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**14 CFR Parts 61, 91, and 141
Pilot, Flight Instructor, and Pilot School
Certification; Final Rule**

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Parts 61, 91, and 141**

[Docket No. FAA-2006-26661; Amendment Nos. 61-124, 91-309, and 141-12]

RIN 2120-A186

Pilot, Flight Instructor, and Pilot School Certification

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule revises the training, qualification, certification, and operating requirements for pilots, flight instructors, ground instructors, and pilot schools. These changes are needed to clarify, update, and correct our existing regulations. These changes are intended to update and clarify the training and qualifications rules for pilots, flight instructors, ground instructors, and pilot schools to ensure a better understanding of these rules that relate to aircraft operations in the National Airspace System.

DATES: This final rule is effective October 20, 2009.

FOR FURTHER INFORMATION CONTACT: John D. Lynch, Certification and General Aviation Operations Branch, AFS-810, General Aviation and Commercial Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3844; e-mail to john.d.lynch@faa.gov. For legal interpretative questions about this final rule, contact: Michael Chase, AGC-240, Office of Chief Counsel, Regulations Division, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3110; e-mail to michael.chase@faa.gov.

Executive Summary

The Federal Aviation Administration (FAA) is amending several regulations to further our safety mission, incorporate international flight standards, and respond to recent technological advances in aviation. The essence of these interlocking changes is pilot, flight instructor, and pilot school certification. The instruction and training taking place in pilot schools is for many their first exposure to recent aviation, technological, and industry changes. For the above reasons, the FAA has found it necessary to update,

correct, and clarify our rules and requirements for pilots, flight instructor, and pilot school certification. Many of our changes reflect and incorporate comments and suggestions made by trade organizations, flight schools, manufacturers, individual pilots, and others.

On February 7, 2007, the FAA published the notice of proposed rulemaking (NPRM) for airmen certification entitled "Pilots, flight instructors, ground instructors, and pilot schools; training, certification, and operating requirements" (Notice No. 06-20; 72 FR 5806-5854). The NPRM follows an earlier final rule amending the pilot and flight instructor certification, training, and experience rules of part 61 (*See* 62 FR 16220; April 4, 1997). Since the 1997 final rule, we determined changes were needed to clarify and refine these regulations and address problems discovered post-publication. We also received a number of helpful comments and interpretation requests from the pilot, flight instructor, and training community. In order to make our rule revisions more comprehensive, the NPRM included changes to 14 CFR part 91 and part 141 appendices.

We made two significant proposals in the NPRM: The first one details pilot and flight instructor training and qualifications for night vision goggle (NVG) operations; and, the second one converts military flight instructor training experience to civilian teaching. We also made a number of other changes reflected in the following table and discussed in the rule preamble.

The FAA received considerable public response to the NPRM. We received 1,970 different comments from 231 commenters. These commenters represented a diverse "cross-section" of the aviation community including: Commenters who identified themselves as actively serving in the United States Armed Forces or Armed Forces Reserves; flight schools (commercial and educational), flight training facilities, or other organizations associated with flight training; aircraft manufacturers or aircraft manufacturer associations, pilot, aircraft, and helicopter owner associations; civil aviation associations; and law enforcement agencies or organizations associated with NVG operations. The substantive comments on both the overarching issues and specific rule changes are detailed in the "General Comments" and "Editorial Comments" sections of this preamble.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, § 106 describes the authority of the FAA Administrator, including the authority to issue, rescind, and revise regulations. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Chapter 447—Safety Regulation. Under § 44701, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations necessary for safety. Under § 44703, the FAA issues an airman certificate to an individual when we find, after investigation, that the individual is qualified for, and physically able to perform the duties related to, the position authorized by the certificate. In this final rule, we are amending certain training, qualification, certification, and operating requirements for pilots, flight instructors, ground instructors, and pilot schools.

These revisions are intended to ensure that flight crewmembers have the training and qualifications to enable them to operate aircraft safely. For this reason, these revisions are within the scope of our authority and are a reasonable and necessary exercise of our statutory obligations.

Summary Table on the Revisions

The table below is a listing of the changes that are contained in this final rule in order of their Code of Federal Regulations (CFR) designations. The table is organized as follows: The first column, identified as "Revision No.," refers to the paragraph number in the "Description of Revision" portion of this preamble where a detailed discussion of the revision appears. The second column gives the CFR designation of the regulation we are revising. The third column, identified as "Summary of the Revisions," provides a brief summary of the revision.

This final rule revises and makes clarifications under part 61 that pertain to pilot, flight instructor, and ground instructor certification requirements. This final rule revises § 91.205(h) which is the rule that establishes the required instruments and equipment for use in NVG operations. This final rule also revises part 141 and its appendices, which apply to part 141 approved pilot schools and provisional pilot schools.

Revision No.	CFR designation	Summary of the revisions
1	§ 61.1(b)(12)	Adds a definition for the term "night vision goggles."
2	§ 61.1(b)(13)	Adds a definition for the term "night vision goggle operations."
3	§ 61.2	Establishes the requirements regarding "currency" and "validity" in a new § 61.2 as it relates to exercising the privileges of an airman certificate, rating, endorsement, or authorization.
4	§ 61.3(j)(1)	This proposal to delete the phrase "Except as provided in paragraph (j)(3) of this section" is being withdrawn as the "Part 121 Pilot Age Limit" direct final rule has incorporated this proposal and has also increased the age requirement to 65 years for pilots engaged in part 121 air carrier operations.
4	§ 61.3(j)(3)	We had proposed to delete this provision because the dates have passed. However, this proposal has been withdrawn as the "Part 121 Pilot Age Limit" direct final rule has overtaken the need for this proposed change.
5	§ 61.19(b)	Extends the duration period for student pilot certificates for persons under the age of 40 years.
6	§ 61.19(b)(3)	Extends the duration period for student pilot certificates for persons seeking the glider or balloon rating to 60 calendar months, regardless of the age of the person.
7	§ 61.19(d)	The NPRM proposed to issue flight instructor certificates without expiration dates. The FAA has decided to withdraw this proposal and will continue to issue flight instructor certificates with an expiration date.
8 & 81	§ 61.19(e)	Parallels the ground instructor certificate duration with the ground instructor currency requirements in revised § 61.217.
9	§ 61.23(a)(3)(iv)–(v)	Makes minor editorial changes to the medical certificate requirements.
9	§ 61.23(a)(3)(vii)	Permits Examiners to hold only a third class medical certificate as already provided for in FAA Order 8900.2.
10	§ 61.23(b)(3)	Clarifies that persons who are exercising the privileges of their pilot certificate when operating a balloon or a glider are not required to hold a medical certificate.
11	§ 61.23(b)(7)	Clarifies that Examiners who administer practical tests in a glider, balloon, flight simulator, or flight training device are not required to hold a medical certificate.
12	§ 61.23(b)(8)	Clarifies that no medical certificate is required when taking a practical test in a glider, balloon, flight simulator, or flight training device.
13	§ 61.23(b)(9)	Adds a provision that excuses U.S. military pilots from obtaining an FAA medical certification, if they hold an "up-to-date" medical clearance from the U.S. Armed Forces, and the flight only requires privileges of a third class medical certificate and is conducted within U.S. airspace.
14	§ 61.29(d)(3)	Deletes the requirement that a person furnish his/her Social Security Number.
15	§ 61.31(d)(1), (2), & (3)	Corrects a duplication of provisions between paragraphs (d)(2) and (3).
16	§ 61.31(k)	Establishes training for operating with night vision goggles in a new paragraph (k).
17	§ 61.35(a)(2)(iv)	Clarifies when a person must show his/her current residential address when making application for a knowledge test.
18	§ 61.39(b)(2)	Deletes the word "scheduled" in front of the phrase "U.S. military air transport operations."
19	§ 61.39(c)(2)	Deletes the exception that an applicant does not have to receive an instructor endorsement for an additional aircraft class rating. Sections 61.39(a)(6) and 61.63(c) require an instructor endorsement.
20	§ 61.39(a)(6)(i), (d) and (e)	Changes the phrase "60 calendar days" to read "2 calendar months" for the training required prior to the practical test.
21	§ 61.43(a) and (b)	Clarifies when single pilot performance is required on the practical test versus permitting issuance of the "second in command" limitation.
22	§ 61.45(a)(2)(iii)	Defines a military aircraft for the purpose of using it for a practical test.
23	§ 61.45(c)	Excepts gliders that are unpowered from the requirement that 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.
24	§ 61.51(b)(3)(iv)	Adds a provision for logging night vision goggle time.
27	§ 61.51(b)(1)(iv) § 61.51(b)(2)(v) § 61.51(b)(3)(iii)	Revises the instructions for logbook entries to include aviation training device (ATD).
25	§ 61.51(e)(1)	Corrects an omission and permits sport pilots and airline transport pilots (ATPs) to log pilot in command (PIC) flight time.
26	§ 61.51(e)(1)(iv)	Permits a pilot who is performing the duties of PIC while under the supervision of a qualified PIC to log PIC flight time.
27	§ 61.51(g)(4)	Requires that when using a flight simulator, flight training device, or an ATD for training, an instructor must be present and sign the person's logbook or training record.
28	§ 61.51(j)	Establishes that an aircraft must hold an airworthiness certificate, with some exceptions, for a pilot to log flight time to meet the certificate, rating, or recent flight experience requirements under part 61.
29	§ 61.51(k)	Adds the criteria and standards for logging night vision goggle time.
30	§ 61.57(c)(1)	In the NPRM, we had proposed to revise the instrument recent flight experience for maintaining instrument privileges in airplanes, powered-lifts, helicopters, and airships. The FAA has decided to maintain the existing instrument recency requirements and just make formatting and editorial revisions to the rule.
30	§ 61.57(c)(2)–(5)	Permits the use of flight simulators, flight training devices, or ATDs for performing instrument recent flight experience.
30	§ 61.57(c)(6)	Revises the instrument recent flight experience for maintaining instrument privileges in gliders.

Revision No.	CFR designation	Summary of the revisions
31	§ 61.57(d)	Clarifies when an instrument proficiency check must be completed to serve as the PIC under IFR or in weather conditions less than the minimums prescribed for VFR.
32	§ 61.57(f)	Adds a night vision goggle recent operating experience requirement to remain PIC qualified for night vision goggle operations.
33	§ 61.57(g)	Adds a night vision goggle proficiency check requirement to remain PIC qualified for night vision goggle operations.
34	§ 61.59(a)–(b)	The FAA has decided to withdraw this proposal that would have paralleled this section with the language contained in § 67.403 of this chapter.
35	§ 61.63	Changes the section heading to read “Additional aircraft ratings (other than for ratings at the airline transport pilot certificate level).”
35	§ 61.63(c)(4)	Clarifies what is intended for those applicants who hold only a lighter than air (LTA)-Balloon rating and who seek a LTA-Airship rating.
35	§ 61.63(d)(5)	Adds a provision to account for aircraft not capable of instrument flight. Parallels revised § 61.157(b)(3).
35	§ 61.63(e)	Amends the requirement for permitting use of aircraft not capable of instrument flight for a rating. Parallels revised § 61.157(g).
35	§ 61.63(f)	Clarifies that an applicant for type rating in a multiengine, single seat airplane must meet the requirements in the multi-seat version of that type airplane, or the examiner must be in a position to observe the applicant during the practical test. Parallels revised § 61.157(h).
35	§ 61.63(g)	Clarifies that an applicant for type rating in a single engine, single seat airplane may meet the requirements in a multi-seat version of that type airplane, or the examiner must be in a position to observe the applicant during the practical test. Parallels revised § 61.157(i).
36	§ 61.64	Places the existing § 61.63(e), (f), and (g) and § 61.157(g), (h), and (i) that address the requirements for using flight simulators and flight training devices into revised § 61.64.
35	§ 61.63(h)	Clarifies that certain tasks may be waived if the FAA has approved the task to be waived to parallel § 61.157(m).
36	§ 61.64(a) and (b)	Moves § 61.63(e) and § 61.157(g) to revised § 61.64. Simplifies and amends the requirements and limitations for use of a flight simulator or flight training device for an airplane rating.
36	§ 61.64(a)(2)(i) & (ii)	Clarifies that to use a flight simulator for training and testing for the airplane category, class, or type rating, the type rating cannot contain the supervised operating experience limitation.
36	§ 61.64(c) and (d)	Moves § 61.63(f) and § 61.157(h) to revised § 61.64. Simplifies and amends the requirements and limitations for use of a flight simulator or flight training device for a helicopter rating.
36	§ 61.64(c)(2)(i) & (ii)	Clarifies that to use a flight simulator for training and testing for the helicopter class or type rating, the type rating cannot contain the supervised operating experience limitation.
36	§ 61.64(e) and (f)	Moves § 61.63(g) and § 61.157(i) to revised § 61.64. Simplifies and amends the requirements and limitations for use of a flight simulator or flight training device for a powered-lift rating.
36	§ 61.64(e)(2)(i) & (ii)	Clarifies that to use a flight simulator for training and testing for the powered-lift category or type rating, the type rating cannot contain the supervised operating experience limitation.
37	§ 61.65(d)	For an airplane, requires at least 10 hours of cross country time as PIC, appropriate to the instrument rating sought, so that it conforms to the ICAO requirements for instrument rating.
37	§ 61.65(e)	For a helicopter, requires at least 10 hours of cross country time as PIC, appropriate to the instrument rating sought, so that it conforms to the ICAO requirements for instrument rating.
37	§ 61.65(f)	For a powered-lift, requires at least 10 hours of cross country time as PIC, appropriate to the instrument rating sought, so that it conforms to the ICAO requirements for instrument rating.
37	§ 61.65(g)	Makes minor changes to address the usage of flight simulator and flight training devices for the instrument rating. Re-designate paragraph (e) as paragraph (g).
38	§ 61.65(h)	Permits the use of an ATD to be used for 10 hours of instrument time.
39	§ 61.69(a)(4)	Corrects a typographical error involving the word “or.”
40	§ 61.69(a)(6)	Increases the recent flight experience requirements for tow pilots from 12 months to 24 months.
41	§ 61.73(b)	Removes the requirement that military pilots and former military pilots be on active flying status within the past 12 months to qualify under these special rules. Deletes the requirement that military pilots and former military pilots have PIC status to qualify for pilot certification under these special rules. Also, makes minor editorial changes.
41	§ 61.73(c)	Allows military pilots of an Armed Force of a foreign contracting State to International Civil Aviation Organization (ICAO) to qualify for U.S. Commercial Pilot Certificates and ratings provided they are assigned in an operational U.S. military unit for other than flight training purposes.
41	§ 61.73(f)	Re-designates paragraph (g) as paragraph (f) and deletes the phrase “as pilot in command during the 12 calendar months before the month of application.”
42	§ 61.73(g) § 61.197(a)(2)(iv)	Allows issuance of flight instructor certificates and ratings to military instructor pilots and examiners who can show having been designated as a U.S. military instructor pilot or examiner. Provides an alternative method for U.S. military instructor pilots and examiners who hold an FAA flight instructor certificate to renew their flight instructor certificate and ratings.

Revision No.	CFR designation	Summary of the revisions
43	§ 61.73(h)	Clarifies the documents required to qualify military pilots for a pilot certificate and ratings under the special rules of § 61.73 for military pilots.
44	§ 61.75(a)	Requires a holder of a foreign pilot license to have at least a foreign private pilot license in order to apply for a U.S. private pilot certificate under § 61.75.
44	§ 61.75(b)	Requires a holder of a foreign pilot license to have at least a foreign private pilot license in order to apply for a U.S. private pilot certificate under § 61.75.
45	§ 61.75(b)(3)	Adds "other than a U.S. student pilot certificate."
46	§ 61.75(c)	Adds the qualifier "for private pilot privileges only" to clarify issuance of U.S. private pilot certificates based on foreign pilot licenses.
3	§ 61.75(d)	Adds the qualifier "valid."
47	§ 61.75(e)	Corrects an error: Where the rule stated "U.S. private pilot certificate," it has been corrected to read: "U.S. pilot certificate."
47	§ 61.75(e)(1)	Corrects an error: Where the rule stated "private pilot privilege," it has been corrected to read: "pilot privileges authorized by this part and the limitations placed on that U.S. pilot certificate."
47	§ 61.75(e)(4)	Corrects an error: Where the rule stated "U.S. private pilot certificate," it has been corrected to read: "U.S. pilot certificate."
47	§ 61.75(f)	Corrects an error: Where the rule stated "U.S. private pilot certificate," it has been corrected to read: "U.S. pilot certificate" in 2 places.
47	§ 61.75(g)	Corrects an error: Where the rule stated "U.S. private pilot certificate," it has been corrected to read: "U.S. pilot certificate" in 2 places.
48	§ 61.77(a)(2)	Clarifies who can be issued a special purpose pilot authorization.
48	§ 61.77(b)(1)	Clarifies the requirements for issuance of a special purpose pilot authorization.
48	§ 61.77(b)(5)	Deletes a requirement that an applicant have documentation of meeting the recent flight experience requirements of part 61 be issued a special purpose pilot authorization.
49	§ 61.96(b)(9)	Requires an applicant for a recreational pilot certificate to hold either a student pilot certificate or sport pilot certificate.
50	§ 61.101(e)(1)(iii) and (j)	Excludes aircraft that are certificated as rotorcraft from the 180 horsepower powerplant limitation. Corrects a mistake in paragraph (j) that references "paragraph (h)" where the rule should reference "paragraph (i)."
51	§ 61.103(j)	Requires a private pilot certificate applicant to hold a student pilot certificate, recreational pilot certificate, or sport pilot certificate.
52	§ 61.109(a)(5)(ii)	Changes the distance on a cross country flight for private pilot certification—single engine airplane rating from "at least 50 nautical miles" to "more than 50 nautical miles."
52	§ 61.109(b)(5)(ii)	Changes the distance on a cross country flight for private pilot certification—multiengine airplane rating from "at least 50 nautical miles" to "more than 50 nautical miles."
53	§ 61.109(c)(4)(ii)	Changes the distance on the solo cross country flight for private pilot certification—helicopter rating to conform to ICAO requirements. Changes the distance on a cross country flight for private pilot certification—helicopter rating from "at least 25 nautical miles" to read "more than 25 nautical miles."
54	§ 61.109(d)(4)(ii)	Changes the distance on the solo cross country flight for private pilot certification—gyroplane rating to conform to ICAO requirements. Changes the distance on a cross country flight for private pilot certification—gyroplane rating from "at least 25 nautical miles" to read "more than 25 nautical miles."
52	§ 61.109(e)(5)(ii)	Changes the distance on a cross country flight for private pilot certification—powered-lift rating from "at least 50 nautical miles" to "more than 50 nautical miles."
55	§ 61.127(b)(4)(vi)	Adds "ground reference maneuvers" as an area of operation for commercial pilot certification—gyroplane rating.
56	§ 61.127(b)(5)(vii)	Deletes "ground reference maneuvers" for commercial pilot certification powered lift rating.
57	§ 61.129(a)(3)(i)	Clarifies the instrument training tasks required for commercial pilot certification—airplane single engine rating by requiring training using a view-limiting device.
62	§ 61.129(a)(3)(iii)	Allows the daytime cross country flight for commercial pilot certification single engine airplane rating to be performed under visual flight rules (VFR) or instrument flight rules (IFR).
62	§ 61.129(a)(3)(iv)	Allows the cross country flight at nighttime for commercial pilot certification airplane single engine rating to be performed under VFR or IFR.
64	§ 61.129(a)(4)	Permits training to be performed solo or with an instructor onboard for commercial pilot certification—airplane single engine rating.
58	§ 61.129(b)(3)(i)	Requires instrument training tasks for commercial pilot certification airplane multiengine rating to include training using a view-limiting device.
62	§ 61.129(b)(3)(iii)	Allows the daytime cross country flight for commercial pilot certification multiengine airplane rating to be performed under VFR or IFR.
62	§ 61.129(b)(3)(iv)	Allows the cross country flight at nighttime for commercial pilot certification multiengine airplane rating to be performed under VFR or IFR.
59	§ 61.129(c)(3)(i)	Reduces the hour requirements on the control and maneuvering of a helicopter solely by reference to instruments from 10 hours to 5 hours for commercial pilot certification—helicopter rating and permits it to be performed in an aircraft, flight simulator, or flight training device. Clarifies the control and maneuvering of a helicopter solely by reference to instruments required for commercial pilot certification for the helicopter rating must include training using a view-limiting device.
62	§ 61.129(c)(3)(ii)	Permits the daytime cross country flight for commercial pilot certification helicopter rating to be performed under VFR or IFR.

Revision No.	CFR designation	Summary of the revisions
62	§ 61.129(c)(3)(iii)	Permits the cross country flight at nighttime for commercial pilot certification helicopter rating to be performed under VFR or IFR.
64	§ 61.129(c)(4)	Permits training for commercial pilot certification helicopter rating to be performed solo or with an instructor onboard.
60	§ 61.129(d)(3)(i)	Reduces the instrument training for commercial pilot certification—gyroplane rating to 2.5 hours on the control and maneuvering of a gyroplane solely by reference to instrument and permits it to be conducted in an aircraft, flight simulator, or flight training device. Clarifies the control and maneuvering of a gyroplane solely by reference to instrument required for commercial pilot certification gyroplane rating must include training using a view-limiting device.
62	§ 61.129(d)(3)(ii)	Allows the daytime cross country flight for commercial pilot certification gyroplane rating to be performed under VFR or IFR.
63	§ 61.129(d)(3)(iii)	Deletes the requirement for a cross country flight at nighttime for commercial pilot certification gyroplane rating and establishes it as “At least two hours of flight training during nighttime conditions in a gyroplane at an airport, that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern).”
64	§ 61.129(d)(4)	Permits training for commercial pilot certification gyroplane rating to be performed solo or with an instructor onboard.
61	§ 61.129(e)(3)(i)	Requires that instrument training tasks for commercial pilot certification powered-lift rating include training using a view-limiting device.
61	§ 61.129(e)(3)(ii)	Permits the cross country flight at nighttime for commercial pilot certification powered-lift rating to be performed under VFR or IFR.
62	§ 61.129(e)(3)(iii)	Permits the cross country flight at nighttime for commercial pilot certification powered-lift rating to be performed under VFR or IFR.
64	§ 61.129(e)(4)	Permits training for commercial pilot certification powered-lift rating to be performed solo or with an instructor onboard.
64	§ 61.129(g)(2)	Permits training for commercial pilot certification airship rating to be performed either solo or while performing the duties of PIC with an instructor onboard.
65	§ 61.129(g)(3)	Reformats paragraph (3) into subparagraphs (i) and (ii). Clarifies that the instrument training tasks for commercial pilot certification airship rating requires instrument training using a view-limiting device.
62	§ 61.129(g)(4)(ii) & (iii)	Permits the cross country training for commercial pilot certification airship rating to be performed under VFR or IFR.
66	§ 61.153(d)(3)(i), (ii)	Further clarifies the additional condition to qualify for a U.S. ATP certificate on the basis of a foreign pilot certificate.
67	§ 61.157	Reprints this section in its entirety due to numerous editorial, formatting, and technical revisions.
67	§ 61.157(b)	Adds the language “or a type rating that is completed concurrently with an airline transport pilot certificate” for clarification purposes. Reformats this section to establish a paragraph (g) that permits the use of an aircraft not capable of instrument flight for a type rating to be added to an existing ATP certificate. This revision parallels the changes in § 61.63(e).
67	§ 61.157(f)(1)(ii)	Clarifies the aeronautical knowledge areas of the competency check under § 135.293 for qualifying for an aircraft rating. The reason for this change is because Part 142 training centers and designated pilot examiners are only authorized to test an applicant on the aeronautical knowledge areas of § 135.293(a)(2) and (3) and not on the aeronautical knowledge areas of § 135.293(a)(1) and (4) through (8). Procedurally, the FAA only permits the part 135 operator’s check airman and FAA Inspectors to test the applicant on the aeronautical knowledge areas of § 135.293(a)(1) and (4) through (8).
36 & 67	§ 61.157(g)	Clarifies the use of flight simulators and flight training devices and applicant qualifications for the airplane rating at the ATP certification level and moves it in to § 61.64 in paragraph (a) and (b).
36 & 67	§ 61.157(h)	Clarifies the use of flight simulators and flight training devices and applicant qualifications for the helicopter rating at the ATP certification level and moves it into § 61.64 in paragraph (c) and (d).
36 & 67	§ 61.157(i)	Clarifies the use of flight simulators and flight training devices and applicant qualifications for the powered-lift rating at the ATP certification level and moves it into § 61.64 as paragraph (e) and (f).
68	§ 61.157(g)	Re-designates paragraph (j) as paragraph (g). Amends the requirements for permitting use of aircraft not capable of instrument flight for a rating to permit the issuance of a “VFR Only” limitation for ATP certification. This revision parallels the changes in § 61.63(e).
68	§ 61.157(h)	Adds a provision to permit an applicant for type rating in a multiengine, single seat airplane to be performed in a multi-seat version of that type airplane, or the examiner must be in a position to observe the applicant during the practical test. This revision parallels the changes in § 61.63(f).
69	§ 61.157(i)	Adds a provision permitting an applicant for type rating in a single engine, single seat airplane to be performed in a multi-seat version of that type airplane, or the examiner must be in a position to observe the applicant during the practical test. This revision parallels the changes in § 61.63(g).
70	§ 61.159(c)(3)	Adds a provision to accommodate the crediting of flight engineer time for U.S. military flight engineers for qualifying for an ATP certificate that is similar to what is provided for crediting flight engineer time under part 121.
71	§ 61.159(d)	Clarifies when an applicant may be issued an ATP certificate with the ICAO endorsement.

Revision No.	CFR designation	Summary of the revisions
71	§ 61.159(e)	Clarifies a holder of an ATP certificate with the ICAO endorsement may have the endorsement removed after meeting the aeronautical experience of revised § 61.159(d).
72	§ 61.187(b)(6)(vii)	Deletes the “go around maneuver” for flight instructor certification for the glider rating.
73	§ 61.195(c)(1) & (2)	Establishes the flight instructor qualifications for providing instrument training in flight to be a CFI in the appropriate category and class of aircraft.
74	§ 61.195(d)(3)	Deletes requirement that a flight instructor must sign a student’s certificate for authorizing solo flight in Class B airspace.
75	§ 61.195(k)	Adds flight instructor qualifications for giving the PIC night vision goggle qualification and currency training.
7	§ 61.197(a)(2)	This proposal has been withdrawn, because the FAA has decided to continue to issue flight instructor certificates with an expiration date. The proposal would have established flight instructor renewal procedures without requiring re-issuance of the actual flight instructor certificate.
7	§ 61.199(a)	This proposal would have established flight instructor reinstatement procedures without requiring re-issuance of the actual flight instructor certificate. That proposal has been withdrawn, because the FAA has decided to continue to issue flight instructor certificates with an expiration date. The FAA is making a minor change to this rule to clarify the reinstatement requirements to allow the performance of a single CFI reinstatement practical test renews the other ratings held on that flight instructor certificate.
76	§ 61.215(b)	Deletes the privilege of advance ground instructors (AGIs) to provide training and endorsement for instrument training.
77	§ 61.217(a)–(d)	Establishes new currency requirements for ground instructors.
78	§ 91.205(h)	Establishes the required instruments & equipment for night vision goggle operations.
79	§ 141.5(a)–(e)	Clarifies that the “counters” for the pass rate must be 10 different people and that no one graduate can be counted more than once.
80	§ 141.9	Corrects the rule language for issuing examining authority.
81	§ 141.33(d)(2)	Reduces the number of student enrollments to qualify for a check instructor position to 10 students.
82	§ 141.39	Permits the use of foreign registered aircraft for those part 141 training facilities that are located outside of the United States and where the training is conducted outside of the United States.
83	§ 141.53(c)(1)	Deletes subparagraph (c)(1) to remove an obsolete date.
84	§ 141.55(e)(2)(ii)	Corrects the phrase “the practical or knowledge test, or any combination thereof” to read “the practical or knowledge test, as appropriate.”
85	§ 141.77(c)(1), (2), and (3)	Makes a technical correction to the language in the rules about the proficiency and knowledge test required for transfer students to a part 141 pilot school.
86	§ 141.85(a)(1) & (d)	Clarifies duties and responsibilities that chief instructor may delegate to an assistant chief instructor and recommending instructor.
87	Part 141, Appx. B. para. 2	Changes the eligibility requirement for enrollment into the flight portion of the private pilot certification course to only require a recreational, sport, or student pilot certificate prior to entry into the solo phase of the flight portion of the course.
88	Part 141, Appx. B. para. 4(b)(1)(i).	Corrects in the private pilot certification single engine airplane course requirement by changing the training required to read “on the control and maneuvering of a single engine airplane solely by reference to instruments” instead of calling it “instrument training.”
88	Part 141, Appx. B. para. 4(b)(2)(i).	Corrects the private pilot certification multiengine airplane course requirement by changing the training required to read “on the control and maneuvering of a multiengine airplane solely by reference to instruments.”
88	Part 141, Appx. B. para. 4(b)(5)(i).	Corrects the private pilot certification powered-lift course requirement by changing the training required to read “on the control and maneuvering of a powered-lift solely by reference to instruments.”
89	Part 141, Appx. B. para. 5(a)(1)	Changes the distance for the cross country flight in the private pilot certification—airplane single engine course from “at least 50 nautical miles” to read “more than 50 nautical miles.”
90	Part 141, Appx. B. para. 5(b)(1)	Changes the distance on a cross country flight in the private pilot certification—airplane multiengine course from “at least 50 nautical miles” to read “more than 50 nautical miles.”
91	Part 141, Appx. B. para. 5(c)(1)	Changes the distance on a cross country flight in the private pilot certification helicopter course to conform to ICAO requirements to be a cross country flight of at least 100 nautical miles. Changed the phrase “at least 25 nautical miles” to read “more than 25 nautical miles.”
92	Part 141, Appx. B. para. 5(d)(1)	Changes the distance on a cross country flight in the private pilot certification—gyroplane course from “at least 25 nautical miles” to read “more than 25 nautical miles.”
93	Part 141, Appx. B. para. 5(e)(1)	Changes the distance on a cross country flight in the private pilot certification—powered lift course from “at least 50 nautical miles” to read “more than 50 nautical miles.”
94	Part 141, Appx. C. para. 4(b)(5) & (6).	Allows approval of instrument rating courses that give credit for instrument training on an ATD.
100	Part 141, Appx. D. para. 4(b)(1)(i).	Requires that the instrument training tasks for the commercial pilot certification airplane single engine course include training using a view-limiting device.
99	Part 141, Appx. D. para. 4(b)(1)(ii).	Allows the complex airplane training in the commercial pilot certificate single engine airplane course to be performed in either in a single engine complex airplane or multiengine complex airplane.

Revision No.	CFR designation	Summary of the revisions
96	Part 141, Appx. D. para. 4(b)(1)(iii).	Allows the daytime cross country flight for the commercial pilot certificate airplane course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(1)(iv).	Allows the nighttime cross country flight for the commercial pilot certificate airplane course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(2)(i).	Requires that the instrument training tasks for the commercial pilot certification airplane multiengine course include training using a view-limiting device.
96	Part 141, Appx. D. para. 4(b)(2)(iii).	Allows the daytime cross country flight for the commercial pilot certificate airplane course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(2)(iv).	Allows the nighttime cross country flight for the commercial pilot certificate airplane course to be performed under VFR or IFR.
100	Part 141, Appx. D. para. 4(b)(3)(i).	Requires that the instrument training tasks for the commercial pilot certification helicopter course include using a view-limiting device.
96	Part 141, Appx. D. para. 4(b)(3)(ii).	Allows the daytime cross country flight in the commercial pilot certificate helicopter course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(3)(iii).	Allows the nighttime cross country flight in the commercial pilot certificate helicopter course to be performed under VFR or IFR.
100	Part 141, Appx. D. para. 4(b)(4)(i).	Requires that the instrument training tasks for the commercial pilot certification gyroplane course include using a view-limiting device.
96	Part 141, Appx. D. para. 4(b)(4)(ii).	Allows the daytime cross country flight in the commercial pilot certificate gyroplane course to be performed under VFR or IFR.
97	Part 141, Appx. D. para. 4(b)(4)(iii).	Requires a nighttime cross country flight in the commercial pilot certificate gyroplane course to include at least two hours of flight training during nighttime conditions at an airport, that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern).
100	Part 141, Appx. D. para. 4(b)(5)(i).	Requires that the instrument training tasks for the commercial pilot certification powered-lift course include using a view-limiting device.
96	Part 141, Appx. D. para. 4(b)(5)(ii).	Allows the daytime cross country flight in the commercial pilot certificate powered-lift course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(5)(iii).	Allows the nighttime cross country flight in the commercial pilot certificate powered-lift course to be performed under VFR or IFR.
100	Part 141, Appx. D. para. 4(b)(7)(i).	Requires that the instrument training tasks for the commercial pilot certification airship course include using a view-limiting device.
96	Part 141, Appx. D. para. 4(b)(7)(ii).	Allows the daytime cross country flight in the commercial pilot certificate airship rating course to be performed under VFR or IFR.
96	Part 141, Appx. D. para. 4(b)(7)(iii).	Allows the nighttime cross country flight in the commercial pilot certificate airship rating course to be performed under VFR or IFR.
98	Part 141, Appx. D. para. 4(d)(4)(vi).	Adds "ground reference maneuvers" as an area of operation for the gyroplane rating in the commercial pilot certificate course.
95	Part 141, Appx. D. para. 5(a), (c), (d), & (e).	Allows training to be performed solo or with an instructor onboard for the commercial pilot certificate courses.
101	Part 141, Appx. E. para. 2	Clarifies that a person prior to having completed the flight portion of the ATP course must have met the ATP aeronautical experience requirements of part 61, subpart G.
102	Part 141, Appx. I. para. 3 and 4	Clarifies the amount and content of ground and flight training for the add-on aircraft category and/or class rating courses in the recreational, private, commercial, and ATP certification courses.

Differences Between NPRM and Final Rule

The notice of proposed rulemaking (NPRM) generated considerable interest and commentary by the pilot, flight instructor, and flight school community as well as other stakeholders. While the FAA is appreciative of all comments, recommendations, and suggestions made during NPRM period, they are not always related to the instant final rule.

The FAA received general comments on aviation industry future trends. Comments on cockpit resource management (CRM) and general aviation (GA) trends, including very light jet (VLJ), will be addressed in other FAA rulemakings.

In response to several comments that rule changes would result in undue recordkeeping burdens for certificate holders and cause new problems such

as identity theft, we have explained our requirements and rationale in the preamble of this final rule. We find the revisions will clarify and eliminate duplication of certain sections and, in fact, reduce paperwork. As detailed later in this document, revised § 61.29(d)(3) ends the requirement that a person requesting replacement of a lost or destroyed airman certificate, medical certificate, or knowledge test report must furnish their Social Security Number. The change improves privacy by one less place where a Social Security Number must be furnished and complies with Federal Law that forbids mandating a Social Security Number for identification purposes. The FAA has started a rulemaking process revising the pilot certificate requirements that when exercising the privilege of a pilot certificate, the person must carry photo

identification acceptable to the Administrator. This exercise will also address security concerns regarding pilot identification. Details on this rulemaking will appear in the **Federal Register** in due course and comments will be solicited before a final rule is promulgated.

Responding to concerns that the FAA will deny or revoke privileges for inadvertent inaccuracies, based on re-review of § 61.59 we do not find this rule invalidates existing regulatory requirements for recording flight experience. It is not FAA's intention to deny or revoke privileges for inadvertent inaccuracies. In fact, many of the "e-initiatives" of FAA, Department of Transportation, and the Federal Government make applications, submission, and corrections easier. At present, a number of processes can be

completed online including the renewal of instructor flight certificates. The FAA has also made numerous editorial changes for clarity.

Editorial Comments

The FAA has made numerous editorial changes referenced by the previous Summary of Revision Table and detailed comments appear by Revision Number (Revision Number or Revision No.). One commenter noted FAA Order 8710.3D referenced in the NPRM, has been superseded by FAA Order 8900.2 and recommended the references be updated. The FAA agrees and the corrected reference "FAA Order 8900.2" appears throughout this document.

Discussion of the Final Rule

1. This revision of § 61.1(b)(13) defines the term "night vision goggles"

Revised § 61.1(b)(13) defines "night vision goggles" (NVG) to mean "an appliance worn by a pilot that enhances the pilot's ability to maintain visual surface reference at night."

Two commenters supported the proposed definition for night vision goggles. One commenter, while supporting the general concept of defining and addressing night vision goggle operations, thought specific operational details should be left to NVG users.

The FAA is adopting the revision as proposed in the NPRM.

2. This revision of § 61.1(b)(14) defines the term "night vision goggle operation"

This final rule creates a new § 61.1(b)(14) by defining "night vision goggle operation" as "a flight at night where the pilot maintains visual surface reference utilizing NVGs in an aircraft that is approved for NVG operations."

One commenter supported the general concept of defining and addressing night vision goggle (NVG) operations, while deferring to NVG users regarding specific details of the proposed provisions. Two commenters objected to the NVG definition on safety grounds. The commenters believed the proposed definition implies visual references to the surface may be maintained solely by NVG use and, in the event of a NVG malfunction, pilots could be left without any visual references.

The FAA does not believe that the definition of "night vision goggle operation" would in any way affect safety in the event of a NVG malfunction. Required pilot training should ensure a pilot has the skills and ability to revert to visual flight. Therefore, the FAA is adopting the

revision as it was proposed in the NPRM.

3. This revision establishes a new § 61.2 that clarifies the requirements regarding "currency" and "validity" throughout part 61 as it relates to exercising the privileges of an airman certificate, rating, endorsement, or authorization issued under this part

The FAA had proposed to revise §§ 61.1(b)(2)(i) and (ii), (4), and (20); 61.3(a)(1), (c), (f)(2)(i) and (ii), and (g)(2)(i) and (ii); 61.39(c)(1), 61.69(a)(1); 61.75(b)(2) and (d); 61.77(b)(1); 61.103(j); 61.133(a)(1); 61.153(d)(1) and (3); 61.167(a) and (b)(3); the introductory language of 61.193; 61.197(a); and 61.215(a), (b), (c), and (d) to clarify that airman certificates, ratings, and authorizations had to be "current" and/or "valid," or both, where and when appropriate. However, the FAA has now decided to remove the words "current" and "valid" entirely throughout part 61. This new § 61.2 establishes the requirements for "currency" and "validity" as it relates to exercising the privileges of an airman certificate, rating or authorization. As a result of adding this new § 61.2, we have removed the word "current" from §§ 61.1, 61.3, 61.19, 61.23, 61.25, 61.39, 61.51, 61.53, 61.55, 61.63, 61.65, 61.73, 61.75, 61.77, 61.89, 61.93, 61.101, 61.157, 61.185, 61.195, 61.197, 61.199, 61.213, 61.303, 61.403, 61.407, 61.429, and 61.431. Furthermore, by adding this new § 61.2, we have also removed the word "valid" from §§ 61.1, 61.3, 61.23, 61.53, 61.75, 61.77, 61.101, 61.303, 61.403, 61.429, and 61.431.

The words "current" and "valid" had not been defined until we proposed the definitions in the NPRM (*i.e.*, Notice No. 06-20; 72 FR 5806-5854; February 7, 2007). In the past, the words "current" and "valid" had been used in some sections of part 61, but not consistently or universally. Section 61.2 establishes the requirements for "currency" and "validity" as it relates to a person's certificate, rating, endorsement, or authorization in order to exercise the privileges of that certificate, rating, endorsement or authorization.

Five commenters expressed support for the various additions or replacements making clear that certificates, ratings, and other privileges must be current and valid for use. One commenter pointed out that the changes clarify that mere possession of a certificate is not necessarily sufficient to meet requirements.

Six commenters asserted that the proposed additions or revisions are unnecessary. Three commenters asserted that the requirement for

certificates and ratings to be current and valid is implied, and it is not necessary to revise the regulations to reflect them. One commenter asserted that the regulatory requirements for exercising privileges are effective regardless of whether a regulation specifically requires that a privilege be current. Three commenters believed that the proposed changes to § 61.1 make adequately clear that pilots' certificates must be both valid and current, and that it is unnecessary to add the qualifier "current and valid" throughout part 61. Three commenters recommended that, instead of making changes throughout part 61, the FAA define valid and current in § 1.1 of the regulations. One commenter suggested a blanket statement to the effect that certificate holders are required to meet all standards required to exercise any particular privilege at the time of intended use. One commenter pointed out that many certificate types have no expiration, making currency a moot issue.

Six commenters pointed out that there is nothing on the face of pilot certificates that indicates currency or validity, and that reference to a logbook or training records is required. Three commenters asserted that compliance with the proposed rules would require a pilot to carry logbooks or flight training records to prove currency, and object to the proposal for that reason. These commenters asserted that requiring pilots to carry logbooks would expose them to loss or damage, and that pilots using computer-based flight records would be unable to comply. Two commenters urged that the proposed rules not be interpreted to require pilots to carry logbooks. One commenter recommended that the regulations require a pilot to make proof of currency available within a reasonable time upon inquiry.

Five commenters opposed the proposed additions and revisions because they believe that they will confuse matters rather than clarify them. Two commenters asserted that confusion will result from the fact that different currency requirements apply to different operations. One commenter asserted that there is no distinction between a current certificate and a valid one.

The changes made here do not establish additional requirements on pilots, flight instructors, and ground instructors, but merely clarify the meaning of the rules. The FAA acknowledges the comments received on this proposal, and therefore we decided to clarify the requirements for

“currency” and “validity” by establishing this new § 61.2.

4. This revision of § 61.3(j)(3) deletes an obsolete date

We had proposed to delete the existing § 61.3(j)(3) that references obsolete dates. Section 61.3(j)(3) states “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.” However, § 61.3(j)(3) is being revised in the “Part 121 Pilot Age Limit” direct final rule, and so we have withdrawn the proposal to delete it in this rulemaking project. We also had proposed deleting the statement in “Except as provided in paragraph (j)(3) of this section” under § 61.3(j)(1). Again, we have withdrawn this proposal, because the “Part 121 Pilot Age Limit” direct final rule will conform the age at which pilots may serve in part 121 air carrier operation to the Fair Treatment for Experienced Pilots Act, Public Law 110–135.

Two commenters supported elimination of the exception to age limitations because the date has passed. Two commenters opposed application of age limitations on operating privileges. One commenter recommended relaxing the age limitations with respect to certain operations, noting that available data does not provide a logical basis. One other commenter argued that, irrespective of age, an individual should be permitted to exercise all privileges if he/she can pass the applicable medical examination.

The FAA acknowledges the comments received on this proposal. The FAA will amend § 61.3(j)(3) in the “Part 121 Pilot Age Limit” direct final rule.

5. This revision of § 61.19(b) amends the duration of the student pilot certificate

In the NPRM, we had proposed to revise § 61.19(b) to extend the duration period for the student pilot certificate to thirty-six calendar months for individuals under the age of 40 years. Since we proposed this revision, the FAA has issued the “Modification of Certain Medical Standards and Procedures and Duration of Certain Medical Certificates” final rule (73 FR 43064; July 24, 2008) incorporating a new § 61.23(d) that extended the duration of the third class medical certificate to the “60th month after the month of the date of examination shown on the medical certificate” for persons under the age of 40 years. Therefore, we are making a conforming change that

further revises § 61.19(b) to parallel with the provisions set forth in the “Modification of Certain Medical Standards and Procedures and Duration of Certain Medical Certificates” final rule.

Twelve commenters supported the proposed revision. Five commenters supported the proposed correspondence to the duration of third class medical certificate, but recommended that the provision also take into account a proposed change in the duration of those certificates. One commenter supported the proposed provision, but recommended it be applicable to all student pilots, regardless of age. Three commenters expressed support for increasing duration of student pilot certificates for persons seeking a glider or balloon rating and one person recommended that the duration also be increased for those seeking an airship rating, because of the limited training assets available.

The FAA acknowledges the supportive comments received on this proposal, and has made the changes and conforming changes to § 61.19(b).

6. This revision of § 61.19(b)(3) extends the duration period to 36 calendar months for the student pilot certificate for persons seeking a balloon or glider rating

In the NPRM, we proposed to revise § 61.19(b)(3) to extend the duration period for the student pilot certificate for persons seeking a balloon or glider rating to thirty-six calendar months. Since we proposed this revision, the FAA has issued the “Modification of Certain Medical Standards and Procedures and Duration of Certain Medical Certificates” final rule (73 FR 43064; July 24, 2008) that incorporates a new § 61.23(d) that extended the duration of the third class medical certificate to the “60th month after the month of the date of examination shown on the medical certificate” for persons under the age of 40 years. Therefore, we are making a conforming change that further revises § 61.19(b)(3) to parallel the provisions set forth in the “Modification of Certain Medical Standards and Procedures and Duration of Certain Medical Certificates” final rule. In effect, this revision extends the duration period for the student pilot certificate for persons seeking a balloon or glider rating to 60 calendar months after the month of the date the student pilot certificate was issued, regardless of the age of the person. Under the rule, persons seeking a balloon or glider rating are not required to hold a medical certificate (*See* § 61.23(b)(1)).

Three commenters supported the proposed increase in duration of student pilot certificates for persons seeking a glider or balloon rating. One commenter recommended the duration also be increased for persons seeking an airship rating due to the limited training assets available. The FAA has determined that the recommendation to expand this revision to include persons seeking an airship rating is beyond the scope of this final rule.

The FAA acknowledges the comments received on this proposal, and has made the change and conforming changes to § 61.19(b)(3).

7. This proposal would have amended §§ 61.19(d), 61.197(a), and 61.199 to allow for the issuance of a flight instructor certificate without an expiration date and clarifies the flight instructor certificate reinstatement requirements

The FAA proposed in the NPRM to revise §§ 61.19(d), 61.197(a), and 61.199 allowing issuance of flight instructor certificates without an expiration date. After further consideration and additional analysis and review of comments, we have determined revising our application procedures can achieve equivalent results. We plan to adopt a simplified application process where a flight instructor refresher course (FIRC) provider can submit applications directly to the FAA’s Airman Certification Branch in Oklahoma City, Oklahoma. When the flight instructor renewal applicant signs and completes an application, the FIRC provider mails the application directly to the FAA’s Airman Certification Branch. At this point, the FAA will prepare and issue the renewed flight instructor certificate with a new expiration date.

We also decided to continue issuing flight instructor certificates with expiration dates, but through a simplified application process. This simplified application process allows for the flight instructor renewal applicant to complete and sign new “Flight Instructor Renewal Application,” FAA Form 8710–1 CFI. If the flight instructor renewal application is a result of completing FIRC training course of training, most FIRC providers have Airman Certification Representatives assigned to process their flight instructor renewal applications. The FAA’s Airman Certification Branch, AFS–760, has a process in place where most FIRC providers are now permitted to submit their flight instructor renewal applications directly to the FAA’s Airman Certification Branch.

Under this process, a FIRC provider's entire responsibility is to positively identify applicant, sign application, and send to the FAA Airman Certification Branch. The FAA's Airman Certification Branch will then process and issue the renewed flight instructor certificate. Although the Aircraft Owner and Pilots Association (AOPA) Safety Foundation petitioned the FAA to issue flight instructor certificates without an expiration date, we believe our simplified application process provides equivalent results. Furthermore, since the AOPA Safety Foundation petitioned for this change in 1999, the FAA believes its changes in the application and certification process have negated the need for the petitioned change.

8. This revision of § 61.19(e) standardizes the recent experience requirements for the ground instructor certificate

This final rule amends § 61.19(e) linking currency requirements for the ground instructor certificate with duration period requirements. Our intent is to further clarify currency requirements for ground instructors. Since issuance of § 61.19(e), there have been some questions about how a ground instructor remains current. By revising § 61.19(e) and linking this provision with the recent experience requirements under revised § 61.217 we provide clarity. Four commenters supported the proposed provisions bringing ground instructor certificate durations in line with currency requirements.

The Greater St. Louis Flight Instructor Association recommended ground instructors be required to complete a Flight Instructor Refresher Clinic to renew their privileges every 2 years. Such a renewal requirement would refresh instructors on core concepts and allow introduction of new material.

The FAA is adopting the revision as proposed in the NPRM.

9. This revision of § 61.23(a)(3)(vii) provides for Examiners to only be required to hold a third class medical certificate

Amended § 61.23(a)(3)(vii) requires Examiners to hold only a third class medical certificate. The FAA wants to parallel Examiners' medical certificate requirements in FAA Order 8900.2. FAA Order 8900.2 requires that an Examiner hold only a third class medical certificate when performing practical tests in an aircraft (with an exception for Examiners administering practical tests in a glider or balloon).

Four commenters supported the provision permitting examiners to hold

only a third class medical certificate. The Greater St. Louis Flight Instructor Association asserted that examiners should not be required to hold a medical certificate at all, because, according to § 61.47, an Examiner is not the pilot in command (PIC). The association further asserted that Examiners reviewing sport pilot certificate applicants should not be required to hold a medical certificate.

The FAA acknowledges the comments received about our proposals. We are adopting the provision permitting Examiners only be required to hold third class medical certificates in § 61.23(a)(3)(vii).

10. This revision of § 61.23(b)(3) clarifies that persons exercising the privileges of a glider or balloon rating are not required to hold a medical certificate

This final rule amends § 61.23(b)(3) by clarifying that persons exercising the privileges of a glider or balloon rating are not required to hold a medical certificate. The FAA has received questions about § 61.23(b)(3). Some have asked whether the no medical certificate requirement for operating a balloon or a glider applies only when a person is taking a practical test for a glider or balloon rating or whether it applies when a person is exercising the privileges of a glider or balloon rating. The rule is intended to apply in both situations. Section 61.23(b)(3) now clarifies that persons exercising the privileges of their glider or balloon rating, as appropriate, are not required to hold a medical certificate. As specified in the revised § 61.23(b)(8), a person also is not required to hold a medical certificate when taking a practical test for a balloon or glider rating.

Two commenters supported the proposed clarification that no medical certificate is required to exercise private pilot privileges in a balloon or glider. The FAA is adopting this change because it further clarifies § 61.23(b)(3) that when pilots are exercising the privileges of their glider or balloon rating, they do not have to hold a medical certificate.

11. This revision of § 61.23(b)(7) adds situations where an Examiner need not hold a medical certificate

This final rule amends § 61.23(b)(7) to establish that when an Examiner or a Check Airman is administering a test or check for an airman certificate, rating, or authorization in a glider, balloon, flight simulator, or flight training device, he/she will not be required to hold a medical certificate. Existing § 61.23(b)(7) states that an Examiner or

Check Airman is not required to hold a medical certificate when administering a test or check for a certificate, rating, or authorization in a flight simulator or flight training device. The words "glider" and "balloon" were inadvertently left out when the rule was last revised.

Two commenters supported the proposed clarification that no medical certificate is required to administer a practical test in a glider, balloon, flight simulator, or flight training device. The FAA is adopting the revision as proposed in the NPRM.

12. This revision of § 61.23(b)(8) adds situations where an applicant need not hold a medical certificate

This final rule amends § 61.23(b)(8) establishing when an applicant is receiving a test or check for a certificate, rating, or authorization in a glider, balloon, flight simulator, or flight training device, the applicant is not required to hold a medical certificate.

Existing § 61.23(b)(8) states that an applicant is not required to hold a medical certificate when receiving a test or check for a certificate, rating, or authorization in a flight simulator or flight training device. The words "glider" and "balloon" were inadvertently left out when the rule was last revised.

Two commenters supported the proposed clarification adding that a medical certificate is not required to undergo a practical test in a glider, balloon, flight simulator, or flight training device.

The FAA is adopting the revision as proposed in the NPRM.

13. This revision of § 61.23(b)(9) relieves military pilots of the U.S. Armed Forces from having to obtain an FAA medical certificate

This final rule adds a new § 61.23(b)(9) that, in some cases, relieves military pilots from the requirement to have an FAA medical certificate. Instead, military pilots must have an up-to-date medical examination conducted by the U.S. Armed Forces, which authorizes them to perform flight duty. This exception is for military pilots from the U.S. Air Force, U.S. Army, U.S. Marine Corps, U.S. Navy, U.S. Coast Guard, and National Guard and Reserve units.

The pilot's authorization for flight duty must be up to date on the date he or she relies on the military medical authorization to qualify for the § 61.23(b)(9) exception. We are using the general phrase "up to date" to modify a pertinent military medical authorization because the terminology

regarding flight duty/flight status varies between the Army, Navy, Air Force, Marine Corps, Coast Guard, and National Guard and Reserve. The exception may be only used for flights requiring privileges of an FAA third-class medical certificate and when flying within U.S. airspace. We have limited this exception to operations within U.S. airspace because international standard (Annex 1 to the Convention on International Civil Aviation) requires pilots to hold an appropriate medical certificate from their civil aviation authority.

A conforming change has also been made to new § 61.3(c)(2)(xii) to exclude U.S. military pilots from having to carry an FAA medical certificate when exercising the privileges of their FAA pilot certificates. However, an up-to-date military medical examination is required for that person's active status as a military pilot. If requested by the FAA, the pilot will be required to show active status as a military pilot in lieu of the FAA medical certificate. To clarify, by "active status" we mean that the military pilot has an up-to-date medical examination and clearance issued by the U.S. Armed Forces authorizing pilot flight duty. Common military terminology for this authorization is an "up slip" or medical clearance to fly.

As implied in the existing § 61.39(a)(4), to be eligible for a practical test for a certificate or rating issued under part 61, one does not always need to hold an FAA-issued medical certificate. Under this § 61.23(b)(9) exception, a military pilot who is applying for a practical test is only required to have completed a U.S. military medical examination for military pilot status in lieu of holding an FAA third-class medical certificate. The FAA has determined that medical examinations provided by the U.S. Armed Forces provide a level of safety that more than satisfies the standards required for an FAA third-class medical certificate.

The FAA recognizes that each branch of the U.S. military has its own set of medical standards required for military pilot applicants. While there may be differences, the FAA finds that the military medical standards met by applicants—many who will conduct complex military exercises or combat operations—are, by nature and of necessity, more stringent and therefore exceed minimum 14 CFR part 67 standards. Military medical examinations also are more stringent. For example, military pilots endure more thorough vision screening—such as for refraction, depth perception, night

vision, and intraocular tension. Military pilots are subjected to audiometry testing during the hearing portion of their examinations whereas civilian pilots are allowed to choose their method of hearing test which can be a speech discrimination test, a conversational voice test, or pure-tone audiometry. Laboratory testing (such as glucose, lipid, hemoglobin, serology, urinalysis testing) and radiographic studies (such as chest x-ray) also are conducted.

The FAA recognizes that there may not be absolute parallels in military and civilian aviation with regard to certain procedural screening, such as for substance abuse. For example, the FAA verifies all medical certificate applications against information contained in the National Driver Registry to determine whether an applicant has failed to reveal an alcohol-related motor vehicle action. While this may not be done in the same manner during military pilot medical screening, military pilots are more subject to routine screening for substance abuse than are civilian pilots. Civilian private pilots must adhere to part 61 substance abuse standards, however they are not subject to routine drug testing. Unlike in the civilian realm where notice must be given, in the military realm routine screening typically is unannounced and is observed by collectors. In addition, within a military squadron, close observation and scrutiny of behavior is provided by colleagues within the squadron and also by squadron flight surgeons who work and fly with military pilots on a daily basis.

While medication usage authorized for military pilots may differ from usage authorized by the FAA for civilian pilots, the basic philosophy is the same—when contraindicated for flying, pilots must be grounded. Military pilots must be approved by a flight surgeon when taking any new medication. While military pilots are bound by standards similar to 14 CFR 61.53, prohibiting operations during a known medical deficiency, military pilots are more likely to be removed from flying duties before they have to make the decision to ground themselves. Because military oversight of pilots is branch specific, whereas FAA oversight is much more broad-based, the military is able to ground pilots more readily when necessary. Military pilots may not return to flight status unless approved by a flight surgeon.

Twelve commenters supported the proposed provision excusing military pilots who have an up-to-date military medical examination from holding an FAA medical certificate. Six

commenters recommended that, in addition to military pilots, any military air crewmember holding an up-to-date military medical examination be allowed to meet FAA medical certificate requirements without actually holding an FAA-issued medical certificate. One commenter opined that the proposed provision appears to conflict with § 61.31(c)(1) requiring pilots to carry their medical certificates to operate as pilot in command (PIC). Two commenters recommended that FAA clarify what constitutes evidence of a military medical examination, and one person suggested the FAA define "current" for such examinations. He/she further recommended such examinations be current for twelve calendar months from examination date.

The Experimental Aircraft Association (EAA) and the National Association of Flight Instructors (NAFI) noted that §§ 91.146 and 91.147, prescribing requirements for passenger-carrying flights for the benefit of charitable, nonprofit, or community events, require the event sponsor to furnish the local Flight Standard District Office (FSDO) with a photocopy of the pilot's medical certificate. EAA and NAFI recommended amending the proposed rule to clarify that military pilots are eligible to conduct such flights based on their military examination.

In response to commenters who requested any military air crewmember holding a military medical examination (*e.g.*, aviation weapons officer, flight surgeon, navigator, flight crew chief, flight engineer, *etc.*) be excused from FAA medical certificate requirements, we have determined that this medical exception will only be afforded to U.S. military pilots. We determined there are too many differences in the stringency, standards, and durations of military medical examinations for the various other kinds of military crewmembers to permit crewmembers other than pilots to exercise the privileges of an FAA medical certificate without requiring them to hold one. Therefore, this medical exception provided in § 61.23(b)(9) will only be afforded to U.S. military pilots under the circumstances described above.

Procedurally, we envision this process to work as follows. A military pilot's satisfactory completion of a military medical examination from the U.S. Armed Forces, which authorizes the pilot flight duty, is routinely recorded on a military medical clearance or recommendation for flying form (*e.g.*, DA Form 4186, AF Form 1042, NAVMED 5410/2, *etc.*). The pilot will not need to show the actual

military medical examination record form. If the pilot is required to show the FAA that he or she has an up-to-date military medical clearance authorizing pilot flight duty on a given day, the pilot will only need to show the FAA a copy of the official U.S. military pilot flight documentation record, which indicates the pilot's flight status and his or her medical standing.

We do not find that the proposed exception conflicts with § 61.31(c)(1), requiring pilots to carry their medical certificates to operate as PIC. Since military pilots do not carry an actual document of their military medical examination, they are excused from having to carry a medical certificate when exercising the privileges of their FAA pilot certificates. We have provided a discussion and explanation of this matter in the preceding paragraphs.

Responding to the EAA and NAFI comment regarding §§ 91.146 and 91.147 requirements for passenger-carrying flights benefiting charitable, nonprofit, or community events, military pilots are not required to hold an FAA medical certificate under our new § 61.23(b)(9). This means that the military medical examination normally could not be used for flights engaged in the carriage of passengers or property for compensation or hire. However, under § 61.113(b) there are some limited exceptions for private pilots holding a third-class medical certificate, and the military pilots qualifying for our new § 61.23(b)(9) would qualify for the § 61.113(b) exceptions as well.

In response to the commenter requesting we define "current" (*i.e.*, proper duration) for the purposes of a U.S. military medical examination, the U.S. military duration standard for examinations for pilot flight status is typically one year, though some may be as short as six calendar months or as long as eighteen calendar months. However, the specific duration requirements for U.S. military medical examinations are governed by the U.S. Armed Forces, not the FAA. Also, the military has procedures in place similar to the civil requirements of § 61.53 prohibiting flight duty when they are unable to meet medical requirements.

14. This revision of § 61.29(d)(3) deletes the requirement for a person to furnish their Social Security Number

This final rule no longer requires that a person requesting replacement of a lost or destroyed airman certificate, medical certificate, or knowledge test report furnish his/her Social Security Number. The FAA by law cannot require a person to furnish his/her

Social Security Number. However, a person may voluntarily provide his/her Social Security Number to establish his/her identity. In addition, we have added clarifying language in § 61.29(d)(4) explaining what information is required in the letter from a person who requests replacement of a lost or destroyed medical certificate.

Six commenters supported elimination of having to furnish a Social Security Number for a replacement certificate. One commenter objected to our proposal arguing that a Social Security Number should be furnished at all times. The FAA acknowledges the comments received about this proposal. Federal Law restricting release of Social Security Numbers is controlling over FAA regulations. Therefore, the FAA is adopting the revision as proposed in the NPRM.

15. This revision deletes the duplication in § 61.31(d)(2) by deleting the rule

This final rule deletes § 61.31(d)(2) that required a pilot in command (PIC) to receive "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." The FAA has received inquiries about the difference between paragraphs (d)(2) and (d)(3) and found that they are conflicting. We also found that paragraph (d)(2) conflicts with § 61.51(e)(1)(i).

When the FAA initially revised § 61.31(d), we were considering a new phrase "supervised PIC flight" that would allow a PIC in training to act as an aircraft's PIC if properly supervised by their flight instructor. (*See* 60 FR 41160, 41227; August 11, 1995). The "supervised PIC flight" concept was not adopted in the final rule, but paragraph (d)(2) erroneously remained in the final rule (*See* 62 FR 16220; April 4, 1997). Paragraph (d)(3) of § 61.31 details FAA's PIC requirements and § 61.51(e)(1)(i) for logging PIC flight time.

Three commenters supported changes to § 61.31(d). One commenter noted that under proposed §§ 61.31(d)(2) and 61.51(e)(1), a pilot not rated for a category or class of aircraft could, without time limitation, log PIC flight time in that category or class of aircraft once he/she received a solo flight endorsement. The commenter suggested the FAA put a duration limitation on solo endorsements similar to the 90-day limitation on solo endorsements issued to student pilots.

The FAA acknowledges the comments received about this proposal. The 90-day limitation on solo endorsements is for student pilots, not rated pilots.

Therefore, the FAA is deleting § 61.31(d)(2) as proposed in the NPRM.

16. This revision adds a new § 61.31(k) that provides training and qualification requirements for pilots who want to operate with night vision goggles

This final rule creates a new § 61.31(k) that will require ground and flight training and a one-time instructor endorsement for a pilot to act as PIC during night vision goggle (NVG) operations. This final rule "grandfathers" PICs previously qualified as PIC for NVG operations under § 61.31(k). Under new subparagraph (k)(3), a pilot will not need the "one-time" NVG training and endorsement provided the pilot can document having satisfactorily accomplished any of the following pilot checks for using NVGs in an aircraft:

- Completion of an official pilot proficiency check for using NVGs and that check was conducted by the U.S. Armed Forces; or
- Completion of a pilot proficiency check for using NVGs under part 135 of this chapter and that check was conducted by an Examiner or a Check Airman.

Three commenters generally supported the training requirements for NVG operations. The Aircraft Owners and Pilots Association (AOPA) supported the general concept of defining and addressing NVG operations, while urging deference to NVG users on specific operational details of proposed provisions. The General Aviation Manufacturers Association (GAMA) suggested the FAA consider recommendations from both the 2000 Aviation Rulemaking Advisory Committee (ARAC) with respect to NVG operations and the September 7, 2005 part 135/125 Aviation Rulemaking Committee (ARC).

American Eurocopter and the Helicopter Association International (HAI) objected to the requirement for training on the preparation and use of internal and external lighting systems for NVG operations. They asserted that external lighting systems of helicopters should require no preparation for NVG operations and if external lights are interfering with operations, they can be turned off. The commenters supported the proposed rule to the extent the requirement refers to training in the use of existing external lighting. Eurocopter and HAI also supported qualified law enforcement personnel NVG operations training and endorsement requirements.

Four comments were submitted by representatives of law enforcement agencies or entities involved in training law enforcement personnel in NVG

operations. These commenters noted NVG flight operations are conducted on a wide scale by law enforcement agencies and civilian public service operators. These four commenters proposed that pilots who have completed a formal NVG training course administered by an NVG manufacturer or authorized trainer or instructor and have logged twenty hours as PIC in NVG operations should be excused from the NVG operations training and endorsement requirements. An exemption from NVG operations training and endorsement should also be granted to U.S. Armed Forces pilots with NVG or part 135 experience. One commenter objected to NVG operations by the general flying public and stated use outside of law enforcement should be prohibited. The commenter asserted the risks of such use outweigh any potential benefit. The commenter also recommended use of NVG by law enforcement personnel should be addressed by a stand alone rulemaking.

The FAA appreciates the diverse comments received on our NVG training and qualification requirement proposal. The NVG ground and flight training in § 61.31(k) include recommendations from the 2000 ARAC and part 125 and 135 ARCs. We have further reviewed the ground and flight training in § 61.31(k) to ensure that the ground and flight training requirements conform to industry recommendations. The FAA agrees with the commenters and has further revised § 61.31(k) accordingly. The FAA has added a new paragraph (iii) to § 61.31(k)(3) to incorporate these recommendations.

In response to the recommendation about preparation of external lighting systems, we have revised the rule text to clarify the intent. We agree that a pilot does not have ability to prepare external lighting systems and thus we have revised the language in § 61.31(k)(2)(i). We have replaced the word "preparation" with "preflight" to clarify the intent for a pilot to preflight the internal and external aircraft lighting systems.

Finally, we do not agree that NVG operations should be restricted to law enforcement personnel. There are legitimate civilian uses for NVG, and our rule for training and qualifications will benefit law enforcement and other users of NVG. This final rule includes provisions to excuse law enforcement pilots who have completed a formal NVG training course administered by an NVG manufacturer or authorized trainer or instructor and have logged 20 hours as PIC in NVG operations from the training and endorsement requirements for NVG operations. This would be in

addition to excusing pilots with NVG experience in the U.S. armed forces or in operations under part 135. For the above reasons, the FAA is adopting the ground and flight training requirements for NVG qualifications in § 61.31(k).

17. This revision adds a new § 61.35(a)(2)(iv) that requires proof of current residential address at the time of application for a knowledge test

New § 61.35(a)(2)(iv) clarifies when a person's permanent mailing address is a P.O. Box, the person must show proof of their current residential address at the time of application for a knowledge test. The purpose of this change is to conform the instructions in revised § 61.35(a)(2)(iv) with instructions in existing § 61.60.

Three commenters opposed the proposed provision requiring an applicant for a knowledge test to provide proof of a current residential address, asserting a knowledge test alone does not result in the issuance of a certificate or rating. Two other commenters noted that proof of residence is not required for an airman application, although airmen are required to notify the FAA of changes of address before exercising privileges. One commenter argued since proof of residential address is required for a practical examination, requiring it for a knowledge test is redundant and unnecessary.

The FAA acknowledges the comments received on this proposal. The essence of this change is merely to further clarify the intent of the existing rule and no substantive change is being made to the rule. The FAA is adopting the revision as proposed in the NPRM.

18. This revision of § 61.39(b)(2) deletes the word "scheduled" in front of the phrase "U.S. military air transport operations"

Revised § 61.39(b)(2) deletes the word "scheduled" in front of the phrase "U.S. military air transport operations" because there is no such thing as "scheduled" U.S. military transport operations. One commenter supported the proposed deletion. The FAA is adopting the revision as it was proposed in the NPRM.

19. This revision of § 61.39(c)(2) deletes the phrase "or a class rating with an associated type rating" in reference to the endorsement exception for applying for an additional aircraft class rating

Revised § 61.39(c)(2) deletes the phrase "or a class rating with an associated type rating" for persons who are applying for an additional aircraft class rating. In §§ 61.39(a)(6) and

61.63(c), the rules require an applicant for a practical test for an additional aircraft class rating to receive a logbook or training record endorsement from an authorized instructor. Existing § 61.39(c)(2) incorrectly suggests that an endorsement is not required for an applicant for an aircraft class rating. This final rule amends § 61.39(c)(2) by removing the phrase "or a class rating with an associated type rating" which clarifies that the rule does not exempt applicants for an aircraft type rating from having to receive an endorsement from an authorized instructor.

One commenter supported the deletion of the instructor endorsement exception for an additional class rating. The FAA acknowledges the comment received on this proposal. The purpose of this change is to correct a mistake in the former § 61.39(c)(2). No substantive changes have been made to § 61.39(c)(2), and we are adopting the revision as proposed in the NPRM.

20. This revision of § 61.39(d) and (e) clarifies the time frame for completing a practical test

This revision amends the phrase "60 calendar days" in § 61.39(d) and (e) to read "2 calendar months." Our proposed change makes it simpler to calculate the time for when a segmented practical test must be completed. An applicant who accomplishes a segmented practical test will be required to complete the entire practical test within two calendar months after beginning the test. For example, an applicant who starts the oral portion of the practical test on July 2, 2008, will have to complete the remaining portions of the practical test (*i.e.*, simulator/training device check and aircraft flight check) before the end of September 2008. Additionally, we have further revised § 61.39(a)(6)(i) because we failed to propose a change of "60 days" to read "2 calendar months" in the rule. This was an inadvertent oversight and spotted by a commenter during NPRM review.

Ten commenters supported the proposed change in the time in which a practical test must be completed. One commenter asserted that if the time for completion of a practical test is changed to two calendar months, the validity period of the flight instructor endorsement must likewise be changed. LeTourneau University recommended the currency requirements of § 61.57(a)(1) and (b)(1) also be changed from ninety days to three calendar months. Another commenter generally supported bringing all time requirements in line by using a calendar month basis, but objected that the

proposed rule, as written, could give pilots up to 3 months to complete a practical test. The commenter's assessment is correct, and the new rule change will allow a pilot to have up to three months to complete a practical test.

The FAA also agrees with the recommendation to revise the validity period for flight instructor endorsement from "60 days" to read "2 calendar months" because of our inadvertent oversight in not proposing this change in § 61.39(a)(6)(i). Therefore, further revised § 61.39(a)(6)(i) now reads: "Has received and logged training time within 2 calendar months preceding the month of application in preparation for the practical test."

21. This revision of § 61.43(b) will clarify when an applicant has the choice to perform the practical test as a single pilot or use a second in command

This final rule has revised § 61.43(b) to clarify when an applicant can perform the practical test as a single pilot or use a second in command. If a second in command pilot is used under new § 61.43(b)(3), the limitation "Second in Command Required" will be placed on the applicant's pilot certificate. This final rule revises § 61.43(a) by moving old § 61.43(a)(5) into revised § 61.43(b).

Under new § 61.43(b)(1), if the aircraft's FAA-approved aircraft flight manual requires the pilot flight crew complement be a single pilot, then the applicant will be required to demonstrate single pilot proficiency on the practical test. Under new § 61.43(b)(2), if the aircraft's type certification data sheet requires the pilot flight crew complement be a single pilot, then the applicant is required to demonstrate single pilot proficiency on the practical test. The Cessna 172, Cessna 310, Piper Malibu (PA-44), and Beech Baron (BE-58) are examples of aircraft whose flight manuals and/or type certification data sheets require the pilot flight crew complement be a single pilot.

Under new § 61.43(b)(3), if the FAA Flight Standardization Board report, FAA-approved aircraft flight manual, or aircraft type certification data sheet allows the pilot flight crew complement to be either a single pilot, or a pilot and a copilot, then the applicant may perform the practical test as a single pilot or with a copilot. If the applicant performs the practical test with a copilot, the limitation of "Second in Command Required" will be placed on the applicant's pilot certificate. Under new § 61.43(b)(3), the "Second in Command Required" limitation may be

removed if and when the applicant passes the practical test by demonstrating single-pilot proficiency in the aircraft in which single-pilot privileges are sought.

Examples of aircraft for which an FAA Flight Standardization Board has approved the minimum pilot flight crew complement to be either a single pilot, or a pilot with a copilot, are certain models of the Beech 300, Beech 1900C, and Beech 1900D airplanes that received certification under SFAR 41; certain models of the Empresa Brasileira de Aeronautica EMB 110 airplanes that received certification under SFAR 41; and certain models of the Fairchild Aircraft Corporation SA227-CC, SA227-DC, and other Fairchild commuter category airplanes on that same type certificate that received certification under SFAR 41 and that have a passenger seating configuration, excluding pilot seats, of nine seats or less and the airplane's type certificate authorizes single pilot operations.

The Cessna 501, Cessna 525, Cessna 551, Raytheon 390, and Beech 2000 are examples of aircraft whose flight manuals and/or type certification data sheets allow the minimum pilot flight crew complement to be either a single pilot, or a pilot with a copilot.

Two commenters supported the proposed clarifications of circumstances under which a pilot may complete a practical test with a copilot present. The FAA is adopting the revision as proposed in the NPRM.

22. This revision of § 61.45(a)(2)(iii) will define what is a military aircraft for the purpose of a practical test

Revised § 61.45(a)(2)(iii) will clarify the definition of a "military aircraft" when used in a practical test. Recently, there has been some confusion about whether it is permissible to use a surplus military aircraft with no civilian aircraft type designation for an airman certificate or rating practical test. Some applicants have requested to use a surplus military OH-58 Army helicopter for their practical test. As these surplus military helicopters are not Bell BH-206 helicopters, they do not have a civilian type designation. The FAA has determined it is not permissible to use these surplus former military aircraft for completing a practical test.

Revised § 61.45(a)(2)(iii) will now define a "military aircraft" as an aircraft under the direct operational control of the U.S. Armed Forces. Under this definition, surplus military aircraft are not military aircraft because they are not under the direct operational control of the U.S. military.

Three commenters, including HAI, objected to the proposed definition and exclusion from civilians using surplus military aircraft on a practical test. Two commenters asserted that any aircraft that satisfies equipment requirements and is deemed safe for operation should be eligible for a practical test. They further argued that the checking of pilots who use these aircraft exclusively would enhance safety. One commenter asserted that the operation of historical aircraft should be encouraged. All commenters opposing the proposed provision recommended the FAA issue special airworthiness certificates for such aircraft. The EAA and NAFI objected to the use of the term surplus military aircraft, and recommended the FAA use the industry-accepted term, "former military aircraft."

The purpose of our rule change is to clarify the existing rule, and no substantive changes are being made. Regarding EAA and NAFI's recommendation that the FAA use industry-accepted term "former military aircraft," the rule language in § 61.45(a)(2)(iii) does not use either term of "surplus military aircraft" or "former military aircraft." The rule merely defines when military aircraft experience is applicable for a certificate or rating.

23. This revision of § 61.45(c) will except lighter-than-aircraft, and gliders without an engine, from the requirement that 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

This final rule amends § 61.45(c) by excepting lighter-than-aircraft, and gliders without an engine, from requirement that aircraft used for a practical test must have engine power controls and flight controls easily reached and operable in a conventional manner by both pilots. Except for engine-powered gliders, most gliders do not have engine power controls.

Three commenters supported the proposed provision excepting gliders from the requirement that aircraft used for a practical exam have engine power controls and flight controls easily reached and operable by both pilots. One commenter opposed the proposed provision, asserting that motor gliders or self-launch gliders have power controls. The commenter argued that, even without the proposed provision, the Examiner has discretion to still permit gliders not meeting specifications be used for the practical test. One commenter supported the proposed provision. The commenter

acknowledged that some gliders may have engine controls not easily reached by both pilots, but that this should not preclude an Examiner's determination that a practical test can be safely conducted.

The FAA agrees with the comments that § 61.45(c) requires further clarification to differentiate between gliders that are unpowered and those that have an engine. Section 61.45(c) is further revised by adding phrase "without an engine" in reference to gliders.

24. This revision of § 61.51(b)(3)(iv) will provide for logging night vision goggle time

Revised § 61.51(b)(3)(iv) adds a provision that in order to log "night vision goggle time" compliance with the training time and aeronautical experience must be demonstrated when acting as pilot in command (PIC) for night vision goggle (NVG) operations. The logging of NVG time will be permitted when performed in an aircraft in flight, in a flight simulator, or in a flight training device.

The Aircraft Owners and Pilots Association (AOPA) supported the concepts of defining and addressing night vision goggle operations, while deferring to NVG users on the specific details of the proposed provisions. American Eurocopter and HAI argued pilots conducting NVG operations should be permitted to log both NVG time and night flight time. These commenters stated a pilot's peripheral vision is not affected and the same cockpit management skills are required for both NVG time and flight time. Two commenters asserted existing § 61.51(b) is adequate to address logging of NVG time and adding "while using night vision goggles" would suffice for clarity.

Regarding comment about whether NVG flight time may also be logged as night flight time, the revision to § 61.51(b)(3)(iv) does not prohibit the logging of NVG flight time and night flight time simultaneously. It is acceptable for a person to log both NVG flight time and night flight time if the conditions of flight occur during nighttime. The logging of nighttime for recency of experience must be "during the period beginning 1 hour after sunset and ending 1 hour before sunrise." (See § 61.57(b)(1)).

The FAA acknowledges the comments received about this proposal. We are not revising or withdrawing the proposal.

25. This revision of § 61.51(e)(1) will correct an omission of the words "airline transport pilot" regarding logging of pilot in command flight time

Because existing § 61.51(e)(1) does not include "airline transport pilots" it may appear airline transport pilot (ATP) certificate holders do not have the same pilot in command (PIC) logging privileges as sport pilots, recreational pilots, private pilots, and commercial pilots. This final rule adds "airline transport pilot" to § 61.51(e)(1) to avoid any further confusion. In addition, we have adopted a commenter's recommendation the FAA also add "sport pilot" to § 61.51(e)(1).

Five commenters supported the proposed provision permitting ATPs to log PIC flight time. Three commenters opposed the proposed rule's omission of sport pilots from the list of pilots permitted to log PIC flight time and recommended their inclusion. We agree with the recommendation that holders of a sport pilot certificate should be able to log PIC flight time. Therefore, we have revised § 61.51(e)(1) to include holders of sport pilot certificates as those who are allowed to log PIC flight time.

26. This revision of § 61.51(e)(1)(iv) will permit a pilot performing the duties of pilot in command while under the supervision of a qualified pilot in command to log pilot in command flight time

Revised § 61.51(e)(1)(iv) will allow a pilot performing the duties of a pilot in command (PIC) while under the supervision of a qualified PIC to log PIC flight time. The FAA is making this revision to provide another way for commercial pilot certificate or airline transport pilot certificate holders to log PIC flight time.

The pilot performing the duties of a PIC will be required to hold a commercial pilot certificate or airline transport pilot certificate with the aircraft rating appropriate to the category and class of aircraft being flown, if a class rating is appropriate. The pilot must be under the supervision of an appropriately qualified PIC. Additionally, the pilot who is performing PIC duties is required to undergo an approved PIC training program consisting of ground and flight training on the following areas of operation: pre-flight preparation, preflight procedures, takeoff and departure phase, in-flight maneuvers, instrument procedures, landings and approaches to landings, normal and abnormal procedures, emergency procedures, and post-flight procedures.

The supervising PIC will be required to hold either a commercial pilot certificate or ATP certificate, and flight instructor certificate. In addition, the supervising PIC must hold the appropriate aircraft rating (*i.e.*, category, class, and type of aircraft being flown, if a class or type rating is required). The supervising PIC must log the PIC training given in the pilot's logbook, certify having given the PIC training in the pilot's logbook, and attest to that certification with his/her signature, flight instructor certificate number, and expiration date, or ATP certificate number, as appropriate. This revision parallels and further clarifies the provisions in revised § 61.129 and existing §§ 61.31(d), 61.159(a)(4), 61.161(a)(3), and 61.163(a)(3) for PIC aeronautical experience.

AOPA supported the concept, but believed the proposed rule was unclear and would lead to confusion. AOPA recommended rewriting the proposed regulatory text to include a matrix text showing conditions under which a pilot may log time as PIC. Four commenters supported the proposed provisions clarifying logging of PIC flight time by pilots acting as PIC under supervision. One commenter questioned whether the proposed provisions are targeted toward pilots working toward advanced certificates, ratings, or authorizations after receiving their commercial pilot certificates.

Four commenters asserted the proposed provisions are unnecessary, as pilots acting as PIC under supervision are already permitted to log PIC flight time under other sections of the regulations. The Greater St. Louis Flight Instructor Association objected to the proposed provisions arguing there is a trend toward pilots having inadequate true solo experience; it believes the proposed rule would result in pilots building time without accruing real experience. One commenter opposed application of the proposed provision other than in operations or aircraft requiring a second in command (SIC) (*e.g.*, operation of light single engine airplanes under part 91). The commenter did not consider a required safety pilot to be an SIC. One commenter objected to requiring endorsement of the acting PIC's logbook by the supervising PIC. The commenter asserted that the training contemplated by the proposed rule is recorded in training records, not logbooks. One commenter recommended pilots logging PIC flight time under supervision also be required to log dual instruction time.

This rule is designed to allow operators to train new hires to eventually become PICs. The rule was

initially petitioned for by Saudi Aramco. Saudi Aramco wanted permission to allow new hires' training in their Bell 214 helicopter to eventually become PICs in the company and allow logging PIC flight time while under the supervision of more experienced and senior PICs. This rule does require pilots to hold at least a commercial pilot certificate and requires those performing supervising PIC duties must hold either a commercial pilot certificate or airline transport pilot certificate, and flight instructor certificate with the appropriate category and class of aircraft being flown, if a class rating is appropriate.

A pilot may log PIC flight time when performing the duties of the PIC while under the supervision of the § 1.1 PIC. The FAA believes the rule is abundantly clear that a person may log PIC flight time when performing the duties of the PIC while under the supervision of the PIC, provided both the person who is performing the duties of the PIC and the supervising PIC meet the requirements of the rule.

After consideration of all the comments received, the FAA is adopting the revision as proposed in the NPRM.

27. This revision of § 61.51(g)(4) conforms the rule for logging of instrument time in a flight simulator, flight training device, and aviation training device to existing policy

This final rule amends § 61.51(g)(4) to allow logging of instrument time in a flight simulator (FS), flight training device (FTD), or aviation training device (ATD) conforming to existing regulation or policy. An authorized instructor (See § 61.1(b)(2)) must be present in the FS, FTD, or ATD when instrument training time is logged for training and aeronautical experience for meeting the requirements for a certificate, rating, or flight review (See § 61.51(a)). The instructor must sign the person's logbook verifying training time and session content.

Examples of situations in which an authorized instructor will be considered present would be where an authorized instructor is seated at a center control panel in a flight simulation lab and is monitoring each student's performance from control panel display. Another example would be a situation where an instructor assigns a student several instrument tasks and then leaves the room. In such cases, if the flight training device has a monitoring and tracking system that allows the authorized instructor to review the entire training session, the instructor need not be physically present. Another example

would be a situation where one authorized instructor monitors several students simultaneously in the same room at a flight simulation lab.

Six commenters supported the proposed provisions clarifying requirements for use of flight simulators, flight training devices and aviation training devices. Three commenters supported the proposed provisions regarding logging of training performed using an aviation training device. ALPA recommended a limitation be placed on the number of students an instructor may supervise, suggesting an instructor be permitted to oversee no more than three students simultaneously. For economic reasons, one commenter supported the specific provision that an instructor may oversee training of more than one pilot simultaneously.

Flight Safety International observed that flight schools and training centers often track training in records other than a logbook, and recommended proposed § 61.51(g)(4) be revised to require signing of a logbook or training record.

The FAA agrees that training permitted to also be logged in a training record. Section 61.51(g)(4) has been rewritten.

On whether to limit the number of students a single instructor may supervise, we did not propose such a restriction in the NPRM. Therefore, to require such a restriction would be beyond the scope of this final rule. The FAA is adopting the final rule as described above.

28. This revision of § 61.51(j) will establish the aircraft requirements for when a pilot may log "flight time"

Revised § 61.51(j) establishes the aircraft and aircraft airworthiness requirements for when a pilot may log flight time. To log flight time and meet the part 61 aeronautical experience requirements for a certificate, rating, or recent flight experience, the aircraft must have been issued either a standard or special airworthiness certificate (except for U.S. military aircraft flown by U.S. military pilots and under the direct operational control of the U.S. Armed Forces or public aircraft flown by pilots of a Federal, State, county, or municipal law enforcement agency). Special airworthiness certificates include primary, restricted, limited, light-sport, and provisional airworthiness certificates, as well as special flight permits and experimental airworthiness certificates (See § 21.175(b)).

Section 61.51(j) has been further revised to correct an error in an earlier version of the rule that prevented the

logging of flight time in aircraft issued special airworthiness certificates in the light-sport category, provisional airworthiness certificates, and special flight permits.

This revision will codify existing FAA policy under FAA Order 8900.1, Volume 5, Chapter 2, Section 5, page 3, paragraph 5-315 B., which states:

B. Logging Time. Unless the vehicle is type-certificated as an aircraft in a category listed in § 61.5(b)(1) or as an experimental aircraft, or otherwise holds an airworthiness certificate, flight time acquired in such a vehicle may not be used to meet requirements of part 61 for a certificate or rating or to meet recency of experience requirements.

The FAA has received several inquiries whether it is permissible to use surplus military aircraft that do not hold a civilian type designation as an aircraft or an airworthiness certificate for logging flight time to meet the part 61 requirements for a certificate, rating, or recent flight experience. The FAA's response has been that the aircraft must be of the category, class (if class is applicable), and type (if type is applicable) listed under § 61.5(b)(1) through (7), or the aircraft must hold an experimental airworthiness certificate.

American Eurocopter and HAI objected to the requirement that an aircraft be issued an airworthiness certificate for a pilot to log time in it, noting some aircraft have not been issued airworthiness certificates and may be legally operated without adversely affecting safety. The commenters asserted pilots exclusively operating aircraft without airworthiness certificates will be discouraged from training, which will negatively impact safety. The commenters recommended the FAA create a designation for surplus military aircraft meeting the intent of the rule to permit training and examination in such aircraft. One commenter interpreted proposed § 61.51(j) as prohibiting law enforcement pilots from logging time in surplus military aircraft, noting ability of military pilots to log time in identical aircraft and the ability of sport pilots to log time in uncertified aircraft.

One commenter implied that proposed § 61.51(j) would not permit a sport pilot to log time in aircraft other than light sport aircraft. The commenter questioned whether such a pilot should be able to log training received in such aircraft, and suggested that the proposed § 61.51(j)(2) be deleted, because § 61.51(e)(1) already prevents sport pilots from logging PIC time in other than light sport aircraft. One commenter questioned whether special operating light sport aircraft (SLSA) should be

included in the acceptable airworthiness certificate criteria in proposed § 61.51(j)(1). The commenter also recommended the section require that an acceptable airworthiness certificate be current and valid.

One commenter asserted proposed § 61.51(j) may conflict with § 61.52, permitting logging of time in ultralight aircraft toward a sport pilot certificate. The commenter also asserted that a prohibition on logging time in surplus military aircraft will discourage maintenance of national historic assets.

The purpose of the change is to parallel the rule with existing policy in FAA Order 8900.1, Volume 5, Chapter 2, Section 5, page 3, paragraph 5–315 B and the statutory requirements in Public Law 106–424.

The FAA disagrees the rule prohibits law enforcement pilots from being permitted to log flight time. Section 61.51(j)(4) allows logging of flight time if the pilot is engaged in official law enforcement duties in a public aircraft under the direct operational control of a Federal, State, county, or municipal law enforcement agency. Public Law 106–424 (November 1, 2000) provides, in pertinent part, that pilots of a Federal, State, county, or municipal law enforcement agency may log flight time for the purposes of meeting the aeronautical experience requirements for a certificate, rating or recent flight experience under part 61 in limited cases. The stipulation is that the law enforcement pilot must be operating a public aircraft, as defined under 49 U.S.C. 40102; the aircraft must be identified as a category and class of aircraft listed under § 61.5(b); and the aircraft is being used in law enforcement activities of a Federal, State, county, or municipal law enforcement agency.

The FAA does not find that rule language in § 61.51(j) conflicts with § 61.52. The FAA has always made a distinction between the term “aircraft” and “ultralight vehicle.” Section 61.51(j) applies to an aircraft that is identified as an aircraft under § 61.5(b). Section 61.52 applies to the use of aeronautical experience obtained in “ultralight vehicles.”

As previously stated, the FAA has further revised § 61.51(j)(1) to permit a sport pilot to log flight time in light-sport aircraft that hold either a standard or special airworthiness certificate. Under § 61.51(j)(1), the rule permits pilots (including a holder of a sport pilot certificate) to log flight time in an aircraft of U.S. registry with either a standard or special airworthiness certificate. Under § 61.51(j)(1), we have further revised the rule to permit the

logging of flight time in an aircraft of U.S. registry with either a standard or special airworthiness certificate. Under § 21.175(b), a special airworthiness certificate includes aircraft that have been issued a primary, restricted, limited, light-sport, or a provisional airworthiness certificate, special flight permit, or experimental airworthiness certificate. Therefore, a special operating light sport aircraft (SLSA) is covered by § 61.51(j)(1) for the purpose of being allowed to log flight time.

29. This revision of § 61.51(k) will establish the criteria and standards for logging NVG time

Revised § 61.51(k) establishes criteria and standards for logging night vision goggle (NVG) time by revising the minimum information entered when logging time in a pilot’s logbook. Under new § 61.51(k)(3), the required information for logging NVG time are the logbook entries under § 61.51(b).

Under the revision, a pilot may log NVG time using NVGs as the sole visual reference of the surface in an operation conducted in an aircraft at night (during the period beginning one hour after sunset and ending one hour before sunrise) in flight. Alternatively, a pilot may log NVG time in a flight simulator or in a flight training device provided the flight simulator or flight training device’s lighting system has been adjusted to replicate the period beginning one hour after sunset and ending one hour before sunrise.

Under new § 61.51(k)(2), the rule will establish when an authorized instructor may log NVG time. The instructor must be conducting NVG training and must be using NVG as the sole visual reference of the surface. The time must be in an aircraft operated at night in flight, or in a flight simulator or flight training device with the lighting system adjusted to represent the period beginning one hour after sunset and ending one hour before sunrise.

As elsewhere in this final rule document, AOPA supported the general concept of defining and addressing NVG operations, while deferring to NVG users on specific details of the proposed provisions. Two commenters asserted existing § 61.51(b) and § 61.57(a)(3) are adequate and only require adding phrase “while using night vision goggles.” Two commenters asserted pilots conducting NVG operations should be permitted to log both NVG time and night flight time. These commenters believed a pilot’s peripheral vision is no different under the two conditions and the same cockpit management skills are required for both NVG time and night flight time.

Two commenters recommended clarifying that NVG should not be used as the sole visual reference to the surface, stating NVG should only be used to enhance abilities during night VFR flight.

In regards to the comment about whether NVG flight time may also be logged as night flight time, the revision to § 61.51(b)(3)(iv) does not prohibit the logging of NVG flight time and night flight time simultaneously. It is perfectly acceptable for a person to log both NVG flight time and night flight time if the conditions of flight occur during nighttime. The logging of night flight time for currency purposes is the flight must occur “during the period beginning one hour after sunset and ending one hour before sunrise” (See § 61.57(b)(1)). Night flight time, for other than the night currency purposes of § 61.57(b)(1), may be logged when the flight occurs during the nighttime conditions as defined in § 1.1 of this chapter (*i.e.*, “Night” means the time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time).

The essence of our changes is clarifying the rule’s intent and no substantive changes are being made. Therefore, the FAA is adopting the revision to § 61.51(b)(3)(iv).

30. This revision of § 61.57(c) amends the instrument recent flight experience tasks and iterations and allows use of aviation training devices, flight simulators, and flight training devices for maintaining instrument recent flight experience

The FAA has decided to withdraw the referenced proposal to amend the instrument tasks for maintaining instrument currency because the proposed tasks were opposed by an overwhelming majority of the commenters. As a result of our decision to withdraw this proposal, the instrument tasks for maintaining instrument currency under § 61.57(c) will remain as:

- Six instrument approaches.
- Holding procedures and tasks.
- Intercepting and tracking courses

through the use of navigational electronic systems.

This final rule amends § 61.57(c) to allow use of aviation training devices (ATD), flight simulators (FS), and flight training devices (FTD) for maintaining instrument recent flight experience. Revising § 61.57(c) will further clarify that a person who acts as pilot in command (PIC) under instrument flight rules (IFR) or weather conditions at less

than the minimums prescribed for visual flight rules (VFR) must look back 6 calendar months from the month of the flight to determine whether the instrument flight experience requirements were met.

In order to maintain instrument flight experience in airplanes, powered-lifts, helicopters, and airships, the revision requires the pilot perform and log the instrument flight experience in an airplane, powered-lift, helicopter, or airship appropriate to the category of aircraft for the instrument rating privileges the pilot desires to maintain. This instrument flight experience could be completed in either actual instrument meteorological conditions (IMC) or under simulated instrument conditions with use of a view-limiting device.

Subject to certain limitations, a pilot may choose completing his/her instrument experience requirements in an aircraft and/or through use of an FS, FTD, or ATD. The simulation devices must be representative of the category of aircraft suitable for the instrument rating privileges that the pilot desires to maintain.

Under new § 61.57(c)(2), a person may use a flight simulator or flight training device exclusively by performing and logging at least three hours of instrument recent flight experience within the six calendar months before the month of the flight.

Under new § 61.57(c)(3), a person may use an ATD exclusively by performing and logging at least three hours of instrument recent flight experience within the two calendar months before the month of the flight. We have deliberately established differences between the use of an ATD, FS, and flight training devices because use of an aviation training device to maintain instrument recent flight experience is a relatively new concept. The FAA wants to further evaluate its use before we allow use of ATDs equal to that of flight simulators and flight training devices.

Under new § 61.57(c)(4), a person could combine use of the aircraft and FS, FTD, and ATD to obtain instrument experience. When a pilot elects to combine use of an aircraft and simulation device, we will require, under new § 61.57(c)(4), completion of one hour of instrument flight time in the aircraft and three hours in the FS, FTD, or ATD within the preceding 6 calendar months.

Under new § 61.57(c)(5), a person may combine use of an FS or FTD flight training, and an ATD to obtain instrument recent flight experience. When a pilot elects this combination, we will require one hour in a flight

simulator or flight training device, and three hours in a training device within the preceding six calendar months.

Under new § 61.57(c)(6), the final rule amends the instrument tasks and iterations for maintaining instrument flight experience in a glider. The person will be required to log instrument recent flight experience, tasks, and iterations in his/her logbook to show accomplishment of this instrument training. The person will be required to use a view-limiting device when performing this instrument recent flight experience or be in actual instrument meteorological conditions.

Three commenters recommended changing the terminology used to describe flight simulation devices. Three commenters asserted the use of basic aviation training devices (BATD) and advanced aviation training devices (AATD) is expected to increase and suggested the rule use this terminology.

Two commenters asserted the differing requirements for maintaining currency using aircraft or different simulation devices are complex and confusing. One commenter objected to a minimum time requirement for maintaining currency using a simulation device, asserting that the amount of time necessary to complete the prescribed tasks is sufficient.

Eight commenters objected to the fact that the requirements for maintaining currency using a simulation device are greater than the requirements for maintaining currency in an aircraft. Four commenters asserted training using a simulation device is at least as valuable as training in an aircraft. Two commenters objected to the proposed provisions permitting use of an ATD to maintain currency. One commenter asserted that no data has been presented showing that ATDs are effective in maintaining proficiency. One commenter recommended the rule require the tasks to be performed, but set no minimum training time requirement. ALPA argued that a pilot could maintain currency indefinitely by using an aviation training device for three hours every two months. ALPA recommended the proposed rule be supplemented with a requirement that instrument currency exercises be performed in an aircraft or using a FS or FTD within the previous eighteen months.

One commenter recommended a simpler set of requirements and an equivalency ratio, such as two approaches in a simulator being equivalent to one approach in an aircraft. Another commenter recommended the same requirements apply regardless of whether an aircraft

or simulation device is used to maintain currency, but that the currency period cover the previous six months for aircraft and two months for simulation devices.

One commenter noted § 61.57(c)(4) and (5) allow pilots to use an ATD in conjunction with the aircraft, FS, or FTD for instrument currency, but eliminated the two month limitation as long as certain requirements are met in the aircraft, FS, or FTD. The commenter thought this could be more simply accomplished by adding to § 61.57(c)(3) "or six months if one hour of instrument time has been accomplished in an aircraft, flight simulator, or flight training device."

One commenter asserted that the provisions are unlikely to be used because a proficiency check can be accomplished in less time and at less cost in an AATD. One commenter asserted the level of detail specified in the rule is more appropriate to practical test standards (PTS) and argued that instructors should have discretion over specific maneuvers to be performed.

One commenter argued there is no evidence that pilots satisfying instrument currency requirements in aircraft or simulation devices are proficient to operate in IMC. Two commenters generally objected to the proposed requirements for maintaining instrument currency using a flight simulator, flight training device, or aviation training device. One commenter asserted that the proposed requirements increase the burden on pilots without justification in the form of accident history or research.

Six commenters asserted steep turns should not be included in requirements for maintaining instrument currency in a flight simulation device, arguing that ATDs and flight training devices do not accurately simulate the flight characteristics and control feel for steep turns. The FAA acknowledges the comments received about this proposal. The FAA is allowing different means to maintain instrument currency. The pilot may use whatever method best suits his or her needs to maintain instrument currency by using the actual aircraft, flight simulator, flight training device, or aviation training device, or a combination of all.

One commenter objected to the unusual attitude recovery parameters prescribed by the proposed rule. The commenter noted that if the aircraft is at V_{NE} and descending, it is still accelerating and will exceed V_{NE} , thus triggering a failure. Similarly, if an aircraft is at stall speed and ascending, it is already stalling. The commenter suggested the language of the practical

test standards prescribing recovery from unusual attitudes (both nose-high and nose-low) is preferable. Another commenter noted V_{NE} is not an appropriate specification for all aircraft. We believe that instrument currency tasks, involving unusual attitude recovery parameters are for maintaining instrument currency and can be achieved in aviation training devices. We are not revising the instrument currency tasks in aircraft, flight simulators, and flight training devices. The instrument currency tasks, involving unusual attitude recovery parameters are for maintaining instrument currency in aviation training devices, and the FAA believes this task is appropriate.

One commenter asserted that the requirements of proposed § 61.57(c)(4) include all of the requirements of § 61.57(c)(2) or (3), plus one hour of cross country time in the aircraft. In other words, a pilot completing the requirements of § 61.57(c)(4)(ii) will have already met the requirements of § 61.57(c)(2) or (3). The commenter argued that § 61.57(c)(4) is redundant and should be eliminated. The same commenter argued that proposed § 61.57(c)(5) is redundant to § 61.57(c)(3) and should be eliminated. Three commenters noted that the steep turns requirement has been removed from the instrument rating PTS. Fifteen commenters objected to the proposed provision requiring use of a view-limiting device when using a flight simulation device to maintain instrument currency, because such devices can be configured not to provide visual cues. The FAA acknowledges the comments received about this proposal. We are not revising the instrument currency tasks. The FAA is allowing different means to maintain instrument currency and the pilot may use the means best suited for his or her needs.

The FAA also acknowledges the comments received on recommending the rule use the terms “basic aviation training devices” (BATD) and “advanced aviation training devices” (AATD). The terms “basic aviation training device” (BATD) and “advanced aviation training device” (AATD) as being aviation training devices (ATD) are defined in AC 61-TD “FAA Approval of Basic Aviation Training Devices and Advanced Aviation Training Devices.”

The FAA is allowing different means to maintain instrument currency. The pilot may use whatever method best suits his or her needs to maintain instrument currency by using the actual aircraft, flight simulator, flight training device, aviation training device, or a

combination of all. Furthermore, the use of flight simulators and flight training devices has always been allowed for pilots to maintain their instrument currency so we are not making new rules. ATDs are relatively new; yet the FAA has determined that the technological advancements of these devices make their use for maintaining instrument currency also possible.

Regarding the comment on unusual attitude recovery parameters prescribed by the proposed rule, we previously answered this question this way: “Reference § 61.51(g)(3)(ii) and § 61.57(c)(1); Provided the person is instrument current or is within the second 6-calendar month period” (See § 61.57(d) for currency). A person would not need a flight instructor or ground instructor present when accomplishing the approaches, holding, and course intercepting/tracking tasks of § 61.57(c)(1)(i), (ii), and (iii) in an approved flight training device or flight simulator. Only when a person is required to submit to an instrument proficiency check must a flight instructor or ground instructor be present.

The rationale is that a person is not required to have a flight instructor or ground instructor present when performing the approaches, holding, and course intercepting/tracking tasks in an aircraft. If the person is using a view-limiting device (*i.e.*, hood device) when performing the approaches, holding, and course intercepting/tracking tasks in an aircraft, only a safety pilot is required to be present. If a person is performing approaches, holding, and course intercepting/tracking tasks in an aircraft in IMC, it is permissible to log the tasks without a flight instructor being present.

Therefore, a person who is instrument current or is within the second 6-calendar month period (See § 61.57(d) for currency) need not have a flight instructor or ground instructor present when accomplishing the approaches, holding, and course intercepting/tracking tasks of § 61.57(c)(1)(i), (ii), and (iii) in an approved flight training device or flight simulator.

31. This revision of § 61.57(d) clarifies when a person must perform an instrument proficiency check to act as the PIC under IFR or in weather conditions less than the minima prescribed for VFR

This final rule amends § 61.57(d) to clarify when a person, who has not met the instrument recent flight experience of § 61.57(c), must perform an instrument proficiency check to act as the PIC under IFR or in weather

conditions less than the minima prescribed for VFR. Revised § 61.57(d) requires a pilot who has not complied with the instrument recent experience requirement of § 61.57(c) within the twelve calendar months preceding the month of the flight to complete an instrument proficiency check to regain PIC instrument qualifications. The proficiency check will have to be performed in the aircraft category that is appropriate to the instrument privileges desired. The instrument proficiency check consists of operation areas and tasks listed for an instrument proficiency check in the practical test standards (PTS).

As noted in our earlier discussion of revised § 61.57(c), we will require a pilot to have performed and logged the instrument recent flight experience within the preceding six calendar months preceding the month of the flight in order to act as the PIC under IFR or in weather conditions less than the minima prescribed for VFR. Under revised § 61.57(d), if the pilot has not performed and logged the required instrument recent flight experience within the six calendar months preceding the month of the flight, the pilot is given an additional six calendar months to perform and log the required instrument recent flight experience. However, during this six-calendar month period, the pilot may not act as the PIC under IFR or in weather conditions less than the minima prescribed for VFR until the pilot has performed and logged the required instrument recent flight experience of revised § 61.57(c). If during this six-calendar month period, the pilot does not accomplish the required instrument recent flight experience, then he/she must perform an instrument proficiency check to regain his/her instrument currency.

Two commenters generally supported the proposed clarifications. One commenter supported the use of the instrument rating PTS as a guide for the proficiency check. One commenter questioned whether the preamble (*i.e.*, proposal No. 31) is meant to indicate proficiency checks may no longer be performed using a simulator or flight training device, but may now only be performed in an aircraft.

Two commenters were concerned that § 61.57(d) will be interpreted as requiring an entire instrument rating practical exam to satisfy the instrument proficiency check requirements. One commenter recommended the check consist of tasks required by the instrument practical test standards. One commenter objected to the language requiring that an instrument proficiency

check (IPC) requires an instrument rating practical test. The commenter argued that the requirement would limit instructors' discretion and that completion of an IPC in aircraft lacking certain equipment would be difficult. The revision to § 61.57(d) concerning the instrument proficiency check does not prohibit the use of a flight simulator or flight training device for performing an IPC check, nor did the proposal in the NPRM propose eliminating use of FS or FTDs for performing an IPC. An FS or FTD may be used for accomplishing an IPC if the training device is approved for performing an instrument proficiency check. The content of an instrument proficiency check is addressed on page 16 of the Instrument Rating Practical Test Standards.

32. This revision of § 61.57(f) establishes a recent flight experience requirement for acting as PIC in a night vision goggle operation

Revised § 61.57(f) establishes as a recent flight experience requirement to remain PIC qualified for night vision goggle (NVG) operations. To understand "NVG operations," it is necessary to further clarify the term "flight." "Flight" means a takeoff and landing, with each landing involving a flight in the traffic pattern. For example, a person who performs six takeoffs and landings, with each landing involving a flight in the traffic pattern, and uses NVGs to maintain visual reference may log six "NVG operations."

For a pilot to act as PIC using NVGs with passengers on board, the pilot, within the preceding two calendar months, will have to perform and document the tasks under new § 61.57(f) as the sole manipulator of the controls during the time period beginning one hour after sunset and ending one hour before sunrise. If the pilot has not performed and logged the tasks under § 61.57(f), then the FAA will allow the pilot an additional two calendar months to perform and log the tasks under § 61.57(f). However, the pilot will not be allowed to carry passengers during this second two-month period. If the pilot still has not performed and logged the NVG tasks in revised § 61.57(f) during those additional two calendar months, then the pilot will be required to pass a NVG proficiency check to act as PIC using night vision goggles.

Two commenters asserted existing §§ 61.51(b) and 61.57(b) are adequate to address logging and recency of NVG time, and this rule only requires adding "while using night vision goggles." The commenters further argued existing § 61.57(a)(3) is adequate to address use

of a flight training device or flight simulator for NVG recency. Two commenters argued that the currency interval should be ninety days instead of two months to correspond with the existing night flight currency interval.

The FAA acknowledges the comments received about this proposal. We are adopting the above revisions for the final rule.

33. This revision of § 61.57(g) establishes a NVG proficiency check requirement to act as PIC of a night vision goggle operation

Revised § 61.57(g) establishes a proficiency check to be PIC qualified for NVG operations. This revision also establishes a proficiency check to regain PIC qualifications for NVG operations when the pilot's NVG privileges have lapsed.

Revised § 61.57(g) will require a pilot who has not complied with the NVG operating experience requirement of revised § 61.57(f) to complete a NVG proficiency check to regain PIC NVG qualifications. The proficiency check will have to be performed in the same aircraft category that is appropriate to the NVG operation desired. The proficiency check will consist of the tasks listed in revised § 61.31(k) and will be administered by an individual listed under § 61.31(k).

American Eurocopter and HAI each supported the proposed requirement to restore lapsed NVG currency. The commenters recommended that proficiency check requirements be set forth in the PTS, with an interim advisory circular (AC) issued because the standards for NVG and non-NVG maneuvers are the same. The commenters also recommended proficiency checks be administered by a qualified instructor, Examiner, or inspector, as applicable under parts 61, 141 or 142, to an air carrier employee in accordance with the carrier's approved training program, or to a military check pilot.

The FAA acknowledges the comments received on this proposal. The rule (§ 61.57(g)(1) through (6)) clearly establishes the qualifications of the person who can administer the NVG proficiency check; therefore, the rule does not need further clarification.

34. This proposed change to § 61.59 would have paralleled this section with the language contained in § 67.403

We had proposed to revise § 61.59 to parallel it with the existing § 67.403. However, we have reconsidered this proposal and the existing § 61.59 will remain without change.

Four commenters objected to the proposed changes, arguing the existing rule already prohibits submission of fraudulent or intentionally false data, and that the proposed rule will allow the FAA to deny or revoke privileges for an inadvertent inaccuracy. One commenter also noted the proposed rule does not parallel § 67.403 because that section includes a requirement that the FAA rely on incorrect data. One commenter also asserted that the proposed rule could effectively invalidate existing regulatory requirements for recording flight experience.

The FAA acknowledges the comments received on the proposal. We agree that trying to parallel the language of § 61.59 and § 67.403 raises additional concerns. The implications of incorrect information in the context of part 61 certification are different than those in the context of medical certification under part 67. Therefore, existing § 61.59 remains without change.

35. This revision of § 61.63 changes the format and re-structures rule

This final rule simplifies the format and structure of § 61.63, and moves paragraphs (e), (f), and (g) (addressing usage and limitations of the flight simulator and flight training device) to new § 61.64. This final rule also revises § 61.63(c)(3) to clarify applicability to those applicants holding only a lighter-than-air (LTA)-Balloon rating and who seek an LTA-Airship rating. Currently, the word "only" does not appear in § 61.63(c)(3).

This final rule has made minor revisions to § 61.63(d) to clarify the requirements for an additional type rating and a type rating sought concurrently with an additional aircraft category and class rating. We have also revised existing paragraph (h) in § 61.63 and re-designated it as paragraph (e). Furthermore, re-designated § 61.63(e) clarifies the pilot certification procedures for aircraft used on a practical test for a type rating. Such aircraft cannot be used for instrument maneuvers and procedures for the issuance of a type rating with a VFR limitation under these circumstances.

This final rule revises paragraph (i) in § 61.63 and re-designates it as § 61.63(f). This re-designated § 61.63(f) clarifies that an applicant for a type rating in a multiengine airplane with a single-pilot station must perform the practical test in the multi-pilot seat version of that multiengine airplane. Alternatively, the practical test may be performed in the single-seat version of that airplane if the Examiner can observe the applicant during the practical test when there is

no multi-seat version of the multiengine airplane. This revision parallels the same requirements in revised § 61.157(h) (existing § 61.157(k)) for a type rating in a multiengine airplane with single-pilot station.

This final rule revises existing paragraph (j) of § 61.63 and re-designates it as § 61.63(g). Re-designated § 61.63(g) clarifies that an applicant for a type rating, at other than airline transport pilot (ATP) certification level, for a single engine airplane with a single-pilot station must perform the practical test in the multi-pilot seat version of that single engine airplane. Alternatively, the practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there is no multi-seat version of that single engine airplane. This revision parallels requirements under new § 61.157(i) (existing § 61.157(l)) for a type rating in a single engine airplane with single-pilot station at the ATP certification level.

Revised § 61.63(i) permits an Examiner who conducts a practical test for an additional aircraft rating under this section to waive any of the tasks for which the FAA has approved waiver authority. This revision parallels the revised requirements of § 61.157(j) (existing § 61.157(m)) at the ATP certification level.

Two commenters agreed the FAA should make changes to § 61.63, but asserted the proposed changes to § 61.63 and new § 61.64 offer no improvement. One commenter questioned whether safety would be enhanced by the proposed changes. Another commenter objected to the proposed changes to § 61.63 and the creation of § 61.64, asserting that the proposed rules eliminate ways for an applicant to qualify for all-simulator training. The commenter questioned the elimination of the provisions in question and requests justification in the form of safety data indicating a danger posed by pilots using the existing provisions.

One commenter requested clarification of the new phrase "training time and iteration requirements" in § 61.63(c)(3). The commenter stated this language does not clearly convey that candidates seeking an additional class rating are excused from certain requirements. One commenter asserted that the proposed changes to § 61.63 and new § 61.64 would have a significant and detrimental impact on the use of flight simulators and the flight training industry and the proposed changes in new § 61.64 go beyond merely moving and simplifying existing requirements

and impose significant burdens and costs without any corresponding benefit. Another commenter recommended the proposed changes to § 61.63 and new § 61.64 be withdrawn.

Two commenters observed that under proposed § 61.63(d), an applicant for a type rating is not required to successfully complete an FAA approved or accepted training program but need only acquire an endorsement from an appropriately rated flight instructor. They recommended the FAA require the use of an FAA approved or accepted training program. Eclipse Aviation suggested an authorized instructor be defined as "a person or air agency approved by the Administrator to conduct type rating training in that make and model of aircraft."

Training time and iteration requirements relate to the training time and iteration requirements listed in § 61.109 and § 61.129. For example, for the airplane single engine land rating at the private pilot certification level, it requires three hours of cross country flying in a single engine airplane (*See* § 61.109(a)(1)) and one cross country flight of over 100 nautical miles in total distance (*See* § 61.109(a)(2)(i)). Under § 61.63(c)(3), the applicant is not required to meet the training time and iterations requirements under this part that apply to the pilot certificate for the aircraft class rating sought. Otherwise, the intent of § 61.63(c)(3) is for the flight instructor to make the decision on the amount "training time" and number of "iterations" required for the applicant to be adequately trained and be able to pass the practical test.

The FAA has reviewed the proposed changes to § 61.63 and § 61.64, and we have not found evidence that the changes will have a significant and detrimental impact on the use of flight simulators and the flight training industry. We intend only to further clarify the existing rule. In reviewing § 61.63(d), and old § 61.63(d), there is no requirement for an applicant to complete an FAA approved or accepted training program and there never has been such a requirement. As for defining an "authorized instructor," it has already been done in § 61.1(b) and the privileges and limitations of a flight instructor are listed in existing § 61.193 and § 61.195.

The FAA has reviewed the changes to § 61.63 and § 61.64, and we have not found that the changes will eliminate ways for an applicant to qualify for all-simulator training. For the reasons stated, we are adopting the revision as proposed in the NPRM.

36. Establishes a new § 61.64 to address the use and limitations of flight simulators and flight training devices

This final rule adds a new § 61.64 to incorporate the use and limitations of flight simulators (FS) and flight training devices (FTD) into this one rule. These requirements were previously found in § 61.63(e), (f), and (g) (for other than ATP certification) and § 61.157(g), (h), and (i) (for ATP certification). The purpose of these changes is to clarify and simplify § 61.63 and § 61.157 and place all use and limitation requirements for simulation devices into new § 61.64.

New § 61.64(a) through (f) will clarify when an applicant may use an FS or FTD for all training, when an applicant may use a FS for all of the required practical test, when the supervising operating experience limitation on an applicant's pilot certificate is required, and when the supervised operating experience limitation may be removed.

New § 61.64(a) will allow an applicant to use a flight simulator for all training and the practical test for the airplane category, class, or type rating, provided the flight simulator and the applicant meet specific qualifications under new § 61.64(a)(1) through (3).

New § 61.64(b) allows an applicant for the airplane category, class, or type rating to use a flight training device for training only if the flight training device meets the specific qualifications under new § 61.64(b)(1) through (4). The rule further clarifies that a flight training device may not be used for any portion of the practical test.

New § 61.64(c) allows an applicant to use a flight simulator for all of the training and the practical test for the helicopter class or type rating, provided the flight simulator and the applicant meet the specific qualifications under new § 61.64(c)(1) and (2).

New § 61.64(d) allows an applicant for the helicopter class or type rating to use an FTD for training only if the device meets specific qualifications under new § 61.64(d)(1) through (4). The rule further clarifies that an FTD may not be used for any portion of the practical test.

New § 61.64 (e) states an applicant may use an FS for all training and the practical test for the powered-lift category or type rating, provided the applicant and FS meet specific qualifications under new § 61.64(e)(1) and (2).

New § 61.64(f) allows an applicant for the powered-lift category or type rating to use a flight training device for training only if the device meets specific qualifications under new § 61.64(f)(1)

through (4). The rule will further clarify that a flight training device may not be used for any portion of the practical test.

As a result of existing language in existing paragraphs (e), (f), and (g) of § 61.63 and paragraphs (g), (h), and (i) of § 61.157, there is confusion as to whether an applicant could complete all training and testing for a type rating in a simulator when there is a supervised operating experience limitation on the applicant's pilot certificate for that aircraft type rating. New § 61.64(a)(2)(i), (c)(2)(i), and (e)(2)(i) will specify that a type rating cannot contain the supervised operating experience limitation (*i.e.*, "This certificate is subject to pilot in command limitations for the additional rating") for an applicant to use a flight simulator for all training and testing for a type rating. A flight simulator may be used for some of the required training and testing for a type rating, but not "all." The training and testing permitted in a flight simulator depends on what the flight simulator is approved for and is in accordance with new § 61.64(a)(4)(i) and (b), (c)(3)(i) and (d), or (e)(3)(i) or (f), as appropriate for the category of aircraft and type rating sought.

New § 61.64(a)(1)(iii), (c)(1)(iii), and (e)(1)(iii) establishes that at minimum a Level C flight simulator is required if an applicant wishes to use a flight simulator on a practical test for an aircraft rating. New § 61.64(a)(1)(iv), (c)(1)(iv), and (e)(1)(iv) will establish that at minimum a Level A flight simulator is required for an applicant to use a flight simulator for training.

Two commenters argued proposed § 61.64 is unclear as to intent or purpose, and there is no indication how the proposed rules would improve safety. One commenter expressed uncertainty over the level of pilot certificate affected by the proposed section. One commenter asserted that the proposed changes to § 61.63 and new § 61.64 would have a significant and detrimental impact on the use of flight simulators and the flight training industry. A commenter recommended the proposed changes to § 61.63 and new § 61.64 be withdrawn, and the text of the existing rules be maintained.

One person asserted the minimum hour requirements for type rating applicants set forth in the proposed § 61.64(a)(2) are higher than necessary to ensure safety and will deter advancement of aviation careers. One commenter argued existing §§ 61.63 and 61.157 are clear that a flight simulator or flight training device can be used to complete all training and testing for the issuance of a rating without limitations and the proposed rule is not.

Two commenters noted that under existing § 61.63 and § 61.157, a rating applicant failing to meet requirements for an exception has an option of completing certain parts of the practical test in an aircraft (rather than a simulator or flight training device), or receiving a rating with supervised operating experience limitations. The commenters objected to the provisions of the proposed rule that would require both performance of certain tasks in an aircraft and issuance of a rating with supervised operating experience limitations. Two commenters objected to the proposed changes to § 61.63 and the creation of § 61.64, asserting that the proposed rules eliminate ways for an applicant to qualify for all-simulator training and testing.

Regarding the proposed requirement that a minimum of a Level C flight simulator or Level 5 flight training device be used for the practical test for a rating, a commenter asserted that the lowest level of flight simulator or flight training device qualified and approved for training in a particular task should be acceptable. If necessary, training or testing performed with lower level simulators could trigger additional experience requirements or requirements to perform certain maneuvers in the aircraft, or result in the issuance of a rating with limitations. Three commenters opposed the proposed requirement that a minimum of a Level C flight simulator be used for the practical test for a rating. Flight Safety International recommended a Level C simulator be required only if the entire practical test is performed in the simulator. One commenter asserted that requiring a Level C simulator for a practical test conflicts with guidance contained in FAA-S-8081-5E, Practical Test Standards. The commenter also questioned whether simulators not meeting at least Level C requirements may be used for evaluations similar to practical tests, such as proficiency checks or single pilot exemption evaluations that consist of Practical Test Standards (PTS) maneuvers. Two commenters asserted the inability to use simulators not meeting Level C requirements will require more pilots to take practical tests in aircraft. The commenters stated this will negatively impact safety by requiring low altitude maneuvering, and by eliminating the ability to simulate malfunctions such as engine fires and electrical malfunctions. One commenter noted that Level A simulators have been widely used in the past, and that if no longer permitted to be used costs will increase by 15%. Two commenters noted there are some

aircraft for which there is no Level C or better simulator.

Flight Safety International recommended that if the practical test is given in a simulator or flight training device qualified and approved at less than Level C, the appropriate practical test standards be used to determine which events may be credited; any events not approved for the simulator or flight training device would need to be accomplished in the aircraft. One commenter objected to the requirement that a minimum of a Level 5 flight training device be used if a flight training device is used for the practical test. The commenter asserted that this requirement is unnecessarily restrictive and not supported by the PTS or other FAA rules or guidance.

One commenter objected to the proposed provisions requiring that one of a number of prerequisites be met if any portion of the practical test for a turbojet or turboprop airplane rating is to be performed in a simulator. The commenter asserted that the existing rules only require one of the prerequisites if all training and checking is to be done in a simulator. Flight Safety International said proposed § 61.64 calls for a logbook endorsement removing the supervised operating experience limitation. If so, a pilot must present his/her logbook containing the endorsement to show that the limitation is removed, the endorsement is unnecessary.

One commenter asserted the proposed changes to § 61.63 and § 61.157 and creation of § 61.64 conflicts with other existing guidance, such as appendices E and F to part 121, the appendices of the PTS, and the General Aviation Operations Inspector's Handbook.

One commenter asserted that pilots should be permitted to credit multiengine turbojet experience toward a single engine turbojet type rating for purposes of proposed § 61.64.

Five commenters were confused whether pilots must meet one or more than one of the criteria set forth in proposed § 61.64(a)(2) and recommended the section be revised to make clear that pilots must meet only one of the requirements. Flight Safety International recommended proposed § 61.64(a)(2)(ii) and (a)(3)(ii) use language currently found in § 61.63 and § 61.157 requiring pilots complete at least 1,000 hours of flight time in two or more different airplanes requiring type ratings.

Nine commenters noted that under existing § 61.63 and § 61.157, a rating applicant failing to meet requirements for an exception has an option of completing certain parts of the practical

test in an aircraft, rather than in a simulator or flight training device, or receiving a rating with supervised operating experience limitations. The commenters believed the economic impact of the proposed rule would be severe.

One commenter asserted that the FAA and training organizations lack sufficient manpower to administer the number of practical exams in the aircraft that the proposed rule would require. This commenter recommended that instead of requiring performance of maneuvers in an aircraft, the FAA increase supervised operating experience limitations or require line oriented flight testing (LOFT) scenarios in training.

Three commenters objected to the elimination of the possibility of a fifteen hour supervised operating experience limitation. Two additional commenters recommended that the endorsement removing a supervised operating experience limitation be by a person, designated by the Administrator, familiar with the airplane and the program under which the supervised operating experience was conducted. Eclipse Aviation suggested such a person could be the manufacturer or a training center conducting training in the airplane. Two commenters recommended the supervised operating experience (SOE) requirement be event based, covering a range of operating conditions and procedures that a pilot is likely to see in actual service. Two commenters recommended a PIC observing SOE be qualified and trained as an evaluator by the manufacturer or other facility, and hold a designation by the Administrator. Eclipse Aviation asserted that the proposed provisions are insufficient to ensure that SOE will be applicable and effective for all operators of its very light jet airplanes.

Two commenters noted that under the proposed rule, a pilot with a turbojet type rating for an airplane requiring a two-pilot crew may obtain a single pilot type rating without limitations with no single pilot turbojet PIC experience and virtually no turbojet PIC experience. The commenters recommended a pilot should be required to have 25 hours of turbojet PIC time to obtain a type rating without limitations.

One commenter opposed the proposed requirement of § 61.64(a)(1)(iv) that a minimum of a Level A flight simulator be used for training for a rating. The commenter recommended the PTS address credit for the use of simulators and flight training devices.

As stated in the NPRM and this preamble, § 61.64 consolidates the use

of flight simulators and flight training devices for the airplane, helicopter, and powered-lift ratings for all the pilot certification levels (*i.e.*, private, commercial, and ATP certification levels). Prior to establishing this § 61.64, the use of flight simulators and flight training devices for the airplane, helicopter, and powered-lift ratings at the private and commercial pilot certification levels were located in old § 61.63. For the ATP certification level, it was in the old § 61.157. Now, the use of flight simulators and flight training devices for all the pilot certification levels are combined into new § 61.64.

We do not find any evidence that combining the use of flight simulators and flight training devices for the airplane, helicopter, and powered-lift ratings for all the pilot certification levels into § 61.64 will have a significant and detrimental impact on the use of flight simulators and the flight training industry. The FAA has not increased the minimum hour requirements for a type rating by having consolidated the use of flight simulators and flight training devices into § 61.64.

Section 61.64(a)(4), (c)(3), and (e)(3), is the area of the rule that addresses what tasks must be performed in the actual aircraft and the provisions that require it. The purpose of the change is to further clarify the intent of the rule and no substantive changes have been made. In reviewing the proposed changes to § 61.63 and § 61.157 and creation of § 61.64 we did not see a conflict with other existing guidance, such as Appendices E and F to part 121, the appendices of the PTS, and the General Aviation Operations Inspector's Handbook.

The endorsement requirement for removing the SOE limitation is to ensure accomplishment of the required supervised operating experience. We believe the endorsement requirement received from both the supervising PIC and an Examiner will insure that supervising operating experience was completed.

As for what portion of § 61.64 applies to an applicant, the answer depends on the specifics of the applicant's aeronautical experience and the rating being applied for. Section 61.64(a)(2) establishes the requirements for a type rating in a turbojet airplane and what the aeronautical experience requirements are for that applicant to be able to use a flight simulator. We have reviewed § 61.64 and find that this rule does not eliminate commonly used ways for an applicant to qualify for all-simulator training and testing. The establishment of this rule merely consolidates the use of flight simulators

and flight training devices into § 61.64. No substantive changes have been made.

In the previous version of § 61.63(e)(7), (8), and (9); (f)(7), (8), and (9); and (g)(7), (8), and (9) (and old § 61.157(g), (h), and (i)), the regulations provided that an applicant who failed to meet certain requirements could complete certain parts of the practical test in an aircraft, rather than a simulator or flight training device, or receiving a rating with supervised operating experience limitations. This option is also provided in § 61.64 (*See* § 61.64(a)(4), (c)(3), and (e)(3)).

The establishment of this rule merely consolidates the use of flight simulators and flight training devices into § 61.64. No substantive changes have been made.

The FAA established for this final rule twenty-five hours as the standard for supervised operating experience (SOE) because we have determined that amount of SOE is appropriate for ensuring pilot's qualifications. If a person desires to be issued a type rating without the supervised operating experience, then that applicant has the option to complete the training and testing in the actual aircraft. The endorsements required for removal of the SOE limitation must be from the supervising PIC and Examiner.

Under the old § 61.63 and § 61.157, the regulations also required the minimum level of flight simulator be a Level C. There is no change to this in § 61.64. The requirement for use of a Level C flight simulator in new § 61.64 is nearly identical in content and substance to old § 61.63(e)(4)(i) and old § 61.157(g)(3)(i). The establishment of this rule merely consolidates the use of flight simulators and flight training devices into § 61.64. No substantive changes were made.

The requirement that a minimum of a Level 5 flight training device be used if a flight training device is used for the practical test conforms with existing FAA policy. We proposed the use of a Level 5 flight training device in the NPRM and this final rule does not change the requirement for use of a Level 5 flight training device.

The requirement that a minimum of a Level A flight simulator be used for training also conforms with existing FAA policy. The commenter's request to address credit for use of flight simulators and flight training devices in the PTS is beyond the scope of this final rule.

The FAA has reviewed § 61.64(b)(3) and finds there is not a conflict between the rule, the PTS appendix, and FAA Order 8400.10 (now FAA Order 8900.1).

Upon review of all the comments, the FAA has found that the rule as proposed in the NPRM is appropriate and has been adopted in the final rule.

37. This revision of § 61.65(d), (e), and (f) requires at least 10 hours of cross country time as pilot in command to be in the category of aircraft appropriate to the instrument rating sought

This final rule revises § 61.65 to conform the FAA's instrument rating cross country time requirements as pilot in command (PIC) with the corresponding International Civil Aviation Organization (ICAO) requirements. Revised § 61.65(d) addresses the aeronautical experience and training for the instrument-airplane rating. Revised § 61.65(e) addresses the aeronautical experience and training for the instrument-helicopter rating. Revised § 61.65(f) will address the aeronautical experience and training for the instrument-powered-lift rating. For example, ICAO Annex 1, paragraph 2.10.1.2.2 requires an applicant to log at least ten hours of cross country time as PIC in a helicopter for an instrument-helicopter rating. Currently, § 61.65(d)(1) requires at least fifty hours of cross country flight time as pilot in command and at least ten of those hours must be in airplanes for an instrument-airplane rating. The section does not account for the instrument-helicopter rating or the instrument-powered-lift rating.

Four commenters supported the proposed provisions clarifying the minimum cross country experience in a category necessary for an instrument rating. The Greater St. Louis Flight Instructor Association asserted that there is a correlation between lack of cross country experience and accidents.

Four commenters opposed the proposed provisions. One commenter objected to "selective adherence to ICAO requirements," asserting that ICAO requirements should be followed wherever possible and not be selectively applied to specific types of certificates or ratings. Four commenters supported the proposed provisions clarifying the minimum cross country experience in a category necessary for an instrument rating. Two commenters, including AOPA, asserted the cost of obtaining ten hours cross country experience in a helicopter is burdensome. Two commenters stated cross country experience obtained in any aircraft type is valuable, because the principles of navigation are the same regardless of aircraft category. In response to AOPA's concern, they recommended a required minimum of fifty hours of cross country PIC in any aircraft category.

The purpose of our rule change is to parallel ICAO standards, so that U.S. pilot certification conforms to international civil aviation standards. The FAA believes it is in U.S. aviation's best interest, where possible, to meet our ICAO responsibilities and requirements and to have recognition of our instrument rating by other ICAO member States. Therefore, the FAA is adopting the revision as it was proposed in the NPRM.

38. This revision of § 61.65 adds a new paragraph (h) to allow 10 hours of the instrument training to be performed in an aviation training device (ATD)

This final rule revises § 61.65 by adding a new paragraph (h) to allow ten hours of instrument training for the instrument rating to be performed on an ATD. The instrument training may be given by the holder of a ground instructor certificate with an instrument rating or by a holder of a flight instructor certificate with an instrument rating appropriate to the instrument rating sought. The ten hours of instrument training in an ATD will be included in the twenty hours of instrument training allowed to be performed in a flight simulator or a flight training device under revised § 61.65(e).

For an ATD to be used for instrument training under revised § 61.65, the ATD instrument training, and instrument tasks will have to be approved by the FAA. The instrument training on an ATD will have to be provided by an authorized instructor. In order to receive the maximum ten hours of credit in an ATD, the person may not have logged and been credited for more than ten hours of instrument training in a flight simulator (FS) or FTD. A view-limiting device will be required to be worn by the applicant when logging instrument training in the ATD. The instrument training and instrument tasks that may be approved for performance on an ATD will be listed in revised § 61.65(f).

The FAA specifically requested comments on whether, and to what extent, we should allow use of an ATD for providing instrument training for the instrument rating. Four commenters supported the proposed provisions permitting use of a personal computer-based aviation training device (PCATD) for up to ten hours of training toward an instrument rating.

One commenter questioned the proposed provision, asserting that PCATDs are no longer widely used. Three commenters suggested the rule refer to basic aviation training devices (BATD) and advanced aviation training devices (AATD). AOPA noted currently

up to 10 hours of BATD or twenty hours of AATD training may be credited toward an instrument rating, and recommended this continue to be the case. Two commenters recommended requirements for PCATDs include requirements that they be used in areas free of audible distraction or that headsets be used.

Seven commenters objected to the proposed provision requiring use of a view-limiting device when using a flight simulation device to train for an instrument rating, because such devices can be configured not to provide visual cues. One commenter suggested the rule instead require that any device used be so configured. The Greater St. Louis Flight Instructor Association opposed the proposed amendment to permit PCATDs to be used for ten hours of instrument training, as well as the use of a ground instructor for this training, arguing that the proposed requirements inadequately prepare pilots for flight in IMC and sacrifice safety in exchange for lower costs. The association further asserted that there is a significant accident rate among newly instrument-rated pilots. The association recommended three hours of actual IMC experience be required for an instrument rating.

The FAA has replaced the term "PCATD" (personal computer aviation training device) with the term "aviation training device." As previously discussed, the definition of the term "aviation training device" will be defined in AC 61-TD "FAA Approval of Basic Aviation Training Devices and Advanced Aviation Training Devices."

We have determined the use of view-limiting devices for maintaining instrument recurrency in aviation training devices is necessary for ensuring better transferability of instrument skills and abilities between aviation training devices and the actual aircraft. The FAA agrees that the use of an aviation training device should be used in areas free of audible distraction or that headsets should be used, but does not believe that a rule is necessary. The FAA will approve and authorize the use of aviation training devices, and to those ends, we are developing an Advisory Circular and making changes to FAA Order 8900.1 to provide this information.

For years, we have permitted the use of flight simulators and flight training devices for instrument training and for use on instrument rating practical tests. Allowing ten hours of instrument training to be performed in aviation training devices is a continuation by the flight training community and FAA of this policy of accepting simulation for

use in aviation training. Furthermore, allowing ten hours of instrument training to be performed in an aviation training device conforms to existing FAA policy adopted in Advisory Circular 61-126 and FAA Order 8900.1 (See FAA Order 8900.1, Volume 5, Chapter 2, Section 9, page 9, paragraph 5-446 E).

39. *This revision of § 61.69(a)(4) corrects a typographical error in the rule*

This final rule corrects a typographical error in which the word "or" was erroneously deleted from § 61.69(a)(4) during the writing of the "Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft" Final Rule (See 69 FR 44866; July 27, 2004). This revision has re-inserted the word "or" and made a minor grammatical revision to paragraph (a)(4).

40. *This revision of § 61.69(a)(6) amends the recent flight experience for tow pilots by increasing the time allowed for achieving the required currency to 24 calendar months*

This final rule amends § 61.69(a)(6) for persons who serve as tow pilots for glider towing operations by increasing the time limits for when a pilot must have completed the required recent flight experience from twelve to twenty-four calendar months. This revision responds favorably to an assertion by the Soaring Safety Foundation that the existing time limits for recent flight experience may be unnecessarily onerous and cannot be supported by any accident statistics.

Four commenters supported the proposal. The FAA is adopting the revision as proposed in the NPRM.

41. *This revision of § 61.73 amends certain special rules affecting U.S. military pilots and former U.S. military pilots who apply for FAA pilot certification*

This final rule deletes the § 61.73(b) requirement that current and former pilots of the U.S. Armed Forces must be on active flying status within the past twelve months to qualify for a pilot certificate and rating under these special rules. Under our revision, U.S. military pilots and former U.S. military pilots may qualify for their civilian pilot certificate and ratings on the basis of their past qualifications as a U.S. military pilot, completion of the military competency aeronautical knowledge test, and accomplishment of a flight review under existing § 61.57.

This final rule adds a new § 61.73(b)(2) to clarify that the aeronautical knowledge test that military pilots are required to take is the

"military competency" aeronautical knowledge test. It also adds a new § 61.73(b)(3) changing pilot status for qualifying for a pilot certificate and ratings under these special rules from "pilot in command" to pilot in the U.S. Armed Forces. The U.S. military's pilot qualification and flight time recording documents and procedures have changed since the initial establishment of § 61.73. The U.S. Armed Forces no longer issues pilot in command orders to its graduates who complete its Undergraduate Pilot Training Course. PIC status occurs when military pilots report to their permanent duty assignment and complete additional unit checkouts. However, the FAA has determined that the end-of-course test for graduation from a current U.S. military Undergraduate Pilot Training Course is similar in scope and content as the PIC order was for military pilots when § 61.73 was initially established.

This final rule adds a new § 61.73(c) to establish that a foreign military pilot of the Armed Forces of a contracting State to the Convention on International Civil Aviation who has been assigned pilot duties (for other than for flight training) with the U.S. Armed Forces may also apply for a U.S. commercial pilot certificate with comparable ratings just like U.S. military pilots can. They will no longer be required to first hold a civil pilot license from their contracting State's civil aviation authority. The FAA finds there is no safety reason for the existing requirement and foreign military pilots who are assigned to U.S. military units should be afforded the opportunity to be issued U.S. commercial pilot certificates and ratings appropriate to their military pilot qualifications.

This final rule revises § 61.73(f) and re-designates it as paragraph (e). The purpose of this revision is to further clarify that a military pilot may qualify for a type rating to be added to a pilot certificate provided there is a comparable civilian type designation of that military aircraft.

Three commenters objected to the elimination of the recency of experience requirement for military pilots seeking a civilian pilot certificate. One commenter asserted that many military pilots are not on active status. Two commenters argued there is no safety data justifying the change and suggested that pilots more than twelve calendar months separated from active flight status be required to take a knowledge examination and practical examination and the examination be self-endorsing.

One commenter asserted that military pilots may be overconfident and unwilling to recognize shortcomings in

their knowledge of civilian flight operations. This person also argued that aircraft used for military training differs significantly from those used for civilian training, and training maneuvers are different.

One commenter asserted that under the existing regulations, a military pilot may receive an unrestricted commercial pilot certificate with airplane multiengine land and instrument airplane ratings without ever having sat in a twin-engine reciprocating engine aircraft. Two commenters recommended military navigators be permitted to apply for civilian navigator certificates, just as military pilots are permitted to apply for civilian pilot certificates.

The change to this rule does not eliminate the recency of experience requirement for exercising a pilot certificate. The rules addressing recency of experience are addressed in § 61.56 and § 61.57. The change in § 61.73 only revises and clarifies the issuance of the commercial pilot certificate and ratings to current and former U.S. military pilots.

We do not disagree with the commenter's comment that a military pilot may receive an unrestricted commercial pilot certificate with airplane multiengine land and instrument airplane ratings without ever having sat in a general aviation twin engine reciprocating engine airplane. However, there is a definite distinction between holding a pilot certificate and ratings versus exercising the privileges of that pilot certificate. If a military pilot who received all of his/her training in a military twin-engine turbojet powered airplane, then it would be expected that pilot would receive specific training in a general aviation twin-engine reciprocating engine airplane before exercising the privileges of his/her pilot certificate. We have assumed that if a civilian pilot were to receive all of his/her training in one specific make and model of twin-engine reciprocating engine airplane and then attempted to fly another make and model of twin-engine reciprocating engine airplane, that pilot would also receive training in that other specific make and model of airplane before exercising the privileges of their pilot certificate. This goes to the essence of rulemaking on the establishment of standardized and safe operating practices. The FAA is adopting the revision as it was proposed in the NPRM.

42. This revision of § 61.73(g) establishes a new privilege and procedures for issuing flight instructor certificates and ratings to current and former U.S. military instructor pilots and examiners

This final rule adds § 61.73(g) establishing a new privilege and procedure for issuing flight instructor certificates and ratings to current and former U.S. military instructor pilots and military pilot examiners who can show official U.S. military documentation of being or having been designated a military instructor pilot or military pilot examiner in the U.S. Armed Forces.

The awarding of flight instructor certificates and ratings, under § 61.73(g), to current and former U.S. military pilot examiners is added to correct an oversight in the NPRM. We are correcting this mistake in this final rule and adding U.S. military pilot examiners to this privilege. All current and former U.S. military pilot examiners will have, or are, qualified as U.S. military instructor pilots. The addition of current and former U.S. military pilot examiners are more for clarification purposes than for any other reason.

Additionally, we have further revised § 61.197(a)(2)(iv) by providing an alternative procedure for current U.S. military instructor pilots and current U.S. military pilot examiners who hold FAA flight instructor certificates to renew their flight instructor certificate and ratings. This provision will require current U.S. military instructor pilots and current U.S. military pilot examiners to have completed an official U.S. Armed Forces military instructor pilot or military pilot examiner proficiency check within the preceding twelve calendar months as an alternative method for renewing their flight instructor certificate and ratings. The reason this provision is being offered only to current U.S. military instructor pilots and current U.S. military pilot examiners is because former U.S. military instructor pilots and military pilot examiners who have left the military over twelve calendar months ago would not be able to show having completed an official U.S. Armed Forces military instructor pilot or military pilot examiner proficiency check within the preceding twelve calendar months.

The FAA has made additional clarifying and editing changes to § 61.73(g)(3) which address the acceptable documents required to show evidence that a U.S. military instructor pilot or military pilot examiner completed an official U.S. military

instructor pilot training course. There was troublesome language in the proposed rule (*i.e.*, § 61.73(g)(3)(iv)) with the words "graduated" and "school." In the U.S. Air Force, Navy, Marine Corps, and Coast Guard, the official training location for instructor pilot training is at the command level or local unit level. This is different than how the U.S. Army qualifies its instructor pilots and military pilot examiners where the official qualification training is all conducted at Ft. Rucker, Alabama. The Air Force, Navy, Marine Corps, and Coast Guard official instructor pilot and military pilot examiner training courses are performed at numerous locations throughout the United States and the world where units are located. Additionally, we have consolidated the proposed § 61.73(g)(3)(ii) and (iii) into paragraph (ii) because both paragraphs read nearly identical.

The FAA has decided that where a current or former U.S. military instructor pilot or U.S. military pilot examiner already holds an FAA flight instructor certificate, they do not have to undergo another knowledge test as required by § 61.73(g)(3)(i) because they already possess a flight instructor certificate.

The U.S. Department of Labor has a program that encourages governmental agencies to recognize U.S. military training and qualification. For years, the FAA has recognized the training and qualifications of U.S. military pilots and has issued FAA commercial pilot certificates, instrument ratings, and type ratings to U.S. military rated pilots who graduate from a U.S. Armed Forces undergraduate pilot training school or rating qualification course. The FAA is now establishing a procedure to issue flight instructor certificates and ratings to current and former U.S. military instructor pilots and military pilot examiners who have completed an instructor pilot or military pilot examiner course of the U.S. Armed Forces. To be issued the appropriate flight instructor certificate and ratings, a military instructor pilot or military pilot examiner will have to pass the aeronautical knowledge test in areas detailed under § 61.185(a).

This will mean that the applicant will have to pass the appropriate knowledge tests that cover the aeronautical knowledge areas on:

- Fundamentals of instructing, including the learning process, elements of effective teaching, student evaluation and testing, course development, lesson planning, and classroom training techniques;

- The training and certification rules in part 61 that govern recreational, private, and commercial pilot certification, applicable to the aircraft category for which flight instructor privileges are sought; and

- The training and certification rules in part 61 that govern the aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.

As previously discussed, showing a current flight instructor certificate will suffice for the aeronautical knowledge test report. Additionally, a current or former U.S. military instructor pilot or military pilot examiner is required to show the documentation described in revised § 61.73(g)(3) to an FAA Aviation Safety Inspector, FAA Aviation Safety Technician, or an authorized Examiner (*i.e.*, an Examiner authorized to issue the flight instructor certificate and rating(s) to U.S. military instructor pilots or U.S. military pilot examiners).

Thirty-seven commenters questioned the documentation requirements for issuance of a certificate under the proposed provision. The commenters objected to the requirement of a certificate of graduation from a formal training course, because such certificates are not uniformly issued, or may be lost or discarded. These commenters recommended accepting other documentation of graduation from a instructor pilot training school, such as the Department of Defense Form-214, which is standardized across all branches, Air Force Form 5 or Air Force Form 8, output from the U.S. Air Force Aviation Management Resource System, U.S. Navy check form 3760, a Navy aviator logbook, or a grade book. Three commenters recommended that the provision apply to former instructor pilots and current instructor pilots by using language parallel to paragraphs (b) and (d). One commenter recommended that instructor pilots be permitted to apply for a civilian instructor certificate for a period of 12 months after separation from service.

Sixteen commenters objected to the proposed provision. Two commenters asserted that, because of the impact they may have on their students, the criteria for receiving an instructor certificate should be rigorous and stringently enforced. Two commenters asserted that any cost savings resulting from the proposal do not outweigh the potential sacrifice of safety. One commenter asserted that an influx of former military instructors would impact the job market for civilian trained flight instructors.

One commenter asserted that, although military pilots undergo

intensive training, it is narrowly focused on specific aircraft and types of operations. The commenter recommended that civilian instructor certificates issued to instructor pilots without a practical test be limited to the aircraft types for which the instructor pilot holds military instructor authorizations. Alternatively, the commenter recommended that instructor pilots be required to undergo a practical test including the commercial PTS maneuvers in the category and class of aircraft in which they wish to instruct. Eight commenters asserted that military instructor pilots generally do not have experience with primary training or reciprocal engine-powered aircraft. Eighteen commenters stated that military instructor pilots are not required to know or perform maneuvers or standards required for civilian certificates and ratings. Four commenters recommended that instructor pilots seeking civilian certification be required to have some minimum experience in the aircraft used for instruction, including an introduction to maneuvers such as lazy eights, chandelles, and spins.

Regarding appropriate documentation for showing qualifications as a U.S. Armed Forces instructor pilot and pilot examiner, § 61.73(g)(3) and § 61.73(h) state "an official U.S. Armed Forces record;" therefore, the DD Form-214, Air Force Form 5 or Air Force Form 8, Navy Check Form 3760, a Naval Aviator Logbook, or a grade book will suffice as an "official U.S. Armed Forces record." We understand the U.S. military changes the number of its forms from time to time. If the form is "an official U.S. Armed Forces record" that shows the person is qualified as a U.S. military pilot or U.S. military instructor pilot or military pilot examiner, as appropriate, and the person's military pilot or instructor pilot or military pilot examiner qualifications and ratings can be extrapolated from that form or combination of forms, then an "official U.S. Armed Forces record" will suffice.

We agree that former U.S. Armed Forces instructor pilots should be allowed to apply for flight instructor certificates and ratings. Therefore, we have revised § 61.73(g) to include both current and former U.S. military instructor pilots or former and current U.S. military pilot examiners may apply for and be issued a flight instructor certificate. We have not restricted this provision to just former military instructor pilots and former military examiners who have been separated from the military within the preceding 12 calendar months, because we have decided to extend this to all current and

former U.S. military instructor pilots and military pilot examiners.

We disagree with the commenters' assertions that allowing military instructor pilots to apply for a flight instructor certificate under this alternative certification method of § 61.73 will diminish the standards of the FAA flight instructor certificate. U.S. military instructor pilots and military pilot examiners undergo rigorous and demanding training and are required to be knowledgeable about part 61 and part 91. Even though U.S. military instructor pilots and military pilot examiners may not undergo the same kind of training and testing as a civilian flight instructor or FAA designated pilot examiner, we have determined that U.S. military instructor pilots and military pilot examiners do receive equivalent training and testing as civilian flight instructor applicants. Some of those equivalent aeronautical knowledge areas involve testing on the following subject matters:

- Fundamentals of instructing, including the learning process, elements of effective teaching, student evaluation and testing, course development, lesson planning, and classroom training techniques;
- The training and certification rules in part 61 that govern recreational, private, and commercial pilot certification, applicable to the aircraft category for which flight instructor privileges are sought; and
- The training and certification rules in part 61 that govern the aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.

The FAA is not "giving away" the flight instructor certificate, because all U.S. military instructor pilot and military pilot examiners will be required to meet the certification requirements of § 61.73(g).

We also disagree that some military instructor pilots and military pilot examiners may not have the experience flying or flight instructing in general aviation aircraft. In fact, many have vast amounts of training, experience, and skills that we believe will be equally beneficial to training civilian pilots.

Civilian flight instructors usually receive training in one specific make and model of general aviation aircraft when receiving training for their flight instructor certificate and then take their practical test in that make and model of general aviation aircraft. However, once the person receives his/her flight instructor certificate, it allows flight instructor privileges for giving flight training in various makes and models of

general aviation aircraft, in accordance with that person's flight instructor certificate and ratings. Standard insurance practices in the flight training community require civilian flight instructors to have so much flight experience in a specific make and model of aircraft to meet the flight training operator's insurance requirements. Military instructor pilots who earn their flight instructor certificate under this revision to § 61.73(g) will be allowed to give flight training in the various makes and models of general aviation aircraft, in accordance with their flight instructor privileges and ratings. However, those same insurance requirements will also apply to military instructor pilots when giving flight training in a specific make and model of general aviation aircraft. Accordingly, we do not believe there is safety issue here, and the FAA is adopting the revision as it was written. We are not comparing the way the civilian flight training community trains and qualify flight instructors with how the U.S. military trains and qualify its military instructor pilots. Rather, the FAA has made a determination that the way the U.S. military trains and qualify its military instructor pilots and with the addition of requiring military instructor pilots to pass a knowledge test, as required by § 61.73(g)(3)(i), will provide a equivalent level of certification.

Some commenters have asked if military pilots who have been designated as "Unit Trainers" and have never graduated from an official U.S. Armed Forces' instructor pilot training course will be afforded this privilege of earning a flight instructor certificate and rating(s) under § 61.73(g). The answer is no. The only U.S. military instructor pilots and military pilot examiners who will be allowed to apply for a flight instructor certificate and rating(s) under this provision in § 61.73 are those current and former U.S. military instructor pilots and military pilot examiners who can show having passed an official U.S. Armed Forces' instructor pilot training course. This requirement would eliminate from consideration those military pilots who have been designated as "Unit Trainers" and have never passed an official U.S. Armed Forces' instructor pilot or military pilot examiner training course.

Furthermore, this provision of § 61.73(g) allowing current and former U.S. military instructor pilots and military pilot examiners to apply for an FAA flight instructor certificate is also afforded to those current and former U.S. military instructor pilots and military pilot examiners who serve or

have served in the National Guard and Reserves units of the U.S. Army, Air Force, Navy, Marine Corps, and Coast Guard.

43. This revision of § 61.73(h) clarifies, simplifies, and lists the documents required for proving rated U.S. military pilot status to qualify for FAA pilot certification

Revised § 61.73(h) clarifies, simplifies, and lists the documents required for proving a current or former rated military pilot is qualified for FAA pilot certification. This revision was developed in response to many inquiries over the years that were received by the FAA on what documents are required to show proof as a rated military pilot in the U.S. Armed Forces.

Five commenters supported the proposed clarification. One commenter asserted the clarification would prevent "FSDO shopping" by military pilots. Two commenters recommended that pilots separated from active flight status for more than twelve months be required to undergo knowledge and practical tests.

The FAA acknowledges the supportive comments received on this proposal.

44. This revision of § 61.75(a) and (b) requires that a foreign pilot who applies for a U.S. private pilot certificate on the basis of the person's foreign pilot license must hold at least a foreign private pilot license

Revised § 61.75(a) and (b) will require that a foreign pilot who applies for a U.S. private pilot certificate hold at least a foreign private pilot license. Before the August 4, 1997 amendments to part 61 (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), § 61.75 provided that to apply for a U.S. pilot certificate on the basis of a foreign pilot license, the pilot had to hold a foreign pilot license at the level of private pilot certificate or higher. The foreign pilot license must be issued by an ICAO member State. Under the 1997 Amendments, the requirement that the foreign pilot license to be at the level of private pilot certificate or higher was deleted without considering that there are some foreign countries that issue pilot certificates below the private pilot license (*i.e.*, recreational pilot licenses, sport pilot licenses, or private pilot licenses with a limitation that restricts a pilot from exercising the foreign pilot license to a particular foreign country). (See 62 FR 16257 and 16321; April 4, 1997.) Therefore, this final rule revises § 61.75(a) and (b) to clarify that the foreign pilot license used

to apply for the U.S. private pilot certificate under the provisions of this section must be at a private pilot license level or higher, without geographical restrictions, or otherwise meet at least the private pilot licensing requirements of ICAO Annex 1.

45. This revision of § 61.75(b)(3) permits the issuance of a U.S. private pilot certificate to foreign pilots who hold a U.S. student pilot certificate

This final rule revises § 61.75(b)(3) to clarify that a person who holds a foreign pilot license (when the foreign civil aviation authority that issued the foreign pilot license is a member State to ICAO) may apply for a U.S. private pilot certificate if that person holds a U.S. student pilot certificate.

Prior to the 1997 final rule (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), § 61.75(b)(3) allowed a U.S. pilot certificate to be issued to the holder of a foreign pilot certificate if "he [did] not hold a U.S. pilot certificate of private pilot grade or higher." When the FAA amended § 61.75(b)(3), it deleted the words "of private pilot grade or higher" to accommodate the recreational pilot certificate without considering that this change apparently eliminated persons who hold a foreign pilot license from being able to hold U.S. student pilot certificates. This was unintentional. Thus, under this revision, we are clarifying that a person who holds a foreign pilot license may also hold a U.S. student pilot certificate and still apply for a § 61.75 U.S. private pilot certificate. Furthermore, it should be understood that persons who hold a foreign pilot license may also apply for and receive a U.S. pilot certificate through the standard part 61 pilot certification process or under the special provisions and procedures of § 61.75.

46. This revision of § 61.75(c) clarifies that an aircraft rating on a pilot certificate based on a foreign pilot license is issued for private pilot certificate privileges only

This final rule revises § 61.75(c) to clarify that an aircraft rating on a U.S. pilot certificate that was issued on the basis of rating(s) held on the person's foreign pilot license is issued for private pilot privileges only. Before the 1997 Amendments (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), a person who held a commercial pilot license or higher level foreign pilot license issued by an ICAO contracting State could apply for and be issued U.S. commercial pilot certificate with the appropriate

ratings. When § 61.75 was amended, the rule provided for the issuance of a U.S. pilot certificate at the private pilot certification level only. Specifically, § 61.75(a) permitted a holder of a foreign pilot license issued by an ICAO contracting State to "apply for and be issued a private pilot certificate with the appropriate ratings when the application is based on the foreign pilot license." However, there is some confusion whether § 61.75(c) applies to additional ratings for those foreign pilots who were issued U.S. pilot certificates under § 61.75. Therefore, to further clarify § 61.75(c) and its conformity to existing § 61.75(a), limiting issuance of the U.S. pilot certificate to the private pilot certificate, this final rule adds the phrase "for private pilot privileges only" to § 61.75(c).

One commenter opposed the proposed provision, asserting that foreign commercial pilots should be eligible for FAA commercial pilot certificates. The essence of the rule change is merely to further clarify the intent of the rule and no substantive changes have been made. Therefore, the FAA is adopting the revision as proposed in the NPRM.

47. This revision of § 61.75(e) corrects an error in the rule that states "U.S. private pilot certificate" when it should state "U.S. pilot certificate"

Before the last major change to part 61 (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), the FAA had issued U.S. commercial pilot certificates to holders of foreign commercial pilot licenses or higher who applied for our U.S. commercial pilot certificate and ratings on the basis of § 61.75. When the FAA amended paragraph (e) under § 61.75, the rule was changed to read a person who receives a "U.S. private pilot certificate." The rule, however, needs to account for those outstanding foreign pilots who hold U.S. commercial pilot certificates. Therefore, the final rule revises § 61.75(e), (1), (4), (f), and (g) accordingly.

48. This revision of § 61.77 clarifies the requirements for issuance of Special Purpose Pilot Authorizations

This final rule revises various paragraphs in § 61.77 to address confusion about the special purpose pilot authorizations and correct some inconsistencies. The special purpose pilot authorization is a letter issued by the FAA to a foreign pilot for the purpose of performing pilot duties on a civil aircraft of U.S. registry that is leased to a person who is not a citizen

of the United States for the purpose of carrying persons or property for compensation or hire.

Since § 61.77 was last revised under the 1997 amendments (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), there has been confusion as to whom could be issued a special purpose pilot authorization and what kind of operations are permitted under a special purpose pilot authorization. For example, the FAA discovered that a foreign corporate operator was issued special purpose pilot authorizations in error. The FAA never intended that special purpose pilot authorizations be issued to foreign corporate operators who are not performing the carriage of persons or property for compensation or hire. Foreign pilots involved in part 91 operations have the ability to apply for and receive U.S. pilot certificates in accordance with § 61.75 or through the standard part 61 pilot certification process. Therefore, this final rule adds § 61.77(a)(2)(i) through (iv) to clarify what kind of operations foreign pilots are required to be performing to be eligible for a special purpose pilot authorization.

Additionally, the FAA has determined that the citizenship or resident status requirement under existing § 61.77(b)(1) conflicts with the policy authorizing holders of foreign pilot licenses to serve as pilots in U.S. registered aircraft for the kinds of flight operations covered by special purpose pilot authorizations. Thus, the citizenship or resident status requirement is unnecessary. The revision will delete the phrase “from which the person holds citizenship or resident status” under § 61.77(b)(1) because some pilots of foreign air carriers do not hold citizenship or resident status in the country from which they hold their pilot licenses, as is the case of U. S. citizens who serve as flight crewmembers aboard U.S. registered aircraft for foreign air carriers. Therefore, we have determined this requirement in § 61.77(b)(1) is burdensome and unnecessary.

Furthermore, this final rule deletes § 61.77(b)(5) (*i.e.*, a recent flight experience requirement under § 61.57 to be issued a special purpose pilot authorization) because the normal procedure for issuing special purpose pilot authorizations requires the foreign air carriers only to send the application and copies of the person’s foreign pilot and medical licenses to the FAA and does not require the airman to appear in person to the FAA. The FAA has no way of determining whether the pilot has complied with § 61.57 currency

requirements. Therefore, this final rule deletes existing § 61.77(b)(5).

49. This revision of § 61.96(b)(9) requires a person to hold either a student pilot certificate or sport pilot certificate when applying for a recreational pilot certificate

Revised § 61.96(b)(9) requires a person to hold either a student pilot certificate or sport pilot certificate to apply for a recreational pilot certificate. The FAA believes the rules implicitly require a person to hold a student pilot certificate before making application for a recreational pilot certificate. To apply for a recreational pilot certificate, an applicant must log at least three hours of solo flight time. (*See* 14 CFR 61.99(b).) To operate an aircraft in solo flight, the person must hold at least a student pilot certificate. (*See* 14 CFR 61.87(l)(1).) To avoid any further confusion, this final rule now specifies a person to hold either a student pilot certificate or sport pilot certificate before applying for a recreational pilot certificate.

One commenter supported the proposed requirement that a recreational pilot applicant hold a student pilot certificate. Four commenters asserted a recreational pilot applicant should hold either a student pilot certificate or a sport pilot certificate.

We agree that § 61.96(b)(9) be further revised to allow holding either a student pilot certificate or sport pilot certificate. We have changed the rule accordingly.

50. This revision of § 61.101(e)(1)(iii) allows for a holder of a recreational pilot certificate to act as PIC in rotorcraft with more than a 180 horsepower powerplant

Currently, holders of recreational pilot certificates are limited from acting as pilot in command (PIC) of an aircraft certificated “with a powerplant of more than 180 horsepower.” The purpose for the more than 180 horsepower powerplant limitation was restricting recreational pilots to slower, less complex aircraft. The FAA has determined that the 180 horsepower powerplant limitation is inappropriate for helicopters or gyroplanes. For example, the Bell 47 is a 1950-era helicopter that is simple in design and easy to fly, but some Bell 47 helicopters’ engines exceed the 180 horsepower rating. This meant recreational pilots were restricted from acting as PIC of these kinds of helicopters. Therefore, this final rule revises § 61.101(e)(1)(iii) to exclude aircraft that are certificated in the rotorcraft category from the 180 horsepower powerplant limitation. The

180 horsepower powerplant limitation will only apply to aircraft certificated in the airplane category.

Additionally, we are making a correction in § 61.101 in paragraph (j) that references “paragraph (h)” when the rule should reference “paragraph (i).” This mistake was recently discovered. Paragraph (h) is a rule about the requirement for adding the notation “Holder does not meet ICAO requirements” to the recreational pilot certificate. Paragraph (i) is the correct rule that should be referenced in paragraph (j) as it provides the requirements for flying solo for holders of recreational pilot certificates.

51. This revision § 61.103(j) requires a person either hold a student pilot certificate, sport pilot certificate, or a recreational pilot certificate when applying for a private pilot certificate

Revised § 61.103(j) now requires a person to hold either a student pilot certificate, sport pilot certificate, or recreational pilot certificate when applying for a private pilot certificate. The rules implicitly require a person to either have a student pilot or recreational pilot certificate before applying for a private pilot certificate. To apply for a private pilot certificate, an applicant must log at least 10 hours of solo flight time (*See* 14 CFR 61.109). To operate an aircraft in solo flight, the person must hold at least a student pilot certificate (*See* 14 CFR 61.87(l)(1)). However, to address any possible confusion, this revision explicitly specifies that a person hold either a student pilot certificate, sport pilot certificate, or recreational pilot certificate in order to apply for a private pilot certificate.

Two commenters supported the proposed eligibility requirements for a private pilot certificate. Seven commenters asserted the proposed requirements for a private pilot certificate fail to address holders of sport pilot certificates and recommended that a private pilot candidate be required to hold a student pilot certificate, a recreational pilot certificate, or a sport pilot certificate.

The FAA acknowledges comments received on this proposal. The FAA agrees with the commenters who requested that § 61.103(j) be further revised to allow holding either a student pilot certificate, sport pilot certificate, or recreational pilot certificate. We have changed the rule accordingly.

52. *This revision of § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii) amends the solo cross country mileage requirements for consistency with the mileage requirements under the definition of “cross country”*

This final rule revises § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii), standardizing use of the term “cross country” throughout part 61. Under § 61.1(b)(3)(ii), the FAA defines the distance of a cross country flight, in pertinent part, as “more than 50 nautical miles.” Under § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii), the regulations erroneously state, “of at least 50 nautical miles.” The revision amends all definitions of “cross country” to read “more than 50 nautical miles.” Four commenters supported changing the definition of cross country. One commenter asserted the change will eliminate questions regarding rounding without a significant negative impact. Nine commenters objected to the change with one arguing that the change could force performance of longer cross country flights in instances where existing airport pairings are exactly the specified number of miles apart. One commenter believed there was no compelling safety or other concerns sufficient to mandate the change, and another commenter asserted the proposed change would only provide minimal benefits.

Two commenters recommended that, rather than changing § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii), the FAA change § 61.1(b)(3)(ii) to read “at least” for continuity purposes. One commenter recommended that, if the definition of cross country flight is to be changed to a format of “more than” a number of miles, that mileages be reduced by one mile (*i.e.*, from at least 50 miles to more than 49 miles). One commenter asserted the change will eliminate rounding without a significant negative impact. One commenter asserted the costs of the change outweigh the minimal benefit resulting from changing the definition. One commenter, while opposing the change, will accept it if it would prevent issuance of a certificate stating “Holder does not meet ICAO requirements.”

The purpose of the rule change is to correct a mistake in the former rule and no substantive changes have been made.

53. *This revision of § 61.109(c)(4)(ii) amends the solo cross country distance requirement for the private pilot-helicopter rating*

This final rule revises § 61.109(c)(4)(ii) so the cross country distance requirement for the helicopter rating at the private pilot certification

level conforms to ICAO requirements and the FAA’s cross country distance definition in § 61.1(b)(3)(v). The existing solo cross country distance requirement under § 61.109(c)(4)(ii) for the private pilot-helicopter rating states that the solo cross country flight must be “at least 75 nautical miles total distance.” The ICAO requirements, set forth under Annex I, paragraph 2.7.1.3.2 require that the total distance be at least 100 nautical miles total distance. Therefore, this final rule revises the private pilot-helicopter rating requirement to conform to the ICAO requirement.

Additionally, the helicopter rating for private pilot certification under § 61.109(c)(4)(ii) erroneously states “of at least 25 nautical miles.” This final rule revises the rules to read “more than 25 nautical miles” to conform to the definition of “cross country” under § 61.1(b)(3)(v).

Seven commenters objected to the change. The FAA already addressed many of these comments earlier in this document. The concerns included: forcing performance of longer cross country flights in cases where existing airport pairings are exactly the specified number of miles apart; no compelling safety reason; and, the costs of the change outweigh the minimal benefit resulting from changing the definition.

The essence of this rule change is to parallel our rule with ICAO standards, so that U.S. pilot certification conforms to international civil aviation standards and our private pilot certificate is recognized by the other ICAO member States. Therefore, we are adopting the revision as proposed in the NPRM.

54. *This revision of § 61.109(d)(4)(ii) amends the solo cross country distance requirement for the private pilot-gyroplane rating*

This final rule revises § 61.109(d)(4)(ii) to conform the cross country distance for the gyroplane rating at the private pilot certification level to the ICAO requirements for the gyroplane rating and to § 61.1(b)(3)(v). The existing solo cross country distance requirement for the private pilot-gyroplane rating states that the solo cross country flight must be “at least 75 nautical miles total distance.” The ICAO requirements, set forth under Annex I, paragraph 2.7.1.3.2, require that the total distance be at least 100 nautical miles total distance. Therefore, this final rule revises the cross country distance for the private pilot-gyroplane rating to conform to the ICAO’s cross country distance requirement for the gyroplane rating at the private pilot certification level. Additionally, the gyroplane rating for private pilot certification under

§ 61.109(d)(4)(ii) erroneously states “of at least 25 nautical miles.” The revision amends the rule to read: “more than 25 nautical miles” in conformance with the definition of “cross country” under § 61.1(b)(3)(v).

Four commenters supported changing the definition. Seven commenters objected to the change. One commenter, while opposing the change, would accept it if it prevented issuance of a certificate stating “Holder does not meet ICAO requirements.”

The essence of this rule change is to parallel our rule with ICAO standards, so that U.S. pilot certification conform to international civil aviation standards and our private pilot certificate is recognized by the other ICAO Member States to ICAO. Therefore, the FAA is adopting the revision as proposed in the NPRM.

55. *This revision of § 61.127(b)(4)(vi) adds a requirement for ground reference maneuvers for commercial pilot certification-gyroplane rating*

Revised § 61.127(b)(4)(vi) will require training in “ground reference maneuvers” for the gyroplane rating at the commercial pilot certification level. When the FAA amended the area of operations under § 61.127 for the gyroplane rating at the commercial pilot certification level, the reference to “ground reference maneuvers” was deleted. After further review, this final rule re-instates the “ground reference maneuvers” as an area of operation for the gyroplane rating at the commercial pilot certification level. We believe this to be an important training and certification task. The ground reference maneuvers must include at least “eights around a pylon,” “eights along a road,” “rectangular course,” “S-turns,” and “turns around a point.”

Three commenters supported the addition of ground reference maneuvers as an area of operation for a commercial pilot gyroplane rating. One commenter did not object to the addition of ground reference maneuvers, but opposed the inclusion of specific maneuvers in the regulation while another opposed the introduction of rectangular course, S-turns, and turns around a point because these maneuvers are trained and tested at the private pilot level.

The FAA acknowledges the supportive comments received on this proposal. The one commenter’s statement that the rectangular course, s-turns, and turns around a point are trained and tested at the private pilot level is accurate. However, the difference will be that the maneuvers must now be performed to commercial pilot certification standards. The FAA is

adopting the revision as proposed in the NPRM.

56. This revision of § 61.127(b)(5)(vii) deletes the requirement for the “ground reference maneuver” in the area of operation for commercial pilot certification-powered-lift rating

This final rule deletes “ground reference maneuver” area of operation under § 61.127(b)(5)(vii) for the powered-lift rating at the commercial pilot certification level. The FAA has determined that the “ground reference maneuver” is not appropriate for the powered-lift rating at the commercial pilot certification level.

Two commenters supported the elimination of ground reference maneuvers as an area of operation for a commercial pilot powered-lift rating. Two other commenters opposed the elimination of ground reference maneuvers. The Greater St. Louis Flight Instructor Association argued in their comments that because powered lifts exhibit the qualities of both airplanes and helicopters, maneuvers unique to both aircraft should be demonstrated. One commenter opined that since there are no certified civilian powered-lifts, there is no way to know what maneuvers are appropriate for testing. The commenter recommended no changes be made until a Flight Standardization Board (FSB) has determined if changes are required.

The FAA acknowledges the comments received on this proposal. The FAA has not completed its FSB report on any make and model of powered-lift currently under production; however, because powered-lifts have flight characteristics of both the airplane and helicopter, we have determined that training on “ground reference maneuvers” would not be appropriate for the powered-lift rating at the commercial pilot certification level. The FAA does not intend to require ground reference maneuvers for certification during development of its FSB report, nor do we intend to require the maneuvers for the powered-lift rating for the commercial pilot certificate. The FAA is adopting the revision as it proposed in the NPRM.

57. This revision of § 61.129(a)(3)(i) clarifies the tasks required for “instrument training” for commercial pilot certification-airplane single engine rating

Ever since the instrument aeronautical experience requirement was adopted under § 61.129 by the 1997 amendments (Amendments Nos. 1–47, 61–102, 141–8, and 143–6; 62 FR 16220–16367; April 4, 1997), the FAA

has received questions about appropriate training for instrument aeronautical experience. Therefore, the FAA has revised § 61.129(a)(3)(i) to clarify tasks required for “instrument aeronautical experience” for the airplane single engine rating at the commercial pilot certification level. Under this revision, “instrument aeronautical experience” will include at least “10 hours of instrument training, of which at least 5 hours must be in a single engine airplane and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.”

Two commenters generally supported the instrument training requirements proposal. One comment supported requiring five hours of training. Six commenters objected to the unqualified requirement that a view-limiting device be used for instrument training arguing that students should be permitted to train without a view-limiting device in actual instrument meteorological conditions (IMC) if the instructor is instrument current. Four commenters recommended the rule be modified to require training in actual IMC or using a view-limiting device. One commenter recommended use of a view-limiting device at the instructor’s discretion. Two commenters recommended a minimum amount of actual instrument experience be required.

The essence of the § 61.129(a)(3)(i) is to clarify tasks required for “instrument aeronautical experience” for the airplane single engine rating at the commercial pilot certification level. Under this revision “instrument aeronautical experience” will include at least “10 hours of instrument training, of which 5 hours must be in a single engine airplane and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.”

The purpose of this change is to further clarify the intent of the rule and no substantive changes have been made. As for the commenters’ objections to use a view-limiting device and perform the instrument training in IMC, the answer is an aircraft being flown in IMC does not necessarily limit a person’s vision to the outside and horizon. For example, an aircraft may be being flown between cloud layers and be considered an IMC operation; however, the pilot may be able to see outside the aircraft and see some portions of the horizon. Another example would be an aircraft being flown at night with reduced flight

visibility; however, the ground lights and lighting around cities and towns would not limit a person’s visual cues to the outside and horizon. The FAA has determined that requiring the use of a view-limiting device will better insure quality instrument training. The FAA is adopting the revision as proposed in the NPRM.

58. This revision of § 61.129(b)(3)(i) clarifies the tasks required for “instrument training” for commercial pilot certification-airplane multiengine rating

This final rule revises § 61.129(b)(3)(i) to clarify the tasks required for “instrument training” for the airplane multiengine rating at the commercial pilot certification level. Revised § 61.129(b)(3)(i) provides that instrument aeronautical experience must include at least “10 hours of instrument training, of which at least five hours must be in a multiengine airplane and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.”

Two commenters generally supported the instrument training requirements for a commercial pilot certificate and one supported the requirement for five hours of training. Five commenters objected to the unqualified requirement that a view-limiting device be used for instrument training asserting students should be permitted to train without a view-limiting device in actual IMC if instructor is instrument current. Two commenters recommended the rule be modified to require training in actual IMC or using a view-limiting device. Two commenters recommended use of a view-limiting device be at the discretion of the instructor. One commenter recommended a minimum amount of actual instrument experience be required.

Our responses to these kinds of comments were previously answered in the discussion of § 61.129(a)(3)(i) above. The essence of the change is merely to further clarify the intent of the rule and no substantive changes have been made.

59. This revision of § 61.129(c)(3)(i) allows use of a flight simulator, flight training device, or aviation training device for some of the instrument training required for commercial pilot certification-helicopter rating

Revised § 61.129(c)(3)(i) will allow instrument training required for the helicopter rating at the commercial pilot certification level to be performed in an aircraft, flight simulator (FS), flight

training device (FTD), or aviation training device (ATD). In response to questions raised by the general aviation and flight training community, the training is required to satisfy instrument training for the helicopter rating at the commercial pilot certification level. The instrument training will include at least “5 hours of instrument training and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.”

One commenter supported the proposed changes to the instrument training requirements for a commercial helicopter rating and two others supported the proposed changes to the language describing the instrument training required. One commenter recommended even more descriptive language providing specific maneuvers to be conducted, similar to that used for the private pilot single engine airplane requirements. One commenter supported the proposed requirement that all required instrument training be performed in a helicopter because under current rules, pilots may receive all required instrument training in another category of aircraft resulting in ineffective learning. One commenter rejected any argument that instrument helicopter training will be without cost implications, because he believes that most training helicopters are not certified for instrument flight and asserts that training for flight by reference to instruments does not require the kinds of flight instruments required under instrument flight rules (*i.e.*, § 91.205(d)). One commenter asserted that, unlike airplane pilots, helicopter pilots generally do not tend to obtain their instrument ratings before obtaining a commercial rating. Four commenters, including American Eurocopter and HAI, recommended requiring 10 hours of flight by reference to instruments. Four commenters stated the history of accidents involving inadvertent flight into IMC warrants an increase in the amount of required instrument training, rather than a decrease.

Two commenters noted commercial helicopter pilots may act in common carriage without an instrument rating without distance or other restrictions. Four commenters opposed the requirement for five hours of training on flying a helicopter solely by reference to instruments. Two commenters asserted the proposed requirement will force many commercial pilot candidates to train in larger, more expensive helicopters. AOPA asserted that pilots

may have difficulty gaining access to instrument equipped helicopters or an appropriately configured simulator, flight training device (FTD), or personal computer aviation training device (PCATD). One commenter noted few helicopters used for training are equipped with more than basic VFR instruments. Another commenter asserted that since non-instrument rated pilots are not required to maintain instrument currency, any skills acquired will rapidly deteriorate and negatively impact safety by giving pilots a false impression they are qualified to fly in marginal VFR conditions. One commenter asserted the proposed rule will unnecessarily force many helicopter instructors to obtain instrument ratings. Two commenters stated the history of accidents involving inadvertent flight into IMC does not support the proposed provision because most accidents have involved instrument-rated pilots. Four commenters objected to the unqualified requirement that a view-limiting device be used for instrument training.

The commenters asserted students should be permitted to train without a view-limiting device in actual IMC if the instructor is instrument current. One commenter recommended the rule be modified to require training in actual IMC or using a view-limiting device. Three commenters recommended use of a view-limiting device be at the discretion of the instructor. American Eurocopter and HAI recommended the FAA require 10 hours of instrument instruction but permit five hours to be conducted in a simulator, flight training device or PCATD.

Under the old § 61.129(c)(3)(i), the rule required that applicants for a commercial pilot certificate for the helicopter rating receive “10 hours of instrument training in an aircraft.” This proposed change merely provides other methods (*i.e.*, use of a flight simulator, flight training device, or an aviation training device) for an applicant to receive instrument training. Our responses to these comments were previously answered in the discussion of § 61.129(a)(3)(i) above. We are adopting the revision as proposed in the NPRM.

60. This revision of § 61.129(d)(3)(i) allows for use of flight simulators, flight training devices, or aviation training devices for some of the instrument training required for commercial pilot certification-gyroplane rating

Revised § 61.129(d)(3)(i) reduces the number of hours of instrument training required from five to 2.5 hours and allows instrument training required for

the gyroplane rating at the commercial pilot certification level to be performed in an aircraft, FS, FTD, or ATD. The FAA believes that the training for the commercial pilot-gyroplane rating will be more useful if the training focused on other tasks. We recognize that gyroplanes are normally not sufficiently equipped for instrument flight operations and are flown mostly in daytime, visual meteorological conditions.

This final rule has clarified the instrument training required to satisfy the “instrument training” for the gyroplane rating at the commercial pilot certification level. The instrument training will have to include at least 2.5 hours of instrument training, including training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.

Two commenters supported the proposed commercial pilot gyroplane rating instrument training requirements. One commenter opposed the reduction in required instrument training time from five hours to 2.5 hours, and argued alternatives to training in the aircraft make the requirement less onerous, and claimed, that training appropriate for a helicopter rating should be appropriate for gyroplanes as well. The commenter also pointed out that if five hours is completed, a pilot adding an additional class in the same category would not need any additional training time. Seven commenters stated instrument training for a commercial gyroplane rating is unnecessary and recommended its elimination. Two commenters argued the training time would be better devoted to basic flying skills since the vast majority of gyroplane operations are day VFR. These commenters added that accident history does not indicate that inadvertent flight into IMC is a significant causal factor. Three commenters noted gyroplanes are particularly unforgiving if unusual attitudes are encountered in IFR. Four commenters stated few or no gyroplanes are equipped for IFR. One commenter recommended making instrument privileges for a gyroplane rating optional, while two commenters recommended eliminating all instrument training requirements for gyroplanes. One commenter asserted a majority of pilots acquiring commercial pilot certificates with the gyroplane rating do so in order to instruct. The commenter asserted a lack of qualified instructors is a significant factor in gyroplane accidents, and that requiring instrument training for a commercial

rating creates an unnecessary obstacle to becoming an instructor.

Two commenters objected to the unqualified requirement that a view-limiting device be used for instrument training. One commenter recommended the rule be modified to require training in actual IMC or using a view-limiting device and one commenter recommended use of a view-limiting device be at the discretion of the instructor.

Under the old § 61.129(d)(3)(i), the rule required that applicants for a commercial pilot certificate for the gyroplane rating receive "5 hours of instrument training in an aircraft." This proposed change merely reduces the hours requirement to 2.5 hours and provides other methods (*i.e.*, use of a flight simulator, flight training device, or an aviation training device) for an applicant to receive instrument training. Additionally, the FAA is aware that gyroplanes are not certificated for instrument flight; however, this minimal amount of instrument training is to provide pilots with some training about flying in instrument conditions to make them better skilled and alert for instrument flight conditions.

Our response to these kinds of comments were previously answered in the FAA Analysis paragraph in proposal No. 57 about § 61.129(a)(3)(i) above. The FAA acknowledges the comments received about this proposal. The FAA is adopting the revision as proposed in the NPRM.

61. This revision of § 61.129(e)(3)(i) clarifies the tasks required for "instrument training" for commercial pilot certification-powered-lift rating

This final rule revises § 61.129(e)(3)(i) for the powered-lift rating at the commercial pilot certification level. This revision requires at least 10 hours of instrument training, of which at least five hours must be in a powered-lift and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.

Five commenters objected to the unqualified requirement that a view-limiting device for instrument training, arguing that students should be permitted to train without a view-limiting device in actual IMC if the instructor is instrument current. Two commenters recommended the rule be modified to require training in actual IMC or using a view-limiting device. Three commenters recommended use of a view-limiting device be at the discretion of the instructor.

Our response to these kinds of comments were previously answered in the FAA discussion of § 61.129(a)(3)(i) above. The FAA acknowledges the comments received about this proposal. We are adopting the revision as proposed in the NPRM.

62. This revision of § 61.129 for commercial pilot certification allows cross country training flights to be performed under VFR or IFR

This final rule revises § 61.129(a)(3)(iii) and (iv), (b)(3)(iii) and (iv), (c)(3)(ii) and (iii), (d)(3)(ii), (e)(3)(ii) and (iii), (g)(4)(ii) and (iii) to allow the required cross country flights for commercial pilot certification to be performed under VFR or IFR.

Previously, § 61.129 required one cross country flight in day VFR conditions and one cross country flight in night VFR conditions. Since establishing these cross country training requirements at the commercial pilot certification level, the FAA has received requests from several pilot training schools that we allow flights to be performed under IFR conditions. According to the schools, most applicants for commercial pilot certification-airplane rating and some applicants for the helicopter rating are enrolled in an instrument rating course at the same time they are undergoing their commercial pilot certification training.

Eleven commenters supported the proposed provision permitting cross country flights for commercial pilot certification to be performed under VFR or IFR conditions. Four commenters asserted training will better reflect true-to-life scenarios. Four commenters opposed the proposed provision, and three commenters stated the visual navigation skills required for VFR cross country flight should not be deemphasized. One commenter noted that under the proposed rules, a pilot could complete the cross country requirement in two flights, under IFR or VFR conditions. The commenter stated the commercial pilot certificate-helicopter candidates should be required to perform cross country flights under VFR, because helicopters typically operate under VFR.

We agree it makes sense to allow the cross country training requirements under § 61.129 to be performed under IFR conditions. The FAA agrees and is allowing the cross country training requirements under § 61.129 for commercial pilot certification for the airplane, rotorcraft, powered-lift, and airship ratings to be performed under VFR or IFR conditions.

We also agree that navigation using pilotage and dead reckoning is important; however, a commercial pilot applicant will have received VFR cross country navigation training during their training and practical test for their private pilot certificate. In the case of cross country navigation training for the commercial pilot certificate, we believe the determination of whether the cross country training is performed under VFR or IFR is best left to the needs of the applicant and the instructor's discretion. For these reasons, the FAA is adopting the revision as proposed in the NPRM.

63. This revision of § 61.129(d)(3)(iii) deletes the night training requirement for commercial pilot certification-gyroplane rating

This final rule deletes the night cross country aeronautical experience requirement under § 61.129(d)(3)(iii) for the gyroplane rating at the commercial pilot certification level. This final rule replaces the night cross country aeronautical experience requirement with two hours of flight training at night that consists of ten takeoffs and ten landings at an airport.

Nine commenters supported eliminating the night cross country experience requirement for a commercial gyroplane rating and five commenters stated the requirement presents an unacceptable risk because the open cockpits of gyroplanes require lower altitude flight with reduced gliding range and because the instrumentation of gyroplanes is limited. One commenter asserted the requirement has discouraged potential gyroplane instructors from acquiring a commercial certificate. Two commenters asserted landing proficiency is of particular importance in gyroplane operations, and the night cross country requirement should be replaced with a requirement for a minimum amount of night flight including a minimum number of takeoffs and landings. One commenter opposed elimination of the night cross country requirement arguing if it is appropriate for a helicopter rating, it should be appropriate for gyroplanes. The commenter also stated a commercial gyroplane pilot could subsequently obtain a helicopter class rating with no additional training time and no night cross country experience.

The FAA made this revision so that nighttime training for the gyroplane rating at the commercial pilot certification level will be more useful and more safely conducted in the vicinity of an airport. Gyroplanes have limited equipment and systems for

nighttime operations, and a cross country flight raises some added safety concerns in gyroplanes given its limited instrument flight and navigation capabilities. Therefore, the FAA is adopting the revision as proposed in the NPRM.

64. This revision of § 61.129 amends the commercial pilot certification solo aeronautical experience requirements to allow the aeronautical experience to be performed either solo or while performing the duties of PIC with an instructor on board

This final rule revises § 61.129(a)(4), (c)(4), (d)(4), (e)(4), and (g)(2) to allow the commercial pilot certification aeronautical experience to be conducted either solo or while performing the duties of PIC with an instructor on board. Even though the commercial pilot certification aeronautical experience requirements for a multiengine airplane rating allow the aeronautical experience requirements to be conducted either solo or with an authorized instructor on board (*See* § 61.129(b)(4)), the solo aeronautical experience requirements were purposely written differently for other aircraft categories. This is because comments received in response to Notice No. 95-11 (60 FR 41160-41284; August 11, 1995) indicated that some insurance policies prohibit persons who do not already hold the multiengine airplane category and class rating on their pilot certificate from flying solo in multiengine airplanes.

Five commenters supported the proposed provision permitting flights previously required to be performed solo with an instructor on board. One commenter stated the knowledge requirements are unchanged, and an additional pilot scanning for traffic enhances safety. Three commenters asserted that upon receiving private pilot certificates, pilots are permitted to fly solo and carry passengers, and should have no further solo flight requirements.

Thirteen commenters opposed the provision with seven arguing that solo flight contributes to the development of essential self-reliance, decision-making, and command skills. Two commenters stated that, under the proposed rules, a pilot could progress all the way to an ATP certificate with only 10 hours of solo flight early in training. One commenter recommended pilots completing a commercial certificate with zero solo time in class be issued ratings limited to second in command (SIC) privileges. One commenter suggested if it is not possible for an applicant to perform the flights solo,

then dual instruction requirements should be increased. Two commenters believed the proposed provision is driven by insurance and cost concerns, rather than safety or education concerns and insurance concerns should not restrict solo flight by commercial pilot candidates. The commenter stated most commercial pilot training is performed in either a single engine fixed gear airplane or in some low performance single engine retractable gear airplane, neither of which is difficult to insure.

The Greater St. Louis Flight Instructor Association rejected the argument that flights with an instructor on board foster cockpit resource management (CRM) skills, noting that the purpose of part 61 training is to prepare pilots to fly to single-pilot standards, not to prepare them for a future airline career. The association also asserted the proposed provision subverts the intent of § 91.3, which defines the PIC as directly responsible for, and the final authority on, the operation of the aircraft. Finally, the association asserted students ostensibly acting as PIC will defer to flight instructors and Examiners.

One commenter recommended solo cross country experience be required, but that pilots working toward a commercial multiengine airplane rating be permitted to perform the flights in a single engine airplane to avoid potential insurance conflicts. Two commenters, including AOPA, recommended permitting performance of cross country flights solo or with an instructor on board and that commercial pilot candidates be permitted to perform the flights with passengers on board. One commenter recommended all pilots who hold a private or sport pilot certificate be permitted to fulfill solo flight requirements for additional certificates or ratings with an instructor on board, or while carrying passengers, arguing that carrying passengers allows pilots to share costs and expose potential future students to the experience of flight without degrading safety. Finally one commenter opposed the underlying requirement for a long cross country flight from commercial pilot candidates because it is only meant to conform to ICAO standards.

Since the adoption of § 61.129, the FAA has learned that some operators of the other categories and classes of aircraft also have the same insurance policy restrictions. Many of these aircraft operators also believe solo provisions for commercial pilot certification-multiengine airplane rating is beneficial in teaching crew resource management (CRM). These provisions permit the training to be performed solo or with an instructor on board while the

applicant is performing the duties of PIC in a multiengine airplane. Some operators have said that they will be agreeable to their commercial pilot applicants practicing abnormal and emergency procedures if the applicant's instructor was on board. Therefore, this final rule provides for commercial pilot certification for the single engine airplane, helicopter, gyroplane, powered-lift, and airship ratings to be performed either solo or while performing the duties of PIC with an authorized instructor aboard.

We believe the negative comments against this proposal are more of a philosophical disagreement than a safety issue. The existing rule, § 61.129(b)(4), has permitted the commercial pilot-airplane multiengine training to be performed either solo or with an instructor on board since August 4, 1997, and there has not been any difference noted in safety or the quality of the skills and abilities of commercial pilot-airplane multiengine applicants. We believe applicants and instructors have used this training for commercial pilot-airplane multiengine applicants to achieve proficiency in crew resource management and coordination with an SIC designated pilot.

For the stated reasons, the FAA is adopting the revision as proposed in the NPRM.

65. This revision of § 61.129(g)(3)(i) clarifies the tasks required for the "instrument training" for commercial pilot certification-airship rating

Ever since the instrument aeronautical experience requirement was adopted under § 61.129 by the 1997 amendments (Amendments Nos. 1-47, 61-102, 141-8, and 143-6; 62 FR 16220-16367; April 4, 1997), we have received questions about what is considered appropriate training to cover instrument aeronautical experience. Revised § 61.129(g)(3)(i) clarifies the tasks required for "instrument training" for the airship rating at the commercial pilot certification level to include the use of a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.

There were no specific comments about this proposal on the instrument tasks required for the commercial pilot-airship rating. The comments received focused on clarifying the tasks required for "instrument training" for the other categories and classes of aircraft at the commercial pilot certification level.

Our responses to these kinds of comments were previously answered in

the discussion of § 61.129(a)(3)(i). We are adopting the revision as it was proposed in the NPRM.

66. This revision of § 61.153(d)(3) changes the ATP eligibility requirements for pilots who are applying for the ATP certificate on the basis of holding a foreign commercial or ATP pilot license

This final rule makes minor clarifying revisions to § 61.153(d)(3), the airline transport pilot (ATP) eligibility requirements for persons holding foreign commercial or ATP pilot licenses, by including the requirement that the foreign commercial or ATP pilot license contains no geographical limitations. The FAA has determined that a foreign applicant for the U.S. ATP certificate should not be qualified if the foreign ATP license has a geographical limitation. Although this situation very rarely (if ever) occurs, the FAA wants to clarify the rule to avoid any potential future conflicts.

67. This revision re-structures § 61.157, moves the provisions for use and limitations of flight simulators and flight training devices from the ATP flight proficiency requirements to the § 61.64, and makes other clarifying revisions

We are revising § 61.157(f) to clarify the aeronautical knowledge areas to be demonstrated during a competency test/proficiency check under air carrier operating rules for an applicant to qualify for an ATP and/or an additional aircraft rating.

For a part 135 pilot applicant, the items currently required to be demonstrated in order to qualify for such a certificate or additional rating are the aeronautical knowledge areas of § 135.293(a)(1) through (8) and the maneuvers and procedures listed in § 135.293(b), plus an instrument proficiency check as outlined in the § 135.297. Under part 121, the corresponding requirements are listed in § 121.441 and consist of the "aircraft specific" maneuvers and procedures listed in part 121, appendix F. The part 135 testing requirements, which include such "generic" knowledge areas as air traffic control procedures and meteorology in general, go beyond the requirements of part 121. An objective of this rule change, therefore, is to synchronize the testing requirements between parts 121 and 135 so that the same items are required to be tested by an applicant under either part.

Two commenters asserted the proposed changes to §§ 61.63 and 61.157 and new § 61.64 would have a significant and detrimental impact on the use of flight simulators and the

flight training industry and supported the text of the existing rules.

The FAA has, by policy, typically limited part 142 training center contract Check Airmen and designated pilot Examiners to testing part 135 pilot applicants on the aeronautical knowledge area of § 135.293(a)(2) and not on the other areas listed in § 135.293(a)(1) and (3) through (8). This has sometimes caused a problem in showing that an applicant has fully met all regulatory requirements, considering that § 61.157(f)(2) specifies that these knowledge areas must be tested by "an authorized designated pilot examiner or FAA aviation safety inspector." Further, the rule is silent on the role of a part 142 Training Center Evaluator (TCE), who is also a certifying official, and who may be acting in the role of contract check airman.

To ensure the rule is written correctly and in accordance with current policy and acceptable operating practices, we are revising § 61.157(f) to clarify that the part 135 competency test described in the rule means a PIC competency check involving the aeronautical knowledge areas of § 135.293(a)(2), the maneuvers and procedures listed in § 135.293(b), and the instrument proficiency check described in § 135.297. This means that a part 135 pilot applicant who accomplishes a part 135 competency/proficiency check with a part 142 training center or designated pilot examiner will be eligible for an ATP certificate or additional aircraft rating, but still must accomplish the other aeronautical knowledge areas of § 135.293(a)(1) and (3) through (8) with their company check airman or FAA Aviation Safety Inspector to meet the part 135 PIC competency check requirements. Without these requirements being completed, a part 135 pilot applicant, although having received an appropriate certificate and aircraft rating, will not meet the qualification requirements to serve as a required flight crewmember under part 135.

The rule change will also formally clarify the designee/certifying official role played by a part 142 Training Center Evaluator who is also authorized by an air carrier's Principal Operations Inspector (POI) as a contract check airman.

This final rule rewords § 61.157(g) (former paragraph (j)) and clarifies the use of an aircraft on a practical test for a type rating that is not capable of instrument maneuvers and procedures and the issuance of a type rating with a VFR limitation under those circumstances. This revision parallels the revised change under § 61.63(e).

Additionally, this revision removes paragraphs (g), (h), and (i), that provided for the use and limitations of a flight simulator and flight training device, and moves those requirements into § 61.64.

The FAA's response to the comments about this proposal related to where we moved the use and limitations of flight simulators and flight training devices from § 61.157 to § 61.64 and other clarifying changes was previously addressed above in the paragraph about the changes to § 61.63 and § 61.64. The establishment of this rule merely consolidates the use of flight simulators and flight training devices into § 61.64 and for these reasons the FAA is adopting the revision as it was proposed in the NPRM.

68. This revision of § 61.157(h) requires an applicant for a type rating at the ATP certification level in a multiengine, single-pilot station airplane to perform the requirements in a multi-seat version of that multiengine airplane

Revised § 61.157(h) will require an applicant for a type rating at the ATP certification level for a multiengine airplane with single-pilot station to perform the practical test in the multi-pilot seat version of that multiengine airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there is no multi-seat version of that multiengine airplane. This revision parallels § 61.63(f) for a type rating in a multiengine airplane with single-pilot station at other than the ATP certification level.

69. This revision of § 61.157(i) requires an applicant for a type rating at the ATP certification level in a single-engine, single-pilot station airplane to meet the requirements of this part in a multi-seat version of that single engine airplane

Revised § 61.157(i) will require an applicant for a type rating at the ATP certification level for a single engine airplane with single-pilot station to perform the practical test in the multi-pilot seat version of that single engine airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is able to observe the applicant during the practical test when there is no multi-seat version of that single engine airplane. This revision parallels § 61.63(g) for a type rating in a single engine airplane with single-pilot station at other than the ATP certification level.

70. *This revision of § 61.159(c)(3) allows U.S. military flight engineers to credit flight engineer time when applying for an ATP pilot certificate*

Revised § 61.159(c)(3) allows a U.S. military flight engineer to credit flight engineer time toward the aeronautical experience requirements for an ATP certificate. Under § 61.159(c)(2), a flight engineer who is employed by a part 121 operator is allowed to credit flight engineer time toward an ATP certificate. Revised § 61.159(c)(3) affords military rated flight engineers the same opportunity.

Three commenters supported the proposed provision permitting flight engineers to credit military flight engineer time toward a civilian ATP certificate. The Greater St. Louis Flight Instructor Association recommended the proposal be expanded to include all rated military flight crewmembers that perform flight related duties (e.g., Naval Flight Officers, U.S. Air Force navigators, and weapons system operators (WSO)) that hold an FAA pilot certificate during the time they perform and log their experience. The FAA is adopting the revision as proposed in the NPRM.

71. *This revision of § 61.159(d) and (e) conforms the ATP aeronautical experience requirements to the ICAO ATP requirements*

This final rule revises § 61.159(d) and (e) for conformity to current International Civil Aviation Organization (ICAO) airline transport pilot (ATP) aeronautical experience requirements for the airplane category as stated in paragraphs 2.1.9.2 and 2.5.1.3 of the Personnel Licensing, ICAO Annex 1.

For many years, the FAA has received numerous inquiries as to whether applicants for an ATP certificate with the ICAO limitation "Holder does not meet the pilot in command aeronautical experience requirements of ICAO" must have 1,500 hours of total time as a pilot or 1,200 hours of flight time as a pilot as stated in § 61.159(d)(2). The current FAA regulation applies an obsolete ICAO ATP airplane aeronautical experience rule. Before 1974, ICAO only required 1,200 hours of total flight time to qualify for an ATP certificate in the airplane category. In 1974, ICAO amended its ATP aeronautical experience requirements for the airplane category to require 1,500 hours of flight time as a pilot and retained the additional qualifying aeronautical experience requirements of only permitting 50 percent of an applicant's second-in-command time to be credited

with none of an applicant's flight-engineer time being credited (see paragraphs 2.1.9 and 2.5.1.3 of ICAO Annex 1, Personnel Licensing). This revised change harmonizes FAA regulations to ICAO's current standard.

72. *This revision of § 61.187(b)(6)(vii) deletes the flight instructor-glider flight proficiency maneuver known as the "go around" task*

This final rule deletes the flight instructor-glider flight proficiency maneuver known as the "go around" under § 61.187(b)(6)(vii). Understandably, a non-powered glider is not capable of performing a "go-around" maneuver.

One commenter supported elimination of the go around maneuver from the glider flight instructor rating requirement. One commenter opposed the removal of the go around requirement from the flight proficiency requirements for a glider instructor rating because a go around may be appropriate and applicable in a self-launching glider.

In a self-launching glider, it is possible that a pilot may have to perform a go-around maneuver. However, the FAA is attempting to establish training requirements that are most appropriate for the glider. For pilots taking training in a self-launching glider, flight instructors may want to give their students training on the go-around maneuver, and that decision will be left to the flight instructor and the student when they arrange the training that is best suited to that student's needs and wants. For these reasons, the FAA is adopting the revision as proposed in the NPRM.

73. *This revision of § 61.195(c) establishes the flight instructor qualifications for providing instrument training in-flight at the commercial pilot and ATP certification levels*

This final rule clarifies the flight instructor qualifications for flight instructors who provide instrument training at the commercial pilot and ATP certification levels. For example, § 61.129 requires ten hours of instrument training for the airplane-single-engine, airplane-multiengine, helicopter, gyroplane, powered-lift, and airship ratings at the commercial pilot certification levels. This final rule revises § 61.195(c) to establish that a flight instructor who provides instrument training required at the commercial pilot and airline transport pilot certification levels must hold an instrument rating on both his/her pilot and flight instructor certificates that are appropriate to the category and class of

aircraft in which instrument training is being provided.

Six commenters supported the proposed requirement that instructors providing instrument training for most certificates and ratings hold instrument ratings on their instructor certificates. One commenter recommended an instrument instructor rating be required to administer instrument instruction in any context and this is FAA's past interpretation. Four commenters recommended the language of the proposed rule be revised. Three commenters asserted the proposed language appears to require an instructor to hold an instrument rating in both the category and class of aircraft, which is not possible, because instructor certificates do not have class ratings. One commenter recommended the requirement apply to an instrument rating on the instructor's pilot certificate, and an appropriate class and category rating on the instructor's flight instructor certificate. Two commenters objected to the requirement that an instructor providing instrument training for a commercial certificate hold an instrument rating on his or her instructor certificate.

The University of Oklahoma Aviation Department noted there are no instrument flight tasks in the commercial pilot training standards (PTS) and the commercial pilot instrument training requirements are very similar to those for the private pilot certificate. The university further asserted the rule will unnecessarily confine non-instrument rated instructors to teaching private pilot students, or will result in a discontinuation of instruction of commercial pilot students. Two commenters asserted an instructor with an instrument rating on his/her pilot certificate can effectively provide instrument instruction toward a private or commercial certificate. One commenter questioned whether any safety data shows that the basic instrument instruction administered by instructors not holding instrument instructor ratings has been a causal accident factor. One commenter asserted that the General Aviation Operations Inspector Handbook indicates that an instrument instructor holding a multiengine rating on his/her pilot certificate (but not on their instructor certificate) may administer instrument instruction in a multiengine airplane. This commenter further objected to the proposed "class and category" language of § 61.195(c), because it will prohibit this practice. Another commenter directly opposed this position because an instructor who does not hold an

airplane multiengine instructor rating should not be permitted to give any kind of instruction in a multiengine airplane.

The FAA has always made a distinction between the instructor qualifications for flight instructors who provide private pilot training of maneuvering an aircraft “solely by reference to instruments, including straight and level flight, constant airspeed climbs, and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight” as opposed to the more advanced instrument training required for commercial pilot certification. A flight instructor without an instrument rating on his/her flight instructor certificate may provide this training for private pilot certification. However, the more advanced instrument training required for commercial pilot certification requires a flight instructor who holds a flight instructor certificate with the instrument qualification. We do not find any reason to change this policy. Therefore, the FAA is adopting the revision as proposed in the NPRM.

We have reviewed the rule text language in § 61.195(c) in response to the question of whether our change now requires an instrument rating on the aircraft category and class rating of the flight instructor certificate. In § 61.5(c)(4), the rule is clear that the instrument rating on the flight instructor certificate relates to the aircraft category rating, and is not issued to the aircraft class rating. The phrase in § 61.195(c) that states “that is appropriate to the category and class of aircraft for the training provided” applies to the category and class of aircraft on the flight instructor holder’s pilot certificate. The phrase in § 61.195(c) that states “that is appropriate to the category * * * of aircraft for the training provided” applies to the category of aircraft on the flight instructor holder’s instrument rating and flight instructor certificate. The commenter was correct that the instrument rating is only associated with the aircraft category rating on a flight instructor certificate. However, to ensure that the flight instructor holds the appropriate instrument rating or instrument privileges on both his/her pilot certificate and flight instructor certificate, we believe this was the most appropriate way to write this rule.

The FAA disagrees that a non-instrument rated flight instructor should be able to teach the instrument training required for commercial pilot

certification. The FAA expects the instrument training required for commercial pilot certification to be more advanced and requires that the flight instructor who teaches instrument training at the commercial pilot certification level hold an instrument rating on their flight instructor certificate.

In accordance with § 61.195(b)(1), a flight instructor who does not hold the appropriate airplane multiengine rating on his/her flight instructor certificate and the appropriate airplane category multiengine class rating on his/her pilot certificate may not conduct instrument training in a multiengine airplane unless that flight instructor holds the appropriate airplane category multiengine class rating on his/her pilot certificate and flight instructor certificate. A flight instructor who only holds a flight instructor certificate with an Instrument-Airplane rating and no airplane category multiengine class rating on his/her pilot certificate may not conduct instrument training in a multiengine airplane. The commenter’s understanding is wrong.

74. This revision of § 61.195(d)(3) deletes the endorsement requirement on a student pilot certificate for solo flight into Class B airspace

This final rule deletes the requirement under § 61.195(d)(3) that a flight instructor must endorse a student pilot’s certificate to authorize a solo flight in a Class B airspace area or at an airport within Class B airspace. Under § 61.95(a)(2) and (b)(2), a student pilot is required only to have his or her logbook endorsed when seeking authorization to perform solo flight in Class B airspace or at an airport within Class B airspace. This change will make the flight instructor endorsement requirement parallel the student pilot endorsement requirements of existing § 61.95(a)(2) and (b)(2).

75. This revision of § 61.195(k) establishes flight instructor night vision goggle qualification requirements for a flight instructor

This final rule amends § 61.195(k) to establish qualification requirements for a flight instructor to give PIC qualification and recent training for NVG operations. This final rule requires that an instructor who gives PIC qualification and NVG operations training must meet the eligibility requirements set forth in § 61.195.

American Eurocopter and HAI noted civilian NVG operations differ greatly from military NVG operations and recommended the FAA account for this when prescribing NVG operations and

certification requirements. American Eurocopter and HAI further recommended reducing the flight instructor experience qualifications for giving NVG PIC qualification and currency training from 100 operations to 60 operations and requiring that instructors have NVG experience within the preceding five years (using ANVIS 6 GEN III or above equipment). They recommended such experience be in the category, class, and, if applicable, type of aircraft in question. AOPA supported the general concept of defining and addressing night vision goggle operations, while deferring to NVG users regarding specific details of the proposed provisions.

The specific missions of military pilots using NVGs may be different than civilian pilots, but there is no difference in prescribing training, qualifications, and recurrency for using NVGs. We disagree that we should take in account the requirements for NVG operations and certification between civilian pilots and flight instructors using NVGs versus military pilots and instructor pilots. In establishing these training, qualifications, and recurrency requirements for using NVGs, we consulted with our civilian stakeholders. For these reasons, the FAA is adopting the revision as proposed in the NPRM.

76. This revision of § 61.215(b) allows only a ground instructor with an instrument rating to give ground training for the issuance of an instrument rating and instrument proficiency check and for a recommendation for the knowledge test required for an instrument rating

This final rule revises § 61.215(b) to provide that only a certified ground instructor with an instrument rating may give ground training for the issuance of an instrument rating and instrument proficiency check and for a recommendation for the knowledge test required for an instrument rating. Under the old § 61.215(b), the rule erroneously permitted a ground instructor who held only an advanced ground instructor (AGI) certificate to give instrument training. The aeronautical knowledge subject areas for the AGI certificate do not cover instrument subjects on the knowledge test. Only the aeronautical knowledge subject areas for the instrument ground instructor (IGI) certificate cover instrument subjects. Authorizing instrument privileges to a holder of only an AGI certificate is not appropriate.

Seven commenters supported the proposed requirement that an AGI have an instrument rating to give ground

instruction toward an instrument rating or check ride. As the purpose for the rule change is correcting a mistake in the former rule and no substantive change is being made to the rule we are adopting the rule as proposed in the NPRM.

77. This revision of § 61.217(a) clarifies the recent experience requirements for ground instructors

This final rule revises § 61.217(a) to clarify the recent experience requirements for ground instructors, particularly the meaning of the phrase “served for at least three months as a ground instructor.” This revision will delete this phrase and establish more general criteria for recent experience requirements. The intent is to recognize a person’s employment or activity as a ground instructor without that person being expected to maintain some kind of a time sheet or log to show that he or she “served for at least three months as a ground instructor.”

One commenter asserted the proposed currency requirements are unfair to ground instructors not teaching at a college, university or part 141 school. The commenter suggested ground instructors be permitted to maintain currency by undergoing the ground portion of a flight instructor refresher course (FIRC) within the previous year. Another commenter recommended any ground instructor who has added a rating to their ground instructor certificate within the previous twelve months be deemed current. One commenter supported the proposed clarifications, but suggested the currency period be twenty-four months, rather than twelve months, to coincide with the duration of flight instructor privileges. Two commenters agreed that clarification of ground instructor currency requirements is needed, but these commenters asserted the proposed provisions leave unanswered what amount of time employed, or actively instructing, within the previous twelve months is necessary. In response, they recommended requiring a minimum of thirty-five or forty hours of ground instruction in the previous twelve calendar months. The Greater St. Louis Flight Instructor Association proposed ground instructors be required to complete a FIRC to renew their privileges every two years. This will give ground instructors the same training that flight instructors receive from attending a FIRC.

We believe the changes made to the currency requirements for ground instructors are all-encompassing and allow ground instructors to maintain their currency. The currency

requirements are not just for ground instructors who teach at a college, university, or a part 141 pilot school. Under § 61.217, a ground instructor may maintain currency by showing compliance with any of the four methods shown in the rule.

In regard to the question about what amount of time employed, or actively instructing, within the previous twelve months is necessary, we have not established any specific amount of time of employment or activity as a ground instructor giving pilot, flight instructor, or ground instructor training. Rather the time must be reasonable and documented. For example, a ground instructor can show some kind of documentation or evidence that he/she taught a ground school lesson at a FIRC and be able to show the starting and ending teaching dates during the preceding twelve calendar months.

As for the recommendation requiring a minimum of thirty-five hours to forty hours of ground instruction in the preceding twelve calendar months, that recommendation is outside the scope of this rulemaking project. We did not propose such a change in the NPRM and we cannot adopt the recommendation in this final rule.

Likewise, the comment from the Greater St. Louis Flight Instructor Association requiring ground instructors attend a FIRC every two years is also outside the scope of this rulemaking project. For the above reasons, we are adopting the changes as proposed in the NPRM.

78. This revision of § 91.205(h) establishes the night vision goggle instrument and equipment requirements for night vision goggle operations

This final rule adds a new paragraph (h) in § 91.205 that establishes the required NVG instruments and equipment for NVG operations. This new paragraph (h) is similar to how the FAA requires certain instruments and equipment for VFR (day), VFR (night), and IFR operations under existing § 91.205. This new paragraph (h) establishes the instruments and equipment required to be installed in the aircraft that are required to be functioning in a normal manner, and that must be approved for use by the FAA.

One commenter noted most NVG approved cockpit lighting supplemental type certificates (STC) require installation of a radar altimeter and recommended requiring the use of a radar altimeter only in an environment where such use would enhance safety of flight, such as extended over water operations or low contrast areas such as

desert or snow. AOPA supported the general concept of defining and addressing NVG operations, while deferring to NVG users regarding specific operational details.

In response to the recommendation about providing an exception from the aircraft’s STC that requires installation of a radar altimeter, we have reviewed our STC approval process for required NVG equipment and our policy established in FAA Order 8900.1, Volume 4, Chapter 7, Section 4, paragraph 4–1128 B. 3. We agree that we should have required a radar altimeter in the listing of equipment required for NVG operations. Therefore, we have further revised § 91.205(h) by including a radar altimeter in the listing of required equipment for aircraft used in NVG operations. We do not consider this addition as a change from our proposal in the NPRM, because a radar altimeter is a required item of equipment in order to receive STC approval of an aircraft for NVG operations.

79. This revision of § 141.5 clarifies that the number of “counters” for a pilot school or provisional pilot school to qualify for the 80 percent or higher pass rate must be 10 different people

This final rule revises § 141.5 clarifying the definition of “a quality of training pass rate of at least 80 percent.” The purpose of this change is to establish that the number of “counters” for meeting the required 80 percent or higher school pass rate of requiring 10 different graduates, meaning 10 different people. A graduate can only be counted once in computing the 80 percent pass rate on the first attempt. American Flyers asserted a minimum 80% pass rate seems high, especially when a 90% pass rate raises suspicions of a conflict of interest. American Flyers suggested a 70% pass rate would be more realistic and consistent with other acceptable performance standards. Six commenters opposed the proposed requirement that the pass rate used to certify part 141 schools use data from 10 different individuals, claiming the requirement discriminates against smaller schools, and stated the same student completing different courses provides just as effective an evaluation as different people completing the courses. Three commenters raised concerns regarding the adequacy of training that can be met by requiring the 10 tests used to determine pass rate be practical tests. These commenters stated this requirement would introduce an element of independence to the testing.

One commenter requested clarification on what course graduations

are used to determine a school's pass rate, understanding that the total of all courses taken by all students is used to calculate the pass rate.

The wording of the old § 141.5 raised interpretation questions about how many graduates had to graduate for a school to meet the 80 percent or higher pass rate. Some posed scenarios where one person could be counted as all 10 graduates. The FAA disagreed and has amended § 141.5 to clarify that the 10 graduates must be 10 different people. The FAA believes that requiring the pass rate to be calculated from 10 different graduates is a better measure of the school's quality of training and provides a more realistic view of the school's pass rate.

In response to the commenter's request for clarification on what course graduations are used to determine a pilot school's pass rate, all approved courses may be considered. For example, a part 141 pilot school has courses approved for: Private Pilot Course for the Airplane Single Engine Land; Instrument Rating Course for the Airplane Single Engine Land; Commercial Pilot Course for the Airplane Single Engine; Commercial Pilot Course for the Airplane Multiengine; Flight Instructor Course for the Airplane Single Engine; Flight Instructor Course for the Airplane Multiengine; and Flight Instructor Instrument Course for the Airplane Single Engine. The 10 students can come from any of those 7 approved courses or just from one of the approved courses. However, as required § 141.5(e), the part 141 pilot school must have graduated at least 10 different students.

The requirement in § 141.5(d) that "at least 80 percent of those persons passed their tests on the first attempt" is not a change from the existing rule. The purpose of this change is clarifying the intent of the rule. Therefore, the FAA is adopting the revision as proposed in the NPRM.

80. This revision of § 141.9 clarifies the intent and meaning of examining authority

The FAA has found it necessary to revise the language under § 141.9 because some have misunderstood the rule and believe that when the FAA issues examining authority to a pilot school, it also authorizes examining authority for all the training courses of that school. This is not true.

One commenter recommended eliminating the granting of examining authority to flight schools because of the amount of trouble it has caused.

The FAA provides examining authority on a course-by-course basis. This means that if the pilot school makes specific application for a course, the FAA will issue examining authority as long as it meets the qualification requirements of § 141.63 for that specific course of training. Furthermore, the FAA only issues examining authority to a pilot school that meets the requirements of subpart D of part 141, as opposed to a provisional pilot school. Under § 141.63, a provisional pilot school is not qualified to receive examining authority.

81. This revision of § 141.33(d)(2) reduces the number of student enrollments to qualify for a check instructor position

This final rule revises § 141.33(d)(2) to reduce the number of student enrollments from 50 students to 10 students in a part 141 pilot school to qualify for check instructor positions. This revision demonstrates we are responding positively to recommendations from the pilot school industry to authorize the use of check instructors in some of the smaller pilot schools.

Three commenters argued there should be no minimum number of students for a flight school to be eligible to use check instructors, and recommended each requested case-by-case evaluation be made by the school's jurisdictional Flight Standards District Office (FSDO).

The FAA initially established the figure of 50 student enrollments when it promulgated § 141.33(d)(2) to provide for those flight schools that train large numbers of students. (See 62 FR 16350; April 4, 1997.) The position of check instructor was established because the FAA understands it is nearly impossible to expect chief instructors and assistant chief instructors to perform all the required stage checks, end-of-course tests, and instructor proficiency checks in large pilot schools. However, since the adoption of § 141.33(d)(2), a number of moderate-sized flight schools have informed the FAA that they have sufficient student activity to justify check instructors. For example, one chief instructor commented that his/her school has 15 student enrollments and each student requires six stage checks and one end-of-course test. Thus, he/she is required to perform 105 tests on his school's 15 student enrollments. Another chief instructor commented that he has 15 stage and end-of-course tests per student in his part 141 approved course. This computes to a total of 300 tests he/she must perform.

The FAA has made it clear that it does not expect the chief and assistant chief instructors to delegate all their duties and responsibilities to the check instructors (See 62 FR 16350; April 4, 1997). The FAA encourages and expects chief and assistant chief instructors to continue to have direct experience monitoring the quality of instruction and student performance in their schools. The FAA expects the school's chief and assistant chief instructors to continue checking their instructors' quality of training and their students' performance. However, the FAA also recognizes that this can be done by sampling instructor proficiency and student performance. The FAA does not believe it is necessary to establish a regulatory requirement on the numbers of stage checks, end-of-course tests, and instructor proficiency checks that each chief instructor or assistant chief instructor must perform. That decision may be left to the school's management.

When the FAA initially considered this change to the eligibility requirements for qualifying for a check instructor position, we consulted with several pilot schools and the National Air Transport Association. This final rule has reduced the number of student enrollments to qualify for the creation of a check instructor position to ten students. A minimum of 10 student enrollments will allow for check instructor positions to be designated for the medium-sized and the smaller pilot schools. Even though check instructors will probably conduct most of the phase and final checks, this does not alleviate chief and assistant chief instructors from performing their duties and responsibilities to "spot check" a sampling of their students during the phase and final checks. The reason for reducing the eligibility requirements for qualifying for a check instructor position from 50 students down to 10 students was that we wanted to be fair and reasonable with the smaller pilot schools. In adopting this change to § 141.33(d)(3), we consider this number to be fair and reasonable.

82. This revision of § 141.39(b) provides for the use of foreign registered aircraft to be used by part 141 training facilities that are located outside of the United States

This final rule revises § 141.39(b) to allow the use of foreign registered aircraft for part 141 training facilities that are located outside of the U.S. and conduct training outside of the U.S.

Under Amendment No. 141-11 (63 FR 53532; October 5, 1998), the FAA allowed part 141 schools to establish training facilities outside the United

States. Pilot schools either transport U.S. registered aircraft to those foreign countries or are allowed to use foreign-registered aircraft in their part 141 pilot schools. Section 141.39 has been revised to accommodate those part 141 schools who want to establish training facilities outside the United States.

Under the old § 141.39, the rule was worded in such a way that only allowed a pilot school's maintenance and inspection standards to be maintained under part 91, subpart E. In this revised § 141.39, the rule allows for the use of foreign-registered aircraft and foreign maintenance and inspection standards established by a foreign aviation authority in pilot schools located outside of the United States when the training is conducted outside the United States.

83. This revision deletes § 141.53(c)(1) because the requirement is no longer needed

This final rule deletes the provision under § 141.53(c)(1) that a training course submitted for approval prior to August 4, 1997, if approved, retains approval until 1 year after August 4, 1997. The requirement is no longer needed because all courses under part 141 had to receive their re-approval as of August 4, 1998. The provision is now obsolete.

84. This revision of § 141.55(e)(2)(ii) clarifies the requirement for approval of a training course

For clarification purposes, this final rule has changed the phrase "the practical or knowledge test, or any combination thereof" under § 141.55(e)(2)(ii) to read "the practical or knowledge test, as appropriate." When a pilot school requests final approval for a knowledge training course, at least 80 percent of their students must have passed the knowledge test on the first attempt (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"). When a pilot school requests final approval for a flight training course, at least 80 percent of their students must have passed the practical test on the first attempt (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 a flight simulator, or in a flight training device"). The current language is confusing and the testing requirements have been misapplied.

85. This revision of § 141.77(c) clarifies the requirements for crediting previous training when transferring to a part 141 pilot school

This final rule clarifies § 141.77(c) relating to crediting previous training based on a proficiency test or a knowledge test. Under the old § 141.77(c), the regulation provided that for students who transfer to a part 141 pilot school, credit for previous training must be based on "a proficiency test or knowledge test, or both." This language has generated questions about whether it is possible to credit previous flight training strictly on the basis of knowledge test results. The answer is no. The FAA never intended to allow a transfer student to be awarded flight training credit purely on the basis of completing a knowledge test. Nor did the FAA intend to allow a transfer student to be awarded ground training credit on the basis of completing a proficiency test.

A student who transfers to a part 141 pilot school and requests credit for previous flight training must complete a proficiency test that is given by the receiving pilot school's chief instructor or delegated check instructor. A student who transfers to a part 141 pilot school and requests credit for previous ground training must complete a knowledge test that is given by the receiving pilot school's chief instructor or delegated check instructor.

86. This revision of § 141.85(a)(1) and (d) further clarifies what tasks a chief instructor may delegate

This final rule revises § 141.85(a)(1) and (d) to clarify that the chief instructor may delegate the tasks of certification of a student's training record, graduation certificate, stage check, end-of-course test report, and recommendation for course completion to an assistant chief instructor or recommending instructor. The reason for this revision is to allow pilot schools to make better use of chief instructors' time and management responsibilities.

87. This revision of part 141, appendix B, paragraph 2 amends the eligibility requirement for enrollment in the flight portion of a private pilot certification course

This final rule revises part 141, appendix B, paragraph 2 to require a student to hold at least a recreational or student pilot certificate before enrolling in the flight portion of the private pilot certification course. This means that a student must complete his or her medical licensing before beginning flight training. Many pilot schools have

voiced support for re-wording the rule to: (1) Affect their ability to credit orientation flights towards overall training requirements of its students (it is common practice when a person inquires about flight training to provide that person a local orientation flight); and (2) extend the time for a flight physical for students attending a pilot school in a remote area (since it may take a week or two to get an appointment).

Three commenters recommended that, in addition to student and recreational pilot certificates, students holding a sport pilot certificate should be permitted to enter into the solo phase of the program.

The FAA considered these recommendations in drafting this change to part 141, appendix B, paragraph 2, to require a person to hold a recreational, sport, or student pilot certificate in order to begin the solo phase of the private pilot certification course. This revision to part 141, appendix B, paragraph 2, which states, in pertinent part, "prior to enrollment in the solo flight phase of the private pilot certification course." Prior to commencing the solo flight phase of his/her training, a student pilot would not be required to hold any kind of pilot certificate (e.g., recreational, sport, or student pilot certificate) when receiving flight training with a flight instructor aboard. Therefore, student pilots will be required to hold a recreational, sport, or student pilot certificate only when they begin the solo phase of their training course.

The FAA agrees with the commenters' recommendation and has further revised part 141, appendix B, paragraph 2 to include the sport pilot certificate.

88. This revision of part 141, appendix B, 4(b)(1)(iii), 4(b)(2)(iii), and 4(b)(5)(iii) conforms the instrument training in the other private pilot courses to instrument training for private pilot certification for the airplane and powered-lift ratings

This final rule revises part 141, appendix B, 4(b)(1)(iii), 4(b)(2)(iii), and 4(b)(5)(iii) of the private pilot certification courses for the airplane single-engine, airplane multiengine, and powered-lift ratings, to mirror the requirements for private pilot certification for the single engine airplane, multiengine airplane, or powered-lift ratings under existing § 61.109.

Two commenters opposed the proposed requirement of 3 hours of instrument instruction in an aircraft asserting flight simulators, flight training devices, and aviation training devices offer equal, if not superior value

in providing instrument training. These commenters add this is especially true in the structured, standardized environment of a part 141 program. One commenter recommended permitting the use of such devices for all instrument training toward a private pilot certificate. One commenter recommended permitting the use of such devices for up to half of the required instrument training. One commenter recommended instructors providing instrument instruction in connection with private pilot certification be required to hold instrument ratings on their instructor certificates. The essence of our change is to further clarify the intent of the rule and no substantive changes have been made. Therefore, we are adopting the revision as proposed in the NPRM.

89. This revision of part 141, appendix B, paragraph 5(a)(1) conforms the solo cross country mileage requirement in a private pilot-airplane single engine rating course to the definition of "cross country"

This final rule revises the solo cross country distance requirement in part 141, appendix B, paragraph 5(a)(1) for the private pilot certification-airplane single engine rating course from requiring a flight of "at least 50 nautical miles" to "more than 50 nautical miles." This revision is to conform the distance requirement under this provision to the definition of "cross country" under § 61.1(b)(3)(ii).

Five commenters objected to the change. One commenter asserted no compelling safety or other concerns exist to mandate the change. Two commenters recommended that rather than changing § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii), the FAA change § 61.1(b)(3)(ii) to read "at least" for continuity purposes." One commenter recommended that, if the definition of cross country flight is to be changed to a format of "more than" a number of miles, then mileages should be reduced by one mile (that is, change the definition from at least fifty miles to more than forty-nine miles).

We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.109(a). The FAA is adopting the revision as proposed in the NPRM.

90. This revision of part 141, appendix B, paragraph 5(b)(1) conforms the solo cross country mileage requirement in an approved private pilot-airplane multiengine rating course to the definition of "cross country"

This final rule revises the solo cross country distance requirement in part 141, appendix B, paragraph 5(b)(1) for the private pilot certification-airplane multiengine rating course from requiring a flight of "at least 50 nautical miles" to "more than 50 nautical miles." The purpose of this revision is to conform the distance requirement under this provision to the definition of "cross country" under § 61.1(b)(3)(ii).

Four commenters objected to the change. Two commenters recommended that rather than changing § 61.109(a)(5)(ii), (b)(5)(ii), and (e)(5)(ii), the FAA change § 61.1(b)(3)(ii) to read "at least" for continuity purposes. One commenter recommended that, if the definition of cross country flight is to be changed to a format of "more than" a number of miles, then mileages should be reduced by one mile (that is, change the definition from at least fifty miles to more than forty-nine miles).

We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.109(b). The FAA is adopting the revision as proposed in the NPRM.

91. This revision of part 141, appendix B, paragraph 5(c)(1) conforms the solo cross country mileage requirement in an approved private pilot-helicopter rating course to ICAO requirements and the definition of "cross country"

This final rule revises part 141, appendix B, paragraph 5(c)(1), changing the solo cross country distance requirement for the private pilot certification-helicopter rating course from "at least 75 nautical miles total distance" to "at least 100 nautical miles total distance." The revision conforms to the ICAO requirements for the cross country distance, as set forth in ICAO Annex I, paragraph 2.7.1.3.2, which states that the total distance for a cross country flight be at least 100 nautical miles. This final rule also revises the solo cross country flight requirement in part 141, appendix B, paragraph 5(c)(1) for the private pilot certification-helicopter rating course from "at least 25 nautical miles" to "more than 25 nautical miles." The purpose of this revision is also to conform to the distance requirement in § 61.1(b)(3)(v).

Four commenters objected to the change. We previously responded to

similar comments in the preamble section of this rulemaking document where we discussed this same change to § 61.109(c). The FAA is adopting the revision as it was proposed in the NPRM.

92. This revision of part 141, appendix B, paragraph 5(d)(1) conforms the solo cross country mileage requirement in an approved private pilot-gyroplane rating course to the definition of "cross country"

This final rule revises part 141, appendix B, paragraph 5(d)(1), changing the solo cross country distance requirement for the private pilot certification-gyroplane rating course from "at least 75 nautical miles total distance" to "at least 100 nautical miles total distance." The purpose of this revision is to conform to the ICAO requirements for cross country distance, as set forth in ICAO Annex I, paragraph 2.7.1.3.2, which states that the total distance for a cross country flight be at least 100 nautical miles. This final rule revises the solo cross country flight requirement in paragraph 5(d)(1) of appendix B to part 141 for the private pilot certification-gyroplane rating course from "at least 25 nautical miles" to "more than 25 nautical miles." The purpose of this revision is also to conform the distance requirement definition of "cross country" under § 61.1(b)(3)(v).

Three commenters objected to the change. We have previously responded to similar comments in the preamble section of the same change to § 61.109(d). The FAA is adopting the revision as proposed in the NPRM.

93. This revision of part 141, appendix B, paragraph 5(e)(1) conforms the solo cross country mileage requirement in an approved private pilot-powered-lift rating course to the definition of "cross country"

This final rule revises the solo cross country distance requirement in part 141, appendix B, paragraph 5(e)(1) for the private pilot certification-powered-lift rating course from "at least 50 nautical miles" to "more than 50 nautical miles." The purpose of this revision is to conform the distance requirement under this provision to definition of "cross country" under § 61.1(b)(3)(ii).

Two commenters supported the change in the definition of cross country flight from "at least 50 nautical miles" to "more than 50 nautical miles". We have previously responded to similar comments in discussion of changes to § 61.109(e). The FAA is adopting the revision as proposed in the NPRM.

94. This revision of part 141, appendix C, paragraph 4(b)(5) and (6) allows instrument training to be performed in an aviation training device (ATD)

This final rule revises part 141, appendix C, paragraph 4(b) by adding a paragraph (5). This change will allow 10 percent of the instrument training for the instrument rating course to be performed in an ATD. Under this revision, the instrument training that will be performed in an aviation training device will be given by the holder of a ground instructor certificate with an instrument rating or by a holder of a flight instructor certificate with an instrument rating appropriate to the instrument rating sought. The instrument training given in an aviation training device will contribute to the maximum 50 percent of the instrument training permitted to be performed in a flight simulator or a flight training device in accordance with existing part 141, appendix C, paragraph 4(c). For an ATD to be used for instrument training under paragraph 4(d), it will have to be approved by the FAA. The instrument training in an ATD will have to be provided by an authorized instructor. For a person to receive the maximum 10 percent credit in an ATD, the person could not have logged more than 40 percent of the required instrument training course hours in a flight simulator or flight training device. A view-limiting device (e.g., a hood device or fogged glasses) will have to be worn by the applicant when logging instrument training in the aviation training device.

ALPA questioned the value of personal computer aviation training devices (PCATDs, also called ATDs) in developing the full skill set necessary for instrument competency. American Eurocopter and HAI recommended requirements for use of PCATDs include a requirement that they be used in areas free of audible distraction, or that headsets be used.

Four commenters opposed the provision limiting the use of PCATDs to 10% of the required instrument training. One commenter noted use of PCATDs can improve the quality of instrument training. One commenter stated the value of use of PCATDs is enhanced when they are used in a structured part 141 training program. Four commenters stated that, under part 61, PCATDs may be used for up to 10 hours of training toward an instrument rating, which equates to 25% of the minimum of 40 hours of training required under part 61.

The University of Oklahoma Aviation Department noted that a 10% limitation is inconsistent with language in the

preamble limiting use of PCATDs to 50% of the training in a flight simulator or flight training device. The university recommended the FAA refer to percentages of instrument training hour requirements, as opposed to total flight hour training requirements. This commenter stated the reason for this is because the entirety of flight training hours in an instrument rating course may not be instrument training hours.

We are not permitting aviation training devices to be used entirely for the required training; only 10 percent of the total hours of instrument training in an instrument rating course may be performed in an aviation training device. We believe the use of ATD in performing at least 10 percent of the total hours of instrument training in an instrument rating course has been proven to show positive results and has been beneficial in teaching instrument procedures. However, to consider further expansion of the use of the aviation training devices, we do not have sufficient data at this time to make this change. We believe that performing the training in an area free of audible distractions makes for a good and professional training environment and a rule dictating this fact is not required.

Previously, we have only allowed ATDs to be used for a maximum of 10 hours in instrument training. We do allow a maximum combined usage between flight simulators and flight training devices, and now aviation training devices, to be used for a maximum combined usage of 50 percent of the required training time in an instrument rating course.

In part 141, appendix C, paragraph 4(b)(4), the combined maximum usage of flight simulators and flight training devices, and now ATDs, is 50 percent toward the total hours of instrument training course. For example, if an instrument training course requires thirty hours of training, only a total of fifteen hours may be performed in a combined usage of a flight simulator, flight training device, and aviation training device. A flight simulator may only be used for a maximum of fifteen hours (50 percent is the maximum usage for a flight simulator). A flight training device may only be used for a maximum of twelve hours (40 percent is the maximum usage for a flight training device). An aviation training device may only be used for a maximum of three hours (10 percent is the maximum usage for an aviation training device). In counting the hours of maximum allowed usage, a flight simulator, flight training device, and aviation training device (15 hours + 12 hours + 3 hours) equates to thirty hours. However, the

combined usage of the flight simulator, flight training device, and aviation training device is limited to 50 percent of the total training hours, so only fifteen hours of the training may be performed in a flight simulator, flight training device, and aviation training device. If the training course is authorized to perform three hours in an aviation training device, then the remaining twelve hours may be performed in either a flight simulator or flight training device or a combination of both.

The FAA is adopting the revision as proposed in the NPRM.

95. This revision of part 141, appendix D, paragraph 5 allows the solo training requirements for the approved commercial pilot certification courses to be performed solo or with an instructor on board

This final rule revises part 141, appendix D, paragraph 5 for a commercial pilot certification course to be performed either solo or with a flight instructor on board. The purpose of this revision is to conform part 141, appendix D, paragraph 5 with revised §§ 61.129(a)(4), (c)(4), (d)(4), and (e)(4) for the single engine airplane, helicopter, gyroplane, and powered-lift ratings at the commercial pilot certification level.

Five commenters opposed the provision. Two commenters asserted solo flight contributes to the development of essential self-reliance, decisionmaking, and command skills. Three commenters stated that under the proposed rules, a pilot could progress to advanced certification with only ten hours of solo flight early in training. Two commenters asserted no safety of flight data supports the proposed provision. One commenter recommended a solo flight requirement be retained, but that pilots be permitted to obtain solo flight experience toward a multiengine airplane rating in a single engine airplane to avoid potential conflicts with insurance restrictions.

We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.129(a)(4), (c)(4), (d)(4), (e)(4), and (g)(2).

One commenter stated insurance concerns should not restrict solo flight by commercial pilot candidates. This commenter stated most commercial pilot training is performed in single engine fixed gear airplanes and some low performance single engine retractable gear airplanes, which are not difficult to insure. Another commenter asserted that insurance policy

restrictions on the use of multiengine airplanes may present difficulties for private pilot applicants from flying solo.

The Greater St. Louis Flight Instructor Association rejected the argument that flights with an instructor on board foster cockpit resource management (CRM) skills, noting that the purpose of part 61 training is to prepare pilots to fly to single-pilot standards, not to prepare them for a future airline career. The association also argued the proposed provision subverts the intent of § 91.3 which defines the PIC as directly responsible for, and the final authority on, the operation of the aircraft. Finally, the association asserted students ostensibly acting as PIC will defer to flight instructors and examiners.

The FAA acknowledges the comments received about this proposal. We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.129(a)(4), (c)(4), (d)(4), (e)(4), and (g)(2).

96. This revision of part 141, appendix D, paragraph 4 allows the cross country training flights for the approved commercial pilot certification courses to be performed under VFR or IFR

This final rule revises part 141, appendix D, paragraph 4 to allow cross country training flights in the commercial pilot certification courses to be performed under VFR or IFR. This revision responds positively to recommended changes to part 141 from some pilot schools.

From the time that the cross country training requirements under part 141, appendix D, paragraph 4 were promulgated, the FAA has received recommendations from several pilot schools and companies that prepare training courses to amend the requirements to allow cross country flights to be performed under IFR. The basis for their recommendation is that most commercial pilot training applicants for airplane ratings and some for helicopter ratings are concurrently enrolled in an instrument rating course. The FAA agrees that it makes sense to allow these cross country training requirements to be performed under IFR or VFR. This final rule revises the requirements for the daytime cross country training flight (See paragraphs (b)(1)(iii), (b)(2)(iii), (b)(3)(ii), (b)(4)(ii), (b)(5)(ii), (b)(7)(ii)) to read "One cross country flight during daytime conditions." This change will permit the daytime cross country training flight to be performed under IFR or VFR.

Two commenters opposed the proposed provision. The commenters

stated the visual navigation skills required for VFR cross country flight should not be deemphasized. One commenter stated commercial pilot-helicopter candidates should be required to perform cross country flights under VFR because helicopters typically operate under VFR.

This final rule provides that the nighttime cross country training flight requirements (See paragraphs (b)(1)(iv), (b)(2)(iv), (b)(3)(iii), (b)(5)(iii), and (b)(7)(iii)) in the commercial pilot certification courses to read "One cross country flight during nighttime conditions." This revision will permit the nighttime cross country training flight to be performed under IFR or under VFR.

We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.129(a)(3)(iii) and (iv), (b)(3)(iii) and (iv), (c)(3)(iii) and (iv), (d)(2)(ii), (e)(3)(ii) and (iii), and (g)(3)(ii) and (iii). The FAA is adopting the revision as it was proposed in the NPRM.

Flights in helicopters are mostly flown VFR; however, some helicopters now have modern instruments and navigation equipment installed and are able to be flown IFR. The rule does not require the flights to be flown IFR or VFR, it leaves it to the discretion of the instructor and the student's needs.

97. This revision of part 141, appendix D, paragraph 4(b)(4)(iii) deletes the cross country training at nighttime requirement for the commercial pilot certification course for the gyroplane rating

This final rule deletes the cross country training at nighttime requirement in part 141, appendix D, paragraph 4(b)(4)(iii) for the commercial pilot certification course for the gyroplane rating. The FAA determined that nighttime training for the gyroplane rating for the commercial pilot certification course will be more useful and more safely conducted near an airport, because gyroplanes have very limited equipment and systems for nighttime cross country operations.

Two commenters objected to the elimination of the nighttime cross country requirement for a commercial gyroplane certification. The commenters asserted if commercial gyrocopter pilots are permitted to carry passengers at night, their training should reflect it. The commenters also stated that if gyroplanes are not equipped to conduct nighttime cross country operations, then the FAA should revisit equipment

requirements rather than reduce training requirements.

We have previously responded to this kind of comment in the preamble section of this rulemaking document where we discussed this same change to § 61.129(d)(3)(iii). The FAA is adopting the revision as proposed in the NPRM.

98. This revision of part 141, appendix D, paragraph 4(d)(4)(vi) requires ground reference maneuvers as an area of operation for the gyroplane rating in the commercial pilot certificate course

This final rule revises part 141, appendix D, paragraph 4(d)(4)(vi) requiring ground reference maneuvers as an area of operation for the gyroplane rating in the commercial pilot certificate course. This will conform part 141, appendix D, paragraph 4(d)(4)(vi) with revised § 61.127(b)(4)(vi) requiring flight proficiency in "ground reference maneuvers" for the gyroplane rating in the commercial pilot certificate course. The ground reference maneuvers must include at least "eights around a pylon," "eights along a road," "rectangular course," "S-turns," and "turns around a point."

99. This revision of part 141, appendix D, paragraph 4(b)(1)(ii) allows the complex airplane training for the approved commercial pilot certification course-airplane single engine rating to be performed in either a single or multiengine complex airplane

This final rule revises the complex airplane training requirement for the commercial pilot certification course for the single engine airplane rating under part 141, appendix D, paragraph 4(b)(1)(ii). This revision is in response to the AOPA's petition for rulemaking of February 11, 1999. This final rule will allow the commercial pilot certification course for the single engine airplane rating to be approved with use of either a complex single engine airplane or a complex multiengine airplane. The use of either a complex single engine airplane or a complex multiengine airplane to meet the single engine airplane training requirements is permitted under existing § 61.129(a)(3)(ii) for those training organizations that have chosen not to be approved under part 141. The FAA has determined that the current provision under part 141 may create an unfair financial burden on applicants at a part 141 pilot school versus those applicants who receive their training other than through a part 141 pilot school.

Therefore, this final rule deletes the word "single-engine" from paragraph 4(b)(1)(ii) of part 141, appendix D, so the rule will merely read as "10 hours

of training in an airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered.”

Six commenters supported the proposed provisions permitting use of a complex multiengine airplane to satisfy the complex airplane experience requirement for a commercial single engine airplane rating. Two commenters recommended the provision be extended to part 61. Two commenters, including LeTourneau University, recommended pilots be permitted to train in both multiengine and single engine airplanes, and obtain both airplane single engine and airplane multiengine ratings by taking one just one practical test in a multiengine airplane.

Five commenters, including the Joint Commenters, recommended the development of alternatives to the complex airplane experience requirement. Two commenters recommended the proposed provisions permit use of FADEC-equipped airplanes instead of controllable-pitch propeller airplanes, as allowed under FAA Notice 8000.331. The Joint Commenters recommended eliminating the retractable gear requirement or reinstating provisions permitting experience in either a complex or a high-performance airplane. One commenter recommended the FAA modify aeronautical experience and practical test requirements for commercial pilot airplane ratings and flight instructor airplane ratings to permit use of Technically Advanced Aircraft (TAA) instead of complex airplanes. Five commenters recommended that the requirement that commercial pilots have complex airplane experience be eliminated. Four commenters noted few single engine airplanes produced today fall under the definition of complex airplanes, and asserted the requirement forces schools to maintain antiquated airplanes simply to meet the requirement. Three commenters stated authority to operate complex airplanes is adequately addressed by requiring an endorsement. One commenter asserted complex airplane experience is unnecessary for activities such as clear weather sightseeing flights and flight instruction. This commenter recommended an allowance for commercial pilot and flight instructor certificates without complex airplane experience.

The FAA acknowledges comments received on this proposal. This change already exists in § 61.129(a)(3)(ii) as the complex airplane training for the commercial pilot certificate for the single engine airplane rating does not

specifically require the flight experience to be performed in a complex single engine airplane. The flight experience may be obtained in either a complex single engine airplane or complex multiengine airplane.

100. This revision of part 141, appendix D, paragraphs 4(b)(1)(i), (2)(i), (3)(i), (4)(i), (5)(i), and (7)(i) clarifies the instrument training for the commercial pilot certification courses for the airplane single-engine, airplane multiengine, helicopter, gyroplane, powered-lift, and airship ratings

This final rule revises part 141, appendix D, paragraphs 4(b)(1)(i), (2)(i), (3)(i), (4)(i), (5)(i), and (7)(i) to clarify that the tasks required for “instrument training” in the commercial pilot certification courses for the airplane single-engine, airplane multiengine, rotorcraft helicopter, rotorcraft gyroplane, powered-lift, and airship ratings require the use of a view-limiting device (e.g., use of a hood device, fogged goggles, etc.). This revision is in response to inquiries about what tasks are required to satisfy “instrument training” for commercial pilot certification courses.

This revision will parallel the revised changes to instrument training under § 61.129 for the airplane single-engine, airplane multiengine, rotorcraft helicopter, rotorcraft gyroplane, powered-lift, and airship ratings at the commercial pilot certification level.

Three commenters objected to the increase in required instrument training from five hours to ten hours, and recommended the requirement of five hours be retained. Flight Safety International stated that, unlike part 61, part 141 commercial pilot candidates must have an instrument rating before completing the commercial pilot course; therefore an increase in the amount of instrument training required for a commercial pilot certificate is not necessary. Six commenters objected to the unqualified requirement that a view-limiting device be used for instrument training. The commenters asserted students should be permitted to train without a view-limiting device in actual IMC or when using a flight simulator, flight training device, or PCATD. Three commenters recommended the rule be modified to require training in actual IMC or using a view-limiting device.

There is an increase of instrument training from five hours to ten hours; however, five hours of instrument training in the aircraft remains at five hours in the aircraft, and the other five hours is permitted to be performed in a flight simulator, flight training device, or an aviation training device. We did

not increase the total time of the commercial pilot certification course. We believe that most commercial pilot certificate applicants are concurrently enrolled in an instrument rating course, and we believe this revision of allowing this additional five hours of instrument training in the commercial pilot certification course will be beneficial to those applicants concurrently enrolled in an instrument rating course.

We have previously responded to these kinds of comments in the preamble section of this rulemaking document where we discussed this same change to § 61.57(c). The FAA is adopting the revision as proposed in the NPRM.

101. This revision of part 141, appendix E, paragraph 2 requires pilots enrolled in an ATP certification course to have met the ATP aeronautical experience requirements of part 61, subpart G prior to completion of the course

This final rule revises part 141, appendix E, paragraph 2 to establish that a person must first meet the aeronautical experience requirements under part 61, subpart G, for an ATP certificate before completing the flight portion of an ATP certification course. The purpose of this revision is to clarify that a person who completes the ATP certification course must also have met the appropriate ATP aeronautical experience of part 61, subpart G before applying for the ATP certificate.

The existing language in part 141, appendix E, paragraph 2 has been misinterpreted by some to mean that a person could apply for an ATP certificate after meeting only part 141, appendix E, paragraph 2.(a), (b), (c), or (d) of that part. This is not correct, because an applicant for an ATP certificate must also have met the appropriate aeronautical experience requirements under part 61, subpart G. The introductory language in part 141, appendix E, paragraph 2 clarifies that an applicant for an ATP certificate must also have met the appropriate aeronautical experience requirements under part 61, subpart G prior to completion of the flight portion of the airline transport pilot (ATP) certification course.

102. This revision of part 141, appendix I, paragraphs 3 and 4 clarifies the ground and flight training required for the approved additional category and/or class rating course

This final rule revises paragraphs 3 and 4 of appendix I to part 141 to clarify the ground and flight training required for the additional category and/or class rating course. This revision was

developed in response to confusion about what is the amount of ground and flight training required for an add-on aircraft category and/or class rating course.

The confusion arises because of the language of the former paragraphs 3 and 4 of part 141, appendix I which states that training must be in areas “that are specific to that aircraft category and class rating and pilot certificate level for which the course applies.” Many believed this language did not clearly state what the required ground and flight training amounts and content for “add-on” category/class courses were. This final rule expands the content of paragraphs 3 and 4 of part 141, appendix I for the additional category and/or class rating courses to specify the required amount of ground and flight training and their content for an add-on aircraft category and/or class rating course at the recreational pilot, private pilot, commercial pilot, and ATP certification levels. Revised paragraphs 3 and 4 establish the required amount of ground and flight training and their content for just an “add-on” class rating (*i.e.*, where the applicant already holds a rating in that aircraft category, and the course at issue is only for an added class rating within that aircraft category) at the various pilot certification levels.

One commenter generally agreed that reducing overall ground and flight time requirements under appendix I is an improvement but opposes some of the remaining requirements. Flight Safety International asserted the proposed revisions to appendix I do little to improve understanding and readability. Three commenters recommended eliminating the cross country flight requirements for adding a multiengine rating to a private or commercial certificate with a single engine rating, stating the skills required to fly cross country in a multiengine airplane do not differ significantly from those required to fly cross country in a single engine airplane. One commenter asserted any differences in these two areas could be adequately addressed in ground training.

Two commenters questioned the need for training in areas such as night flight, complex airplanes operations, or flight by reference to instruments when adding a multiengine airplane rating to a commercial certificate. These commenters stated pilots will already have experience in these areas. These commenters also asserted the hours required for cross country, instrument, and night flight training would be better spent practicing maneuvers or approaches, or multiengine specific topics, such as V_{MC} or engine-

inoperative scenarios. Two commenters asserted the training requirements under part 141 are unnecessarily burdensome. Four commenters stated pilots have greater flexibility when seeking to add a class rating to an existing certificate under part 61 than they do under part 141.

Two commenters objected to the prescription of minimum training hour requirements when no such requirements exist under part 61. The commenters recommended the minimum training hour requirements under part 141 be eliminated or part 141 flight schools be granted discretion to deviate from specified requirements, similar to that granted under § 61.63(c). Alternatively, the University of Oklahoma Aviation Department recommended training at least as extensive and rigorous as the part 141 requirements be prescribed under part 61.

One commenter questioned the amount of training required to add a single engine airplane rating to a commercial certificate with a multiengine airplane rating. The commenter asserted that training in a single engine airplane is less complicated, and therefore transitioning from a multiengine airplane to a single engine airplane should require less training than transitioning from a single engine airplane to a multiengine airplane. The commenter stated that in some areas, such as a cross country flight or instrument flight, the flight should be able to be completed without the need for additional training. The commenter also argued fifteen hours of ground training is excessive for the transition from the multiengine airplane rating to the single engine airplane rating.

The FAA acknowledges the comment received on this proposal, and has determined that the nature of the comment does not require us to revise or withdraw this proposal. The essence of the change is merely to further clarify the intent of the rule and no substantive changes have been made. Therefore, the FAA is adopting the revision as it was proposed in the NPRM.

Regulatory Notices and Analyses

Paperwork Reduction Act

Information collection requirements associated with this final rule have been approved previously by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) and have been assigned OMB Control Numbers 2120-0009 and 0021.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. There is one revision in this final rule document (*See* Revision No. 71) where the FAA has amended § 61.159(d) and (e) to conform our ATP certification requirements to ICAO Standards and Recommended Practices.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or Tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA’s analysis of the economic impacts of this final rule. We suggest readers seeking greater detail read the full regulatory evaluation, a copy of which we have placed in the docket for this rulemaking.

In conducting these analyses, FAA has determined that this final rule: (1) Has benefits that justify its costs, (2) is not an “economically significant regulatory action” as defined in section 3(f) of Executive Order 12866, (3) is “significant” as defined in DOT’s Regulatory Policies and Procedures; (4) will not have a significant economic impact on a substantial number of small entities; (5) will not create unnecessary

obstacles to the foreign commerce of the United States; and (6) will not impose an unfunded mandate on State, local, or Tribal governments, or on the private sector by exceeding the threshold identified above. These analyses are summarized below.

This final rule revises the training, qualification, certification, and operating requirements for pilots, flight instructors, ground instructors, and pilot schools. These changes are needed to clarify, update, and correct our existing regulations.

For the revisions that we were able to quantify the cost savings, we estimate this rule change to generate cost savings of \$34.0 million (\$23.8 million, discounted) and costs of \$7.0 million (\$5.3 million, discounted) over the 2009–2018 time period. Therefore, this final rule is estimated to generate net cost savings of \$26.9 million (\$18.5 million, discounted) over the same ten-year period and is cost-beneficial.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96–354) (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory revisions and to explain the rationale for their actions to assure that such revisions are given serious consideration.” The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The cost of the additional training for the night vision goggle rules is about \$1,800 per pilot (\$1,800 ≈ \$1,167,138 (undiscounted cost of night vision

goggle training in year 1) ÷ 650 (estimated population that will receive night vision goggle training in year 1)). Since the training is optional these small costs will not impose a burden on any small entity. Also, this revision could result in annual cost savings of about \$625 per rotorcraft pilot and a cost savings of about \$430 per general aviation pilot by allowing the use of alternate methods to maintain instrument currency. We do not consider these costs or cost-savings to be significant. Therefore, as the FAA Administrator, I certify that this rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39) prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this revised rule and has determined that it will have only a domestic impact and therefore no affect on international trade.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (adjusted annually for inflation with the base year 1995) in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a “significant regulatory action.” The level equivalent of \$100 million in CY 1995, adjusted for inflation to CY 2007 levels by the Consumer Price Index for all Urban Consumers (CPI-U) as published by the Bureau of Labor Statistics, is \$136.1 million. This revised rule does not contain such a mandate.

Executive Order 13132, Federalism

The FAA has analyzed this final rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this final rulemaking action will not have a substantial direct effect 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, and therefore will not have federalism implications.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this revised rulemaking action qualifies for the categorical exclusion identified in paragraph 307(k) and involves no extraordinary circumstances.

Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this final rule in accordance with Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a “significant energy action” under the Executive Order, because it is not a “significant regulatory action” under Executive Order 12866, and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Availability of Rulemaking Documents

(1) You can get an electronic copy of this final rule through the Internet by: Searching the Department of Transportation’s electronic Docket Management System (DMS) Web page at <http://dms.dot.gov/search>;

(2) Visiting the FAA’s Regulations and Policies Web page at: http://www.faa.gov/regulations_policies; or

(3) Accessing the Government Printing Office’s Web page at: <http://www.gpoaccess.gov/fr/index.html>.

You can also get a copy of this final rule by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267–9680. Make sure to identify the docket number, notice number, or amendment number of this final rulemaking document.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires the FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. If you are a small entity and you have a question regarding this document, you may contact your local FAA official, or

the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. You can find out more about SBREFA on the Internet at http://www.faa.gov/regulations_policies/rulemaking/sbre_act/.

List of Subjects

14 CFR Part 61

Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Recreation and recreation areas, Reporting and recordkeeping requirements, Security measures, Teachers.

14 CFR Part 91

Afghanistan, Agriculture, Air traffic control, Aircraft, Airmen, Airports, Aviation safety, Canada, Cuba, Ethiopia, Freight, Mexico, Noise control, Political candidates, Reporting and recordkeeping requirements, Yugoslavia.

14 CFR Part 141

Airmen, Educational facilities, Reporting and recordkeeping requirements, Schools.

The Amendment

■ In consideration of the foregoing, the Federal Aviation Administration amends Chapter I of Title 14, Code of Federal Regulations, as follows:

PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS

■ 1. The authority citation for part 61 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

■ 2. Amend § 61.1 by:

■ a. Revising paragraphs (b)(2)(i) and (ii);

■ b. Redesignating existing paragraphs (b)(12) through (16) as paragraphs (b)(14) through (18); and

■ c. Adding a new paragraphs (b)(12) and (13) to read as follows:

§ 61.1 Applicability and definitions.

* * * * *

(b) * * *
(2) * * *

(i) A person who holds a ground instructor certificate issued under part 61 of this chapter and is in compliance with § 61.217, when conducting ground training in accordance with the privileges and limitations of his or her ground instructor certificate;

(ii) A person who holds a flight instructor certificate issued under part 61 of this chapter and is in compliance with § 61.197, when conducting ground

training or flight training in accordance with the privileges and limitations of his or her flight instructor certificate; or
* * * * *

(12) *Night vision goggles* means an appliance worn by a pilot that enhances the pilot's ability to maintain visual surface reference at night.

(13) *Night vision goggle operation* means the portion of a flight that occurs during the time period from 1 hour after sunset to 1 hour before sunrise where the pilot maintains visual surface reference using night vision goggles in an aircraft that is approved for such an operation.
* * * * *

■ 3. Add a new § 61.2 to read as follows:

§ 61.2. Exercise of Privilege

(a) *Validity.* No person may:

(1) Exercise privileges of a certificate, rating, endorsement, or authorization issued under this part if the certificate, rating or authorization is surrendered, suspended, revoked or expired.

(2) Exercise privileges of a flight instructor certificate if that flight instructor certificate is surrendered, suspended, revoked or expired.

(3) Exercise privileges of a foreign pilot certificate to operate an aircraft of foreign registry under § 61.3(b) if the certificate is surrendered, suspended, revoked or expired.

(4) Exercise privileges of a pilot certificate issued under § 61.75, or an authorization issued under § 61.77, if the foreign pilot certificate relied upon for the issuance of the U.S. pilot certificate or authorization is surrendered, suspended, revoked or expired.

(5) Exercise privileges of a medical certificate issued under part 67 to meet any requirements of part 61 if the medical certificate is surrendered, suspended, revoked or expired according to the duration standards set forth in § 61.23(d).

(6) Use an official government issued driver's license to meet any requirements of part 61 related to holding that driver's license, if the driver's license is surrendered, suspended, revoked or expired.

(b) *Currency.* No person may:

(1) Exercise privileges of an airman certificate, rating, endorsement, or authorization issued under this part unless that person meets the appropriate airman and medical recency requirements of this part, specific to the operation or activity.

(2) Exercise privileges of a foreign pilot license within the United States to conduct an operation described in § 61.3(b), unless that person meets the

appropriate airman and medical recency requirements of the country that issued the license, specific to the operation.

■ 4. Amend § 61.3 by revising paragraphs (a) introductory text, (a)(1), (a)(2)(i), (b) introductory text, (b)(1), (c)(1), (c)(2)(ii), (c)(2)(iii), (c)(2)(v) introductory text, (c)(2)(xi), (c)(2)(xii), (f)(1)(i), (f)(2)(i), (f)(2)(ii), (g)(1)(i), (g)(2)(i), and (g)(2)(ii) to read as follows:

§ 61.3 Requirement for certificates, ratings, and authorizations.

(a) *Pilot certificate.* No person may serve as a required pilot flight crewmember of a civil aircraft of the United States, unless that person—

(1) Has a 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 pilot license issued by that country may be used; and
(2) * * *

(i) Driver's license issued by a State, the District of Columbia, or territory or possession of the United States;
* * * * *

(b) *Required pilot certificate for operating a foreign-registered aircraft.* No person may serve as a required pilot flight crewmember of a civil aircraft of foreign registry within the United States, unless that person's pilot certificate—

(1) Is in that person's physical possession, or readily accessible in the aircraft when exercising the privileges of that pilot certificate; and
* * * * *

(c) * * *

(1) A person may serve as a required pilot flight crewmember of an aircraft only if that person holds the appropriate medical certificate issued under part 67 of this chapter, or other documentation acceptable to the FAA, that is in that person's physical possession or readily accessible in the aircraft. Paragraph (c)(2) of this section provides certain exceptions to the requirement to hold a medical certificate.

(2) * * *

(ii) Is exercising the privileges of a student pilot certificate while seeking a sport pilot certificate with other than glider or balloon privileges and holds a U.S. driver's license;

(iii) Is exercising the privileges of a student pilot certificate while seeking a pilot certificate with a weight-shift-control aircraft category rating or a powered parachute category rating and holds a U.S. driver's license;
* * * * *

(v) Is exercising the privileges of a sport pilot certificate with other than glider or balloon privileges and holds a U.S. driver's license. A person who has applied for or held a medical certificate may exercise the privileges of a sport pilot certificate using a U.S. driver's license only if that person—

* * * * *

(xi) Is operating an aircraft with a U.S. pilot certificate, issued on the basis of a foreign pilot license, issued under § 61.75, and holds a 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.

(xii) Is a pilot of the U.S. Armed Forces, has an up-to-date U.S. military medical examination, and holds military pilot flight status.

* * * * *

(f) * * *

(1) * * *

(i) Holds a Category II pilot authorization for that category or class of aircraft, and the type of aircraft, if applicable; or

* * * * *

(2) * * *

(i) Holds a pilot certificate with category and class ratings for that aircraft and an instrument rating for that category aircraft;

(ii) Holds an airline transport pilot certificate with category and class ratings for that aircraft; or

* * * * *

(g) * * *

(1) * * *

(i) Holds a Category III pilot authorization for that category or class of aircraft, and the type of aircraft, if applicable; or

* * * * *

(2) * * *

(i) Holds a pilot certificate with category and class ratings for that aircraft and an instrument rating for that category aircraft;

(ii) Holds an airline transport pilot certificate with category and class ratings for that aircraft; or

* * * * *

■ 5. Revise § 61.11 to read as follows:

§ 61.11 Expired pilot certificates and re-issuance.

(a) No person who holds an expired pilot certificate or rating may act as pilot in command or as a required pilot flight crewmember of an aircraft of the same category or class that is listed on that expired pilot certificate or rating.

(b) The following pilot certificates and ratings have expired and will 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.

(3) A pilot certificate with a lighter-than-air or free-balloon rating issued before July 1, 1945.

(c) An airline transport pilot certificate that was issued after April 30, 1949, and that bears an expiration date but does not contain a horsepower limitation, may have that airline transport pilot certificate re-issued without an expiration date.

(d) A private or commercial pilot certificate that was issued after June 30, 1945, and that bears an expiration date, may have that pilot certificate reissued without an expiration date.

(e) A pilot certificate with a lighter-than-air or free-balloon rating that was issued after June 30, 1945, and that bears an expiration date, may have that pilot certificate reissued without an expiration date.

■ 6. Amend § 61.19 by revising paragraphs (b), (d), and (e); removing paragraph (f); re-designating (g) as paragraph (f); revising newly re-designated paragraph (f); and re-designating paragraph (h) as (g) to read as follows:

§ 61.19 Duration of pilot and instructor certificates.

* * * * *

(b) *Student pilot certificate.*

(1) For student pilots who have not reached their 40th birthday, the student pilot certificate does not expire until 60 calendar months after the month of the date of examination shown on the medical certificate.

(2) For student pilots who have reached their 40th birthday, the student pilot certificate does not expire until 24 calendar months after the month of the date of examination shown on the medical certificate.

(3) For student pilots seeking a glider or balloon rating only, the student pilot certificate does not expire until 60 calendar months after the month of the date issued, regardless of the person's age.

* * * * *

(d) *Flight instructor certificate.* Except as specified in § 61.197(b), a flight instructor certificate expires 24 calendar months from the month in which it was issued, renewed, or reinstated, as appropriate.

(e) *Ground instructor certificate.* A ground instructor certificate is issued without a specific expiration date.

(f) *Return of certificates.* The holder of any airman certificate that is issued

under this part, and that has been suspended or revoked, must return that certificate to the FAA when requested to do so by the Administrator.

* * * * *

■ 7. Amend § 61.23 by:

■ a. Revising paragraph (a)(3)(iv);

■ b. Redesignating paragraph (a)(3)(v) as (a)(3)(vi);

■ c. Adding new paragraphs (a)(3)(v) and (vii);

■ d. Revising newly re-designated paragraph (a)(3)(vi);

■ e. Revising paragraph (b) introductory text and paragraphs (b)(3), (b)(7), and (b)(8);

■ f. Adding a new paragraph (b)(9); and

■ g. Revising paragraph (c)(1) introductory text and (c)(2) introductory text.

The revisions and additions read as follows:

§ 61.23 Medical certificates: Requirement and duration.

(a) * * *

(3) * * *

(iv) When exercising the privileges of a flight instructor certificate and acting as the pilot in command;

(v) When exercising the privileges of a flight instructor certificate and serving as a required pilot flight crewmember;

(vi) When taking a practical test in an aircraft for a recreational pilot, private pilot, commercial pilot, or airline transport pilot certificate, or for a flight instructor certificate; or

(vii) When performing the duties as an Examiner in an aircraft when administering a practical test or proficiency check for an airman certificate, rating, or authorization.

(b) *Operations not requiring a medical certificate.* A person is not required to hold a medical certificate—

* * * * *

(3) When exercising the privileges of a pilot certificate with a glider category rating or balloon class rating in a glider or a balloon, as appropriate;

* * * * *

(7) When serving as an Examiner or check airman and administering a practical test or proficiency check for an airman certificate, rating, or authorization conducted in a glider, balloon, flight simulator, or flight training device;

(8) When taking a practical test or a proficiency check for a certificate, rating, authorization or operating privilege conducted in a glider, balloon, flight simulator, or flight training device; or

(9) When a military pilot of the U.S. Armed Forces can show evidence of an up-to-date medical examination

authorizing pilot flight status issued by the U.S. Armed Forces and—

(i) The flight does not require higher than a third-class medical certificate; and

(ii) The flight conducted is a domestic flight operation within U.S. airspace.

(c) * * *

(1) A person must hold and possess either a medical certificate issued under part 67 of this chapter or a U.S. driver's license when exercising the privileges of—

* * * * *

(2) A person using a U.S. driver's license to meet the requirements of this paragraph must—

* * * * *

■ 8. Amend § 61.25 by revising paragraph (a)(1) to read as follows:

§ 61.25 Change of name.

(a) * * *

(1) Airman certificate; and

* * * * *

■ 9. Amend § 61.29 by:

■ a. Removing paragraph (d)(3);

■ b. Redesignating existing paragraphs (d)(4) and (5) as paragraphs (d)(3) and (4); and

■ c. Revising newly re-designated paragraphs (d)(3) and (4) to read as follows:

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

* * * * *

(d) * * *

(3) The certificate holder's date and place of birth; and

(4) Any information regarding the—
(i) Grade, number, and date of issuance of the airman certificate and ratings, if appropriate;

(ii) Class of medical certificate, the place and date of the medical exam, name of the Airman Medical Examiner (AME), and the circumstances concerning the loss of the original medical certificate, as appropriate; and

(iii) Date the knowledge test was taken, if appropriate.

* * * * *

■ 10. Amend § 61.31 by:

■ a. Revising paragraph (d)(1);

■ b. Removing paragraph (d)(2);

■ c. Redesignating paragraph (d)(3) as (d)(2) and revising newly re-designating (d)(2);

■ d. Redesignating existing paragraph (k) as (l); and

■ e. Adding new paragraph (k).

The revisions and addition read as follows:

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

* * * * *

(d) * * *

(1) Hold the appropriate category, class, and type rating (if a class or type rating is required) for the aircraft to be flown; or

(2) Have received training required by this part that is appropriate to the pilot certification level, aircraft category, class, and type rating (if a class or type rating is required) for the aircraft to be flown, and have received an endorsement for solo flight in that aircraft from an authorized instructor.

* * * * *

(k) Additional training required for night vision goggle operations. (1)

Except as provided under paragraph (k)(3) of this section, a person may act as pilot in command of an aircraft using night vision goggles only if that person receives and logs ground training from an authorized instructor and obtains a logbook or training record endorsement from an authorized instructor who certifies the person completed the ground training. The ground training must include the following subjects:

(i) Applicable portions of this chapter that relate to night vision goggle limitations and flight operations;

(ii) Aeromedical factors related to the use of night vision goggles, including how to protect night vision, how the eyes adapt to night, self-imposed stresses that affect night vision, effects of lighting on night vision, cues used to estimate distance and depth perception at night, and visual illusions;

(iii) Normal, abnormal, and emergency operations of night vision goggle equipment;

(iv) Night vision goggle performance and scene interpretation; and

(v) Night vision goggle operation flight planning, including night terrain interpretation and factors affecting terrain interpretation.

(2) Except as provided under paragraph (k)(3) of this section, a person may act as pilot in command of an aircraft using night vision goggles only if that person receives and logs flight training from an authorized instructor and obtains a logbook or training record endorsement from an authorized instructor who found the person proficient in the use of night vision goggles. The flight training must include the following tasks:

(i) Preflight and use of internal and external aircraft lighting systems for night vision goggle operations;

(ii) Preflight preparation of night vision goggles for night vision goggle operations;

(iii) Proper piloting techniques when using night vision goggles during the takeoff, climb, enroute, descent, and landing phases of flight; and

(iv) Normal, abnormal, and emergency flight operations using night vision goggles.

(3) The requirements under paragraphs (k)(1) and (2) of this section do not apply if a person can document satisfactory completion of any of the following pilot proficiency checks using night vision goggles in an aircraft:

(i) A pilot proficiency check on night vision goggle operations conducted by the U.S. Armed Forces.

(ii) A pilot proficiency check on night vision goggle operations under part 135 of this chapter conducted by an Examiner or Check Airman.

(iii) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorized instructor, when the pilot—

(A) Is employed by a Federal, State, county, or municipal law enforcement agency; and

(B) Has logged at least 20 hours as pilot in command in night vision goggle operations.

* * * * *

■ 11. Amend § 61.35 by revising paragraph (a)(2)(iv) to read as follows:

§ 61.35 Knowledge test: Prerequisites and passing grades.

(a) * * *

(2) * * *

(iv) If the permanent mailing is a post office box number, then the applicant must provide a current residential address.

* * * * *

■ 12. Amend § 61.39 by revising paragraphs (a)(4), (a)(6)(i), (b)(2), (c)(1), (c)(2), (d), and (e) to read as follows:

§ 61.39 Prerequisites for practical tests.

(a) * * *

(4) Hold at least a third-class medical certificate, if a medical certificate is required;

* * * * *

(6) * * *

(i) Has received and logged training time within 2 calendar months preceding the month of application in preparation for the practical test;

* * * * *

(b) * * *

(2) Is employed by the U.S. Armed Forces as a flight crewmember in U.S. military air transport operations at the time of the practical test and has completed the pilot in command aircraft qualification training program that is appropriate to the pilot certificate and rating sought.

(c) * * *

(1) Holds a foreign pilot license issued by a contracting State to the Convention

on International Civil Aviation that authorizes at least the privileges of the pilot certificate sought;

(2) Is only applying for a type rating; or

(d) If all increments of the practical test for a certificate or rating are not completed on the same date, then all the remaining increments of the test must be completed within 2 calendar months after the month the applicant began the test.

(e) If all increments of the practical test for a certificate or rating are not completed within 2 calendar months after the month the applicant began the test, the applicant must retake the entire practical test.

■ 13. Amend § 61.43 by revising paragraphs (a) and (b) to read as follows:

§ 61.43 Practical tests: General procedures.

(a) Completion of the practical test for a certificate or rating consists of—

(1) Performing the tasks specified in the areas of operation for the airman certificate or rating sought within the approved practical test standards;

(2) Demonstrating mastery of the aircraft by performing each task successfully;

(3) Demonstrating proficiency and competency within the approved standards; and

(4) Demonstrating sound judgment.

(b) The pilot flight crew complement required during the practical test is based on one of the following requirements that applies to the aircraft being used on the practical test:

(1) If the aircraft's FAA-approved flight manual requires the pilot flight crew complement be a single pilot, then the applicant must demonstrate single pilot proficiency on the practical test.

(2) If the aircraft's type certification data sheet requires the pilot flight crew complement be a single pilot, then the applicant must demonstrate single pilot proficiency on the practical test.

(3) If the FAA Flight Standardization Board report, FAA-approved aircraft flight manual, or aircraft type certification data sheet allows the pilot flight crew complement to be either a single pilot, or a pilot and a copilot, then the applicant may demonstrate single pilot proficiency or have a copilot on the practical test. If the applicant performs the practical test with a copilot, the limitation of "Second in Command Required" will be placed on the applicant's pilot certificate. The limitation may be removed if the applicant passes the practical test by demonstrating single-pilot proficiency

in the aircraft in which single-pilot privileges are sought.

■ 14. Amend § 61.45 by revising paragraphs (a)(1)(ii), (a)(2)(i), (a)(2)(iii), and (c) to read as follows:

§ 61.45 Practical tests: Required aircraft and equipment.

(a) * * *
(1) * * *
(ii) Has a standard airworthiness certificate or special airworthiness certificate in the limited, primary, or light-sport category.

(2) * * *
(i) An aircraft that has an airworthiness certificate other than a standard airworthiness certificate or special airworthiness certificate in the limited, primary, or light-sport category, but that otherwise meets the requirements of paragraph (a)(1) of this section;

(iii) A military aircraft of the same category, class, and type, if aircraft class and type are appropriate, for which the applicant is applying for a certificate or rating, and provided—

(A) The aircraft is under the direct operational control of the U.S. Armed Forces;

(B) The aircraft is airworthy under the maintenance standards of the U.S. Armed Forces; and

(C) The applicant has a letter from his or her commanding officer authorizing the use of the aircraft for the practical test.

(c) *Required controls.* Except for lighter-than-air aircraft, and a glider without an engine, an 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 easily reached by the Examiner.

■ 15. Amend § 61.51 by:
■ a. Adding new paragraph (b)(3)(iv);
■ b. Revising paragraphs (b)(1)(iv), (b)(2)(v), (b)(3)(iii), (e)(1), (e)(2), (e)(3), (e)(4)(ii), the heading of paragraph (g), and paragraph (g)(4); and
■ c. Adding new paragraphs (j) and (k).
The revisions and additions read as follows:

§ 61.51 Pilot logbooks.

(b) * * *
(1) * * *
(iv) Type and identification of aircraft, flight simulator, flight training device,

or aviation training device, as appropriate.

(2) * * *
(v) Training received in a flight simulator, flight training device, or aviation training device from an authorized instructor.

(3) * * *
(iii) Simulated instrument conditions in flight, a flight simulator, flight training device, or aviation training device.

(iv) Use of night vision goggles in an aircraft in flight, in a flight simulator, or in a flight training device.

(e) * * *
(1) A sport, recreational, private, commercial, or airline transport pilot may log pilot in command flight time for flights—

(i) When the pilot is the sole manipulator of the controls of an aircraft for which the pilot is rated, or has sport pilot privileges for that category and class of aircraft, if the aircraft class rating is appropriate;

(ii) When the pilot is the sole occupant in the aircraft;

(iii) When the pilot, except for a holder of a sport or recreational pilot certificate, acts 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; or

(iv) When the pilot performs the duties of pilot in command while under the supervision of a qualified pilot in command provided—

(A) The pilot performing the duties of pilot in command holds a commercial or airline transport pilot certificate and aircraft rating that is appropriate to the category and class of aircraft being flown, if a class rating is appropriate;

(B) The pilot performing the duties of pilot in command is undergoing an approved pilot in command training program that includes ground and flight training on the following areas of operation—

- (1) Preflight preparation;
- (2) Preflight procedures;
- (3) Takeoff and departure;
- (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;

(C) The supervising pilot in command holds—

(1) A commercial pilot certificate and flight instructor certificate, and aircraft

rating that is appropriate to the category, class, and type of aircraft being flown, if a class or type rating is required; or

(2) An airline transport pilot certificate and aircraft rating that is appropriate to the category, class, and type of aircraft being flown, if a class or type rating is required; and

(D) The supervising pilot in command logs the pilot in command training in the pilot's logbook, certifies the pilot in command training in the pilot's logbook and attests to that certification with his or her signature, and flight instructor certificate number.

(2) If rated to act as pilot in command of the aircraft, an airline transport pilot may log all flight time while acting as pilot in command of an operation requiring an airline transport pilot certificate.

(3) A certificated flight instructor may log pilot in command flight time for all flight time while serving as the authorized instructor in an operation if the instructor is rated to act as pilot in command of that aircraft.

(4) * * * (ii) Has a solo flight endorsement as required under § 61.87 of this part; and

(g) *Logging instrument time.* * * *

(4) A person can use time in a flight simulator, flight training device, or aviation training device for acquiring instrument aeronautical experience for a pilot certificate, rating, or instrument recency experience, provided an authorized instructor is present to observe that time and signs the person's logbook or training record to verify the time and the content of the training session.

(j) *Aircraft requirements for logging flight time.* For a person to log flight time, the time must be acquired in an aircraft that is identified as an aircraft under § 61.5(b), and is—

(1) An aircraft of U.S. registry with either a standard or special airworthiness certificate;

(2) An aircraft of foreign registry with an airworthiness certificate that is approved by the aviation authority of a foreign country that is a Member State to the Convention on International Civil Aviation Organization;

(3) A military aircraft under the direct operational control of the U.S. Armed Forces; or

(4) A public aircraft under the direct operational control of a Federal, State, county, or municipal law enforcement agency, if the flight time was acquired by the pilot while engaged on an official law enforcement flight for a Federal,

State, County, or Municipal law enforcement agency.

(k) *Logging night vision goggle time.* (1) A person may log night vision goggle time only for the time the person uses night vision goggles as the primary visual reference of the surface and operates:

(i) An aircraft during a night vision goggle operation; or

(ii) A flight simulator or flight training device with the lighting system adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

(2) An authorized instructor may log night vision goggle time when that person conducts training using night vision goggles as the primary visual reference of the surface and operates:

(i) An aircraft during a night goggle operation; or

(ii) A flight simulator or flight training device with the lighting system adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

(3) To log night vision goggle time to meet the recent night vision goggle experience requirements under § 61.57(f), a person must log the information required under § 61.51(b).

■ 16. Amend § 61.53 by revising paragraphs (a) introductory text, (c)(1), and (c)(2) to read as follows:

§ 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, no person who holds a medical certificate issued under part 67 of this chapter may act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:

(c) * * *

(1) Paragraph (a) of this section if that person holds a medical certificate issued under part 67 of this chapter and does not hold a U.S. driver's license.

(2) Paragraph (b) of this section if that person holds a U.S. driver's license.

■ 17. Amend § 61.55 by revising paragraph (a)(1) to read as follows:

§ 61.55 Second in command qualifications.

(a) * * * (1) At least a private pilot certificate with the appropriate category and class rating; and

■ 18. Amend § 61.56 by revising paragraph (f) to read as follows:

§ 61.56 Flight review.

(f) A person who holds a flight instructor certificate and 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 one hour of ground training specified in paragraph (a) of this section.

* * * * *

■ 19. Amend § 61.57 by revising paragraphs (c) and (d); and adding new paragraphs (f) and (g) to read as follows:

§ 61.57 Recent flight experience: Pilot in command.

* * * * *

(c) *Instrument experience.* Except as provided in paragraph (e) of this section, a person may act as pilot in command under IFR or weather conditions less than the minimums prescribed for VFR only if:

(1) *Use of an airplane, powered-lift, helicopter, or airship for maintaining instrument experience.* Within the 6 calendar months preceding the month of the flight, that person performed and logged at least the following tasks and iterations in an airplane, powered-lift, helicopter, or airship, as appropriate, for the instrument rating privileges to be maintained in actual weather conditions, or under simulated conditions using a view-limiting device that involves having performed the following—

(i) Six instrument approaches.
(ii) Holding procedures and tasks.
(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(2) *Use of a flight simulator or flight training device for maintaining instrument experience.* Within the 6 calendar months preceding the month of the flight, that person performed and logged at least the following tasks and iterations in a flight simulator or flight training device, provided the flight simulator or flight training device represents the category of aircraft for the instrument rating privileges to be maintained and involves having performed the following—

(i) Six instrument approaches.
(ii) Holding procedures and tasks.
(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(3) *Use of an aviation training device for maintaining instrument experience.* Within the 2 calendar months preceding the month of the flight, that person performed and logged at least the following tasks, iterations, and time in an aviation training device and has performed the following—

(i) Six instrument approaches.
(ii) Holding procedures and tasks.
(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(3) *Use of an aviation training device for maintaining instrument experience.* Within the 2 calendar months preceding the month of the flight, that person performed and logged at least the following tasks, iterations, and time in an aviation training device and has performed the following—

(i) Six instrument approaches.
(ii) Holding procedures and tasks.
(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(3) *Use of an aviation training device for maintaining instrument experience.* Within the 2 calendar months preceding the month of the flight, that person performed and logged at least the following tasks, iterations, and time in an aviation training device and has performed the following—

(i) Three hours of instrument experience.

(ii) Holding procedures and tasks.

(iii) Six instrument approaches.

(iv) Two unusual attitude recoveries while in a descending, V_{ne} airspeed condition and two unusual attitude recoveries while in an ascending, stall speed condition.

(v) Interception and tracking courses through the use of navigational electronic systems.

(4) *Combination of completing instrument experience in an aircraft and a flight simulator, flight training device, and aviation training device.* A person who elects to complete the instrument experience with a combination of an aircraft, flight simulator or flight training device, and aviation training device must have performed and logged the following within the 6 calendar months preceding the month of the flight—

(i) Instrument experience in an airplane, powered-lift, helicopter, or airship, as appropriate, for the instrument rating privileges to be maintained, performed in actual weather conditions, or under simulated weather conditions while using a view-limiting device, on the following instrument currency tasks:

(A) Instrument approaches.

(B) Holding procedures and tasks.

(C) Interception and tracking courses through the use of navigational electronic systems.

(ii) Instrument experience in a flight simulator or flight training device that represents the category of aircraft for the instrument rating privileges to be maintained and involves performing at least the following tasks—

(A) Instrument approaches.

(B) Holding procedures and tasks.

(C) Interception and tracking courses through the use of navigational electronic systems.

(iii) Instrument experience in an aviation training device that represents the category of aircraft for the instrument rating privileges to be maintained and involves performing at least the following tasks—

(A) Six instrument approaches.

(B) Holding procedures and tasks.

(C) Interception and tracking courses through the use of navigational electronic systems.

(5) *Combination of completing instrument experience in a flight simulator or flight training device, and an aviation training device.* A person who elects to complete the instrument experience with a combination of a flight simulator, flight training device, and aviation training device must have performed the following within the 6

calendar months preceding the month of the flight—

(i) Instrument recency experience in a flight simulator or flight training device that represents the category of aircraft for the instrument rating privileges to be maintained and involves having performed the following tasks:

(A) Six instrument approaches.

(B) Holding procedures and tasks.

(C) Interception and tracking courses through the use of navigational electronic systems.

(ii) Three hours of instrument experience in an aviation training device that represents the category of aircraft for the instrument rating privileges to be maintained and involves performing at least the following tasks—

(A) Six instrument approaches.

(B) Holding procedures and tasks.

(C) Interception and tracking courses through the use of navigational electronic systems.

(D) Two unusual attitude recoveries while in a descending, V_{ne} airspeed condition and two unusual attitude recoveries while in an ascending, stall speed condition.

(6) Maintaining instrument recent experience in a glider.

(i) Within the 6 calendar months preceding the month of the flight, that person must have performed and logged at least the following instrument currency tasks, iterations, and flight time, and the instrument currency must have been performed in actual weather conditions or under simulated weather conditions—

(A) One hour of instrument flight time in a glider or in a single engine airplane using a view-limiting device while performing interception and tracking courses through the use of navigation electronic systems.

(B) Two hours of instrument flight time in a glider or a single engine airplane with the use of a view-limiting device while performing straight glides, turns to specific headings, steep turns, flight at various airspeeds, navigation, and slow flight and stalls.

(ii) Before a pilot is allowed to carry a passenger in a glider under IFR or in weather conditions less than the minimums prescribed for VFR, that pilot must—

(A) Have logged and performed 2 hours of instrument flight time in a glider within the 6 calendar months preceding the month of the flight.

(B) Use a view-limiting-device while practicing performance maneuvers, performance airspeeds, navigation, slow flight, and stalls.

(d) *Instrument proficiency check.*

Except as provided in paragraph (e) of this section, a person who does not meet

the instrument experience requirements of paragraph (c) of this section within the 12 calendar months preceding the month of the flight may not serve as pilot in command under IFR or in weather conditions less than the minimums prescribed for VFR until having passed an instrument proficiency check that consists of the areas of operation and instrument tasks required in the instrument rating practical test standards.

* * * * *

(f) *Night vision goggle operating experience.* (1) A person may act as pilot in command in a night vision goggle operation with passengers on board only if, within 2 calendar months preceding the month of the flight, that person performs and logs the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation—

(i) Three takeoffs and three landings, with each takeoff and landing including a climbout, cruise, descent, and approach phase of flight (only required if the pilot wants to use night vision goggles during the takeoff and landing phases of the flight).

(ii) Three hovering tasks (only required if the pilot wants to use night vision goggles when operating helicopters or powered-lifts during the hovering phase of flight).

(iii) Three area departure and area arrival tasks.

(iv) Three tasks of transitioning from aided night flight (*aided night flight* means that the pilot uses night vision goggles to maintain visual surface reference) to unaided night flight (*unaided night flight* means that the pilot does not use night vision goggles) and back to aided night flight.

(v) Three night vision goggle operations, or when operating helicopters or powered-lifts, six night vision goggle operations.

(2) A person may act as pilot in command using night vision goggles only if, within the 4 calendar months preceding the month of the flight, that person performs and logs the tasks listed in paragraph (f)(1)(i) through (v) of this section as the sole manipulator of the controls during a night vision goggle operation.

(g) *Night vision goggle proficiency check.* A person must either meet the night vision goggle experience requirements of paragraphs (f)(1) or (f)(2) of this section or pass a night vision goggle proficiency check to act as pilot in command using night vision goggles. The proficiency check must be performed in the category of aircraft that is appropriate to the night vision goggle

operation for which the person is seeking the night vision goggle privilege or in a flight simulator or flight training device that is representative of that category of aircraft. The check must consist of the tasks listed in § 61.31(k), and the check must be performed by:

(1) An Examiner who is qualified to perform night vision goggle operations in that same aircraft category and class;

(2) A person who is authorized by the U.S. Armed Forces to perform night vision goggle proficiency checks, provided the person being administered the check is also a member of the U.S. Armed Forces;

(3) A company check pilot who is authorized to perform night vision goggle proficiency checks under parts 121, 125, or 135 of this chapter, provided that both the check pilot and the pilot being tested are employees of that operator;

(4) An authorized flight instructor who is qualified to perform night vision goggle operations in that same aircraft category and class;

(5) A person who is qualified as pilot in command for night vision goggle operations in accordance with paragraph (f) of this section; or

(6) A person approved by the FAA to perform night vision goggle proficiency checks.

■ 20. Revise § 61.63 to read as follows:

§ 61.63 Additional aircraft ratings (other than for ratings at the airline transport pilot certification level).

(a) *General.* For an additional aircraft rating on a pilot certificate, other than for an airline transport pilot certificate, a person must meet the requirements of this section appropriate to the additional aircraft rating sought.

(b) *Additional aircraft category rating.* A person who applies to add a category rating to a pilot certificate:

(1) Must complete the training and have the applicable aeronautical experience.

(2) Must have a logbook or training record endorsement from an authorized instructor attesting that the person was found competent in the appropriate aeronautical knowledge areas and proficient in the appropriate areas of operation.

(3) Must pass the practical test.

(4) Need not take an additional knowledge test if the person holds an airplane, rotorcraft, powered-lift, or airship rating at that pilot certificate level.

(c) *Additional aircraft class rating.* A person who applies for an additional class rating on a pilot certificate:

(1) Must have a logbook or training record endorsement from an authorized

instructor attesting that the person was found competent in the appropriate aeronautical knowledge areas and proficient in the appropriate areas of operation.

(2) Must pass the practical test.

(3) Need not meet the specified training time requirements prescribed by this part that apply to the pilot certificate for the aircraft class rating sought; unless, the person only holds a lighter-than-air category rating with a balloon class rating and is seeking an airship class rating, then that person must receive the specified training time requirements and possess the appropriate aeronautical experience.

(4) Need not take an additional knowledge test if the person holds an airplane, rotorcraft, powered-lift, or airship rating at that pilot certificate level.

(d) *Additional aircraft type rating.* Except as provided under paragraph (d)(6) of this section, a person who applies for an aircraft type rating or an aircraft type rating to be completed concurrently with an aircraft category or class rating—

(1) Must hold or concurrently obtain an appropriate instrument rating, except as provided in paragraph (e) of this section.

(2) Must have a logbook or training record endorsement from an authorized instructor attesting that the person is competent in the appropriate aeronautical knowledge areas and proficient in the appropriate areas of operation at the airline transport pilot certification level.

(3) Must pass the practical test at the airline transport pilot certification level.

(4) Must perform the practical test in actual or simulated instrument conditions, except as provided in paragraph (e) of this section.

(5) Need not take an additional knowledge test if the applicant holds an airplane, rotorcraft, powered-lift, or airship rating on the pilot certificate.

(6) In the case of a pilot employee of a part 121 or part 135 certificate holder or of a fractional ownership program manager under subpart K of part 91 of this chapter, the pilot must—

(i) Meet the appropriate requirements under paragraphs (d)(1), (d)(3), and (d)(4) of this section; and

(ii) Receive a flight training record endorsement from the certificate holder attesting that the person completed the certificate holder's approved ground and flight training program.

(e) *Aircraft not capable of instrument maneuvers and procedures.* (1) An applicant for a type rating or a type rating in addition to an aircraft category and/or class rating who provides an

aircraft that is not capable of the instrument maneuvers and procedures required on the practical test:

(i) May apply for the type rating, but the rating will be limited to "VFR only."

(ii) May have the "VFR only" limitation removed for that aircraft type after the applicant:

(A) Passes a practical test in that type of aircraft in actual or simulated instrument conditions;

(B) Passes a practical test in that type of aircraft on the appropriate instrument maneuvers and procedures in § 61.157; or

(C) Becomes qualified under § 61.73(d) for that type of aircraft.

(2) When an instrument rating is issued to a person who holds one or more type ratings, the amended pilot certificate must bear the "VFR only" limitation for each aircraft type rating that the person did not demonstrate instrument competency.

(f) *Multiengine airplane with a single-pilot station.* An applicant for a type rating, at other than the ATP certification level, in a multiengine airplane with a single-pilot station must perform the practical test in the multi-seat version of that airplane, or the practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test and there is no multi-seat version of that multiengine airplane.

(g) *Single engine airplane with a single-pilot station.* An applicant for a type rating, at other than the ATP certification level, in a single engine airplane with a single-pilot station must perform the practical test in the multi-seat version of that single engine airplane, or the practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test and there is no multi-seat version of that single engine airplane.

(h) *Aircraft category and class rating for the operation of aircraft with an experimental certificate.* A person holding a recreational, private, or commercial pilot certificate may apply for a category and class rating limited to a specific make and model of experimental aircraft, provided—

(1) The person logged 5 hours flight time while acting as pilot in command in the same category, class, make, and model of aircraft.

(2) The person received a logbook endorsement from an authorized instructor who determined the pilot's proficiency to act as pilot in command of the same category, class, make, and model of aircraft.

(3) The flight time specified under paragraph (h)(1) of this section was logged between September 1, 2004 and August 31, 2005.

(i) *Waiver authority.* An Examiner who conducts a practical test may waive any task for which the FAA has provided waiver authority.

■ 21. Add a new § 61.64 to read as follows:

§ 61.64 Use of a flight simulator and flight training device.

(a) *Use of a flight simulator for the airplane rating.* If an applicant uses a flight simulator for training or the practical test for an airplane category, class, or type rating—

(1) The flight simulator—

(i) Must represent the category, class, and type of airplane rating (if a type rating is applicable) for the rating sought;

(ii) Must be used in accordance with an approved course of training under part 141 or part 142 of this chapter; or under part 121 or part 135 of this chapter, provided the applicant is a pilot employee of that air carrier operator;

(iii) At a minimum, must be qualified and approved as a Level C flight simulator if the applicant performs any portion of the practical test in the flight simulator; and

(iv) At a minimum, must be qualified and approved as a Level A flight simulator if the applicant uses the flight simulator for any training;

(2) If the type rating is for a turbojet airplane, the applicant must—

(i) Hold a type rating in a turbojet airplane of the same class of airplane, and that type rating may not contain a supervised operating experience limitation;

(ii) Have 1,000 hours of flight time in two different turbojet airplanes of the same class of airplane;

(iii) Have been appointed by the U.S. Armed Forces as pilot in command in a turbojet airplane of the same class of airplane; or

(iv) Have 500 hours of flight time in the same type of airplane.

(3) If the type rating is for a turbo-propeller airplane, the applicant must—

(i) Hold a type rating in a turbo-propeller airplane of the same class of airplane, and that type rating may not contain a supervised operating experience limitation;

(ii) Have 1,000 hours of flight time in two different turbo-propeller airplanes of the same class of airplane;

(iii) Have been appointed by the U.S. Armed Forces as pilot in command in a turbo-propeller airplane of the same class of airplane; or

(iv) Have 500 hours of flight time in the same type of airplane.

(4) If the applicant does not meet the requirements of paragraph (a)(2) or (a)(3) of this section, then—

(i) The applicant must complete the following tasks on the practical test in the airplane of the category, class, and type of airplane rating (if a type rating is applicable) for which the airplane rating applies: preflight inspection, normal takeoff, normal instrument landing system approach, missed approach, and normal landing.

(ii) After passing the practical test, the applicant's pilot certificate must state: "The [name the category, class, and type of airplane rating (if a type rating is applicable)] is subject to additional pilot in command limitations," and the applicant is restricted from serving as pilot in command in that category, class, and type of airplane rating (if a type rating is applicable).

(iii) The limitation described under paragraph (a)(4)(ii) of this section may be removed from the applicant's pilot certificate if the applicant—

(A) Logs 25 hours of flight time in the category and class of airplane for the rating sought, and if a type rating is being sought, the flight time must be performed in the same type of airplane for the type rating sought;

(B) Performs 25 hours of flight time under the direct observation of the pilot in command who holds the appropriate airplane category, class, and type rating, without limitations, in the same category, class, and type of airplane rating, if a type rating is applicable;

(C) Logs each flight and the pilot in command who observed the flight attests to each flight;

(D) Obtains the flight time while in the pilot in command seat of the appropriate airplane category, class, and type, if a type rating is appropriate; and

(E) Has an Examiner review the pilot logbook and endorse that logbook, attesting to compliance with the required supervised operating experience.

(b) *Use of a flight training device for the airplane rating.* If an applicant uses a flight training device for training for the airplane category, class, or type rating, the applicant must meet the requirements of paragraph (a)(2), (a)(3) or (a)(4) of this section, and the flight training device—

(1) Must represent the category, class, and type of airplane rating (if a type rating is applicable) for the rating.

(2) Must be used in accordance with an approved course of training under part 141 or part 142 of this chapter, or under part 121 or part 135 of this chapter, provided the applicant is a

pilot employee of that air carrier operator.

(3) Must be qualified and approved at or above a Level 2 flight training device if the applicant completes the entire practical test in the airplane.

(4) Must be qualified and approved at or above a Level 5 flight training device if the applicant uses a flight simulator for any portion of the practical test.

(c) *Use of a flight simulator for the helicopter rating.* If an applicant uses a flight simulator for training or the practical test for the helicopter class or type rating,

(1) The flight simulator—

(i) Must represent the class and type of helicopter rating (if a type rating is applicable) for the rating;

(ii) Must be used in accordance with an approved course of training under part 141 or part 142 of this chapter, or under part 135 of this chapter, provided the applicant is a pilot employee of that part 135 operator;

(iii) At a minimum, must be qualified and approved as a Level C flight simulator if the applicant performs any portion of the practical test in a flight simulator; and

(iv) At a minimum, must be qualified and approved as a Level A flight simulator if the applicant uses a flight simulator for any training.

(2) The applicant must meet one of the following requirements—

(i) Hold a type rating in a helicopter and that type rating may not contain the supervised operating experience limitation;

(ii) Have been appointed by the U.S. Armed Forces as pilot in command of a helicopter;

(iii) Have 500 hours of flight time in the type of helicopter; or

(iv) Have 1,000 hours of flight time in two different types of helicopters.

(3) If the applicant does not meet any of the requirements of paragraph (c)(2) of this section, then—

(i) The applicant must complete the following tasks on the practical test in the helicopter class and type rating (if a type rating is applicable) for which the rating applies: preflight inspection, normal takeoff, normal instrument landing system approach, missed approach, and normal landing.

(ii) After passing the practical test, the applicant's pilot certificate must state: "The [name the helicopter class, and type of helicopter rating (if a type rating is applicable)] rating is subject to additional pilot in command limitations," and the applicant is restricted from serving as pilot in command in that helicopter class and type of helicopter rating (if a type rating is applicable).

(iii) The limitation described under paragraph (c)(3)(ii) of this section may be removed from the pilot certificate if the applicant complies with the following—

(A) Logs 25 hours of flight time in the class of helicopter for the rating sought, if the person applied for a type rating, the flight time must be performed in the same type of helicopter for the type rating sought;

(B) Performs the 25 hours of flight time under the direct observation of the pilot in command who holds the appropriate class and type of helicopter rating (if a type rating is applicable), without limitations, in the same class, and type of helicopter rating, if a type rating is applicable;

(C) Logs each flight and the pilot in command who observed the flight attests to each flight;

(D) Performs the flight time while in the pilot in command seat of the appropriate class and type of helicopter rating, if a type rating is appropriate; and

(E) Has an Examiner review the pilot logbook and endorse that logbook, attesting to compliance with the required supervised operating experience.

(d) *Use of a flight training device for the helicopter rating.* If an applicant uses a flight training device for training for the helicopter class or type rating, the applicant must meet the requirements of either paragraph (c)(2) or (3) of this section and the flight training device—

(1) Must represent the class and type of helicopter rating (if a type rating is applicable) for the rating.

(2) Must be used in accordance with an approved course of training under part 141 or part 142 of this chapter, or under part 135 of this chapter, provided the applicant is a pilot employee of that part 135 operator.

(3) Must be qualified and approved at or above a Level 2 flight training device if the applicant completes the entire practical test in the helicopter.

(4) Must be qualified and approved at or above a Level 5 flight training device if the applicant uses a flight simulator for any portion of the practical test.

(e) *Use of a flight simulator for the powered-lift rating.* If an applicant uses a flight simulator for training or the practical test for the powered-lift category or type rating—

(1) The flight simulator—

(i) Must represent the category and type of powered-lift rating (if a type rating is applicable) for the rating;

(ii) Must be used in accordance with an approved course of training under part 141 or part 142 of this chapter, or

under part 121 or part 135 of this chapter, provided the applicant is a pilot employee of that air carrier operator;

(iii) At a minimum, must be qualified and approved as a Level C flight simulator if the applicant performs any portion of the practical test in a flight simulator; and

(iv) At a minimum, must be qualified and approved as a Level A flight simulator if the applicant uses a flight simulator for any training.

(2) The applicant must meet one of the following requirements—

(i) Hold a type rating in a powered-lift without a supervised operating experience limitation;

(ii) Have been appointed by the U.S. Armed Forces as pilot in command of a powered-lift;

(iii) Have 500 hours of flight time in the type of powered-lift; or

(iv) Have 1,000 hours of flight time in two different types of powered-lifts.

(3) If the applicant does not meet any of the requirements of paragraph (e)(2) of this section, then—

(i) The applicant must complete the following tasks on the practical test in the powered-lift of the category and type of powered-lift rating (if a type rating is applicable) for which the rating applies: preflight inspection, normal takeoff, normal instrument landing system approach, missed approach, and normal landing.

(ii) After passing the practical test, the applicant's pilot certificate must state: "The [name of the category and type of powered-lift rating (if a type rating is applicable)] rating is subject to additional pilot in command limitations," and that applicant is restricted from serving as pilot in command in that category and type of powered-lift rating (if a type rating is applicable).

(iii) The limitation described under paragraph (e)(3)(ii) of this section may be removed from the pilot certificate if the applicant complies with the following—

(A) Logs 25 hours of flight time in the powered-lift category for the rating sought, and if a type rating is being sought, the flight time must be performed in the same type of powered-lift for the type rating sought;

(B) Performs the 25 hours flight time under the direct observation of the pilot in command who holds the category and type of powered-lift rating (if a type rating is applicable), without limitations, in the same category and type of powered-lift rating, if a type rating is applicable;

(C) Logs each flight and the pilot in command who observed the flight attests to each flight;

(D) Performs the flight time while in the pilot in command seat of the appropriate category and type of powered-lift rating, if a type rating is appropriate; and

(E) Has an Examiner review the pilot logbook and endorse that logbook, attesting to compliance with the required supervised operating experience.

(f) *Use of a flight training device for the powered-lift rating.* Whenever an applicant uses a flight training device for training for the powered-lift category or type rating, the flight training device must meet the following requirements, and the applicant must meet the requirements of either paragraph (e)(2) or (e)(3) of this section.

(1) The flight training device must represent the class and type of powered-lift rating (if a type rating is applicable) for the rating.

(2) The flight training device must be used in accordance with an approved course of training under part 141 or part 142 of this chapter; or under part 121 or part 135 of this chapter, provided the applicant is a pilot employee of that air carrier operator.

(3) If the applicant completes the entire practical test in the powered-lift, the flight training device used for training must be qualified and approved at or above a Level 2 flight training device.

(4) If an applicant uses a flight simulator for any portion of the practical test, the flight training device used for training must be qualified and approved at or above a Level 5 flight training device.

- 22. Amend § 61.65 by:
- a. Revising paragraph (a)(1);
- b. Revising paragraph (d);
- c. Redesignating existing paragraph (e) as paragraph (g);
- d. Adding new paragraphs (e), (f), and (h); and
- e. Revising newly re-designated paragraph (g).

The revisions and additions read as follows:

§ 61.65 Instrument rating requirements.

(a) * * *

(1) Hold at least a private pilot certificate with an airplane, helicopter, or powered-lift rating appropriate to the instrument rating sought;

* * * * *

(d) *Aeronautical experience for the instrument-airplane rating.* A person who applies for an instrument-airplane rating must have logged:

(1) Fifty hours of cross country flight time as pilot in command, of which 10 hours must have been in an airplane; and

(2) Forty hours of actual or simulated instrument time in the areas of operation listed in paragraph (c) of this section, of which 15 hours must have been received from an authorized instructor who holds an instrument-airplane rating, and the instrument time includes:

(i) Three hours of instrument flight training from an authorized instructor in an airplane that is appropriate to the instrument-airplane rating within 2 calendar months before the date of the practical test; and

(ii) Instrument flight training on cross country flight procedures, including one cross country flight in an airplane with an authorized instructor, that is performed under instrument flight rules, when a flight plan has been filed with an air traffic control facility, and that involves—

(A) A flight of 250 nautical miles along airways or by directed routing from an air traffic control facility;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems.

(e) *Aeronautical experience for the instrument-helicopter rating.* A person who applies for an instrument-helicopter rating must have logged:

(1) Fifty hours of cross country flight time as pilot in command, of which 10 hours must have been in a helicopter; and

(2) Forty hours of actual or simulated instrument time in the areas of operation listed under paragraph (c) of this section, of which 15 hours must have been with an authorized instructor who holds an instrument-helicopter rating, and the instrument time includes:

(i) Three hours of instrument flight training from an authorized instructor in a helicopter that is appropriate to the instrument-helicopter rating within 2 calendar months before the date of the practical test; and

(ii) Instrument flight training on cross country flight procedures, including one cross country flight in a helicopter with an authorized instructor that is performed under instrument flight rules and a flight plan has been filed with an air traffic control facility, and involves—

(A) A flight of 100 nautical miles along airways or by directed routing from an air traffic control facility;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems.

(f) *Aeronautical experience for the instrument-powered-lift rating.* A person who applies for an instrument-powered-lift rating must have logged:

(1) Fifty hours of cross country flight time as pilot in command, of which 10 hours cross country must have been in a powered-lift; and

(2) Forty hours of actual or simulated instrument time in the areas of operation listed under paragraph (c) of this section, of which 15 hours must have been received from an authorized instructor who holds an instrument-powered-lift rating, and the instrument time includes:

(i) Three hours of instrument flight training from an authorized instructor in a powered-lift that is appropriate to the instrument-powered-lift rating within 2 calendar months before the date of the practical test; and

(ii) Instrument flight training on cross country flight procedures, including one cross country flight in a powered-lift with an authorized instructor that is performed under instrument flight rules, when a flight plan has been filed with an air traffic control facility, that involves—

(A) A flight of 250 nautical miles along airways or by directed routing from an air traffic control facility;

(B) An instrument approach at each airport; and

(C) Three different kinds of approaches with the use of navigation systems.

(g) *Use of flight simulators or flight training devices.* If the instrument time was provided by an authorized instructor in a flight simulator or flight training device—

(1) A maximum of 30 hours may be performed in that flight simulator or flight training device if the instrument time was completed in accordance with part 142 of this chapter; or

(2) A maximum of 20 hours may be performed in that flight simulator or flight training device if the instrument time was not completed in accordance with part 142 of this chapter.

(h) *Use of an aviation training device.* A maximum of 10 hours of instrument time received in an aviation training device may be credited for the instrument time requirements of this section if—

(1) The device is approved and authorized by the FAA;

(2) An authorized instructor provides the instrument time in the device;

(3) No more than 10 hours of instrument time in a flight simulator or flight training device was credited for

the instrument time requirements of this section;

(4) A view-limiting device was worn by the applicant when logging instrument time in the device; and

(5) The FAA approved the instrument training and instrument tasks performed in the device.

■ 23. Amend § 61.69 by revising paragraphs (a)(1), (a)(4), and (a)(6) introductory text to read as follows:

§ 61.69 Glider and unpowered ultralight vehicle towing: Experience and training requirements.

(a) * * *

(1) Holds a private, commercial or airline transport pilot certificate with a category rating for powered aircraft;

* * * * *

(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 while towing a glider or unpowered ultralight vehicle, or has simulated towing flight procedures in an aircraft while accompanied by a pilot who meets the requirements of paragraphs (c) and (d) of this section.

* * * * *

(6) Within 24 calendar months before the flight has—

* * * * *

■ 24. Revise § 61.73 to read as follows:

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

(a) *General.* Except for a person who has been removed from flying status for lack of proficiency or because of a disciplinary action involving aircraft operations, a U.S. military pilot or former military pilot who meets the requirements of this section may apply, on the basis of his or her military pilot qualifications, for:

(1) A commercial pilot certificate with the appropriate aircraft category and class rating.

(2) An instrument rating with the appropriate aircraft rating.

(3) A type rating.

(b) *Military pilots and former military pilots in the U.S. Armed Forces.* A person who qualifies as a military pilot or former military pilot in the U.S. Armed Forces may apply for a pilot certificate and ratings under paragraph (a) of this section if that person—

(1) Presents evidentiary documents described under paragraphs (h)(1), (2), and (3) of this section that show the person's status in the U.S. Armed Forces.

(2) Has passed the military competency aeronautical knowledge test on the appropriate parts of this chapter

for commercial pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules.

(3) Presents official U.S. military records that show compliance with one of the following requirements—

(i) Before the date of the application, passing an official U.S. military pilot and instrument proficiency check in a military aircraft of the kind of aircraft category, class, and type, if class or type of aircraft is applicable, for the ratings sought; or

(ii) Before the date of application, logging 10 hours of pilot time as a military pilot in a U.S. military aircraft in the kind of aircraft category, class, and type, if a class rating or type rating is applicable, for the aircraft rating sought.

(c) *A military pilot in the Armed Forces of a foreign contracting State to the Convention on International Civil Aviation.* A person who is a military pilot in the Armed Forces of a foreign contracting State to the Convention on International Civil Aviation and is assigned to pilot duties in the U.S. Armed Forces, for purposes other than receiving flight training, may apply for a commercial pilot certificate and ratings under paragraph (a) of this section, provided that person—

(1) Presents evidentiary documents described under paragraph (h)(4) of this section that show the person is a military pilot in the Armed Forces of a foreign contracting State to the Convention on International Civil Aviation, and is assigned to pilot duties in the U.S. Armed Forces, for purposes other than receiving flight training.

(2) Has passed the military competency aeronautical knowledge test on the appropriate parts of this chapter for commercial pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules.

(3) Presents official U.S. military records that show compliance with one of the following requirements:

(i) Before the date of the application, passed an official U.S. military pilot and instrument proficiency check in a military aircraft of the kind of aircraft category, class, or type, if class or type of aircraft is applicable, for the ratings; or

(ii) Before the date of the application, logged 10 hours of pilot time as a military pilot in a U.S. military aircraft of the kind of category, class, and type of aircraft, if a class rating or type rating is applicable, for the aircraft rating.

(d) *Instrument rating.* A person who is qualified as a U.S. military pilot or former military pilot may apply for an

instrument rating to be added to a pilot certificate if that person—

(1) Has passed an instrument proficiency check in the U.S. Armed Forces in the aircraft category for the instrument rating sought; and

(2) Has an official U.S. Armed Forces record that shows the person is instrument pilot qualified by the U.S. Armed Forces to conduct instrument flying on Federal airways in that aircraft category and class for the instrument rating sought.

(e) *Aircraft type rating.* An aircraft type rating may only be issued for a type of aircraft that has a comparable civilian type designation by the Administrator.

(f) *Aircraft type rating placed on an airline transport pilot certificate.* A person who is a military pilot or former military pilot of the U.S. Armed Forces and requests an aircraft type rating to be placed on an existing U.S. airline transport pilot certificate may be issued the rating at the airline transport pilot certification level, provided that person:

(1) Holds a category and class rating for that type of aircraft at the airline transport pilot certification level; and

(2) Has passed an official U.S. military pilot check and instrument proficiency check in that type of aircraft.

(g) *Flight instructor certificate and ratings.* A person who can show official U.S. military documentation of being a U.S. military instructor pilot or U.S. military pilot examiner, or a former instructor pilot or pilot examiner may apply for and be issued a flight instructor certificate with the appropriate ratings if that person:

(1) Holds a commercial or airline transport pilot certificate with the appropriate aircraft category and class rating, if a class rating is appropriate, for the flight instructor rating sought;

(2) Holds an instrument rating, or has instrument privileges, on the pilot certificate that is appropriate to the flight instructor rating sought; and

(3) Presents the following documents:

(i) A knowledge test report that shows the person passed a knowledge test on the aeronautical knowledge areas listed under § 61.185(a) appropriate to the flight instructor rating sought and the knowledge test was passed within the preceding 24 calendar months prior to the month of application. If the U.S. military instructor pilot or pilot examiner already holds a flight instructor certificate, holding of a flight instructor certificate suffices for the knowledge test report.

(ii) An official U.S. Armed Forces record or order that shows the person is or was qualified as a U.S. Armed Forces military instructor pilot or pilot

examiner for the flight instructor rating sought.

(iii) An official U.S. Armed Forces record or order that shows the person completed a U.S. Armed Forces' instructor pilot or pilot examiner training course and received an aircraft rating qualification as a military instructor pilot or pilot examiner that is appropriate to the flight instructor rating sought.

(iv) An official U.S. Armed Forces record or order that shows the person passed a U.S. Armed Forces instructor pilot or pilot examiner proficiency check in an aircraft as a military instructor pilot or pilot examiner that is appropriate to the flight instructor rating sought.

(h) *Documents for qualifying for a pilot certificate and rating.* The following documents are required for a person to apply for a pilot certificate and rating:

(1) An official U.S. Armed Forces record that shows the person is or was a military pilot.

(2) An official U.S. Armed Forces record that shows the person graduated from a U.S. Armed Forces undergraduate pilot training school and received a rating qualification as a military pilot.

(3) An official U.S. Armed Forces record that shows the pilot passed a pilot proficiency check and instrument proficiency check in an aircraft as a military pilot.

(4) If a person is a military pilot in the Armed Forces from a foreign contracting State to the Convention on International Civil Aviation and is applying for a pilot certificate and rating, that person must present the following:

(i) An official U.S. Armed Forces record that shows the person is a military pilot in the U.S. Armed Forces;

(ii) An official U.S. Armed Forces record that shows the person is assigned as a military pilot in the U.S. Armed Forces for purposes other than receiving flight training;

(iii) An official record that shows the person graduated from a military undergraduate pilot training school from the Armed Forces from a foreign contracting State to the Convention on International Civil Aviation or from the U.S. Armed Forces, and received a qualification as a military pilot; and

(iv) An official U.S. Armed Forces record that shows that the person passed a pilot proficiency check and instrument proficiency check in an aircraft as a military pilot in the U.S. Armed Forces.

■ 25. Amend § 61.75 by revising paragraphs (a), (b) introductory text,

(b)(2), (b)(3), (b)(4), (c), (d) introductory text, (e)(1), (f), and (g), and removing paragraph (e)(4).

The revisions read as follows:

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

(a) *General.* A person who holds a foreign pilot license at the private pilot level or higher that was issued by a contracting State to the Convention on International Civil Aviation may apply for and be issued a U.S. private pilot certificate with the appropriate ratings if the foreign pilot license meets the requirements of this section.

(b) *Certificate issued.* A U.S. private pilot certificate issued under this section must specify the person's foreign license number and country of issuance. A person who holds a foreign pilot license issued by a contracting State to the Convention on International Civil Aviation may be issued a U.S. private pilot certificate based on the foreign pilot license without any further showing of proficiency, provided the applicant:

* * * * *

(2) Holds a foreign pilot license, at the private pilot license level or higher, that does not contain a limitation stating that the applicant has not met all of the standards of ICAO for that license;

(3) Does not hold a U.S. pilot certificate other than a U.S. student pilot certificate;

(4) Holds a medical certificate issued under part 67 of this chapter or a medical license issued by the country that issued the person's foreign pilot license; and

* * * * *

(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 for private pilot privileges only.

(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. pilot certificate provided:

* * * * *

(e) * * *

(1) May act as pilot in command of a civil aircraft of the United States in accordance with the pilot privileges authorized by this part and the limitations placed on that U.S. pilot certificate;

* * * * *

(f) *Limitation on licenses used as the basis for a U.S. certificate.* A person

may use only one foreign pilot license as a basis for the issuance of a U.S. pilot certificate. The foreign pilot license and medical certification used as a basis for issuing a U.S. pilot certificate under this section must be written in English or accompanied by an English 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. pilot certificate.* A U.S. pilot certificate issued under this section can only be exercised when the pilot has the foreign pilot license, upon which the issuance of the U.S. pilot certificate was based, in the holder's possession or readily accessible in the aircraft.

■ 26. Amend § 61.77 by:

- a. Revising the section heading;
- b. Revising paragraphs (a)(2), (b)(1), (b)(2) introductory text, (b)(4); and (d);
- c. Removing paragraph (b)(5); and
- d. Redesignating paragraph (b)(6) as (b)(5).

The revisions read as follows:

§ 61.77 Special purpose pilot authorization: Operation of a civil aircraft of the United States and leased by a non-U.S. citizen.

(a) * * *

(2) For carrying persons or property for compensation or hire for operations in—

(i) Scheduled international air services in turbojet-powered airplanes of U.S. registry;

(ii) Scheduled international air services in airplanes of U.S. registry having a configuration of more than nine passenger seats, excluding crewmember seats;

(iii) Nonscheduled international air transportation in airplanes of U.S. registry having a configuration of more than 30 passenger seats, excluding crewmember seats; or

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

(b) * * *

(1) A foreign pilot license issued by the aeronautical authority of a contracting State to the Convention on International Civil Aviation that contains the appropriate aircraft category, class, type rating, if appropriate, and instrument rating for the aircraft to be flown;

(2) A certification by the lessee of the aircraft—

* * * * *

(4) Documentation the applicant meets the medical standards for the issuance of the foreign pilot license

from the aeronautical authority of that contracting State to the Convention on International Civil Aviation; and

* * * * *

(d) *General limitations.* A special purpose pilot authorization may be used only—

(1) For flights between foreign countries or for flights in foreign air commerce within the time period allotted on the authorization.

(2) If the foreign pilot license required by paragraph (b)(1) of this section, the medical documentation required by paragraph (b)(4) of this section, and the special purpose pilot authorization issued under this section are in the holder's physical possession or immediately accessible in the aircraft.

(3) While the holder is employed by the person to whom the aircraft described in the certification required by paragraph (b)(2) of this section is leased.

(4) While the holder is performing pilot duties on the U.S.-registered aircraft described in the certification required by paragraph (b)(2) of this section.

(5) If the holder has only one special purpose pilot authorization as provided in paragraph (b)(5) of this section.

* * * * *

■ 27. Amend § 61.87 by revising paragraph (p) to read as follows:

§ 61.87 Solo requirements for student pilots.

* * * * *

(p) *Limitations on flight instructors authorizing solo flight.* No instructor may authorize a student pilot to perform a solo flight unless that instructor has—

(1) 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;

(2) Determined the student pilot is proficient in the maneuvers and procedures prescribed in this section;

(3) Determined the student pilot is proficient in the make and model of aircraft to be flown;

(4) 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

(5) 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.

■ 28. Amend § 61.93 by revising paragraphs (b)(1)(iii), (b)(2)(iii), and (b)(2)(iv) to read as follows:

§ 61.93 Solo cross country flight requirements.

* * * * *

(b) * * *

(1) * * *

(iii) The student pilot has a solo flight endorsement in accordance with § 61.87 of this part;

* * * * *

(2) * * *

(iii) The student has a solo flight endorsement in accordance with § 61.87 of this part; and

(iv) The student has a solo cross country flight endorsement 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.

* * * * *

■ 29. Amend § 61.96 by revising paragraphs (b)(7) and (b)(8); and adding a new paragraph (b)(9) to read as follows:

§ 61.96 Applicability and eligibility requirements: General.

* * * * *

(b) * * *

(7) Pass the practical test on the areas of operation listed in § 61.98(b) that apply to the aircraft category and class rating;

(8) Comply with the sections of this part that apply to the aircraft category and class rating; and

(9) Hold either a student pilot certificate or sport pilot certificate.

■ 30. Amend § 61.101 by revising paragraphs (b) introductory text, (c) introductory text, (d) introductory text, (e)(1)(iii), and (j) introductory text to read as follows:

§ 61.101 Recreational pilot privileges and limitations.

* * * * *

(b) A person who holds a recreational pilot certificate may act as pilot in command of an aircraft on a flight within 50 nautical miles from the departure airport, provided that person has—

* * * * *

(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—

* * * * *

(d) A person who holds a recreational pilot certificate may act as pilot in command of an aircraft in Class B, C, and D airspace, at an airport located in Class B, C, or D airspace, and to, from,

through, or at an airport having an operational control tower, provided that person has—

* * * * *

(e) * * *

(1) * * *

(iii) With a powerplant of more than 180 horsepower, except aircraft certificated in the rotorcraft category; or

* * * * *

(j) In order to fly solo as provided in paragraph (i) 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 (i) of this section, the recreational pilot shall carry the logbook that has been endorsed for each flight by an authorized instructor who:

* * * * *

■ 31. Amend § 61.103 by adding new paragraph (j) to read as follows:

§ 61.103 Eligibility requirements: General.

* * *

(j) Hold a U.S. student pilot certificate, sport pilot certificate, or recreational pilot certificate.

■ 32. Amend § 61.109 by revising paragraphs (a)(5)(ii), (b)(5)(ii), (c)(4)(ii), (d)(4)(ii), and (e)(5)(ii) to read as follows:

§ 61.109 Aeronautical experience.

(a) * * *

(5) * * *

(ii) One solo cross country flight of 150 nautical miles total distance, with full-stop landings at three points, and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

(b) * * *

(5) * * *

(ii) One solo cross country flight of 150 nautical miles total distance, with full-stop landings at three points, and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

(c) * * *

(4) * * *

(ii) One solo cross country flight of 100 nautical miles total distance, with landings at three points, and one segment of the flight being a straight-line distance of more than 25 nautical miles between the takeoff and landing locations; and

* * * * *

(d) * * *

(4) * * *

(ii) One solo cross country flight of 100 nautical miles total distance, with landings at three points, and one segment of the flight being a straight-line distance of more than 25 nautical miles between the takeoff and landing locations; and

* * * * *

(e) * * *

(5) * * *

(ii) One solo cross country flight of 150 nautical miles total distance, with full-stop landings at three points, and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

■ 33. Amend § 61.127 by:

- a. Redesignating paragraphs (b)(4)(vi) through (ix) as (b)(4)(vii) through (x);
■ b. Adding a new paragraph (b)(4)(vi);
■ c. Removing paragraph (b)(5)(vii); and
■ d. Redesignating existing paragraphs (b)(5)(viii) through (xiii) as (b)(5)(vii) through (xii).

The addition reads as follows:

§ 61.127 Flight proficiency.

* * * * *

(b) * * *

(4) * * *

(vi) Ground reference maneuvers;

* * * * *

■ 34. Amend § 61.129 by revising paragraphs (a)(3)(i), (a)(3)(iii), (a)(3)(iv), (a)(4) introductory text, (b)(3)(i), (b)(3)(iii), (b)(3)(iv), (c)(3)(i) through (iii), (c)(4) introductory text, (d)(3)(i) through (iii), (d)(4) introductory text, (e)(3)(i) through (iii), (e)(4) introductory text, (g)(2) introductory text, (g)(3), (g)(4)(ii), (g)(4)(iii), and (i)(3) to read as follows:

§ 61.129 Aeronautical experience.

(a) * * *

(3) * * *

(i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a single engine airplane;

* * * * *

(iii) One 2-hour cross country flight in a single engine airplane in daytime conditions that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight in a single engine airplane in nighttime conditions that consists of a total

straight-line distance of more than 100 nautical miles from the original point of departure; and

* * * * *

(4) Ten hours of solo flight time in a single engine airplane or 10 hours of flight time performing the duties of pilot in command in a single engine airplane with an authorized instructor on board (either of which may be credited towards the flight time requirement under paragraph (a)(2) of this section), on the areas of operation listed under § 61.127(b)(1) that include—

* * * * *

(b) * * *

(3) * * *

(i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a multiengine airplane;

* * * * *

(iii) One 2-hour cross country flight in a multiengine airplane in daytime conditions that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight in a multiengine airplane in nighttime conditions that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure; and

* * * * *

(c) * * *

(3) * * *

(i) Five hours on the control and maneuvering of a helicopter solely by reference to instruments using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;

(ii) One 2-hour cross country flight in a helicopter in daytime conditions that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) One 2-hour cross country flight in a helicopter in nighttime conditions that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure; and

* * * * *

(4) Ten hours of solo flight time in a helicopter or 10 hours of flight time performing the duties of pilot in command in a helicopter with an

authorized instructor on board (either of which may be credited towards the flight time requirement under paragraph (c)(2) of this section), on the areas of operation listed under § 61.127(b)(3) that includes—

* * * * *

(d) * * *

(3) * * *

(i) 2.5 hours on the control and maneuvering of a gyroplane solely by reference to instruments using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;

(ii) One 2-hour cross country flight in a gyroplane in daytime conditions that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) Two hours of flight training during nighttime conditions in a gyroplane at an airport, that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern); and

* * * * *

(4) Ten hours of solo flight time in a gyroplane or 10 hours of flight time performing the duties of pilot in command in a gyroplane with an authorized instructor on board (either of which may be credited towards the flight time requirement under paragraph (d)(2) of this section), on the areas of operation listed in § 61.127(b)(4) that includes—

* * * * *

(e) * * *

(3) * * *

(i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a powered-lift;

(ii) One 2-hour cross country flight in a powered-lift in daytime conditions that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iii) One 2-hour cross country flight in a powered-lift in nighttime conditions that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure; and

* * * * *

(4) Ten hours of solo flight time in a powered-lift or 10 hours of flight time performing the duties of pilot in command in a powered-lift with an

authorized instructor on board (either of which may be credited towards the flight time requirement under paragraph (e)(2) of this section), on the areas of operation listed in § 61.127(b)(5) that includes—

* * * * *

(g) * * *

(2) Thirty hours of pilot in command flight time in airships or performing the duties of pilot in command in an airship with an authorized instructor aboard, which consists of—

* * * * *

(3) Forty hours of instrument time to include—

(i) Instrument training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems; and

(ii) Twenty hours of instrument flight time, of which 10 hours must be in flight in airships.

(4) * * *

(ii) One hour cross country flight in an airship in daytime conditions that consists of a total straight-line distance of more than 25 nautical miles from the point of departure; and

(iii) One hour cross country flight in an airship in nighttime conditions that consists of a total straight-line distance of more than 25 nautical miles from the point of departure.

* * * * *

(i) * * *

(3) Except when fewer hours are approved by the FAA, an applicant for the commercial pilot certificate with the airplane or powered-lift rating who has completed 190 hours of aeronautical experience is considered to have met the total aeronautical experience requirements of this section, provided the applicant satisfactorily completed an approved commercial pilot course under part 142 of this chapter and the approved course was appropriate to the commercial pilot certificate and aircraft rating sought.

■ 35. Amend § 61.153 by revising paragraphs (d)(1), (d)(3), and (h) to read as follows:

§ 61.153 Eligibility requirements: General.

* * * * *

(d) * * *

(1) Holds a commercial pilot certificate with an instrument rating issued under this part;

* * * * *

(3) Holds either a foreign airline transport pilot license with instrument privileges, or a foreign commercial pilot license with an instrument rating, that—

(j) Was issued by a contracting State to the Convention on International Civil Aviation; and

(ii) Contains no geographical limitations.

* * * * *

(h) Comply with the sections of this subpart that apply to the aircraft category and class rating sought.

■ 36. Revise § 61.157 to read as follows:

§ 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.

(v) An aircraft type rating.

(2) A person who is applying for an airline transport pilot practical test must meet—

(i) The eligibility requirements of § 61.153; 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 applies for an aircraft type rating to be added to an airline transport pilot certificate or applies for a type rating to be concurrently completed with an airline transport pilot certificate:

(1) Must receive and log ground and flight training from an authorized instructor on the areas of operation under this section that apply to the aircraft type rating;

(2) Must receive a logbook endorsement from an authorized instructor that certifies the applicant completed the training on the areas of operation listed under paragraph (e) of this section that apply to the aircraft type rating; and

(3) Must perform the practical test in actual or simulated instrument conditions, except as provided under paragraph (g) of this section.

(c) *Exceptions.* A person who applies 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, does not need to comply with the requirements of paragraph (b) of this section if the applicant presents a training record that shows completion of that certificate

holder's approved pilot in command training program for the aircraft type rating.

(d) *Upgrading type ratings.* Any type rating(s) and limitations on a pilot certificate of an applicant who completes an airline transport pilot practical test will be included at the airline transport pilot certification level, provided the applicant passes the practical test in the same category and class of aircraft for which the applicant holds the type rating(s).

(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, part 135, or subpart K of part 91.* (1) Successful completion of any of the following

checks satisfies the flight proficiency requirements of this section for the issuance of an airline transport pilot certificate and/or the appropriate aircraft rating:

(i) A proficiency check under § 121.441 of this chapter.

(ii) Both a competency check under § 135.293(a)(2) and § 135.293(b) of this chapter and pilot-in-command instrument proficiency check under § 135.297 of this chapter.

(iii) Both a competency check under § 91.1065 of this chapter and a pilot-in-command instrument proficiency check under § 91.1069 of this chapter.

(2) The checks specified in paragraph (f)(1) of this section must be conducted by one of the following:

(i) An FAA Aviation Safety Inspector.

(ii) An Aircrew Program Designee who is authorized to perform proficiency checks for the air carrier whose approved training program has been satisfactorily completed by the pilot applicant.

(iii) A Training Center Evaluator who is also authorized to perform the portions of the competency and proficiency checks required by paragraph (f)(1) of this section for the air carrier whose approved training program has been satisfactorily completed by the pilot applicant.

(g) *Aircraft not capable of instrument maneuvers and procedures.* An applicant may add a type rating to an airline transport pilot certificate with an aircraft that is not capable of the instrument maneuvers and procedures required on the practical test under the following circumstances—

(1) The rating is limited to “VFR only.”

(2) The type rating is added to an airline transport pilot certificate that has instrument privileges in that category and class of aircraft.

(3) The “VFR only” limitation may be removed for that aircraft type after the applicant:

(i) Passes a practical test in that type of aircraft on the appropriate instrument maneuvers and procedures in § 61.157; or

(ii) Becomes qualified in § 61.73(d) for that type of aircraft.

(h) *Multiengine airplane with a single-pilot station.* An applicant for a type rating, at the ATP certification level, in a multiengine airplane with a single-pilot station must perform the practical test in the multi-seat version of that airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there

is no multi-seat version of that multiengine airplane.

(i) *Single engine airplane with a single-pilot station.* An applicant for a type rating, at the ATP certification level, in a single engine airplane with a single-pilot station must perform the practical test in the multi-seat version of that single engine airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there is no multi-seat version of that single engine airplane.

(j) *Waiver authority.* An Examiner who conducts a practical test may waive any task for which the FAA has provided waiver authority.

■ 37. Amend § 61.159 by adding a new paragraph (c)(3); and revising paragraphs (d) and (e) to read as follows:

§ 61.159 Aeronautical experience: Airplane category rating.

* * * * *

(c) * * *

(3) Flight-engineer time, provided the flight time—

(i) Is acquired as a U.S. Armed Forces' flight engineer crewmember in an airplane that requires a flight engineer crewmember by the flight manual;

(ii) Is acquired while the person is participating in a flight engineer crewmember training program for the U.S. Armed Forces; and

(iii) Does not exceed 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 is issued an airline transport pilot certificate with the limitation, "Holder does not meet the pilot in command aeronautical experience requirements of ICAO," as prescribed under Article 39 of the Convention on International Civil Aviation, if the applicant does not meet the ICAO requirements contained in Annex 1 "Personnel Licensing" to the Convention on International Civil Aviation, but otherwise meets the aeronautical experience requirements of this section.

(e) An applicant is entitled to an airline transport pilot certificate without the ICAO limitation specified under paragraph (d) of this section when the applicant presents satisfactory evidence of having met the ICAO requirements under paragraph (d) of this section and otherwise meets the aeronautical experience requirements of this section.

■ 38. Amend § 61.167 by revising paragraphs (a) and (b)(3) to read as follows:

§ 61.167 Privileges.

(a) A person who holds an airline transport pilot certificate is entitled to the same privileges as a person who holds a commercial pilot certificate with an instrument rating.

(b) * * *

(3) Only as provided in this section, except that an airline transport pilot who also holds a flight instructor certificate can exercise the instructor privileges under subpart H of this part for which he or she is rated; and

* * * * *

■ 39. Amend § 61.183 by revising paragraph (e)(2) to read as follows:

§ 61.183 Eligibility requirements.

* * * * *

(e) * * *

(2) Holds a 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

* * * * *

■ 40. Amend § 61.187 by revising paragraph (b)(6)(vii) to read as follows:

§ 61.187 Flight proficiency.

* * * * *

(b) * * *

(6) * * *

(vii) Launches and landings;

* * * * *

■ 41. Amend § 61.193 by revising the introductory text to read as follows:

§ 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 to train and issue endorsements that are required for:

* * * * *

■ 42. Amend § 61.195 by revising paragraphs (b), (c), (d)(3) introductory text, (h)(1)(i), (h)(1)(ii), and (h)(3) introductory text, and adding a new paragraph (k) to read as follows:

§ 61.195 Flight instructor limitations and qualifications.

* * * * *

(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 training for the issuance of an instrument rating, a type rating not limited to VFR, or the instrument

training required for commercial pilot and airline transport pilot certificates must hold an instrument rating on his or her pilot certificate and flight instructor certificate that is appropriate to the category and class of aircraft used for the training provided.

(d) * * *

(3) Student pilot's logbook for solo flight in a Class B airspace area or at an airport within Class B airspace unless that flight instructor has—

* * * * *

(h) * * *

(1) * * *

(i) Holds a ground or flight instructor certificate with the appropriate rating, has held that certificate for at least 24 calendar months, and has given at least 40 hours of ground training; or

(ii) Holds a ground or flight instructor certificate with the appropriate rating, and has given at least 100 hours of ground training in an FAA-approved course.

* * * * *

(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 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—

* * * * *

(k) *Training for night vision goggle operations.* A flight instructor may not conduct training for night vision goggle operations unless the flight instructor:

(1) Has a pilot and flight instructor certificate with the applicable category and class rating for the training;

(2) If appropriate, has a type rating on his or her pilot certificate for the aircraft;

(3) Is pilot in command qualified for night vision goggle operations, in accordance with § 61.31(k);

(4) Has logged 100 night vision goggle operations as the sole manipulator of the controls;

(5) Has logged 20 night vision goggle operations as the sole manipulator of the controls in the category and class, and type of aircraft, if aircraft class and type is appropriate, that the training will be given in;

(6) Is qualified to act as pilot in command in night vision goggle operations under § 61.57(f) or (g); and

(7) Has a logbook endorsement from an FAA Aviation Safety Inspector or a person who is authorized by the FAA to provide that logbook endorsement that states the flight instructor is authorized

to perform the night vision goggle pilot in command qualification and recent flight experience requirements under § 61.31(k) and § 61.57(f) and (g).

■ 43. Amend § 61.197 by revising the section heading, paragraph (a) introductory text and paragraph (a)(2) to read as follows:

§ 61.197 Renewal requirements for flight instructor certification.

(a) A person who holds a flight instructor certificate that has not expired may renew that flight instructor certificate by—

* * * * *

(2) Submitting a completed and signed application with the FAA and satisfactorily completing one of the following renewal requirements—

(i) A record of training students showing that, during the preceding 24 calendar months, the flight instructor has endorsed at least 5 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 showing 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.

(iii) A graduation certificate showing that, within the preceding 3 calendar months, the person has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or a combination of both.

(iv) A record showing that, within the preceding 12 months from the month of application, the flight instructor passed an official U.S. Armed Forces military instructor pilot proficiency check.

* * * * *

■ 44. Amend § 61.199 by revising the section heading and paragraph (a) to read as follows:

§ 61.199 Reinstatement requirements of an expired flight instructor certificate.

(a) *Flight instructor certificates.* The holder of an expired flight instructor certificate who has not complied with the flight instructor renewal requirements of § 61.197 may reinstate that flight instructor certificate and ratings by filing a completed and signed application with the FAA and satisfactorily completing one of the following reinstatement requirements:

(1) A flight instructor certification practical test, as prescribed by § 61.183(h), for one of the ratings held on the expired flight instructor certificate.

(2) A flight instructor certification practical test for an additional rating.

* * * * *

■ 45. Amend § 61.213 by revising paragraph (b)(2) to read as follows:

§ 61.213 Eligibility requirements.

* * * * *

(b) * * *

(2) Holds a 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

* * * * *

■ 46. Amend § 61.215 by revising paragraphs (b)(1), (2), and (3) to read as follows:

§ 61.215 Ground instructor privileges.

* * * * *

(b) * * *

(1) Ground training on the aeronautical knowledge areas required for the issuance of any certificate or rating under this part except for the aeronautical knowledge areas required for an instrument rating.

(2) The ground training required for any flight review except for the training required for an instrument rating.

(3) A recommendation for a knowledge test required for the issuance of any certificate or rating under this part except for an instrument rating.

* * * * *

■ 47. Revise § 61.217 to read as follows:

§ 61.217 Recent experience requirements.

The holder of a ground instructor certificate may not perform the duties of a ground instructor unless the person can show that one of the following occurred during the preceding 12 calendar months:

(a) Employment or activity as a ground instructor giving pilot, flight instructor, or ground instructor training;

(b) Employment or activity as a flight instructor giving pilot, flight instructor, or ground instructor ground or flight training;

(c) Completion of an approved flight instructor refresher course and receipt of a graduation certificate for that course; or

(d) An endorsement from an authorized instructor certifying that the person has demonstrated knowledge in the subject areas prescribed under § 61.213(a)(3) and (a)(4), as appropriate.

■ 48. Amend § 61.303 by revising paragraph (a) introductory text and paragraph (b) introductory text to read as follows:

§ 61.303 If I want to operate a light-sport aircraft, what operating limits and endorsement requirements in this subpart must I comply with?

(a) Use the following table to determine what operating limits and endorsement requirements in this subpart, if any, apply to you when you operate a light-sport aircraft. The medical certificate specified in this table must be in compliance with § 61.2 in regards to currency and validity. If you hold a recreational pilot certificate, but not a medical certificate, you must comply with cross country requirements in § 61.101 (c), even if your flight does not exceed 50 nautical miles from your departure airport. You must also comply with requirements in other subparts of this part that apply to your certificate and the operation you conduct.

* * * * *

(b) A person using a U.S. driver's license to meet the requirements of this paragraph must—

* * * * *

■ 49. Amend § 61.403 by revising paragraph (c) to read as follows:

§ 61.403 What are the age, language, and pilot certificate requirements for a flight instructor certificate with a sport pilot rating?

* * * * *

(c) Hold at least a sport pilot certificate with category and class ratings or privileges, as applicable, that are appropriate to the flight instructor privileges sought.

■ 50. Amend § 61.407 by revising paragraph (c)(2) to read as follows:

§ 61.407 What aeronautical knowledge must I have to apply for a flight instructor certificate with a sport pilot rating?

* * * * *

(c) * * *

(2) Hold a teacher's certificate issued by a State, county, city, or municipality; or

* * * * *

■ 51. Amend § 61.429 by revising the introductory text to read as follows:

§ 61.429 May I exercise the privileges of a flight instructor certificate with a sport pilot rating if I hold a flight instructor certificate with another rating?

If you hold a flight instructor certificate, a commercial pilot certificate with an airship rating, or a commercial pilot certificate with a balloon rating issued under this part, and you seek to exercise the privileges of a flight instructor certificate with a sport pilot rating, you may do so without any further showing of proficiency, subject to the following limits:

* * * * *

■ 52. Amend § 61.431 by revising paragraph (a) to read as follows:

§ 61.431 Are there special provisions for obtaining a flight instructor certificate with a sport pilot rating for persons who are registered ultralight instructors with an FAA-recognized ultralight organization?

* * * * *

(a) You must hold either a sport pilot certificate or recreational pilot certificate and meet the requirements § 61.101(c), or hold at least a private pilot certificate issued under this part.

* * * * *

PART 91—GENERAL OPERATING AND FLIGHT RULES

■ 53. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44704, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

■ 54. Amend § 91.205 by redesignating existing paragraph (h) as paragraph (i); and adding a new paragraph (h) to read as follows:

§ 91.205 Powered civil aircraft with standard category U.S. airworthiness certificates; Instrument and equipment requirements.

* * * * *

(h) *Night vision goggle operations.* For night vision goggle operations, the following instruments and equipment must be installed in the aircraft, functioning in a normal manner, and approved for use by the FAA:

- (1) Instruments and equipment specified in paragraph (b) of this section, instruments and equipment specified in paragraph (c) of this section;
- (2) Night vision goggles;
- (3) Interior and exterior aircraft lighting system required for night vision goggle operations;
- (4) Two-way radio communications system;
- (5) Gyroscopic pitch and bank indicator (artificial horizon);
- (6) Generator or alternator of adequate capacity for the required instruments and equipment; and
- (7) Radar altimeter.

* * * * *

PART 141—PILOT SCHOOLS

■ 55. The authority citation for 14 CFR part 141 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709, 44711, 45102–45103, 45301–45302.

■ 56. Revise § 141.5 to read as follows:

§ 141.5 Requirements for a pilot school certificate.

The FAA may issue a pilot school certificate with the appropriate ratings if, within the 24 calendar months before the date application is made, the applicant—

- (a) Completes the application for a pilot school certificate on the form and in the manner prescribed by the FAA;
- (b) Has held a provisional pilot school certificate;
- (c) Meets the applicable requirements under subparts A through C of this part for the school certificate and associated ratings sought;
- (d) Has trained and recommended at least 10 different people for a knowledge test or a practical test, or any combination thereof, and at least 80 percent of those persons passed their tests on the first attempt; and
- (e) Has graduated at least 10 different people from the school's approved training courses.

■ 57. Revise § 141.9 to read as follows:

§ 141.9 Examining authority.

The FAA issues examining authority to a pilot school for a training course if the pilot school and its training course meet the requirements of subpart D of this part.

■ 58. Amend § 141.33 by revising paragraph (d)(2) to read as follows:

§ 141.33 Personnel.

* * * * *

- (d) * * *
- (2) The school has an enrollment of at least 10 students at the time designation is sought.

* * * * *

■ 59. Revise § 141.39 to read as follows:

§ 141.39 Aircraft.

(a) When the school's training facility is located within the U.S., an applicant for a pilot school certificate or provisional pilot school certificate must show that each aircraft used by the school for flight training and solo flights:

- (1) Is a civil aircraft of the United States;
- (2) Is certificated with a standard or primary airworthiness certificate, unless the FAA determines otherwise because of the nature of the approved course;
- (3) Is maintained and inspected in accordance with the requirements for aircraft operated for hire under part 91, subpart E, of this chapter;
- (4) Has two pilot stations with engine-power controls that can be easily reached and operated in a normal manner from both pilot stations (for flight training); and

(5) Is equipped and maintained for IFR operations if used in a course involving IFR en route operations and instrument approaches. 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.

(b) When the school's training facility is located outside the U.S. and the training will be conducted outside the U.S., an applicant for a pilot school certificate or provisional pilot school certificate must show that each aircraft used by the school for flight training and solo flights:

- (1) Is either a civil aircraft of the United States or a civil aircraft of foreign registry;
- (2) Is certificated with a standard or primary airworthiness certificate or an equivalent certification from the foreign aviation authority;
- (3) Is maintained and inspected in accordance with the requirements for aircraft operated for hire under part 91, subpart E of this chapter, or in accordance with equivalent maintenance and inspection from the foreign aviation authority's requirements;

(4) Has two pilot stations with engine-power controls that can be easily reached and operated in a normal manner from both pilot stations (for flight training); and

(5) Is equipped and maintained for IFR operations if used in a course involving IFR en route operations and instrument approaches. 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.

■ 60. Amend § 141.53 by revising paragraph (c) to read as follows:

§ 141.53 Approval procedures for a training course: General.

* * * * *

(c) *Training courses.* An applicant for a pilot school certificate or provisional pilot school certificate may request approval for the training courses specified under § 141.11(b).

■ 61. Amend § 141.55 by revising paragraphs (d) introductory text, (e) introductory text, and (e)(2)(ii) introductory text to read as follows:

§ 141.55 Training course: Contents.

* * * * *

(d) A pilot school may request and receive initial approval for a period of not more than 24 calendar months for any training course under this part that does not meet the minimum ground and

flight training time requirements, provided the following provisions are met:

* * * * *

(e) A pilot school may request and receive final approval for any training course under this part that does not meet the minimum ground and flight training time requirements, provided the following conditions are met:

* * * * *

(2) * * *

(ii) At least 80 percent of those students passed the practical or knowledge test, as appropriate, on the first attempt, and that test was given by—

* * * * *

■ 62. Amend § 141.77 by revising paragraph (c) to read as follows:

§ 141.77 Limitations.

* * * * *

(c) A student may be given credit towards the curriculum requirements of a course for previous training under the following conditions:

(1) If the student completed a proficiency test and knowledge test that was conducted by the receiving pilot school and the previous training was based on a part 141- or a part 142-approved flight training course, the credit is limited to not more than 50 percent of the flight training requirements of the curriculum.

(2) If the student completed a knowledge test that was conducted by the receiving pilot school and the previous training was based on a part 141- or a part 142-approved aeronautical knowledge training course, the credit is limited to not more than 50 percent of the aeronautical knowledge training requirements of the curriculum.

(3) If the student completed a proficiency test and knowledge test that was conducted by the receiving pilot school and the training was received from other than a part 141- or a part 142-approved flight training course, the credit is limited to not more than 25 percent of the flight training requirements of the curriculum.

(4) If the student completed a knowledge test that was conducted by the receiving pilot school and the previous training was received from other than a part 141- or a part 142-approved aeronautical knowledge training course, the credit is limited to not more than 25 percent of the aeronautical knowledge training requirements of the curriculum.

(5) Completion of previous training must be certified in the student's training record by the training provider or a management official within the

training provider's organization, and must contain—

(i) The kind and amount of training provided; and

(ii) The result of each stage check and end-of-course test, if appropriate.

■ 63. Amend § 141.85 by revising paragraphs (a) introductory text and (a)(1) to read as follows:

§ 141.85 Chief instructor responsibilities.

(a) A chief instructor designated for a pilot school or provisional pilot school is responsible for:

(1) Certifying each student's training record, graduation certificate, stage check and end-of-course test reports, and recommendation for course completion, unless the duties are delegated by the chief instructor to an assistant chief instructor or recommending instructor;

* * * * *

■ 64. Amend appendix B to part 141 by revising paragraph 2; paragraphs 4.(b)(1)(iii), 4.(b)(2)(iii), and 4.(b)(5)(iii); and 5.(a)(1), 5.(b)(1), 5.(c)(1), 5.(d)(1), and 5.(e)(1) to read as follows:

Appendix B to Part 141—Private Pilot Certification Course

* * * * *

2. Eligibility for enrollment. A person must hold either a recreational pilot certificate, sport pilot certificate, or student pilot certificate before enrolling in the solo flight phase of the private pilot certification course.

* * * * *

- 4. * * *
(b) * * *
(1) * * *

(iii) Three hours of flight training in a single engine airplane on the control and maneuvering of a single engine airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

* * * * *

(2) * * *

(iii) Three hours of flight training in a multiengine airplane on the control and maneuvering of a multiengine airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

* * * * *

(5) * * *

(iii) Three hours of flight training in a powered-lift on the control and maneuvering of a powered-lift solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and

the use of navigation systems/facilities and radar services appropriate to instrument flight; and

* * * * *

5. * * *

(a) * * *

(1) One solo 100 nautical miles cross country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

(b) * * *

(1) One 100 nautical miles cross country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

(c) * * *

(1) One solo 100 nautical miles cross country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of more than 25 nautical miles between the takeoff and landing locations; and

* * * * *

(d) * * *

(1) One solo 100 nautical miles cross country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of more than 25 nautical miles between the takeoff and landing locations; and

* * * * *

(e) * * *

(1) One solo 100 nautical miles cross country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

* * * * *

■ 65. Amend appendix C to part 141 by revising paragraphs 4.(b)(2) through 4.(b)(4); adding new paragraphs 4.(b)(5) and (6); and revising the introductory text of paragraph 4.(d) to read as follows:

Appendix C to Part 141—Instrument Rating Course

* * * * *

4. * * *

(b) * * *

(2) Credit for training in a flight simulator that meets the requirements of § 141.41(a) cannot exceed 50 percent of the total flight training hour requirements of the course or of this section, whichever is less.

(3) Credit for training in a flight training device that meets the requirements of § 141.41(b) cannot exceed 40 percent of the total flight training hour requirements of the course or of this section, whichever is less.

(4) Credit for training in flight simulators and flight training devices, if used in combination, cannot exceed 50 percent of the total flight training hour requirements of the course or of this section, whichever is less. However, credit for training in a flight

training device cannot exceed the limitation provided for in paragraph (b)(3) of this section.

(5) Credit for training in an approved aviation training device cannot exceed 10 percent of the total flight training hour requirements of the course or of this section, whichever is less.

(6) Credit for training in flight simulators, flight training devices, and aviation training devices, if used in combination, cannot exceed 50 percent of the total flight training hour requirements of the course or of this section, whichever is less. However, credit for training in an aviation training device cannot exceed the limitation provided under paragraph (b)(5) of this section.

(d) Each course must include flight training on the areas of operation listed under this paragraph appropriate to the instrument aircraft category and class rating (if a class rating is appropriate) for which the course applies:

- 66. Amend appendix D to part 141 by:
 - a. Revising paragraphs 4.(b)(1)(i) through (iv);
 - b. Revising paragraphs 4.(b)(2)(i), (iii), and (iv);
 - c. Revising paragraphs 4.(b)(3)(i) through (iii);
 - d. Revising paragraphs 4.(b)(4)(i) through (iii), 4.(b)(5)(i) through (iii);
 - e. Revising paragraphs 4.(b)(7)(i) through (iii);
 - f. Redesignating paragraphs 4.(d)(4)(vi) through (ix) as 4.(d)(4)(vii) through (x);
 - g. Adding a new paragraph 4.(d)(4)(vi); and
 - h. Revising the introductory text of paragraphs 5.(a), (b), (c), (d), and (e).

The revisions and addition read as follows:

Appendix D to Part 141—Commercial Pilot Certification Course

- 4. * * *
 - (b) * * *
 - (1) * * *
 - (i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a single engine airplane;
 - (ii) Ten hours of training in an airplane that has a retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;
 - (iii) One 2-hour cross country flight in daytime conditions in a single engine airplane that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;
 - (iv) One 2-hour cross country flight in nighttime conditions in a single engine airplane that consists of a total straight-line

- distance of more than 100 nautical miles from the original point of departure; and
 - * * * * *
 - (2) * * *
 - (i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required on instrument training must be in a multiengine airplane;
 - * * * * *
 - (iii) One 2-hour cross country flight in daytime conditions in a multiengine airplane that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;
 - (iv) One 2-hour cross country flight in nighttime conditions in a multiengine airplane that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;
 - * * * * *
 - (3) * * *
 - (i) Five hours on the control and maneuvering of a helicopter solely by reference to instruments, including using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;
 - (ii) One 2-hour cross country flight in daytime conditions in a helicopter that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure;
 - (iii) One 2-hour cross country flight in nighttime conditions in a helicopter that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure; and
 - * * * * *
 - (4) * * *
 - (i) 2.5 hours on the control and maneuvering of a gyroplane solely by reference to instruments, including using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;
 - (ii) One 2-hour cross country flight in daytime conditions in a gyroplane that consists of a total straight-line distance of more than 50 nautical miles from the original point of departure;
 - (iii) Two hours of flight training in nighttime conditions in a gyroplane at an airport, that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern); and
 - * * * * *
 - (5) * * *
 - (i) Ten hours of instrument training using a view-limiting device including attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. Five hours of the 10 hours required

- on instrument training must be in a powered-lift;
 - (ii) One 2-hour cross country flight in daytime conditions in a powered-lift that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure;
 - (iii) One 2-hour cross country flight in nighttime conditions in a powered-lift that consists of a total straight-line distance of more than 100 nautical miles from the original point of departure; and
 - * * * * *
 - (7) * * *
 - (i) Three hours of instrument training in an airship, including using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;
 - (ii) One hour cross country flight in daytime conditions in an airship that consists of a total straight-line distance of more than 25 nautical miles from the original point of departure;
 - (iii) One hour cross country flight in nighttime conditions in an airship that consists of a total straight-line distance of more than 25 nautical miles from the original point of departure; and
 - * * * * *
 - (d) * * *
 - (4) * * *
 - (vi) Ground reference maneuvers;
 - * * * * *
 - 5. * * *
 - (a) *For an airplane single engine course.* Ten hours of solo flight time in a single engine airplane, or 10 hours of flight time while performing the duties of pilot in command in a single engine airplane with an authorized instructor on board. The training must consist of the approved areas of operation under paragraph (d)(1) of section 4 of this appendix, and include—
 - * * * * *
 - (b) *For an airplane multiengine course.* Ten hours of solo flight time in a multiengine airplane, or 10 hours of flight time while performing the duties of pilot in command in a multiengine airplane with an authorized instructor on board. The training must consist of the approved areas of operation under paragraph (d)(2) of section 4 of this appendix, and include—
 - * * * * *
 - (c) *For a rotorcraft helicopter course.* Ten hours of solo flight time in a helicopter, or 10 hours of flight time while performing the duties of pilot in command in a helicopter with an authorized instructor on board. The training must consist of the approved areas of operation under paragraph (d)(3) of section 4 of this appendix, and include—
 - * * * * *
 - (d) *For a rotorcraft-gyroplane course.* Ten hours of solo flight time in a gyroplane, or 10 hours of flight time while performing the duties of pilot in command in a gyroplane with an authorized instructor on board. The training must consist of the approved areas of operation under paragraph (d)(4) of section 4 of this appendix, and include—
 - * * * * *

(e) For a powered-lift course. Ten hours of solo flight time in a powered-lift, or 10 hours of flight time while performing the duties of pilot in command in a powered-lift with an authorized instructor on board. The training must consist of the approved areas of operation under paragraph (d)(5) of section No. 4 of this appendix, and include—

* * * * *

■ 67. Amend appendix E to part 141 by:

■ a. Revising the introductory text of paragraph 2;

■ b. Removing paragraph 2.(a);

■ c. Redesignating paragraph 2.(b) as new paragraph (a);

■ d. Revising newly re-designated paragraph 2.(a); and

■ e. Redesignating existing paragraphs 2.(c) and (d) as paragraph 2(b) and (c).

The revisions read as follows:

Appendix E to Part 141—Airline Transport Pilot Certification Course

* * * * *

2. *Eligibility for enrollment.* Before completing the flight portion of the airline transport pilot certification course, a person must meet the aeronautical experience requirements for an airline transport pilot certificate under part 61, subpart G of this chapter that is appropriate to the aircraft category and class rating for which the course applies, and:

(a) Hold a commercial pilot certificate and an instrument rating, or an airline transport pilot certificate with instrument privileges;

* * * * *

■ 68. Amend appendix I to part 141 by revising the appendix heading; and revising paragraphs 3 and 4 to read as follows:

Appendix I to Part 141—Additional Aircraft Category and/or Class Rating Course

* * * * *

3. *Aeronautical knowledge training.*

(a) For a recreational pilot certificate, the following aeronautical knowledge areas must be included in a 10-hour ground training course for an additional aircraft category and/or class rating:

(1) Applicable regulations issued by the Federal Aviation Administration for recreational pilot privileges, limitations, and flight operations;

(2) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(3) Effects of density altitude on takeoff and climb performance;

(4) Weight and balance computations;

(5) Principles of aerodynamics, powerplants, and aircraft systems;

(6) Stall awareness, spin entry, spins, and spin recovery techniques if applying for an airplane single engine rating; and

(7) Preflight action that includes 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.

(b) For a private pilot certificate, the following aeronautical knowledge areas must be included in a 10-hour ground training course for an additional class rating or a 15-hour ground training course for an additional aircraft category and class rating:

(1) Applicable regulations issued by the Federal Aviation Administration for private pilot privileges, limitations, and flight operations;

(2) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(3) Effects of density altitude on takeoff and climb performance;

(4) Weight and balance computations;

(5) Principles of aerodynamics, powerplants, and aircraft systems;

(6) Stall awareness, spin entry, spins, and spin recovery techniques if applying for an airplane single engine rating; and

(7) Preflight action that includes 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.

(c) For a commercial pilot certificate, the following aeronautical knowledge areas must be included in a 15-hour ground training course for an additional class rating or a 20-hour ground training course for an additional aircraft category and class rating:

(1) Applicable regulations issued by the Federal Aviation Administration for commercial pilot privileges, limitations, and flight operations;

(2) Basic aerodynamics and the principles of flight;

(3) Safe and efficient operation of aircraft;

(4) Weight and balance computations;

(5) Use of performance charts;

(6) Significance and effects of exceeding aircraft performance limitations;

(7) Principles and functions of aircraft systems;

(8) Maneuvers, procedures, and emergency operations appropriate to the aircraft;

(9) Nighttime and high-altitude operations; and

(10) Procedures for flight and ground training for lighter-than-air ratings.

(d) For an airline transport pilot certificate, the following aeronautical knowledge areas must be included in a 25-hour ground training course for an additional aircraft category and/or class rating:

(1) Applicable regulations issued by the Federal Aviation Administration for airline transport pilot privileges, limitations, and flight operations;

(2) Meteorology, including knowledge 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 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) Course for an additional airplane category and single engine class rating.

(1) For the recreational pilot certificate, the course must include 15 hours of flight training on the areas of operations under part 141, appendix A, paragraph 4(c)(1) that include—

(i) Two hours of flight training to an airport and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with three takeoffs and three landings, except as provided under § 61.100 of this chapter; and

(ii) Three hours of flight training in an aircraft with the airplane category and single engine class within 2 calendar months before the date of the practical test.

(2) For the private pilot certificate, the course must include 20 hours of flight training on the areas of operations under part 141, appendix B, paragraph 4(d)(1). A flight simulator and flight training device cannot be used to meet more than 4 hours of the training requirements, and the use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country training in a single engine airplane, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a single engine airplane that includes one cross country flight of more than 100 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in a single engine airplane on the control and maneuvering of the airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in a single engine airplane within 2 calendar months before the date of the practical test.

(3) For the commercial pilot certificate, the course must include 55 hours of flight training on the areas of operations under part 141, appendix D, paragraph 4(d)(1). A flight simulator and flight training device cannot be

used to meet more than 16.5 hours of the training requirements, and the use of the flight training device is limited to 11 hours of the 16.5 hours permitted. The course must include—

(i) Five hours of instrument training in a single engine airplane that includes training using a view-limiting device on attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) Ten hours of training in an airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One 2-hour cross country flight during daytime conditions in a single engine airplane, a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight during nighttime conditions in a single engine airplane, a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) Three hours in a single engine airplane within 2 calendar months before the date of the practical test.

(4) For the airline transport pilot certificate, the course must include 25 hours flight training, including 15 hours of instrument training, in a single engine airplane on the areas of operation under part 141, appendix E, paragraph 4.(c). A flight simulator and flight training device cannot be used to meet more than 12.5 hours of the training requirements; and the use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(b) Course for an additional airplane category and multiengine class rating.

(1) For the private pilot certificate, the course requires 20 hours flight training on the areas of operations under part 141, appendix B, paragraph 4.(d)(2). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country training in a multiengine airplane, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a multiengine airplane that includes one cross country flight of more than 100 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in a multiengine airplane on the control and maneuvering of a multiengine airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in a multiengine airplane in preparation for the practical test within 2 calendar months before the date of the test.

(2) For the commercial pilot certificate, the course requires 55 hours flight training on

the areas of operations under part 141, appendix D, paragraph 4.(d)(2). A flight simulator and flight training device cannot be used more than 16.5 hours to meet the training requirements, and use of the flight training device is limited to 11 hours of the 16.5 hours permitted. The course must include—

(i) Five hours of instrument training in a multiengine airplane including training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) Ten hours of training in a multiengine airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One 2-hour cross country flight during daytime conditions in a multiengine airplane, and a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight during nighttime conditions in a multiengine airplane, and a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) Three hours in a multiengine airplane within 2 calendar months before the date of the practical test.

(3) For the airline transport pilot certificate, the course requires 25 hours of flight training in a multiengine airplane on the areas of operation under part 141, appendix E, paragraph 4.(c) that includes 15 hours of instrument training. A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(c) Course for an additional rotorcraft category and helicopter class rating.

(1) For the recreational pilot certificate, the course requires 15 hours of flight training on the areas of operations under part 141, appendix A, paragraph 4.(c)(2) that includes—

(i) Two hours of flight training to and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with three takeoffs and three landings, except as provided under § 61.100 of this chapter; and

(ii) Three hours of flight training in a rotorcraft category and a helicopter class aircraft within 2 calendar months before the date of the practical test.

(2) For the private pilot certificate, the course requires 20 hours flight training on the areas of operations under part 141, appendix B, paragraph 4.(d)(3). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Except as provided under § 61.111 of this chapter, 3 hours of cross country flight training in a helicopter;

(ii) Three hours of nighttime flight training in a helicopter that includes one cross country flight of more than 50 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing

involving a flight in the traffic pattern) at an airport; and

(iii) Three hours of flight training in a helicopter within 2 calendar months before the date of the practical test.

(3) The commercial pilot certificate level requires 30 hours flight training on the areas of operations under appendix D of part 141, paragraph 4.(d)(3). A flight simulator and flight training device cannot be used more than 9 hours to meet the training requirements, and use of the flight training device is limited to 6 hours of the 9 hours permitted. The course must include—

(i) Five hours on the control and maneuvering of a helicopter solely by reference to instruments, and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;

(ii) One 2-hour cross country flight during daytime conditions in a helicopter, a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) One 2-hour cross country flight during nighttime conditions in a helicopter, a total straight-line distance of more than 50 nautical miles from the original point of departure; and

(iv) Three hours in a helicopter within 2 calendar months before the date of the practical test.

(4) For the airline transport pilot certificate, the course requires 25 hours of flight training, including 15 hours of instrument training, in a helicopter on the areas of operation under part 141, appendix E, paragraph 4.(c). A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(d) Course for an additional rotorcraft category and a gyroplane class rating.

(1) For the recreational pilot certificate, the course requires 15 hours flight training on the areas of operations under part 141, appendix A, paragraph 4.(c)(3) that includes—

(i) Two hours of flight training to and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with three takeoffs and three landings, except as provided under § 61.100 of this chapter; and

(ii) Three hours of flight training in a gyroplane class within 2 calendar months before the date of the practical test.

(2) For the private pilot certificate, the course requires 20 hours flight training on the areas of operations under part 141, appendix B, paragraph 4.(d)(4). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country flight training in a gyroplane, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a gyroplane that includes one cross country flight of more than 50 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport; and

(iii) Three hours of flight training in a gyroplane within 2 calendar months before the date of the practical test.

(3) For the commercial pilot certificate, the course requires 30 hours flight training on the areas of operations of appendix D to part 141, paragraph 4.(d)(4). A flight simulator and flight training device cannot be used more than 6 hours to meet the training requirements, and use of the flight training device is limited to 6 hours of the 9 hours permitted. The course must include—

(i) 2.5 hours on the control and maneuvering of a gyroplane solely by reference to instruments, and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device.

(ii) One 2-hour cross country flight during daytime conditions in a gyroplane, a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) Two hours of flight training during nighttime conditions in a gyroplane at an airport, that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern); and

(iv) Three hours in a gyroplane within 2 calendar months before the date of the practical test.

(e) Course for an additional lighter-than-air category and airship class rating.

(1) For the private pilot certificate, the course requires 20 hours of flight training on the areas of operation under part 141, appendix B, paragraph 4.(d)(7). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country flight training in an airship, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in an airship that includes one cross country flight of more than 25 nautical miles total distance and 5 takeoffs and 5 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in an airship on the control and maneuvering of an airship solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in an airship within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 55 hours of flight training on

the areas of operation under part 141, appendix D, paragraph 4.(d)(7). A flight simulator and flight training device cannot be used more than 16.5 hours to meet the training requirements, and use of the flight training device is limited to 11 hours of the 16.5 hours permitted. The course must include—

(i) Three hours of instrument training in an airship that must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) One hour cross country flight during daytime conditions in an airship that consists of, a total straight-line distance of more than 25 nautical miles from the original point of departure;

(iii) One hour cross country flight during nighttime conditions in an airship that consists of a total straight-line distance of more than 25 nautical miles from the original point of departure; and

(iv) Three hours of flight training in an airship within 2 calendar months before the date of the practical test.

(f) Course for an additional lighter-than-air category and a gas balloon class rating.

(1) For the private pilot certificate, the course requires eight hours of flight training that includes 5 training flights on the areas of operations under part 141, appendix B, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 1.6 hours to meet the training requirements, and use of the flight training device is limited to 1.2 hours of the 1.6 hours permitted. The course must include—

(i) Two flights of 1 hour each;

(ii) One flight involving a controlled ascent to 3,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of flight training that includes eight training flights on the areas of operations under part 141, appendix D, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 3 hours to meet the training requirements, and use of the flight training device is limited to 2 hours of the 3 hours permitted. The course must include—

(i) Two flights of 1 hour each;

(ii) One flight involving a controlled ascent to 5,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(g) Course for an additional lighter-than-air category and a hot air balloon class rating.

(1) For the private pilot certificate, the course requires eight hours of flight training that includes 5 training flights on the areas of operations under part 141, appendix B, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 1.6 hours to meet the training requirements, and use of the flight training device is limited to 1.2 hours of the 1.6 hours permitted. The course must include—

(i) Two flights of 30 minutes each;

(ii) One flight involving a controlled ascent to 2,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of flight training that includes eight training flights on the areas of operation under part 141, appendix D, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 3 hours to meet the training requirements, and use of the flight training device is limited to 2 hours of the 3 hours permitted. The course must include—

(i) Two flights of 30 minutes each;

(ii) One flight involving a controlled ascent to 3,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(h) Course for an additional powered-lift category rating.

(1) For the private pilot certificate, the course requires 20 hours flight training on the areas of operations under part 141, appendix B, paragraph 4.(d)(5). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country flight training in a powered-lift except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a powered-lift that includes one cross-country flight of more than 100 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in a powered-lift on the control and maneuvering of a powered-lift solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight;

(iv) Three hours of flight training in a powered-lift within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 55 hours flight training on the areas of operations under part 141, appendix D, paragraph 4.(d)(5). A flight simulator and flight training device cannot be used more than 16.5 hours to meet the training requirements, and use of the flight training device is limited to 11 hours of the 16.5 hours permitted. The course includes—

(i) Five hours of instrument training in a powered-lift that must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) One 2-hour cross country flight during daytime conditions in a powered-lift, a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iii) One 2-hour cross country flight during nighttime conditions in a powered-lift, a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(iv) Three hours of flight training in a powered-lift within 2 calendar months before the date of the practical test.

(3) For the airline transport pilot certificate, the course requires 25 hours flight training in a powered-lift on the areas of operation under part 141, appendix E, paragraph 4(c) that includes 15 hours of instrument training. A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(i) Course for an additional glider category rating.

(1) For the private pilot certificate, the course requires 4 hours of flight training in a glider on the areas of operations under part 141, appendix B, paragraph 4(d)(6). A flight simulator and flight training device cannot be used more than 0.8 hours to meet the training requirements, and use of the flight training device is limited to 0.6 hours of the 0.8 hours permitted. The course must include—

(i) Five training flights in a glider with a certificated flight instructor on the launch/tow procedures approved for the course and on the appropriate approved areas of operation listed under appendix B, paragraph 4(d)(6) of this part; and

(ii) Three training flights in a glider with a certificated flight instructor within 2 calendar months before the date of the practical test.

(2) The commercial pilot certificate level requires 4 hours of flight training in a glider on the areas of operation under part 141, appendix D, paragraph 4.(d)(6). A flight simulator and flight training device cannot be used more than 0.8 hours to meet the training requirements, and use of the flight training device is limited to 0.6 hours of the 0.8 hours permitted. The course must include—

(j) Course for an airplane additional single engine class rating.

(1) For the private pilot certificate, the course requires 3 hours of flight training in the areas of operations under part 141, appendix B, paragraph 4.(d)(1). A flight simulator and flight training device cannot be used more than 0.6 hours to meet the training requirements, and use of the flight training device is limited to 0.4 hours of the 0.6 hours permitted. The course must include—

(i) Three hours of cross country training in a single engine airplane, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a single engine airplane that includes one cross country flight of more than 100 nautical miles total distance in a single engine airplane and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in a single engine airplane on the control and maneuvering of a single engine airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in a single engine airplane within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of flight training on

the areas of operations under part 141, appendix D, paragraph 4.(d)(1).

(i) Five hours of instrument training in a single engine airplane that must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems.

(ii) Ten hours of flight training in an airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered.

(iii) One 2-hour cross country flight during daytime conditions in a single engine airplane and a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight during nighttime conditions in a single engine airplane and a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) Three hours of flight training in a single engine airplane within 2 calendar months before the date of the practical test.

(3) For the airline transport pilot certificate, the course requires 25 hours flight training in a single engine airplane on the areas of operation under appendix E to part 141, paragraph 4.(c), that includes 15 hours of instrument training. A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(k) Course for an airplane additional multiengine class rating.

(1) For the private pilot certificate, the course requires 3 hours of flight training on the areas of operations of appendix B to part 141, paragraph 4(d)(2). A flight simulator and flight training device cannot be used more than 0.6 hours to meet the training requirements, and use of the flight training device is limited to 0.4 hours of the 0.6 hours permitted. The course must include—

(i) Three hours of cross country training in a multiengine airplane, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a multiengine airplane that includes one cross country flight of more than 100 nautical miles total distance in a multiengine airplane, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in a multiengine airplane on the control and maneuvering of a multiengine airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in a multiengine airplane within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of training on the areas of operations under appendix D of part 141, paragraph 4(d)(2). A flight simulator and flight training device cannot be used more

than 3 hours to meet the training requirements, and use of the flight training device is limited to 2 hours of the 3 hours permitted. The course must include—

(i) Five hours of instrument training in a multiengine airplane that must include training using a view-limiting device on for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) Ten hours of training in a multiengine airplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(iii) One 2-hour cross country flight during daytime conditions in a multiengine airplane and, a total straight-line distance of more than 100 nautical miles from the original point of departure;

(iv) One 2-hour cross country flight during nighttime conditions in a multiengine airplane and, a total straight-line distance of more than 100 nautical miles from the original point of departure; and

(v) Three hours of flight training in a multiengine airplane within 2 calendar months before the date of the practical test.

(3) For the airline transport pilot certificate, the course requires 25 hours of training in a multiengine airplane on the areas of operation of appendix E to part 141, paragraph 4.(c) that includes 15 hours of instrument training. A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(l) Course for a rotorcraft additional helicopter class rating.

(1) For the recreational pilot certificate, the course requires 3 hours of flight training on the areas of operations under appendix A of part 141, paragraph 4.(c)(2) that includes—

(i) Two hours of flight training to and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with three takeoffs and three landings, except as provided under § 61.100 of this chapter; and

(ii) Three hours of flight training in a helicopter within 2 calendar months before the date of the practical test.

(2) For the private pilot certificate, the course requires 3 hours flight training on the areas of operations under appendix B of part 141, paragraph 4.(d)(3). A flight simulator and flight training device cannot be used more than 0.6 hours to meet the training requirements, and use of the flight training device is limited to 0.4 hours of the 0.6 hours permitted. The course must include—

(i) Three hours of cross country training in a helicopter, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in a helicopter that includes one cross country flight of more than 50 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport; and

(iii) Three hours of flight training in a helicopter within 2 calendar months before the date of the practical test.

(3) For the commercial pilot certificate, the course requires 5 hours flight training on the areas of operations under appendix D of part 141, paragraph 4.(d)(3). Use of a flight simulator and flight training device in the approved training course cannot exceed 1 hour; however, use of the flight training device cannot exceed 0.7 of the one hour. The course must include—

(i) Five hours on the control and maneuvering of a helicopter solely by reference to instruments, and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device;

(ii) One 2-hour cross country flight during daytime conditions in a helicopter and, a total straight-line distance of more than 50 nautical miles from the original point of departure;

(iii) One 2-hour cross country flight during nighttime conditions in a helicopter and a total straight-line distance of more than 50 nautical miles from the original point of departure; and

(iv) Three hours of flight training in a helicopter within 2 calendar months before the date of the practical test.

(4) For the airline transport pilot certificate, the course requires 25 hours of flight training in a helicopter on the areas of operation under appendix E of part 141, paragraph 4.(c) that includes 15 hours of instrument training. A flight simulator and flight training device cannot be used more than 12.5 hours to meet the training requirements, and use of the flight training device is limited to 6.25 hours of the 12.5 hours permitted.

(m) Course for a rotorcraft additional gyroplane class rating.

(1) For the recreational pilot certificate, the course requires 3 hours flight training on the areas of operations of appendix A to part 141, paragraph 4.(c)(3) that includes—

(i) Except as provided under § 61.100 of this chapter, 2 hours of flight training to and at an airport that is located more than 25 nautical miles from the airport where the applicant normally trains, with three takeoffs and three landings; and

(ii) Within 2 calendar months before the date of the practical test, 3 hours of flight training in a gyroplane.

(2) For the private pilot certificate, the course requires 3 hours flight training on the areas of operations of appendix B to part 141, paragraph 4.(d)(4). A flight simulator and flight training device cannot be used more than 0.6 hours to meet the training requirements, and use of the flight training device is limited to 0.4 hours of the 0.6 hours permitted. The course must include—

(i) Three hours of cross country training in a gyroplane;

(ii) Three hours of nighttime flight training in a gyroplane that includes one cross country flight of more than 50 nautical miles total distance, and 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport; and

(iii) Three hours of flight training in a gyroplane within 2 calendar months before the date of the practical test.

(3) For the commercial pilot certificate, the course requires 5 hours flight training on the areas of operations of appendix D to part 141, paragraph 4.(d)(4). A flight simulator and flight training device cannot be used more than 1 hour to meet the training requirements, and use of the flight training device is limited to 0.7 hours of the 1 hour permitted. The course must include—

(i) 2.5 hours on the control and maneuvering of a gyroplane solely by reference to instruments, and must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems. This aeronautical experience may be performed in an aircraft, flight simulator, flight training device, or an aviation training device.

(ii) Three hours of cross country flight training in a gyroplane, except as provided under § 61.111 of this chapter;

(iii) Two hours of flight training during nighttime conditions in a gyroplane at an airport that includes 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern); and

(iv) Three hours of flight training in a gyroplane within 2 calendar months before the date of the practical test.

(n) Course for a lighter-than-air additional airship class rating.

(1) For the private pilot certificate, the course requires 20 hours of flight training on the areas of operation under appendix B of part 141, paragraph 4.(d)(7). A flight simulator and flight training device cannot be used more than 4 hours to meet the training requirements, and use of the flight training device is limited to 3 hours of the 4 hours permitted. The course must include—

(i) Three hours of cross country training in an airship, except as provided under § 61.111 of this chapter;

(ii) Three hours of nighttime flight training in an airship that includes one cross country flight of more than 25 nautical miles total distance, and 5 takeoffs and 5 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport;

(iii) Three hours of flight training in an airship on the control and maneuvering of an airship solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight; and

(iv) Three hours of flight training in an airship within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 55 hours of flight training on the areas of operation under appendix D of part 141, paragraph 4.(d)(7). A flight simulator and flight training device cannot be used more than 16.5 hours to meet the training requirements, and use of the flight training device is limited to 11 hours of the 16.5 hours permitted. The course must include—

(i) Three hours of instrument training in an airship that must include training using a view-limiting device for attitude instrument flying, partial panel skills, recovery from unusual flight attitudes, and intercepting and tracking navigational systems;

(ii) One hour cross country flight during daytime conditions in an airship that consists of a total straight-line distance of more than 25 nautical miles from the original point of departure;

(iii) One hour cross country flight during nighttime conditions in an airship that consists of a total straight-line distance of more than 25 nautical miles from the original point of departure; and

(iv) Three hours of flight training in an airship within 2 calendar months before the date of the practical test.

(o) Course for a lighter-than-air additional gas balloon class rating.

(1) For the private pilot certificate, the course requires eight hours of flight training that includes 5 training flights on the areas of operations under appendix B of part 141, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 1.6 hours to meet the training requirements, and use of the flight training device is limited to 1.2 hours of the 1.6 hours permitted. The course must include—

(i) Two flights of 1 hour each;

(ii) One flight involving a controlled ascent to 3,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of flight training that includes eight training flights on the areas of operations of appendix D to part 141, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 3 hours to meet the training requirements, and use of the flight training device is limited to 2 hours of the 3 hours permitted. The course must include—

(i) Two flights of 1 hour each;

(ii) One flight involving a controlled ascent to 5,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(p) Course for a lighter-than-air additional hot air balloon class rating.

(1) For the private pilot certificate, the course requires 8 hours of flight training that includes 5 training flights on the areas of operations of appendix B to part 141, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 1.6 hours to meet the training requirements, and use of the flight training device is limited to 1.2 hours of the 1.6 hours permitted. The course must include—

(i) Two flights of 30 minutes each;

(ii) One flight involving a controlled ascent to 2,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

(2) For the commercial pilot certificate, the course requires 10 hours of flight training that includes eight training flight on the areas of operation of appendix D to part 141, paragraph 4.(d)(8). A flight simulator and flight training device cannot be used more than 3 hours to meet the training requirements, and use of the flight training

device is limited to 2 hours of the 3 hours permitted. The course must include—

- (i) Two flights of 30 minutes each.
- (ii) One flight involving a controlled ascent to 3,000 feet above the launch site; and

(iii) Two flights within 2 calendar months before the date of the practical test.

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Issued in Washington, DC, on August 5, 2009.

J. Randolph Babbitt,

Administrator.

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