of a Category II or Category III pilot authorization passes the practical test for a renewal in the month before the authorization expires, the holder is considered to have passed it during the month the authorization expired.

§ 61.23 Medical certificates: Requirement and duration.

(a) *Operations requiring a medical certificate.* Except as provided in paragraph (b) of this section, a person:

(1) Must hold a first-class medical certificate when exercising the privileges of an airline transport pilot certificate;

(2) Must hold at least a second-class medical certificate when exercising the privileges of a commercial pilot certificate; or

(3) Must hold at least a third-class medical certificate—

(i) When exercising the privileges of a private pilot certificate;

(ii) When exercising the privileges of a recreational pilot certificate;

(iii) Except as specified in paragraph (b)(3) of this section, when exercising the privileges of a student pilot certificate;

(iv) When exercising the privileges of a flight instructor certificate, except for a flight instructor certificate with a glider category rating, if the person is acting as the pilot in command or is serving as a required crewmember; or

(v) Except for a glider category rating or a balloon class rating, prior to taking a practical test that is performed in an aircraft for a certificate or rating at the recreational, private, commercial, or airline transport pilot certificate level.

(b) *Operations not requiring a medical certificate.* A person is not required to hold a medical certificate:

(1) When exercising the privileges of a pilot certificate with a glider category rating;

(2) When exercising the privileges of a pilot certificate with a balloon class rating;

(3) When exercising the privileges of a student pilot certificate while seeking a pilot certificate with a glider category rating or balloon class rating;

(4) When exercising the privileges of a flight instructor certificate with a glider category rating;

(5) When exercising the privileges of a flight instructor certificate if the person is not acting as pilot in command or serving as a required crewmember;

(6) When exercising the privileges of a ground instructor certificate;

(7) When serving as an examiner or check airman during the administration of a test or check for a certificate, rating, or authorization conducted in an approved flight simulator or approved flight training device; or

(8) When taking a test or check for a certificate, rating, or authorization conducted in an approved flight simulator or approved flight training device.

(c) *Duration of a medical certificate.* (1) A first-class medical certificate expires at the end of the last day of—

(i) The sixth month after the month of the date of examination shown on the certificate for operations requiring an airline transport pilot certificate;

(ii) The 12th month after the month of the date of examination shown on the certificate for operations requiring a commercial pilot certificate or an air traffic control tower operator certificate; and

(iii) The period specified in paragraph (c)(3) of this section for operations requiring a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required crewmember in operations other than glider or balloon), or a student pilot certificate.

(2) A second-class medical certificate expires at the end of the last day of—

(i) The 12th month after the month of the date of examination shown on the certificate for operations requiring a commercial pilot certificate or an air traffic control tower operator certificate; and

(ii) The period specified in paragraph (c)(3) of this section for operations requiring a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required crewmember in operations other than glider or balloon), or a student pilot certificate.

(3) A third-class medical certificate for operations requiring a recreational pilot certificate, a private pilot certificate, a flight instructor certificate (when acting as pilot in command or a required crewmember in operations other than glider or balloon), or a student pilot certificate issued—

(i) Before September 16, 1996, expires at the end of the 24th month after the month of the date of examination shown on the certificate; or

(ii) On or after September 16, 1996, expires at the end of:

(A) The 36th month after the month of the date of the examination shown on the certificate if the person has not reached his or her 40th birthday on or before the date of examination; or

(B) The 24th month after the month of the date of the examination shown on the certificate if the person has reached his or her 40th birthday on or before the date of the examination.

§ 61.25 Change of name.

(a) An application to change the name on a certificate issued under this part must be accompanied by the applicant's:

(1) Current airman certificate; and

(2) A copy of the marriage license, court order, or other document verifying the name change.

(b) The documents in paragraph (a) of this section will be returned to the applicant after inspection.

§ 61.27 Voluntary surrender or exchange of certificate.

(a) The holder of a certificate issued under this part may voluntarily surrender it for:

(1) Cancellation;

(2) Issuance of a lower grade certificate; or

(3) Another certificate with specific ratings deleted.

(b) Any request made under paragraph (a) of this section must include the following signed statement or its equivalent: ''This request is made for my own reasons, with full knowledge that my (insert name of certificate or rating, as appropriate) may not be reissued to me unless I again pass the tests prescribed for its issuance.''

§ 61.29 Replacement of a lost or destroyed airman or medical certificate or knowledge test report.

(a) A request for the replacement of a lost or destroyed airman certificate issued under this part shall be made by letter to the Department of Transportation, FAA, Airman Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, and shall be accompanied by a check or money order for the appropriate fee payable to the FAA.

(b) A request for the replacement of a lost or destroyed medical certificate shall be made by letter to the Department of Transportation, FAA, Aeromedical Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, and shall be accompanied by a check or money order for the appropriate fee payable to the FAA.

(c) A request for the replacement of a lost or destroyed knowledge test report shall be made by letter to the Department of Transportation, FAA, Airman Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, and shall be accompanied by a check or money order for the appropriate fee payable to the FAA.

(d) The letter requesting replacement of a lost or destroyed airman certificate, medical certificate, or knowledge test report must state:

(1) The name of the person;

(2) The permanent mailing address (including ZIP code), or if the permanent mailing address includes a post office box number, then the person's current residential address;

(3) The social security number;

(4) The date and place of birth of the certificate holder; and

(5) Any available information regarding the—

(i) Grade, number, and date of issuance of the certificate, and the ratings, if applicable;

(ii) Date of the medical examination, if applicable; and

(iii) Date the knowledge test was taken, if applicable.

(e) A person who has lost an airman certificate, medical certificate, or knowledge test report may obtain a facsimile from the FAA confirming that it was issued and the:

(1) Facsimile may be carried as an airman certificate, medical certificate, or knowledge test report, as appropriate, for up to 60 days pending the person's receipt of a duplicate under paragraph (a), (b), or (c) of this section, unless the person has been notified that the certificate has been suspended or revoked.

(2) Request for such a facsimile must include the date on which a duplicate certificate or knowledge test report was previously requested.

§ 61.31 Type rating requirements, additional training, and authorization requirements.

(a) *Type ratings required.* A person who acts as a pilot in command of any of the following aircraft must hold a type rating for that aircraft:

(1) Large aircraft (except lighter-than-air).

(2) Turbojet-powered airplanes.

(3) Other aircraft specified by the Administrator through aircraft type certificate procedures.

(b) *Authorization in lieu of a type rating.* A person may be authorized to operate an aircraft requiring a type rating without a type rating for up to 60 days, provided:

(1) The Administrator has authorized the flight or series of flights;

(2) The Administrator has determined that an equivalent level of safety can be achieved through the operating limitations on the authorization;

(3) The person shows that compliance with paragraph (a) of this section is impracticable for the flight or series of flights; and

(4) The flight—

(i) Involves only a ferry flight, training flight, test flight, or practical test for a pilot certificate or rating;

(ii) Is within the United States;

(iii) Does not involve operations for compensation or hire unless the compensation or hire involves payment for the use of the aircraft for training or taking a practical test; and

(iv) Involves only the carriage of flight crewmembers considered essential for the flight.

(5) If the flight or series of flights cannot be accomplished within the time limit of the authorization, the Administrator may authorize an additional period of up to 60 days to accomplish the flight or series of flights.

(c) *Aircraft category, class, and type ratings: Limitations on the carriage of persons, or operating for compensation or hire.* Unless a person holds a category, class, and type rating (if a class and type rating is required) that applies to the aircraft, that person may not act as pilot in command of an aircraft that is carrying another person, or is operated for compensation or hire. That person also may not act as pilot in command of that aircraft for compensation or hire.

(d) *Aircraft category, class, and type ratings: Limitations on operating an aircraft as the pilot in command.* To serve as the pilot in command of an aircraft, a person must:

(1) Hold the appropriate category, class, and type rating (if a class rating and type rating is required) for the aircraft to be flown;

(2) Be receiving training for the purpose of obtaining an additional pilot certificate and rating that are appropriate to that aircraft, and be under the supervision of an authorized instructor; or

(3) Have received training required by this part that is appropriate to the aircraft category, class, and type rating (if a class or type rating is required) for the aircraft to be flown, and have received the required endorsements from an instructor who is authorized to provide the required endorsements for solo flight in that aircraft.

(e) *Exceptions.* (1) This section does not require a category and class rating for aircraft not type certificated as airplanes, rotorcraft, gliders, powered-lift, or lighter-than-air aircraft.

(2) The rating limitations of this section do not apply to:

(i) An applicant when taking a practical test given by an examiner;

(ii) The holder of a student pilot certificate;

(iii) The holder of a pilot certificate when operating an aircraft under the authority of an experimental or provisional aircraft type certificate; and

(iv) The holder of a pilot certificate with a lighter-than-air category rating when operating a balloon.

(f) *Additional training required for operating complex airplanes.* (1) Except as provided in paragraph (f)(2) of this section, no person may act as pilot in command of a complex airplane (an airplane that has a retractable landing gear, flaps, and a controllable pitch propeller; or, in the case of a seaplane, flaps and a controllable pitch propeller), unless the person has—

(i) Received and logged ground and flight training from an authorized instructor in a complex airplane, or in an approved flight simulator or approved flight training device that is representative of a complex airplane, and has been found proficient in the operation and systems of the airplane; and

(ii) Received a one-time endorsement in the pilot's logbook from an authorized instructor who certifies the person is proficient to operate a complex airplane.

(2) The training and endorsement required by paragraph (f)(1) of this section is not required if the person has logged flight time as pilot in command of a complex airplane, or in an approved flight simulator or approved flight training device that is representative of a complex airplane prior to August 4, 1997.

(g) *Additional training required for operating high-performance airplanes.* (1) Except as provided in paragraph (g)(2) of this section, no person may act as pilot in command of a high-performance airplane (an airplane with an engine of more than 200 horsepower), unless the person has—

(i) Received and logged ground and flight training from an authorized instructor in a high-performance airplane, or in an approved flight simulator or approved flight training device that is representative of a high-performance airplane, and has been found proficient in the operation and systems of the airplane; and

(ii) Received a one-time endorsement in the pilot's logbook from an authorized instructor who certifies the person is proficient to operate a high-performance airplane.

(2) The training and endorsement required by paragraph (g)(1) of this section is not required if the person has logged flight time as pilot in command of a high-performance airplane, or in an approved flight simulator or approved flight training device that is representative of a high-performance airplane prior to August 4, 1997.

(h) *Additional training required for operating pressurized aircraft capable of operating at high altitudes.* (1) Except as provided in paragraph (h)(3) of this section, no person may act as pilot in command of a pressurized aircraft (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 feet MSL), unless that person has received and logged ground training from an authorized instructor. The ground training must include at least the following subjects—

(i) High-altitude aerodynamics and meteorology;

(ii) Respiration;

(iii) Effects, symptoms, and causes of hypoxia and any other high-altitude sickness;

(iv) Duration of consciousness without supplemental oxygen;

(v) Effects of prolonged usage of supplemental oxygen;

(vi) Causes and effects of gas expansion and gas bubble formation;

(vii) Preventive measures for eliminating gas expansion, gas bubble formation, and high-altitude sickness;

(viii) Physical phenomena and incidents of decompression; and

(ix) Any other physiological aspects of high-altitude flight.

(2) Except as provided in paragraph (h)(3) of this section, no person may act as pilot in command of a pressurized aircraft unless that person has—

(i) Received and logged training from an authorized instructor in a pressurized aircraft, or in an approved flight simulator or approved flight training device that is representative of a pressurized aircraft, which includes normal cruise flight operations while operating above 25,000 feet MSL, proper emergency procedures for simulated rapid decompression without actually depressurizing the aircraft, and emergency descent procedures; and

(ii) An endorsement in the person's logbook or training record from an authorized instructor who found the person proficient in the operation of a pressurized aircraft.

(3) The training and endorsement required by paragraphs (h)(1) and (h)(2) of this section is not required if that person can document satisfactory accomplishment of any of the following in a pressurized aircraft, or in an approved flight simulator or approved flight training device that is representative of a pressurized aircraft—

(i) Serving as pilot in command before April 15, 1991;

(ii) Completing a practical test for a pilot certificate or rating before April 15, 1991;

(iii) Completing an official pilot in command check conducted by the military services of the United States; or

(iv) Completing a pilot in command proficiency check under part 121, 125, or 135 of this chapter conducted by the Administrator or by an approved check airman.

(i) *Additional training required by the aircraft's type certificate.* No person may serve as pilot in command of an aircraft that the Administrator has determined requires aircraft type-specific training unless that person has:

(1) Received and logged type-specific training in the aircraft, or in an approved flight simulator or an approved flight training device that is representative of that type of aircraft; and

(2) Received a logbook endorsement from an authorized instructor who has found the person proficient in the operation of the aircraft and its systems.

(j) *Additional training required for operating tailwheel airplanes.* Except as provided in paragraph (j)(3) of this section, no person may act as pilot in command of a tailwheel airplane unless that person has:

(1) Received and logged flight training from an authorized instructor in a tailwheel airplane on the maneuvers and procedures listed in paragraph (j)(2) of this section.

(2) Received an endorsement in the person's logbook from an authorized instructor who found the person proficient in the operation of a tailwheel airplane, to include at least normal and crosswind takeoffs and landings, wheel landings (unless the manufacturer has recommended against such landings), and go-around procedures.

(3) The training and endorsement required by this paragraph is not required if the person logged pilot-in-command time in a tailwheel airplane before April 15, 1991.

(k) *Additional training required for operating a glider.* (1) No person may act as pilot in command of a glider:

(i) Using ground-tow procedures, unless that person has satisfactorily accomplished ground and flight training on ground-tow procedures and operations, and has received an endorsement from an authorized instructor who certifies in that pilot's logbook that the pilot has been found proficient in ground-tow procedures and operations;

(ii) Using aerotow procedures, unless that person has satisfactorily accomplished ground and flight training on aerotow procedures and operations, and has received an endorsement from an authorized instructor who certifies in that pilot's logbook that the pilot has been found proficient in aerotow procedures and operations; and

(iii) Using self-launch procedures, unless that person has satisfactorily accomplished ground and flight training on self-launch procedures and operations, and has received an endorsement from an authorized instructor who certifies in that pilot's logbook that the pilot has been found proficient in self-launch procedures and operations.

(2) The holder of a glider rating issued prior to August 4, 1997 is considered to be in compliance with the training and logbook endorsement requirements of this paragraph for the specific operating privilege for which the holder is already qualified.

§ 61.33 Tests: General procedure.

Tests prescribed by or under this part are given at times and places, and by persons designated by the Administrator.

§ 61.35 Knowledge test: Prerequisites and passing grades.

(a) An applicant for a knowledge test must have:

(1) Received an endorsement from an authorized instructor certifying that the applicant accomplished a ground-training or a home-study course required by this part for the certificate or rating sought and is prepared for the knowledge test; and

(2) Proper identification at the time of application that contains the applicant's—

(i) Photograph;

(ii) Signature;

(iii) Date of birth, which shows the applicant meets or will meet the age requirements of this part for the certificate sought before the expiration date of the airman knowledge test report; and

(iv) Actual residential address, if different from the applicant's mailing address.

(b) The Administrator shall specify the minimum passing grade for the knowledge test.

§ 61.37 Knowledge tests: Cheating or other unauthorized conduct.

(a) An applicant for a knowledge test may not:

(1) Copy or intentionally remove any knowledge test;

(2) Give to another applicant or receive from another applicant any part or copy of a knowledge test;

(3) Give assistance on, or receive assistance on, a knowledge test during the period that test is being given;

(4) Take any part of a knowledge test on behalf of another person;

(5) Be represented by, or represent, another person for a knowledge test;

(6) Use any material or aid during the period that the test is being given, unless specifically authorized to do so by the Administrator; and

(7) Intentionally cause, assist, or participate in any act prohibited by this paragraph.

(b) An applicant who the Administrator finds has committed an act prohibited by paragraph (a) of this section is prohibited, for 1 year after the date of committing that act, from:

(1) Applying for any certificate, rating, or authorization issued under this chapter; and

(2) Applying for and taking any test under this chapter.

(c) Any certificate or rating held by an applicant may be suspended or revoked if the Administrator finds that person has committed an act prohibited by paragraph (a) of this section.

§ 61.39 Prerequisites for practical tests.

(a) Except as provided in paragraphs (b) and (c) of this section, to be eligible for a practical test for a certificate or rating issued under this part, an applicant must:

(1) Pass the required knowledge test within the 24-calendar-month period preceding the month the applicant completes the practical test, if a knowledge test is required;

(2) Present the knowledge test report at the time of application for the practical test, if a knowledge test is required;

(3) Have satisfactorily accomplished the required training and obtained the aeronautical experience prescribed by this part for the certificate or rating sought;

(4) Hold at least a current third-class medical certificate, if a medical certificate is required;

(5) Meet the prescribed age requirement of this part for the issuance of the certificate or rating sought;

(6) Except as provided in paragraph (c) of this section, have an endorsement in the applicant's logbook or training record that has been signed by an authorized instructor who certifies that the applicant—

(i) Has received and logged training time within 60 days preceding the date of application in preparation for the practical test;

(ii) Is prepared for the required practical test; and

(iii) Has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test; and

(7) Have a completed and signed application form.

(b) Notwithstanding the provisions of paragraphs (a)(1) and (2) of this section, an applicant for an airline transport pilot certificate or an additional rating to an airline transport certificate may take the practical test for that certificate or rating with an expired knowledge test report, provided that the applicant:

(1) Is employed as a flight crewmember by a certificate holder under part 121, 125, or 135 of this chapter at the time of the practical test and has satisfactorily accomplished that operator's approved—

(i) Pilot in command aircraft qualification training program that is appropriate to the certificate and rating sought; and

(ii) Qualification training requirements appropriate to the certificate and rating sought; or

(2) Is employed as a flight crewmember in scheduled U.S. military air transport operations at the time of the practical test, and has accomplished the pilot in command aircraft qualification training program that is appropriate to the certificate and rating sought.

(c) A person is not required to comply with the provisions of paragraph (a)(6) of this section if that person:

(1) Holds a foreign-pilot license issued by a contracting State to the Convention on International Civil Aviation that authorizes at least the pilot privileges of the airman certificate sought;

(2) Is applying for a type rating only, or a class rating with an associated type rating; or

(3) Is applying for an airline transport pilot certificate or an additional rating to an airline transport pilot certificate in an aircraft that does not require an aircraft type rating practical test.

(d) If all increments of the practical test for a certificate or rating are not completed on one date, all remaining increments of the test must be satisfactorily completed not more than 60 calendar days after the date on which the applicant began the test.

(e) If all increments of the practical test for a certificate or a rating are not satisfactorily completed within 60 calendar days after the date on which the applicant began the test, the applicant must retake the entire practical test, including those increments satisfactorily completed.

§ 61.41 Flight training received from flight instructors not certificated by the FAA.

(a) A person may credit flight training toward the requirements of a pilot certificate or rating issued under this part, if that person received the training from:

(1) A flight instructor of an Armed Force in a program for training military pilots of either—

(i) The United States; or

(ii) A foreign contracting State to the Convention on International Civil Aviation.

(2) A flight instructor who is authorized to give such training by the licensing authority of a foreign contracting State to the Convention on International Civil Aviation, and the flight training is given outside the United States.

(b) A flight instructor described in paragraph (a) of this section is only authorized to give endorsements to show training given.

§ 61.43 Practical tests: General procedures.

(a) Except as provided in paragraph (b) of this section, the ability of an applicant for a certificate or rating issued under this part to perform the required tasks on the practical test is based on that applicant's ability to safely:

(1) Perform the tasks specified in the areas of operation for the certificate or rating sought within the approved standards;

(2) Demonstrate mastery of the aircraft with the successful outcome of each task performed never seriously in doubt;

(3) Demonstrate satisfactory proficiency and competency within the approved standards;

(4) Demonstrate sound judgment; and

(5) Demonstrate single-pilot competence if the aircraft is type certificated for single-pilot operations.

(b) If an applicant does not demonstrate single pilot proficiency, as required in paragraph (a)(5) of this section, a limitation of ''Second in Command Required'' will be placed on the applicant's airman certificate. The limitation may be removed if the applicant passes the appropriate practical test by demonstrating single-pilot competency in the aircraft in which single-pilot privileges are sought.

(c) If an applicant fails any area of operation, that applicant fails the practical test.

(d) An applicant is not eligible for a certificate or rating sought until all the areas of operation are passed.

(e) The examiner or the applicant may discontinue a practical test at any time:

(1) When the applicant fails one or more of the areas of operation; or

(2) Due to inclement weather conditions, aircraft airworthiness, or any other safety-of-flight concern.

(f) If a practical test is discontinued, the applicant is entitled credit for those areas of operation that were passed, but only if the applicant:

(1) Passes the remainder of the practical test within the 60-day period after the date the practical test was discontinued;

(2) Presents to the examiner for the retest the original notice of disapproval form or the letter of discontinuance form, as appropriate;

(3) Satisfactorily accomplishes any additional training needed and obtains the appropriate instructor endorsements, if additional training is required; and

(4) Presents to the examiner for the retest a properly completed and signed application.

§ 61.45 Practical tests: Required aircraft and equipment.

(a) *General.* Except as provided in paragraph (a)(2) of this section or when permitted to accomplish the entire flight increment of the practical test in an approved flight simulator or an

approved flight training device, an applicant for a certificate or rating issued under this part must furnish:

(1) An aircraft of U.S. registry for each required test that—

(i) Is of the category, class, and type, if applicable, for which the applicant is applying for a certificate or rating; and

(ii) Has a current standard, limited, or primary airworthiness certificate.

(2) At the discretion of the examiner who administers the practical test, the applicant may furnish—

(i) An aircraft that has a current airworthiness certificate other than standard, limited, or primary, but that otherwise meets the requirement of paragraph (a)(1) of this section;

(ii) An aircraft of the same category, class, and type, if applicable, of foreign registry that is properly certificated by the country of registry; or

(iii) A military aircraft of the same category, class, and type, if applicable, for which the applicant is applying for a certificate or rating.

(b) *Required equipment (other than controls).* An aircraft used for a practical test must have:

(1) The equipment for each area of operation required for the practical test;

(2) No prescribed operating limitations that prohibit its use in any of the areas of operation required for the practical test;

(3) Except as provided in paragraph (e) of this section, at least two pilot stations with adequate visibility for each person to operate the aircraft safely; and

(4) Cockpit and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the examiner.

(c) *Required controls.* An aircraft (other than a lighter-than-air aircraft) used for a practical test must have engine power controls and flight controls that are easily reached and operable in a conventional manner by both pilots, unless the examiner determines that the practical test can be conducted safely in the aircraft without the controls being easily reached.

(d) *Simulated instrument flight equipment.* An applicant for a practical test that involves maneuvering an aircraft solely by reference to instruments must furnish:

(1) Equipment on board the aircraft that permits the applicant to pass the areas of operation that apply to the rating sought; and

(2) A device that prevents the applicant from having visual reference outside the aircraft, but does not prevent the examiner from having visual reference outside the aircraft, and is otherwise acceptable to the Administrator.

(e) *Aircraft with single controls.* A practical test may be conducted in an aircraft having a single set of controls, provided the:

(1) Examiner agrees to conduct the test;

(2) Test does not involve a demonstration of instrument skills; and

(3) Proficiency of the applicant can be observed by an examiner who is in a position to observe the applicant.

§ 61.47 Status of an examiner who is authorized by the Administrator to conduct practical tests.

(a) An examiner represents the Administrator for the purpose of conducting practical tests for certificates and ratings issued under this part and to observe an applicant's ability to perform the areas of operation on the practical test.

(b) The examiner is not the pilot in command of the aircraft during the practical test unless the examiner agrees to act in that capacity for the flight or for a portion of the flight by prior arrangement with:

(1) The applicant; or

(2) A person who would otherwise act as pilot in command of the flight or for a portion of the flight.

(c) Notwithstanding the type of aircraft used during the practical test, the applicant and the examiner (and any other occupants authorized to be on board by the examiner) are not subject to the requirements or limitations on the carriage of passengers that are specified in this chapter.

§ 61.49 Retesting after failure.

(a) An applicant for a knowledge or practical test who fails that test may reapply for the test only after the applicant has received:

(1) The necessary training from an authorized instructor who has determined that the applicant is proficient to pass the test; and

(2) An endorsement from an authorized instructor who gave the applicant the additional training.

(b) An applicant for a flight instructor certificate with an airplane category rating or, for a flight instructor certificate with a glider category rating, who has failed the practical test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery must:

(1) Comply with the requirements of paragraph (a) of this section before being retested;

(2) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certificated for spins; and

(3) Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

§ 61.51 Pilot logbooks.

(a) *Training time and aeronautical experience.* Each person must document and record the following time in a manner acceptable to the Administrator:

(1) Training and aeronautical experience used to meet the requirements for a certificate, rating, or flight review of this part.

(2) The aeronautical experience required for meeting the recent flight experience requirements of this part.

(b) *Logbook entries.* For the purposes of meeting the requirements of paragraph (a) of this section, each person must enter the following information for each flight or lesson logged:

(1) General—

(i) Date.

(ii) Total flight time.

(iii) Location where the aircraft departed and arrived, or for lessons in an approved flight simulator or an approved flight training device, the location where the lesson occurred.

(iv) Type and identification of aircraft, approved flight simulator, or approved flight training device, as appropriate.

(v) The name of a safety pilot, if required by § 91.109(b) of this chapter.

(2) Type of pilot experience or training—

(i) Solo.

(ii) Pilot in command.

(iii) Second in command.

(iv) Flight and ground training received from an authorized instructor.

(v) Training received in an approved flight simulator or approved flight training device from an authorized instructor.

(3) Conditions of flight—

(i) Day or night.

(ii) Actual instrument.

(iii) Simulated instrument conditions in flight, an approved flight simulator, or an approved flight training device.

(c) *Logging of pilot time.* The pilot time described in this section may be used to:

(1) Apply for a certificate or rating issued under this part; or

(2) Satisfy the recent flight experience requirements of this part.

(d) *Logging of solo flight time.* Except for a student pilot acting as pilot in command of an airship requiring more than one flight crewmember, a pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(e) *Logging pilot-in-command flight time.* (1) A recreational, private, or commercial pilot may log pilot-in-

command time only for that flight time during which that person is—

(i) The sole manipulator of the controls of an aircraft for which the pilot is rated; or

(ii) Except for a recreational pilot, when acting as pilot in command of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(2) An airline transport pilot may log as pilot-in-command time all of the flight time while acting as pilot-in-command of an operation requiring an airline transport pilot certificate.

(3) An authorized instructor may log as pilot-in-command time all flight time while acting as an authorized instructor.

(4) A student pilot may log pilot-in-command time when the student pilot—

(i) Is the sole occupant of the aircraft;

(ii) Has a current solo flight endorsement as required under § 61.87 of this part; and

(iii) Is undergoing training for a pilot certificate or rating, is acting as pilot in command of an airship requiring more than one flight crewmember, or is logging pilot-in-command flight time to obtain the pilot-in-command flight experience requirements for a pilot certificate or aircraft rating.

(f) *Logging second-in-command flight time.* A person may log second-in-command flight time only for that flight time during which that person:

(1) Is qualified in accordance with the second-in-command requirements of § 61.55 of this part, and occupies a crewmember station in an aircraft that requires more than one pilot by the aircraft's type certificate; or

(2) Holds the appropriate category, class, and instrument rating (if an instrument rating is required for the flight) for the aircraft being flown, and more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is being conducted.

(g) *Logging instrument flight time.* (1) A person may log instrument flight time only for that flight time when the person operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

(2) An authorized instructor may log instrument flight time when conducting instrument flight instruction in actual instrument flight conditions.

(3) For the purposes of logging instrument flight time to meet the recent instrument experience requirements of § 61.57(c) of this part, the following information must be recorded in the person's logbook—

(i) The location and type of each instrument approach accomplished; and

(ii) The name of the safety pilot, if required.

(4) An approved flight simulator or approved flight training device may be used by a person to log instrument flight time, provided an authorized instructor is present during the simulated flight.

(h) *Logging training time.* (1) A person may log training time when that person receives training from an authorized instructor in an aircraft, approved flight simulator, or approved flight training device.

(2) The training time must be logged in a logbook and must:

(i) Be endorsed in a legible manner by the authorized instructor; and

(ii) Include a description of the training given, the length of the training lesson, and the instructor's signature, certificate number, and certificate expiration date.

(i) *Presentation of required documents.* (1) Persons must present their pilot certificate, medical certificate, logbook, or any other record required by this part for inspection upon a reasonable request by—

(i) The Administrator;

(ii) An authorized representative from the National Transportation Safety Board; or

(iii) Any Federal, State, or local law enforcement officer.

(2) A student pilot must carry the following items in the aircraft on all solo cross-country flights as evidence of the required instructor clearances and endorsements—

(i) Pilot logbook;

(ii) Student pilot certificate; and

(iii) Any other record required by this section.

(3) A recreational pilot must carry his or her logbook with the required instructor endorsements on all flights when serving as pilot in command or as a required flight crewmember for flights of more than 50 nautical miles from an airport where training was received.

§ 61.53 Prohibition on operations during medical deficiency.

(a) *Operations that require a medical certificate.* Except as provided for in paragraph (b) of this section, a person who holds a current medical certificate issued under part 67 of this chapter shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation.

(b) *Operations that do not require a medical certificate.* For operations provided for in § 61.23(b) of this part, a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.

§ 61.55 Second-in-command qualifications.

(a) Except as provided in paragraph (d) of this section, no person may serve as a second in command of an aircraft type certificated for more than one required pilot flight crewmember or in operations requiring a second in command unless that person holds:

(1) At least a current private pilot certificate with the appropriate category and class rating; and

(2) An instrument rating that applies to the aircraft being flown if the flight is under IFR.

(b) Except as provided in paragraph (d) of this section, no person may serve as a second in command of an aircraft type certificated for more than one required pilot flight crewmember or in operations requiring a second in command unless that person has within the previous 12 calendar months:

(1) Become familiar with the following information for the specific type aircraft for which second-in-command privileges are requested—

(i) Operational procedures applicable to the powerplant, equipment, and systems.

(ii) Performance specifications and limitations.

(iii) Normal, abnormal, and emergency operating procedures.

(iv) Flight manual.

(v) Placards and markings.

(2) Except as provided in paragraph (e) of this section, performed and logged pilot time in the type of aircraft or in an approved flight simulator or approved flight training device that represents the type of aircraft for which second-in-command privileges are requested, which includes—

(i) Three takeoffs and three landings as the sole manipulator of the flight controls;

(ii) Engine-out procedures and maneuvering with an engine out while executing the duties of pilot in command; and

(iii) Crew resource management training.

(c) If a person complies with the requirements in paragraph (b) of this

section in the calendar month before or the calendar month after the month in which compliance with this section is required, then that person is considered to have accomplished the training and practice in the month it is due.

(d) This section does not apply to a person who is:

(1) Designated and qualified as a pilot in command under part 121, 125, or 135 of this chapter in that specific type of aircraft;

(2) Designated as the second in command under part 121, 125, or 135 of this chapter, in that specific type of aircraft;

(3) Designated as the second in command in that specific type of aircraft for the purpose of receiving flight training required by this section, and no passengers or cargo are carried on the aircraft; or

(4) Designated as a safety pilot for purposes required by § 91.109(b) of this chapter.

(e) The holder of a commercial or airline transport pilot certificate with the appropriate category and class rating is not required to meet the requirements of paragraph (b)(2) of this section, provided the pilot:

(1) Is conducting a ferry flight, aircraft flight test, or evaluation flight of an aircraft's equipment; and

(2) Is not carrying any person or property on board the aircraft, other than necessary for conduct of the flight.

(f) For the purpose of meeting the requirements of paragraph (b) of this section, a person may serve as second in command in that specific type aircraft, provided:

(1) The flight is conducted under day VFR or day IFR; and

(2) No person or property is carried on board the aircraft, other than necessary for conduct of the flight.

(g) Except as provided in paragraph (h) of this section, the requirements of paragraph (b) of this section may be accomplished in an approved flight simulator that is—

(1) Qualified and approved by the Administrator for such purposes; and

(2) Used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(h) An applicant for an initial second-in-command qualification for a particular type of aircraft who is qualifying under the terms of paragraph (g) of this section must satisfactorily complete a minimum of one takeoff and one landing in an aircraft of the same type for which the qualification is sought.

§ 61.56 Flight review.

(a) Except as provided in paragraphs (b) and (f) of this section, a flight review consists of a minimum of 1 hour of flight training and 1 hour of ground training. The review must include:

(1) A review of the current general operating and flight rules of part 91 of this chapter; and

(2) A review of those maneuvers and procedures that, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot certificate.

(b) Glider pilots may substitute a minimum of three instructional flights in a glider, each of which includes a flight to traffic pattern altitude, in lieu of the 1 hour of flight training required in paragraph (a) of this section.

(c) Except as provided in paragraphs (d) and (e) of this section, no person may act as pilot in command of an aircraft unless, since the beginning of the 24th calendar month before the month in which that pilot acts as pilot in command, that person has:

(1) Accomplished a flight review given in an aircraft for which that pilot is rated by an appropriately rated instructor certificated under this part or other person designated by the Administrator; and

(2) A logbook endorsed by the person who gave the review certifying that the person has satisfactorily completed the review.

(d) A person who has, within the period specified in paragraph (c) of this section, passed a pilot proficiency check conducted by an examiner, an approved pilot check airman, or a U.S. Armed Force, for a pilot certificate, rating, or operating privilege need not accomplish the flight review required by this section.

(e) A person who has, within the period specified in paragraph (c) of this section, satisfactorily accomplished one or more phases of an FAA-sponsored pilot proficiency award program need not accomplish the flight review required by this section.

(f) A person who holds a current flight instructor certificate who has, within the period specified in paragraph (c) of this section, satisfactorily completed a renewal of a flight instructor certificate under the provisions in § 61.197 need not accomplish the 1 hour of ground training specified in paragraph (a) of this section.

(g) The requirements of this section may be accomplished in combination with the requirements of § 61.57 and other applicable recent experience requirements at the discretion of the person conducting the flight review.

(h) A flight simulator or flight training device may be used to meet the flight review requirements of this section subject to the following conditions:

(1) The flight simulator or flight training device must be approved by the Administrator for that purpose.

(2) The approved flight simulator or approved flight training device must be used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(3) Unless the flight review is undertaken in a flight simulator that is approved for landings, the applicant must meet the takeoff and landing requirements of § 61.57(a) or § 61.57(b) of this part.

(4) The approved flight simulator or approved flight training device used must represent an aircraft, or set of aircraft, for which the pilot is rated.

§ 61.57 Recent flight experience: Pilot in command.

(a) *General experience.* (1) Except as provided in paragraph (e) of this section, no person may act as a pilot in command of an aircraft carrying passengers or as a required pilot on board an aircraft that requires more than one pilot flight crewmember unless that person has made at least three takeoffs and three landings within the preceding 90 days, and—

(i) The person acted as the sole manipulator of the flight controls; and

(ii) The required takeoffs and landings were performed in an aircraft of the same category, class, and type (if a type rating is required), and, if the aircraft to be flown is an airplane with a tailwheel, the takeoffs and landings must have been made to a full stop in an airplane with a tailwheel.

(2) For the purpose of meeting the requirements of paragraph (a)(1) of this section, a person may act as a pilot in command of an aircraft under day VFR or day IFR, provided no persons or property are carried on board the aircraft, other than those necessary for the conduct of the flight.

(3) The takeoffs and landings required by paragraph (a)(1) of this section may be accomplished in an approved flight simulator or an approved flight training device that is—

(i) Approved by the Administrator for landings; and

(ii) Used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(b) *Night takeoff and landing experience.* (1) Except as provided in paragraph (e) of this section, no person may act as pilot in command of an

aircraft carrying passengers during the period beginning 1 hour after sunset and ending 1 hour before sunrise, unless within the preceding 90 days that person has made at least three takeoffs and three landings to a full stop during the period beginning 1 hour after sunset and ending 1 hour before sunrise.

(2) The takeoffs and landings required by paragraph (b)(1) of this section may be accomplished in a flight simulator that is—

(i) Approved by the Administrator for takeoffs and landings, if the visual system is adjusted to represent the period described in paragraph (b)(1) of this section; and

(ii) Used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(c) *Recent instrument experience.* Except as provided in paragraph (e) of this section, no person may act as pilot in command under IFR or in weather conditions less than the minimums prescribed for VFR, unless within the preceding 6 calendar months, that person has:

(1) For the purpose of obtaining instrument experience in an aircraft (other than a glider), performed and logged under actual or simulated instrument conditions, either in flight appropriate to the appropriate category of aircraft for the instrument privileges sought or in an approved flight simulator or approved flight training device that is representative of the aircraft category for the instrument privileges sought—

(i) At least six instrument approaches;

(ii) Holding procedures; and

(iii) Intercepting and tracking courses through the use of navigation systems.

(2) For the purpose of obtaining instrument experience in a glider, performed and logged under actual or simulated instrument conditions—

(i) At least 3 hours of instrument time in flight, of which 1½ hours may be acquired in an airplane or a glider if no passengers are to be carried; or

(ii) 3 hours of instrument time in flight in a glider if a passenger is to be carried.

(d) *Instrument proficiency check.* Except as provided in paragraph (e) of this section, a person who does not meet the recent instrument experience requirements of paragraph (c) of this section within the prescribed time or within 6 calendar months after the prescribed time may not serve as pilot in command under IFR or in weather conditions less than the minimums prescribed for VFR until that person passes an instrument proficiency check consisting of a representative number of tasks required by the instrument rating practical test.

(1) The instrument proficiency check must be—

(i) In an aircraft that is appropriate to the aircraft category;

(ii) In an approved flight simulator or approved flight training device that is representative of the aircraft category (other than a glider); or

(iii) For a glider, in a single-engine airplane or a glider.

(2) The instrument proficiency check must be given by—

(i) An examiner;

(ii) A person authorized by the U.S. Armed Forces to conduct instrument flight tests, provided the person being tested is a member of the U.S. Armed Forces;

(iii) A company check pilot who is authorized to conduct instrument flight tests under part 121, 125, or 135 of this chapter, and provided that both the check pilot and the pilot being tested are employees of that operator;

(iv) An instrument flight instructor who holds the appropriate instrument instructor rating; or

(v) A person approved by the Administrator to conduct instrument practical tests.

(e) *Exceptions.* (1) Paragraphs (a) and (b) of this section do not apply to a pilot in command who is employed by a certificate holder under part 125 and engaged in a flight operation for that certificate holder if the pilot is in compliance with §§ 125.281 and 125.285 of this chapter.

(2) This section does not apply to a pilot in command who is employed by an air carrier certificated under part 121 or 135 and is engaged in a flight operation under part 91, 121, or 135 for that air carrier if the pilot is in compliance with §§ 121.437 and 121.439, or §§ 135.243 and 135.247 of this chapter, as appropriate.

§ 61.58 Pilot-in-command proficiency check: Operation of aircraft requiring more than one pilot.

(a) Except as otherwise provided in this section, to serve as pilot in command of an aircraft that is type certificated for more than one required pilot crewmember, a person must:

(1) Within the preceding 12 calendar months, complete a pilot in command check in an aircraft that is type certificated for more than one required pilot crewmember; and

(2) Within the preceding 24 calendar months, complete a pilot in command check in the particular type of aircraft in which that person will serve as pilot in command.

(b) This section does not apply to persons conducting operations under part 121, 125, 133, 135, or 137 of this chapter.

(c) The pilot in command check given in accordance with the provisions of part 121, 125, or 135 of this chapter may be used to satisfy the requirements of this section.

(d) The pilot in command check required by paragraph (a) of this section may be accomplished by satisfactory completion of one of the following:

(1) A pilot in command proficiency check conducted by a person authorized by the Administrator, consisting of the maneuvers and procedures required for a type rating;

(2) The practical test required for a type rating;

(3) The initial or periodic practical test required for the issuance of a pilot examiner or check airman designation; or

(4) A military flight check required for a pilot in command with instrument privileges, in an aircraft that the military requires to be operated by more than one pilot.

(e) A check or test described in paragraphs (d)(1) through (d)(4) of this section may be accomplished in a flight simulator approved under this chapter.

(f) For the purpose of meeting the check requirements of paragraph (a) of this section, a person may act as pilot in command of a flight under day VFR conditions or day IFR conditions if no person or property is carried, other than as necessary to demonstrate compliance with this part.

(g) If a pilot takes the check required by this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next check is due.

§ 61.59 Falsification, reproduction, or alteration of applications, certificates, logbooks, reports, or records.

(a) No person may make or cause to be made:

(1) Any fraudulent or intentionally false statement on any application for a certificate, rating, authorization, or duplicate thereof, issued under this part;

(2) Any fraudulent or intentionally false entry in any logbook, record, or report that is required to be kept, made, or used to show compliance with any requirement for the issuance or exercise of the privileges of any certificate, rating, or authorization under this part;

(3) Any reproduction for fraudulent purpose of any certificate, rating, or authorization, under this part; or

(4) Any alteration of any certificate, rating, or authorization under this part.

(b) The commission of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any airman certificate, rating, or authorization held by that person.

§ 61.60 Change of address.

The holder of a pilot, flight instructor, or ground instructor certificate who has made a change in permanent mailing address may not, after 30 days from that date, exercise the privileges of the certificate unless the holder has notified in writing the FAA, Airman Certification Branch, P.O. Box 25082, Oklahoma City, OK 73125, of the new permanent mailing address, or if the permanent mailing address includes a post office box number, then the holder's current residential address.

Subpart B—Aircraft Ratings and Pilot Authorizations

§ 61.61 Applicability.

This subpart prescribes the requirements for the issuance of additional aircraft ratings after a pilot certificate is issued, and the requirements for and limitations of pilot authorizations issued by the Administrator.

§ 61.63 Additional aircraft ratings (other than airline transport pilot).

(a) *General.* To be eligible for an additional aircraft rating to a pilot certificate, for other than an airline transport pilot certificate, an applicant must meet the appropriate requirements of this section, for the additional aircraft rating sought.

(b) *Additional category rating.* An applicant who holds a pilot certificate and applies to add a category rating to that pilot certificate:

(1) Must have received the required training and possess the aeronautical experience prescribed by this part that applies to the pilot certificate for the aircraft category and, if applicable, class rating sought;

(2) Must have an endorsement in his or her logbook or training record from an authorized instructor, and that endorsement must attest that the applicant has been found competent in the aeronautical knowledge areas appropriate to the pilot certificate for the aircraft category and, if applicable, class rating sought;

(3) Must have an endorsement in his or her logbook or training record from an authorized instructor, and that endorsement must attest that the applicant has been found proficient on the areas of operation that are appropriate to the pilot certificate for the aircraft category and, if applicable, class rating sought;

(4) Must pass the required practical test that is appropriate to the pilot certificate for the aircraft category and, if applicable, class rating sought; and

(5) Need not take an additional knowledge test, provided the applicant holds an airplane, rotorcraft, powered-lift, or airship rating at that pilot certificate level.

(c) *Additional class rating.* Any person who applies for an additional class rating to be added on a pilot certificate:

(1) Must have an endorsement in his or her logbook or training record from an authorized instructor and that endorsement must attest that the applicant has been found competent in the aeronautical knowledge areas appropriate to the pilot certificate for the aircraft class rating sought;

(2) Must have an endorsement in his or her logbook or training record from an authorized instructor, and that endorsement must attest that the applicant has been found proficient in the areas of operation appropriate to the pilot certificate for the aircraft class rating sought;

(3) Must pass the required practical test that is appropriate to the pilot certificate for the aircraft class rating sought;

(4) Need not meet the specified training time requirements prescribed by this part that apply to the pilot certificate for the aircraft class rating sought; and

(5) Need not take an additional knowledge test, provided the applicant holds an airplane, rotorcraft, powered-lift, or airship rating at that pilot certificate level.

(d) *Additional type rating.* Except as specified in paragraph (d)(7) of this section, a person who applies for an additional aircraft type rating to be added on a pilot certificate, or the addition of an aircraft type rating that is accomplished concurrently with an additional aircraft category or class rating:

(1) Must hold or concurrently obtain an instrument rating that is appropriate to the aircraft category, class, or type rating sought;

(2) Must have an endorsement in his or her logbook or training record from an authorized instructor, and that endorsement must attest that the applicant has been found competent in the aeronautical knowledge areas appropriate to the pilot certificate for the aircraft category, class, or type rating sought;

(3) Must have an endorsement in his or her logbook, or training record from an authorized instructor, and that endorsement must attest that the applicant has been found proficient in the areas of operation required for the issuance of an airline transport pilot certificate for the aircraft category, class, and type rating sought;

(4) Must pass the required practical test appropriate to the airline transport pilot certificate for the aircraft category, class, and type rating sought;

(5) Must perform the practical test under instrument flight rules, unless the practical test cannot be accomplished under instrument flight rules because the aircraft's type certificate makes the aircraft incapable of operating under instrument flight rules. If the practical test cannot be accomplished for this reason, the person may obtain a type rating limited to ''VFR only.'' The ''VFR only'' limitation may be removed for that aircraft type when the person passes the practical test under instrument flight rules. When an instrument rating is issued to a person who holds one or more type ratings, the type ratings on the amended pilot certificate shall bear the ''VFR only'' limitation for each aircraft type rating for which the person has not demonstrated instrument competency;

(6) Need not take an additional knowledge test, provided the applicant holds an airplane, rotorcraft, powered-lift, or airship rating on their pilot certificate; and

(7) In the case of a pilot employee of a part 121 or a part 135 certificate holder, must have—

(i) Met the appropriate requirements of paragraphs (d)(1), (d)(4), and (d)(5) of this section for the aircraft type rating sought; and

(ii) Received an endorsement in his or her flight training record from the certificate holder attesting that the applicant has completed the certificate holder's approved ground and flight training program appropriate to the aircraft type rating sought.

(e) *Use of an approved flight simulator or an approved flight training device for an additional rating in an airplane.* The areas of operation required to be performed by paragraphs (b), (c), and (d) of this section shall be performed as follows:

(1) Except as provided in paragraph (e)(2) of this section, the areas of operation must be performed in an airplane of the same category, class, and type, if applicable, as the airplane for which the additional rating is sought.

(2) Subject to the limitations of paragraph (e)(3) through (e)(12) of this section, the areas of operation may be performed in an approved flight simulator or an approved flight training device that represents the airplane for which the additional rating is sought.

(3) The use of an approved flight simulator or an approved flight training device permitted by paragraph (e)(2) of this section shall be conducted in accordance with an approved course at a training center certificated under part 142 of this chapter.

(4) To complete all training and testing (except preflight inspection) for an additional airplane rating without limitations when using a flight simulator—

(i) The flight simulator must be approved as Level C or Level D; and

(ii) The applicant must meet at least one of the following:

(A) Hold a type rating for a turbojet airplane of the same class of airplane for which the type rating is sought, or have been appointed by a military service as a pilot in command of an airplane of the same class of airplane for which the type rating is sought, if a type rating in a turbojet airplane is sought.

(B) Hold a type rating for a turbopropeller airplane of the same class of airplane for which the type rating is sought, or have been designated by a military service as a pilot in command of an airplane of the same class of airplane for which the type rating is sought, if a type rating in a turbopropeller airplane is sought.

(C) Have at least 2,000 hours of flight time, of which 500 hours is in turbine-powered airplanes of the same class of airplane for which the type rating is sought.

(D) Have at least 500 hours of flight time in the same type airplane as the airplane for which the rating is sought.

(E) Have at least 1,000 hours of flight time in at least two different airplanes requiring a type rating.

(5) Subject to the limitation of paragraph (e)(6) of this section, an applicant who does not meet the requirements of paragraph (e)(4) of this section may complete all training and testing (except for preflight inspection) for an additional rating when using a flight simulator if—

(i) The flight simulator is approved as a Level C or Level D; and

(ii) The applicant meets at least one of the following:

(A) Holds a type rating in a propeller-driven airplane if a type rating in a turbojet airplane is sought, or holds a type rating in a turbojet airplane if a type rating in a propeller-driven airplane is sought; or

(B) Since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for an additional airplane rating, has logged:

(*1*) At least 100 hours of flight time in airplanes of the same class for which the type rating is sought and which requires a type rating; and

(*2*) At least 25 hours of flight time in airplanes of the same type for which the rating is sought.

(6) An applicant meeting only the requirements of paragraph (e)(5) of this section will be issued an additional rating with a limitation.

(7) The limitation on a certificate issued under the provisions of paragraph (e)(6) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(8) An applicant who has been issued a pilot certificate with the limitation specified in paragraph (e)(7) of this section—

(i) May not act as pilot in command of that airplane for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in the same type of airplane to which the limitation applies.

(9) An applicant who does not meet the requirements of paragraph (e)(4) or paragraph (e)(5) of this section may be issued an additional rating after successful completion of one of the following requirements:

(i) Compliance with paragraphs (e)(2) and (e)(3) of this section and the following tasks, which must be successfully completed on a static airplane or in flight, as appropriate:

(A) Preflight inspection;

(B) Normal takeoff;

(C) Normal ILS approach;

(D) Missed approach; and

(E) Normal landing.

(ii) Compliance with paragraphs (e)(2), (e)(3), and (e)(10) through (e)(12) of this section.

(10) An applicant meeting only the requirements of paragraph (e)(9) of this section will be issued an additional rating with a limitation.

(11) The limitation on a certificate issued under the provisions of paragraph (e)(10) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(12) An applicant who has been issued a pilot certificate with the limitation specified in paragraph (e)(11) of this section—

(i) May not act as pilot in command of that airplane for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in that airplane of the same type to which the limitation applies.

(f) *Use of an approved flight simulator or an approved flight training device for an additional rating in a helicopter.* The areas of operation required to be performed by paragraphs (b), (c), and (d) of this section shall be performed as follows:

(1) Except as provided in paragraph (f)(2) of this section, the areas of operation must be performed in a helicopter of the same type for the additional rating sought.

(2) Subject to the limitations of paragraph (f)(3) through (f)(12) of this section, the areas of operation may be performed in an approved flight simulator or an approved flight training device that represents that helicopter for the additional rating sought.

(3) The use of an approved flight simulator or an approved flight training device permitted by paragraph (f)(2) of this section shall be conducted in accordance with an approved course at a training center certificated under part 142 of this chapter.

(4) To complete all training and testing (except preflight inspection) for an additional helicopter rating without limitations when using a flight simulator—

(i) The flight simulator must be approved as Level C or Level D; and

(ii) The applicant must meet at least one of the following if a type rating is sought in a turbine-powered helicopter:

(A) Hold a type rating in a turbine-powered helicopter or have been appointed by a military service as a pilot in command of a turbine-powered helicopter.

(B) Have at least 2,000 hours of flight time that includes at least 500 hours in turbine-powered helicopters.

(C) Have at least 500 hours of flight time in turbine-powered helicopters.

(D) Have at least 1,000 hours of flight time in at least two different turbine-powered helicopters.

(5) Subject to the limitation of paragraph (f)(6) of this section, an applicant who does not meet the requirements of paragraph (f)(4) of this section may complete all training and testing (except for preflight inspection) for an additional rating when using a flight simulator if—

(i) The flight simulator is approved as Level C or Level D; and

(ii) The applicant meets at least one of the following:

(A) Holds a type rating in a turbine-powered helicopter if a type rating in a turbine-powered helicopter is sought; or

(B) Since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for an additional helicopter rating, has logged at least 25 hours of flight time in helicopters of the same type for which the rating is sought.

(6) An applicant meeting only the requirements of paragraph (f)(5) of this section will be issued an additional rating with a limitation.

(7) The limitation on a certificate issued under the provisions of paragraph (f)(6) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(8) An applicant who is issued a pilot certificate with the limitation specified in paragraph (f)(7) of this section—

(i) May not act as pilot in command of that helicopter for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in the same type of helicopter to which the limitation applies.

(9) An applicant who does not meet the requirements of paragraph (f)(4) or paragraph (f)(5) of this section may be issued an additional rating after successful completion of one of the following requirements:

(i) Compliance with paragraphs (f)(2) and (f)(3) of this section and the following tasks, which must be successfully completed on a static helicopter or in flight, as appropriate:

(A) Preflight inspection;

(B) Normal takeoff;

(C) Normal ILS approach;

(D) Missed approach; and

(E) Normal landing.

(ii) Compliance with paragraphs (f)(2), (f)(3), and (f)(10) through (f)(12) of this section.

(10) An applicant meeting only the requirements of paragraph (f)(9) of this section will be issued an additional rating with a limitation.

(11) The limitation on a certificate issued under the provisions of paragraph (f)(10) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(12) An applicant who has been issued a pilot certificate with the limitation specified in paragraph (f)(11) of this section—

(i) May not act as pilot in command of that helicopter for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in that helicopter of the same type as to which the limitation applies.

(g) *Use of an approved flight simulator or an approved flight training device for an additional rating in a powered-lift.* The areas of operation required to be performed by paragraphs (b), (c), and (d) of this section shall be performed as follows:

(1) Except as provided in paragraph (g)(2) of this section, the areas of operation must be performed in a powered-lift of the same type for the additional rating sought.

(2) Subject to the limitations of paragraph (g)(3) through (g)(12) of this section, the areas of operation may be performed in an approved flight simulator or an approved flight training device that represents that powered-lift for the additional rating sought.

(3) The use of an approved flight simulator or an approved flight training device permitted by paragraph (g)(2) of this section shall be conducted in accordance with an approved course at a training center certificated under part 142 of this chapter.

(4) To complete all training and testing (except preflight inspection) for an additional powered-lift rating without limitations when using a flight simulator—

(i) The flight simulator must be approved as Level C or Level D; and

(ii) The applicant must meet at least one of the following if a type rating is sought in a turbine powered-lift:

(A) Hold a type rating in a turbine powered-lift or have been appointed by a military service as a pilot in command of a turbine powered-lift.

(B) Have at least 2,000 hours of flight time that includes at least 500 hours in turbine powered-lifts.

(C) Have at least 500 hours of flight time in turbine powered-lifts.

(D) Have at least 1,000 hours of flight time in at least two different turbine powered-lifts.

(5) Subject to the limitation of paragraph (g)(6) of this section, an applicant who does not meet the requirements of paragraph (g)(4) of this section may complete all training and testing (except for preflight inspection) for an additional rating when using a flight simulator if—

(i) The flight simulator is approved as Level C or Level D; and

(ii) The applicant meets at least one of the following:

(A) Holds a type rating in a turbine powered-lift if a type rating in a turbine powered-lift is sought; or

(B) Since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for an additional powered-lift rating, has logged at least 25 hours of flight time in powered-lifts of the same type for which the rating is sought.

(6) An applicant meeting only the requirements of paragraph (g)(5) of this section will be issued an additional rating with a limitation.

(7) The limitation on a certificate issued under the provisions of paragraph (g)(6) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(8) An applicant who is issued a pilot certificate with the limitation specified in paragraph (g)(7) of this section—

(i) May not act as pilot in command of that powered-lift for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in the same type of powered-lift to which the limitation applies.

(9) An applicant who does not meet the requirements of paragraph (g)(4) or paragraph (g)(5) of this section may be issued an additional rating after successful completion of one of the following requirements:

(i) Compliance with paragraphs (g)(2) and (g)(3) of this section and the following tasks, which must be successfully completed on a static powered-lift or in flight, as appropriate:

(A) Preflight inspection;

(B) Normal takeoff;

(C) Normal ILS approach;

(D) Missed approach; and

(E) Normal landing.

(ii) Compliance with paragraphs (g)(2), (g)(3), and (g)(10) through (g)(12) of this section.

(10) An applicant meeting only the requirements of paragraph (g)(9) of this section will be issued an additional rating with a limitation.

(11) The limitation on a certificate issued under the provisions of paragraph (g)(10) of this section shall state, ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(12) An applicant who has been issued a pilot certificate with the limitation specified in paragraph (g)(11) of this section—

(i) May not act as pilot in command of that powered-lift for which the additional rating was obtained under the provisions of this section until the limitation is removed from the pilot certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in that powered-lift of the same type as to which the limitation applies.

(h) An applicant for a type rating who provides an aircraft not capable of the instrument maneuvers and procedures required by the appropriate requirements contained in § 61.157 of this part for the practical test may—

(1) Obtain a type rating limited to ''VFR only''; and

(2) Remove the ''VFR only'' limitation for each aircraft type in which the applicant demonstrates compliance with the appropriate instrument requirements contained in § 61.157 or § 61.73 of this part.

(i) An applicant for a type rating may be issued a certificate with the limitation ''VFR only'' for each aircraft type not equipped for the applicant to show instrument proficiency.

(j) An applicant for a type rating in a multiengine, single-pilot station airplane may meet the requirements of this part in a multiseat version of that multiengine airplane.

(k) An applicant for a type rating in a single-engine, single-pilot station airplane may meet the requirements of this part in a multiseat version of that single-engine airplane.

(l) Unless the Administrator requires certain or all tasks to be performed, the examiner who conducts the practical test may waive any of the tasks for which the Administrator approves waiver authority.

§ 61.64 [Reserved]

§ 61.65 Instrument rating requirements.

(a) *General.* A person who applies for an instrument rating must:

(1) Hold at least a current private pilot certificate with an aircraft category and class rating that applies to the instrument rating sought;

(2) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet any of these requirements due to a medical condition, the Administrator may place such operating limitations on the applicant's pilot certificate as are necessary for the safe operation of the aircraft;

(3) Receive and log ground training from an authorized instructor or accomplish a home-study course of training on the aeronautical knowledge areas of paragraph (b) of this section that apply to the instrument rating sought;

(4) Receive a logbook or training record endorsement from an authorized instructor certifying that the person is prepared to take the required knowledge test;

(5) Receive and log training on the areas of operation of paragraph (c) of this section from an authorized instructor in an aircraft, approved flight simulator, or approved training device that represents that class of aircraft for the instrument rating sought;

(6) Receive a logbook or training record endorsement from an authorized instructor certifying that the person is prepared to take the required practical test;

(7) Pass the required knowledge test on the aeronautical knowledge areas of paragraph (b) of this section; however, an applicant is not required to take another knowledge test when that person already holds an instrument rating; and

(8) Pass the required practical test on the areas of operation in paragraph (c) of this section in—

(i) The aircraft category, class, and type, if applicable, appropriate to the rating sought; or

(ii) A flight simulator or a flight training device appropriate to the rating sought and approved for the specific maneuver or procedure performed. If an approved flight training device is used for the practical test, the procedures conducted in that flight training device are limited to one precision and one nonprecision approach, provided the flight training device is approved for the procedure performed.

(b) *Aeronautical knowledge.* A person who applies for an instrument rating must have received and logged ground training from an authorized instructor or accomplished a home-study course on the following aeronautical knowledge areas that apply to the instrument rating sought:

(1) Federal Aviation Regulations of this chapter that apply to flight operations under IFR;

(2) Appropriate information that applies to flight operations under IFR in the ''Aeronautical Information Manual;''

(3) Air traffic control system and procedures for instrument flight operations;

(4) IFR navigation and approaches by use of navigation systems;

(5) Use of IFR en route and instrument approach procedure charts;

(6) Procurement and use of aviation weather reports and forecasts and the elements of forecasting weather trends based on that information and personal observation of weather conditions;

(7) Safe and efficient operation of aircraft under instrument flight rules and conditions;

(8) Recognition of critical weather situations and windshear avoidance;

(9) Aeronautical decision making and judgment; and

(10) Crew resource management, including crew communication and coordination.

(c) *Flight proficiency.* A person who applies for an instrument rating must receive and log training from an authorized instructor in an aircraft, or in an approved flight simulator or approved flight training device, in accordance with paragraph (e) of this section, that includes the following areas of operation:

(1) Preflight preparation;

(2) Preflight procedures;

(3) Air traffic control clearances and procedures;

(4) Flight by reference to instruments;

(5) Navigation systems;

(6) Instrument approach procedures;

(7) Emergency operations; and

(8) Postflight procedures.

(d) *Aeronautical experience.* A person who applies for an instrument rating must have logged the following:

(1) At least 50 hours of cross-country flight time as pilot in command, of which at least 10 hours must be in airplanes for an instrument—airplane rating; and

(2) A total of 40 hours of actual or simulated instrument time on the areas of operation of this section, to include—

(i) At least 15 hours of instrument flight training from an authorized instructor in the aircraft category for which the instrument rating is sought;

(ii) At least 3 hours of instrument training that is appropriate to the instrument rating sought from an authorized instructor in preparation for the practical test within the 60 days preceding the date of the test;

(iii) For an instrument—airplane rating, instrument training on cross-

country flight procedures specific to airplanes that includes at least one cross-country flight in an airplane that is performed under IFR, and consists of—

(A) A distance of at least 250 nautical miles along airways or ATC-directed routing;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems;

(iv) For an instrument—helicopter rating, instrument training specific to helicopters on cross-country flight procedures that includes at least one cross-country flight in a helicopter that is performed under IFR, and consists of—

(A) A distance of at least 100 nautical miles along airways or ATC-directed routing;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems; and

(v) For an instrument—powered-lift rating, instrument training specific to a powered-lift on cross-country flight procedures that includes at least one cross-country flight in a powered-lift that is performed under IFR and consists of—

(A) A distance of at least 250 nautical miles along airways or ATC-directed routing;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems.

(e) *Use of approved flight simulators or approved flight training devices.* If the instrument training was provided by an authorized instructor in an approved flight simulator or an approved flight training device—

(1) A maximum of 30 hours may be performed in that approved flight simulator or approved flight training device if the training was accomplished in accordance with part 142 of this chapter; or

(2) A maximum of 20 hours may be performed in that approved flight simulator or approved flight training device if the training was not accomplished in accordance with part 142 of this chapter.

§ 61.67 Category II pilot authorization requirements.

(a) *General.* A person who applies for a Category II pilot authorization must hold:

(1) At least a private or commercial pilot certificate with an instrument rating or an airline transport pilot certificate;

(2) A type rating for the aircraft for which the authorization is sought if that aircraft requires a type rating; and

(3) A category and class rating for the aircraft for which the authorization is sought.

(b) *Experience requirements.* An applicant for a Category II pilot authorization must have at least—

(1) 50 hours of night flight time as pilot in command.

(2) 75 hours of instrument time under actual or simulated instrument conditions that may include not more than—

(i) A combination of 25 hours of simulated instrument flight time in an approved flight simulator or an approved flight training device; or

(ii) 40 hours of simulated instrument flight time if accomplished in an approved course conducted by an appropriately rated training center certificated under part 142 of this chapter.

(3) 250 hours of cross-country flight time as pilot in command.

(c) *Practical test requirements.* (1) A practical test must be passed by a person who applies for—

(i) Issuance or renewal of a Category II pilot authorization; and

(ii) The addition of another type aircraft to the applicant's Category II pilot authorization.

(2) To be eligible for the practical test for an authorization under this section, an applicant must—

(i) Meet the requirements of paragraphs (a) and (b) of this section; and

(ii) If the applicant has not passed a practical test for this authorization during the 12 calendar months preceding the month of the test, then that person must—

(A) Meet the requirements of § 61.57(c); and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches must have been conducted without the use of an approach coupler.

(3) The approaches specified in paragraph (c)(2)(ii)(B) of this section—

(i) Must be conducted under actual or simulated instrument flight conditions;

(ii) Must be conducted to the minimum decision height for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Need not be conducted to the decision height authorized for Category II operations;

(iv) Must be conducted to the decision height authorized for Category II operations only if conducted in an approved flight simulator or an approved flight training device; and

(v) Must be accomplished in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted or in an approved flight simulator that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorization is sought; and

(B) Is used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(4) The flight time acquired in meeting the requirements of paragraph (c)(2)(ii)(B) of this section may be used to meet the requirements of paragraph (c)(2)(ii)(A) of this section.

(d) *Practical test procedures.* The practical test consists of an oral increment and a flight increment.

(1) *Oral increment.* In the oral increment of the practical test an applicant must demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Recognition of the decision height;

(iii) Missed approach procedures and techniques using computed or fixed attitude guidance displays;

(iv) Use and limitations of RVR;

(v) Use of visual clues, their availability or limitations, and altitude at which they are normally discernible at reduced RVR readings;

(vi) Procedures and techniques related to transition from nonvisual to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other required Category II equipment;

(x) Assigned duties of the second in command during Category II approaches, unless the aircraft for which authorization is sought does not require a second in command; and

(xi) Instrument and equipment failure warning systems.

(2) *Flight increment.* The following requirements apply to the flight increment of the practical test:

(i) The flight increment must be conducted in an aircraft of the same category, class, and type, as applicable, as the aircraft in which the authorization is sought or in an approved flight simulator that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorization is sought; and

(B) Is used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(ii) The flight increment must consist of at least two ILS approaches to 100 feet AGL including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment must be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach must be hand flown using flight director commands.

(iv) If a multiengine airplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment must include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

(v) If an approved multiengine flight simulator or approved multiengine flight training device is used for the practical test, the applicant must execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorization for an aircraft that requires a type rating, the practical test must be performed in coordination with a second in command who holds a type rating in the aircraft in which the authorization is sought.

(vii) Oral questioning may be conducted at any time during a practical test.

§ 61.68 Category III pilot authorization requirements.

(a) *General.* A person who applies for a Category III pilot authorization must hold:

(1) At least a private pilot certificate or commercial pilot certificate with an instrument rating or an airline transport pilot certificate;

(2) A type rating for the aircraft for which the authorization is sought if that aircraft requires a type rating; and

(3) A category and class rating for the aircraft for which the authorization is sought.

(b) *Experience requirements.* An applicant for a Category III pilot authorization must have at least—

(1) 50 hours of night flight time as pilot in command.

(2) 75 hours of instrument flight time during actual or simulated instrument conditions that may include not more than—

(i) A combination of 25 hours of simulated instrument flight time in an approved flight simulator or an approved flight training device; or

(ii) 40 hours of simulated instrument flight time if accomplished in an approved course conducted by an appropriately rated training center certificated under part 142 of this chapter.

(3) 250 hours of cross-country flight time as pilot in command.

(c) *Practical test requirements.* (1) A practical test must be passed by a person who applies for—

(i) Issuance or renewal of a Category III pilot authorization; and

(ii) The addition of another type of aircraft to the applicant's Category III pilot authorization.

(2) To be eligible for the practical test for an authorization under this section, an applicant must—

(i) Meet the requirements of paragraphs (a) and (b) of this section; and

(ii) If the applicant has not passed a practical test for this authorization during the 12 calendar months preceding the month of the test, then that person must—

(A) Meet the requirements of § 61.57(c); and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches must have been conducted without the use of an approach coupler.

(3) The approaches specified in paragraph (c)(2)(ii)(B) of this section—

(i) Must be conducted under actual or simulated instrument flight conditions;

(ii) Must be conducted to the alert height or decision height for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Need not be conducted to the decision height authorized for Category III operations;

(iv) Must be conducted to the alert height or decision height, as applicable, authorized for Category III operations only if conducted in an approved flight simulator or approved flight training device; and

(v) Must be accomplished in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted or in an approved flight simulator that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorization is sought; and

(B) Is used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(4) The flight time acquired in meeting the requirements of paragraph (c)(2)(ii)(B) of this section may be used to meet the requirements of paragraph (c)(2)(ii)(A) of this section.

(d) *Practical test procedures.* The practical test consists of an oral increment and a flight increment.

(1) *Oral increment.* In the oral increment of the practical test an applicant must demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Determination and recognition of the alert height or decision height, as applicable, including use of a radar altimeter;

(iii) Recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or decision height, as applicable;

(iv) Missed approach procedures and techniques using computed or fixed attitude guidance displays and expected height loss as they relate to manual go-around or automatic go-around, and initiation altitude, as applicable;

(v) Use and limitations of RVR, including determination of controlling RVR and required transmissometers;

(vi) Use, availability, or limitations of visual cues and the altitude at which they are normally discernible at reduced RVR readings including—

(A) Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;

(B) Demonstration of expected visual references with weather at minimum conditions;

(C) The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and

(D) Procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced RVR.

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other Category III equipment;

(x) Assigned duties of the second in command during Category III operations, unless the aircraft for which authorization is sought does not require a second in command;

(xi) Recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout; and

(xii) Recognition of, and reaction to, airborne or ground system faults or

abnormalities, particularly after passing alert height or decision height, as applicable.

(2) *Flight increment.* The following requirements apply to the flight increment of the practical test—

(i) The flight increment may be conducted in an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorization is sought, or in an approved flight simulator that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorization is sought; and

(B) Is used in accordance with an approved course conducted by a training center certificated under part 142 of this chapter.

(ii) The flight increment must consist of at least two ILS approaches to 100 feet AGL, including one landing and one missed approach initiated from a very low altitude that may result in a touchdown during the go-around maneuver;

(iii) All approaches performed during the flight increment must be made with the approved automatic landing system or an equivalent landing system approved by the Administrator;

(iv) If a multiengine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment must include the performance of one missed approach with the most critical engine, if applicable, set at idle or zero thrust before reaching the middle or outer marker;

(v) If an approved multiengine flight simulator or approved multiengine flight training device is used, a missed approach must be executed with an engine, which shall be the most critical engine, if applicable, failed;

(vi) For an authorization for an aircraft that requires a type rating, the practical test must be performed in coordination with a second in command who holds a type rating in the aircraft in which the authorization is sought;

(vii) Oral questioning may be conducted at any time during the practical test;

(viii) Subject to the limitations of this paragraph, for Category IIIb operations predicated on the use of a fail-passive rollout control system, at least one manual rollout using visual reference or a combination of visual and instrument references must be executed. The maneuver required by this paragraph shall be initiated by a fail-passive disconnect of the rollout control system—

(A) After main gear touchdown;

(B) Prior to nose gear touchdown;

(C) In conditions representative of the most adverse lateral touchdown displacement allowing a safe landing on the runway; and

(D) In weather conditions anticipated in Category IIIb operations.

§ 61.69 Glider towing: Experience and training requirements.

(a) No person may act as pilot in command for towing a glider unless that person:

(1) Holds at least a private pilot certificate with a category rating for powered aircraft;

(2) Has logged at least 100 hours of pilot-in-command time in the aircraft category, class, and type, if required, that the pilot is using to tow a glider;

(3) Has a logbook endorsement from an authorized instructor with a glider rating who certifies that the person has received ground and flight training in gliders and is proficient in—

(i) The techniques and procedures essential to the safe towing of gliders, including airspeed limitations;

(ii) Emergency procedures;

(iii) Signals used; and

(iv) Maximum angles of bank.

(4) Except as provided in paragraph (b) of this section, has logged at least three flights as the sole manipulator of the controls of an aircraft towing a glider or simulating glider-towing flight procedures while accompanied by a pilot who meets the requirements of this section;

(5) Except as provided in paragraph (b) of this section, has received a logbook endorsement from the pilot, described in paragraph (a)(4) of this section, certifying that the person has accomplished at least 3 flights in an aircraft while towing a glider, or while simulating glider-towing flight procedures; and

(6) Within the preceding 12 months has—

(i) Made at least three actual glider tows while accompanied by a qualified pilot who meets the requirements of this section; or

(ii) Made at least three flights as pilot in command of a glider towed by an aircraft.

(b) Any person who before May 17, 1967, has made and logged 10 or more flights as pilot in command of an aircraft towing a glider in accordance with a certificate of waiver need not comply with paragraphs (a)(4) and (a)(5) of this section.

(c) The pilot, described in paragraph (a)(4) of this section, who endorses the logbook of a person seeking glider-towing privileges must have:

(1) Met the requirements of this section prior to endorsing the logbook of the person seeking glider-towing privileges; and

(2) Logged at least 10 flights as pilot in command of an aircraft while towing a glider.

(d) If the pilot described in paragraph (a)(4) of this section holds only a private pilot certificate, then that pilot must have:

(1) Logged at least 100 hours of pilot-in-command time in airplanes, or 200 hours of pilot-in-command time in a combination of powered and other-than-powered aircraft; and

(2) Performed and logged at least three flights within the 12 calendar months preceding the month that pilot accompanies or endorses the logbook of a person seeking glider-towing privileges—

(i) In an aircraft while towing a glider accompanied by another pilot who meets the requirements of this section; or

(ii) As pilot in command of a glider being towed by an aircraft.

§ 61.71 Graduates of an approved training program other than under this part: Special rules.

(a) A person who graduates from an approved training program under part 141 or part 142 of this chapter is considered to have met the applicable aeronautical experience, aeronautical knowledge, and areas of operation requirements of this part if that person presents the graduation certificate and passes the required practical test within the 60-day period after the date of graduation.

(b) A person may apply for an airline transport pilot certificate, type rating, or both under this part, and will be considered to have met the applicable requirements under § 61.157 of this part for that certificate and rating, if that person has:

(1) Satisfactorily accomplished an approved training program and the pilot in command proficiency check for that airplane type, in accordance with the pilot in command requirements under subparts N and O of part 121 of this chapter; and

(2) Applied for the airline transport pilot certificate, type rating, or both within the 60-day period from the date the person satisfactorily accomplished the approved training program and pilot in command proficiency check for that airplane type.

§ 61.73 Military pilots or former military pilots: Special rules.

(a) *General.* Except for a rated military pilot or former rated military pilot who has been removed from flying status for lack of proficiency, or because of

disciplinary action involving aircraft operations, a rated military pilot or former rated military pilot who meets the applicable requirements of this section may apply, on the basis of his or her military training, for:

(1) A commercial pilot certificate;

(2) An aircraft rating in the category and class of aircraft for which that military pilot is qualified;

(3) An instrument rating with the appropriate aircraft rating for which that military pilot is qualified; or

(4) A type rating, if appropriate.

(b) *Military pilots on active flying status within the past 12 months.* A rated military pilot or former rated military pilot who has been on active flying status within the 12 months before applying must:

(1) Pass a knowledge test on the appropriate parts of this chapter that apply to pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules;

(2) Present documentation showing compliance with the requirements of paragraph (d) of this section for at least one aircraft category rating; and

(3) Present documentation showing that the applicant is or was, at any time during the 12 calendar months before the month of application—

(i) A rated military pilot on active flying status in an armed force of the United States; or

(ii) A rated military pilot of an armed force of a foreign contracting State to the Convention on International Civil Aviation, assigned to pilot duties (other than flight training) with an armed force of the United States and holds, at the time of application, a current civil pilot license issued by that contracting State authorizing at least the privileges of the pilot certificate sought.

(c) *Military pilots not on active flying status during the 12 calendar months before the month of application.* A rated military pilot or former rated military pilot who has not been on active flying status within the 12 calendar months before the month of application must:

(1) Pass the appropriate knowledge and practical tests prescribed in this part for the certificate or rating sought; and

(2) Present documentation showing that the applicant was or is, within the 12 calendar months before the month of application, a rated military pilot as prescribed by paragraph (b)(3) of this section.

(d) *Aircraft category, class, and type ratings.* A rated military pilot or former rated military pilot who applies for an aircraft category, class, or type rating, if applicable, is issued that rating at the commercial pilot certificate level if the pilot presents documentary evidence that shows satisfactory accomplishment of:

(1) An official U.S. military pilot check and instrument proficiency check in that aircraft category, class, or type, if applicable, as pilot in command during the 12 calendar months before the month of application;

(2) At least 10 hours of pilot-in-command time in that aircraft category, class, or type, if applicable, during the 12 calendar months before the month of application; or

(3) An FAA practical test in that aircraft after—

(i) Meeting the requirements of paragraphs (b)(1) and (b)(2) of this section; and

(ii) Having received an endorsement from an authorized instructor who certifies that the pilot is proficient to take the required practical test, and that endorsement is made within the 60-day period preceding the date of the practical test.

(e) *Instrument rating.* A rated military pilot or former rated military pilot who applies for an airplane instrument rating, a helicopter instrument rating, or a powered-lift instrument rating to be added to his or her commercial pilot certificate may apply for an instrument rating if the pilot has, within the 12 calendar months preceding the month of application:

(1) Passed an instrument proficiency check by a U.S. Armed Force in the aircraft category for the instrument rating sought; and

(2) Received authorization from a U.S. Armed Force to conduct IFR flights on Federal airways in that aircraft category and class for the instrument rating sought.

(f) *Aircraft type rating.* An aircraft type rating is issued only for aircraft types that the Administrator has certificated for civil operations.

(g) *Aircraft type rating placed on an airline transport pilot certificate.* A rated military pilot or former rated military pilot who holds an airline transport pilot certificate and who requests an aircraft type rating to be placed on that person's airline transport pilot certificate may be issued that aircraft type rating at the airline transport pilot certificate level, provided that person:

(1) Holds a category and class rating for that type of aircraft at the airline transport pilot certificate level; and

(2) Passed an official U.S. military pilot check and instrument proficiency check in that type of aircraft as pilot in command during the 12 calendar months before the month of application.

(h) *Evidentiary documents.* The following documents are satisfactory evidence for the purposes indicated:

(1) An official identification card issued to the pilot by an armed force may be used to demonstrate membership in the armed forces.

(2) An original or a copy of a certificate of discharge or release may be used to demonstrate discharge or release from an armed force or former membership in an armed force.

(3) Current or previous status as a rated military pilot with a U.S. Armed Force may be demonstrated by—

(i) An official U.S. Armed Force order to flight status as a military pilot;

(ii) An official U.S. Armed Force form or logbook showing military pilot status; or

(iii) An official order showing that the rated military pilot graduated from a U.S. military pilot school and received a rating as a military pilot.

(4) A certified U.S. Armed Force logbook or an appropriate official U.S. Armed Force form or summary may be used to demonstrate flight time in military aircraft as a member of a U.S. Armed Force.

(5) An official U.S. Armed Force record of a military checkout as pilot in command may be used to demonstrate pilot in command status.

(6) A current instrument grade slip that is issued by a U.S. Armed Force, or an official record of satisfactory accomplishment of an instrument proficiency check during the 12 calendar months preceding the month of the application may be used to demonstrate instrument pilot qualification.

§ 61.75 Private pilot certificate issued on the basis of a foreign pilot license.

(a) *General.* A person who holds a current foreign pilot license issued by a contracting State to the Convention on International Civil Aviation may apply for and be issued a private pilot certificate with the appropriate ratings when the application is based on the foreign pilot license that meets the requirements of this section.

(b) *Certificate issued.* A U.S. private pilot certificate that is issued under this section shall specify the person's foreign license number and country of issuance. A person who holds a current foreign pilot license issued by a contracting State to the Convention on International Civil Aviation may be issued a private pilot certificate based on the foreign pilot license without any further showing of proficiency, provided the applicant:

(1) Meets the requirements of this section;

(2) Holds a foreign pilot license that—

(i) Is not under an order of revocation or suspension by the foreign country that issued the foreign pilot license; and

(ii) Does not contain an endorsement stating that the applicant has not met all of the standards of ICAO for that license;

(3) Does not currently hold a U.S. pilot certificate;

(4) Holds a current medical certificate issued under part 67 of this chapter or a current medical certificate issued by the country that issued the person's foreign pilot license; and

(5) Is able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

(c) *Aircraft ratings issued.* Aircraft ratings listed on a person's foreign pilot license, in addition to any issued after testing under the provisions of this part, may be placed on that person's U.S. pilot certificate.

(d) *Instrument ratings issued.* A person who holds an instrument rating on the foreign pilot license issued by a contracting State to the Convention on International Civil Aviation may be issued an instrument rating on a U.S. private pilot certificate provided:

(1) The person's foreign pilot license authorizes instrument privileges;

(2) Within 24 months preceding the month in which the person applies for the instrument rating, the person passes the appropriate knowledge test; and

(3) The person is able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

(e) *Operating privileges and limitations.* A person who receives a U.S. private pilot certificate that has been issued under the provisions of this section:

(1) May act as a pilot of a civil aircraft of U.S. registry in accordance with the private pilot privileges authorized by this part;

(2) Is limited to the privileges placed on the certificate by the Administrator;

(3) Is subject to the limitations and restrictions on the person's U.S. certificate and foreign pilot license when exercising the privileges of that U.S. pilot certificate in an aircraft of U.S. registry operating within or outside the United States; and

(4) Shall not exercise the privileges of that U.S. private pilot certificate when the person's foreign pilot license has been revoked or suspended.

(f) *Limitation on licenses used as the basis for a U.S. certificate.* Only one foreign pilot license may be used as a basis for issuing a U.S. private pilot certificate. The foreign pilot license and medical certification used as a basis for issuing a U.S. private pilot certificate under this section must be in the English language or accompanied by an English language transcription that has been signed by an official or representative of the foreign aviation authority that issued the foreign pilot license.

(g) *Limitation placed on a U.S. private pilot certificate.* A U.S. private pilot certificate issued under this section is valid only when the holder has the foreign pilot license upon which the issuance of the U.S. private pilot certificate was based in the holder's personal possession or readily accessible in the aircraft.

§ 61.77 Special purpose pilot authorization: Operation of U.S.-registered civil aircraft leased by a person who is not a U.S. citizen.

(a) *General.* After meeting the requirements of this section, a holder of a foreign pilot license issued by a contracting State to the Convention on International Civil Aviation may be issued a special purpose pilot authorization by the Administrator for the purpose of performing pilot duties:

(1) On a civil aircraft of U.S. registry that is leased to a person who is not a citizen of the United States; and

(2) For carrying persons or property for compensation or hire on that aircraft.

(b) *Eligibility.* To be eligible for the issuance or renewal of a special purpose pilot authorization, a person must:

(1) Hold a current foreign pilot license that has been issued by the aeronautical authority of a contracting State to the Convention on International Civil Aviation from which the person holds citizenship or resident status;

(2) Hold a foreign pilot license that contains the appropriate aircraft category, class, instrument rating, and type rating, if appropriate, for the aircraft to be flown;

(3) Meet the medical standards for the issuance of the foreign pilot license from the aeronautical authority of the contracting State to the Convention on International Civil Aviation where the person holds citizenship or resident status;

(4) Must not already hold a special purpose pilot authorization, but if the person already holds a special purpose pilot authorization, then that special purpose pilot authorization must either be surrendered to the FAA Flight Standards District Office that issued it, or to the FAA Flight Standards District Office processing the application for the authorization prior to being issued another special purpose pilot authorization;

(5) Meet the currency requirements of this part and present a logbook or flight record showing compliance with the currency requirements of this part;

(6) Show when the person will reach the age of 60 years by providing an official copy of the applicant's birth certificate or other official documentation; and

(7) Present a copy of the foreign pilot license and a letter to an FAA Flight Standards District Office from the lessee of the aircraft that—

(i) Acknowledges the person is employed by the lessee;

(ii) Specifies the aircraft type in which the person will be performing pilot duties; and

(iii) States that the person is currently qualified to exercise the privileges listed on that person's pilot license for the aircraft to be flown, and that the person has satisfactorily accomplished the applicable ground and flight training in the aircraft type in which the person will be performing pilot duties.

(c) *Privileges.* A person issued a special purpose pilot authorization under this section:

(1) May exercise the privileges prescribed on the special purpose pilot authorization; and

(2) Must comply with the limitations specified in this section and any additional limitations specified on the special purpose pilot authorization.

(d) *General limitations.* A person exercising the privileges of a special purpose pilot authorization:

(1) May apply for a 60-calendar-month extension of that authorization, provided the person—

(i) Continues to meet the requirements of this section; and

(ii) Surrenders the expired special purpose pilot authorization upon receipt of the new authorization.

(2) Holds only one special purpose pilot authorization;

(3) Conducts any flight between foreign countries in foreign air commerce within the time period allotted on the authorization; and

(4) Has the foreign pilot license and special purpose pilot authorization in his or her physical possession or immediately accessible in the aircraft, while exercising the privileges of that special purpose pilot authorization.

(e) *Age limitation.* Except as provided in paragraph (g) of this section, no

person who holds a special purpose pilot authorization issued under this part, and no person who holds a special purpose pilot certificate issued under this part before August 4, 1997, shall serve as a pilot on a civil airplane of U.S. registry if the person has reached his or her 60th birthday, in the following operations:

(1) Scheduled international air services carrying passengers in turbojet-powered airplanes;

(2) Scheduled international air services carrying passengers in airplanes having a passenger-seat configuration of more than nine passenger seats, excluding each crewmember seat;

(3) Nonscheduled international air transportation for compensation or hire in airplanes having a passenger-seat configuration of more than 30 passenger seats, excluding each crewmember seat; or

(4) Scheduled international air services, or nonscheduled international air transportation for compensation or hire, in airplanes having a payload capacity of more than 7,500 pounds.

(f) *Definitions.* (1) ''International air service,'' as used in paragraph (e) of this section, means scheduled air service performed in airplanes for the public transport of passengers, mail, or cargo, in which the service passes through the air space over the territory of more than one country.

(2) ''International air transportation,'' as used in paragraph (e) of this section, means air transportation performed in airplanes for the public transport of passengers, mail, or cargo, in which service passes through the air space over the territory of more than one country.

(g) *Delayed pilot age limitations for certain operations.* Until December 20, 1999, a person may serve as a pilot in the operations specified in paragraph (e) of this section after that person has reached his or her 60th birthday, if, on March 20, 1997, that person was employed as a pilot in any of these operations:

(1) Scheduled international air services carrying passengers in nontransport category turbopropeller-powered airplanes type certificated after December 31, 1964, that have a passenger seat configuration of 10 to 19 seats;

(2) Scheduled international air services carrying passengers in transport category turbopropeller-powered airplanes that have a passenger seat configuration of 20 to 30 seats; or

(3) Scheduled international air services carrying passengers in turbojet-powered airplanes having a passenger seat configuration of 1 to 30 seats.

(h) *Expiration date.* Each special purpose pilot authorization issued under this section expires:

(1) 60 calendar months from the month it was issued, unless sooner suspended or revoked;

(2) When the lease agreement for the aircraft expires or the lessee terminates the employment of the person who holds the special purpose pilot authorization;

(3) Whenever the person's foreign pilot license has been suspended, revoked, or is no longer valid; or

(4) When the person no longer meets the medical standards for the issuance of the foreign pilot license.

Subpart C—Student Pilots

§ 61.81 Applicability.

This subpart prescribes the requirements for the issuance of student pilot certificates, the conditions under which those certificates are necessary, and the general operating rules and limitations for the holders of those certificates.

§ 61.83 Eligibility requirements for student pilots.

To be eligible for a student pilot certificate, an applicant must:

(a) Be at least 16 years of age for other than the operation of a glider or balloon.

(b) Be at least 14 years of age for the operation of a glider or balloon.

(c) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

§ 61.85 Application.

An application for a student pilot certificate is made on a form and in a manner provided by the Administrator and is submitted to:

(a) A designated aviation medical examiner if applying for an FAA medical certificate under part 67 of this chapter;

(b) An examiner; or

(c) A Flight Standards District Office.

§ 61.87 Solo requirements for student pilots.

(a) *General.* A student pilot may not operate an aircraft in solo flight unless that student has met the requirements of this section. The term ''solo flight,'' as used in this subpart, means that flight time during which a student pilot is the sole occupant of the aircraft, or that flight time during which the student acts as a pilot in command of a gas balloon or an airship requiring more than one flight crewmember.

(b) *Aeronautical knowledge.* A student pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test that meets the requirements of this paragraph:

(1) The test must address the student pilot's knowledge of—

(i) Applicable sections of parts 61 and 91 of this chapter;

(ii) Airspace rules and procedures for the airport where the solo flight will be performed; and

(iii) Flight characteristics and operational limitations for the make and model of aircraft to be flown.

(2) The student's authorized instructor must—

(i) Administer the test; and

(ii) At the conclusion of the test, review all incorrect answers with the student before authorizing that student to conduct a solo flight.

(c) *Pre-solo flight training.* Prior to conducting a solo flight, a student pilot must have:

(1) Received and logged flight training for the maneuvers and procedures of this section that are appropriate to the make and model of aircraft to be flown; and

(2) Demonstrated satisfactory proficiency and safety, as judged by an authorized instructor, on the maneuvers and procedures required by this section in the make and model of aircraft or similar make and model of aircraft to be flown.

(d) *Maneuvers and procedures for pre-solo flight training in a single-engine airplane.* A student pilot who is receiving training for a single-engine airplane rating must receive and log flight training for the following maneuvers and procedures:

(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;

(2) Taxiing or surface operations, including runups;

(3) Takeoffs and landings, including normal and crosswind;

(4) Straight and level flight, and turns in both directions;

(5) Climbs and climbing turns;

(6) Airport traffic patterns, including entry and departure procedures;

(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;

(8) Descents, with and without turns, using high and low drag configurations;

(9) Flight at various airspeeds from cruise to slow flight;

(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;

(11) Emergency procedures and equipment malfunctions;

(12) Ground reference maneuvers;
(13) Approaches to a landing area with simulated engine malfunctions;
(14) Slips to a landing; and
(15) Go-arounds.

(e) *Maneuvers and procedures for pre-solo flight training in a multiengine airplane.* A student pilot who is receiving training for a multiengine airplane rating must receive and log flight training for the following maneuvers and procedures:
(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including runups;
(3) Takeoffs and landings, including normal and crosswind;
(4) Straight and level flight, and turns in both directions;
(5) Climbs and climbing turns;
(6) Airport traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents, with and without turns, using high and low drag configurations;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(11) Emergency procedures and equipment malfunctions;
(12) Ground reference maneuvers;
(13) Approaches to a landing area with simulated engine malfunctions; and
(14) Go-arounds.

(f) *Maneuvers and procedures for pre-solo flight training in a helicopter.* A student pilot who is receiving training for a helicopter rating must receive and log flight training for the following maneuvers and procedures:
(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including runups;
(3) Takeoffs and landings, including normal and crosswind;
(4) Straight and level flight, and turns in both directions;
(5) Climbs and climbing turns;
(6) Airport traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference maneuvers;
(12) Approaches to the landing area;
(13) Hovering and hovering turns;
(14) Go-arounds;
(15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to a hover;
(16) Rapid decelerations; and
(17) Simulated one-engine-inoperative approaches and landings for multiengine helicopters.

(g) *Maneuvers and procedures for pre-solo flight training in a gyroplane.* A student pilot who is receiving training for a gyroplane rating must receive and log flight training for the following maneuvers and procedures:
(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including runups;
(3) Takeoffs and landings, including normal and crosswind;
(4) Straight and level flight, and turns in both directions;
(5) Climbs and climbing turns;
(6) Airport traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference maneuvers;
(12) Approaches to the landing area;
(13) High rates of descent with power on and with simulated power off, and recovery from those flight configurations;
(14) Go-arounds; and
(15) Simulated emergency procedures, including simulated power-off landings and simulated power failure during departures.

(h) *Maneuvers and procedures for pre-solo flight training in a powered-lift.* A student pilot who is receiving training for a powered-lift rating must receive and log flight training in the following maneuvers and procedures:
(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including runups;
(3) Takeoffs and landings, including normal and crosswind;
(4) Straight and level flight, and turns in both directions;
(5) Climbs and climbing turns;
(6) Airport traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(11) Emergency procedures and equipment malfunctions;
(12) Ground reference maneuvers;
(13) Approaches to a landing with simulated engine malfunctions;
(14) Go-arounds;
(15) Approaches to the landing area;
(16) Hovering and hovering turns; and
(17) For multiengine powered-lifts, simulated one-engine-inoperative approaches and landings.

(i) *Maneuvers and procedures for pre-solo flight training in a glider.* A student pilot who is receiving training for a glider rating must receive and log flight training for the following maneuvers and procedures:
(1) Proper flight preparation procedures, including preflight planning, preparation, aircraft systems, and, if appropriate, powerplant operations;
(2) Taxiing or surface operations, including runups, if applicable;
(3) Launches, including normal and crosswind;
(4) Straight and level flight, and turns in both directions;
(5) Airport traffic patterns, including entry procedures;
(6) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(7) Descents with and without turns using high and low drag configurations;
(8) Flight at various airspeeds;
(9) Emergency procedures and equipment malfunctions;
(10) Ground reference maneuvers;
(11) Inspection of towline rigging and review of signals and release procedures;
(12) Aerotow, ground tow, or self-launch procedures;
(13) Procedures for disassembly and assembly of the glider;
(14) Stall entry, stall, and stall recovery;
(15) Straight glides, turns, and spirals;
(16) Landings, including normal and crosswind;
(17) Slips to a landing;
(18) Procedures and techniques for thermalling; and
(19) Emergency operations, including towline break procedures.

(j) *Maneuvers and procedures for pre-solo flight training in an airship.* A student pilot who is receiving training for an airship rating must receive and log flight training for the following maneuvers and procedures:

(1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation, and aircraft systems;

(2) Taxiing or surface operations, including runups;

(3) Takeoffs and landings, including normal and crosswind;

(4) Straight and level flight, and turns in both directions;

(5) Climbs and climbing turns;

(6) Airport traffic patterns, including entry and departure procedures;

(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;

(8) Descents with and without turns;

(9) Flight at various airspeeds from cruise to slow flight;

(10) Emergency procedures and equipment malfunctions;

(11) Ground reference maneuvers;

(12) Rigging, ballasting, and controlling pressure in the ballonets, and superheating; and

(13) Landings with positive and with negative static trim.

(k) *Maneuvers and procedures for pre-solo flight training in a balloon.* A student pilot who is receiving training in a balloon must receive and log flight training for the following maneuvers and procedures:

(1) Layout and assembly procedures;

(2) Proper flight preparation procedures, including preflight planning and preparation, and aircraft systems;

(3) Ascents and descents;

(4) Landing and recovery procedures;

(5) Emergency procedures and equipment malfunctions;

(6) Operation of hot air or gas source, ballast, valves, vents, and rip panels, as appropriate;

(7) Use of deflation valves or rip panels for simulating an emergency;

(8) The effects of wind on climb and approach angles; and

(9) Obstruction detection and avoidance techniques.

(l) *Limitations on student pilots operating an aircraft in solo flight.* A student pilot may not operate an aircraft in solo flight unless that student pilot has received:

(1) An endorsement from an authorized instructor on his or her student pilot certificate for the specific make and model aircraft to be flown; and

(2) An endorsement in the student's logbook for the specific make and model aircraft to be flown by an authorized instructor, who gave the training within the 90 days preceding the date of the flight.

(m) *Limitations on student pilots operating an aircraft in solo flight at night.* A student pilot may not operate an aircraft in solo flight at night unless that student pilot has received:

(1) Flight training at night on night flying procedures that includes takeoffs, approaches, landings, and go-arounds at night at the airport where the solo flight will be conducted;

(2) Navigation training at night in the vicinity of the airport where the solo flight will be conducted;

(3) An endorsement from an authorized instructor in the student's logbook for the specific make and model aircraft to be flown for night solo flight; and

(4) An endorsement in the student's logbook for the specific make and model aircraft to be flown for night solo flight by an authorized instructor who gave the training within the 90-day period preceding the date of the flight.

(n) *Limitations on flight instructors authorizing solo flight.* (1) No instructor may authorize a student pilot to perform a solo flight unless that instructor has—

(i) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown;

(ii) Determined the student pilot is proficient in the maneuvers and procedures prescribed in this section;

(iii) Determined the student pilot is proficient in the make and model of aircraft to be flown;

(iv) Ensured that the student pilot's certificate has been endorsed by an instructor authorized to provide flight training for the specific make and model aircraft to be flown; and

(v) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown, and that endorsement remains current for solo flight privileges, provided an authorized instructor updates the student's logbook every 90 days thereafter.

(2) The flight training required by this section must be given by an instructor authorized to provide flight training who is appropriately rated and current.

§ 61.89 General limitations.

(a) A student pilot may not act as pilot in command of an aircraft:

(1) That is carrying a passenger;

(2) That is carrying property for compensation or hire;

(3) For compensation or hire;

(4) In furtherance of a business;

(5) On an international flight, except that a student pilot may make solo training flights from Haines, Gustavus, or Juneau, Alaska, to White Horse, Yukon, Canada, and return over the province of British Columbia;

(6) With a flight or surface visibility of less than 3 statute miles during daylight hours or 5 statute miles at night;

(7) When the flight cannot be made with visual reference to the surface; or

(8) In a manner contrary to any limitations placed in the pilot's logbook by an authorized instructor.

(b) A student pilot may not act as a required pilot flight crewmember on any aircraft for which more than one pilot is required by the type certificate of the aircraft or regulations under which the flight is conducted, except when receiving flight training from an authorized instructor on board an airship, and no person other than a required flight crewmember is carried on the aircraft.

§ 61.91 [Reserved]

§ 61.93 Solo cross-country flight requirements.

(a) *General.* (1) Except as provided in paragraph (b) of this section, a student pilot must meet the requirements of this section before—

(i) Conducting a solo cross-country flight, or any flight greater than 25 nautical miles from the airport from where the flight originated.

(ii) Making a solo flight and landing at any location other than the airport of origination.

(2) Except as provided in paragraph (b) of this section, a student pilot who seeks solo cross-country flight privileges must:

(i) Have received flight training from an instructor authorized to provide flight training on the maneuvers and procedures of this section that are appropriate to the make and model of aircraft for which solo cross-country privileges are sought;

(ii) Have demonstrated cross-country proficiency on the appropriate maneuvers and procedures of this section to an authorized instructor;

(iii) Have satisfactorily accomplished the pre-solo flight maneuvers and procedures required by § 61.87 of this part in the make and model of aircraft or similar make and model of aircraft for which solo cross-country privileges are sought; and

(iv) Comply with any limitations included in the instructor's endorsement that are required by paragraph (c) of this section.

(3) A student pilot who seeks solo cross-country flight privileges must have received ground and flight training from an authorized instructor on the cross-country maneuvers and procedures listed in this section that are appropriate to the aircraft to be flown.

(b) *Authorization to perform certain solo flights and cross-country flights.* A

student pilot must obtain an endorsement from an authorized instructor to make solo flights from the airport where the student pilot normally receives training to another location. A student pilot who receives this endorsement must comply with the requirements of this paragraph.

(1) Solo flights may be made to another airport that is within 25 nautical miles from the airport where the student pilot normally receives training, provided—

(i) An authorized instructor has given the student pilot flight training at the other airport, and that training includes flight in both directions over the route, entering and exiting the traffic pattern, and takeoffs and landings at the other airport;

(ii) The instructor who gave the training endorses the student pilot's logbook authorizing the flight;

(iii) The student pilot has current solo flight endorsements in accordance with § 61.87 of this part;

(iv) The instructor has determined that the student pilot is proficient to make the flight; and

(v) The purpose of the flight is to practice takeoffs and landings at that other airport.

(2) Repeated specific solo cross-country flights may be made to another airport that is within 50 nautical miles of the airport from which the flight originated, provided—

(i) The authorized instructor has given the student flight training in both directions over the route, including entering and exiting the traffic patterns, takeoffs, and landings at the airports to be used;

(ii) The instructor who gave the training has endorsed the student's logbook certifying that the student is proficient to make such flights;

(iii) The student has current solo flight endorsements in accordance with § 61.87 of this part; and

(iv) The student has current solo cross-country flight endorsements in accordance with paragraph (c) of this section; however, for repeated solo cross-country flights to another airport within 50 nautical miles from which the flight originated, separate endorsements are not required to be made for each flight.

(c) *Endorsements for solo cross-country flights.* Except as specified in paragraph (b)(2) of this section, a student pilot must have the endorsements prescribed in this paragraph for each cross-country flight:

(1) *Student pilot certificate endorsement.* A student pilot must have a solo cross-country endorsement from the authorized instructor who conducted the training, and that endorsement must be placed on that person's student pilot certificate for the specific category of aircraft to be flown.

(2) *Logbook endorsement.* (i) A student pilot must have a solo cross-country endorsement from an authorized instructor that is placed in the student pilot's logbook for the specific make and model of aircraft to be flown.

(ii) A certificated pilot who is receiving training for an additional aircraft category and class rating must have an endorsement from an authorized instructor that is placed in the student pilot's logbook for the specific make and model of aircraft to be flown.

(iii) For each cross-country flight, the authorized instructor who reviews the cross-country planning must make an endorsement in the person's logbook after reviewing that person's cross-country planning, as specified in paragraph (d) of this section. The endorsement must—

(A) Specify the make and model of aircraft to be flown;

(B) State that the student's preflight planning and preparation is correct and that the student is prepared to make the flight safely under the known conditions; and

(C) State that any limitations required by the student's instructor are met.

(d) *Limitations on authorized instructors to permit solo cross-country flights.* An authorized instructor may not permit a student pilot to conduct a solo cross-country flight unless that instructor has:

(1) Determined that the student's cross-country planning is correct for the flight;

(2) Reviewed the current and forecast weather conditions and has determined that the flight can be completed under VFR;

(3) Determined that the student is proficient to conduct the flight safely;

(4) Determined that the student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown; and

(5) Determined that the student's solo flight endorsement is current for the make and model aircraft to be flown.

(e) *Maneuvers and procedures for cross-country flight training in a single-engine airplane.* A student pilot who is receiving training for cross-country flight in a single-engine airplane must receive and log flight training in the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications;

(10) Takeoff, approach, and landing procedures, including short-field, soft-field, and crosswind takeoffs, approaches, and landings;

(11) Climbs at best angle and best rate; and

(12) Control and maneuvering solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids, and ATC directives.

(f) *Maneuvers and procedures for cross-country flight training in a multiengine airplane.* A student pilot who is receiving training for cross-country flight in a multiengine airplane must receive and log flight training in the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications;

(10) Takeoff, approach, and landing procedures, including short-field, soft-field, and crosswind takeoffs, approaches, and landings;

(11) Climbs at best angle and best rate; and

(12) Control and maneuvering solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids, and ATC directives.

(g) *Maneuvers and procedures for cross-country flight training in a helicopter.* A student pilot who is receiving training for cross-country flight in a helicopter must receive and log flight training for the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications; and

(10) Takeoff, approach, and landing procedures.

(h) *Maneuvers and procedures for cross-country flight training in a gyroplane.* A student pilot who is receiving training for cross-country flight in a gyroplane must receive and log flight training in the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications; and

(10) Takeoff, approach, and landing procedures, including short-field and soft-field takeoffs, approaches, and landings.

(i) *Maneuvers and procedures for cross-country flight training in a powered-lift.* A student pilot who is receiving training for cross-country flight training in a powered-lift must receive and log flight training in the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications;

(10) Takeoff, approach, and landing procedures that include high-altitude, steep, and shallow takeoffs, approaches, and landings; and

(11) Control and maneuvering solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids, and ATC directives.

(j) *Maneuvers and procedures for cross-country flight training in a glider.* A student pilot who is receiving training for cross-country flight in a glider must receive and log flight training in the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Landings accomplished without the use of the altimeter from at least 2,000 feet above the surface; and

(10) Recognition of weather and upper air conditions favorable for cross-country soaring, ascending and descending flight, and altitude control.

(k) *Maneuvers and procedures for cross-country flight training in an airship.* A student pilot who is receiving training for cross-country flight in an airship must receive and log flight training for the following maneuvers and procedures:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;

(2) Use of aircraft performance charts pertaining to cross-country flight;

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

(4) Emergency procedures;

(5) Traffic pattern procedures that include area departure, area arrival, entry into the traffic pattern, and approach;

(6) Procedures and operating practices for collision avoidance, wake turbulence precautions, and windshear avoidance;

(7) Recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the cross-country flight will be flown;

(8) Procedures for operating the instruments and equipment installed in the aircraft to be flown, including recognition and use of the proper operational procedures and indications;

(9) Use of radios for VFR navigation and two-way communications;

(10) Control of air pressure with regard to ascending and descending flight and altitude control;

(11) Control of the airship solely by reference to flight instruments; and

(12) Recognition of weather and upper air conditions conducive for the direction of cross-country flight.

§ 61.95 Operations in Class B airspace and at airports located within Class B airspace.

(a) A student pilot may not operate an aircraft on a solo flight in Class B airspace unless:

(1) The student pilot has received both ground and flight training from an authorized instructor on that Class B airspace area, and the flight training was received in the specific Class B airspace area for which solo flight is authorized;

(2) The logbook of that student pilot has been endorsed by the instructor who gave the student pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight in that Class B airspace area; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight training, and has been found proficient to conduct solo flight in that specific Class B airspace area.

(b) A student pilot may not operate an aircraft on a solo flight to, from, or at an airport located within Class B airspace pursuant to § 91.131(b) of this chapter unless:

(1) The student pilot has received both ground and flight training from an instructor authorized to provide training to operate at that airport, and the flight and ground training has been received at the specific airport for which the solo flight is authorized;

(2) The logbook of that student pilot has been endorsed by an authorized instructor who gave the student pilot flight training, and the endorsement is dated within the 90-day period preceding the date of the flight at that airport; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight training, and has been found proficient to conduct solo flight operations at that specific airport.

Subpart D—Recreational Pilots

§ 61.96 Applicability and eligibility requirements: General.

(a) This subpart prescribes the requirement for the issuance of recreational pilot certificates and ratings, the conditions under which those certificates and ratings are necessary, and the general operating rules for persons who hold those certificates and ratings.

(b) To be eligible for a recreational pilot certificate, a person who applies for that certificate must:

(1) Be at least 17 years of age;

(2) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft;

(3) Receive a logbook endorsement from an authorized instructor who—

(i) Conducted the training or reviewed the applicant's home study on the aeronautical knowledge areas listed in § 61.97(b) of this part that apply to the aircraft category and class rating sought; and

(ii) Certified that the applicant is prepared for the required knowledge test.

(4) Pass the required knowledge test on the aeronautical knowledge areas listed in § 61.97(b) of this part;

(5) Receive flight training and a logbook endorsement from an authorized instructor who—

(i) Conducted the training on the areas of operation listed in § 61.98(b) of this part that apply to the aircraft category and class rating sought; and

(ii) Certified that the applicant is prepared for the required practical test.

(6) Meet the aeronautical experience requirements of § 61.99 of this part that apply to the aircraft category and class rating sought;

(7) Pass the required practical test on the areas of operation listed in § 61.98(b) of this part that apply to the aircraft category and class rating sought; and

(8) Comply with the sections of this part that apply to the aircraft category and class rating sought.

§ 61.97 Aeronautical knowledge.

(a) *General.* A person who applies for a recreational pilot certificate must receive and log ground training from an authorized instructor or complete a home-study course on the aeronautical knowledge areas of paragraph (b) of this section that apply to the aircraft category and class rating sought.

(b) *Aeronautical knowledge areas.* (1) Applicable Federal Aviation Regulations of this chapter that relate to recreational pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Use of the applicable portions of the ''Aeronautical Information Manual'' and FAA ACs;

(4) Use of aeronautical charts for VFR navigation using pilotage with the aid of a magnetic compass;

(5) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(6) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(7) Effects of density altitude on takeoff and climb performance;

(8) Weight and balance computations;

(9) Principles of aerodynamics, powerplants, and aircraft systems;

(10) Stall awareness, spin entry, spins, and spin recovery techniques, if applying for an airplane single-engine rating;

(11) Aeronautical decision making and judgment; and

(12) Preflight action that includes—

(i) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(ii) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

§ 61.98 Flight proficiency.

(a) *General.* A person who applies for a recreational pilot certificate must have received and logged ground and flight training from an authorized instructor on the areas of operation of this section that apply to the aircraft category and class rating sought.

(b) *Areas of operation.* (1) *For a single-engine airplane rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;
(vii) Navigation;
(viii) Slow flight and stalls;
(ix) Emergency operations; and
(x) Postflight procedures.
(2) *For a helicopter rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport and heliport operations;
(iv) Hovering maneuvers;
(v) Takeoffs, landings, and go-arounds;
(vi) Performance maneuvers;
(vii) Ground reference maneuvers;
(viii) Navigation;
(ix) Emergency operations; and
(x) Postflight procedures.
(3) *For a gyroplane rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport operations;
(iv) Takeoffs, landings, and go-arounds;
(v) Performance maneuvers;
(vi) Ground reference maneuvers;
(vii) Navigation;
(viii) Flight at slow airspeeds;
(ix) Emergency operations; and
(x) Postflight procedures.

§ 61.99 Aeronautical experience.

A person who applies for a recreational pilot certificate must receive and log at least 30 hours of flight training time that includes at least:

(a) 15 hours of flight training from an authorized instructor on the areas of operation listed in § 61.98 of this part that consists of at least:

(1) Except as provided in § 61.100 of this part, 2 hours of flight training en route to an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, which includes at least three takeoffs and three landings at the airport located more than 25 nautical miles from the airport where the applicant normally trains; and

(2) 3 hours of flight training in the aircraft for the rating sought in preparation for the practical test within the 60 days preceding the date of the practical test.

(b) 3 hours of solo flying in the aircraft for the rating sought, on the areas of operation listed in § 61.98 of this part that apply to the aircraft category and class rating sought.

§ 61.100 Pilots based on small islands.

(a) An applicant located on an island from which the flight training required in § 61.99(a)(1) of this part cannot be accomplished without flying over water for more than 10 nautical miles from the nearest shoreline need not comply with the requirements of that section. However, if other airports that permit civil operations are available to which a flight may be made without flying over water for more than 10 nautical miles from the nearest shoreline, the applicant must show completion of a dual flight between two airports, which must include three landings at the other airport.

(b) An applicant who complies with paragraph (a) of this section and meets all requirements for the issuance of a recreational pilot certificate, except the requirements of § 61.99(a)(1) of this part, will be issued a pilot certificate with an endorsement containing the following limitation, ''Passenger carrying prohibited on flights more than 10 nautical miles from (the appropriate island).'' The limitation may be subsequently amended to include another island if the applicant complies with the requirements of paragraph (a) of this section for another island.

(c) Upon meeting the requirements of § 61.99(a)(1) of this part, the applicant may have the limitation(s) in paragraph (b) of this section removed.

§ 61.101 Recreational pilot privileges and limitations.

(a) A person who holds a recreational pilot certificate may:

(1) Carry no more than one passenger; and

(2) Not pay less than the pro rata share of the operating expenses of a flight with a passenger, provided the expenses involve only fuel, oil, airport expenses, or aircraft rental fees.

(b) A person who holds a recreational pilot certificate may act as pilot in command of an aircraft on a flight that is within 50 nautical miles from the departure airport, provided that person has:

(1) Received ground and flight training for takeoff, departure, arrival, and landing procedures at the departure airport;

(2) Received ground and flight training for the area, terrain, and aids to navigation that are in the vicinity of the departure airport;

(3) Been found proficient to operate the aircraft at the departure airport and the area within 50 nautical miles from that airport; and

(4) Received from an authorized instructor a logbook endorsement, which is carried in the person's possession in the aircraft, that permits flight within 50 nautical miles from the departure airport.

(c) A person who holds a recreational pilot certificate may act as pilot in command of an aircraft on a flight that exceeds 50 nautical miles from the departure airport, provided that person has:

(1) Received ground and flight training from an authorized instructor on the cross-country training requirements of subpart E of this part that apply to the aircraft rating held;

(2) Been found proficient in cross-country flying; and

(3) Received from an authorized instructor a logbook endorsement, which is carried on the person's possession in the aircraft, that certifies the person has received and been found proficient in the cross-country training requirements of subpart E of this part that apply to the aircraft rating held.

(d) Except as provided in paragraph (h) of this section, a recreational pilot may not act as pilot in command of an aircraft:

(1) That is certificated for more than four occupants, with more than one powerplant, with a powerplant of more than 180 horsepower, or with retractable landing gear.

(2) That is classified as a multiengine airplane, powered-lift, glider, airship, or balloon;

(3) That is carrying a passenger or property for compensation or hire;

(4) For compensation or hire;

(5) In furtherance of a business;

(6) Between sunset and sunrise;

(7) In airspace in which communication with air traffic control is required;

(8) At an altitude of more than 10,000 feet MSL or 2,000 feet AGL, whichever is higher;

(9) When the flight or surface visibility is less than 3 statute miles;

(10) Without visual reference to the surface;

(11) On a flight outside the United States;

(12) To demonstrate that aircraft in flight to a prospective buyer;

(13) That is used in a passenger-carrying airlift and sponsored by a charitable organization; and

(14) That is towing any object.

(e) A recreational pilot may not act as a pilot flight crewmember on any aircraft for which more than one pilot is required by the type certificate of the aircraft or the regulations under which the flight is conducted, except when:

(1) Receiving flight training from a person authorized to provide flight training on board an airship; and

(2) No person other than a required flight crewmember is carried on the aircraft.

(f) A person who holds a recreational pilot certificate, has logged fewer than 400 flight hours, and has not logged pilot-in-command time in an aircraft within the 180 days preceding the flight shall not act as pilot in command of an aircraft until the pilot receives flight

training and a logbook endorsement from an authorized instructor, and the instructor certifies that the person is proficient to act as pilot in command of the aircraft. This requirement can be met in combination with the requirements of §§ 61.56 and 61.57 of this part, at the discretion of the authorized instructor.

(g) A recreational pilot certificate issued under this subpart carries the notation, ''Holder does not meet ICAO requirements.''

(h) For the purpose of obtaining additional certificates or ratings while under the supervision of an authorized instructor, a recreational pilot may fly as the sole occupant of an aircraft:

(1) For which the pilot does not hold an appropriate category or class rating;

(2) Within airspace that requires communication with air traffic control; or

(3) Between sunset and sunrise, provided the flight or surface visibility is at least 5 statute miles.

(i) In order to fly solo as provided in paragraph (h) of this section, the recreational pilot must meet the appropriate aeronautical knowledge and flight training requirements of § 61.87 for that aircraft. When operating an aircraft under the conditions specified in paragraph (h) of this section, the recreational pilot shall carry the logbook that has been endorsed for each flight by an authorized instructor who:

(1) Has given the recreational pilot training in the make and model of aircraft in which the solo flight is to be made;

(2) Has found that the recreational pilot has met the applicable requirements of § 61.87; and

(3) Has found that the recreational pilot is competent to make solo flights in accordance with the logbook endorsement.

Subpart E—Private Pilots

§ 61.102 Applicability.

This subpart prescribes the requirements for the issuance of private pilot certificates and ratings, the conditions under which those certificates and ratings are necessary, and the general operating rules for persons who hold those certificates and ratings.

§ 61.103 Eligibility requirements: General.

To be eligible for a private pilot certificate, a person must:

(a) Be at least 17 years of age for a rating in other than a glider or balloon.

(b) Be at least 16 years of age for a rating in a glider or balloon.

(c) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

(d) Receive a logbook endorsement from an authorized instructor who:

(1) Conducted the training or reviewed the person's home study on the aeronautical knowledge areas listed in § 61.105(b) of this part that apply to the aircraft rating sought; and

(2) Certified that the person is prepared for the required knowledge test.

(e) Pass the required knowledge test on the aeronautical knowledge areas listed in § 61.105(b) of this part.

(f) Receive flight training and a logbook endorsement from an authorized instructor who:

(1) Conducted the training in the areas of operation listed in § 61.107(b) of this part that apply to the aircraft rating sought; and

(2) Certified that the person is prepared for the required practical test.

(g) Meet the aeronautical experience requirements of this part that apply to the aircraft rating sought before applying for the practical test.

(h) Pass a practical test on the areas of operation listed in § 61.107(b) of this part that apply to the aircraft rating sought.

(i) Comply with the appropriate sections of this part that apply to the aircraft category and class rating sought.

§ 61.105 Aeronautical knowledge.

(a) *General.* A person who is applying for a private pilot certificate must receive and log ground training from an authorized instructor or complete a home-study course on the aeronautical knowledge areas of paragraph (b) of this section that apply to the aircraft category and class rating sought.

(b) *Aeronautical knowledge areas.* (1) Applicable Federal Aviation Regulations of this chapter that relate to private pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Use of the applicable portions of the ''Aeronautical Information Manual'' and FAA ACs;

(4) Use of aeronautical charts for VFR navigation using pilotage, dead reckoning, and navigation systems;

(5) Radio communication procedures;

(6) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(7) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(8) Effects of density altitude on takeoff and climb performance;

(9) Weight and balance computations;

(10) Principles of aerodynamics, powerplants, and aircraft systems;

(11) Stall awareness, spin entry, spins, and spin recovery techniques for the airplane and glider category ratings;

(12) Aeronautical decision making and judgment; and

(13) Preflight action that includes—

(i) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(ii) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

§ 61.107 Flight proficiency.

(a) *General.* A person who applies for a private pilot certificate must receive and log ground and flight training from an authorized instructor on the areas of operation of this section that apply to the aircraft category and class rating sought.

(b) *Areas of operation.* (1) *For an airplane category rating with a single-engine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Basic instrument maneuvers;

(x) Emergency operations;

(xi) Night operations, except as provided in § 61.110 of this part; and

(xii) Postflight procedures.

(2) *For an airplane category rating with a multiengine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Basic instrument maneuvers;

(x) Emergency operations;

(xi) Multiengine operations;

(xii) Night operations, except as provided in § 61.110 of this part; and

(xiii) Postflight procedures.

(3) *For a rotorcraft category rating with a helicopter class rating:* (i) Preflight preparation;

(ii) Preflight procedures;
(iii) Airport and heliport operations;
(iv) Hovering maneuvers;
(v) Takeoffs, landings, and go-arounds;
(vi) Performance maneuvers;
(vii) Navigation;
(viii) Emergency operations;
(ix) Night operations, except as provided in § 61.110 of this part; and
(x) Postflight procedures.

(4) *For a rotorcraft category rating with a gyroplane class rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport operations;
(iv) Takeoffs, landings, and go-arounds;
(v) Performance maneuvers;
(vi) Ground reference maneuvers;
(vii) Navigation;
(viii) Flight at slow airspeeds;
(ix) Emergency operations;
(x) Night operations, except as provided in § 61.110 of this part; and
(xi) Postflight procedures.

(5) *For a powered-lift category rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport and heliport operations;
(iv) Hovering maneuvers;
(v) Takeoffs, landings, and go-arounds;
(vi) Performance maneuvers;
(vii) Ground reference maneuvers;
(viii) Navigation;
(ix) Slow flight and stalls;
(x) Basic instrument maneuvers;
(xi) Emergency operations;
(xii) Night operations, except as provided in § 61.110 of this part; and
(xiii) Postflight procedures.

(6) *For a glider category rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport and gliderport operations;
(iv) Launches and landings;
(v) Performance speeds;
(vi) Soaring techniques;
(vii) Performance maneuvers;
(viii) Navigation;
(ix) Slow flight and stalls;
(x) Emergency operations; and
(xi) Postflight procedures.

(7) *For a lighter-than-air category rating with an airship class rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport operations;
(iv) Takeoffs, landings, and go-arounds;
(v) Performance maneuvers;
(vi) Ground reference maneuvers;
(vii) Navigation;
(viii) Emergency operations; and
(ix) Postflight procedures.

(8) *For a lighter-than-air category rating with a balloon class rating:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport operations;
(iv) Launches and landings;
(v) Performance maneuvers;
(vi) Navigation;
(vii) Emergency operations; and
(viii) Postflight procedures.

§ 61.109 Aeronautical experience.

Except as provided in paragraph (i) of this section, a person who applies for a private pilot certificate with an airplane, rotorcraft, or powered-lift category rating must receive and log at least 40 hours of flight time that includes at least 20 hours of flight training from an authorized instructor and 10 hours of solo flight training in the areas of operation listed in § 61.107 of this part, and the training must include at least:

(a) *For an airplane single-engine rating:* (1) 3 hours of cross-country flight training in a single-engine airplane;

(2) Except as provided in § 61.110 of this part, 3 hours of night flight training in a single-engine airplane that includes—

(i) One cross-country flight of over 100 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of instrument flight training in a single-engine airplane;

(4) 3 hours of flight training in preparation for the practical test in a single-engine airplane, which must have been performed within 60 days preceding the date of the test; and

(5) 10 hours of solo flight time in a single-engine airplane, consisting of at least—

(i) 5 hours of solo cross-country flight;

(ii) One solo cross-country flight of at least 150 nautical miles total distance, with full-stop landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(b) *For an airplane multiengine rating:* (1) 3 hours of cross-country flight training in a multiengine airplane;

(2) Except as provided in § 61.110 of this part, 3 hours of night flight training in a multiengine airplane that includes—

(i) One cross-country flight of over 100 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of instrument flight training in a multiengine airplane;

(4) 3 hours of flight training in preparation for the practical test in a multiengine airplane, which must have been performed within the 60-day period preceding the date of the test; and

(5) 10 hours of solo flight time in an airplane consisting of at least—

(i) 5 hours of solo cross-country flight;

(ii) One solo cross-country flight of at least 150 nautical miles total distance, with full-stop landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(c) *For a helicopter rating:* (1) 3 hours of cross-country flight training in a helicopter;

(2) Except as provided in § 61.110 of this part, 3 hours of night flight training in a helicopter that includes—

(i) One cross-country flight of over 50 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of flight training in preparation for the practical test in a helicopter, which must have been performed within 60 days preceding the date of the test; and

(4) 10 hours of solo flight time in a helicopter, consisting of at least—

(i) 3 hours cross-country flight time;

(ii) One solo cross-country flight of at least 75 nautical miles total distance, with landings at a minimum of three points, and one segment of the flight being a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(d) *For a gyroplane rating:* (1) 3 hours of cross-country flight training in a gyroplane;

(2) Except as provided in § 61.110 of this part, 3 hours of night flight training in a gyroplane that includes—

(i) One cross-country flight of over 50 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of flight training in preparation for the practical test in a gyroplane, which must have been performed within the 60-day period preceding the date of the test; and

(4) 10 hours of solo flight time in a gyroplane, and consisting of at least—

(i) 3 hours of cross-country flight time;

(ii) One solo cross-country flight of over 75 nautical miles total distance, with landings at a minimum of three points, and one segment of the flight being a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(e) *For a powered-lift rating:* (1) 3 hours of cross-country flight training in a powered-lift;

(2) Except as provided in § 61.110 of this part, 3 hours of night flight training in a powered-lift that includes—

(i) One cross-country flight of over 100 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of instrument flight training in a powered-lift;

(4) 3 hours of flight training in preparation for the practical test in a powered-lift, which must have been performed within the 60-day period preceding the date of the test; and

(5) 10 hours of solo flight time in an airplane or powered-lift consisting of at least—

(i) 5 hours cross-country flight time;

(ii) One cross-country flight of at least 150 nautical miles total distance, with landings at a minimum of three points, and one segment of the flight being a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(f) *For a glider category rating:* (1) If the applicant has not logged at least 40 hours of flight time as a pilot in a heavier-than-air aircraft, at least 10 hours of flight training in a glider, and 20 training flights performed on the areas of operation listed in § 61.107(b)(6) of this part that apply to gliders that include—

(i) 2 hours of solo flight in gliders in the areas of operation listed in § 61.107(b)(6) of this part that apply to gliders, with not less than 10 launches and landings being performed; and

(ii) Three training flights in a glider in preparation for the practical test within the 60-day period preceding the practical test.

(2) If the applicant has logged at least 40 hours of flight time in heavier-than-air aircraft, at least 3 hours of flight training in a glider, and 10 training flights performed on the areas of operation listed in § 61.107 of this part that apply to gliders that include—

(i) 10 solo flights in gliders on the areas of operation listed in § 61.107 of this part that apply to gliders; and

(ii) Three training flights in preparation for the practical test within the 60-day waiting period preceding the test.

(g) *For an airship rating:* (1) 25 hours of flight training in airships on the areas of operation listed in § 61.107(b)(7) of this part, which consists of at least—

(i) 3 hours of cross-country flight training in an airship;

(ii) Except as provided in § 61.110 of this part, 3 hours of night flight training in an airship that includes—

(A) A cross-country flight of over 25 nautical miles total distance; and

(B) Five takeoffs and five landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(2) 3 hours of instrument training;

(3) 3 hours of flight training in an airship in preparation for the practical test within the 60 days preceding the date of the test; and

(4) 5 hours of solo flight in an airship and with an authorized instructor.

(h) *For a balloon rating:* 10 hours of flight training that includes at least six training flights in the areas of operation listed in § 61.107(b)(8) of this part, that includes—

(1) *Gas balloon.* If the training is being performed in a gas balloon, at least two flights of 2 hours each that consists of—

(i) At least one training flight within 60 days prior to application for the rating on the areas of operation for a gas balloon;

(ii) At least one flight performing the functions of pilot in command in a gas balloon; and

(iii) At least one flight involving a controlled ascent to 3,000 feet above the launch site.

(2) *Balloon with an airborne heater.* If the training is being performed in a balloon with an airborne heater, at least—

(i) Two flights of 1 hour each within 60 days prior to application for the rating on the areas of operation appropriate to a balloon with an airborne heater;

(ii) One solo flight in a balloon with an airborne heater; and

(iii) At least one flight involving a controlled ascent to 2,000 feet above the launch site.

(i) *Permitted credit for use of an approved flight simulator or an approved flight training device.* (1) Except as provided in paragraphs (i)(2) and (i)(3) of this section, a maximum of 2.5 hours of training in an approved flight simulator or an approved flight training device representing the category, class, and type, if applicable, of aircraft appropriate to the rating sought, may be credited toward the flight training time required by this section, if received from an authorized instructor.

(2) Except as provided in paragraph (i)(1) or paragraph (i)(3) of this section, a maximum of 5 hours of training in an approved flight simulator or an approved flight training device representing the category, class, and type, if applicable, of aircraft appropriate to the rating sought, may be credited toward the flight training time required by this section if the training is accomplished in a course conducted by a training center certificated under part 142 of this chapter.

(3) Except when fewer hours are approved by the Administrator, an applicant for a private pilot certificate with an airplane, rotorcraft, or powered-lift rating, who has satisfactorily completed an approved private pilot course conducted by a training center certificated under part 142 of this chapter need only have a total of 35 hours of aeronautical experience to meet the requirements of this section.

§ 61.110 Night flying exceptions.

(a) Subject to the limitations of paragraph (b) of this section, a person is not required to comply with the night flight training requirements of this subpart if the person receives flight training in and resides in the State of Alaska.

(b) A person who receives flight training in and resides in the State of Alaska but does not meet the night flight training requirements of this section:

(1) May be issued a pilot certificate with a limitation ''Night flying prohibited;'' and

(2) Must comply with the appropriate night flight training requirements of this subpart within the 12-calendar-month period after the issuance of the pilot certificate. At the end of that period, the certificate will be suspended until the person complies with the appropriate night training requirements of this subpart. The person may have the ''Night flying prohibited'' limitation removed if the person—

(i) Accomplishes the appropriate night flight training requirements of this subpart; and

(ii) Presents to an examiner a logbook or training record endorsement from an authorized instructor that verifies accomplishment of the appropriate

night flight training requirements of this subpart.

§ 61.111 Cross-country flights: Pilots based on small islands.

(a) Except as provided in paragraph (b) of this section, an applicant located on an island from which the cross-country flight training required in § 61.109 of this part cannot be accomplished without flying over water for more than 10 nautical miles from the nearest shoreline need not comply with the requirements of that section.

(b) If other airports that permit civil operations are available to which a flight may be made without flying over water for more than 10 nautical miles from the nearest shoreline, the applicant must show completion of two round-trip solo flights between those two airports that are farthest apart, including a landing at each airport on both flights.

(c) An applicant who complies with paragraph (a) or paragraph (b) of this section, and meets all requirements for the issuance of a private pilot certificate, except the cross-country training requirements of § 61.109 of this part, will be issued a pilot certificate with an endorsement containing the following limitation, ''Passenger carrying prohibited on flights more than 10 nautical miles from (the appropriate island).'' The limitation may be subsequently amended to include another island if the applicant complies with the requirements of paragraph (a) or paragraph (b) of this section for another island.

(d) Upon meeting the cross-country training requirements of § 61.109 of this part, the applicant may have the limitation in paragraph (c) of this section removed.

§ 61.113 Private pilot privileges and limitations: Pilot in command.

(a) Except as provided in paragraphs (b) through (g) of this section, no person who holds a private pilot certificate may act as pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft.

(b) A private pilot may, for compensation or hire, act as pilot in command of an aircraft in connection with any business or employment if:

(1) The flight is only incidental to that business or employment; and

(2) The aircraft does not carry passengers or property for compensation or hire.

(c) A private pilot may not pay less than the pro rata share of the operating expenses of a flight with passengers, provided the expenses involve only fuel, oil, airport expenditures, or rental fees.

(d) A private pilot may act as pilot in command of an aircraft used in a passenger-carrying airlift sponsored by a charitable organization described in paragraph (d)(7) of this section, and for which the passengers make a donation to the organization, when the following requirements are met:

(1) The sponsor of the airlift notifies the FAA Flight Standards District Office with jurisdiction over the area concerned at least 7 days before the event and furnishes—

(i) A signed letter from the sponsor that shows the name of the sponsor, the purpose of the charitable event, the date and time of the event, and the location of the event; and

(ii) A photocopy of each pilot in command's pilot certificate, medical certificate, and logbook entries that show the pilot is current in accordance with §§ 61.56 and 61.57 of this part and has logged at least 200 hours of flight time.

(2) The flight is conducted from a public airport that is adequate for the aircraft to be used, or from another airport that has been approved by the FAA for the operation.

(3) No aerobatic or formation flights are conducted.

(4) Each aircraft used for the charitable event holds a standard airworthiness certificate.

(5) Each aircraft used for the charitable event is airworthy and complies with the applicable requirements of subpart E of part 91 of this chapter.

(6) Each flight for the charitable event is made during day VFR conditions.

(7) The charitable organization is an organization identified as such by the U.S. Department of Treasury.

(e) A private pilot may be reimbursed for aircraft operating expenses that are directly related to search and location operations, provided the expenses involve only fuel, oil, airport expenditures, or rental fees, and the operation is sanctioned and under the direction and control of:

(1) A local, State, or Federal agency; or

(2) An organization that conducts search and location operations.

(f) A private pilot who is an aircraft salesman and who has at least 200 hours of logged flight time may demonstrate an aircraft in flight to a prospective buyer.

(g) A private pilot who meets the requirements of § 61.69 of this part may act as pilot in command of an aircraft towing a glider.

§ 61.115 Balloon rating: Limitations.

(a) If a person who applies for a private pilot certificate with a balloon rating takes a practical test in a balloon with an airborne heater:

(1) The pilot certificate will contain a limitation restricting the exercise of the privileges of that certificate to a balloon with an airborne heater; and

(2) The limitation may be removed when the person obtains the required aeronautical experience in a gas balloon and receives a logbook endorsement from an authorized instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate a gas balloon.

(b) If a person who applies for a private pilot certificate with a balloon rating takes a practical test in a gas balloon:

(1) The pilot certificate will contain a limitation restricting the exercise of the privilege of that certificate to a gas balloon; and

(2) The limitation may be removed when the person obtains the required aeronautical experience in a balloon with an airborne heater and receives a logbook endorsement from an authorized instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate a balloon with an airborne heater.

§ 61.117 Private pilot privileges and limitations: Second in command of aircraft requiring more than one pilot.

Except as provided in § 61.113 of this part, no private pilot may, for compensation or hire, act as second in command of an aircraft that is type certificated for more than one pilot, nor may that pilot act as second in command of such an aircraft that is carrying passengers, or property for compensation or hire.

§ 61.118–61.120 [Reserved]

Subpart F—Commercial Pilots

§ 61.121 Applicability.

This subpart prescribes the requirements for the issuance of commercial pilot certificates and ratings, the conditions under which those certificates and ratings are necessary, and the general operating rules for persons who hold those certificates and ratings.

§ 61.123 Eligibility requirements: General.

To be eligible for a commercial pilot certificate, a person must:

(a) Be at least 18 years of age;

(b) Be able to read, speak, write, and understand the English language. If the

applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.

(c) Receive a logbook endorsement from an authorized instructor who:

(1) Conducted the required ground training or reviewed the person's home study on the aeronautical knowledge areas listed in § 61.125 of this part that apply to the aircraft category and class rating sought; and

(2) Certified that the person is prepared for the required knowledge test that applies to the aircraft category and class rating sought.

(d) Pass the required knowledge test on the aeronautical knowledge areas listed in § 61.125 of this part;

(e) Receive the required training and a logbook endorsement from an authorized instructor who:

(1) Conducted the training on the areas of operation listed in § 61.127(b) of this part that apply to the aircraft category and class rating sought; and

(2) Certified that the person is prepared for the required practical test.

(f) Meet the aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought before applying for the practical test;

(g) Pass the required practical test on the areas of operation listed in § 61.127(b) of this part that apply to the aircraft category and class rating sought;

(h) Hold at least a private pilot certificate issued under this part or meet the requirements of § 61.73; and

(i) Comply with the sections of this part that apply to the aircraft category and class rating sought.

§ 61.125 Aeronautical knowledge.

(a) *General.* A person who applies for a commercial pilot certificate must receive and log ground training from an authorized instructor, or complete a home-study course, on the aeronautical knowledge areas of paragraph (b) of this section that apply to the aircraft category and class rating sought.

(b) *Aeronautical knowledge areas.* (1) Applicable Federal Aviation Regulations of this chapter that relate to commercial pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Basic aerodynamics and the principles of flight;

(4) Meteorology to include recognition of critical weather situations, windshear recognition and avoidance, and the use of aeronautical weather reports and forecasts;

(5) Safe and efficient operation of aircraft;

(6) Weight and balance computations;

(7) Use of performance charts;

(8) Significance and effects of exceeding aircraft performance limitations;

(9) Use of aeronautical charts and a magnetic compass for pilotage and dead reckoning;

(10) Use of air navigation facilities;

(11) Aeronautical decision making and judgment;

(12) Principles and functions of aircraft systems;

(13) Maneuvers, procedures, and emergency operations appropriate to the aircraft;

(14) Night and high-altitude operations;

(15) Procedures for operating within the National Airspace System; and

(16) Procedures for flight and ground training for lighter-than-air ratings.

§ 61.127 Flight proficiency.

(a) *General.* A person who applies for a commercial pilot certificate must receive and log ground and flight training from an authorized instructor on the areas of operation of this section that apply to the aircraft category and class rating sought.

(b) *Areas of operation.* (1) *For an airplane category rating with a single-engine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Emergency operations;

(x) High-altitude operations; and

(xi) Postflight procedures.

(2) *For an airplane category rating with a multiengine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Slow flight and stalls;

(viii) Emergency operations;

(ix) Multiengine operations;

(x) High-altitude operations; and

(xi) Postflight procedures.

(3) *For a rotorcraft category rating with a helicopter class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Navigation;

(viii) Emergency operations;

(ix) Special operations; and

(x) Postflight procedures.

(4) *For a rotorcraft category rating with a gyroplane class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Flight at slow airspeeds;

(viii) Emergency operations; and

(ix) Postflight procedures.

(5) *For a powered-lift category rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Ground reference maneuvers;

(viii) Navigation;

(ix) Slow flight and stalls;

(x) Emergency operations;

(xi) High-altitude operations;

(xii) Special operations; and

(xiii) Postflight procedures.

(6) *For a glider category rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and gliderport operations;

(iv) Launches and landings;

(v) Performance speeds;

(vi) Soaring techniques;

(vii) Performance maneuvers;

(viii) Navigation;

(ix) Slow flight and stalls;

(x) Emergency operations; and

(xi) Postflight procedures.

(7) *For a lighter-than-air category rating with an airship class rating:* (i) Fundamentals of instructing;

(ii) Technical subjects;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport operations;

(vii) Takeoffs, landings, and go-arounds;

(viii) Performance maneuvers;

(ix) Navigation;

(x) Emergency operations; and

(xi) Postflight procedures.

(8) *For a lighter-than-air category rating with a balloon class rating:* (i) Fundamentals of instructing;

(ii) Technical subjects;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;
(vi) Airport operations;
(vii) Launches and landings;
(viii) Performance maneuvers;
(ix) Navigation;
(x) Emergency operations; and
(xi) Postflight procedures.

§ 61.129 Aeronautical experience.

(a) *For an airplane single-engine rating.* Except as provided in paragraph (i) of this section, a person who applies for a commercial pilot certificate with an airplane category and single-engine class rating must log at least 250 hours of flight time as a pilot (of which 50 hours may have been accomplished in an approved flight simulator or approved flight training device that is representative of a single-engine airplane) that consists of at least:

(1) 100 hours in powered aircraft, of which 50 hours must be in airplanes.

(2) 100 hours of pilot in command flight time, which includes at least—

(i) 50 hours in airplanes; and

(ii) 50 hours in cross-country flight in airplanes.

(3) 20 hours of training on the areas of operation listed in § 61.127(b)(1) of this part that includes at least—

(i) 10 hours of instrument training of which at least 5 hours must be in a single-engine airplane;

(ii) 10 hours of training in an airplane that has a retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One cross-country flight of at least 2 hours in a single-engine airplane in day VFR conditions, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One cross-country flight of at least 2 hours in a single-engine airplane in night VFR conditions, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) 3 hours in a single-engine airplane in preparation for the practical test within the 60-day period preceding the date of the test.

(4) 10 hours of solo flight in a single-engine airplane on the areas of operation listed in § 61.127(b)(1) of this part, which includes at least—

(i) One cross-country flight of not less than 300 nautical miles total distance, with landings at a minimum of three points, one of which is a straight-line distance of at least 250 nautical miles from the original departure point. However, if this requirement is being met in Hawaii, the longest segment need only have a straight-line distance of at least 150 nautical miles; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(b) *For an airplane multiengine rating.* A person who applies for a commercial pilot certificate with an airplane category and multiengine class rating must log at least 250 hours of flight time as a pilot (of which 50 hours may have been accomplished in an approved flight simulator or approved flight training device that is representative of a multiengine airplane) that consists of at least:

(1) 100 hours in powered aircraft, of which 50 hours must be in airplanes.

(2) 100 hours of pilot in command flight time, which includes at least—

(i) 50 hours in airplanes; and

(ii) 50 hours in cross-country flight in airplanes.

(3) 20 hours of training on the areas of operation listed in § 61.127(b)(2) of this part that includes at least—

(i) 10 hours of instrument training of which at least 5 hours must be in a multiengine airplane;

(ii) 10 hours of training in a multiengine airplane that has a retractable landing gear, flaps, and controllable pitch propellers, or is turbine-powered;

(iii) One cross-country flight of at least 2 hours in a multiengine airplane in day VFR conditions, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One cross-country flight of at least 2 hours in a multiengine airplane in night VFR conditions, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) 3 hours in a multiengine airplane in preparation for the practical test within the 60-day period preceding the date of the test.

(4) 10 hours of flight time performing the duties of pilot in command in a multiengine airplane with an authorized instructor on the areas of operation listed in § 61.127(b)(2) of this part, which includes at least—

(i) One cross-country flight of not less than 300 nautical miles total distance with landings at a minimum of three points, one of which is a straight-line distance of at least 250 nautical miles from the original departure point. However, if this requirement is being met in Hawaii, the longest segment need only have a straight-line distance of at least 150 nautical miles; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(c) *For a helicopter rating.* A person who applies for a commercial pilot certificate with a rotorcraft category and helicopter class rating must log at least 150 hours of flight time as a pilot (of which 25 hours may have been accomplished in an approved flight simulator or approved flight training device that is representative of a helicopter) that consists of at least:

(1) 100 hours in powered aircraft, of which 50 hours must be in helicopters.

(2) 100 hours of pilot in command flight time, which includes at least—

(i) 35 hours in helicopters; and

(ii) 10 hours in cross-country flight in helicopters.

(3) 20 hours of training on the areas of operation listed in § 61.127(b)(3) of this part that includes at least—

(i) 10 hours of instrument training in an aircraft;

(ii) One cross-country flight of at least 2 hours in a helicopter in day VFR conditions, consisting of a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) One cross-country flight of at least 2 hours in a helicopter in night VFR conditions, consisting of a total straight-line distance of more than 50 nautical miles from the original point of departure; and

(iv) 3 hours in a helicopter in preparation for the practical test within the 60-day period preceding the date of the test.

(4) 10 hours of solo flight in a helicopter on the areas of operation listed in § 61.127(b)(3) of this part, which includes at least—

(i) One cross-country flight with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight in the traffic pattern).

(d) *For a gyroplane rating.* A person who applies for a commercial pilot certificate with a rotorcraft category and gyroplane class rating must log at least 150 hours of flight time as a pilot (of which 5 hours may have been accomplished in an approved flight simulator or approved flight training device that is representative of a gyroplane) that consists of at least:

(1) 100 hours in powered aircraft, of which 25 hours must be in gyroplanes.

(2) 100 hours of pilot in command flight time, which includes at least—

(i) 10 hours in gyroplanes; and

(ii) 3 hours in cross-country flight in gyroplanes.

(3) 20 hours of training on the areas of operation listed in § 61.127(b)(4) of this part that includes at least—

(i) 5 hours of instrument training in an aircraft;

(ii) One cross-country flight of at least 2 hours in a gyroplane in day VFR conditions, consisting of a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) One cross-country flight of at least 2 hours in a gyroplane in night VFR conditions, consisting of a total straight-line distance of more than 50 nautical miles from the original point of departure; and

(iv) 3 hours in a gyroplane in preparation for the practical test within the 60-day period preceding the date of the test.

(4) 10 hours of solo flight in a gyroplane on the areas of operation listed in § 61.127(b)(4) of this part, which includes at least—

(i) One cross-country flight with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight in the traffic pattern).

(e) *For a powered-lift rating.* A person who applies for a commercial pilot certificate with a powered-lift category rating must log at least 250 hours of flight time as a pilot (of which 50 hours may have been accomplished in an approved flight simulator or approved flight training device that is representative of a powered-lift) that consists of at least:

(1) 100 hours in powered aircraft, of which 50 hours must be in a powered-lift.

(2) 100 hours of pilot in command flight time, which includes at least—

(i) 50 hours in a powered-lift; and

(ii) 50 hours in cross-country flight in a powered-lift.

(3) 20 hours of training on the areas of operation listed in § 61.127(b)(5) of this part that includes at least—

(i) 10 hours of instrument training, of which at least 5 hours must be in a powered-lift;

(ii) One cross-country flight of at least 2 hours in a powered-lift in day VFR conditions, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iii) One cross-country flight of at least 2 hours in a powered-lift, consisting of a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(iv) 3 hours in a powered-lift in preparation for the practical test within the 60-day period preceding the date of the test.

(4) 10 hours of solo flight in a powered-lift on the areas of operation listed in § 61.127(b)(5) of this part, which includes at least—

(i) One cross-country flight of not less than 300 nautical miles total distance with landings at a minimum of three points, one of which is a straight-line distance of at least 250 nautical miles from the original departure point. However, if this requirement is being met in Hawaii the longest segment need only have a straight-line distance of at least 150 nautical miles; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(f) *For a glider rating.* A person who applies for a commercial pilot certificate with a glider category rating must log at least:

(1) 25 hours as a pilot in gliders and 100 flights in gliders as pilot in command; which includes at least—

(i) 3 hours of flight training or 10 training flights in gliders on the areas of operation listed in § 61.127(b)(6) of this part;

(ii) 2 hours of solo flight that includes not less than 10 solo flights in gliders on the areas of operation listed in § 61.127(b)(6) of this part; and

(iii) Three training flights in preparation for the practical test within the 60-day period preceding the date of the test; or

(2) 200 hours of flight time as a pilot in heavier-than-air aircraft, and 20 flights in gliders as pilot in command, which includes at least—

(i) 3 hours of flight training or 10 training flights on the areas of operation listed in § 61.127(b)(6) of this part;

(ii) Five solo flights in a glider on the areas of operation listed in § 61.127(b)(6) of this part; and

(iii) Three training flights in preparation for the practical test within the 60-day period preceding the date of the test.

(g) *For an airship rating.* A person who applies for a commercial pilot certificate with a lighter-than-air category and airship class rating must log at least 200 hours of flight time as a pilot, which includes at least the following hours:

(1) 50 hours in airships.

(2) 30 hours of pilot-in-command time in airships, which consists of at least—

(i) 10 hours of cross-country flight time in airships; and

(ii) 10 hours of night flight time in airships.

(3) 40 hours of instrument time, which consists of at least 20 hours in flight, of which 10 hours must be in flight in airships.

(4) 20 hours of flight training in airships on the areas of operation listed in § 61.127(b)(7) of this part, which includes at least—

(i) 3 hours in an airship in preparation for the practical test within the 60-day period preceding the date of the test;

(ii) One cross-country flight of at least 1 hour in duration in an airship in day VFR conditions, consisting of a total straight-line distance of more than 25 nautical miles from the original point of departure; and

(iii) One cross-country flight of at least 1 hour in duration in an airship in night VFR conditions, consisting of a total straight-line distance of more than 25 nautical miles from the original point of departure.

(5) 10 hours of flight training performing the functions of pilot in command with an authorized instructor on the areas of operation listed in § 61.127(b)(7) of this part, which includes at least—

(i) One cross-country flight with landings at a minimum of three points, with one segment consisting of a straight-line distance of at least 25 nautical miles from the original point of departure; and

(ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight in the traffic pattern).

(h) *For a balloon rating.* A person who applies for a commercial pilot certificate with a lighter-than-air category and a balloon class rating must log at least 35 hours of flight time as a pilot, which includes at least the following requirements:

(1) 20 hours in balloons;

(2) 10 flights in balloons;

(3) Two flights in balloons as the pilot in command; and

(4) 10 hours of flight training that includes at least 10 training flights in balloons on the areas of operation listed in § 61.127(b)(8) of this part, which consists of at least—

(i) For a gas balloon—

(A) Two training flights of 2 hours each in a gas balloon on the areas of operation appropriate to a gas balloon within 60 days prior to application for the rating;

(B) Two flights performing the functions of pilot in command in a gas balloon on the appropriate areas of operation; and

(C) One flight involving a controlled ascent to 5,000 feet above the launch site.

(ii) For a balloon with an airborne heater—

(A) Two training flights of 1 hour each in a balloon with an airborne heater on the areas of operation appropriate to a balloon with an airborne heater within 60 days prior to application for the rating;

(B) Two solo flights in a balloon with an airborne heater on the appropriate areas of operation; and

(C) One flight involving a controlled ascent to 3,000 feet above the launch site.

(i) *Permitted credit for use of an approved flight simulator or approved flight training device.* (1) Except as provided in paragraph (i)(3) of this section, an applicant who has not accomplished the training required by this section in a course conducted by a training center certificated under part 142 of this chapter may:

(i) Credit a maximum of 50 hours toward the total aeronautical experience requirements for an airplane or powered-lift rating, provided the aeronautical experience was obtained from an authorized instructor in an approved flight simulator or an approved flight training device that represents that class of airplane or powered-lift category and type, if applicable, appropriate to the rating sought; and

(ii) Credit a maximum of 25 hours toward the total aeronautical experience requirements of this section for a helicopter rating, provided the aeronautical experience was obtained from an authorized instructor in an approved flight simulator or an approved flight training device that represents a helicopter and type, if applicable, appropriate to the rating sought.

(2) Except as provided in paragraph (i)(3) of this section, an applicant who has accomplished the training required by this section in a course conducted by a training center certificated under part 142 of this chapter may:

(i) Credit a maximum of 100 hours toward the total aeronautical experience requirements of this section for an airplane and powered-lift rating, provided the aeronautical experience was obtained from an authorized instructor in an approved flight simulator or an approved flight training device that represents that class of airplane or powered-lift category and type, if applicable, appropriate to the rating sought; and

(ii) Credit a maximum of 50 hours toward the total aeronautical experience requirements of this section for a helicopter rating, provided the aeronautical experience was obtained from an authorized instructor in an approved flight simulator or an approved flight training device that represents a helicopter and type, if applicable, appropriate to the rating sought.

(3) Except when fewer hours are approved by the Administrator, an applicant for a commercial pilot certificate with an airplane, helicopter, or a powered-lift rating who has satisfactorily completed an approved commercial pilot course conducted by a training center certificated under part 142 of this chapter need only have the following total aeronautical experience to meet the aeronautical experience requirements of this section:

(i) 190 hours for an airplane or powered-lift rating; and

(ii) 150 hours for a helicopter rating.

§ 61.131 Exceptions to the night flying requirements.

(a) Subject to the limitations of paragraph (b) of this section, a person is not required to comply with the night flight training requirements of this subpart if the person receives flight training in and resides in the State of Alaska.

(b) A person who receives flight training in and resides in the State of Alaska but does not meet the night flight training requirements of this section:

(1) May be issued a pilot certificate with the limitation ''night flying prohibited.''

(2) Must comply with the appropriate night flight training requirements of this subpart within the 12-calendar-month period after the issuance of the pilot certificate. At the end of that period, the certificate will be suspended until the person complies with the appropriate night flight training requirements of this subpart. The person may have the ''night flying prohibited'' limitation removed if the person—

(i) Accomplishes the appropriate night flight training requirements of this subpart; and

(ii) Presents to an examiner a logbook or training record endorsement from an authorized instructor that verifies accomplishment of the appropriate night flight training requirements of this subpart.

§ 61.133 Commercial pilot privileges and limitations.

(a) *Privileges.* (1) *General.* A person who holds a commercial pilot certificate may act as pilot in command of an aircraft—

(i) Carrying persons or property for compensation or hire, provided the person is qualified in accordance with this part and with the applicable parts of this chapter that apply to the operation; and

(ii) For compensation or hire, provided the person is qualified in accordance with this part and with the applicable parts of this chapter that apply to the operation.

(2) *Commercial pilots with lighter-than-air category ratings.* A person with a commercial pilot certificate with a lighter-than-air category rating may—

(i) *For an airship*—(A) Give flight and ground training in an airship for the issuance of a certificate or rating;

(B) Give an endorsement on a pilot certificate for an airship;

(C) Endorse a student pilot certificate or logbook for solo operating privileges in an airship; and

(D) Act as pilot in command of an airship under IFR or in weather conditions less than the minimum prescribed for VFR flight.

(ii) *For a balloon*—(A) Give flight and ground training in a balloon for the issuance of a certificate or rating;

(B) Give an endorsement on a pilot certificate for a balloon; and

(C) Endorse a student pilot certificate or logbook for solo operating privileges in a balloon.

(b) *Limitations.* (1) A person who applies for a commercial pilot certificate with an airplane category or powered-lift category rating and does not hold an instrument rating in the same category and class will be issued a commercial pilot certificate that contains the limitation, ''The carriage of passengers for hire in (airplanes) (powered-lifts) on cross-country flights in excess of 50 nautical miles or at night is prohibited.'' The limitation may be removed when the person satisfactorily accomplishes the requirements listed in § 61.65 of this part for an instrument rating in the same category and class of aircraft listed on the person's commercial pilot certificate.

(2) If a person who applies for a commercial pilot certificate with a balloon rating takes a practical test in a balloon with an airborne heater—

(i) The pilot certificate will contain a limitation restricting the exercise of the privileges of that certificate to a balloon with an airborne heater.

(ii) The limitation specified in paragraph (b)(2)(i) of this section may be removed when the person obtains the required aeronautical experience in a gas balloon and receives a logbook endorsement from an authorized instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate a gas balloon.

(3) If a person who applies for a commercial pilot certificate with a balloon rating takes a practical test in a gas balloon—

(i) The pilot certificate will contain a limitation restricting the exercise of the privileges of that certificate to a gas balloon.

(ii) The limitation specified in paragraph (b)(3)(i) of this section may be removed when the person obtains the required aeronautical experience in a balloon with an airborne heater and receives a logbook endorsement from an authorized instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate a balloon with an airborne heater.

§ 61.135—61.141 [Reserved]

Subpart G—Airline Transport Pilots

§ 61.151 Applicability.

This subpart prescribes the requirements for the issuance of airline transport pilot certificates and ratings, the conditions under which those certificates and ratings are necessary, and the general operating rules for persons who hold those certificates and ratings.

§ 61.153 Eligibility requirements: General.

To be eligible for an airline transport pilot certificate, a person must:

(a) Be at least 23 years of age;

(b) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft;

(c) Be of good moral character;

(d) Meet at least one of the following requirements:

(1) Hold at least a commercial pilot certificate and an instrument rating;

(2) Meet the military experience requirements under § 61.73 of this part to qualify for a commercial pilot certificate, and an instrument rating if the person is a rated military pilot or former rated military pilot of an Armed Force of the United States; or

(3) Hold either a foreign airline transport pilot or foreign commercial pilot license and an instrument rating if the person holds a pilot license issued by a contracting State to the Convention on International Civil Aviation.

(e) Meet the aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought before applying for the practical test;

(f) Pass a knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part that apply to the aircraft category and class rating sought;

(g) Pass the practical test on the areas of operation listed in § 61.157(e) of this part that apply to the aircraft category and class rating sought; and

(h) Comply with the sections of this part that apply to the aircraft category and class rating sought.

§ 61.155 Aeronautical knowledge.

(a) *General.* The knowledge test for an airline transport pilot certificate is based on the aeronautical knowledge areas listed in paragraph (c) of this section that are appropriate to the aircraft category and class rating sought.

(b) *Aircraft type rating.* A person who is applying for an additional aircraft type rating to be added to an airline transport pilot certificate is not required to pass a knowledge test if that person's airline transport pilot certificate lists the aircraft category and class rating that is appropriate to the type rating sought.

(c) *Aeronautical knowledge areas.* (1) Applicable Federal Aviation Regulations of this chapter that relate to airline transport pilot privileges, limitations, and flight operations;

(2) Meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data;

(3) General system of weather and NOTAM collection, dissemination, interpretation, and use;

(4) Interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, and symbols;

(5) National Weather Service functions as they pertain to operations in the National Airspace System;

(6) Windshear and microburst awareness, identification, and avoidance;

(7) Principles of air navigation under instrument meteorological conditions in the National Airspace System;

(8) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;

(9) Aircraft loading, weight and balance, use of charts, graphs, tables, formulas, and computations, and their effect on aircraft performance;

(10) Aerodynamics relating to an aircraft's flight characteristics and performance in normal and abnormal flight regimes;

(11) Human factors;

(12) Aeronautical decision making and judgment; and

(13) Crew resource management to include crew communication and coordination.

§ 61.157 Flight proficiency.

(a) *General.* (1) The practical test for an airline transport pilot certificate is given for—

(i) An airplane category and single-engine class rating;

(ii) An airplane category and multiengine class rating;

(iii) A rotorcraft category and helicopter class rating;

(iv) A powered-lift category rating; and

(v) An aircraft type rating for the category and class ratings listed in paragraphs (a)(1)(i) through (a)(1)(iv) of this section.

(2) A person who is applying for an airline transport pilot practical test must meet—

(i) The eligibility requirements of § 61.153 of this part; and

(ii) The aeronautical knowledge and aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought.

(b) *Aircraft type rating.* Except as provided in paragraph (c) of this section, a person who is applying for an aircraft type rating to be added to an airline transport pilot certificate:

(1) Must receive and log ground and flight training from an authorized instructor on the areas of operation in this section that apply to the aircraft type rating sought;

(2) Must receive a logbook endorsement from an authorized instructor certifying that the applicant completed the training on the areas of operation listed in paragraph (e) of this section that apply to the aircraft type rating sought; and

(3) Must perform the practical test under instrument flight rules, unless the practical test cannot be accomplished under instrument flight rules because the aircraft's type certificate makes the aircraft incapable of operating under instrument flight rules. If the practical test cannot be accomplished for this reason, the person may obtain a type rating limited to ''VFR only.'' The ''VFR only'' limitation may be removed for that aircraft type when the person passes the practical test under instrument flight rules.

(c) A person who is applying for an aircraft type rating to be added to an airline transport pilot certificate or an aircraft type rating concurrently with an airline transport pilot certificate, and who is an employee of a certificate holder operating under part 121 or part 135 of this chapter, need not comply with the requirements of paragraph (b) of this section if the applicant presents a training record that shows satisfactory completion of that certificate holder's approved pilot in command training

program for the aircraft type rating sought.

(d) Any type rating(s) on the pilot certificate of an applicant who successfully completes an airline transport pilot practical test shall be included on the airline transport pilot certificate with the privileges and limitations of the airline transport pilot certificate, provided the applicant passes the practical test in the same category and class of aircraft for which the applicant holds the type rating(s). However, if a type rating for that category and class of aircraft on the superseded pilot certificate is limited to VFR, that limitation shall be carried forward to the person's airline transport pilot certificate level.

(e) *Areas of operation.* (1) *For an airplane category—single-engine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Takeoff and departure phase;

(iv) In-flight maneuvers;

(v) Instrument procedures;

(vi) Landings and approaches to landings;

(vii) Normal and abnormal procedures;

(viii) Emergency procedures; and

(ix) Postflight procedures.

(2) *For an airplane category—multiengine class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Takeoff and departure phase;

(iv) In-flight maneuvers;

(v) Instrument procedures;

(vi) Landings and approaches to landings;

(vii) Normal and abnormal procedures;

(viii) Emergency procedures; and

(ix) Postflight procedures.

(3) *For a powered-lift category rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Takeoff and departure phase;

(iv) In-flight maneuvers;

(v) Instrument procedures;

(vi) Landings and approaches to landings;

(vii) Normal and abnormal procedures;

(viii) Emergency procedures; and

(ix) Postflight procedures.

(4) *For a rotorcraft category—helicopter class rating:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Takeoff and departure phase;

(iv) In-flight maneuvers;

(v) Instrument procedures;

(vi) Landings and approaches to landings;

(vii) Normal and abnormal procedures;

(viii) Emergency procedures; and

(ix) Postflight procedures.

(f) *Proficiency and competency checks conducted under part 121 or part 135.* (1) Successful completion of a proficiency check under § 121.441 of this chapter or successful completion of both a competency check, under § 135.293 of this chapter, and a pilot-in-command instrument proficiency check, under § 135.297 of this chapter, satisfies the requirements of this section for the appropriate aircraft rating.

(2) Any check or combination of checks used to satisfy the requirements of this section must include all maneuvers and procedures required for the issuance of a type rating. Any check must be evaluated by a designated examiner or FAA inspector.

(g) *Use of an approved flight simulator or approved flight training device for an airplane rating.* If an approved flight simulator or approved flight training device is used for accomplishing any of the training and the required practical test for an airline transport pilot certificate with an airplane category, class, and type rating, if applicable, the applicant, approved flight simulator, and approved flight training device are subject to the following requirements:

(1) The approved flight simulator and approved flight training device must represent that airplane type if the rating involves a type rating in an airplane, or is representative of an airplane if the applicant is only seeking an airplane class rating and does not require a type rating.

(2) The approved flight simulator and approved flight training device must be used in accordance with an approved course at a training center certificated under part 142 of this chapter.

(3) All training and testing (except preflight inspection) must be accomplished by the applicant to receive an airplane class rating and type rating, if applicable, without limitations and—

(i) The flight simulator must be approved as Level C or Level D; and

(ii) The applicant must meet the aeronautical experience requirements of § 61.159 of this part and at least one of the following—

(A) Hold a type rating for a turbojet airplane of the same class of airplane for which the type rating is sought, or have been designated by a military service as a pilot in command of an airplane of the same class of airplane for which the type rating is sought, if a turbojet type rating is sought;

(B) Hold a type rating for a turbopropeller airplane of the same class as the airplane for which the type rating is sought, or have been appointed by a military service as a pilot in command of an airplane of the same class of airplane for which the type rating is sought, if a turbopropeller airplane type rating is sought;

(C) Have at least 2,000 hours of flight time, of which 500 hours must be in turbine-powered airplanes of the same class as the airplane for which the type rating is sought;

(D) Have at least 500 hours of flight time in the same type of airplane as the airplane for which the type rating is sought; or

(E) Have at least 1,000 hours of flight time in at least two different airplanes requiring a type rating.

(4) Subject to the limitation of paragraph (g)(5) of this section, an applicant who does not meet the requirements of paragraph (g)(3) of this section may complete all training and testing (except for preflight inspection) for an additional rating if—

(i) The flight simulator is approved as Level C or Level D; and

(ii) The applicant meets the aeronautical experience requirements of § 61.159 of this part and at least one of the following—

(A) Holds a type rating in a propeller-driven airplane if a type rating in a turbojet airplane is sought, or holds a type rating in a turbojet airplane if a type rating in a propeller-driven airplane is sought;

(B) Since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for the additional rating, has logged—

(*1*) At least 100 hours of flight time in airplanes in the same class as the airplane for which the type rating is sought and which requires a type rating; and

(*2*) At least 25 hours of flight time in airplanes of the same type for which the type rating is sought.

(5) An applicant meeting only the requirements of paragraph (g)(4)(ii)(A) and (B) of this section will be issued an additional rating, or an airline transport pilot certificate with an added rating, as applicable, with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(6) An applicant who has been issued a certificate with the limitation specified in paragraph (g)(5) of this section—

(i) May not act as pilot in command of the aircraft for which an additional rating was obtained under the provisions of this section until the limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in an airplane of the same type for which the limitation applies.

(7) An applicant who does not meet the requirements of paragraph (g)(3)(ii)(A) through (E) or (g)(4)(ii)(A) and (B) of this section may be issued an airline transport pilot certificate or an additional rating to that pilot certificate after successful completion of one of the following requirements—

(i) An approved course at a part 142 training center that includes all training and testing for that certificate or rating, followed by training and testing on the following tasks, which must be successfully completed on a static airplane or in flight, as appropriate—

(A) Preflight inspection;

(B) Normal takeoff;

(C) Normal ILS approach;

(D) Missed approach; and

(E) Normal landing.

(ii) An approved course at a part 142 training center that complies with paragraphs (g)(8) and (g)(9) of this section and includes all training and testing for a certificate or rating.

(8) An applicant meeting only the requirements of paragraph (g)(7) of this section will be issued an additional rating or an airline transport pilot certificate with an additional rating, as applicable, with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(9) An applicant issued a pilot certificate with the limitation specified in paragraph (g)(8) of this section—

(i) May not act as pilot in command of the aircraft for which an additional rating was obtained under the provisions of this section until the limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in an airplane of the same type for which the limitation applies.

(h) *Use of an approved flight simulator or an approved flight training device for a helicopter rating.* If an approved flight simulator or approved flight training device is used for accomplishing any of the training and the required practical test for an airline transport pilot certificate with a helicopter class rating and type rating, if applicable, the applicant, approved flight simulator, and approved flight training device are subject to the following requirements:

(1) The approved flight simulator and approved flight training device must represent that helicopter type if the rating involves a type rating in a helicopter, or is representative of a helicopter if the applicant is only seeking a helicopter class rating and does not require a type rating.

(2) The approved flight simulator and approved flight training device must be used in accordance with an approved course at a training center certificated under part 142 of this chapter.

(3) All training and testing requirements (except preflight inspection) must be accomplished by the applicant to receive a helicopter class rating and type rating, if applicable, without limitations and—

(i) The flight simulator must be approved as a Level C or Level D; and

(ii) The applicant must meet the aeronautical experience requirements of § 61.161 of this part and at least one of the following—

(A) Hold a type rating for a turbine-powered helicopter, or have been designated by a military service as a pilot in command of a turbine-powered helicopter, if a turbine-powered helicopter type rating is sought;

(B) Have at least 1,200 hours of flight time, of which 500 hours must be in turbine-powered helicopters;

(C) Have at least 500 hours of flight time in the same type helicopter as the helicopter for which the type rating is sought; or

(D) Have at least 1,000 hours of flight time in at least two different helicopters requiring a type rating.

(4) Subject to the limitation of paragraph (h)(5) of this section, an applicant who does not meet the requirements of paragraph (h)(3) of this section may complete all training and testing (except for preflight inspection) for an additional rating if—

(i) The flight simulator is approved as Level C or Level D; and

(ii) The applicant meets the aeronautical experience requirements of § 61.161 of this part and, since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for the additional rating, has logged—

(A) At least 100 hours of flight time in helicopters; and

(B) At least 15 hours of flight time in helicopters of the same type of helicopter for which the type rating is sought.

(5) An applicant meeting only the requirements of paragraph (h)(4)(ii) (A) and (B) of this section will be issued an additional rating or an airline transport pilot certificate with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(6) An applicant who has been issued a certificate with the limitation specified in paragraph (h)(5) of this section—

(i) May not act as pilot in command of the helicopter for which an additional rating was obtained under the provisions of this section until the limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in a helicopter of the same type for which the limitation applies.

(7) An applicant who does not meet the requirements of paragraph (h)(3)(ii) (A) through (D), or (h)(4)(ii) (A) and (B) of this section may be issued an airline transport pilot certificate or an additional rating to that pilot certificate after successful completion of one of the following requirements—

(i) An approved course at a part 142 training center that includes all training and testing for that certificate or rating, followed by training and testing on the following tasks, which must be successfully completed on a static aircraft or in flight, as appropriate—

(A) Preflight inspection;

(B) Normal takeoff from a hover;

(C) Manually flown precision approach; and

(D) Steep approach and landing to an off-airport heliport; or

(ii) An approved course at a training center that includes all training and testing for that certificate or rating and compliance with paragraphs (h)(8) and (h)(9) of this section.

(8) An applicant meeting only the requirements of paragraph (h)(7) of this section will be issued an additional rating or an airline transport pilot certificate with an additional rating, as applicable, with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(9) An applicant issued a certificate with the limitation specified in paragraph (h)(8) of this section—

(i) May not act as pilot in command of the aircraft for which an additional rating was obtained under the provisions of this section until the

limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in an aircraft of the same type for which the limitation applies.

(i) *Use of an approved flight simulator or approved flight training device for a powered-lift rating.* If an approved flight simulator or approved flight training device is used for accomplishing any of the training and the required practical test for an airline transport pilot certificate with a powered-lift category rating and type rating, if applicable, the applicant, approved flight simulator, and approved flight training device are subject to the following requirements:

(1) The approved flight simulator and approved flight training device must represent that powered-lift type, if the rating involves a type rating in a powered-lift, or is representative of a powered-lift if the applicant is only seeking a powered-lift category rating and does not require a type rating.

(2) The approved flight simulator and approved flight training device must be used in accordance with an approved course at a training center certificated under part 142 of this chapter.

(3) All training and testing requirements (except preflight inspection) must be accomplished by the applicant to receive a powered-lift category rating and type rating, if applicable, without limitations; and—

(i) The flight simulator must be approved as Level C or Level D; and

(ii) The applicant must meet the aeronautical experience requirements of § 61.163 of this part and at least one of the following—

(A) Hold a type rating for a turbine-powered powered-lift, or have been designated by a military service as a pilot in command of a turbine-powered powered-lift, if a turbine-powered powered-lift type rating is sought;

(B) Have at least 1,200 hours of flight time, of which 500 hours must be in turbine-powered powered-lifts;

(C) Have at least 500 hours of flight time in the same type of powered-lift for which the type rating is sought; or

(D) Have at least 1,000 hours of flight time in at least two different powered-lifts requiring a type rating.

(4) Subject to the limitation of paragraph (i)(5) of this section, an applicant who does not meet the requirements of paragraph (i)(3) of this section may complete all training and testing (except for preflight inspection) for an additional rating if—

(i) The flight simulator is approved as Level C or Level D; and

(ii) The applicant meets the aeronautical experience requirements of § 61.163 of this part and, since the beginning of the 12th calendar month before the month in which the applicant completes the practical test for the additional rating, has logged—

(A) At least 100 hours of flight time in powered-lifts; and

(B) At least 15 hours of flight time in powered-lifts of the same type of powered-lift for the type rating sought.

(5) An applicant meeting only the requirements of paragraph (i)(4)(ii) (A) and (B) of this section will be issued an additional rating or an airline transport pilot certificate with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(6) An applicant who has been issued a certificate with the limitation specified in paragraph (i)(5) of this section—

(i) May not act as pilot in command of the powered-lift for which an additional rating was obtained under the provisions of this section until the limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 15 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in a powered-lift of the same type for which the limitation applies.

(7) An applicant who does not meet the requirements of paragraph (i)(3)(ii) (A) through (D) or (i)(4)(ii) (A) and (B) of this section may be issued an airline transport pilot certificate or an additional rating to that pilot certificate after successful completion of one of the following requirements—

(i) An approved course at a part 142 training center that includes all training and testing for that certificate or rating, followed by training and testing on the following tasks, which must be successfully completed on a static aircraft or in flight, as appropriate—

(A) Preflight inspection;

(B) Normal takeoff from a hover;

(C) Manually flown precision approach; and

(D) Steep approach and landing to an off-airport site; or

(ii) An approved course at a training center that includes all training and testing for that certificate or rating and is in compliance with paragraphs (i)(8) and (i)(9) of this section.

(8) An applicant meeting only the requirements of paragraph (i)(7) of this section will be issued an additional rating or an airline transport pilot certificate with an additional rating, as applicable, with a limitation. The limitation shall state: ''This certificate is subject to pilot-in-command limitations for the additional rating.''

(9) An applicant issued a pilot certificate with the limitation specified in paragraph (i)(8) of this section—

(i) May not act as pilot in command of the aircraft for which an additional rating was obtained under the provisions of this section until the limitation is removed from the certificate; and

(ii) May have the limitation removed by accomplishing 25 hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in a powered-lift of the same type for which the limitation applies.

(j) *Waiver authority.* Unless the Administrator requires certain or all tasks to be performed, the examiner who conducts the practical test for an airline transport pilot certificate may waive any of the tasks for which the Administrator approves waiver authority.

§ 61.158 [Reserved]

§ 61.159 Aeronautical experience: Airplane category rating.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, a person who is applying for an airline transport pilot certificate with an airplane category and class rating must have at least 1,500 hours of total time as a pilot that includes at least:

(1) 500 hours of cross-country flight time.

(2) 100 hours of night flight time.

(3) 75 hours of instrument flight time, in actual or simulated instrument conditions, subject to the following:

(i) Except as provided in paragraph (a)(3)(ii) of this section, an applicant may not receive credit for more than a total of 25 hours of simulated instrument time in an approved flight simulator or approved flight training device.

(ii) A maximum of 50 hours of training in an approved flight simulator or approved flight training device may be credited toward the instrument flight time requirements of paragraph (a)(3) of this section if the training was accomplished in a course conducted by a training center certificated under part 142 of this chapter.

(iii) Training in a flight simulator or flight training device must be

accomplished in an approved flight simulator or approved flight training device, representing an airplane.

(4) 250 hours of flight time in an airplane as a pilot in command, or as second in command performing the duties and functions of a pilot in command while under the supervision of a pilot in command or any combination thereof, which includes at least—

(i) 100 hours of cross-country flight time; and

(ii) 25 hours of night flight time.

(5) Not more than 100 hours of the total aeronautical experience requirements of paragraph (a) of this section may be obtained in an approved flight simulator or approved flight training device that represents an airplane, provided the aeronautical experience was obtained in an approved course conducted by a training center certificated under part 142 of this chapter.

(b) A person who has performed at least 20 night takeoffs and landings to a full stop may substitute each additional night takeoff and landing to a full stop for 1 hour of night flight time to satisfy the requirements of paragraph (a)(2) of this section; however, not more than 25 hours of night flight time may be credited in this manner.

(c) A commercial pilot may credit the following second-in-command flight time or flight-engineer flight time toward the 1,500 hours of total time as a pilot required by paragraph (a) of this section:

(1) second in command time, provided the time is acquired in an airplane—

(i) Required to have more than one pilot by the airplane's flight manual, type certificate, or the regulations under which the flight is being conducted;

(ii) Engaged in operations under part 121 or part 135 of this chapter for which a second in command is required; or

(iii) That is required by the operating rules of this chapter to have more than one pilot.

(2) Flight-engineer time, provided the time—

(i) Is acquired in an airplane required to have a flight engineer by the airplane's flight manual or type certificate;

(ii) Is acquired while engaged in operations under part 121 of this chapter for which a flight engineer is required;

(iii) Is acquired while the person is participating in a pilot training program approved under part 121 of this chapter; and

(iv) Does not exceed more than 1 hour for each 3 hours of flight engineer flight time for a total credited time of no more than 500 hours.

(d) An applicant may be issued an airline transport pilot certificate with the endorsement, ''Holder does not meet the pilot in command aeronautical experience requirements of ICAO,'' as prescribed by Article 39 of the Convention on International Civil Aviation, if the applicant:

(1) Credits second in command or flight-engineer time under paragraph (c) of this section toward the 1,500 hours total flight time requirement of paragraph (a) of this section;

(2) Does not have at least 1,200 hours of flight time as a pilot, including no more than 50 percent of his or her second in command time and none of his or her flight-engineer time; and

(3) Otherwise meets the requirements of paragraph (a) of this section.

(e) When the applicant specified in paragraph (d) of this section presents satisfactory evidence of the accumulation of 1,200 hours of flight time as a pilot including no more than 50 percent of his or her second-in-command flight time and none of his or her flight-engineer time, the applicant is entitled to an airline transport pilot certificate without the endorsement prescribed in that paragraph.

§ 61.161 Aeronautical experience: Rotorcraft category and helicopter class rating.

(a) A person who is applying for an airline transport pilot certificate with a rotorcraft category and helicopter class rating, must have at least 1,200 hours of total time as a pilot that includes at least:

(1) 500 hours of cross-country flight time;

(2) 100 hours of night flight time, of which 15 hours are in helicopters;

(3) 200 hours of flight time in helicopters, which includes at least 75 hours as a pilot in command, or as second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command, or any combination thereof; and

(4) 75 hours of instrument flight time in actual or simulated instrument meteorological conditions, of which at least 50 hours are obtained in flight with at least 25 hours in helicopters as a pilot in command, or as second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command, or any combination thereof.

(b) Training in an approved flight simulator or approved flight training device may be credited toward the instrument flight time requirements of paragraph (a)(4) of this section, subject to the following:

(1) Training in a flight simulator or a flight training device must be accomplished in an approved flight simulator or approved flight training device that represents a rotorcraft.

(2) Except as provided in paragraph (b)(3) of this section, an applicant may receive credit for not more than a total of 25 hours of simulated instrument time in an approved flight simulator and approved flight training device.

(3) A maximum of 50 hours of training in an approved flight simulator or approved flight training device may be credited toward the instrument flight time requirements of paragraph (a)(4) of this section if the aeronautical experience is accomplished in an approved course conducted by a training center certificated under part 142 of this chapter.

§ 61.163 Aeronautical experience: Powered-lift category rating.

(a) A person who is applying for an airline transport pilot certificate with a powered-lift category rating must have at least 1,500 hours of total time as a pilot that includes at least:

(1) 500 hours of cross-country flight time;

(2) 100 hours of night flight time;

(3) 250 hours in a powered-lift as a pilot in command, or as a second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command, or any combination thereof, which includes at least:

(i) 100 hours of cross-country flight time; and

(ii) 25 hours of night flight time.

(4) 75 hours of instrument flight time in actual or simulated instrument conditions, subject to the following:

(i) Except as provided in paragraph (a)(4)(ii) of this section, an applicant may not receive credit for more than a total of 25 hours of simulated instrument time in an approved flight simulator or approved flight training device.

(ii) A maximum of 50 hours of training in an approved flight simulator or approved flight training device may be credited toward the instrument flight time requirements of paragraph (a)(4) of this section if the training was accomplished in a course conducted by a training center certificated under part 142 of this chapter.

(iii) Training in a flight simulator or flight training device must be accomplished in an approved flight simulator or approved flight training device that represents a powered-lift.

(b) Not more than 100 hours of the total aeronautical experience

requirements of paragraph (a) of this section may be obtained in an approved flight simulator or approved flight training device that represents a powered-lift, provided the aeronautical experience was obtained in an approved course conducted by a training center certificated under part 142 of this chapter.

§ 61.165 Additional aircraft category and class ratings.

(a) *Rotorcraft category and helicopter class rating.* A person applying for an airline transport certificate with a rotorcraft category and helicopter class rating who holds an airline transport pilot certificate with another aircraft category rating must:

(1) Meet the eligibility requirements of § 61.153 of this part;

(2) Pass a knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part;

(3) Comply with the requirements in § 61.157(b) of this part, if appropriate;

(4) Meet the applicable aeronautical experience requirements of § 61.161 of this part; and

(5) Pass the practical test on the areas of operation of § 61.157(e)(4) of this part.

(b) *Airplane category rating with a single-engine class rating.* A person applying for an airline transport certificate with an airplane category and single-engine class rating who holds an airline transport pilot certificate with another aircraft category or class rating must:

(1) Meet the eligibility requirements of § 61.153 of this part;

(2) Pass a knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part;

(3) Comply with the requirements in § 61.157(b) of this part, if appropriate;

(4) Meet the applicable aeronautical experience requirements of § 61.159 of this part; and

(5) Pass the practical test on the areas of operation of § 61.157(e)(1) of this part.

(c) *Airplane category rating with a multiengine class rating.* A person applying for an airline transport certificate with an airplane category and multiengine class rating who holds an airline transport certificate with another aircraft category or class rating must:

(1) Meet the eligibility requirements of § 61.153 of this part;

(2) Pass a knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part;

(3) Comply with the requirements in § 61.157(b) of this part, if appropriate;

(4) Meet the applicable aeronautical experience requirements of § 61.159 of this part; and

(5) Pass the practical test on the areas of operation of § 61.157(e)(2) of this part.

(d) *Powered-lift category.* A person applying for an airline transport pilot certificate with a powered-lift category rating who holds an airline transport certificate with another aircraft category rating must:

(1) Meet the eligibility requirements of § 61.153 of this part;

(2) Pass a required knowledge test on the aeronautical knowledge areas of § 61.155(c) of this part;

(3) Comply with the requirements in § 61.157(b) of this part, if appropriate;

(4) Meet the applicable aeronautical experience requirements of § 61.163 of this part; and

(5) Pass the required practical test on the areas of operation of § 61.157(e)(3) of this part.

§ 61.167 Privileges.

(a) A person who holds an airline transport pilot certificate is entitled to the same privileges as those afforded a person who holds a commercial pilot certificate with an instrument rating.

(b) An airline transport pilot may instruct—

(1) Other pilots in air transportation service in aircraft of the category, class, and type, as applicable, for which the airline transport pilot is rated and endorse the logbook or other training record of the person to whom training has been given;

(2) In approved flight simulators, and approved flight training devices representing the aircraft referenced in paragraph (b)(1) of this section, when instructing under the provisions of this section and endorse the logbook or other training record of the person to whom training has been given;

(3) Only as provided in this section, unless the airline transport pilot also holds a flight instructor certificate, in which case the holder may exercise the instructor privileges of subpart H of part 61 for which he or she is rated; and

(4) In an aircraft, only if the aircraft has functioning dual controls, when instructing under the provisions of this section.

(c) Excluding briefings and debriefings, an airline transport pilot may not instruct in aircraft, approved flight simulators, and approved flight training devices under this section—

(1) For more than 8 hours in any 24-consecutive-hour period; or

(2) For more than 36 hours in any 7-consecutive-day period.

(d) An airline transport pilot may not instruct in Category II or Category III operations unless he or she has been trained and successfully tested under Category II or Category III operations, as applicable.

§ 61.161—69.171 [Reserved]

Subpart H—Flight Instructors

§ 61.181 Applicability.

This subpart prescribes the requirements for the issuance of flight instructor certificates and ratings, the conditions under which those certificates and ratings are necessary, and the limitations on those certificates and ratings.

§ 61.183 Eligibility requirements.

To be eligible for a flight instructor certificate or rating a person must:

(a) Be at least 18 years of age;

(b) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's flight instructor certificate as are necessary;

(c) Hold either a commercial pilot certificate or airline transport pilot certificate with:

(1) An aircraft category and class rating that is appropriate to the flight instructor rating sought; and

(2) An instrument rating, if the person holds a commercial pilot certificate that is appropriate to the flight instructor rating sought, if applying for—

(i) A flight instructor certificate with an airplane category and single-engine class rating;

(ii) A flight instructor certificate with an airplane category and multiengine class rating;

(iii) A flight instructor certificate with a powered-lift rating; or

(iv) A flight instructor certificate with an instrument rating.

(d) Receive a logbook endorsement from an authorized instructor on the fundamentals of instructing listed in § 61.185 of this part appropriate to the required knowledge test;

(e) Pass a knowledge test on the areas listed in § 61.185(a) of this part, unless the applicant:

(1) Holds a flight instructor certificate or ground instructor certificate issued under this part;

(2) Holds a current teacher's certificate issued by a State, county, city, or municipality that authorizes the person to teach at an educational level of the 7th grade or higher; or

(3) Is employed as a teacher at an accredited college or university.

(f) Pass a knowledge test on the aeronautical knowledge areas listed in § 61.185(a)(2) and (a)(3) of this part that are appropriate to the flight instructor rating sought;

(g) Receive a logbook endorsement from an authorized instructor on the areas of operation listed in § 61.187(b) of this part, appropriate to the flight instructor rating sought;

(h) Pass the required practical test that is appropriate to the flight instructor rating sought in an:

(1) Aircraft that is representative of the category and class of aircraft for the aircraft rating sought; or

(2) Approved flight simulator or approved flight training device that is representative of the category and class of aircraft for the rating sought, and used in accordance with an approved course at a training center certificated under part 142 of this chapter.

(i) Accomplish the following for a flight instructor certificate with an airplane or a glider rating:

(1) Receive a logbook endorsement from an authorized instructor indicating that the applicant is competent and possesses instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures after providing the applicant with flight training in those training areas in an airplane or glider, as appropriate, that is certificated for spins; and

(2) Demonstrate instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures. However, upon presentation of the endorsement specified in paragraph (i)(1) of this section an examiner may accept that endorsement as satisfactory evidence of instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures for the practical test, provided that the practical test is not a retest as a result of the applicant failing the previous test for deficiencies in the knowledge or skill of stall awareness, spin entry, spins, or spin recovery instructional procedures. If the retest is a result of deficiencies in the ability of an applicant to demonstrate knowledge or skill of stall awareness, spin entry, spins, or spin recovery instructional procedures, the examiner must test the person on stall awareness, spin entry, spins, and spin recovery instructional procedures in an airplane or glider, as appropriate, that is certificated for spins;

(j) Log at least 15 hours as pilot in command in the category and class of aircraft that is appropriate to the flight instructor rating sought; and

(k) Comply with the appropriate sections of this part that apply to the flight instructor rating sought.

§ 61.185 Aeronautical knowledge.

(a) A person who is applying for a flight instructor certificate must receive and log ground training from an authorized instructor on:

(1) Except as provided in paragraph (b) of this section, the fundamentals of instructing, including:

(i) The learning process;

(ii) Elements of effective teaching;

(iii) Student evaluation and testing;

(iv) Course development;

(v) Lesson planning; and

(vi) Classroom training techniques.

(2) The aeronautical knowledge areas for a recreational, private, and commercial pilot certificate applicable to the aircraft category for which flight instructor privileges are sought; and

(3) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.

(b) The following applicants do not need to comply with paragraph (a) of this section:

(1) The holder of a flight instructor certificate or ground instructor certificate issued under this part;

(2) The holder of a current teacher's certificate issued by a State, county, city, or municipality that authorizes the person to teach at an educational level of the 7th grade or higher; or

(3) A person employed as a teacher at an accredited college or university.

§ 61.187 Flight proficiency.

(a) *General.* A person who is applying for a flight instructor certificate must receive and log flight and ground training from an authorized instructor on the areas of operation listed in this section that apply to the flight instructor rating sought. The applicant's logbook must contain an endorsement from an authorized instructor certifying that the person is proficient to pass a practical test on those areas of operation.

(b) *Areas of operation.* (1) *For an airplane category rating with a single-engine class rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport and seaplane base operations;

(vii) Takeoffs, landings, and go-arounds;

(viii) Fundamentals of flight;

(ix) Performance maneuvers;

(x) Ground reference maneuvers;

(xi) Slow flight, stalls, and spins;

(xii) Basic instrument maneuvers;

(xiii) Emergency operations; and

(xiv) Postflight procedures.

(2) *For an airplane category rating with a multiengine class rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport and seaplane base operations;

(vii) Takeoffs, landings, and go-arounds;

(viii) Fundamentals of flight;

(ix) Performance maneuvers;

(x) Ground reference maneuvers;

(xi) Slow flight and stalls;

(xii) Basic instrument maneuvers;

(xiii) Emergency operations;

(xiv) Multiengine operations; and

(xv) Postflight procedures.

(3) *For a rotorcraft category rating with a helicopter class rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport and heliport operations;

(vii) Hovering maneuvers;

(viii) Takeoffs, landings, and go-arounds;

(ix) Fundamentals of flight;

(x) Performance maneuvers;

(xi) Emergency operations;

(xii) Special operations; and

(xiii) Postflight procedures.

(4) *For a rotorcraft category rating with a gyroplane class rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport operations;

(vii) Takeoffs, landings, and go-arounds;

(viii) Fundamentals of flight;

(ix) Performance maneuvers;

(x) Flight at slow airspeeds;

(xi) Ground reference maneuvers;

(xii) Emergency operations; and

(xiii) Postflight procedures.

(5) *For a powered-lift category rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport and heliport operations;

(vii) Hovering maneuvers;

(viii) Takeoffs, landings, and go-arounds;

(ix) Fundamentals of flight;

(x) Performance maneuvers;

(xi) Ground reference maneuvers;

(xii) Slow flight and stalls;

(xiii) Basic instrument maneuvers;

(xiv) Emergency operations;

(xv) Special operations; and

(xvi) Postflight procedures.

(6) *For a glider category rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport and gliderport operations;

(vii) Launches, landings, and go-arounds;

(viii) Fundamentals of flight;

(ix) Performance speeds;

(x) Soaring techniques;

(xi) Performance maneuvers;

(xii) Slow flight, stalls, and spins;

(xiii) Emergency operations; and

(xiv) Postflight procedures.

(7) *For an instrument rating with the appropriate aircraft category and class rating:* (i) Fundamentals of instructing;

(ii) Technical subject areas;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Air traffic control clearances and procedures;

(vi) Flight by reference to instruments;

(vii) Navigation aids;

(viii) Instrument approach procedures;

(ix) Emergency operations; and

(x) Postflight procedures.

(c) The flight training required by this section may be accomplished:

(1) In an aircraft that is representative of the category and class of aircraft for the rating sought; or

(2) In an approved flight simulator or approved flight training device representative of the category and class of aircraft for the rating sought, and used in accordance with an approved course at a training center certificated under part 142 of this chapter.

§ 61.189 Flight instructor records.

(a) A flight instructor must sign the logbook of each person to whom that instructor has given flight training or ground training.

(b) A flight instructor must maintain a record in a logbook or a separate document that contains the following:

(1) The name of each person whose logbook or student pilot certificate that instructor has endorsed for solo flight privileges, and the date of the endorsement; and

(2) The name of each person that instructor has endorsed for a knowledge test or practical test, and the record shall also indicate the kind of test, the date, and the results.

(c) Each flight instructor must retain the records required by this section for at least 3 years.

§ 61.191 Additional flight instructor ratings.

(a) A person who applies for an additional flight instructor rating on a flight instructor certificate must meet the eligibility requirements listed in § 61.183 of this part that apply to the flight instructor rating sought.

(b) A person who applies for an additional rating on a flight instructor certificate is not required to pass the knowledge test on the areas listed in § 61.185(a) of this part.

§ 61.193 Flight instructor privileges.

A person who holds a flight instructor certificate is authorized within the limitations of that person's flight instructor certificate and ratings, and that person's pilot certificate and ratings, to give training and endorsements that are required for, and relate to:

(a) A student pilot certificate;

(b) A pilot certificate;

(c) A flight instructor certificate;

(d) A ground instructor certificate;

(e) An aircraft rating;

(f) An instrument rating;

(g) A flight review, operating privilege, or recency of experience requirement of this part;

(h) A practical test; and

(i) A knowledge test.

§ 61.195 Flight instructor limitations and qualifications.

A person who holds a flight instructor certificate is subject to the following limitations:

(a) *Hours of training.* In any 24-consecutive-hour period, a flight instructor may not conduct more than 8 hours of flight training.

(b) *Aircraft ratings.* A flight instructor may not conduct flight training in any aircraft for which the flight instructor does not hold:

(1) A pilot certificate and flight instructor certificate with the applicable category and class rating; and

(2) If appropriate, a type rating.

(c) *Instrument Rating.* A flight instructor who provides instrument flight training for the issuance of an instrument rating or a type rating not limited to VFR must hold an instrument rating on his or her flight instructor certificate and pilot certificate that is appropriate to the category and class of aircraft in which instrument training is being provided.

(d) *Limitations on endorsements.* A flight instructor may not endorse a:

(1) Student pilot's certificate or logbook for solo flight privileges, unless that flight instructor has—

(i) Given that student the flight training required for solo flight privileges required by this part; and

(ii) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight.

(2) Student pilot's certificate and logbook for a solo cross-country flight, unless that flight instructor has determined the student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight;

(3) Student pilot's certificate and logbook for solo flight in a Class B airspace area or at an airport within Class B airspace unless that flight instructor has—

(i) Given that student ground and flight training in that Class B airspace or at that airport; and

(ii) Determined that the student is proficient to operate the aircraft safely.

(4) Logbook of a recreational pilot, unless that flight instructor has—

(i) Given that pilot the ground and flight training required by this part; and

(ii) Determined that the recreational pilot is proficient to operate the aircraft safely.

(5) Logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements of § 61.56(a) of this part; or

(6) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of § 61.57(d) of this part.

(e) *Training in an aircraft that requires a type rating.* A flight instructor may not give flight training in an aircraft that requires the pilot in command to hold a type rating unless the flight instructor holds a type rating for that aircraft on his or her pilot certificate.

(f) *Training received in a multiengine airplane, a helicopter, or a powered-lift.* A flight instructor may not give training required for the issuance of a certificate or rating in a multiengine airplane, a helicopter, or a powered-lift unless that flight instructor has at least 5 flight hours of pilot-in-command time in the specific make and model of multiengine airplane, helicopter, or powered-lift, as appropriate.

(g) *Position in aircraft and required pilot stations for providing flight training.*

(1) A flight instructor must perform all training from in an aircraft that complies with the requirements of § 91.109 of this chapter.

(2) A flight instructor who provides flight training for a pilot certificate or rating issued under this part must provide that flight training in an aircraft that meets the following requirements—

(i) The aircraft must have at least two pilot stations and be of the same category, class, and type, if appropriate, that applies to the pilot certificate or rating sought.

(ii) For single-place aircraft, the pre-solo flight training must have been provided in an aircraft that has two pilot stations and is of the same category, class, and type, if appropriate.

(h) *Qualifications of the flight instructor for training first-time flight instructor applicants.* (1) The ground training provided to an initial applicant for a flight instructor certificate must be given by an authorized instructor who—

(i) Holds a current ground or flight instructor certificate with the appropriate rating, has held that certificate for at least 24 months, and has given at least 40 hours of ground training; or

(ii) Holds a current ground or flight instructor certificate with the appropriate rating, and has given at least 100 hours of ground training in an FAA-approved course.

(2) Except for an instructor who meets the requirements of paragraph (h)(3)(ii) of this section, a flight instructor who provides training to an initial applicant for a flight instructor certificate must—

(i) Meet the eligibility requirements prescribed in § 61.183 of this part;

(ii) Hold the appropriate flight instructor certificate and rating;

(iii) Have held a flight instructor certificate for at least 24 months;

(iv) For training in preparation for an airplane, rotorcraft, or powered-lift rating, have given at least 200 hours of flight training as a flight instructor; and

(v) For training in preparation for a glider rating, have given at least 80 hours of flight training as a flight instructor.

(3) A flight instructor who serves as a flight instructor in an FAA-approved course for the issuance of a flight instructor rating must hold a current flight instructor certificate with the appropriate rating and pass the required initial and recurrent flight instructor proficiency tests, in accordance with the requirements of the part under which the FAA-approved course is conducted, and must—

(i) Meet the requirements of paragraph (h)(2) of this section; or

(ii) Have trained and endorsed at least five applicants for a practical test for a pilot certificate, flight instructor certificate, ground instructor certificate, or an additional rating, and at least 80 percent of those applicants passed that test on their first attempt; and

(A) Given at least 400 hours of flight training as a flight instructor for training in an airplane, a rotorcraft, or for a powered-lift rating; or

(B) Given at least 100 hours of flight training as a flight instructor, for training in a glider rating.

(i) *Prohibition against self-endorsements.* A flight instructor shall not make any self-endorsement for a certificate, rating, flight review, authorization, operating privilege, practical test, or knowledge test that is required by this part.

(j) A flight instructor may not give training in Category II or Category III operations unless the flight instructor has been trained and tested in Category II or Category III operations, pursuant to § 61.67 or § 61.68 of this part, as applicable.

§ 61.197 Renewal of flight instructor certificates.

(a) A person who holds a flight instructor certificate that has not expired may renew that certificate for an additional 24 calendar months if the holder:

(1) Passes a practical test for—

(i) Renewal of the flight instructor certificate; or

(ii) An additional flight instructor rating; or

(2) Presents to an authorized FAA Flight Standards Inspector—

(i) A record of training students that shows during the preceding 24 calendar months the flight instructor has endorsed at least five students for a practical test for a certificate or rating, and at least 80 percent of those students passed that test on the first attempt;

(ii) A record that shows that within the preceding 24 calendar months, the flight instructor has served as a company check pilot, chief flight instructor, company check airman, or flight instructor in a part 121 or part 135 operation, or in a position involving the regular evaluation of pilots, in which that authorized FAA Flight Standards Inspector is acquainted with the duties and responsibilities of the position, and has satisfactory knowledge of its current pilot training, certification, and standards; or

(iii) A graduation certificate showing the person has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her flight instructor certificate.

(b) If a person accomplishes the renewal requirements of paragraph (a)(1) or (a)(2) of this section within the 90 days preceding the expiration month of his or her flight instructor certificate:

(1) That person is considered to have accomplished the renewal requirement of this section in the month due; and

(2) The current flight instructor certificate will be renewed for an additional 24 calendar months from its expiration date.

(c) The practical test required by paragraph (a)(1) of this section may be accomplished in an approved flight simulator or approved flight training device if the test is accomplished pursuant to an approved course conducted by a training center certificated under part 142 of this chapter.

§ 61.199 Expired flight instructor certificates and ratings.

(a) *Flight instructor certificates.* The holder of an expired flight instructor certificate may exchange that certificate for a new certificate by passing a practical test prescribed in § 61.183(h) of this part.

(b) *Flight instructor ratings.* (1) A flight instructor rating or a limited flight instructor rating on a pilot certificate is no longer valid and may not be exchanged for a similar rating or a flight instructor certificate.

(2) The holder of a flight instructor rating or a limited flight instructor rating on a pilot certificate may be issued a flight instructor certificate with the current ratings, but only if the person passes the required knowledge and practical test prescribed in this subpart for the issuance of the current flight instructor certificate and rating.

§ 61.201 [Reserved]

Subpart I—Ground Instructors

§ 61.211 Applicability.

This subpart prescribes the requirements for the issuance of ground instructor certificates and ratings, the conditions under which those certificates and ratings are necessary, and the limitations upon those certificates and ratings.

§ 61.213 Eligibility requirements.

(a) To be eligible for a ground instructor certificate or rating a person must:

(1) Be at least 18 years of age;

(2) Be able to read, write, speak, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's ground instructor certificate as are necessary;

(3) Except as provided in paragraph (b) of this section, pass a knowledge test on the fundamentals of instructing to include—

(i) The learning process;

(ii) Elements of effective teaching;

(iii) Student evaluation and testing;

(iv) Course development;

(v) Lesson planning; and

(vi) Classroom training techniques.

(4) Pass a knowledge test on the aeronautical knowledge areas in—

(i) For a basic ground instructor rating, §§ 61.97 and 61.105;

(ii) For an advanced ground instructor rating, §§ 61.97, 61.105, 61.125, and 61.155; and

(iii) For an instrument ground instructor rating, § 61.65.

(b) The knowledge test specified in paragraph (a)(3) of this section is not required if the applicant:

(1) Holds a ground instructor certificate or flight instructor certificate issued under this part;

(2) Holds a current teacher's certificate issued by a State, county, city, or municipality that authorizes the person to teach at an educational level of the 7th grade or higher; or

(3) Is employed as a teacher at an accredited college or university.

§ 61.215 Ground instructor privileges.

(a) A person who holds a basic ground instructor rating is authorized to provide:

(1) Ground training in the aeronautical knowledge areas required for the issuance of a recreational pilot certificate, private pilot certificate, or associated ratings under this part;

(2) Ground training required for a recreational pilot and private pilot flight review; and

(3) A recommendation for a knowledge test required for the issuance of a recreational pilot certificate or private pilot certificate under this part.

(b) A person who holds an advanced ground instructor rating is authorized to provide:

(1) Ground training in the aeronautical knowledge areas required for the issuance of any certificate or rating under this part;

(2) Ground training required for any flight review; and

(3) A recommendation for a knowledge test required for the issuance of any certificate under this part.

(c) A person who holds an instrument ground instructor rating is authorized to provide:

(1) Ground training in the aeronautical knowledge areas required for the issuance of an instrument rating under this part;

(2) Ground training required for an instrument proficiency check; and

(3) A recommendation for a knowledge test required for the issuance of an instrument rating under this part.

(d) A person who holds a ground instructor certificate is authorized, within the limitations of the ratings on the ground instructor certificate, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in paragraphs (a) through (c) of this section.

§ 61.217 Currency requirements.

The holder of a ground instructor certificate may not perform the duties of a ground instructor unless, within the preceding 12 months:

(a) The person has served for at least 3 months as a ground instructor; or

(b) The Administrator has determined that the person meets the standards prescribed in this part for the certificate and rating.

4. Part 141 is revised to read as follows:

PART 141—PILOT SCHOOLS

Subpart A—General

Sec.
141.1 Applicability.
141.3 Certificate required.
141.5 Requirements for a pilot school certificate.
141.7 Provisional pilot school certificate.
141.9 Examining authority.
141.11 Pilot school ratings.
141.13 Application for issuance, amendment, or renewal.
141.15 Location of facilities.
141.17 Duration of certificate and examining authority.
141.18 Carriage of narcotic drugs, marijuana, and depressant or stimulant drugs or substances.
141.19 Display of certificate.
141.21 Inspections.
141.23 Advertising limitations.
141.25 Business office and operations base.
141.26 Training agreements.
141.27 Renewal of certificates and ratings.
141.29 [Reserved]

Subpart B—Personnel, Aircraft, and Facilities Requirements

141.31 Applicability.
141.33 Personnel.
141.35 Chief instructor qualifications.
141.36 Assistant chief instructor qualifications.
141.37 Check instructor qualifications.
141.38 Airports.
141.39 Aircraft.
141.41 Flight simulators, flight training devices, and training aids.
141.43 Pilot briefing areas.
141.45 Ground training facilities.

Subpart C—Training Course Outline and Curriculum

141.51 Applicability.
141.53 Approval procedures for a training course: General.
141.55 Training course: Contents.
141.57 Special curricula.

Subpart D—Examining Authority

141.61 Applicability.
141.63 Examining authority qualification requirements.
141.65 Privileges.
141.67 Limitations and reports.

Subpart E—Operating Rules

141.71 Applicability.
141.73 Privileges.
141.75 Aircraft requirements.
141.77 Limitations.
141.79 Flight training.
141.81 Ground training.
141.83 Quality of training.
141.85 Chief instructor responsibilities.
141.87 Change of chief instructor.
141.89 Maintenance of personnel, facilities, and equipment.
141.91 Satellite bases.
141.93 Enrollment.
141.95 Graduation certificate.

Subpart F—Records

141.101 Training records.

Appendix A to Part 141—Recreational Pilot Certification Course

Appendix B to Part 141—Private Pilot Certification Course

Appendix C to Part 141—Instrument Rating Course

Appendix D to Part 141—Commercial Pilot Certification Course

Appendix E to Part 141—Airline Transport Pilot Certification Course

Appendix F to Part 141—Flight Instructor Certification Course

Appendix G to Part 141—Flight Instructor Instrument (For an Airplane, Helicopter, or Powered-Lift Instrument Instructor Rating) Certification Course

Appendix H to Part 141—Ground Instructor Certification Course

Appendix I to Part 141—Additional Aircraft Category or Class Rating Course

Appendix J to Part 141—Aircraft Type Rating Course, For Other Than an Airline Transport Pilot Certificate

Appendix K to Part 141—Special Preparation Courses

Appendix L to Part 141—Pilot Ground School Course

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709, 44711, 45102–45103, 45301–45302.

Subpart A—General

§ 141.1 Applicability.

This part prescribes the requirements for issuing pilot school certificates, provisional pilot school certificates, and associated ratings, and the general operating rules applicable to a holder of a certificate or rating issued under this part.

§ 141.3 Certificate required.

No person may operate as a certificated pilot school without, or in violation of, a pilot school certificate or provisional pilot school certificate issued under this part.

§ 141.5 Requirements for a pilot school certificate.

An applicant may be issued a pilot school certificate with associated ratings if the applicant:

(a) Completes the application for a pilot school certificate on a form and in a manner prescribed by the Administrator;

(b) Holds a provisional pilot school certificate, issued under this part, for at least 24 calendar months preceding the month in which the application for a pilot school certificate is made;

(c) Meets the applicable requirements of subparts A through C of this part for the school ratings sought; and

(d) Has trained and recommended for pilot certification and rating tests, within 24 calendar months preceding the month the application is made for the pilot school certificate, at least 10 students for a knowledge or practical test for a pilot certificate, flight instructor certificate, ground instructor certificate, an additional rating, an end-of-course test for a training course specified in appendix K of this part, or any combination of those tests, and at least 80 percent of all tests administered were passed on the first attempt.

§ 141.7 Provisional pilot school certificate.

An applicant that meets the applicable requirements of subparts A, B, and C of this part, but does not meet the recent training activity requirements of § 141.5(d) of this part, may be issued a provisional pilot school certificate with ratings.

§ 141.9 Examining authority.

An applicant is issued examining authority for its pilot school certificate if the applicant meets the requirements of subpart D of this part.

§ 141.11 Pilot school ratings.

(a) The ratings listed in paragraph (b) of this section may be issued to an applicant for:

(1) A pilot school certificate, provided the applicant meets the requirements of § 141.5 of this part; or

(2) A provisional pilot school certificate, provided the applicant meets the requirements of § 141.7 of this part.

(b) An applicant may be authorized to conduct the following courses:

(1) *Certification and rating courses.* (Appendixes A through J).

(i) Recreational pilot course.

(ii) Private pilot course.

(iii) Commercial pilot course.

(iv) Instrument rating course.

(v) Airline transport pilot course.

(vi) Flight instructor course.

(vii) Flight instructor instrument course.

(viii) Ground instructor course.

(ix) Additional aircraft category or class rating course.

(x) Aircraft type rating course.

(2) *Special preparation courses.* (Appendix K).

(i) Pilot refresher course.

(ii) Flight instructor refresher course.

(iii) Ground instructor refresher course.

(iv) Agricultural aircraft operations course.

(v) Rotorcraft external-load operations course.

(vi) Special operations course.

(vii) Test pilot course.

(3) *Pilot ground school course.* (Appendix L).

§ 141.13 Application for issuance, amendment, or renewal.

(a) Application for an original certificate and rating, an additional rating, or the renewal of a certificate under this part must be made on a form and in a manner prescribed by the Administrator.

(b) Application for the issuance or amendment of a certificate or rating must be accompanied by two copies of each proposed training course curriculum for which approval is sought.

§ 141.15 Location of facilities.

The holder of a pilot school certificate or a provisional pilot school certificate may have a base or other facilities located outside the United States, provided the Administrator determines the location of the base and facilities at that place are needed for the training of students who are citizens of the United States.

§ 141.17 Duration of certificate and examining authority.

(a) Unless surrendered, suspended, or revoked, a pilot school's certificate or a provisional pilot school's certificate expires:

(1) On the last day of the 24th calendar month from the month the certificate was issued;

(2) Except as provided in paragraph (b) of this section, on the date that any change in ownership of the school occurs;

(3) On the date of any change in the facilities upon which the school's certificate is based occurs; or

(4) Upon notice by the Administrator that the school has failed for more than 60 days to maintain the facilities, aircraft, or personnel required for any one of the school's approved training courses.

(b) A change in the ownership of a pilot school or provisional pilot school does not terminate that school's certificate if, within 30 days after the date that any change in ownership of the school occurs:

(1) Application is made for an appropriate amendment to the certificate; and

(2) No change in the facilities, personnel, or approved training courses is involved.

(c) An examining authority issued to the holder of a pilot school certificate expires on the date that the pilot school certificate expires, or is surrendered, suspended, or revoked.

§ 141.18 Carriage of narcotic drugs, marijuana, and depressant or stimulant drugs or substances.

If the holder of a certificate issued under this part permits any aircraft owned or leased by that holder to be engaged in any operation that the certificate holder knows to be in violation of § 91.19(a) of this chapter, that operation is a basis for suspending or revoking the certificate.

§ 141.19 Display of certificate.

(a) Each holder of a pilot school certificate or a provisional pilot school certificate must display that certificate in a place in the school that is normally accessible to the public and is not obscured.

(b) A certificate must be made available for inspection upon request by:

(1) The Administrator;

(2) An authorized representative of the National Transportation Safety Board; or

(3) A Federal, State, or local law enforcement officer.

§ 141.21 Inspections.

Each holder of a certificate issued under this part must allow the Administrator to inspect its personnel, facilities, equipment, and records to determine the certificate holder's:

(a) Eligibility to hold its certificate;

(b) Compliance with 49 U.S.C. 40101 *et seq.*, formerly the Federal Aviation Act of 1958, as amended; and

(c) Compliance with the Federal Aviation Regulations.

§ 141.23 Advertising limitations.

(a) The holder of a pilot school certificate or a provisional pilot school certificate may not make any statement relating to its certification and ratings that is false or designed to mislead any person contemplating enrollment in that school.

(b) The holder of a pilot school certificate or a provisional pilot school certificate may not advertise that the school is certificated unless it clearly differentiates between courses that have been approved under part 141 of this chapter and those that have not been approved under part 141 of this chapter.

(c) The holder of a pilot school certificate or a provisional pilot school certificate must promptly remove:

(1) From vacated premises, all signs indicating that the school was certificated by the Administrator; or

(2) All indications (including signs), wherever located, that the school is certificated by the Administrator when its certificate has expired or has been surrendered, suspended, or revoked.

§ 141.25 Business office and operations base.

(a) Each holder of a pilot school or a provisional pilot school certificate must maintain a principal business office with a mailing address in the name shown on its certificate.

(b) The facilities and equipment at the principal business office must be adequate to maintain the files and records required to operate the business of the school.

(c) The principal business office may not be shared with, or used by, another pilot school.

(d) Before changing the location of the principal business office or the operations base, each certificate holder must notify the FAA Flight Standards District Office having jurisdiction over the area of the new location, and the notice must be:

(1) Submitted in writing at least 30 days before the change of location; and

(2) Accompanied by any amendments needed for the certificate holder's approved training course outline.

(e) A certificate holder may conduct training at an operations base other than the one specified in its certificate, if:

(1) The Administrator has inspected and approved the base for use by the certificate holder; and

(2) The course of training and any needed amendments have been approved for use at that base.

§ 141.26 Training agreements.

A training center certificated under part 142 of this chapter may provide the training, testing, and checking for pilot schools certificated under part 141 of this chapter, and is considered to meet the requirements of part 141, provided—

(a) There is a training agreement between the certificated training center and the pilot school;

(b) The training, testing, and checking provided by the certificated training center is approved and conducted under part 142;

(c) The pilot school certificated under part 141 obtains the Administrator's approval for a training course outline that includes the training, testing, and checking to be conducted under part 141 and the training, testing, and checking to be conducted under part 142; and

(d) Upon completion of the training, testing, and checking conducted under part 142, a copy of each student's training record is forwarded to the part 141 school and becomes part of the student's permanent training record.

§ 141.27 Renewal of certificates and ratings.

(a) *Pilot school.* (1) A pilot school may apply for renewal of its school certificate and ratings within 30 days preceding the month the pilot school's certificate expires, provided the school meets the requirements prescribed in paragraph (a)(2) of this section for renewal of its certificate and ratings.

(2) A pilot school may have its school certificate and ratings renewed for an additional 24 calendar months if the Administrator determines the school's personnel, aircraft, facility and airport, approved training courses, training records, and recent training ability and quality meet the requirements of this part.

(3) A pilot school that does not meet the renewal requirements in paragraph (a)(2) of this section, may apply for a provisional pilot school certificate if the school meets the requirements of § 141.7 of this part.

(b) *Provisional pilot school.* (1) Except as provided in paragraph (b)(3) of this section, a provisional pilot school may not have its provisional pilot school certificate or the ratings on that certificate renewed.

(2) A provisional pilot school may apply for a pilot school certificate and associated ratings provided that school meets the requirements of § 141.5 of this part.

(3) A former provisional pilot school may apply for another provisional pilot school certificate, provided 180 days have elapsed since its last provisional pilot school certificate expired.

§ 141.29 [Reserved]

Subpart B—Personnel, Aircraft, and Facilities Requirements

§ 141.31 Applicability.

(a) This subpart prescribes:

(1) The personnel and aircraft requirements for a pilot school certificate or a provisional pilot school certificate; and

(2) The facilities that a pilot school or provisional pilot school must have available on a continuous basis.

(b) As used in this subpart, to have continuous use of a facility, including an airport, the school must have:

(1) Ownership of the facility or airport for at least 6 calendar months at the time of application for initial certification and on the date of renewal of the school's certificate; or

(2) A written lease agreement for the facility or airport for at least 6 calendar months at the time of application for initial certification and on the date of renewal of the school's certificate.

§ 141.33 Personnel.

(a) An applicant for a pilot school certificate or for a provisional pilot school certificate must meet the following personnel requirements:

(1) Each applicant must have adequate personnel, including certificated flight instructors, certificated ground instructors, or holders of a commercial pilot certificate with a lighter-than-air rating, and a chief instructor for each approved course of training who is qualified and competent to perform the duties to which that instructor is assigned.

(2) If the school employs dispatchers, aircraft handlers, and line and service personnel, then it shall instruct those persons in the procedures and responsibilities of their employment.

(3) Each instructor to be used for ground or flight training must hold a flight instructor certificate, ground instructor certificate, or commercial pilot certificate with a lighter-than-air rating, as appropriate, with ratings for the approved course of training and any aircraft used in that course.

(b) An applicant for a pilot school certificate or for a provisional pilot school certificate shall designate a chief instructor for each of the school's approved training courses, who must meet the requirements of § 141.35 of this part.

(c) When necessary, an applicant for a pilot school certificate or for a provisional pilot school certificate may designate a person to be an assistant chief instructor for an approved training course, provided that person meets the requirements of § 141.36 of this part.

(d) A pilot school and a provisional pilot school may designate a person to be a check instructor for conducting student stage checks, end-of-course tests, and instructor proficiency checks, provided:

(1) That person meets the requirements of § 141.37 of this part; and

(2) That school has a student enrollment of at least 50 students at the time designation is sought.

(e) A person, as listed in this section, may serve in more than one position for a school, provided that person is qualified for each position.

§ 141.35 Chief instructor qualifications.

(a) To be eligible for designation as a chief instructor for a course of training, a person must meet the following requirements:

(1) Hold a commercial pilot certificate or an airline transport pilot certificate, and, except for a chief instructor for a course of training solely for a lighter-than-air rating, a current flight instructor certificate. The certificates must contain the appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

(2) Meet the pilot in command recent flight experience requirements of § 61.57 of this chapter;

(3) Pass a knowledge test on—

(i) Teaching methods;

(ii) Applicable provisions of the ''Aeronautical Information Manual'';

(iii) Applicable provisions of parts 61, 91, and 141 of this chapter; and

(iv) The objectives and approved course completion standards of the course for which the person seeks to obtain designation.

(4) Pass a proficiency test on instructional skills and ability to train students on the flight procedures and maneuvers appropriate to the course;

(5) Except for a course of training for gliders, balloons, or airships, the chief instructor must meet the applicable requirements in paragraphs (b), (c), and (d) of this section;

(6) A chief instructor for a course of training for gliders or balloons is only required to have 40 percent of the hours required in paragraphs (b) and (d) of this section; and

(7) A chief instructor for a course of training for airships is only required to have 40 percent of the hours required in paragraphs (b), (c), and (d) of this section.

(b) For a course of training leading to the issuance of a private pilot certificate or rating, a chief instructor must have:

(1) At least 1,000 hours as pilot in command; and

(2) Primary flight training experience, acquired as either a certificated flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 2 years and a total of 500 flight hours; or

(ii) 1,000 flight hours.

(c) For a course of training leading to the issuance of an instrument rating or a rating with instrument privileges, a chief instructor must have:

(1) At least 100 hours of flight time under actual or simulated instrument conditions;

(2) At least 1,000 hours as pilot in command; and

(3) Instrument flight instructor experience, acquired as either a certificated flight instructor-instrument or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 2 years and a total of 250 flight hours; or

(ii) 400 flight hours.

(d) For a course of training other than those leading to the issuance of a private pilot certificate or rating, or an instrument rating or a rating with instrument privileges, a chief instructor must have:

(1) At least 2,000 hours as pilot in command; and

(2) Flight training experience, acquired as either a certificated flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 3 years and a total of 1,000 flight hours; or

(ii) 1,500 flight hours.

(e) To be eligible for designation as chief instructor for a ground school course, a person must have 1 year of experience as a ground school instructor at a certificated pilot school.

§ 141.36 Assistant chief instructor qualifications.

(a) To be eligible for designation as an assistant chief instructor for a course of training, a person must meet the following requirements:

(1) Hold a commercial pilot or an airline transport pilot certificate and, except for the assistant chief instructor for a course of training for a lighter-than-air rating, a current flight instructor certificate. The certificates must contain the appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

(2) Meet the pilot in command recent flight experience requirements of § 61.57 of this chapter;

(3) Pass a knowledge test on—

(i) Teaching methods;

(ii) Applicable provisions of the ''Aeronautical Information Manual'';

(iii) Applicable provisions of parts 61, 91, and 141 of this chapter; and

(iv) The objectives and approved course completion standards of the course for which the person seeks to obtain designation.

(4) Pass a proficiency test on the flight procedures and maneuvers appropriate to that course; and

(5) Meet the applicable requirements in paragraphs (b), (c), and (d) of this section. However, an assistant chief instructor for a course of training for gliders, balloons, or airships is only required to have 40 percent of the hours required in paragraphs (b) and (c) of this section.

(b) For a course of training leading to the issuance of a private pilot certificate or rating, an assistant chief instructor must have:

(1) At least 500 hours as pilot in command; and

(2) Flight training experience, acquired as either a certificated flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 1 year and a total of 250 flight hours; or

(ii) 500 flight hours.

(c) For a course of training leading to the issuance of an instrument rating or a rating with instrument privileges, an assistant chief flight instructor must have:

(1) At least 50 hours of flight time under actual or simulated instrument conditions;

(2) At least 500 hours as pilot in command; and

(3) Instrument flight instructor experience, acquired as either a certificated flight instructor-instrument or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 1 year and a total of 125 flight hours; or

(ii) 200 flight hours.

(d) For a course of training other than one leading to the issuance of a private pilot certificate or rating, or an instrument rating or a rating with instrument privileges, an assistant chief instructor must have:

(1) At least 1,000 hours as pilot in command; and

(2) Flight training experience, acquired as either a certificated flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

(i) 1½ years and a total of 500 flight hours; or

(ii) 750 flight hours.

(e) To be eligible for designation as an assistant chief instructor for a ground school course, a person must have 6 months of experience as a ground school instructor at a certificated pilot school.

§ 141.37 Check instructor qualifications.

(a) To be designated as a check instructor for conducting student stage checks, end-of-course tests, and instructor proficiency checks under this part, a person must meet the eligibility requirements of this section:

(1) For checks and tests that relate to either flight or ground training, the person must pass a test, given by the chief instructor, on—

(i) Teaching methods;

(ii) Applicable provisions of the ''Aeronautical Information Manual'';

(iii) Applicable provisions of parts 61, 91, and 141 of this chapter; and

(iv) The objectives and course completion standards of the approved training course for the designation sought.

(2) For checks and tests that relate to a flight training course, the person must—

(i) Meet the requirements in paragraph (a)(1) of this section;

(ii) Hold a commercial pilot certificate or an airline transport pilot certificate and, except for a check instructor for a course of training for a lighter-than-air rating, a current flight instructor certificate. The certificates must contain the appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

(iii) Meet the pilot in command recent flight experience requirements of § 61.57 of this chapter; and

(iv) Pass a proficiency test, given by the chief instructor or assistant chief instructor, on the flight procedures and maneuvers of the approved training course for the designation sought.

(3) For checks and tests that relate to ground training, the person must—

(i) Meet the requirements in paragraph (a)(1) of this section;

(ii) Except for a course of training for a lighter-than-air rating, hold a current flight instructor certificate or ground instructor certificate with ratings appropriate to the category and class of aircraft used in the course; and

(iii) For a course of training for a lighter-than-air rating, hold a commercial pilot certificate with a lighter-than-air category rating and the appropriate class rating.

(b) A person who meets the eligibility requirements in paragraph (a) of this section must:

(1) Be designated, in writing, by the chief instructor to conduct student stage checks, end-of-course tests, and instructor proficiency checks; and

(2) Be approved by the FAA Flight Standards District Office having jurisdiction over the school.

(c) A check instructor may not conduct a stage check or an end-of-course test of any student for whom the check instructor has:

(1) Served as the principal instructor; or

(2) Recommended for a stage check or end-of-course test.

§ 141.38 Airports.

(a) An applicant for a pilot school certificate or a provisional pilot school certificate must show that he or she has continuous use of each airport at which training flights originate.

(b) Each airport used for airplanes and gliders must have at least one runway or takeoff area that allows training aircraft to make a normal takeoff or landing under the following conditions at the aircraft's maximum certificated takeoff gross weight:

(1) Under wind conditions of not more than 5 miles per hour;

(2) At temperatures equal to the mean high temperature for the hottest month of the year in the operating area;

(3) If applicable, with the powerplant operation, and landing gear and flap operation recommended by the manufacturer; and

(4) In the case of a takeoff—

(i) With smooth transition from liftoff to the best rate of climb speed without exceptional piloting skills or techniques; and

(ii) Clearing all obstacles in the takeoff flight path by at least 50 feet.

(c) Each airport must have a wind direction indicator that is visible from the end of each runway at ground level;

(d) Each airport must have a traffic direction indicator when:

(1) The airport does not have an operating control tower; and

(2) UNICOM advisories are not available.

(e) Except as provided in paragraph (f) of this section, each airport used for night training flights must have permanent runway lights; and

(f) An airport or seaplane base used for night training flights in seaplanes is permitted to use adequate nonpermanent lighting or shoreline lighting, if approved by the Administrator.

§ 141.39 Aircraft.

An applicant for a pilot school certificate or provisional pilot school certificate, and each pilot school or provisional pilot school, must show that each aircraft used by that school for flight training and solo flights meets the following requirements:

(a) Each aircraft must be registered as a civil aircraft in the United States;

(b) Each aircraft must be certificated with a standard airworthiness certificate or a primary airworthiness certificate, unless the Administrator determines that due to the nature of the approved course, an aircraft not having a standard airworthiness certificate or primary airworthiness certificate may be used;

(c) Each aircraft must be maintained and inspected in accordance with the requirements under subpart E of part 91 of this chapter that apply to aircraft operated for hire;

(d) Each aircraft used in flight training must have at least two pilot stations with engine-power controls that can be easily reached and operated in a normal manner from both pilot stations; and

(e) Each aircraft used in a course involving IFR en route operations and instrument approaches must be equipped and maintained for IFR operations. For training in the control and precision maneuvering of an aircraft by reference to instruments, the aircraft may be equipped as provided in the approved course of training.

§ 141.41 Flight simulators, flight training devices, and training aids.

An applicant for a pilot school certificate or a provisional pilot school certificate must show that its flight simulators, flight training devices, training aids, and equipment meet the following requirements:

(a) *Flight simulators.* Each flight simulator used to obtain flight training credit allowed for flight simulators in an approved pilot training course curriculum must—

(1) Be a full-size aircraft cockpit replica of a specific type of aircraft, or make, model, and series of aircraft;

(2) Include the hardware and software necessary to represent the aircraft in ground operations and flight operations;

(3) Use a force cueing system that provides cues at least equivalent to those cues provided by a 3 degree freedom of motion system;

(4) Use a visual system that provides at least a 45 degree horizontal field of view and a 30 degree vertical field of view simultaneously for each pilot; and

(5) Have been evaluated, qualified, and approved by the Administrator.

(b) *Flight training devices.* Each flight training device used to obtain flight

training credit allowed for flight training devices in an approved pilot training course curriculum must—

(1) Be a full-size replica of instruments, equipment panels, and controls of an aircraft, or set of aircraft, in an open flight deck area or in an enclosed cockpit, including the hardware and software for the systems installed that is necessary to simulate the aircraft in ground and flight operations;

(2) Need not have a force (motion) cueing or visual system; and

(3) Have been evaluated, qualified, and approved by the Administrator.

(c) *Training aids and equipment.* Each training aid, including any audiovisual aid, projector, tape recorder, mockup, chart, or aircraft component listed in the approved training course outline, must be accurate and appropriate to the course for which it is used.

§ 141.43 Pilot briefing areas.

(a) An applicant for a pilot school certificate or provisional pilot school certificate must show that the applicant has continuous use of a briefing area located at each airport at which training flights originate that is:

(1) Adequate to shelter students waiting to engage in their training flights;

(2) Arranged and equipped for the conduct of pilot briefings; and

(3) Except as provided in paragraph (c) of this section, for a school with an instrument rating or commercial pilot course, equipped with private landline or telephone communication to the nearest FAA Flight Service Station.

(b) A briefing area required by paragraph (a) of this section may not be used by the applicant if it is available for use by any other pilot school during the period it is required for use by the applicant.

(c) The communication equipment required by paragraph (a)(3) of this section is not required if the briefing area and the flight service station are located on the same airport, and are readily accessible to each other.

§ 141.45 Ground training facilities.

An applicant for a pilot school or provisional pilot school certificate must show that:

(a) Each room, training booth, or other space used for instructional purposes is heated, lighted, and ventilated to conform to local building, sanitation, and health codes; and

(b) The training facility is so located that the students in that facility are not distracted by the training conducted in other rooms, or by flight and maintenance operations on the airport.

Subpart C—Training Course Outline and Curriculum

§ 141.51 Applicability.

This subpart prescribes the curriculum and course outline requirements for the issuance of a pilot school certificate or provisional pilot school certificate and ratings.

§ 141.53 Approval procedures for a training course: General.

(a) *General.* An applicant for a pilot school certificate or provisional pilot school certificate must obtain the Administrator's approval of the outline of each training course for which certification and rating is sought.

(b) *Application.* (1) An application for the approval of an initial or amended training course must be submitted in duplicate to the FAA Flight Standards District Office having jurisdiction over the area where the school is based.

(2) An application for the approval of an initial or amended training course must be submitted at least 30 days before any training under that course, or any amendment thereto, is scheduled to begin.

(3) An application for amending a training course must be accompanied by two copies of the amendment.

(c) *Training courses.* (1) A training course submitted for approval prior to August 4, 1997 shall, if approved, retain that approval until 1 year after August 4, 1997.

(2) An applicant for a pilot school certificate or provisional pilot school certificate may request approval of the training courses specified in § 141.11(b) of this part.

§ 141.55 Training course: Contents.

(a) Each training course for which approval is requested must meet the minimum curriculum requirements in accordance with the appropriate appendix of this part.

(b) Except as provided in paragraphs (d) and (e) of this section, each training course for which approval is requested must meet the minimum ground and flight training time requirements in accordance with the appropriate appendix of this part.

(c) Each training course for which approval is requested must contain:

(1) A description of each room used for ground training, including the room's size and the maximum number of students that may be trained in the room at one time;

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, aircraft component, and other special training aids used for ground training;

(3) A description of each flight simulator or flight training device used for training;

(4) A listing of the airports at which training flights originate and a description of the facilities, including pilot briefing areas that are available for use by the school's students and personnel at each of those airports;

(5) A description of the type of aircraft including any special equipment used for each phase of training;

(6) The minimum qualifications and ratings for each instructor assigned to ground or flight training; and

(7) A training syllabus that includes the following information—

(i) The prerequisites for enrolling in the ground and flight portion of the course that include the pilot certificate and rating (if required by this part), training, pilot experience, and pilot knowledge;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) A description of what the course is expected to accomplish with regard to student learning;

(iv) The expected accomplishments and the standards for each stage of training; and

(v) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

(d) A pilot school may request and receive initial approval for a period of not more than 24 calendar months for any of the training courses of this part without specifying the minimum ground and flight training time requirements of this part, provided the following provisions are met:

(1) The school holds a pilot school certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(2) In addition to the information required by paragraph (c) of this section, the training course specifies planned ground and flight training time requirements for the course;

(3) The school does not request the training course to be approved for examining authority, nor may that school hold examining authority for that course; and

(4) The practical test or knowledge test for the course is to be given by—

(i) An FAA inspector; or

(ii) An examiner who is not an employee of the school.

(e) A certificated pilot school may request and receive final approval for any of the training courses of this part without specifying the minimum

ground and flight training time requirements of this part, provided the following conditions are met:

(1) The school has held initial approval for that training course for at least 24 calendar months.

(2) The school has—

(i) Trained at least 10 students in that training course within the preceding 24 calendar months and recommended those students for a pilot, flight instructor, or ground instructor certificate or rating; and

(ii) At least 80 percent of those students passed the practical or knowledge test, or any combination thereof, on the first attempt, and that test was given by—

(A) An FAA inspector; or

(B) An examiner who is not an employee of the school.

(3) In addition to the information required by paragraph (c) of this section, the training course specifies planned ground and flight training time requirements for the course.

(4) The school does not request that the training course be approved for examining authority nor may that school hold examining authority for that course.

§ 141.57 Special curricula.

An applicant for a pilot school certificate or provisional pilot school certificate may apply for approval to conduct a special course of airman training for which a curriculum is not prescribed in the appendixes of this part, if the applicant shows that the training course contains features that could achieve a level of pilot proficiency equivalent to that achieved by a training course prescribed in the appendixes of this part or the requirements of part 61 of this chapter.

Subpart D—Examining Authority

§ 141.61 Applicability.

This subpart prescribes the requirements for the issuance of examining authority to the holder of a pilot school certificate, and the privileges and limitations of that examining authority.

§ 141.63 Examining authority qualification requirements.

(a) A pilot school must meet the following prerequisites to receive initial approval for examining authority:

(1) The school must complete the application for examining authority on a form and in a manner prescribed by the Administrator;

(2) The school must hold a pilot school certificate and rating issued under this part;

(3) The school must have held the rating in which examining authority is sought for at least 24 consecutive calendar months preceding the month of application for examining authority;

(4) The training course for which examining authority is requested may not be a course that is approved without meeting the minimum ground and flight training time requirements of this part; and

(5) Within 24 calendar months after the date of application for examining authority, that school must meet the following requirements—

(i) The school must have trained at least 10 students in the training course for which examining authority is sought and recommended those students for a pilot, flight instructor, or ground instructor certificate or rating; and

(ii) At least 90 percent of those students passed the required practical or knowledge test, or any combination thereof, for the pilot, flight instructor, or ground instructor certificate or rating on the first attempt, and that test was given by—

(A) An FAA inspector; or

(B) An examiner who is not an employee of the school.

(b) A pilot school must meet the following requirements to retain approval of its examining authority:

(1) The school must complete the application for renewal of its examining authority on a form and in a manner prescribed by the Administrator;

(2) The school must hold a pilot school certificate and rating issued under this part;

(3) The school must have held the rating for which examining authority is sought for at least 24 calendar months preceding the month of application for renewal of its examining authority; and

(4) The training course for which examining authority is requested may not be a course that is approved without meeting the minimum ground and flight training time requirements of this part.

§ 141.65 Privileges.

A pilot school that holds examining authority may recommend a person who graduated from its course for the appropriate pilot, flight instructor, or ground instructor certificate or rating without taking the FAA knowledge test or practical test in accordance with the provisions of this subpart.

§ 141.67 Limitations and reports.

A pilot school that holds examining authority may only recommend the issuance of a pilot, flight instructor, or ground instructor certificate and rating to a person who does not take an FAA knowledge test or practical test, if the recommendation for the issuance of that certificate or rating is in accordance with the following requirements:

(a) The person graduated from a training course for which the pilot school holds examining authority.

(b) Except as provided in this paragraph, the person satisfactorily completed all the curriculum requirements of that pilot school's approved training course. A person who transfers from one part 141 approved pilot school to another part 141 approved pilot school may receive credit for that previous training, provided the following requirements are met:

(1) The maximum credited training time does not exceed one-half of the receiving school's curriculum requirements;

(2) The person completes a knowledge and proficiency test conducted by the receiving school for the purpose of determining the amount of pilot experience and knowledge to be credited;

(3) The receiving school determines (based on the person's performance on the knowledge and proficiency test required by paragraph (b)(2) of this section) the amount of credit to be awarded, and records that credit in the person's training record;

(4) The person who requests credit for previous pilot experience and knowledge obtained the experience and knowledge from another part 141 approved pilot school and training course; and

(5) The receiving school retains a copy of the person's training record from the previous school.

(c) Tests given by a pilot school that holds examining authority must be approved by the Administrator and be at least equal in scope, depth, and difficulty to the comparable knowledge and practical tests prescribed by the Administrator under part 61 of this chapter.

(d) A pilot school that holds examining authority may not use its knowledge or practical tests if the school:

(1) Knows, or has reason to believe, the test has been compromised; or

(2) Is notified by a FAA Flight Standards District Office that there is reason to believe or it is known that the test has been compromised.

(e) A pilot school that holds examining authority must maintain a record of all temporary airman certificates it issues, which consist of the following information:

(1) A chronological listing that includes—

(i) The date the temporary airman certificate was issued;

(ii) The student to whom the temporary airman certificate was issued, and that student's permanent mailing address and telephone number;

(iii) The training course from which the student graduated;

(iv) The name of person who conducted the knowledge or practical test;

(v) The type of temporary airman certificate or rating issued to the student; and

(vi) The date the student's airman application file was sent to the FAA for processing for a permanent airman certificate.

(2) A copy of the record containing each student's graduation certificate, airman application, temporary airman certificate, superseded airman certificate (if applicable), and knowledge test or practical test results; and

(3) The records required by paragraph (e) of this section must be retained for 1 year and made available to the Administrator upon request. These records must be surrendered to the Administrator when the pilot school ceases to have examining authority.

(f) Except for pilot schools that have an airman certification representative, when a student passes the knowledge test or practical test, the pilot school that holds examining authority must submit that student's airman application file and training record to the FAA for processing for the issuance of a permanent airman certificate.

Subpart E—Operating Rules

§ 141.71 Applicability.

This subpart prescribes the operating rules applicable to a pilot school or provisional pilot school certificated under the provisions of this part.

§ 141.73 Privileges.

(a) The holder of a pilot school certificate or a provisional pilot school certificate may advertise and conduct approved pilot training courses in accordance with the certificate and any ratings that it holds.

(b) A pilot school that holds examining authority for an approved training course may recommend a graduate of that course for the issuance of an appropriate pilot, flight instructor, or ground instructor certificate and rating, without taking an FAA knowledge test or practical test, provided the training course has been approved and meets the minimum ground and flight training time requirements of this part.

§ 141.75 Aircraft requirements.

(a) The following items must be carried on each aircraft used for flight training and solo flights:

(1) A pretakeoff and prelanding checklist; and

(2) The operator's handbook for the aircraft, if one is furnished by the manufacturer, or copies of the handbook if furnished to each student using the aircraft.

(b) Each aircraft used in the certification and rating courses listed in § 141.11 of this part must have a standard airworthiness certificate or a primary airworthiness certificate; and

(c) Each aircraft used in the agricultural aircraft operations, external-load operations, test pilot, and special operations courses listed in § 141.11 of this part may have a restricted airworthiness certificate, if its use for training is not prohibited by the aircraft's operating limitations.

§ 141.77 Limitations.

(a) The holder of a pilot school certificate or a provisional pilot school certificate may not issue a graduation certificate to a student, or recommend a student for a pilot certificate or rating, unless the student has:

(1) Completed the training specified in the pilot school's course of training; and

(2) Passed the required final tests.

(b) Except as provided in paragraph (c) of this section, the holder of a pilot school certificate or a provisional pilot school certificate may not graduate a student from a course of training unless the student has completed all of the curriculum requirements of that course;

(c) A student may be given credit towards the curriculum requirements of a course for previous pilot experience and knowledge, provided the following conditions are met:

(1) If the credit is based upon a part 141-approved training course, the credit given that student for the previous pilot experience and knowledge may be 50 percent of the curriculum requirements and must be based upon a proficiency test or knowledge test, or both, conducted by the receiving pilot school;

(2) If the credit is not based upon a part 141-approved training course, the credit given that student for the previous pilot experience and knowledge shall not exceed more than 25 percent of the curriculum requirements and must be based upon a proficiency test or knowledge test, or both, conducted by the receiving pilot school;

(3) The receiving school determines the amount of course credit to be transferred under paragraph (c)(1) or paragraph (c)(2) of this section, based on a proficiency test or knowledge test, or both, of the student; and

(4) Credit for training specified in paragraph (c)(1) or paragraph (c)(2) may be given if the previous provider of the training has certified the kind and amount of training provided, and the result of each stage check and end-of-course test, if applicable, given to the student.

§ 141.79 Flight training.

(a) No person other than a certificated flight instructor or commercial pilot with a lighter-than-air rating who has the ratings and the minimum qualifications specified in the approved training course outline may give a student flight training under an approved course of training.

(b) No student pilot may be authorized to start a solo practice flight from an airport until the flight has been approved by a certificated flight instructor or commercial pilot with a lighter-than-air rating who is present at that airport.

(c) Each chief instructor and assistant chief instructor assigned to a training course must complete, at least once every 12 calendar months, an approved syllabus of training consisting of ground or flight training, or both, or an approved flight instructor refresher course.

(d) Each certificated flight instructor or commercial pilot with a lighter-than-air rating who is assigned to a flight training course must satisfactorily complete the following tasks, which must be administered by the school's chief instructor, assistant chief instructor, or check instructor:

(1) Prior to receiving authorization to train students in a flight training course, accomplish—

(i) A review of and receive a briefing on the objectives and standards of that training course; and

(ii) An initial proficiency check in each make and model of aircraft used in that training course in which that person provides training; and

(2) Every 12 calendar months after the month in which the person last complied with paragraph (d)(1)(ii) of this section, accomplish a recurrent proficiency check in one of the aircraft the person trains students.

§ 141.81 Ground training.

(a) Except as provided in paragraph (b) of this section, each instructor who is assigned to a ground training course, must hold a flight or ground instructor certificate, or a commercial pilot certificate with a lighter-than-air rating

with the appropriate rating for that course of training.

(b) A person who does not meet the requirements of paragraph (a) of this section may be assigned ground training duties in a ground training course, if:

(1) The chief instructor who is assigned to that ground training course finds the person qualified to give that training; and

(2) The training is given while under the supervision of the chief instructor or the assistant chief instructor who is present at the facility when the training is given.

(c) An instructor may not be used in a ground training course until that instructor has been briefed in regard to the objectives and standards of that course by the chief instructor, assistant chief instructor, or check instructor.

§ 141.83 Quality of training.

(a) Each pilot school or provisional pilot school must meet the following requirements:

(1) Comply with its approved training course; and

(2) Provide training of such quality that meets the requirements of § 141.5(d) of this part.

(b) The failure of a pilot school or provisional pilot school to maintain the quality of training specified in paragraph (a) of this section may be the basis for suspending or revoking that school's certificate.

(c) When requested by the Administrator, a pilot school or provisional pilot school must allow the FAA to administer any knowledge test, practical test, stage check, or end-of-course test to its students.

(d) When a stage check or end-of-course test is administered by the FAA under the provisions of paragraph (c) of this section, and the student has not completed the training course, then that test will be based on the standards prescribed in the school's approved training course.

(e) If the practical test or knowledge test administered by the FAA under the provisions of paragraph (c) of this section is given to a student who has completed the school's training course, that test will be based upon the areas of operation approved by the Administrator.

§ 141.85 Chief instructor responsibilities.

(a) Each person designated as a chief instructor for a pilot school or provisional pilot school shall be responsible for:

(1) Certifying each student's training record, graduation certificate, stage check and end-of-course test reports, recommendation for course completion, and application;

(2) Ensuring that each certificated flight instructor, certificated ground instructor, or commercial pilot with a lighter-than-air rating passes an initial proficiency check prior to that instructor being assigned instructing duties in the school's approved training course and thereafter that the instructor passes a recurrent proficiency check every 12 calendar months after the month in which the initial test was accomplished;

(3) Ensuring that each student accomplishes the required stage checks and end-of-course tests in accordance with the school's approved training course; and

(4) Maintaining training techniques, procedures, and standards for the school that are acceptable to the Administrator.

(b) The chief instructor or an assistant chief instructor must be available at the pilot school or, if away from the pilot school, be available by telephone, radio, or other electronic means during the time that training is given for an approved training course.

(c) The chief instructor may delegate authority for conducting stage checks, end-of-course tests, and flight instructor proficiency checks to the assistant chief instructor or a check instructor.

§ 141.87 Change of chief instructor.

Whenever a pilot school or provisional pilot school makes a change of designation of its chief instructor, that school:

(a) Must immediately provide the FAA Flight Standards District Office that has jurisdiction over the area in which the school is located with written notification of the change;

(b) May conduct training without a chief instructor for that training course for a period not to exceed 60 days while awaiting the designation and approval of another chief instructor;

(c) May, for a period not to exceed 60 days, have the stage checks and end-of-course tests administered by:

(1) The training course's assistant chief instructor, if one has been designated;

(2) The training course's check instructor, if one has been designated;

(3) An FAA inspector; or

(4) An examiner.

(d) Must, after 60 days without a chief instructor, cease operations and surrender its certificate to the Administrator; and

(e) May have its certificate reinstated, upon:

(1) Designating and approving another chief instructor;

(2) Showing it meets the requirements of § 141.27(a)(2) of this part; and

(3) Applying for reinstatement on a form and in a manner prescribed by the Administrator.

§ 141.89 Maintenance of personnel, facilities, and equipment.

The holder of a pilot school certificate or provisional pilot school certificate may not provide training to a student who is enrolled in an approved course of training unless:

(a) Each airport, aircraft, and facility necessary for that training meets the standards specified in the holder's approved training course outline and the appropriate requirements of this part; and

(b) Except as provided in § 141.87 of this part, each chief instructor, assistant chief instructor, check instructor, or instructor meets the qualifications specified in the holder's approved course of training and the appropriate requirements of this part.

§ 141.91 Satellite bases.

The holder of a pilot school certificate or provisional pilot school certificate may conduct ground training or flight training in an approved course of training at a base other than its main operations base if:

(a) An assistant chief instructor is designated for each satellite base, and that assistant chief instructor is available at the satellite pilot school or, if away from the premises, by telephone, radio, or other electronic means during the time that training is provided for an approved training course;

(b) The airport, facilities, and personnel used at the satellite base meet the appropriate requirements of subpart B of this part and its approved training course outline;

(c) The instructors are under the direct supervision of the chief instructor or assistant chief instructor for the appropriate training course, who is readily available for consultation in accordance with § 141.85(b) of this part; and

(d) The FAA Flight Standards District Office having jurisdiction over the area in which the school is located is notified in writing if training is conducted at a base other than the school's main operations base for more than 7 consecutive days.

§ 141.93 Enrollment.

(a) The holder of a pilot school certificate or a provisional pilot school certificate shall, at the time a student is enrolled in an approved training course, furnish that student with a copy of the following:

(1) A certificate of enrollment containing—

(i) The name of the course in which the student is enrolled; and

(ii) The date of that enrollment.

(2) A copy of the student's training syllabus.

(3) A copy of the safety procedures and practices developed by the school that describe the use of school's facilities and the operation of its aircraft. Those procedures and practices shall include training on at least the following information—

(i) The weather minimums required by the school for dual and solo flights;

(ii) The procedures for starting and taxiing aircraft on the ramp;

(iii) Fire precautions and procedures;

(iv) Redispatch procedures after unprogrammed landings, on and off airports;

(v) Aircraft discrepancies and write-offs;

(vi) Securing of aircraft when not in use;

(vii) Fuel reserves necessary for local and cross-country flights;

(viii) Avoidance of other aircraft in flight and on the ground;

(ix) Minimum altitude limitations and simulated emergency landing instructions; and

(x) A description of and instructions regarding the use of assigned practice areas.

(b) The holder of a pilot school certificate or provisional pilot school certificate must maintain a monthly listing of persons enrolled in each training course offered by the school.

§ 141.95 Graduation certificate.

(a) The holder of a pilot school certificate or provisional pilot school certificate shall issue a graduation certificate to each student who completes its approved course of training.

(b) The graduation certificate must be issued to the student upon completion of the course of training and contain at least the following information:

(1) The name of the school and the certificate number of the school;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training including the tests for those stages;

(6) A certification of the information contained on the graduation certificate by the chief instructor for that course of training; and

(7) A statement showing the cross-country training that the student received in the course of training.

Subpart F—Records

§ 141.101 Training records.

(a) Each holder of a pilot school certificate or provisional pilot school certificate must establish and maintain a current and accurate record of the participation of each student enrolled in an approved course of training conducted by the school that includes the following information:

(1) The date the student was enrolled in the approved course;

(2) A chronological log of the student's course attendance, subjects, and flight operations covered in the student's training, and the names and grades of any tests taken by the student; and

(3) The date the student graduated, terminated training, or transferred to another school.

(b) The records required to be maintained in a student's logbook will not suffice for the record required by paragraph (a) of this section.

(c) Whenever a student graduates, terminates training, or transfers to another school, the student's record must be certified to that effect by the chief instructor.

(d) The holder of a pilot school certificate or a provisional pilot school certificate must retain each student record required by this section for at least 1 year from the date that the student:

(1) Graduates from the course to which the record pertains;

(2) Terminates enrollment in the course to which the record pertains; or

(3) Transfers to another school.

(e) The holder of a pilot school certificate or a provisional pilot school certificate must make a copy of the student's training record available to the student upon request.

Appendix A tp Part 141—Recreational Pilot Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum required for a recreational pilot certification course under this part, for the following ratings:

(a) Airplane single-engine.

(b) Rotorcraft helicopter.

(c) Rotorcraft gyroplane.

2. *Eligibility for enrollment.* A person must hold a student pilot certificate prior to enrolling in the flight portion of the recreational pilot certification course.

3. *Aeronautical knowledge training.* Each approved course must include at least 20 hours of ground training on the following aeronautical knowledge areas, appropriate to the aircraft category and class for which the course applies:

(a) Applicable Federal Aviation Regulations for recreational pilot privileges, limitations, and flight operations;

(b) Accident reporting requirements of the National Transportation Safety Board;

(c) Applicable subjects in the ''Aeronautical Information Manual'' and the appropriate FAA advisory circulars;

(d) Use of aeronautical charts for VFR navigation using pilotage with the aid of a magnetic compass;

(e) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(f) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(g) Effects of density altitude on takeoff and climb performance;

(h) Weight and balance computations;

(i) Principles of aerodynamics, powerplants, and aircraft systems;

(j) Stall awareness, spin entry, spins, and spin recovery techniques, if applying for an airplane single-engine rating;

(k) Aeronautical decision making and judgment; and

(l) Preflight action that includes—

(1) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(2) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

4. *Flight training.* (a) Each approved course must include at least 30 hours of flight training (of which 15 hours must be with a certificated flight instructor and 3 hours must be solo flight training) on the approved areas of operation listed in paragraph (c) of this section that are appropriate to the aircraft category and class rating for which the course applies, including:

(1) Except as provided in § 61.100 of this chapter, 2 hours of dual flight training to and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with at least three takeoffs and three landings; and

(2) 3 hours of dual flight training in an aircraft that is appropriate to the aircraft category and class for which the course applies, in preparation for the practical test within 60 days preceding the date of the test.

(b) Each training flight must include a preflight briefing and a postflight critique of the student by the flight instructor assigned to that flight.

(c) Flight training must include the following approved areas of operation appropriate to the aircraft category and class rating—

(1) *For an airplane single-engine course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Emergency operations; and

(x) Postflight procedures.

(2) *For a rotorcraft helicopter course:* (i) Preflight preparation;

(ii) Preflight procedures;
(iii) Airport and heliport operations;
(iv) Hovering maneuvers;
(v) Takeoffs, landings, and go-arounds;
(vi) Performance maneuvers;
(vii) Navigation;
(viii) Emergency operations; and
(ix) Postflight procedures.

(3) *For a rotorcraft gyroplane course:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Airport operations;
(iv) Takeoffs, landings, and go-arounds;
(v) Performance maneuvers;
(vi) Ground reference maneuvers;
(vii) Navigation;
(viii) Flight at slow airspeeds;
(ix) Emergency operations; and
(x) Postflight procedures.

5. *Solo flight training.* Each approved course must include at least 3 hours of solo flight training on the approved areas of operation listed in paragraph (c) of section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies.

6. *Stage checks and end-of-course tests.* (a) Each student enrolled in a recreational pilot course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (c) of section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies.

(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix B—Private Pilot Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a private pilot certification course required under this part, for the following ratings:
(a) Airplane single-engine.
(b) Airplane multiengine.
(c) Rotorcraft helicopter.
(d) Rotorcraft gyroplane.
(e) Powered-lift.
(f) Glider.
(g) Lighter-than-air airship.
(h) Lighter-than-air balloon.

2. *Eligibility for enrollment.* A person must hold a recreational or student pilot certificate prior to enrolling in the flight portion of the private pilot certification course.

3. *Aeronautical knowledge training.*

(a) Each approved course must include at least the following ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the aircraft category and class rating:

(1) 35 hours of training if the course is for an airplane, rotorcraft, or powered-lift category rating.

(2) 15 hours of training if the course is for a glider category rating.

(3) 10 hours of training if the course is for a lighter-than-air category with a balloon class rating.

(4) 35 hours of training if the course is for a lighter-than-air category with an airship class rating.

(b) Ground training must include the following aeronautical knowledge areas:

(1) Applicable Federal Aviation Regulations for private pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Applicable subjects of the ''Aeronautical Information Manual'' and the appropriate FAA advisory circulars;

(4) Aeronautical charts for VFR navigation using pilotage, dead reckoning, and navigation systems;

(5) Radio communication procedures;

(6) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(7) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(8) Effects of density altitude on takeoff and climb performance;

(9) Weight and balance computations;

(10) Principles of aerodynamics, powerplants, and aircraft systems;

(11) If the course of training is for an airplane category or glider category rating, stall awareness, spin entry, spins, and spin recovery techniques;

(12) Aeronautical decision making and judgment; and

(13) Preflight action that includes—

(i) How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and

(ii) How to plan for alternatives if the planned flight cannot be completed or delays are encountered.

4. *Flight training.* (a) Each approved course must include at least the following flight training, as provided in this section and section No. 5 of this appendix, on the approved areas of operation listed in paragraph (d) of this section, appropriate to the aircraft category and class rating:

(1) 35 hours of training if the course is for an airplane, rotorcraft, powered-lift, or airship rating.

(2) 6 hours of training if the course is for a glider rating.

(3) 8 hours of training if the course is for a balloon rating.

(b) Each approved course must include at least the following flight training:

(1) *For an airplane single-engine course:* 20 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(1) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in a single-engine airplane;

(ii) 3 hours of night flight training in a single-engine airplane that includes—

(A) One cross-country flight of more than 100-nautical-miles total distance; and

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of instrument training in a single-engine airplane; and

(iv) 3 hours of flight training in a single-engine airplane in preparation for the practical test within 60 days preceding the date of the test.

(2) *For an airplane multiengine course:* 20 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(2) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in a multiengine airplane;

(ii) 3 hours of night flight training in a multiengine airplane that includes—

(A) One cross-country flight of more than 100-nautical-miles total distance; and

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of instrument training in a multiengine airplane; and

(iv) 3 hours of flight training in a multiengine airplane in preparation for the practical test within 60 days preceding the date of the test.

(3) *For a rotorcraft helicopter course:* 20 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(3) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in a helicopter.

(ii) 3 hours of night flight training in a helicopter that includes—

(A) One cross-country flight of more than 50-nautical-miles total distance; and

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of flight training in a helicopter in preparation for the practical test within 60 days preceding the date of the test.

(4) *For a rotorcraft gyroplane course:* 20 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(4) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in a gyroplane.

(ii) 3 hours of night flight training in a gyroplane that includes—

(A) One cross-country flight over 50-nautical-miles total distance; and

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of flight training in a gyroplane in preparation for the practical test within 60 days preceding the date of the test.

(5) *For a powered-lift course:* 20 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(5) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in a powered-lift;

(ii) 3 hours of night flight training in a powered-lift that includes—

(A) One cross-country flight of more than 100-nautical-miles total distance; and

(B) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of instrument training in a powered-lift; and

(iv) 3 hours of flight training in a powered-lift in preparation for the practical test, within 60 days preceding the date of the test.

(6) *For a glider course:* 4 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(6) of this section that includes at least—

(i) Five training flights in a glider on launch/tow procedures approved for the course and in the appropriate approved areas of operation listed in paragraph (d)(6) of this section; and

(ii) Three training flights in a glider in preparation for the practical test within 60 days preceding the date of the test.

(7) *For a lighter-than-air airship course:* 20 hours of flight training from a commercial pilot with an airship rating on the approved areas of operation in paragraph (d)(7) of this section that includes at least—

(i) Except as provided in § 61.111 of this chapter, 3 hours of cross-country flight training in an airship;

(ii) 3 hours of night flight training in an airship that includes—

(A) One cross-country flight over 25-nautical-miles total distance; and

(B) Five takeoffs and five landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(iii) 3 hours of instrument training in an airship; and

(iv) 3 hours of flight training in an airship in preparation for the practical test within 60 days preceding the date of the test.

(8) *For a lighter-than-air balloon course:* 8 hours of flight training, including at least five flights, from a commercial pilot with a balloon rating on the approved areas of operation in paragraph (d)(8) of this section, that includes—

(i) If the training is being performed in a gas balloon—

(A) Two flights of 1 hour each;

(B) One flight involving a controlled ascent to 3,000 feet above the launch site; and

(C) Two flights in preparation for the practical test within 60 days preceding the date of the test.

(ii) If the training is being performed in a balloon with an airborne heater—

(A) Two flights of 30 minutes each;

(B) One flight involving a controlled ascent to 2,000 feet above the launch site; and

(C) Two flights in preparation for the practical test within 60 days preceding the date of the test.

(c) For use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part may be credited for a maximum of 15 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part may be credited for a maximum of 7.5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in flight simulators or flight training devices described in paragraphs (c)(2) and (c)(3) of this section, if used in combination, may be credited for a maximum of 15 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (c)(3) of this section.

(d) Each approved course must include the flight training on the approved areas of operation listed in this paragraph that are appropriate to the aircraft category and class rating—

(1) *For a single-engine airplane course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Basic instrument maneuvers;

(x) Emergency operations;

(xi) Night operations, and

(xii) Postflight procedures.

(2) *For a multiengine airplane course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Basic instrument maneuvers;

(x) Emergency operations;

(xi) Multiengine operations;

(xii) Night operations; and

(xiii) Postflight procedures.

(3) For a rotorcraft helicopter course: (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Navigation;

(viii) Emergency operations;

(ix) Night operations; and

(x) Postflight procedures.

(4) For a rotorcraft gyroplane course:

(i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Flight at slow airspeeds;

(ix) Emergency operations;

(x) Night operations; and

(xi) Postflight procedures.

(5) *For a powered-lift course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Ground reference maneuvers;

(viii) Navigation;

(ix) Slow flight and stalls;

(x) Basic instrument maneuvers;

(xi) Emergency operations;

(xii) Night operations; and

(xiii) Postflight procedures.

(6) *For a glider course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and gliderport operations;

(iv) Launches/tows, as appropriate, and landings;

(v) Performance speeds;

(vi) Soaring techniques;

(vii) Performance maneuvers;

(viii) Navigation;

(ix) Slow flight and stalls;

(x) Emergency operations; and

(xi) Postflight procedures.

(7) *For a lighter-than-air airship course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Ground reference maneuvers;

(vii) Navigation;

(viii) Emergency operations; and

(ix) Postflight procedures.

(8) *For a lighter-than-air balloon course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Launches and landings;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Emergency operations; and

(viii) Postflight procedures.

5. *Solo flight training.* Each approved course must include at least the following solo flight training:

(a) *For an airplane single-engine course:* 5 hours of solo flight training in a single-engine airplane on the approved areas of operation in paragraph (d)(1) of section No. 4 of this appendix that includes at least—

(1) One solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(2) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(b) *For an airplane multiengine course:* 5 hours of flight training in a multiengine airplane performing the functions of a pilot in command while under the supervision of a certificated flight instructor. The training shall consist of the approved areas of operation in paragraph (d)(2) of section No. 4 of this appendix, and include at least—

(1) One cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(2) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(c) *For a rotorcraft helicopter course:* 5 hours of solo flight training in a helicopter

on the approved areas of operation in paragraph (d)(3) of section No. 4 of this appendix that includes at least—

(1) One solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and

(2) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(d) *For a rotorcraft gyroplane course:* 5 hours of solo flight training in gyroplanes on the approved areas of operation in paragraph (d)(4) of section No. 4 of this appendix that includes at least—

(1) One solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and

(2) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(e) *For a powered-lift course:* 5 hours of solo flight training in a powered-lift on the approved areas of operation in paragraph (d)(5) of section No. 4 of this appendix that includes at least—

(1) One solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and

(2) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

(f) *For a glider course:* Two solo flights in a glider on the approved areas of operation in paragraph (d)(6) of section No. 4 of this appendix, and the launch and tow procedures appropriate for the approved course.

(g) *For a lighter-than-air airship course:* 5 hours of flight training in an airship performing the functions of pilot in command while under the supervision of a commercial pilot with an airship rating. The training shall consist of the approved areas of operation in paragraph (d)(7) of section No. 4 of this appendix.

(h) *For a lighter-than-air balloon course:* Two solo flights in a balloon with an airborne heater if the course involves a balloon with an airborne heater, or, if the course involves a gas balloon, at least two flights in a gas balloon performing the functions of pilot in command while under the supervision of a commercial pilot with a balloon rating. The training shall consist of the approved areas of operation in paragraph (d)(8) of section No. 4 of this appendix, in the kind of balloon for which the course applies.

6. *Stage checks and end-of-course tests.*

(a) Each student enrolled in a private pilot course must satisfactorily accomplish the stage checks and end-of-course tests in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (d) of section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies.

(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix C to Part 141—Instrument Rating Course

1. *Applicability.* This appendix prescribes the minimum curriculum for an instrument rating course and an additional instrument rating course, required under this part, for the following ratings:

(a) Instrument—airplane.

(b) Instrument—helicopter.

(c) Instrument—powered-lift.

2. *Eligibility for enrollment.* A person must hold at least a private pilot certificate with an aircraft category and class rating appropriate to the instrument rating for which the course applies prior to enrolling in the flight portion of the instrument rating course.

3. *Aeronautical knowledge training.* (a) Each approved course must include at least the following ground training on the aeronautical knowledge areas listed in paragraph (b) of this section appropriate to the instrument rating for which the course applies:

(1) 30 hours of training if the course is for an initial instrument rating.

(2) 20 hours of training if the course is for an additional instrument rating.

(b) Ground training must include the following aeronautical knowledge areas:

(1) Applicable Federal Aviation Regulations for IFR flight operations;

(2) Appropriate information in the ''Aeronautical Information Manual'';

(3) Air traffic control system and procedures for instrument flight operations;

(4) IFR navigation and approaches by use of navigation systems;

(5) Use of IFR en route and instrument approach procedure charts;

(6) Procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions;

(7) Safe and efficient operation of aircraft under instrument flight rules and conditions;

(8) Recognition of critical weather situations and windshear avoidance;

(9) Aeronautical decision making and judgment; and

(10) Crew resource management, to include crew communication and coordination.

4. *Flight training.* (a) Each approved course must include at least the following flight training on the approved areas of operation listed in paragraph (d) of this section, appropriate to the instrument-aircraft category and class rating for which the course applies:

(1) 35 hours of instrument training if the course is for an initial instrument rating.

(2) 15 hours of instrument training if the course is for an additional instrument rating.

(b) For the use of flight simulators or flight training devices—

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part may be credited for a maximum of 25 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (b)(3) of this section.

(c) Each approved course must include the following flight training—

(1) *For an instrument airplane course:* Instrument training time from a certificated flight instructor with an instrument rating on the approved areas of operation in paragraph (d) of this section including at least one cross-country flight that—

(i) Is in the category and class of airplane that the course is approved for, and is performed under IFR;

(ii) Is a distance of at least 250 nautical miles along airways or ATC-directed routing with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports;

(iii) Involves an instrument approach at each airport; and

(iv) Involves three different kinds of approaches with the use of navigation systems.

(2) *For an instrument helicopter course:* Instrument training time from a certificated flight instructor with an instrument rating on the approved areas of operation in paragraph (d) of this section including at least one cross-country flight that—

(i) Is in a helicopter and is performed under IFR;

(ii) Is a distance of at least 100 nautical miles along airways or ATC-directed routing with one segment of the flight consisting of at least a straight-line distance of 50 nautical miles between airports;

(iii) Involves an instrument approach at each airport; and

(iv) Involves three different kinds of approaches with the use of navigation systems.

(3) *For an instrument powered-lift course:* Instrument training time from a certificated flight instructor with an instrument rating on the approved areas of operation in paragraph (d) of this section including at least one cross-country flight that—

(i) Is in a powered-lift and is performed under IFR;

(ii) Is a distance of at least 250 nautical miles along airways or ATC-directed routing with one segment of the flight consisting of

at least a straight-line distance of 100 nautical miles between airports;

(iii) Involves an instrument approach at each airport; and

(iv) Involves three different kinds of approaches with the use of navigation systems.

(d) Each approved course must include the flight training on the approved areas of operation listed in this paragraph appropriate to the instrument aircraft category and class rating for which the course applies:

(1) Preflight preparation;

(2) Preflight procedures;

(3) Air traffic control clearances and procedures;

(4) Flight by reference to instruments;

(5) Navigation systems;

(6) Instrument approach procedures;

(7) Emergency operations; and

(8) Postflight procedures.

5. *Stage checks and end-of-course tests.* Each student enrolled in an instrument rating course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (d) of section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies.

Appendix D to Part 141—Commercial Pilot Ccrtification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a commercial pilot certification course required under this part, for the following ratings:

(a) Airplane single-engine.

(b) Airplane multiengine.

(c) Rotorcraft helicopter.

(d) Rotorcraft gyroplane.

(e) Powered-lift.

(f) Glider.

(g) Lighter-than-air airship.

(h) Lighter-than-air balloon.

2. *Eligibility for enrollment.* A person must hold the following prior to enrolling in the flight portion of the commercial pilot certification course:

(a) At least a private pilot certificate; and

(b) If the course is for a rating in an airplane or a powered-lift category, then the person must:

(1) Hold an instrument rating in the aircraft that is appropriate to the aircraft category rating for which the course applies; or

(2) Be concurrently enrolled in an instrument rating course that is appropriate to the aircraft category rating for which the course applies, and pass the required instrument rating practical test prior to completing the commercial pilot certification course.

3. *Aeronautical knowledge training.* (a) Each approved course must include at least the following ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the aircraft category and class rating for which the course applies:

(1) 65 hours of training if the course is for an airplane category rating, powered-lift category rating, or a lighter-than-air category with an airship class rating.

(2) 30 hours of training if the course is for a rotorcraft category rating.

(3) 20 hours of training if the course is for a glider category rating.

(4) 20 hours of training if the course is for a lighter-than-air category with a balloon class rating.

(b) Ground training must include the following aeronautical knowledge areas:

(1) Federal Aviation Regulations that apply to commercial pilot privileges, limitations, and flight operations;

(2) Accident reporting requirements of the National Transportation Safety Board;

(3) Basic aerodynamics and the principles of flight;

(4) Meteorology, to include recognition of critical weather situations, windshear recognition and avoidance, and the use of aeronautical weather reports and forecasts;

(5) Safe and efficient operation of aircraft;

(6) Weight and balance computations;

(7) Use of performance charts;

(8) Significance and effects of exceeding aircraft performance limitations;

(9) Use of aeronautical charts and a magnetic compass for pilotage and dead reckoning;

(10) Use of air navigation facilities;

(11) Aeronautical decision making and judgment;

(12) Principles and functions of aircraft systems;

(13) Maneuvers, procedures, and emergency operations appropriate to the aircraft;

(14) Night and high-altitude operations;

(15) Descriptions of and procedures for operating within the National Airspace System; and

(16) Procedures for flight and ground training for lighter-than-air ratings.

4. *Flight training.* (a) Each approved course must include at least the following flight training, as provided in this section and section No. 5 of this appendix, on the approved areas of operation listed in paragraph (d) of this section that are appropriate to the aircraft category and class rating for which the course applies:

(1) 155 hours of training if the course is for an airplane, powered-lift, or an airship rating.

(2) 115 hours of training if the course is for a rotorcraft rating.

(3) 6 hours of training if the course is for a glider rating.

(4) 10 hours and 8 training flights if the course is for a balloon rating.

(b) Each approved course must include at least the following flight training:

(1) *For an airplane single-engine course:* 55 hours of flight training from a certificated flight instructor on the approved areas of operation listed in paragraph (d)(1) of this section that includes at least—

(i) 5 hours of instrument training in a single-engine airplane;

(ii) 10 hours of training in a single-engine airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One cross-country flight in a single-engine airplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in day VFR conditions;

(iv) One cross-country flight in a single-engine airplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(v) 3 hours in a single-engine airplane in preparation for the practical test within 60 days preceding the date of the test.

(2) *For an airplane multiengine course:* 55 hours of flight training from a certificated flight instructor on the approved areas of operation listed in paragraph (d)(2) of this section that includes at least—

(i) 5 hours of instrument training in a multiengine airplane;

(ii) 10 hours of training in a multiengine airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One cross-country flight in a multiengine airplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in day VFR conditions;

(iv) One cross-country flight in a multiengine airplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(v) 3 hours in a multiengine airplane in preparation for the practical test within 60 days preceding the date of the test.

(3) *For a rotorcraft helicopter course:* 30 hours of flight training from a certificated flight instructor on the approved areas of operation listed in paragraph (d)(3) of this section that includes at least—

(i) 5 hours of instrument training;

(ii) One cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure and occurring in day VFR conditions;

(iii) One cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(iv) 3 hours in a helicopter in preparation for the practical test within 60 days preceding the date of the test.

(4) *For a rotorcraft gyroplane course:* 30 hours of flight training from a certificated flight instructor on the approved areas of operation listed in paragraph (d)(4) of this section that includes at least—

(i) 5 hours of instrument training;

(ii) One cross-country flight in a gyroplane of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in day VFR conditions;

(iii) One cross-country flight in a gyroplane of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(iv) 3 hours in a gyroplane in preparation for the practical test within 60 days preceding the date of the test.

(5) *For a powered-lift course:* 55 hours of flight training from a certificated flight instructor on the approved areas of operation

listed in paragraph (d)(5) of this section that includes at least—

(i) 5 hours of instrument training in a powered-lift;

(ii) One cross-country flight in a powered-lift of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in day VFR conditions;

(iii) One cross-country flight in a powered-lift of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(iv) 3 hours in a powered-lift in preparation for the practical test within 60 days preceding the date of the test.

(6) *For a glider course:* 4 hours of flight training from a certificated flight instructor on the approved areas of operation in paragraph (d)(6) of this section, that includes at least—

(i) Five training flights in a glider on launch/tow procedures approved for the course and on the appropriate approved areas of operation listed in paragraph (d)(6) of this section; and

(ii) Three training flights in a glider in preparation for the practical test within the 60 days preceding the date of the test.

(7) *For a lighter-than-air airship course:* 55 hours of flight training in airships from a commercial pilot with an airship rating on the approved areas of operation in paragraph (d)(7) of this section that includes at least—

(i) 3 hours of instrument training in an airship;

(ii) One cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in day VFR conditions; and

(iii) One cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in night VFR conditions; and

(iv) 3 hours in an airship, in preparation for the practical test within 60 days preceding the date of the test.

(8) *For a lighter-than-air balloon course:* Flight training from a commercial pilot with a balloon rating on the approved areas of operation in paragraph (d)(8) of this section that includes at least—

(i) If the course involves training in a gas balloon:

(A) Two flights of 1 hour each;

(B) One flight involving a controlled ascent to at least 5,000 feet above the launch site; and

(C) Two flights in preparation for the practical test within 60 days preceding the date of the test.

(ii) If the course involves training in a balloon with an airborne heater:

(A) Two flights of 30 minutes each;

(B) One flight involving a controlled ascent to at least 3,000 feet above the launch site; and

(C) Two flights in preparation for the practical test within 60 days preceding the date of the test.

(c) For the use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part may be credited for a maximum of 20 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in the flight training devices described in paragraphs (c)(2) and (c)(3) of this section, if used in combination, may be credited for a maximum of 20 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (c)(3) of this section.

(d) Each approved course must include the flight training on the approved areas of operation listed in this paragraph that are appropriate to the aircraft category and class rating—

(1) *For an airplane single-engine course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Slow flight and stalls;

(viii) Emergency operations;

(ix) High-altitude operations; and

(x) Postflight procedures.

(2) *For an airplane multiengine course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and seaplane base operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Slow flight and stalls;

(viii) Emergency operations;

(ix) Multiengine operations;

(x) High-altitude operations; and

(xi) Postflight procedures.

(3) *For a rotorcraft helicopter course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Navigation;

(viii) Emergency operations;

(ix) Special operations; and

(x) Postflight procedures.

(4) *For a rotorcraft gyroplane course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport operations;

(iv) Takeoffs, landings, and go-arounds;

(v) Performance maneuvers;

(vi) Navigation;

(vii) Flight at slow airspeeds;

(viii) Emergency operations; and

(ix) Postflight procedures.

(5) *For a powered-lift course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and heliport operations;

(iv) Hovering maneuvers;

(v) Takeoffs, landings, and go-arounds;

(vi) Performance maneuvers;

(vii) Navigation;

(viii) Slow flight and stalls;

(ix) Emergency operations;

(x) High altitude operations;

(xi) Special operations; and

(xii) Postflight procedures.

(6) *For a glider course:* (i) Preflight preparation;

(ii) Preflight procedures;

(iii) Airport and gliderport operations;

(iv) Launches/tows, as appropriate, and landings;

(v) Performance speeds;

(vi) Soaring techniques;

(vii) Performance maneuvers;

(viii) Navigation;

(ix) Slow flight and stalls;

(x) Emergency operations; and

(xi) Postflight procedures.

(7) *For a lighter-than-air airship course:* (i) Fundamentals of instructing;

(ii) Technical subjects;

(iii) Preflight preparation;

(iv) Preflight lessons on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport operations;

(vii) Takeoffs, landings, and go-arounds;

(viii) Performance maneuvers;

(ix) Navigation;

(x) Emergency operations; and

(xi) Postflight procedures.

(8) *For a lighter-than-air balloon course:* (i) Fundamentals of instructing;

(ii) Technical subjects;

(iii) Preflight preparation;

(iv) Preflight lesson on a maneuver to be performed in flight;

(v) Preflight procedures;

(vi) Airport operations;

(vii) Launches and landings;

(viii) Performance maneuvers;

(ix) Navigation;

(x) Emergency operations; and

(xi) Postflight procedures.

5. *Solo training.* Each approved course must include at least the following solo flight training:

(a) *For an airplane single-engine course:* 10 hours of solo flight training in a single-engine airplane on the approved areas of operation in paragraph (d)(1) of section No. 4 of this appendix that includes at least—

(1) One cross-country flight, if the training is being performed in the State of Hawaii, with landings at a minimum of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;

(2) One cross-country flight, if the training is being performed in a State other than Hawaii, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and

(3) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each

landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(b) *For an airplane multiengine course:* 10 hours of flight training in a multiengine airplane performing the functions of pilot in command while under the supervision of a certificated flight instructor. The training shall consist of the approved areas of operation in paragraph (d)(2) of section No. 4 of this appendix, and include at least—

(1) One cross-country flight, if the training is being performed in the State of Hawaii, with landings at a minimum of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;

(2) One cross-country flight, if the training is being performed in a State other than Hawaii, with landings at a minimum of three points and one segment of the flight consisting of straight-line distance of at least 250 nautical miles; and

(3) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(c) *For a rotorcraft helicopter course:* 10 hours of solo flight training in a helicopter on the approved areas of operation in paragraph (d)(3) of section No. 4 of this appendix that includes at least—

(1) One cross-country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(2) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(d) *For a rotorcraft-gyroplane course:* 10 hours of solo flight training in a gyroplane on the approved areas of operation in paragraph (d)(4) of section No. 4 of this appendix that includes at least—

(1) One cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(2) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(e) *For a powered-lift course:* 10 hours of solo flight training in a powered-lift on the approved areas of operation in paragraph (d)(5) of section No. 4 of this appendix that includes at least—

(1) One cross-country flight, if the training is being performed in the State of Hawaii, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 150 nautical miles;

(2) One cross-country flight, if the training is being performed in a State other than Hawaii, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and

(3) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

(f) *For a glider course:* 5 solo flights in a glider on the approved areas of operation in paragraph (d)(6) of section No. 4 of this appendix.

(g) *For a lighter-than-air airship course:* 10 hours of flight training in an airship, while performing the functions of pilot in command under the supervision of a commercial pilot with an airship rating. The training shall consist of the approved areas of operation in paragraph (d)(7) of section No. 4 of this appendix and include at least—

(1) One cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles from the original point of departure; and

(2) 5 hours in night VFR conditions with 10 takeoffs and 10 landings (with each landing involving a flight with a traffic pattern).

(h) *For a lighter-than-air balloon course:* Two solo flights if the course is for a hot air balloon rating, or, if the course is for a gas balloon rating, at least two flights in a gas balloon, while performing the duties of pilot in command under the supervision of a commercial pilot with a balloon rating. The training shall consist of the approved areas of operation in paragraph (d)(8) of section No. 4 of this appendix, in the kind of balloon for which the course applies.

6. *Stage checks and end-of-course tests.* (a) Each student enrolled in a commercial pilot course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (d) of section No. 4 of this appendix that are appropriate to aircraft category and class rating for which the course applies.

(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix E to Part 141—Airline Transport Pilot Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a airline transport pilot certification course under this part, for the following ratings:

(a) Airplane single-engine.

(b) Airplane multiengine.

(c) Rotorcraft helicopter.

(d) Powered-lift.

2. *Eligibility for enrollment.* Prior to enrolling in the flight portion of the airline transport pilot certification course, a person must:

(a) Meet the aeronautical experience requirements prescribed in subpart G of part 61 of this chapter for an airline transport pilot certificate that is appropriate to the aircraft category and class rating for which the course applies;

(b) Hold at least a commercial pilot certificate and an instrument rating;

(c) Meet the military experience requirements under § 61.73 of this chapter to qualify for a commercial pilot certificate and an instrument rating, if the person is a rated military pilot or former rated military pilot of an Armed Force of the United States; or

(d) Hold either a foreign airline transport pilot license or foreign commercial pilot license and an instrument rating, if the person holds a pilot license issued by a contracting State to the Convention on International Civil Aviation.

3. *Aeronautical knowledge areas.* (a) Each approved course must include at least 40 hours of ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the aircraft category and class rating for which the course applies.

(b) Ground training must include the following aeronautical knowledge areas:

(1) Applicable Federal Aviation Regulations of this chapter that relate to airline transport pilot privileges, limitations, and flight operations;

(2) Meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data;

(3) General system of weather and NOTAM collection, dissemination, interpretation, and use;

(4) Interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, symbols;

(5) National Weather Service functions as they pertain to operations in the National Airspace System;

(6) Windshear and microburst awareness, identification, and avoidance;

(7) Principles of air navigation under instrument meteorological conditions in the National Airspace System;

(8) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;

(9) Aircraft loading; weight and balance; use of charts, graphs, tables, formulas, and computations; and the effects on aircraft performance;

(10) Aerodynamics relating to an aircraft's flight characteristics and performance in normal and abnormal flight regimes;

(11) Human factors;

(12) Aeronautical decision making and judgment; and

(13) Crew resource management to include crew communication and coordination.

4. *Flight training.* (a) Each approved course must include at least 25 hours of flight training on the approved areas of operation listed in paragraph (c) of this section appropriate to the aircraft category and class rating for which the course applies. At least 15 hours of this flight training must be instrument flight training; and

(b) For the use of flight simulators or flight training devices—

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part may be credited for a maximum of 25 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (b)(3) of the section.

(c) Each approved course must include flight training on the approved areas of operation listed in this paragraph appropriate to the aircraft category and class rating for which the course applies:

(1) Preflight preparation;
(2) Preflight procedures;
(3) Takeoff and departure phase;
(4) In-flight maneuvers;
(5) Instrument procedures;
(6) Landings and approaches to landings;
(7) Normal and abnormal procedures;
(8) Emergency procedures; and
(9) Postflight procedures.

5. *Stage checks and end-of-course tests.* (a) Each student enrolled in an airline transport pilot course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (c) of section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies.

(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix F to Part 141—Floght Instructor Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a flight instructor certification course and an additional flight instructor rating course required under this part, for the following ratings:

(a) Airplane single-engine.
(b) Airplane multiengine.
(c) Rotorcraft helicopter.
(d) Rotorcraft gyroplane.
(e) Powered-lift.
(f) Glider category.

2. *Eligibility for enrollment.* A person must hold the following prior to enrolling in the flight portion of the flight instructor or additional flight instructor rating course:

(a) A commercial pilot certificate or an airline transport pilot certificate, with an aircraft category and class rating appropriate to the flight instructor rating for which the course applies; and

(b) An instrument rating or privilege in an aircraft that is appropriate to the aircraft category and class rating for which the course applies, if the course is for a flight instructor airplane or powered-lift instrument rating.

3. *Aeronautical knowledge training.* (a) Each approved course must include at least the following ground training in the aeronautical knowledge areas listed in paragraph (b) of this section:

(1) 40 hours of training if the course is for an initial issuance of a flight instructor certificate; or

(2) 20 hours of training if the course is for an additional flight instructor rating.

(b) Ground training must include the following aeronautical knowledge areas:

(1) The fundamentals of instructing including—

(i) The learning process;
(ii) Elements of effective teaching;
(iii) Student evaluation and testing;
(iv) Course development;
(v) Lesson planning; and
(vi) Classroom training techniques.

(2) The aeronautical knowledge areas in which training is required for—

(i) A recreational, private, and commercial pilot certificate that is appropriate to the aircraft category and class rating for which the course applies; and

(ii) An instrument rating that is appropriate to the aircraft category and class rating for which the course applies, if the course is for an airplane or powered-lift aircraft rating.

(c) A student who satisfactorily completes 2 years of study on the principles of education at a college or university may be credited with no more than 20 hours of the training required in paragraph (a)(1) of this section.

4. *Flight training.* (a) Each approved course must include at least the following flight training on the approved areas of operation of paragraph (c) of this section appropriate to the flight instructor rating for which the course applies:

(1) 25 hours, if the course is for an airplane, rotorcraft, or powered-lift rating; and

(2) 10 hours and 10 flights, if the course is for a glider category rating.

(b) For the use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part, may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (b)(3) of this section.

(c) Each approved course must include flight training on the approved areas of operation listed in this paragraph that are appropriate to the aircraft category and class rating for which the course applies—

(1) *For an airplane—single-engine course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport and seaplane base operations;
(vii) Takeoffs, landings, and go-arounds;
(viii) Fundamentals of flight;
(ix) Performance maneuvers;
(x) Ground reference maneuvers;
(xi) Slow flight, stalls, and spins;
(xii) Basic instrument maneuvers;
(xiii) Emergency operations; and
(xiv) Postflight procedures.

(2) *For an airplane—multiengine course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport and seaplane base operations;
(vii) Takeoffs, landings, and go-arounds;
(viii) Fundamentals of flight;
(ix) Performance maneuvers;
(x) Ground reference maneuvers;
(xi) Slow flight and stalls;
(xii) Basic instrument maneuvers;
(xiii) Emergency operations;
(xiv) Multiengine operations; and
(xv) Postflight procedures.

(3) *For a rotorcraft—helicopter course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport and heliport operations;
(vii) Hovering maneuvers;
(viii) Takeoffs, landings, and go-arounds;
(ix) Fundamentals of flight;
(x) Performance maneuvers;
(xi) Emergency operations;
(xii) Special operations; and
(xiii) Postflight procedures.

(4) *For a rotorcraft—gyroplane course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport operations;
(vii) Takeoffs, landings, and go-arounds;
(viii) Fundamentals of flight;
(ix) Performance maneuvers;
(x) Flight at slow airspeeds;
(xi) Ground reference maneuvers;
(xii) Emergency operations; and
(xiii) Postflight procedures.

(5) *For a powered-lift course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport and heliport operations;
(vii) Hovering maneuvers;
(viii) Takeoffs, landings, and go-arounds;

(ix) Fundamentals of flight;
(x) Performance maneuvers;
(xi) Ground reference maneuvers;
(xii) Slow flight and stalls;
(xiii) Basic instrument maneuvers;
(xiv) Emergency operations;
(xv) Special operations; and
(xvi) Postflight procedures.

(6) *For a glider course:* (i) Fundamentals of instructing;
(ii) Technical subject areas;
(iii) Preflight preparation;
(iv) Preflight lesson on a maneuver to be performed in flight;
(v) Preflight procedures;
(vi) Airport and gliderport operations;
(vii) Launches, landings, and go-arounds;
(viii) Fundamentals of flight;
(ix) Performance speeds;
(x) Soaring techniques;
(xi) Performance maneuvers;
(xii) Slow flight, stalls, and spins;
(xiii) Emergency operations; and
(xiv) Postflight procedures.

5. *Stage checks and end-of-course tests.* (a) Each student enrolled in a flight instructor course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the appropriate approved areas of operation listed in paragraph (c) of section No. 4 of this appendix appropriate to the flight instructor rating for which the course applies.

(b) In the case of a student who is enrolled in a flight instructor-airplane rating or flight instructor-glider rating course, that student must have:

(1) Received a logbook endorsement from a certificated flight instructor certifying the student received ground and flight training on stall awareness, spin entry, spins, and spin recovery procedures in an aircraft that is certificated for spins and is appropriate to the rating sought; and

(2) Demonstrated instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures.

Appendix G to Part 141—Flight Instructor Instrument (For an Airplane, Helicopter, or Powered-Lift Instrument Instructor Rating, ae Appropriate) Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a flight instructor instrument certification course required under this part, for the following ratings:

(a) Flight Instructor Instrument—Airplane.
(b) Flight Instructor Instrument—Helicopter.
(c) Flight Instructor Instrument—Powered-lift aircraft.

2. *Eligibility for enrollment.* A person must hold the following prior to enrolling in the flight portion of the flight instructor instrument course:

(a) A commercial pilot certificate or airline transport pilot certificate with an aircraft category and class rating appropriate to the flight instructor category and class rating for which the course applies; and

(b) An instrument rating or privilege on that flight instructor applicant's pilot certificate that is appropriate to the flight instructor instrument rating (for an airplane, helicopter-, or powered-lift-instrument rating, as appropriate) for which the course applies.

3. *Aeronautical knowledge training.* (a) Each approved course must include at least 15 hours of ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the flight instructor instrument rating (for an airplane-, helicopter-, or powered-lift-instrument rating, as appropriate) for which the course applies:

(b) Ground training must include the following aeronautical knowledge areas:

(1) The fundamentals of instructing including:
(i) Learning process;
(ii) Elements of effective teaching;
(iii) Student evaluation and testing;
(iv) Course development;
(v) Lesson planning; and
(vi) Classroom training techniques.

(2) The aeronautical knowledge areas in which training is required for an instrument rating that is appropriate to the aircraft category and class rating for the course which applies.

4. *Flight training.* (a) Each approved course must include at least 15 hours of flight training in the approved areas of operation of paragraph (c) of this section appropriate to the flight instructor rating for which the course applies.

(b) For the use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved for, meets requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part, may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (b)(3) of this section.

(c) An approved course for the flight instructor-instrument rating must include flight training on the following approved areas of operation that are appropriate to the instrument-aircraft category and class rating for which the course applies:

(1) Fundamentals of instructing;
(2) Technical subject areas;
(3) Preflight preparation;
(4) Preflight lesson on a maneuver to be performed in flight;
(5) Air traffic control clearances and procedures;
(6) Flight by reference to instruments;
(7) Navigation systems;
(8) Instrument approach procedures;
(9) Emergency operations; and
(10) Postflight procedures.

5. *Stage checks and end-of-course tests.* Each student enrolled in a flight instructor instrument course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation listed in paragraph (c) of section No. 4 of this appendix that are appropriate to the flight instructor instrument rating (for an airplane-, helicopter-, or powered-lift-instrument rating, as appropriate) for which the course applies.

Appendix H to Part 141—Ground Instructor Certification Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a ground instructor certification course and an additional ground instructor rating course, required under this part, for the following ratings:

(a) Ground Instructor—Basic.
(b) Ground Instructor—Advanced.
(c) Ground Instructor—Instrument.

2. *Aeronautical knowledge training.* (a) Each approved course must include at least the following ground training on the knowledge areas listed in paragraphs (b), (c), (d), and (e) of this section, appropriate to the ground instructor rating for which the course applies:

(1) 20 hours of training if the course is for an initial issuance of a ground instructor certificate; or

(2) 10 hours of training if the course is for an additional ground instructor rating.

(b) Ground training must include the following aeronautical knowledge areas:

(1) Learning process;
(2) Elements of effective teaching;
(3) Student evaluation and testing;
(4) Course development;
(5) Lesson planning; and
(6) Classroom training techniques.

(c) Ground training for a basic ground instructor certificate must include the aeronautical knowledge areas applicable to a recreational and private pilot.

(d) Ground training for an advanced ground instructor rating must include the aeronautical knowledge areas applicable to a recreational, private, commercial, and airline transport pilot.

(e) Ground training for an instrument ground instructor rating must include the aeronautical knowledge areas applicable to an instrument rating.

(f) A student who satisfactorily completed 2 years of study on the principles of education at a college or university may be credited with 10 hours of the training required in paragraph (a)(1) of this section.

3. *Stage checks and end-of-course tests.* Each student enrolled in a ground instructor course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved

knowledge areas in paragraph (b), (c), (d), and (e) of section No. 2 of this appendix appropriate to the ground instructor rating for which the course applies.

Appendix I to Part 141—Additional Aircraft Category or Class Rating Course

1. *Applicability*. This appendix prescribes the minimum curriculum for an additional aircraft category rating course or an additional aircraft class rating course required under this part, for the following ratings:

(a) Airplane single-engine.
(b) Airplane multiengine.
(c) Rotorcraft helicopter.
(d) Rotorcraft gyroplane.
(e) Powered-lift.
(f) Glider.
(g) Lighter-than-air airship.
(h) Lighter-than-air balloon.

2. *Eligibility for enrollment*. A person must hold the level of pilot certificate for the additional aircraft category and class rating for which the course applies prior to enrolling in the flight portion of an additional aircraft category or additional aircraft class rating course.

3. *Aeronautical knowledge training*. Each approved course for an additional aircraft category rating and additional aircraft class rating must include the total number of hours of training in all the aeronautical knowledge areas appropriate to the aircraft rating and pilot certificate level for which the course applies.

4. *Flight training*. (a) Each approved course for an additional aircraft category rating or additional aircraft class must include the total number of hours of flight training on all of the approved areas of operation of this paragraph appropriate to the aircraft rating and pilot certificate level for which the course applies.

(b) For the use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in the flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (c)(3) of this section.

5. *Stage checks and end-of-course tests*. (a) Each student enrolled in an additional aircraft category rating course or an additional aircraft class rating course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation in section No. 4 of this appendix that are appropriate to the aircraft category and class rating for which the course applies at the appropriate pilot certificate level.

(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix J to Part 141—Aircraft Type Rating Course, For Other Than an Airline Transport Pilot Certificate

1. *Applicability*. This appendix prescribes the minimum curriculum for an aircraft type rating course other than an airline transport pilot certificate, for:

(a) A type rating in an airplane category—single-engine class.
(b) A type rating in an airplane category—multiengine class.
(c) A type rating in a rotorcraft category—helicopter class.
(d) A type rating in a powered-lift category.
(e) Other aircraft type ratings specified by the Administrator through the aircraft type certificate procedures.

2. *Eligibility for enrollment*. Prior to enrolling in the flight portion of an aircraft type rating course, a person must hold at least a private pilot certificate and:

(a) An instrument rating in the category and class of aircraft that is appropriate to the aircraft type rating for which the course applies, provided the aircraft's type certificate does not have a VFR limitation; or

(b) Be concurrently enrolled in an instrument rating course in the category and class of aircraft that is appropriate to the aircraft type rating for which the course applies, and pass the required instrument rating practical test concurrently with the aircraft type rating practical test.

3. *Aeronautical knowledge training*. (a) Each approved course must include at least 10 hours of ground training on the aeronautical knowledge areas listed in paragraph (b) of this section, appropriate to the aircraft type rating for which the course applies.

(b) Ground training must include the following aeronautical areas:

(1) Proper control of airspeed, configuration, direction, altitude, and attitude in accordance with procedures and limitations contained in the aircraft's flight manual, checklists, or other approved material appropriate to the aircraft type;

(2) Compliance with approved en route, instrument approach, missed approach, ATC, or other applicable procedures that apply to the aircraft type;

(3) Subjects requiring a practical knowledge of the aircraft type and its powerplant, systems, components, operational, and performance factors;

(4) The aircraft's normal, abnormal, and emergency procedures, and the operations and limitations relating thereto;

(5) Appropriate provisions of the approved aircraft's flight manual;

(6) Location of and purpose of inspecting each item on the aircraft's checklist that relate to the exterior and interior preflight; and

(7) Use of the aircraft's prestart checklist, appropriate control system checks, starting procedures, radio and electronic equipment checks, and the selection of proper navigation and communication radio facilities and frequencies.

4. *Flight training*. (a) Each approved course must include at least:

(1) Flight training on the approved areas of operation of paragraph (c) of this section in the aircraft type for which the course applies; and

(2) 10 hours of training of which at least 5 hours must be instrument training in the aircraft for which the course applies.

(b) For the use of flight simulators or flight training devices:

(1) The course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets requirements of this paragraph, and the training is given by an instructor.

(2) Training in a flight simulator that meets the requirements of § 141.41(a) of this part, may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(3) Training in a flight training device that meets the requirements of § 141.41(b) of this part, may be credited for a maximum of 25 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.

(4) Training in the flight simulators or flight training devices described in paragraphs (b)(2) and (b)(3) of this section, if used in combination, may be credited for a maximum of 50 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (b)(3) of this section.

(c) Each approved course must include the flight training on the areas of operation listed in this paragraph, that are appropriate to the aircraft category and class rating for which the course applies:

(1) *A type rating for an airplane—single-engine course:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Takeoff and departure phase;
(iv) In-flight maneuvers;
(v) Instrument procedures;
(vi) Landings and approaches to landings;
(vii) Normal and abnormal procedures;
(viii) Emergency procedures; and
(ix) Postflight procedures.

(2) *A type rating for an airplane—multiengine course:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Takeoff and departure phase;
(iv) In-flight maneuvers;
(v) Instrument procedures;
(vi) Landings and approaches to landings;
(vii) Normal and abnormal procedures;

(viii) Emergency procedures; and
(ix) Postflight procedures.
(3) *A type rating for a powered-lift course:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Takeoff and departure phase;
(iv) In-flight maneuvers;
(v) Instrument procedures;
(vi) Landings and approaches to landings;
(vii) Normal and abnormal procedures;
(viii) Emergency procedures; and
(ix) Postflight procedures.
(4) *A type rating for a rotorcraft—helicopter course:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Takeoff and departure phase;
(iv) In-flight maneuvers;
(v) Instrument procedures;
(vi) Landings and approaches to landings;
(vii) Normal and abnormal procedures;
(viii) Emergency procedures; and
(ix) Postflight procedures.
(5) *Other aircraft type ratings specified by the Administrator through aircraft type certificate procedures:* (i) Preflight preparation;
(ii) Preflight procedures;
(iii) Takeoff and departure phase;
(iv) In-flight maneuvers;
(v) Instrument procedures;
(vi) Landings and approaches to landings;
(vii) Normal and abnormal procedures;
(viii) Emergency procedures; and
(ix) Postflight procedures.
5. *Stage checks and end-of-course tests.* (a) Each student enrolled in an aircraft type rating course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation that are appropriate to the aircraft type rating for which the course applies at the airline transport pilot certificate level; and
(b) Each student must demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

Appendix K to Part 141—Special Preparation Courses

1. *Applicability.* This appendix prescribes the minimum curriculum for the special preparation courses that are listed in § 141.11 of this part.
2. *Eligibility for enrollment.* Prior to enrolling in the flight portion of a special preparation course, a person must hold a pilot certificate, flight instructor certificate, or ground instructor certificate that is appropriate for the exercise of the operating privileges or authorizations sought.
3. *General requirements.* (a) To be approved, a special preparation course must:
(1) Meet the appropriate requirements of this appendix; and
(2) Prepare the graduate with the necessary skills, competency, and proficiency to exercise safely the privileges of the certificate, rating, or authorization for which the course is established.
(b) An approved special preparation course must include ground and flight training on the operating privileges or authorization sought, for developing competency, proficiency, resourcefulness, self-confidence, and self-reliance in the student.
4. *Use of flight simulators or flight training devices.* (a) The approved special preparation course may include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets requirements of this paragraph, and the training is given by an instructor.
(b) Training in a flight simulator that meets the requirements of § 141.41(a) of this part, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.
(c) Training in a flight training device that meets the requirements of § 141.41(b) of this part, may be credited for a maximum of 5 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less.
(d) Training in the flight simulators or flight training devices described in paragraphs (b) and (c) of this section, if used in combination, may be credited for a maximum of 10 percent of the total flight training hour requirements of the approved course, or of this section, whichever is less. However, credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed the limitation provided for in paragraph (c) of this section.
5. *Stage check and end-of-course tests.* Each person enrolled in a special preparation course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation that are appropriate to the operating privileges or authorization sought, and for which the course applies.
6. *Agricultural aircraft operations course.* An approved special preparation course for pilots in agricultural aircraft operations must include at least the following—
(a) 25 hours of training on:
(1) Agricultural aircraft operations;
(2) Safe piloting operating practices and procedures for handling, dispensing, and disposing agricultural and industrial chemicals, including operating in and around congested areas; and
(3) Applicable provisions of part 137 of this chapter.
(b) 15 hours of flight training on agricultural aircraft operations.
7. *Rotorcraft external-load operations course.* An approved special preparation course for pilots of external-load operations must include at least the following—
(a) 10 hours of training on:
(1) Rotorcraft external-load operations;
(2) Safe piloting operating practices and procedures for external-load operations, including operating in and around congested areas; and
(3) Applicable provisions of part 133 of this chapter.
(b) 15 hours of flight training on external-load operations.
8. *Test pilot course.* An approved special preparation course for pilots in test pilot duties must include at least the following—
(a) Aeronautical knowledge training on:
(1) Performing aircraft maintenance, quality assurance, and certification test flight operations;
(2) Safe piloting operating practices and procedures for performing aircraft maintenance, quality assurance, and certification test flight operations;
(3) Applicable parts of this chapter that pertain to aircraft maintenance, quality assurance, and certification tests; and
(4) Test pilot duties and responsibilities.
(b) 15 hours of flight training on test pilot duties and responsibilities.
9. *Special operations course.* An approved special preparation course for pilots in special operations that are mission-specific for certain aircraft must include at least the following—
(a) Aeronautical knowledge training on:
(1) Performing that special flight operation;
(2) Safe piloting operating practices and procedures for performing that special flight operation;
(3) Applicable parts of this chapter that pertain to that special flight operation; and
(4) Pilot in command duties and responsibilities for performing that special flight operation.
(b) Flight training:
(1) On that special flight operation; and
(2) To develop skills, competency, proficiency, resourcefulness, self-confidence, and self-reliance in the student for performing that special flight operation in a safe manner.
10. *Pilot refresher course.* An approved special preparation pilot refresher course for a pilot certificate, aircraft category and class rating, or an instrument rating must include at least the following—
(a) 4 hours of aeronautical knowledge training on:
(1) The aeronautical knowledge areas that are applicable to the level of pilot certificate, aircraft category and class rating, or instrument rating, as appropriate, that pertain to that course;
(2) Safe piloting operating practices and procedures; and
(3) Applicable provisions of parts 61 and 91 of this chapter for pilots.
(b) 6 hours of flight training on the approved areas of operation that are applicable to the level of pilot certificate, aircraft category and class rating, or instrument rating, as appropriate, for performing pilot-in-command duties and responsibilities.
11. *Flight instructor refresher course.* An approved special preparation flight instructor refresher course must include at least a combined total of 16 hours of aeronautical knowledge training, flight training, or any combination of ground and flight training on the following—
(a) Aeronautical knowledge training on:
(1) The aeronautical knowledge areas of part 61 of this chapter that apply to student, recreational, private, and commercial pilot certificates and instrument ratings;
(2) The aeronautical knowledge areas of part 61 of this chapter that apply to flight instructor certificates;
(3) Safe piloting operating practices and procedures, including airport operations and operating in the National Airspace System; and
(4) Applicable provisions of parts 61 and 91 of this chapter that apply to pilots and flight instructors.

(b) Flight training to review:

(1) The approved areas of operations applicable to student, recreational, private, and commercial pilot certificates and instrument ratings; and

(2) The skills, competency, and proficiency for performing flight instructor duties and responsibilities.

12. *Ground instructor refresher course.* An approved special preparation ground instructor refresher course must include at least 16 hours of aeronautical knowledge training on:

(a) The aeronautical knowledge areas of part 61 of this chapter that apply to student, recreational, private, and commercial pilots and instrument rated pilots;

(b) The aeronautical knowledge areas of part 61 of this chapter that apply to ground instructors;

(c) Safe piloting operating practices and procedures, including airport operations and operating in the National Airspace System; and

(d) Applicable provisions of parts 61 and 91 of this chapter that apply to pilots and ground instructors.

Appendix L to Part 141—Pilot Ground School Course

1. *Applicability.* This appendix prescribes the minimum curriculum for a pilot ground school course required under this part.

2. *General requirements.* An approved course of training for a pilot ground school must include training on the aeronautical knowledge areas that are:

(a) Needed to safely exercise the privileges of the certificate, rating, or authority for which the course is established; and

(b) Conducted to develop competency, proficiency, resourcefulness, self-confidence, and self-reliance in each student.

3. *Aeronautical knowledge training requirements.* Each approved pilot ground school course must include:

(a) The aeronautical knowledge training that is appropriate to the aircraft rating and pilot certificate level for which the course applies; and

(b) An adequate number of total aeronautical knowledge training hours appropriate to the aircraft rating and pilot certificate level for which the course applies.

4. *Stage checks and end-of-course tests.* Each person enrolled in a pilot ground school course must satisfactorily accomplish the stage checks and end-of-course tests, in accordance with the school's approved training course, consisting of the approved areas of operation that are appropriate to the operating privileges or authorization that graduation from the course will permit and for which the course applies.

PART 143—GROUND INSTRUCTORS [REMOVED AND RESERVED]

5. Part 143 is removed and reserved.

Issued in Washington, D.C., on March 19, 1997.

Barry L. Valentine,

Acting Administrator.

[FR Doc. 97–7450 Filed 3–27–97; 11:28 am]

BILLING CODE 4910–13–P