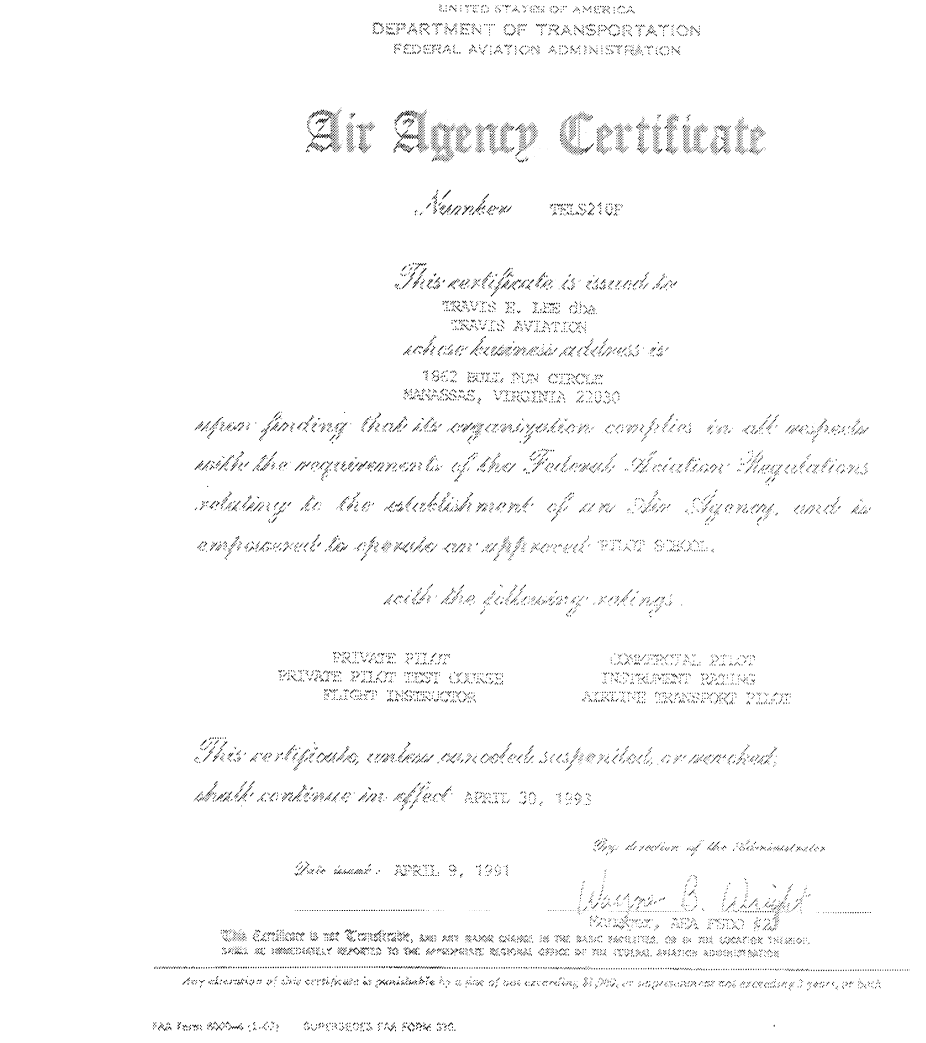
U.S. Department
of Transportation
**'Federal Aviat bn
Administration**

ADVISORY CIRCULAR

AC NO: 141-1A



UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Agency Certificate

Number TELS210P

This certificate is issued to
TRAVIS E. LEE dba
TRAVIS AVIATION
whose business address is
1962 BULL RUN CIRCLE
MANASSAS, VIRGINIA 22030

upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved PILOT SCHOOL

with the following ratings

PRIVATE PILOT
PRIVATE PILOT TEST GUIDE
FLIGHT INSTRUCTOR

COMMERCIAL PILOT
INSTRUMENT RATING
AIRLINE TRANSPORT PILOT

This certificate, unless surrendered, suspended, or revoked, shall continue in effect APRIL 30, 1993

By direction of the Administrator

Date issued APRIL 9, 1991

Wayne B. Wright

MANAGER, AFSA FSDO #2

This Certificate is not Transferable, and any major change in the basic facilities, or in the location thereof, shall be immediately reported to the appropriate Regional Office of the Federal Aviation Administration

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both

FAA Form 8000-6 (1-62) SUPERSEDES FAA FORM 310.

PILOT SCHOOL CERTIFICATION

Initiated by: AFS-840

U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: PILOT SCHOOL CERTIFICATION

Date: 2/18/93 AC No: 141-1A
Initiated by: AFS-840 Change:

1. PURPOSE. This advisory circular (AC) sets forth guidelines to assist persons in obtaining a pilot school certificate and associated ratings under Federal Aviation Regulation **(FAR)** Part 141.

2. CANCELLATION. AC 141-1, ***Pilot School Certification,*** dated August 29, 1974, is cancelled.

3. RELATED READING MATERIAL. Order 8700.1, General Aviation Operations Inspector's Handbook. This document may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC, 20402. The stock number is 050-007-00921-6.

4. BACKGROUND. In 1974, a total operational training concept, the acquisition of equivalent levels of aeronautical experience in less time than required by FAR Part 61, was introduced under the auspices of a certificated pilot school. This concept was established in FAR Part 141 which prescribes rules governing the operation of pilot schools. FAR Part 141 increased the flexibility of prescribed curricula for training and adopted procedures to ensure that a training **course** used by a school is adequate, appropriate, and administered by qualified persons. The reduction in flight time requirements, without a reduction in flight experience, is allowed under FAR Part 141 because the training is more controlled through supervision and is conducted by experienced instructors. AC **141-1** was issued on August 29, 1974, to help persons obtain certificates and ratings under FAR Part 141. Since 1974, the Federal Aviation Administration (FAA) has made several amendments to FAR Part 141. This AC, **141-1A,** updates the information provided in the 1974 AC.

5. DEFINITIONS. The following terms are defined for use in this AC.

a. Administrator means the FAA Administrator or any individual to whom the Administrator has delegated authority.

b. Agricultural aircraft *operation* means the operation of an aircraft for the purpose of (1) dispensing any economic poison; (2) dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control; or (3) engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects.

c. Airplane means an engine-driven, heavier-than-air fixed-wing aircraft that is supported in flight by the dynamic reaction of the air against its wings.

d. Airport means an area of land or water, including its buildings and facilities, that is used or intended to be used for the landing and takeoff of aircraft.

e. Airship means an engine-driven, lighter-than-air aircraft that can be steered.

f. Approved, unless used with *reference to another person,* means approved by the Administrator.

g. Balloon means a lighter-than-air aircraft that is not engine-driven. A hot air balloon is a balloon that derives its lift from heated air. A captive gas balloon is a balloon that derives its lift from a captive lighter-than-air gas.

h. Category.

(1) As used with respect to the certification, ratings, privileges, and limitations of airmen, means a broad classification of aircraft. Examples include: airplane, rotorcraft, glider, lighter-than-air, and

(2) As used with respect to the certification of aircraft, means a grouping of aircraft based upon intended use or operating limitations. Examples include the following: transport, normal, utility, acrobatic, limited, restricted, and provisional.

i. Citizen *of the* ***United States (as defined in*** *the* ***Federal Aviation Act*** *of* ***1958, as amended)*** means (1) an individual who is a citizen of the United States or one of its possessions, or (2) a partnership of which each member is such an individual, or (3) a corporation or association created or organized under the laws of the United States or any State, Territory, or possession of the United States, of which the president and two-thirds or more of the board of directors and other managing officers thereof are such individuals and in which at least 75 percent of the voting interest is owned or controlled by persons who are citizens of the United States or one of its possessions.

j. ***Class.*** As used with respect to the certification, ratings, privileges, and limitations of airmen, means a classification of aircraft within a category having similar operating characteristics. Examples include: single-engine land, multiengine land, single-engine sea, multiengine sea, gyroplane, helicopter, airship, and free balloon.

k. Curriculum. The courses offered by a flight school. A set of courses depicting total flight or ground instruction offered by a flight or ground school. In addition, a curriculum also refers to the overall general content of a course of instruction that is to be taught.

l. External load means a load that is carried or extends outside of the aircraft fuselage.

m. ***Flight*** *crewmember* means a pilot, flight engineer, or flight navigator assigned to duty in an aircraft during flight time.

n. ***Flight*** *time* means the time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the next point of landing (block-to-block time).

o. Glider means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine. Some gliders have engines and are referred to as powered gliders. The term powered glider includes self-launching sailplanes, powered sailplanes, motorized sailplanes, and motorgliders.

p. Gyroplane means a rotorcraft whose rotors are not engine-driven except for initial starting, but are made to rotate by action of the air when the rotorcraft is moving; and whose means of propulsion, consisting usually of conventional propellers, is independent of the rotor system.

q. Helicopter means a rotorcraft that depends principally on its engine-driven rotors for its horizontal motion.

r. Heliport means an area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters.

s. Lesson Plan. An organized outline for a single instructional period. It is a necessary guide for the instructor in that it tells what to do, in what order to do it, and what procedure to use in teaching the material of a lesson.

t. Lighter-than-air aircraft means aircraft that can rise and remain suspended by using contained gas weighing less than the air that is displaced by the gas.

u. Operate, with respect to aircraft, means use, cause, or authorization to use aircraft for the purpose of air navigation, including the piloting of aircraft, with or without the right of legal control (as owner, lessee, or otherwise).

v. Person means an individual, firm, partnership, corporation, company, association, joint-stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of the above.

w. Pilot in command (PIC) means the pilot responsible for the operation and safety of an aircraft during flight time.

x. Rotorcraft means a heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors.

y. Second in command means a pilot who is designated to be second-in-command of an aircraft during flight time.

z. Show, unless the context otherwise requires, means to show to the satisfaction of the Administrator.

aa. A test course in an FAR Part 141 school is a course of training for students who have accomplished a significant portion of training requirements outside of air agency courses. Completion of the test course is accomplished under the training course outline (TCO) with credit given for the time gained under FAR Part 61.

bb. Training course outline, within a curriculum, describes the content of a particular course by statement of objectives, description of teaching aids, definition of evaluative criteria, and indication of desired outcomes.

cc. Training Syllabus. A step-by-step (building block) progression of learning with provision for regular review and evaluation at prescribed stages of learning. The syllabus defines the unit of training, states by objective what the student is expected to accomplish during the unit of training, shows an organized plan for instruction (building block-from the simple to the complex), and dictates evaluation process for either the unit or stages of learning.

dd. Type.

(1) As used with respect to the certification, ratings, privileges, and limitations

of airmen, means a specific make and basic model of aircraft, including modifications thereto that do not change its handling or flight characteristics. Examples include: B-767, MD-11, and L-1011.

(2) As used with respect to the certification of aircraft, means those aircraft that are similar in design. Examples include: A-300 and A-300B; and BAE-146 and BAE-146-100.

ee. United States, in a geographical sense, means (1) the contiguous States, Alaska, Hawaii, the District of Columbia, Puerto Rico, and the possessions, including the territorial waters, and (2) the airspace of those areas.

Thomas C. Accardi
Director, Flight Standards Service

6. COMMENTS INVITED. comments regarding this publication should be directed to:

Federal Aviation Administration
Flight Standards National Field Office
Advisory Circular Staff, AFS-554
Washington Dulles International Airport
P.O. Box 20034, Gateway Building
Washington, DC 20041-2034

Every comment will not necessarily generate a direct acknowledgement to the commenter. Comments received will be considered in the development of upcoming revisions to AC's or other related technical material.

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1. TESTING OF STUDENTS TRAINED UNDER FAR PART 141. FAR Part 141 is a means by which a student may, through approved training, meet the flight experience requirements of FAR Part 61 with a lesser amount of flight experience than that prescribed in FAR Part 61. The student must meet all other certification requirements of FAR Part 6 1.

2. PILOT SCHOOL QUANTITY AND QUALITY OF INSTRUCTION.

a. ***To be eligible for a pilot school certificate*** (see appendix 1, figure 1), the school will be required to meet the pertinent requirements of Subpart A through C of FAR Part 141. The school must have trained at least ten applicants for pilot certificates and ratings within the past 24 months. In addition, eight out of the ten of the most recent applicants tested by an FAA inspector or FAA designated pilot examiner must have passed their practical tests the first time (reference FAR § 141.5).

b. An applicant for a school certificate that cannot meet the required recent training experience, but meets the other requirements of FAR Part 141, Subparts A through C, will be issued a provisional pilot school certificate.

c. A certificated pilot school that, after 24 months, does not meet the recent training experience requirements of FAR § 141.5(b) but meets all other requirements may apply for a provisional pilot school certificate.

d. The holder of a provisional pilot school certificate that does not meet the recent training experience requirement (24 months) prior to the expiration of its certificate may not apply for a new certificate for a period of 180 days from the expiration date of the expired certificate.

3. LETTER OF INTENT.

a. A Letter of Intent will be requested by the FAA. The FAA will then review the Letter of Intent to determine if the applicant appears to meet the basic eligibility requirements and to determine that sufficient information exists for the certification process to continue (see appendix 1, figure 2).

b. The Letter of Intent should contain:

(1) A statement of intent to become an approved pilot school under FAR Part 141.

(2) Company legal name and any d/b/a's, principal operations base address, primary airport address, mailing address (if applicable), and telephone numbers.

(3) Makes and models of aircraft, how many of each, and N-numbers, if available.

(4) Estimated date when operations will begin.

(5) Training courses to be offered.

(6) Name and qualifications of proposed chief flight instructor and any assistant chief flight instructors, if applicable.

(7) Intent to use training aids, flight training devices, or flight simulators.

(8) Intent to use personal computers for written testing (for examining authority only).

4. APPLICATION FOR PILOT SCHOOL CERTIFICATE, FAA FORM 8420-S (OMB 04-R0204).

a. Application for a pilot school certificate or a provisional pilot school certificate is made in duplicate on FAA Form 8420-8 (OMB 04-R0204) and completed in accordance with instructions on the back of the form (see appendix 1, figure 3).

b. This form may be obtained from the nearest Flight Standards District Office (FSDO). The following describes examples of acceptable signatures on a completed application form.

(1) An application from an individual should be signed by that individual.

(2) An application from a partnership should be signed by all partners.

(3) An application from a corporation should be signed by the president or such other officers as authorized by the corporation bylaws and certified by the corporate secretary attesting to the individual's authority to sign such a document.

(4) An application from a company, club, or association should be signed by the president or such other officer or director as authorized by the organization's bylaws and attested to by the secretary-treasurer.

c. Each requested pilot school rating should be listed on the application. The application, when presented to the FSDO, should be accompanied by two complete copies of each proposed TCO. If examining authority is being requested, the appropriate box should be checked on the application. When a person applies for a pilot school certificate, it is a certification that the person is familiar with FAR Part 141 and believes that the school meets the appropriate requirements for certification. Figure 5 of appendix 1 traces the certification process from initial inquiry to the issuance of the certificate.

5. PILOT SCHOOL RATINGS.

a. Ratings that are placed on a pilot school or provisional pilot school certificate are listed under FAR § 141.1 l(a)(b)(c). When the FSDO has approved the TCO's, a letter of approved courses (see appendix 1, figure 4) will be issued and the appropriate rating(s) placed on the school certificate. For example, if a pilot school has received approval of two private pilot certification courses, one for airplanes and one for helicopters, a private pilot rating is placed on the school certificate. A school with a private pilot rating on its school certificate may conduct one or several private pilot certification courses, provided a TCO is submitted and approved under Subpart C of FAR Part 141 for each course of private pilot training given.

b. The approval of one or more pilot test course(s) that result in the issuance of a private and/or commercial pilot certificate entitles the school to have a private and/or commercial test course rating, as appropriate, placed on the school certificate. Some examples of test courses are:

(1) Private Test Course, airplane single-engine land (Appendix B of FAR Part 141).

(2) Private Test Course, rotorcraft - helicopter.

(3) Commercial Test Course, glider.

c. Added pilot school ratings are issued by the FAA in the same form and manner as for an original Air Agency certification. This is

accomplished by ***completing the five phases of the certification process:*** (1) Preapplication, (2) Formal Application, (3) Document Compliance, (4) Demonstration and Inspection, and (5) Certification. These steps include, in part, a letter of intent, FAA Form 8420-8, Application for Pilot School Certificate, training course outlines, and recordkeeping methods. The school must also show that it is properly equipped and meets all personnel qualification requirements.

6. DURATION OF THE CERTIFICATE.

a. A pilot school certificate or a provisional pilot school certificate expires at the end of the twenty-fourth month after it was issued.

b. A pilot school certificate normally expires on the date that any change in school or facilities ownership occurs. However, if the school applies for an amended certificate within 30 days after a change in ownership and there is no change in facilities, instructor personnel, or training courses, the school certificate remains in effect and does not expire.

7. RENEWAL OF CERTIFICATES AND RATINGS.

a. A pilot school should apply *for the* ***renewal*** of its certificate at least 30 days before it expires. This is to ensure a timely response from the FSDO to effect a renewal of the school certificate without an interruption in training.

b. Pilot schools that wish to *renew* ***each course*** and/or rating should be prepared to show that they continue to meet the requirements for the issuance of the school certificate and rating(s).

8. INSPECTION.

a. In order to carry out its responsibilities under *the* ***FA Act of 1958, as amended, the*** FSDO will make certain inspections as provided for in FAR § 141.21. Inspections may occur at the following times:

(1) Initial certification;

(2) Certificate renewal;

(3) Transfer of ownership;

(4) Change of main base;

(5) Upon application of the school for an additional rating(s); and

(6) When the FSDO deems an inspection is necessary to ensure compliance with the TCO and other requirements of the FAR.

b. Inspections for *the* ***purpose of certification, renewal, transfer of ownership or change of base*** are made at a time agreeable to the school and the FAA. However, inspections made by the FAA to determine compliance with the TCO or the FAR are made when considered necessary.

c. An ***FAA*** *inspection may include the* ***follo****wing:*

(1) Administer practical tests to the chief flight instructors and any assistant chief flight instructors.

(2) Inspect the applicant's recordkeeping system for compliance with the FAR. The importance of complete and accurate recordkeeping cannot be over emphasized.

(3) Conduct an aircraft conformity inspection.

(4) Conduct a base inspection.

(5) Inspect satellite bases.

(6) Inspect ground trainers, training aids, and other equipment.

9. ADVERTISING.

a. As required by FAR § 141.23, when advertising in any manner relating to its approved pilot school, an operator may not list a course of training for which it does not have FAA approval.

b. Each training course that has been approved should be clearly stated, along with a clarification that **only those** courses have been approved. In addition, under FAR § 141.23, the school may not make any statement relating to its certification and ratings that is false or designed to mislead any person contemplating enrollment in that school.

10. REMOVAL OF ADVERTISING.

a. When a school certificate has expired, or has been surrendered, suspended, or revoked, it is required under FAR § 141.23 to remove all indications that the school was certificated by the FAA. This includes all advertising mediums.

b. If an FAA-approved school moves from one location to another, it is required to promptly remove all signs from its old premises indicating that the school was certificated by the FAA at that location.

11. BUSINESS OFFICE AND OPERATING BASE.

a. Each pilot school or provisional pilot school is required to maintain a principal business office with a mailing address the same as on the school certificate. The purpose of a principal business office is to provide a specific location for maintaining required school files and records, and a location from which the operation of school business is conducted. This requirement should not be construed to mean that all school functions, such as scheduling flights, training functions, etc., must be conducted at the principal business office.

b. If the pilot school should choose to change the location of its business office or base of operation, the school is required to notify the FAA, in writing, of the planned move at least 30 days in advance. Such written notice should be accompanied by new application, FAA Form 8420-8 (OMB 04-R0204), showing the change of address or the change in the base of operations, as appropriate (see appendix 1, figure 3). In any case, the notice of a change of operating base must be accompanied by necessary amendments to approved TCO's.

c. While FAR Part 141 does not require that a "business office" be a room with four walls and a door, the regulation does prohibit the sharing with or use by another pilot school of that business office. Therefore, the business office should be conspicuously isolated by walls or partitions to ensure separation from another pilot school's activity. The business office should be located so that required school files and student training records can be kept up to date and available to students and instructors alike for the purpose of providing on-the-spot information about training progress and other business interests.

12. PILOT BRIEFING AREAS. An FAA-approved pilot school is required to have continuous use of a briefing area at each airport at which training flights originate. This requirement does not include airports of destination used for cross-country flight training. The

briefing area must meet the requirements of FAR § 141.43. Based on these requirements, the following criteria apply:

a. Adequate shelter for students waiting to engage in training flights;

b. A properly equipped area for the conduct of student briefings. Equipment should include tables of adequate size to lay out aeronautical charts for planning purposes and a chalkboard or dry-erase marker board. In addition, if a Flight Service Station (FSS) or weather bureau is not within a short distance to the school, the school must provide a private landline or telephone communication in the briefing room to the nearest FAA FSS or weather bureau if the school offers instrument or commercial pilot courses;

c. The briefing area should be located close enough to the airport where training flights originate to preclude a disruption of schedules because of excessive travel, and a lack of communications between the flight line, business office, and briefing area; and

d. Although no other school may use the area when it is to be used by the applicant, there is no objection to other pilots using the briefing facilities provided orderly school functions are maintained. Briefing areas are subject to FAA approval under the provisions of FAR § 141.55(a)(4).

13. GROUND TRAINING FACILITIES. The FAA recognizes that pilot training methods differ from other kinds of training. Pilot schools enroll students with very different backgrounds, goals, and degrees of motivation and aviation experience. For this reason, it is understandable that it is not always possible to schedule large classes for ground training at one time. Individual instruction is often necessary for a particular student to receive the maximum benefit. Therefore, it is anticipated that FAA-approved schools will use classrooms, small isolated rooms, or training booths. Each ground training area is required to be heated, lighted, and ventilated to meet the applicable building code requirements of the area concerned. All ground instructional facilities are subject to approval by the FAA under FAR § 141.55(a).

14. CONTINUOUS USE OF FACILITIES. An approved school is required to have the continuous use of an airport and a pilot briefing area. This requirement can be met by the school having a written agreement showing that it has continuous use of those facilities for 6 months at the time of certification or renewal of its certificate.

15. AIRCRAFT. As specified in FAR § 141.39, each aircraft used by an FAA-approved school for pilot training is required to be a registered civil aircraft of the United States. If the aircraft is not owned by the school, the school should show, through appropriate documentation, that it has a use agreement with the owner. An exclusive use lease is not required; use that would allow the school to make the aircraft available for students to meet the training course objectives meets the intent of a TCO approval. Further, it is not required that a lease agreement be for a specified minimum period of time. Training aircraft must be certificated in the standard airworthiness category except aircraft used for a course of training in agricultural aircraft operations, external load operations and similar aerial work operations; e.g., banner towing, sky writing, etc. In such courses, the school may use aircraft certificated in the restricted category. No other special airworthiness certificate is acceptable.

a. Inspection of Aircraft. An aircraft used by an FAA-approved school for flight training

is required to be inspected and maintained in accordance with the requirements of FAR Part 91. FAR § 91.409 applies to aircraft used to give flight instruction for hire. In effect, this requires aircraft used in an approved course of training to have 100-hour and annual inspections, or be maintained under a procedure prescribed under FAR § 9 1.409(c). Aircraft used exclusively for solo flights must also meet these inspection requirements.

b. When a student enrolled in an approved school provides an aircraft to be used by the school, that aircraft is required to meet the equipment requirements of the training aircraft described in the appropriate FAA-approved TCO. In addition, it will be required to meet the same inspection requirements as all other aircraft used by the school.

16. CHECKLISTS. A broad cross section of airplanes is used in pilot training; some are uncomplicated while others are more complex. The requirement for a checklist defined in the terms of "pretakeoff' and "prelanding" in FAR § 141.75(a) is broad and considers less complicated aircraft. However, it is always a good operating practice to expand upon checklists as aircraft become more complicated. Even though an aircraft is relatively uncomplicated, teaching the use of a more complex checklist is an excellent means to instill in students the habit of using a checklist. This habit will carry over when they progress to larger, more complex aircraft.

17. OPERATOR'S HANDBOOK. Under FAR § 141.75, when an operator's handbook or Airplane Flight Manual (AFM) is provided by the manufacturer, it must be carried aboard the aircraft. A school may elect to issue copies of aircraft checklists and operators' handbooks to students. In that case, these checklists and operators' handbooks must be aboard the aircraft when it is used by the student. The handbook's primary purpose is to provide the pilot with performance data, servicing instructions, weight and balance information, etc. Some operators' handbooks contain checklists. These checklists, while useful in developing a printed checklist, are not desirable for use as a checklist per se. Normally, such handbooks are not readily available to the pilot and during emergency procedure training or during an actual emergency, particularly when there is only one pilot aboard the aircraft, the pilot would be required to fly the aircraft while searching through a book for the checklist.

18. CHIEF FLIGHT INSTRUCTOR. Each FAA-approved school will be required to designate a chief instructor for each training course. That chief instructor is required to meet the appropriate requirements prescribed under FAR § 141.35. A chief instructor may serve in that capacity for more than one approved course, but not for more than one school.

19. ASSISTANT CHIEF FLIGHT INSTRUCTOR. Each FAA-approved school must designate an assistant chief instructor for each of its satellite bases. In addition, one or more assistant chief instructors for a course or courses of training may be designated at any base if justified by the number of students involved, the complexity of the course, or the numbers of hours a day during which training is conducted. In the latter case, the FAA will approve the use of assistant chief instructor(s) when approving individual TCO's. An assistant chief instructor must meet the requirements of FAR § 141.36 and may be delegated specific responsibilities by the chief instructor. **An assistant chief instructor is allowed to serve in that capacity for more than one approved course, but not for more than one school. An assistant chief instructor may be assigned to more than one satellite base, but would not**

be allowed to serve at more than one base concurrently.

20. INSTRUCTORS. Each ground or flight instructor used in a course of instruction is required to be the holder of a ground or flight instructor certificate, as appropriate, with the necessary ratings for the instruction to be given. However, instructors who are not certificated may only be used for ground training under certain provisions described under FAR § 141.81.

21. OTHER EMPLOYEES. Each FAA-approved school is required by the rules to ensure that dispatchers, service personnel, or other persons assigned responsibilities with the school are adequately instructed in the procedures and responsibilities of their employment. Compliance with this requirement may be accomplished through verbal instruction, manuals, or any other means decided upon by the school. The FAA may, under FAR § 141.21, at any time inspect any personnel to determine that they have been instructed in their responsibilities and are competent to perform their duties. Qualified operations personnel, including flight instructors, may serve in more than one capacity with the school. For example, a school may wish to use a flight instructor as a dispatcher or a ground instructor.

22. CHIEF AND ASSISTANT CHIEF GROUND INSTRUCTOR QUALIFICATIONS. A chief ground instructor or assistant chief ground instructor must have had at least 1 year of experience as a ground school instructor in an FAA-approved pilot school. This may be shown by having the instructor present a record of teaching accomplishments covering a period of 1 year in an FAA-approved pilot school, or by presenting a letter from an FAA-approved pilot school stating that the instructor has given ground school instruction at that school for the required period of time.

23. CHIEF AND ASSISTANT CHIEF FLIGHT INSTRUCTOR QUALIFICATIONS. A chief flight instructor or an assistant chief flight instructor is required by FAR Part 141 to meet the requirements listed below. However, for a course of training for gliders, free balloons, or airships, only 40 percent of the flight time requirements need be met.

a. Private Pilot Certificate or Rating Course(s).

(1) Commercial pilot or airline transport pilot certificate and a valid flight instructor certificate, each with a rating for category and class of aircraft used in the course of training; and

(i) For a **chief flight instructor,** at least 1,000 hours as PIC, or

(ii) For **an assistant chief flight instructor,** at least 500 flight hours as **PIC;** and

(2) Experience in primary flight instruction acquired as either a certificated flight instructor, or an instructor in a military pilot primary flight training program, or a combination of both consisting of:

(i) For a **chief flight instructor,** at least 2 years experience and a total of 500 flight instruction hours or a total of 1,000 flight hours; and

(ii) For **an assistant chief flight instructor,** at least 1 year of experience as a flight instructor and a total of 250 flight hours, or a total of 500 flight hours.

b. Instrument Rating Course(s) or a Course of Training Leading to Instrument Privileges.

(1) A commercial pilot certificate with an instrument rating, or an airline transport pilot certificate, and a valid flight instructor certificate with an instrument rating; and

(i) For a **chief flight instructor,** at least 100 hours of flight time under actual or simulated instrument conditions;

(ii) For **an assistant chief flight instructor,** at least 50 hours of flight time under actual or simulated instrument conditions; and

(iii) For a **chief flight instructor,** at least 1,000 hours as PIC;

(iv) For **an assistant chief flight instructor,** at least 500 hours as PIC; and

(2) Instrument flight instructor experience acquired as either a certificated instrument flight instructor or an instructor in a military pilot basic or instrument flight training program, or a combination thereof, consisting of:

(i) For **chief flight instructor,** at least 2 years experience and a total of 250 flight hours, or a total of 400 flight hours; and

(ii) For **an assistant chief flight instructor,** at least 1 year of experience and a total of 125 flight hours, or a total of 200 flight hours.

c. For all courses of training other than those that lead to the issuance of a private pilot certificate or a rating, or an instrument rating or a rating with instrument privileges, a chief flight instructor or assistant chief flight instructor must have:

(1) At least a commercial pilot or airline transport pilot certificate and a valid flight instructor certificate, each with an appropriate category and class rating for the aircraft used in the course of training; and

(2) For a course of training using airplanes or airships, an instrument rating on the instructor's commercial pilot certificate; and

(i) For a **chief flight instructor,** at least 2,000 hours as PIC;

(ii) For **an assistant chief flight instructor,** at least 1,000 hours as PIC; and

(3) Flight instruction experience acquired as either a certificated flight instructor, or an instructor in a military pilot primary or basic flight training program or a combination thereof, consisting of at least:

(i) For **chief flight instructor,** 3 years experience and a total of 1,000 flight hours, or a total of 1,500 flight hours.

(ii) For **an assistant chief flight instructor,** 1 1/2 years experience and a total of 500 flight hours, or a total of 750 flight hours.

d. FAR §§ 141.35 and 141.36 contain several references to primary and basic flight instruction under the flight instruction experience requirements. Historically, under FAR Part 141, primary flight instruction refers to flight instruction given to applicants seeking their private pilot certificate or rating, and basic flight instruction refers to flight instruction given to applicants seeking higher certificates or ratings.

e. Schools should keep in mind that approved courses of training that combine both basic and instrument flying skills; e.g., a type rating without limitations, would require a

chief flight instructor or an assistant chief flight instructor to meet more than one general requirement listed under FAR § 141.35 or FAR § 141.36, as the case may be. This must be considered when developing that type of training course.

f. A chief jiight instructor or an assistant chief flight instructor is required to pass a practical test on FAR Parts 141, 61, and 91, and on the training standards and objectives of the course for which the flight instructor is designated. In addition, the individual must pass a practical test on the flight procedures and maneuvers appropriate to each course of *training* for which the individual is designated, but it is not necessary to repeat the procedures and maneuvers that are common to more than one course of training.

24. CHIEF INSTRUCTOR RESPONSIBILITIES. FAR **Part** 141 outlines specific responsibilities for a chief instructor. The actual ***accomplishment*** of ***some*** of these responsibilities may be delegated to an assistant chief instructor or other appropriately qualified instructors. ***The conduct of initial and annual qualification checks of flight instructors and final*** *phase* ***checks may only be delegated to an assistant chief flight instructor.*** All delegation of responsibility should be documented in appropriate school records. The ultimate responsibility for each function remains with the chief instructor. The necessity for a chief instructor to fulfill these responsibilities completely and accurately cannot be overemphasized. The need for proper certification of training records, graduation certificates, stage and final test reports becomes extremely important before a student graduates from a course of training or terminates training to attend another school. When giving a stage or final test, "student recommendations," as discussed in FAR § 141,85(a)(l), should be complete and definitive with respect to additional training needed, if any. Chief instructors should continue to update and improve the courses of training for which they are responsible whenever deficiencies in the course, or needed changes in training standards, become apparent. Chief instructors are invited to seek assistance and guidance from FAA inspectors when resolving problems that concern responsibilities.

25. CHIEF AND ASSISTANT CHIEF INSTRUCTOR AVAILABILITY - DIRECT SUPERVISION. The general requirement that instruction be given under the direct supervision of the chief or assistant chief instructor, and the requirement that the chief or assistant chief instructor be available when instruction is given, are listed under Ground Training, FAR § 141.8 l(b)(2); Chief Instructor Responsibilities, FAR § 141.85(b); and Satellite Bases, FAR § 141.91(a) and (c). For the purpose of FAR Part 141, the term "direct supervision" would require that the chief or assistant chief instructor be present at the base when instruction is being given (this will only involve ground training given by noncertificated instructors). However, flight and ground instructors who have established their qualifications through certification do not require supervision from the chief instructor to the same extent as the noncertificated instructor. Therefore, the chief or assistant chief instructor need only be available for consultation at the school's base of operation when instruction is given in an approved course of training, without necessarily having to be present at the base. "Available" can mean accessibility via telephone, radio, or other electronic means including beepers or page systems. This is consistent with the provision for satellite bases (FAR § 141.91) that requires that an assistant chief instructor be designated for each satellite base to ensure that the necessary supervision for each base is provided (see paragraph 32).

26. CHANGE OF CHIEF INSTRUCTOR. Under FAR § 141.87, when an FAA-approved school makes any change of a chief instructor, the FAA FSDO having jurisdiction over the school shall be notified immediately, in writing, of this change. The school may continue to train students under an approved course of training without a chief flight instructor for a period of 60 days. However, during the time the school is without a chief flight instructor, an FAA inspector or designated pilot examiner must be present to administer each stage or final test. Using the approved training syllabus, the FAA inspector or designated pilot examiner should be familiar with the specific areas to be tested. The test results should be given to the operator of the school for inclusion in the appropriate student files.

27. CHIEF FLIGHT INSTRUCTOR REFRESHER COURSE. FAR § 141.79(c) states that each chief flight instructor must complete, at least once each 12 months, a flight instructor refresher course consisting of not less than 24 hours of ground or flight instruction, or both. For the purpose of implementing this requirement, a chief instructor may wish to attend an FAA-approved, industry-sponsored, and industry-conducted Flight Instructor Refresher Clinic (FIRC). For chief instructors who are also designated pilot examiners, the 20 hours of recurrent training required at an FAA-conducted Examiner Standardization Course may be applied to the 24-hour requirement as indicated in FAR § 141.79(c). A chief flight instructor who can show satisfactory completion of at least 12 hours (i.e., 4 complete quarters of Jeppesen Sanderson FIRC course material) within the past 12 months may credit that 12 hours toward the 24 hours of instruction required under FAR § 141.79(c). This 12 hours (4 complete quarters) of instruction must then be supplemented with an additional 12 hours of acceptable instruction gained within the past 12 months to show compliance under FAR § 141.79(c).

28. FLIGHT INSTRUCTOR RESPONSIBILITIES. FAR Part 141 also requires that all flight instructors be qualified to teach each course of training to which they are assigned and, in addition, prescribes certain knowledge and proficiency tests to be accomplished prior to being assigned to an approved training course. **Each flight instructor must satisfactorily accomplish a flight check given by the chief or assistant chief flight instructor for each training course the instructor teaches. The** instructor is also required to accomplish such a flight check for each training course in which the instructor participates every 12 months thereafter. To further ensure that a flight instructor is appropriately qualified, the instructor is required to accomplish satisfactorily a flight check in each type of aircraft (e.g., Cessna 150, Piper PA-28) prior to giving any flight instruction in that aircraft. **The instructor need not be given a flight check in each type of aircraft annually.** In addition, each instructor, who teaches an approved course of training, must be briefed on the objectives and standards of the course. An instructor may, at any time, be asked by an FAA aviation safety inspector to explain the objectives and standards for an approved course of training to which the instructor is assigned. Records of such instructor briefings received and flight checks given should be kept in the permanent school records at the home base of operations. An additional responsibility placed upon flight instructors and students alike is the requirement that no student pilot may be authorized to begin a solo practice flight from an airport until the flight has been approved by an authorized flight instructor who is **present** at the airport. Solo cross-country flights, when properly dispatched from the originating airport, would be considered to have approval for the entire flight. However, if the student should be delayed en route because of unexpected weather or mechanical delays, the school should arrange for another instructor based at the point of delay to redispatch the

flight, or have a school instructor dispatch the flight by telephone. Emergency handling can be accomplished by prearrangement with other schools or fixed-base operators.

29. CREDIT FOR PREVIOUS TRAINING. As specified in FAR § 141.77(b), when a student transfers from one FAA-approved school to another, course credits obtained in the previous course of training may be credited in all or part by the receiving school. The receiving school should determine the amount of credits to be allowed by flight check or written test, or both. A student may not be credited with more training by the receiving school than the student was credited with at the school from which he/she transferred. In addition, as discussed in paragraph 34, in order for a student to graduate from a course of training under a school's examining authority, all training for that particular course must have been completed at that school. A student who enrolls in a course of training may be credited for not more than 50 percent of the curriculum requirements for knowledge and experience gained in other than an FAA-approved pilot school. In any case, the amount of credit for previous training allowed, whether received from an FAA-approved school or other source, should be placed in the student's enrollment record at the time of enrollment. When a student transfers from one FAA-approved school to another, or terminates training for any reason, the student must be given, upon request, a transcript of the results of the student's participation in the course of training which was interrupted. Such a transcript should consist of at least the following:

a. ***The name*** *of the* ***school*** that gave the training, including the school's certificate number.

b. The type and amount of training given (dual, solo, ground school, ground trainer time, etc.).

c. The type of training course involved.

d. The results of each stage and final test given.

e. A statement that *the* ***student was*** enrolled in the other school's approved training course before the student received the instruction and training.

Note: The transcript should be certified by the chief flight instructor for that course of training.

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30. **ENROLLMENT.** When a student is enrolled in an approved course of training, FAR § 141.93 requires that the student be furnished with the following information and materials:

a. A certificate *of* ***enrollment*** containing the course name in which the student is enrolled and the date of enrollment.

b. A copy *of the* ***training syllabus*** required under FAR § 141.55(b).

c. A copy of the safety procedures and ***practices*** developed by the school; e.g., fire drill instructions, procedures for the use of training aids, off-limits areas, handling of aircraft, parking instructions, and other safety instructions deemed necessary by the school, which must include the following:

(1) Weather minimums required for dispatching dual and solo flights. For example, minimum ceiling, visibility, and wind velocities for local flights and specific weather minimums for cross-country flights.

(2) Procedures for starting and taxiing aircraft on the ramp.

(3) Fire precautions and procedures.

(4) Redispatch procedures after unprogrammed landings on and off airports. This should include emergency security of the aircraft and a list of telephone numbers of persons to contact.

(5) Procedures for listing aircraft discrepancies and the following corrective action, including the importance of not using an aircraft with a listed discrepancy until a properly qualified person determines its airworthiness.

(6) Securing of aircraft when not in use.

(7) Fuel reserves necessary for local and cross-country flights.

(8) Avoidance of other aircraft in flight and on the ground.

(9) Minimum altitude limitations and instructions concerning simulated forced landings. Certain minimum altitudes may be specified for teaching and practicing stalls or other maneuvers. Instructions should be clear on simulated emergency landings with respect to prolonged engine operation at reduced power settings, engine response with rapid throttle application, and a specific minimum altitude for terminating simulated emergency landings, including limitations on the solo practice of emergency landings and other instructions deemed necessary by the school.

(10) Descriptions and diagrams of assigned practice areas, including special instructions with respect to routes and minimum altitudes en route.

(11) Any instructions or guidance the school believes necessary to provide the highest standards of safety and operational control expected of an FAA-approved school.

d. A school is required by FAR Part 141 to forward a copy of each enrollment certificate within 5 days to the FAA FSDO having jurisdiction over the school. These enrollment certificates are required to be mailed promptly because some approved training courses are of a very short duration and therefore the FAA has only the minimum amount of time to conduct possible surveillance of the training.

31. AIRPORTS. The airport requirements for FAA-approved pilot schools are identified in FAR § 141.37.

a. An applicant for a pilot school or a provisional pilot school certificate must have the continuous use of each airport at which training flights originate.

b. If authorizations for airplanes or gliders are sought, at least one runway or takeoff area that allows the training aircraft to make a normal takeoff or landing at maximum gross weight is required. This requirement is established under the following conditions:

(1) Calm wind (not more than 5 miles per hour) and temperatures equal to the mean high temperature for the hottest month of the year in the operating area.

(2) All obstacles in the takeoff flight path must be cleared by at least 50 feet.

(3) Normal powerplant, landing gear, and flap operations must be used when complying with (1) and (2) above.

(4) A smooth transition from lift-off to the best rate of climb speed without the need for exceptional piloting skills or techniques must be possible.

c. Each airport is required to have a wind direction indicator that is visible from the ends of each runway at ground level.

d. Each airport is required to have a traffic pattern indicator (defined in the Airman3 Information Manual (AIM)) when the airport has no operating control tower and UNICOM advisories are not available.

e. Each airport used for night training flights must have permanent runway lights.

32. SATELLITE BASES. As specified in FAR § 141.91, an FAA-approved school may conduct ground or flight training and instruction in an approved course of training at a satellite base other than its main operations base. An assistant chief flight instructor must be designated for each satellite base. The airport facilities and personnel used at the satellite base must meet the requirements of FAR Part 141. The approval of the satellite base and its facilities must also be specified in the approved TCO for courses given at that base. If training is to be conducted for more than 7 consecutive days at a satellite base which is not included and approved in a TCO, then written notification to the FAA FSDO having geographical jurisdiction over the school at the satellite location must be made. Operators who plan to conduct pilot training at locations **other than the main base of operations need not apply for additional pilot** school **certificates.** However, they must amend their current certificate to reflect the satellite base by notifying the FAA FSDO having jurisdiction over the main base. Satellite locations are considered part of the main base of operations and allow schools to offer identical training programs at various locations. Instructors at all training locations are encouraged to respond to policy set by a central chief flight instructor while maintaining the standards set forth in a master TCO. FAA certificate-holding offices will coordinate efforts to ensure that certification of applicants is standardized within their district office area and that the necessary work program functions are accomplished.

33. APPLICATION FOR EXAMINING AUTHORITY. Application for examining authority is made, in duplicate, on FAA Form 8420-8 (OMB 04-R0204). The appropriate block should be checked for each course of training for which examining authority is sought. Only the holder of a pilot school certificate may apply for authority to conduct written and/or practical tests of their own graduates for the issuance of pilot certificates and ratings without further testing by the FAA. The authority to test graduates for airline transport pilot or flight instructor certificates or turbojet type ratings is not authorized under FAR Part 141. The facilities, equipment, and maintenance standards for certificated pilot schools with examining authority are identical to those for other FAA certificated pilot schools.

34. EXAMINING AUTHORITY PRIVILEGES. FAR § 141.65 provides that a pilot school with examining authority for a course or courses of training may recommend graduates of those courses for pilot certificates and ratings without taking the FAA practical or written test, or both, in accordance with FAR Part 141 Subpart D. It should be noted that under FAR § 141.67, in order for a school to graduate a student from a course of training under their examining authority, the student must complete all training at the school for that particular course. No credit will be allowed for training given by another school or for previous flight experience.

35. WRITTEN TESTS. When a pilot school requests approval of written tests to be given as the final written test, it should submit two copies of the test to the FAA FSDO having jurisdiction over the area in which the holder of the

examining authority is located. The FSDO will return the written test to the school with the principal operations inspector (POI) or FSDO manager's signature on each page, along with the date the test was approved. If the test is not approved, it will be returned to the school with a letter from the inspector indicating the changes that are necessary for approval. A pilot school should allow at least 60 days for approval of a written test. The development and security of written tests are covered in FAA Order 8700.1, General Aviation Operations Inspector's Handbook, and FAA Order 8080.1, Conduct of Airmen Written Tests, current edition.

36. AMENDMENTS OR CHANGES TO AN APPROVED TEST. Amendments or changes to an approved, final written test will be processed in the same manner as the original application for approval of a written test.

37. USE OF FINAL WRITTEN TESTS. The approved school should make every effort to provide the maximum security for approved written tests. An FAA inspector may examine the security system of a school to determine if proper security is maintained for the written tests. The regulation points out that a written test may not be used if the school or the FAA has reason to believe it has been compromised.

38. SPECIAL CURRICULA. Under FAR § 141.57, an applicant for an FAA-approved pilot school or provisional pilot school certificate, or the holder of an FAA-approved pilot school or provisional pilot school certificate, may apply for approval to use a special curriculum; i.e., one not prescribed in the appendixes of FAR Part 141. The school must show that the special curriculum contains features that can be expected to achieve a level of pilot competency equivalent to the level achieved by the curriculum prescribed in the appendixes of FAR Part 141, or the appropriate requirements of FAR Part 61. Two copies of the special curriculum should be submitted to the FAA FSDO having jurisdiction over the school at least 60 days before any training under the curriculum is scheduled to begin. The special curriculum should be accompanied by a cover letter explaining clearly how it will meet or exceed the requirements prescribed for a similar course in the appendixes of FAR Part 141. Submission of a special curriculum 60 days before any training under the curriculum is scheduled to begin allows time for the FSDO to approve the curriculum before the applicant develops the TCO. The TCO must be submitted for approval 30 days before training under the course is scheduled to begin.

39. GRADUATION CERTIFICATE. FAR § 141.95 requires that a graduation certificate be issued to each student who successfully completes an approved course of training. Each graduation certificate must contain at least the following information:

a. The name of the school, including the number of the school certificate.

b. The name of the graduate to whom the certificate is issued.

c. The course of training for which it is issued.

d. The date of graduation.

e. A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages.

f. A statement showing the cross-country training the student received in the course of training.

g. A certification of the information contained in the certificate by the chief instructor for that course of training.

40. TRAINING COURSE OUTLINES - GENERAL. An FAA-approved school or applicant for an FAA-approved school must obtain **FAA** approval of the outline for each training course for which certification and rating is sought. Application for approval of a TCO should be made at least 30 days before any training under the course is scheduled to begin. The application should include two copies of each TCO for which approval is sought, and a cover letter for each course requesting approval. Two copies of FAA Form 8420-8 will be required if the approval of a particular TCO places a rating on the school certificate. Amendment of an existing, approved TCO is accomplished in the same manner as a request for initial approval and should include two copies of the pages to be amended and two cover letters specifying the pages in the TCO that the school wishes to amend.

a. When a TCO has been approved, the original copy will be returned to the school with each page signed and dated by the POI or manager of the FSDO having jurisdiction over the school.

b. When an amendment of an approved TCO is submitted for approval, the FSDO will review the proposed changes and, if they are satisfactory, sign, date, and return the original pages of the amendment(s) to the school.

c. *Commercially* ***Developed Training Syllabus.*** A school may elect to purchase a commercially developed syllabus and present it for FAA approval. The school should fully understand the objectives and the standards of the syllabus and be able to actually give training as described. Once a commercially developed syllabus has been approved by the FAA, a school may use the syllabus as is, and the FAA does not require it to be approved a second time. If modifications are made, the FAA must approve each of them. The producer of a commercially developed syllabus may choose to change the syllabus. If a pilot school wishes to amend its syllabus accordingly, it must obtain FAA approval.

41. COMPLIANCE WITH THE APPROVED TRAINING COURSE OUTLINE. When a TCO has been approved by the FAA, FAR Part 141 requires that the school giving instruction or training to a student enrolled in that approved course of training comply with all of the approved course of training. Therefore, when a school finds that it can no longer comply with an approved training course for any reason; e.g., a change or loss of aircraft, personnel (except as provided under FAR § 141.87), facilities, or equipment, it must immediately cease giving instruction or training under that course until the necessary corrective action is taken and, if needed, the appropriately amended TCO is approved by the FSDO. If there is any question about whether training should be discontinued under a certain approved course, the FAA FSDO having jurisdiction over the school should be consulted immediately.

42. TRAINING COURSE OUTLINES - CONTENT. Under FAR § 141.55(a), each TCO must have sufficient content to meet the appropriate curriculum requirements, and must contain the following information:

a. A description *of each:*

(1) Room used for ground training, including size and maximum number of students that may be instructed in the room at one time;

(2) Type of audiovisual aid, projector, tape recorder, mockup, aircraft component, and other special training aid used for ground training;

(3) Pilot ground trainer used for instruction; and

(4) Type of aircraft, including any special equipment, used for each phase of instruction.

b. A listing of airports at which training flights originate, and a description of the facilities, including pilot briefing areas that are available for use by the students and operating personnel at each of those airports.

c. The minimum qualifications and ratings for each instructor used for ground or flight training.

d. A training syllabus for each course of training.

43. TRAINING SYLLABUS CONTENT. A training syllabus is a "building block" progression of learning with provisions for regular review and evaluation at prescribed stages (see appendix 2). A training syllabus must contain the following information:

a. Any prerequisites necessary for enrollment in the course; e.g., minimum pilot certificates and ratings, if any, and the required class of medical certificate or statement of no medical deficiency (required for glider or balloon courses only).

b. Any training, pilot experience, or special knowledge required for enrollment in the course.

c. A description of each lesson, including its objectives and standards, and the measurable unit of student accomplishment or learning to be derived from the lesson or course. The syllabus must include stages of training and the completion standards for each stage. Course, stage, and lesson objectives must be stated in relation to the performance expected of the student.

d. Each course, stage, lesson objective, and completion standard should meet the following general criteria:

(1) Overall objectives must describe what students are expected. to know or be able to do at the end of a particular course, stage, or lesson. They must be stated in terms of desired student learning outcomes.

(2) Course objectives must state in broad terms the knowledge and skill goals to be reached by the student at the end of the course.

(3) Stage objectives must be more limited and must state desired student goals in specific areas of knowledge and skill.

(4) Lesson objectives must clearly specify desired student outcomes for each lesson and must be consistent with the objective of the stage and course.

44. TRAINING AIDS (FAR § 141.41(b)). The instructor may elect to use training aids to improve teacher/student communication. Such instruction aids are defined by the Department of Audiovisual Instruction of the National Education Association as "Devices which assist an instructor in the teaching-learning processes by presenting supporting or supplementary material, usually intermittently. They are not self-supporting." The key factor is that such aids support, supplement, or reinforce. Aids should be easily understood and compatible with the learning outcomes expected in the completion standards for the lesson. Aids have little value in the learning process if they cannot be heard or seen. Recordings of sound should be tested for correct volume and quality in the actual

environment in which they will be used. Visual aids should be visible to an entire class. Lettering and illustrations should be large enough to be seen easily by all students. Colors, when used, should be clearly contrasted and easily visible. The effectiveness of aids will be judged by their organization, sequencing, pattern of logic, and their overall effectiveness when used to obtain the objectives and standards prescribed in the training syllabus. Training aids, although valuable, cannot replace the instructor, who must ensure that prescribed training is given and that completion standards are attained.

45. AIRCRAFT DESCRIPTION. A school is required under FAR Part 141 to describe the type(s) of aircraft, including any special equipment used for each phase of instruction, in the TCO for each particular course of training for which approval is sought. A particular type of aircraft may be used for one or several courses of training provided that aircraft meets the requirements of FAR § 141.39 and is not prohibited from performing any of the procedures and maneuvers required by the particular course or portion of the course of training for which it will be used.

46. AIRCRAFT USED FOR INSTRUMENT TRAINING. Aircraft used for instrument training must be equipped as follows to meet the requirements of FAR Part 141:

a. If the approved training syllabus requires flights under Instrument Flight Rules (IFR) under FAR Part 9 1, the aircraft used must be one in which instrument flight is authorized by its operating limitations and by its equipment;

b. *If* ***the approved training syllabus requires only simulated IFR operations,*** the aircraft must be equipped and maintained for IFR operations. However, IFR operations need not be authorized by its operating limitations; or

c. An aircraft not completely equippedfor IFR operations may be used for instruction in the control and precision maneuvering of an aircraft by reference to instruments if it is approved in the TCO. For example, an airplane need only be equipped with appropriate flight instruments needed for the basic instrument portion of a course of training.

47. COMPLEX AIRPLANE REQUIREMENTS. The commercial pilot certification course for airplanes and the commercial pilot test course for airplanes, set forth in Appendixes D and E of FAR Part 141, require flight instruction in an airplane with a retractable gear, flaps, a controllable pitch propeller, and powered by at least a 180 horsepower engine. If a school applies for a commercial pilot certification or test course for airplanes with a seaplane-class rating (using seaplanes for the entire course) a special curriculum should be submitted under FAR § 141.57, which includes the general requirement of Appendix D, Commercial Pilot Certification Course (Airplanes). A complex seaplane will have, at a minimum, operable wing flaps and a controllable pitch propeller. The use of an ***appropriately equipped*** amphibious airplane in a commercial pilot certification or test course could qualify a student for both a land and sea class rating, provided the TCO was so approved.

48. GROUND TRAINERS. When a ground trainer is used in an approved training course, the full extent of that use should be clearly stated in the training syllabus and the learning outcomes should be well defined. This is necessary to provide the instructor with proper guidance, and give the FAA a baseline from which to judge the adequacy of the trainer to be used.

a. FAR § 141.41(a)(I) prescribes the requirements for ground trainers that may be used to obtain the maximum flight training credit

allowed for ground trainers in an approved pilot training course.

b. FAR §141.41(a)(2) provides for the use of ground trainers that do not meet the more complex requirements of FAR § 141.41(a). There is a large number of ground trainers currently being used by pilot schools that do not meet all of the requirements in FAR § 141.41(a). Because these trainers can be used to provide effective instruction in certain operations required in an approved course of training, provisions for their use have been made. It is imperative that the training syllabus clearly define their use. Because of their limitations, full credit against flight time is not to be allowed for instruction in such trainers. The provisions in Appendixes A, C, D, E, and F allow credit for instruction in ground trainers. However, the credit received in ground trainers not covered under FAR § 141.41(a)(l) cannot exceed 50 percent of the credit allowed in a ground trainer that does meet all of the requirements of FAR § 141.41(a)(l).

c. Substitution of a ground training device must be used with discretion when developing a training syllabus that substitutes ground trainer instruction for the flight time required in a complex airplane. Any use of a ground trainer in lieu of flight time in a complex airplane should be justified with clearly stated learning outcomes in the training syllabus that support the skills expected to be learned in such an airplane. A ground trainer may not be used for more than 50 percent of the curriculum requirements related to training required in a complex aircraft. Approval of a TCO *which* ***substitutes a ground training device in lieu of*** *a complex airplane* will be based on the ability of the ground trainer to provide effective training for this kind of airplane if a ground trainer is to be used.

49. STAGE AND FINAL TESTS. As provided in FAR § 141.55, during the development of a training syllabus, an appropriate number of stage checks are to be included in both ground training and flight courses to measure the student's accomplishment for each stage of training. This should ensure standardization and compliance with the approved TCO.

a. Stage checks must be given by *the* ***chief flight instructor*** who is responsible for a particular course of training or by a designated assistant chief flight instructor or appropriately qualified instructors. While stage checks may be delegated to appropriately qualified instructors, final checks may only be given by the chief instructor or assistant chief instructor. Proper entries are to be made in the student's training record, noting the student's accomplishments and recommending corrective training, if necessary.

b. The appendixes of FAR Part 141 allow a certain amount of the time acquired during stage and final tests to be credited toward the ground training and flight time required by the particular curriculum. The time required for a stage or final test can vary significantly with each student. Even though only a specific amount of time acquired through these checks may be credited, every effort should be made to provide adequate time for objective and complete testing even though the total course time may exceed the time prescribed in the curriculum.

APPENDIX 1. APPLICATION INFORMATION

GENERAL

This appendix contains a sample of the following:

Figure 1. Pilot School Certificate
Figure 2. Letter of Intent
Figure 3. Application for Pilot School Certificate (FAA Form 8420-8)
Figure 4. FAA Letter of Approved Courses
Figure 5. FAR Part 141 Certification Process

The information used for these samples is solely for illustrative purposes.

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Agency Certificate

Number TELS210F

This certificate is issued to
TRAVIS E. LEE dba
TRAVIS AVIATION
whose business address is
1862 BULL RUN CIRCLE
MANASSAS, VIRGINIA 22030

upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved PILOT SCHOOL.

with the following ratings:

PRIVATE PILOT
PRIVATE PILOT TEST COURSE
FLIGHT INSTRUCTOR
COMMERCIAL PILOT
INSTRUMENT RATING
AIRLINE TRANSPORT PILOT

This certificate, unless canceled, suspended, or revoked, shall continue in effect APRIL 30, 1993

Date issued: APRIL 9, 1991

By direction of the Administrator
Wayne B. Wright
Manager, AEA FSDO #20

This Certificate is not Transferable, AND ANY MAJOR CHANGE IN THE BASIC FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE APPROPRIATE REGIONAL OFFICE OF THE FEDERAL AVIATION ADMINISTRATION

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both

FM Form 8000-4 (I-67) SUPERSEDES FAA FORM 390.

Figure 1. Pilot School Certificate

TRAVIS AVIATION
1862 Bull Run Circle
Manassas, Virginia 22030
(703) 4-TRAVIS

April 2, 1991

Federal Aviation Administration
Washington FSDO
600 West Service Road
Chantilly, Virginia 22033

Gentlemen:

This is to notify the Federal Aviation Administration of our intent to become an Approved Pilot School under Part 141 of the Federal Aviation Regulations.

We are prepared to begin operations on April 9, 1991, and are ready for your certification inspection. Enclosed are two copies (an original and a facsimile) of FAA Form 8420-8. We anticipate that operations will be conducted from Hangar 6, Manassas Airport, and from Hangar 1, Centreville Airport. Our primary airport address is Building 3, Airport Road, Manassas, Virginia 22033. We intend to operate two Cessna 152s, one Cessna 182RF, one PA-32 Piper Seneca, and a Robinson R-22 helicopter.

Mr. Robert Cartwright, holder of Airline Transport Pilot Certificate number 543848384, is the Chief Instructor for all courses and meets the Chief Flight Instructor requirements of FAR § 141.35. I have attached a copy of his pilot resume that may be verified when your inspection is conducted.

Also enclosed are two copies of each Training Course Outline for your review and approval.

Sincerely,

Travis E. Lee

Travis E. Lee
Owner

Figure 2. Letter of Intent

APPLICANT • Read submittal and signature instructions on reverse. Form approved; OMB No. 04 - R0204

DEPARTMENT OF TRANSPORTATION • FEDERAL AVIATION ADMINISTRATION

APPLICATION FOR PILOT SCHOOL CERTIFICATE

For FAA Use only

CERT. NO.

NAME OF SCHOOL	ADDRESS OF PRINCIPAL BUSINESS OFFICE
Travis E. Lee d/b/a Travis Aviation	1862 Bull Run Circle Manassas, Virginia 22030
LOCATION OF MAIN OPERATIONS BASE: Manassas Airport, Manassas, VA	LOCATION OF SATELLITE BASE(S):

APPLICATION IS HEREBY MADE FOR:

☒ Issuance of a Pilot School Certificate and associated ratings to conduct the training courses identified below, and for the approval of these courses *(three copies of each course outline are attached)*, also, examining authority is requested for the courses appropriately checked.

☐ Renewal of Pilot School Certificate and associated ratings currently numbered , which expires on , without changes to the currently approved course outlines, ☐ with addition of course(s) identified below for which approval is requested *(three copies of each course outline is attached)*, including request for examining authority for the course(s) appropriately checked; ☐ with deletion of course.(s) identified below from the curriculum.

☐ Amending the current Pilot School Certificate and associated ratings numbered , which expires on ☐ by adding the course(s) identified below for which approval is requested *(three copies of each course outline are attached)*, including request for examining authority where appropriately checked; ☐ for deletion of the course(s) identified below from the curriculum.

IDENTIFICATION OF TRAINING COURSES — *NOTE: Where examining authority for a course is desired, place an 'X' in the box adjacent to the course identification.*

☐	Private Pilot	☐	- - -
☐	Private Pilot Test Course	☐	
☐	Instrument Rating	☐	
☐	Commercial Pilot	☐	rl
☐	Flight Instructor	☐	
☐	Airline Transport Pilot	☐	rl

(If more space is needed, continue on reverse in space provided)

I (WE) certify that I am (we are) familiar with Part 141 of the Federal Aviation Regulations, and, to the best of my (out) knowledge, believe that my (our) school meets the requirements for certification as prescribed therein.

Signature(s) and Title(s): Travis E. Lee / Travis E. Lee / Owner

April 2, 1991
Date

FOR FM USE ONLY

CT] APPROVED • ☐ a Provisional Pilot School Certificate ☐ a Pilot School Certificate, either with associated ratings bearing the number shown above is issued effective , and which expires on . ☐ DISAPPROVED

☐ Renewal without amendments ☐ with amendments ☐ Amendments

SIGNATURE OF APPROVING OFFICIAL	TITLE	DATE

FAA Form 8420-8 (4-74) Recommendations of Inspector(s) on reverse

Figure 3. Application For Pilot School Certificate
FRONT

INSTRUCTIONS TO THE APPLICANT:

Submit an original and one copy of this application, completed in full, along with the required number of attachments where specified on the face of this form, to the FAA District Office having jurisdiction over the area in which the school is located.

Signatures on the application should be as follows:

a. Application from a person acting as an individual should be signed by the owner;

b. Application from a partnership should be signed by all partners;

c. Application from a corporation should be signed by the president or such other officers as authorized by the corporation by-laws to sign for the corporation and certified to by the corporate secretory attesting to the authority of the individuals to sign such a document;

d. Application from a company, club, or association should be signed by the president or such other officer or director as authorized by the organization's by-laws, and attested to by the secretary.

IDENTIFICATION OF TRAINING COURSES (Continued)

NOTE: Where examining authority for a course is desired, place an "X" in the box adjacent to the course identification.

☐		☐	
☐		☐	
☐		☐	
☐		☐	
☐		☐	
☐		☐	
☐		☐	

THE FOLLOWING SPACE FOR FAA USE ONLY

Recommendations of Inspector(s)

INSPECTORS' SIGNATURES AND DATES	FOR OPERATIONS	FOR MAINTENANCE	FOR AVIONICS
	DATE	DATE	DATE

Figure 3. Application For Pilot School Certificate (Cont'd.)
BACK

U.S. Department of Transportation
Federal Aviation Administration

Washington FSDO
GT Building, Suite 112
600 West Service Road
Chantilly, Virginia 22033

April 9, 1991

Travis E. Lee, dba Travis **Aviation, located at** 1862 **Bull Run** Circle, Manassas, Virginia 22030, **is authorized under Air Agency** Certificate Number **TELS210F** to conduct **the courses** of **training listed** herein:

Private Pilot
Airplane - SEL
Rotorcraft - Helicopter

Instrument Rating
Airplanes

Additional Flight Instructor
Airplane - SE
Airplane - ME
Instrument - Airplane

Commercial Pilot
Airplane - SEL
Rotorcraft - Helicopter

Additional Aircraft Rating
Airplane - **SEL**
Rotorcraft - Helicopter

Flight Instructor Certification
Airplane - SE
Instrument - Airplane

Private Test Course
Airplane - SEL

Pilot Refresher Course
Private Pilot - Airplane SEL

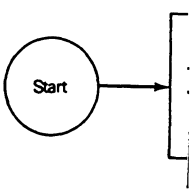
This list of approved courses of training expires on April 30, 1993, unless superseded, surrendered, suspended, or revoked.

Wayne B. Wright
Wayne B. Wright
Manager, **AEA FSDO** #27

Figure 4. FAA Letter of Approved Courses

FAR Part

PREAPPLI(



APPENDIX 2. SAMPLE PILOT TRAINING COURSE OUTLINE (TCO)

This sample private pilot TCO is intended to serve as a general guide for the preparation of a TCO for which FAA approval is sought. Pilot schools may develop their own training syllabus or use a commercially prepared syllabus (see Order 8700.1, Chapter 142, Section 1, Paragraph 7). If a commercially prepared syllabus is used, it must meet the needs of their particular operation; i.e., physical layout of the operation, personnel, aircraft, kinds of training aids available, methods and procedures of operation, and the goals and standards of the school. The content of the training syllabus contained herein is not considered to be the optimum. The syllabus content should be arranged in a manner best suited to the individual school where training procedures are often dictated by weather, location or specific training needs. This sample contains a training syllabus for both private pilot ground and flight training and is designed to be taught concurrently.

1. A TCO is required by FAR § 141.55 to meet the minimum curriculum requirements of the course prescribed in the appropriate appendixes of FAR Part 141. If the school elects to submit a TCO, based on a special curriculum approved under FAR § 141.57, such a course will be approved upon a showing that the course, as outlined, will achieve a level of training prescribed in the approved special curriculum.

2. It is intended that the appendixes of FAR Part 141 include uniform curricula for approved training courses but would not prescribe maneuvers and other details included in the curricula contained in FAR Part 141. This was done to provide flexibility which is necessary and directed by the fact that students trained under FAR Part 141 must be tested under FAR Part 61.

3. From time to time, the FAA may highlight special emphasis items that have been determined to be beneficial to be included in a TCO. Review the TCO's to determine if such special emphasis items are addressed; if not, consider the inclusion of these items and coordinate with the FAA prior to formal submission of an amended TCO.

TRAINING COURSE OUTLINE SAMPLE

1. Travis Aviation, located at Manassas Airport, Manassas, Virginia, holds Air Agency Certificate No. TELS210F, and is owned and operated as:

TRAVIS E. LEE
dba
TRAVIS AVIATION
1862 BULL RUN CIRCLE
MANASSAS, VA 22030

2. COURSE TITLE. Private Pilot Certification Course - Airplane Single-Engine Land.

3. This TCO meets all of the curriculum requirements for the Private Pilot Certification Course contained in appendix A of FAR Part 141 (describe the approved special curriculum if one is used as a basis for the TCO). These curriculum contents are intended to parallel FAA-S-8081-1A, the Private Pilot Airplane Single-Engine Land Practical Test Standards (PTS).

4. The training syllabus herein contains a separate ground training course and a flight training course which will be taught concurrently.

5. COURSE OBJECTIVE. The student will obtain the knowledge, skill and aeronautical experience necessary to meet the requirements for a private pilot certificate with an airplane category rating and a single-engine land class rating.

6. COMPLETION STANDARD. The student must demonstrate through written tests, practical tests, and through appropriate records that he/she meets the knowledge, skill and experience requirements necessary to obtain a private pilot certificate with an airplane category rating and a single-engine land class rating. Each individual must satisfactorily complete at least one stage of training within each training period of not more than 90 days.

7. GROUND INSTRUCTIONAL FACILITIES. Ground instructional facilities are located in Hanger No. 12 at the Manassas Airport. They consist of two 25 by 25-foot rooms equipped with tables and chairs and instruction booths, as shown in the following diagrams.

A. Training Room No. 1 is equipped with eight 36 by 72-inch tables and chairs to accommodate 16 students. The room is also equipped with a 36 by 60-inch chalk board, a VHS videotape player and 48-inch monitor and an overhead projector and screen. The tables are equipped with a "four-answer" responder system with the master panel located on the instructor's lectern.

B. (Diagram - Training Room No. 1).

C. Training Room No. 2 is equipped with nine individual training booths. Eight booths are equipped with Apex Visual Screens and projectors. One booth is equipped with closed circuit television.

D. (Diagram - Training Room No. 2).

E. The training rooms are well lighted and the temperature is thermostatically controlled. Each room is well ventilated and conforms to the city of Manassas building, sanitation and health codes. The rooms are designed and located so that students will not be distracted by instruction conducted in the other rooms or by flight and maintenance operations at the airport.

8. AIRPORT. Manassas Airport is the main operations base for training in this course. Flight training operations, including the dispatching of flights, will also be conducted at Centreville Airport, Centreville, Virginia. Both airports have hard-surfaced runways and meet the requirements of FAR § 141.37 for day and night flight operations. Each airport has fuel and maintenance services available from 0600-2200.

9. AIRPORT FACILITIES. Each airport is equipped with a pilot briefing area. These are permanent structures located in Hangar 12 at Manassas Airport and in Hangar 1 at Centreville Airport. Both briefing areas are equipped with Direct User Access Terminals (DUATS) and a direct line telephone to the Leesburg Automated Flight Service Station (AFSS). The facilities are used exclusively by students, air taxi pilots, aircraft salesmen, itinerant pilots, and regular customers of Travis Aviation. The briefing areas are 20 by 25-feet and equipped with numerous tables for planning purposes. The briefing areas have a full set of aeronautical charts, including the current AIM. Large wall maps with a mileage indicator depict the entire United States. The local practice areas are shown and described on a detailed chart posted on the wall.

10. AIRCRAFT. Bendix 180 airplanes will be used for all flight training in this course. These aircraft will meet the requirements of FAR § 141.39. Radio equipment will consist of at least one 360 channel transceiver and at least one VOR and NDB navigational receiver and a 4096 code transponder with Mode C capability. Each airplane is equipped for day and night VFR and IFR flying as specified in FAR § 91.205.

11. CHIEF FLIGHT INSTRUCTOR. (The chief flight instructor for a course of training should be designated by name in the appropriate TCO. If the school's qualifications for a chief flight instructor are higher than those listed in FAR § 141.35, those qualifications should be listed.)

12. ASSISTANT CHIEF FLIGHT INSTRUCTOR(S). (The assistant chief flight instructor(s) for a course of training should be designated by name in the appropriate TCO. If assigned duties at a satellite base, those duties and the specific bases should be listed.)

13. FLIGHT INSTRUCTORS. (The minimum qualifications and ratings for flight instructors should be listed in the TCO.) For example: Each flight instructor assigned to this course must be the holder of at least a commercial pilot certificate with an airplane category rating and a single-engine land class rating. The instructor must be the holder of a flight instructor certificate with an airplane category rating with a

single-engine class rating and an instrument airplane rating. The instructor must also have a total of 1,000 hours of flying time, including at least 200 hours of flight instruction.

14. CHIEF GROUND INSTRUCTOR. (If a chief ground instructor teaches a course of training, the instructor should be designated by name in the appropriate TCO. If the school's qualifications are higher than those listed in FAR § 141.35(e), they should be listed.)

TRAINING COURSE OUTLINE – TRAINING SYLLABUS
PRIVATE PILOT CERTIFICATION COURSE AIRPLANE SINGLE-ENGINE LAND
GROUND TRAINING: 37 HOURS

1. GROUND TRAINING COURSE OBJECTIVES. The student will obtain the necessary aeronautical knowledge and meet the prerequisites specified in FAR Part 61 for a private pilot written test.

2. GROUND TRAINING COURSE COMPLETION STANDARDS. The student will demonstrate through practical tests, written tests, and records that he/she meets the prerequisites specified in FAR Part 61, and has the knowledge necessary to pass the private pilot written test.

STAGE ONE – FAR AND OTHER PUBLICATIONS: 7:00 HOURS

1. STAGE ONE OBJECTIVE. To develop the student's knowledge of the FAR, the AIM (Official Guide to Basic Flight Information and Air Traffic Control (ATC) Procedures), the AC system, National Transportation Safety Board (NTSB) Part 830 and Airport Facility Directory, and the kind of flight operations authorized by the private pilot certificate.

2. STAGE ONE COMPLETION STANDARD. This stage will be completed successfully when the student passes the Stage One final written examination with a grade of 80 percent.

3. LESSON NO. 1 - 2:00 HOURS.

A. Objective. During this lesson, the student will be introduced to the appropriate regulatory requirements of FAR Parts 61 and 91.

CONTENT:

(1) Airplane Registration and Airworthiness Certificate.

(2) FAR Part 1, Definitions and Abbreviations, appropriate to the private pilot.

(3) FAR Part 61.
(a) Requirements for certificates and ratings, privileges, and limitations (student and private pilot).
(b) Duration of pilot certificates.
(c) Medical certificate requirements, classes and duration.
(d) Written tests.
(e) Practical tests.
(f) Pilot logbooks and flight records, logging of pilot time.
(g) Recency of experience requirements (including biennial flight review).
(h) Private pilot privileges and limitations.

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination, the student displays a working knowledge of the appropriate portions of FAR Parts 61 and 91 and demonstrates how to locate and use information in the rule.

4. LESSON NO. 2 - 2:00 HOURS.

A. Objective. During this lesson, Lesson No. 1 will be reviewed. The student will be instructed in the pertinent regulatory requirements of FAR Part 91 and the accident report rules of the NTSB as related to private pilot operations.

CONTENT:

(1) FAR Part 91.
- (a) General operating and flight rules.
- (b) VFR requirements.
- (c) IFR requirements (familiarization).
- (d) Maintenance, preventative maintenance and alterations, airworthiness and registration certificates.
- (e) Familiarization with Subpart D.

(2) NTSB Procedural Regulations, Part 830 - Notification and Reporting of Accidents.

B. Completion Standards. The lesson will be successfully completed when, by oral examination, the student can demonstrate how to locate and use information in the appropriate rule as related to private pilot operations and demonstrates an understanding of NTSB Part 830.

5. LESSON NO. 3 - 2:30 HOURS.

A. Objective. During this lesson, the student will be given instruction in the basic content of the AIM for VFR operations, the AC system, and airport facility directory.

CONTENT:

(1) AIM.
- (a) Air navigation radio aids.
- (b) Airport air navigation lighting and runway and taxiway marking.
- (c) Airspace, Airport Radar Service Area, Terminal Control Areas, Restricted Areas, Prohibited Areas, Warning Areas and Military Operational Areas.
- (d) Air traffic control.
- (e) Services available to pilots.
- (f) Airport operations to include high density airport operations.
- (g) Emergency procedures.
- (h) Good operating practices to include collision avoidance.

(2) Airport Facility Directory.

(3) FAA AC Series 00, 20, 60, 70, 90, 150 and 170 (familiarization).

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays basic knowledge of the appropriate parts of the AIM for VFR operations, Airport Facility Directory and the AC system.

6. STAGE ONE FINAL WRITTEN EXAMINATION - :30 MINUTES. (A copy of the Stage One final written examination should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

STAGE TWO - NAVIGATION: 9:00 HOURS

1. STAGE TWO OBJECTIVE. To develop the student's ability to plan and plot a VFR cross-country flight using pilotage, dead reckoning and radio navigation.

2. STAGE TWO COMPLETION STANDARD. This stage will be completed successfully when the student passes the Stage Two final written examination with a grade of 80 percent.

3. LESSON NO. 1 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in the operation of aircraft radios and the use of radio phraseology with respect to ATC facilities. The flight computer will be introduced along with the basic use of aeronautical charts.

CONTENT:

(1) Radio communications.
- (a) Operation of the communications radio equipment.
- (b) Ground control.
- (c) Tower.
- (d) Automatic Terminal Information Service.
- (e) Flight Service Station (FSS or AFSS).
- (f) UNICOM.
- (g) Common Traffic Advisory Frequency.
- (h) Technique and phraseology.
- (i) ATC light signals.

(2) Flight computer/calculator face.
- (a) Time.
- (b) Speed.

(c) Distance.
(d) Fuel consumption.

(3) VFR navigation.
(a) Aeronautical charts.
(b) Measurement of courses.
(c) Pilotage.

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays basic knowledge of radio communications, ATC facilities and aeronautical charts. The student will be able to solve elementary problems on the flight computer.

4. LESSON NO. 2 - 2:30 HOURS.

A. Objective. During this lesson, the student will be instructed in the fundamentals of navigation, the operation of navigational radio equipment, and advanced problems on the flight computer.

CONTENT:

(1) VFR navigation.
(a) Pilotage.
(b) Dead reckoning.

(2) Operation of the navigational radio equipment.
(a) VOR.
(b) ADF.
(c) Use of radio aids.

(3) Flight computer/calculator.
(a) Determination of wind correction angle and true heading.
(b) Determination of ground speed.
(c) Review, time, speed, distance, and fuel consumption problems.

B. Completion Standards. The student will have successfully completed the lesson when, by oral examination and demonstration, the student displays a basic knowledge of navigation and the use of radio aids. The student will be able to solve fundamental and advanced problems on the flight computer.

5. LESSON NO. 3 - 2:00 HOURS.

A. Objective. Lesson Two will be reviewed. Advanced radio navigational problems, emergency procedures with respect to cross-country flying and flight planning will be introduced.

CONTENT:

(1) Review Lesson Two.

(2) Use of ADF.

(3) Radar.

(4) Use of VOR.

(5) Emergency procedures.
(a) Diversion to an alternate.
(b) Lost procedures, including use of radar and DF instructions.
(c) In-flight emergencies, including forced landings.

(6) Transponder and Mode C.

(7) Distance Measuring Equipment (DME).

(8) Review flight planning.

(9) Review flight computer.

B. Completion Standards. This lesson will be completed when, by oral examination and demonstration, the student displays a working knowledge of radio navigation procedures, emergency procedures and solving of flight computer/calculator problems.

6. LESSON NO. 4 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in advanced flight planning, review of flight computer problems, and will be introduced to aeromedical factors related to flight and general safety precautions. At this time, the school procedures for cross-country training flights will be introduced.

(1) Flight planning.

(2) Review flight computer.

(3) Aeromedical factors related to flight.
(a) Fatigue.
(b) Hypoxia.
(c) Hyperventilation.
(d) Alcohol.
(e) Drugs.
(f) Vertigo, spatial disorientation and motion sickness.
(g) Carbon monoxide poisoning.
(h) Middle ear and sinus problems.

(4) General safety.
(a) Collision avoidance precautions.
(b) Wake turbulence avoidance.
(c) Fire - in the air and on the ground.
(d) Use of fire extinguishers (halon).
(e) Ground handling of aircraft.

(5) School procedures for redispatching flights after unscheduled stops.

(6) Obtaining maintenance away from the home base.

B. Completion Standards. This lesson will be completed when, by oral examination and demonstration, the student displays knowledge of medical factors related to flight, general safety procedures, and school policy and procedures for cross-country training flights.

7. STAGE TWO FINAL WRITTEN EXAMINATION - :30 MINUTES. (A copy of the Stage Two final written examination, along with its passing standards, should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

STAGE THREE - WEATHER: 7:00 HOURS

1. STAGE THREE OBJECTIVE. To develop the ability to recognize critical weather situations from the ground and in flight, and become familiar with procedures and use of appropriate aeronautical weather reports and forecasts.

2. STAGE THREE COMPLETION STANDARDS. The student will have successfully completed this stage when he/she passes the Stage Three final written examination with a grade of at least 80 percent.

3. LESSON NO. 1 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in the fundamentals of weather as associated with the operation of aircraft,

CONTENT:

(1) Aviation weather basics.
(a) Atmospheric layers (inversions).
(b) Pressure.
(c) Circulation.
(d) Temperature and moisture.
(e) Stability and lapse rates.
(f) Turbulence.
(g) Clouds.

(2) Air masses.

(3) Fronts.

(4) Aircraft icing.

(5) Thunderstorms.

B. Completion Standards. This lesson will be completed when, by oral examination, the student demonstrates fundamental knowledge of aviation weather.

4. LESSON NO. 2 - 2:30 HOURS.

A. Objective. Lesson No. 1 will be reviewed. The interpretation and use of weather reports, forecasts, aviation broadcasts and the obtaining of weather briefings will be introduced.

CONTENT:

(1) Review Lesson No. 1.

(2) Aviation weather reports - procurement and use.
(a) Hourly sequence reports.
(b) Special surface reports.
(c) Pilot reports.
(d) Radar reports.

(3) Aviation weather broadcasts - procurement and use.
(a) Transcribed weather broadcasts.

(b) In-flight weather advisories.

(4) Weather briefings.

(5) Review requirements of regulations for VFR flight.

(6) Aviation weather forecasts.
(a) Area forecasts.
(b) Terminal forecasts.
(c) Wind-aloft forecasts and reports and windshear.
(d) Weather charts.
(e) Pilot weather reports.
(f) SIGMET's and AIRMET's.

(7) Use of the DUAT
(a) Location identifiers.
(b) Filing flight plans.
(c) Notices to Airmen (NOTAM's).

B. Completion Standards. The lesson will be completed when, by oral examination and demonstration, the student displays the ability to interpret and use aviation weather reports and forecasts and can obtain a weather briefing directly from an AFSS or through the use of DUAT.

5. LESSON NO. 3 - 2:00 HOURS.

A. Objective. This lesson will consist of a review of the previous two lessons and instruction in the use of Coordinated Universal Time (UTC), in-flight weather advisories and weather recognition.

CONTENT:

(1) Review Lessons No. 1 and 2.

(2) UTC.

(3) In-flight weather advisories.

(4) Weather recognition - from the ground and inflight.

B. Completion Standards. This lesson will be completed when, by oral examination, the student displays a working knowledge of UTC and in-flight aviation weather advisories.

6. STAGE THREE FINAL WRITTEN EXAMINATION - :30 MINUTES. (A copy of the Stage Three final written examination should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

STAGE FOUR – FLIGHT FUNDAMENTALS AND AIRPLANE SYSTEMS: 13:00 HOURS

1. STAGE FOUR OBJECTIVE. To develop the student's knowledge to operate an airplane safely in high density airport operations, using collision avoidance precautions and radio communication procedures.

2. STAGE FOUR COMPLETION STANDARDS. This stage will be successfully completed when the student passes the Stage Four final written examination with a grade of 80 percent.

3. LESSON NO. 1 - 2:30 HOURS.

A. Objective. During this lesson, the student will be instructed in the fundamentals of flight basic aerodynamics, including load factors.

CONTENT:

(1) Forces action on an airplane in flight.
(a) Lift.
(b) Weight
(c) Thrust.
(d) Drag.

(2) Airfoils.
(a) Angle of incidence.
(b) Angle of attack.
(c) Bernoulli's Principle.

(3) Factors affecting lift and drag.
(a) Wing area,
(b) Airfoil shape.
(c) Angle of attack.
(d) Airspeed.
(e) Air density.

(4) Functions of the controls.
(a) Axis of rotation - longitudinal, lateral and vertical.
(b) Primary controls - ailerons, elevators and rudder.

(c) Secondary controls - trim tabs.
(d) Flaps and other high lift devices.

(5) Stability.
(a) Static stability.
(b) Dynamic stability.

(6) Loads and load factors.
(a) Effect of bank angle on stall speed.
(b) Effect of turbulence on load factor.
(c) Effect of speed on load factor.
(d) Effect of load factor on stall speed.

B. Completion Standards. This lesson will be successfully completed when, by oral examination, the student displays a basic understanding of the fundamentals of flight, basic aerodynamics, and load factors.

4. LESSON NO. 2 - 2:00 HOURS.

A. Objective. During this lesson, Lesson No. 1 will be reviewed. The student will be instructed in the basic maneuvers of flight.

CONTENT:

(1) Straight and level flight.
(a) Pitch, bank and yaw.
(b) Trim.
(c) Integrated use of outside reference and flight instruments.

(2) Level turns.
(a) Forces in a turn.
(b) Aileron yaw.
(c) speed of roll.
(d) Slips and skids.
(e) Integrated use of outside reference and flight instruments.

(3) Climbs and climbing turns.
(a) Gyroscopic action.
(b) Asymmetrical loading of propeller ("P" factor).
(c) Slipstream rotation.
(d) Torque effect.
(e) Best rate of climb airspeed.

(f) Best angle of climb airspeed.
(g) Trim.

(4) Glides and gliding turns.
(a) Effect of high lift devices.
(b) Most efficient glide speed.
(c) Coordination.
(d) Trim.

(5) Descents with power.
(a) Power settings and airspeeds.
(b) Trim.

B. Completion Standards. The student will have successfully completed the lesson when, by means of a practical test, the student displays a basic understanding of the fundamentals of flight presented in this lesson and in previous flight training.

5. LESSON NO. 3 - 2:00 HOURS.

A. Objective. During this lesson, the student will be instructed in the use of the pilot's operating handbooks, flight manuals and weight and balance. Fundamental flight training maneuvers will be introduced.

CONTENT:

(1) Use of data in pilot's operating handbook or FAA-approved AFM.
(a) Takeoff and landing distances.
(b) Fuel consumption and related charts.
(c) Maximum range power settings; maximum endurance power settings.
(d) Operating limitations, handbooks/manuals.

(2) Weight and balance.
(a) Terms and definitions.
(b) Effects of abnormal balance.
(c) Finding loaded weight.
(d) Finding center of gravity; when weight is shifted; when weight is added or removed. Aircraft equipment list.

(3) Flight at minimum controllable airspeed.

(4) stalls.
(a) Theory of stalls.
(b) Power-on stalls.

(c) Power-off stalls.
(d) Crossed-control stalls.
(e) Secondary stalls.
(f) Elevator trim stalls.
(g) Spin entry, inadvertent spins, and spin recovery techniques.

(5) Steep turns.

(6) Plight maneuvering by reference to ground objects.
(a) S-turns across a road.
(b) Rectangular course.
(c) Tums around a point.

B. Completion Standards. This lesson will be completed successfully when, by demonstration, the student displays a basic knowledge of the owner's handbook, AFM, weight and balance, and the fundamentals of basic flight training maneuvers.

6. LESSON NO. 4 - 2:00 HOURS.

A. Objective. The student will be instructed in flight training maneuvers, including an introduction to attitude instrument flying.

CONTENT:

(1) Review Lesson No. 3.

(2) Takeoffs and landings.
(a) Normal and crosswind takeoffs and landings.
(b) Soft field takeoffs and landings.
(c) Short field takeoffs and landings.
(d) Go-arounds or rejected landings.

(3) Introduction to attitude instrument flying. Maneuvering by reference to flight instruments - pitch, bank, power and trim control in the performance of basic instrument maneuvers.
(a) Straight and level flight.
(b) Constant altitude turns.
(c) Climbs.
(d) Descents.
(e) Recovery from unusual attitudes.

B. Completion Standards. This lesson will be completed successfully when, by oral examination and demonstration, the student displays a basic knowledge of the fundamentals of flight training maneuvers and attitude instrument flying.

7. LESSON NO. 5 - 2:00 HOURS.

A. Objective. During this lesson the student will be instructed in systems and instruments.

CONTENT:

(1) Airplane structures.
(a) Construction features.
(b) Flight control systems.
(c) Rigging.

(2) Propellers.
(a) Fixed pitch.
(b) Controllable.

(3) Reciprocating airplane engines.
(a) Construction features.
(b) Principle of operation - four stroke cycle.
(c) Fuel system, including carburetors and fuel injectors.
(d) Lubrication system.
(e) Ignition system.
(f) Engine instruments.
(g) Operating limitations.
(h) Anti-ice and deice systems.
(i) Malfunctions and remedial actions.

(4) Airplane hydraulic system.
(a) Principle of hydraulics.
(b) Use of hydraulics in airplanes.
(c) Construction features of simple airplane hydraulic systems.
(d) Retractable landing gear and flaps.
(e) Malfunctions and remedial actions.

(5) Airplane electrical systems.
(a) Fundamentals of electricity.
(b) Operation of airplane electrical power system units.
(c) Electrically operated flight instruments.
(d) Retractable landing gear.
(e) Wing flaps, leading edge devices, and spoilers.

(f) Fuses and circuit breakers.
(g) Malfunctions and remedial actions.

(6) Pitot static system and instruments.
(a) Airspeed indicator, including markings.
(b) Altimeter and altitude encoder.
(c) Vertical speed indicator.

(7) Vacuum system and instruments.
(a) Altitude indicator.
(b) Heading indicator.
(c) Turn and slip indicator.

(8) Magnetic compass.
(a) Errors in the magnetic compass.
(b) Use of the magnetic compass.

(9) Maintenance requirements and appropriate records.

B. Completion Standards. This lesson will be successfully completed when, by oral examination, the student displays a basic understanding of the aircraft systems and instruments.

8. LESSON NO. 6 - 2:00 HOURS.

A. Objective. During this lesson the student will be instructed in the fundamentals of night flying. Previous lessons will be reviewed as necessary,

CONTENT:

(1) Review Lesson No. 1 through Lesson No. 5.

(2) Night flying.
(a) Requirements of regulations.
(b) Preparation.
(c) Equipment.
(d) Night vision.
(e) Airport lighting.
(f) Orientation.
(g) VFR navigation.
(h) Weather factors.

(3) FAR Partial and complete power failure.
(a) Sample situations.
(b) Recommended courses of action.

(4) Systems and equipment malfunctions.
(a) Sample situations.
(b) Recommended course of action.

B. Completion Standards. The lesson will be completed successfully when the student, by oral examination and demonstration, displays a working knowledge of the fundamentals of night flying.

9. STAGE FOUR FINAL WRITTEN EXAMINATION - :30 MINUTES. (A copy of the Stage Four examination to be given should be included with the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during this stage.)

10. FINAL WRITTEN EXAMINATION - 1:00 HOUR. (A copy of the final examination to be given should be included in the training syllabus when submitted to the FAA FSDO for review. The examination should be comprehensive and contain questions on information covered during the entire course.)

Note: This is a sample TCO only and may not include all PTS items or be complete in relation to the FAR. This sample is not meant to be used as an "approval-ready" TCO.

TRAINING COURSE OUTLINE – TRAINING SYLLABUS
PRIVATE PILOT CERTIFICATION COURSE AIRPLANE SINGLE-ENGINE LAND
FLIGHT TRAINING: 35 HOURS

1. ENROLLMENT PREREQUISITES. Students enrolling in this flight course must possess a valid student pilot certificate and hold at least a current third-class medical. certificate.

2. FLIGHT TRAINING COURSE OBJECTIVES.' The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Private Pilot Certificate with an airplane. category rating and single-engine land class rating.

'3. FLIGHT TRAINING COURSE COMPLETION STANDARDS. The student will demonstrate through practical test 'and school records that he/she has the necessary aeronautical skill and experience to obtain a Private Pilot Certificate with an airplane category rating and single-engine land class rating.

STAGE ONE - SOLO FLIGHT 9 HOURS DUAL, 1 HOUR SOLO

1. STAGE ONE OBJECTIVES. The student will be instructed. in the basic flying procedures and skills necessary for the first solo flight.

2. STAGE ONE COMPLETION STANDARDS. The stage will be completed when the student satisfactorily passes the Stage One check and is able to conduct solo flights safely.

3. PLIGHT LESSON No. 1 (1 HOUR DUAL).

A. Objective. The student will be familiarized with the training airplane, its operating characteristics, cabin controls, instruments, and systems, preflight procedures, use of checklists, and safety precautions to be followed. The student will by instructed in basic flight maneuvers.

CONTENT:

(1) Preflight discussion.

(2) Introduction.
(a) Purpose of preflight checks and visual inspections.
(b) Line (preflight) inspection and aircraft servicing.
(c) Importance of using a checklist.
(d) Starting engine and runups.
(e) Basic radio procedures.
(f) Taxiing.
(g) Pre-takeoff checklist.
(h) Takeoff (normal or crosswind).
(i) Traffic pattern departure.
(j) Local flying area familiarization.
(k) Straight and level flight (VR and IR).*
(l) Shallow and medium bank turns (VR and IR) in both directions.
(m) Collision avoidance.
(n) Traffic pattern entry.
(o) Ground safety.
(p) Postflight procedures.
(q) Cockpit management.

* The notation "VR and IR" is used to indicate maneuvers to be performed by both visual and instrument references during the conduct. of integrated flight instruction.

(3). Postflight critique and preview of next lesson.

B. Completion Standards. At the completion of this lesson, the student should be able to, with assistance, conduct a preflight, use checklists, make engine runups, maintain altitude in straight and level and in turns within ±200 feet and control heading with ±20°, and display an understanding of ground safety.

4. FLIGHT LESSON No. 2 (1 HOUR DUAL).

A. Objective. The student will receive instruction and review on basic flight maneuvers. Instruction in climbs, climbing turns, descents, descending turns, and level-off procedures will be given.

CONTENT.:

(1) Preflight discussion.

(2) Review.
(a) Normal or crosswind takeoff.
(b) Traffic pattern departure.

(c) Shallow and medium bank turns (VR and IR) in both directions.
(d) Straight and level flight (VR and IR).

(3) Introduction.
(a) Airplane servicing.
(b) Climbs and climbing turns (VR and IR).
(c) Glides and gliding turns (VR and IR).
(d) Torque effect.
(e) Level off from climbs and glides (VR and IR).

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student should be able to establish proper climbs and descents, and control airspeed, within ±10 knots with power and altitude adjustments, hold altitude within ±100 feet and headings within ±10°.

5. PLIGHT LESSON No. 3 (1 HOUR DUAL).

A. Objective. This flight period will be a review of maneuvers and procedures previously introduced. Plight at minimum controllable airspeed, steep turns, and power-off stalls will be given.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Use of checklist.
(b) Basic radio communications procedure.
(c) Engine starting.
(d) Straight and level flight (VR and IR).
(e) Constant altitude medium bank turns (VR and IR).
(f) Climbs and climbing turns (VR and IR).
(g) Glides and gliding turns (VR and IR).
(h) Level-off procedures (VR and IR).

(3) Introduction.
(a) Steep turns.
(b) Descents and descending turns (VR and IR) using high and low drag configurations.
(c) Approach to landing and preview of next lesson.
(d) Plight at minimum controllable airspeed (VR and IR).
(e) Power-off stalls (imminent and full).

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will be expected to display proficiency in maintaining airspeed within ±10 knots of appropriate airspeeds. Loss or gain of altitude should be restricted to within ±100 feet and heading control within ±10° while in straight and level flight.

6. FLIGHT LESSON No. 4 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of all previous maneuvers. S-turns across a road, turns around a point, power-on stalls, and elementary emergency landings will be introduced.

CONTENT:

(1) Preflight discussion.

(2) Review.
- (a) Straight and level flight.
- (b) Constant altitude turns.
- (c) Flight at minimum controllable airspeed.
- (d) Takeoff and pattern departure.
- (e) Power-off stalls.
- (f) Steep turns.
- (g) Pattern entry.

(3) Introduction.
- (a) Power-on stalls (VR and IR): (imminent and full).
- (b) Rectangular course.
- (c) s-tums.
- (d) Turns around a point.
- (e) Forced landings procedures initiated at takeoff. During initial climb, cruise, descent, and in the landing pattern.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will have successfully completed the lesson when he/she is competent to perform, with minimum assistance, the procedures and maneuvers given during previous lessons. The student should achieve the ability to recognize stall indications and make safe prompt recoveries. Additionally, the student should maintain assigned airspeed within ±10 knots, assigned altitude within ±100 feet and assigned heading within ±10°, and display a basic knowledge of elementary emergency landings.

7. FLIGHT LESSON No. 5 (1 HOUR DUAL).

A. Objective. In addition to review items, the student will be introduced to emergency procedures, the procedures used to change airspeed and configuration of the airplane in various flight attitudes.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Plight at minimum controllable airspeed.
(b) Steep turns.
(c) Power-on and power-off stalls.

(3) Introduction.
(a) Best rate of climb V_Y and climbing turns (VR and IR).
(b) Best angle of climb V_X and climbing turns (VR and IR).
(c) Emergency procedures.
(d) Change of airspeed and configuration.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display, through performance and discussion, complete understanding of possible emergencies and procedures to use during flight. The student should maintain airspeed within ±5 knots of assigned airspeeds, where applicable.

8. FLIGHT LESSON No. 6 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of previous maneuvers and an introduction to go-around procedures. At least three takeoffs and landings to a full stop will be accomplished with instructor guidance.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Medium bank turns (VR and IR).
(b) Best rate of climb V_Y and climbing turns (VR and IR).
(c) Best angle of climb V_X and climbing turns (VR and IR).
(d) Power-on stall.

(e) Steep turns (VR and IR).
(f) Emergency procedures.
(g) Airspeed and configuration changes (VR and IR). Cruise to minimum controllable.
(h) Climbing and descending turns (VR and IR).
(i) Normal and crosswind takeoffs and landings.

(3) Introduction.
(a) Go-around.
(b) Wake turbulence avoidance.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student should perform with proficiency the basic flight maneuvers. He/she should demonstrate the ability to maintain altitude within ±100 feet and ability to control heading within ±10°, and control airspeed within ±10 knots of preselected airspeed, where applicable.

9. FLIGHT LESSON No. 7 (1 HOUR DUAL).

A. Objectives. This lesson will consist of a review of previous maneuvers and procedures. The student should perform those maneuvers and procedures for evaluation and practice in preparation for solo.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Medium bank turns (VR and IR).
(b) Power-off stalls.
(c) Steep turns.
(d) Emergency procedures.
(e) Airspeed configuration changes (VR and IR).
(f) Climbing and descending turns.
(g) Normal and crosswind takeoffs and landings.
(h) Go-around procedures.
(i) Forward slips to a landing.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student should perform the basic flight maneuvers and demonstrate the ability to maintain altitude within ±100 feet and to control heading within ±10° of that assigned. In addition, the student should control airspeed within ±10 knots of the preselected airspeed.

10. PLIGHT LESSON No. 8 (1 HOUR DUAL).

A. Objective. This lesson will consist of a review of selected maneuvers and procedures. In addition, the student will continue takeoff and landing practice.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Straight and level flight (VR and IR).
(b) Medium bank turns (VR and IR).
(c) Takeoff and pattern departure.
(d) Pattern entry and normal and/or crosswind landings.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display skill and understanding in the execution of selected maneuvers and procedures and show solo competence while executing takeoffs and landings.

11. PLIGHT LESSON No. 9 FIRST SOLO PLIGHT (1 HOUR DUAL).

A. Objective. During this lesson the student will accomplish the first supervised solo flight if he/she displays the required level of safety and competence.

CONTENT:

(1) Pre-solo written examination.

(2) Review.
(a) Medium bank turns (VR and IR).
(b) Best rate of climb V_Y and climbing turns.
(c) Best angle of climb V_X and climbing turns.
(d) Emergency procedures.
(e) Normal and crosswind takeoffs and landings.
(f) Balked landing and go-around procedures.

(3) Introduction.
(a) Supervised solo in the traffic pattern (approximately 15 minutes, three takeoffs and landings).

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display the ability to successfully perform his/her first supervised solo flight.

12. STAGE CHECK: STAGE ONE, SOLO PLIGHT (1 HOUR).

A. Objective. During this flight, the chief flight instructor or assistant chief flight instructor will determine if the student can safely conduct solo flights and exercise the privileges associated with the solo operation of the airplane.

B. Completion Standards. The student will be evaluated on the basis of the following standards:

(1) Maintain altitude within ±100 feet.

(2) Control heading within ±10°.

(3) Control airspeed within ±5 knots (as applicable).

(4) Maintain coordinated control of the airplane.

(5) Display reasonable skill and understanding in the execution of all Stage One maneuvers and procedures.

STAGE TWO - CROSS COUNTRY 7 HOURS DUAL, 5 HOURS SOLO

1. STAGE TWO OBJECTIVES. The student will be instructed in the conduct of cross-country flights in an airplane using pilotage, dead reckoning, and radio navigation (VOR and NDB). The student will also be instructed in operations within the ATC environment under VFR conditions.

2. STAGE TWO COMPLETION STANDARDS. The stage will be completed when the student demonstrates through stage check, solo flight, and records that he/she can safely conduct solo cross-country flights in an airplane using pilotage, dead reckoning, and radio navigation under VFR conditions.

3. PLIGHT LESSON No. 1 (1 HOUR DUAL AND SOLO).

A. Objective. During this lesson the student will operate the airplane in the traffic pattern in solo flight after an appropriate checkout by a flight instructor.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Collision avoidance.
(b) Traffic pattern.
(c) Normal and crosswind landings and takeoffs.

(3) Solo flight in the traffic pattern.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display the proficiency and competency required to act as PIC on subsequent solo flights. The student will display full understanding of proper radio procedures and ground traffic procedures.

4. PLIGHT LESSON No. 2 (1 HOUR DUAL).

A. Objective. The student will be able to demonstrate, recognize, and recover from accelerated stalls, obtain maximum performance during short and soft field takeoffs and landings, and determine position and track using VOR navigation.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Basic radio procedures.
(b) Medium bank turns (VR and IR).
(c) Climbs and descents (VR and IR).
(d) Steep turns (VR and IR).

(3) Introduction.
(a) Accelerated stalls.
(b) Short and soft field takeoffs.
(c) Short and soft field approaches and landings.
(d) Basic radio navigation, VOR position finding and VOR tracking.
(e) Solo flight within traffic pattern.
(f) Dead reckoning with the aid of a magnetic compass.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate that he/she is able to recognize and recover from accelerated stalls, obtain maximum performance during short and soft field takeoffs and landings, and determine position and track within ±2 miles using VOR navigation.

5. PLIGHT LESSON No. 3 (1 HOUR SOLO).

A. Objective. During this solo period, the student will review and practice the basic and precision flight maneuvers learned previously, in addition to those maneuvers specified by the flight instructor.

CONTENT:

(1) Preflight discussion.

(2) Review.
(a) Plight at minimum controllable airspeed.
(b) Stalls, power-on and power-off.
(c) S-turns across a road.
(d) Normal and/or crosswind landings.
(e) Maneuvers specified by the flight instructor during the preflight discussion.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. This lesson will be completed when the student has accomplished the solo review and practice of basic and precision flight maneuvers in addition to those maneuvers specified by the flight instructor.

6. PLIGHT LESSON No. 4 (1 HOUR NIGHT DUAL).

A. Objective. During this lesson, the student's ability should be developed to a level which will enable the student to make solo flights in the local practice area and airport traffic pattern. The student will be instructed in such aspects of night operations as: night vision, night orientation, judgment of distance, use of cockpit, position and landing lights, and night emergency procedures.

CONTENT:

(1) Preflight discussion.
(a) Night vision and vertigo.
(b) Orientation in local area.
(c) Judgment of distance.
(d) Aircraft lights.
(e) Airport lights.
(f) Taxi technique
(g) Takeoff and landing techniques.
(h) Collision avoidance.
(i) Unusual altitude recovery.
(j) Emergencies.

(2) Demonstration and directed performance.
- (a) Night preflight inspection.
- (b) Use of cockpit lights.
- (c) Taxi technique.
- (d) Takeoff and traffic departure.
- (e) Area orientation.
- (f) Interpretation of aircraft and airport lights.
- (g) Recovery from unusual altitudes (VR and IR).
- (h) Radio communications.
- (i) Traffic pattern entry.
- (j) Power approaches and full stop landings.
- (k) Use of landing lights.
- (l) Simulated electrical failure to include at least one landing without aircraft powered lighting other than required position or anti-collision lighting.
- (m) Go-around.
- (n) VFR navigation.

(3) Student performance of five takeoffs and landings as sole manipulator of the flight. controls.
- (a) Takeoff and traffic pattern departure.
- (b) Traffic pattern entry.
- (c) Full stop landings.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will have successfully completed the lesson when he/she displays the ability to maintain orientation in the local flying area and traffic pattern, can accurately interpret aircraft and runway lights, and can competently fly the traffic pattern and perform takeoffs and landings. The student will display, through oral examination and demonstrations, competence in performing night emergency procedures.

7. FLIGHT LESSON No. 5 (2 HOURS DUAL).

A. Objective. The student will be able to navigate using pilotage, dead reckoning, and radio navigation. The student will be able to compute fuel consumption and estimated time of arrival (ETA) to checkpoints and destinations.

CONTENT:

(1) Preflight discussion and preparation.
- (a) Procurement and analysis of weather reports and forecasts and use of notices to airman.

(b) Cross-country planning log and use of aeronautical charts.
(c) Airports (controlled and uncontrolled).
(d) Aircraft performance.
(e) FAA flight plan.
(f) Weight and balance determination.

(2) Introduction; Three-leg, round robin, day cross-country flight
(a) Pilotage navigation - all three legs (one leg on Federal airway).
(b) Dead reckoning navigation - all three legs.
(c) VOR or NDB navigation on two legs (preferably last two).
(d) Compute ETA and fuel consumption - all three legs.
(e) Departure procedures (open flight plan).
(f) En route procedures.
(g) En route Flight Advisory Service and in-flight weather advisories.
(h) Arrival procedures - (close flight plan, obtain airport advisories, etc.).
(i) ATC light signals.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate that he/she can navigate using pilotage, dead reckoning, radio navigation, and make necessary radio communications. The student should demonstrate computation of ETA's and fuel consumption for each leg of the flight.

8. FLIGHT LESSON No. 6 (2 HOURS DUAL).

A. Objective. During this lesson, a dual cross-country flight will be planned. However, a diversion to an alternate will be made prior to arrival. The student will perform all required navigation procedures and display the ability to safely conduct solo cross-country flights.

CONTENT:

(1) Preflight discussion and preparation.
(a) Weather analysis and NOTAM's.
(b) Cross-country planning log.
(c) Airports.
(d) Aircraft performance.
(e) FAA flight plan.

(2) Introduction: Diversion to alternate airport.
(a) Emergency computation of a flight course.
(b) Determining position by VOR or NDB.
(c) Estimating in-flight visibility.
(d) Recognition of critical weather situations.

(3) Review.

(a) Pilotage, dead reckoning and VOR or NDB radio navigation.
(b) Computing ETA and fuel consumption.
(c) Emergency (including lost) procedures.
(d) Departure procedures.
(e) En route procedures.
(f) Arrival procedures.
(g) Crosswind takeoffs and landings.
(h) Straight and level flight (VR and IR).
(i) Climbs and climbing turns (VR and IR).
(j) Glides and gliding turns (VR and IR).
(k) Level off procedures (VR and IR).
(l) Crosswind takeoffs and landings.
(m) Simulated precautionary off airport approaches and landing procedures.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will be expected to demonstrate the ability to conduct cross-country flights using various means of navigation. The student will display a thorough knowledge of crosscountry flight planning, weather analysis, and use of proper publications. The student will be able to compute ETA's, fuel consumption, and other computer problems associated with cross-country planning. The student will be able to maintain altitude within ±100 feet. The student will be able to use the various means of navigation to maintain a planned course within 1 mile. In addition, the student will be able to identify his/her position at all times.

9. PLIGHT LESSON No. 7 (3 HOURS SOLO).

A. Objective. During this lesson the student will conduct a three-leg, solo crosscountry flight using pilotage, dead reckoning, and radio navigation (VOR or NDB). (This cross-country flight should be over the same course as the first dual crosscountry.)

CONTENT:

(1) Preflight discussion.

(2) Preparation

(3) Flight.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete a solo cross-country flight, consisting of three legs, using pilotage, dead reckoning, and radio navigation.

10. STAGE CHECK: STAGE TWO, CROSS COUNTRY (1 HOUR).

A. Objective. To confirm that the student can plan and conduct a cross-country flight, including a diversion to an alternate airport, as necessary, to avoid adverse weather. This stage check will be conducted by the chief flight instructor or assistant chief flight instructor.

B. Completion Standards. The student will be expected to demonstrate the ability to safely conduct cross-country flight operations and will display a thorough knowledge of proper preflight action, flight planning, weather analysis, and publications available. The student will perform all duties of PIC with smoothness, accuracy, and competence. The student will be able to divert to an alternate airport and give a reasonable ETA and remaining fuel. Prior to arrival at the alternate airport, the student will be placed under the hood until lost. The student will be able to locate his/her position within 3 miles without aid from the instructor by using all of the means available. The student will:

(1) Establish and maintain headings required to stay on course,

(2) Correctly identify position at any time by various means,

(3) Provide reasonable estimates of ETA's with an apparent error of not more than 10 minutes,

(4) Maintain altitude within ±200 feet, and

(5) Establish a course to an alternate and, within a reasonable time, give an acceptable estimate of the time and required fuel to the alternate.

STAGE THREE - PILOT OPERATIONS: 4 HOURS DUAL, 9 HOURS SOLO

1. STAGE THREE OBJECTIVES. The student will gain further experience in solo cross-country practice and receive instruction in preparation for the private pilot airplane practical test.

2. STAGE THREE COMPLETION STANDARDS. The stage will be completed when the student satisfactorily passes the final stage check for the course.

3. FLIGHT LESSON No. 1 (3 HOURS SOLO - 300 NM CROSS COUNTRY).

A. Objective. During this lesson the student will conduct a three-leg, solo cross-country with landings at two different airports, with stops at each airport.

CONTENT:

(1) Preflight discussion.

(2) Preparation

(3) Flight.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete a solo cross-country flight to two airports (name airports) with stops at each airport The instructor should determine how well the cross-country flight was conducted through an oral examination, and a check should be made to determine that all required flight log entries have been made.

4. FLIGHT LESSON No. 2 (4 HOURS SOLO CROSS-COUNTRY).

A. Objective. During this lesson, the student will conduct a three-leg, solo cross-country with landings at two different airports.

CONTENT:

(1) Preflight discussion.

(2) Preparation,

(3) Solo cross-country flight.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete a solo cross-country flight to two airports (name airports), with stops at each airport. The instructor should determine how well the cross-country flight was conducted through an oral examination; and a check should be made to determine that all required flight log entries have been made.

5. FLIGHT LESSON No. 3 (1 HOUR DUAL).

A. Objective. The student will be able to perform advanced maneuvers and recover from unusual attitudes solely by reference to the flight instruments, and conduct Airport Surveillance Radar (ASR) approaches.

CONTENT:

(1) Preflight discussion.

(2) Review.
- (a) Short field takeoffs and landings.
- (b) Soft field takeoffs and landings.
- (c) Ground reference maneuvers as needed.
- (d) Plight at minimum controllable airspeed.
- (e) Stalls (power-on and power-off).
- (f) Steep turns.
- (g) Maneuvers by reference to flight instruments.
- (h) Emergency operations.

(3) Introduction of ASR approaches.

(4) Postflight critique and preview of next lesson.

B. Completion Standards. The student will demonstrate proficiency in all required advanced maneuvers, recovery from unusual attitudes solely by reference to the flight instruments, and conduct ASR approaches.

6. FLIGHT LESSON No. 4 (1 HOUR SOLO).

A. Objective. The student will be able to perform specific solo flight maneuvers assigned by the flight instructor to increase proficiency.

CONTENT:

(1) Preflight discussion.

(2) Performance of assigned maneuvers.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete the specific solo flight maneuvers assigned by the flight instructor.

7. FLIGHT LESSON No. 5 (1 HOUR DUAL).

A. Objective. During this lesson, the instructor will determine the student's proficiency in all maneuvers and procedures necessary to conduct flight operations as a private pilot.

CONTENT:

(1) Preflight discussion.

(2) Review of previously covered procedures and maneuvers.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will display the ability to meet the requirements as outlined in the private pilot ITS, FAA-S-8081-1A, for operations as a private pilot.

8. FLIGHT LESSON No. 6 (1 HOUR SOLO).

A. Objective. During this lesson, the student will practice maneuvers specified by the flight instructor to increase proficiency.

CONTENT:

(1) Preflight discussion and orientation.

(2) Performance of assigned maneuvers.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student will complete the specific solo flight maneuvers assigned by the flight instructor.

9. FLIGHT LESSON No. 7 (1 HOUR DUAL).

A. Objective. During this lesson the instructor will make a further determination of the student's proficiency in all maneuvers and procedures necessary to conduct flight operations as a private pilot.

CONTENT.:

(1) Preflight discussions.

(2) Review of previously covered procedures and maneuvers.

(3) Postflight critique and preview of next lesson.

B. Completion Standards. The student's performance of the procedures and maneuvers should be at the proficiency level of a private pilot.

10. FINAL STAGE CHECK (1 HOUR).

A. Objective. The student will be able to demonstrate the required proficiency in the practical test for a private pilot certificate using the **PTS, FAA-S-8081-1A,** as a guide. This stage check will be conducted by the chief flight instructor or assistant chief flight instructor.

CONTENT:

(1) Preflight discussion, including an oral examination.

(2) Review of the private pilot PTS.

(3) Postflight critique.

B. Completion Standards. The student will demonstrate the required proficiency in the practical test for a private pilot certificate. The standard of performance used may be presented by the school, but in no case less than that prescribed by the FAA. If additional instruction is necessary, the chief flight instructor or assistant chief flight instructor will assign the additional training. If the flight is satisfactory, the chief flight instructor will complete the student's training records and issue a graduation certificate.

APPENDIX 3. SAMPLE TRAINING RECORD

GENERAL

The training record contained in this appendix is intended to serve as an example of the information that a FAR Part 141 Pilot School could use for a comprehensive training program. The content should not be considered all inclusive. A training record that best suits the needs of the school's training program should be developed.

Private Pilot Student Record Folder

NAME _____ PHONE _____ / _____
LAST FIRST MIDDLE HOME BUSINESS

ADDRESS _____
STREET CITY STATE ZIP COUNTY

_____
ENROLLMENT DATE COURSE DATE OF COMPLETION, TRANSFER, OR TERMINATION

PREVIOUS SCHOOL _____ TRAINING CREDIT _____
NAME, COURSE FLIGHT GROUND

MEDICAL CERTIFICATE _____ FAA WRITTEN TEST _____
ISSUE DATE CLASS DATE RESULTS

ENROLLMENT NOTICE TO FAA (PART 141) _____ FAA FLIGHT TEST _____
DATE SENT DATE RESULTS

RECORDS CERTIFIED CORRECT _____
CHIEF INSTRUCTOR APPROVED SCHOOL NUMBER

REMARKS: _____

PERSONAL DATA

HEIGHT (INCHES) WEIGHT

SEX EYES HAIR

DATE OF BIRTH PLACE OF BIRTH

SOCIAL SECURITY NO. NATIONALITY

STUDENT PILOT CERTIFICATE NO. DATE OF ISSUE

PRESOLO EXAM RECORD

DATE A/C TYPE GRADE INSTRUCTOR SIGNATURE

DATE A/C TYPE GRADE INSTRUCTOR SIGNATURE

SOLO ENDORSEMENTS

90-DAY ENDORSEMENTS

DATE A/C TYPE INSTRUCTOR SIGNATURE

DATE A/C TYPE INSTRUCTOR SIGNATURE

DATE A/C TYPE INSTRUCTOR SIGNATURE

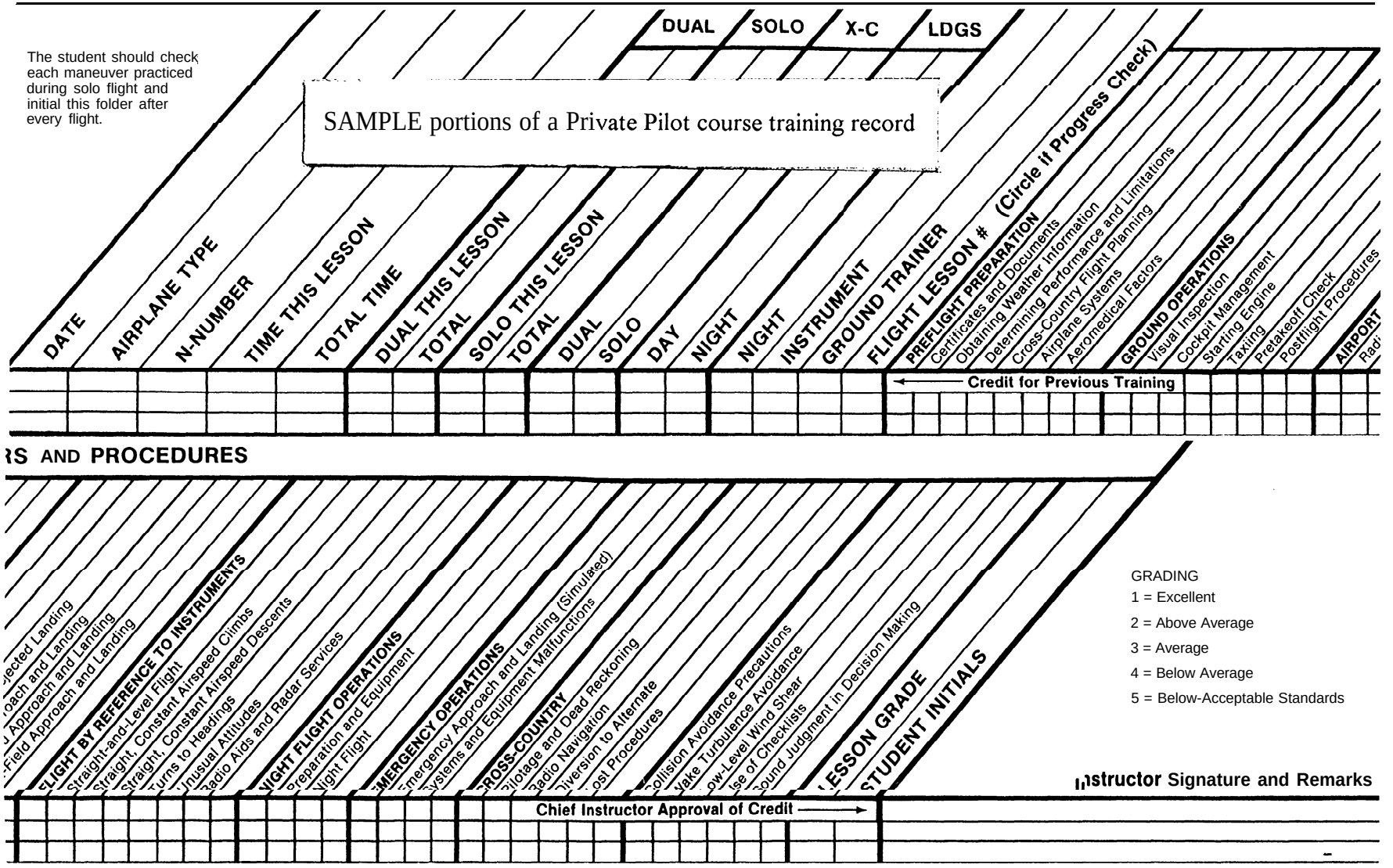
CROSS COUNTRY

DATE INSTRUCTOR SIGNATURE

DATE INSTRUCTOR SIGNATURE

DATE INSTRUCTOR SIGNATURE

SCHOOL NOTES


The student should check each maneuver practiced during solo flight and initial this folder after every flight.
SAMPLE portions of a Private Pilot course training record
DUAL
SOLO
X-C
LDGS
DATE
AIRPLANE TYPE
N-NUMBER
TIME THIS LESSON
TOTAL TIME
DUAL THIS LESSON
TOTAL
SOLO THIS LESSON
TOTAL
DUAL
SOLO
DAY
NIGHT
NIGHT
INSTRUMENT
GROUND TRAINER
FLIGHT LESSON # (Circle if Progress Check)
PREFLIGHT PREPARATION
Certificates and Documents
Obtaining Weather Information
Determining Performance and Limitations
Cross-Country Flight Planning
Airplane Systems
Aeromedical Factors
GROUND OPERATIONS
Visual Inspection
Cockpit Management
Starting Engine
Taxiing
Pretakeoff Check
Postflight Procedures
AIRPORT
Credit for Previous Training
RS AND PROCEDURES
FLIGHT BY REFERENCE TO INSTRUMENTS
Straight-and-Level Flight
Straight, Constant Airspeed Climbs
Straight, Constant Airspeed Descents
Turns to Headings
Unusual Attitudes
Radio Aids and Radar Services
FLIGHT OPERATIONS
Preparation and Equipment
Flight
EMERGENCY OPERATIONS
Emergency Approach and Landing (Simulated)
Systems and Equipment Malfunctions
CROSS-COUNTRY
Pilotage and Dead Reckoning
Radio Navigation
Diversion to Alternate
Lost Procedures
Collision Avoidance Precautions
Wake Turbulence Avoidance
Low-Level Wind Shear
Use of Checklists
Sound Judgment in Decision Making
LESSON GRADE
STUDENT INITIALS
GRADING
1 = Excellent
2 = Above Average
3 = Average
4 = Below Average
5 = Below-Acceptable Standards
Instructor Signature and Remarks
Chief Instructor Approval of Credit

GROUND LESSON COMPLETION RECORDS

STAGE I

DATE TIME

GROUND LESSON 1 - CHAPTER 1 PRINCIPLES OF FLIGHT
GROUND LESSON 2 - CHAPTER 2 THE FLIGHT ENVIRONMENT
GROUND LESSON 3 - PRIVATE PILOT STAGE I EXAM

DATE GRADE TIME INST. INIT.

STAGE II

DATE TIME

GROUND LESSON 4 - CHAPTER 3 AIRCRAFT SYSTEMS AND PERFORMANCE
GROUND LESSON 5 - CHAPTER 4 METEOROLOGY FOR PILOTS
GROUND LESSON 6 - FEDERAL AVIATION REGULATIONS
GROUND LESSON 7 - CHAPTER 5 INTERPRETING WEATHER DATA
GROUND LESSON 8 - PRIVATE PILOT STAGE II EXAM

DATE GRADE TIME INST. INIT.

STAGE III

DATE TIME

GROUND LESSON 9 - CHAPTER 6 BASIC NAVIGATION
GROUND LESSON 10 - CHAPTER 7 RADIO NAVIGATION SYSTEMS
GROUND LESSON 11 - CHAPTER 8 AVIATION PHYSIOLOGY
GROUND LESSON 12 - CHAPTER 9 FLIGHT PLANNING AND DECISION MAKING
GROUND LESSON 13 - PRIVATE PILOT STAGE III EXAM

DATE GRADE TIME INST. INIT.

COURSE COMPLETION

DATE GRADE TIME INST. INIT. — GROUND LESSON 14 - PRIVATE PILOT FINAL EXAM A
CRITIQUE OF EXAM A

DATE GRADE TIME INST. INIT. — GROUND LESSON 15 - PRIVATE PILOT FINAL EXAM B
CRITIQUE OF EXAM B

STAGE CHECK FLIGHT RECORD

STAGE I _____ DATE GRADE INST. INIT.

STAGE II _____ DATE GRADE INST. INIT.

STAGE III _____ DATE GRADE INST. INIT.

STAGE IV _____ DATE GRADE INST. INIT.

STAGE V _____ DATE GRADE INST. INIT.

APPENDIX 4. INTERNAL EVALUATION GUIDANCE FOR FAR PART 141 PILOT SCHOOLS

1. PURPOSE. This appendix sets forth guidance for conducting an in-depth internal appraisal of a pilot school.

2. BACKGROUND. Recent experience with the National Aviation Safety Inspection Program, the National Air Transportation Inspection, and the General Aviation Safety Audit has demonstrated a need for national internal evaluation guidance material. It is intended that the information in this appendix will meet that need. While not mandatory or regulatory, internal evaluations would be beneficial to the school.

3. APPLICABILITY. This guidance applies to the FAA-approved FAR Part 141 Pilot School certificate holder and is to be used for internal evaluation (self-audit) purposes.

4. OBJECTIVE. The objective of an in-depth internal evaluation is to ensure that the pilot school is in compliance with the FAR; exemptions, FAA-approved company procedures and policies, and written FAA guidance material.

Development of an in-depth inspection plan is essential to an internal evaluation program. The plan should contain at least the following:

a. A list of aircraft by type, including registration number and serial number.
b. A list of the kinds of services provided to the pilot school (e.g., aircraft refueling, contract maintenance, etc.).
c. A list of pilot training facilities and their locations.
d. A list of maintenance bases, names, and locations.
e. The number and location of employees.

Various, data sources should be considered during the development of the plan. These include:

a. TCO's
b. Ratings and authorizations
c. Accident and incident data
d. History of regulatory compliance
e. Knowledge of any previous internal evaluations or FAA inspection or surveillance reports
f. FAA correspondence
g. Minimum Equipment Lists (MEL's)
h. Exemptions

5. INDEX.

SECTION NO. 1.1 MANAGEMENT

FAR REFERENCE

Is the pilot school certificate current? — § 141.17(a)

Yes [1 No [1

Have the ownership or facilities changed since the pilot school certificate was issued? — § 141.17(b)

Yes [ ] No [ ]

Known carriage of narcotic drugs, marijuana, depressant or stimulant drugs or substances. — § 141.18

Yes [1 No [1

Is the pilot school certificate appropriately displayed? — § 141.19(a)

Yes [1 No [1

FAR REFERENCE

Does the pilot school maintain a principal business office with a mailing address in the name shown on its certificate? § 141.25(a)

Yes [1 No [1

(1) Is the business office shared with another pilot school?

Yes [ ] No [ ]

(2) Does the school use any other operations bases? § 141.25(c)

Yes [ ] No [ ]

Is the pilot school within 30 days of its renewal? If so, has the school applied for a renewal of the certificate? § 141.27(a)

Yes [1 No [1

SECTION NO. 1.2 RATINGS AND AUTHORIZATIONS

What ratings does the pilot school have? § 141. 11

SECTION NO. 1.3 EXAMINING AUTHORITY AND AIRMAN CERTIFICATION REPRESENTATIVE (ACR)

FAR REFERENCE

Have at least 9 of the most recent 10 graduates who were given an interim or final test by an FAA inspector or a designated pilot examiner passe& that test the first time? § 141.63(b)

Yes [ ] No [ ]

Does the school hold an exemption allowing graduation without taking the FAA flight or written test for flight instructor certificates, airline transport pilot certificates and ratings, and turbojet type ratings? § 141.65

Yes [ ] No [ ]

Have the graduates been enrolled by the pilot school in its approved course of training for their particular rating and satisfactorily completed all of that course? § 141.67(a)

Yes [1 No [1

Is each final written or flight test that is given by the holder of an examining authority equal in scope, depth, and difficulty to the comparable written or flight test prescribed by the Administrator under FAR Part 61? § 141.67(b)

Yes [ ] No [ ]

FAR REFERENCE

Has the final ground school written test been approved by the FAA FSDO? § 141.67(c)

Yes [ ] No [ ]

Has the final ground school written test been given when the examiner knows or has been notified by the FSDO that the test has been compromised?

Yes [1 No [1

Has the ACR submitted to the FSDO a copy of the appropriate training record for each person that the school has recommended for a pilot certificate or rating? § 141.67(d)

Yes [1 No I 1

SECTION NO. 1.4 TRAINING COURSE OUTLINE

Does the pilot school have approval for each training course for which a certificate or rating is sought? § 141.53

Yes [1 No [1

FAR REFERENCE

Does the outline for each approved course of training meet the minimum curriculum for that course prescribed in the appropriate appendix of FAR Part 141? — § 141.55(a)

Yes [ ] No [ ]

Does the outline for each approved course of training contain the following information:

(1) A description of each room used for ground training, including its size, and the maximum number of students that may be instructed in the room at one time?

Yes [ ] No [ ]

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, aircraft component, and other special training aids used for ground training?

Yes [ ] No [ ]

(3) A description of each pilot ground trainer used for instruction?

Yes [ ] No [ ]

FAR REFERENCE

(4) A listing of the airports at which training flights originate and a description of the facilities, including pilot briefing areas, that are available for use by the students and operating personnel at each of those airports? § 141.55 (a)

Yes [ ] No [ ]

(5) A description of the type of aircraft, including any special equipment, used for each phase of instruction?

Yes [ ] No [ ]

(6) The minimum qualifications and ratings for each instructor used for ground or flight training?

Yes [ ] No [ ]

Does the course outline include a training syllabus for each course of training that includes at least the following information: § 141.55(b)

(1) The pilot certificate and ratings, if any; the medical certificate, if necessary; and the training, pilot experience, and knowledge required for enrollment in the course?

Yes [ ] No [ ]

FAR REFERENCE

(2) A description of each lesson, including its objectives and standards, and the measurable unit of student accomplishment or learning to be derived from the lesson or course? § 141.55(b)

Yes [1 No [1

(3) The stage of training (including the standards) normally accomplished within each training period of not more than 90 days?

Yes [ ] No [ ]

(4) A description of the tests and checks used to measure a student's accomplishment for each stage of training?

Yes [1 No [1

Does the pilot school have an approved special curriculum that achieves a level of pilot competency equivalent to FAR Parts 61 or 141? § 141.57

Yes [ ] No [ ]

SECTION NO. 1.5 STAFF QUALIFICATIONS

FAR REFERENCE

Does the pilot school have adequate personnel and authorized instructors, including a chief instructor for each course of training? § 141.33(a)

Yes [ ] No [ ]

Are the personnel mentioned above qualified and competent to perform their duties? How are their duties assigned?

Yes [ ] No [ ]

Has each dispatcher, aircraft handler, line crewman, and serviceman been instructed in the procedures and responsibilities of their employment?

Yes [1 No [1

Does each flight or ground instructor hold a valid flight or ground instructor certificate, as appropriate, with ratings for the course of instruction and any aircraft used in that course?

Yes [ ] No [ ]

Who is the chief instructor for each course of training? § 141.33(b)

FAR REFERENCE

Who is the assistant chief instructor for each course of training? § 141.33(b)

Do the chief flight instructor and assistant chief flight instructor meet the requirements of § 141.35 and § 141.36, as appropriate?

Yes [1 No [1

Does each flight instructor who is giving flight instruction under an approved course of training have the ratings and minimum qualifications specified in the training course outline? § 141.79(a)

Yes [1 No [1

Has each chief flight instructor completed a flight instructor refresher course within the preceding 12 months? § 141.79(c)

Yes [ ] No [ ]

Has each instructor for an approved course of training accomplished an initial flight check, given by the designated chief or assistant chief flight instructor in each type of aircraft? § 141.79(d)

Yes [1 No [1

FAR REFERENCE

Has each instructor accomplished a flight check within the preceding 12 months with the chief or assistant chief flight instructor? — § 141.79(d)

Yes [ ] No [ ]

Has each ground and flight instructor used in an approved course of training been briefed on the objectives and standards of the course by the designated chief instructor or assistant chief instructor? — § 14 1.79(e) § 141.81(c)

Yes [ ] No [ ]

Does each instructor used for ground training in an approved course of training hold a flight or ground instructor certificate with an appropriate rating for the course of training? — § 141.81(a)

Yes [ ] No [ ]

Is a person who does not meet the above requirements only used for ground training in an approved course when: — § 141.81(b)

(1) The chief instructor for that course of training finds the person qualified to give that instruction.

Yes [ ] No [ ]

FAR REFERENCE

(2) The instruction is given under the direct supervision of the chief instructor or the assistant chief instructor who is present at the base when the instruction is given. § 141.81(b)

Yes [ ] No [ ]

Has the chief instructor given an initial proficiency check to each instructor used in an approved course of training and, then, at least once every 12 months? § 141.85(a)

Yes [ ] No [ ]

SECTION NO. 1.6 RECORDS

Has the pilot school given a flight test or written test to determine how much credit a student is given in a curriculum? § 141.77(b)

Yes [ ] No [ ]

If more than one-half the curriculum is credited: § 141.77(b)

(1) Did the previous school hold a certificate of training under FAR Part 141 and certify the kind, amount, and the result of each stage and final check?

Yes [ ] No [ ]

FAR REFERENCE

(2) Has the chief instructor certified the training records, graduation certificates, stage and final test reports, and student recommendations? § 141.85(a)

Yes [ ] No [ ]

Does the pilot school furnish each student, at the time the student is enrolled in each approved training course, with the following: § 141.93(a)

(1) A certificate of enrollment containing:

(a) The name of the course in which the student is enrolled; and
(b) The date of that enrollment.

Yes [ ] No [ ]

(2) A copy of the training syllabus required under § 141.55(b).

Yes [ ] No [ ]

(3) A copy of the safety procedures and practices developed by the school covering the use of its facilities and the operation of its aircraft, including instructions on the following? § 141.93(a)

(a) The weather minimums required by the school for dual and solo flights.
(b) The procedures for starting and taxiing aircraft on the ramp.
(c) Fire precautions and procedures.
(d) Redispatch procedures after unprogrammed landings, on and off airports.
(e) Aircraft discrepancies, MEL's, and write offs.
(f) Securing of aircraft when not in use.
(g) Fuel reserves necessary for local and crosscountry flights.
(h) Avoidance of other aircraft in flight and on the ground.

FAR REFERENCE

(i) Minimum altitude limitations and simulated emergency landing instructions. § 141.93(a)

(j) Description and use of assigned practice areas.

Yes [ ] No [ ]

Is a copy of each certificate of enrollment forwarded to the FSDO within 5 days? § 141.93(b)

Yes [1 No [1

Has the pilot school issued a graduation certificate to each student who has completed its approved course of training? § 141.95(a)

Yes [1 No [1

Does the graduation certificate contain at least the following information: § 141.95(b)

(1) The name of the school and the number of the school certificate?

(2) The name of the graduate to whom it was issued?

(3) The course of training for which it was issued?

(4) The date of graduation?

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training including the tests for those stages?

FAR REFERENCE

(6) A certification of the information contained in the certificate by the chief instructor for that course of training? § 141.95(b)

(7) A statement showing the cross-country training the student received in the course of training?

Yes [ ] No [ ]

Has the pilot school established and maintained a current and accurate record for each student which includes the following: § 141.101(a)

(1) The date the student was enrolled?

(2) A chronological log of the student's attendance, subjects, and flight operations covered in the student's training and instruction, and the names and grades of any tests taken by the student?

(3) The date the student graduated, terminated training, or transferred to another school?

Yes [ ] No [ ]

Whenever a student has graduated, terminated training, or transferred to another school, has the chief instructor certified the student's record? § 141.101(b)

Yes [ ] No [ ]

FAR REFERENCE

Does the pilot school retain each student record for at least 1 year from the date that the student graduates from the course for which the record pertains, terminates enrollment in that course, or transfers to another school? § 141.101(c)

Yes [ ] No [ ]

Does the pilot school make a copy of the student's record available to him/her? § 141.101(d)

Yes [1 No [1

SECTION NO. 1.7 EXEMPTIONS

Does the pilot school hold any exemptions?

Yes [ ] No [ ]

What do they exempt?

Do they comply with the exemptions?

Yes [1 No [1

SECTION NO. 1.8 FACILITIES

FAR REFERENCE

Does the pilot school have continuous use of the facilities (i.e., pilot briefing areas)? § 141.31 § 141.43(a)

Yes [1 No [1

Is the briefing area - § 141.43(a)

(1) Adequate to shelter students waiting to engage in their training flights;

Yes [ ] No [ ]

(2) Arranged and equipped for the conduct of pilot briefings; and

Yes [1 No [1

(3) For a school with an instrument or commercial pilot course rating, equipped with a private landline or telephone communication to the nearest FSS? (Not needed if FSS and briefing area are on the same airport and readily accessible to each other.)

Yes [ ] No [ ]

Is the briefing area used by any other pilot school during the same period as the principal school? § 141.43(b)

Yes [ ] No [ ]

FAR REFERENCE

Is each room or other space used for instructional purposes, heated, lighted, and ventilated to conform to local building, sanitation, and health codes? § 141.45

Yes [1 No [1

Is the training facility located so that the students in that facility are not distracted by the instruction conducted in other rooms, or by flight and maintenance operations at the airport?

Yes [1 No [1

If the pilot school maintains a satellite base is: § 141.91

(1) The satellite meeting the appropriate requirements of Subpart B and its approved TCO?

Yes [1 No [1

(2) The school directly supervising each instructor by the chief instructor, who is available for consultation?

Yes [1 No [1

(3) The FSDO having jurisdiction over the area in which the school is located notified in writing if training or instruction is conducted there for more than 7 consecutive days?

Yes [ ] No [ ]

SECTION NO. 1.9 AIRPORTS

FAR REFERENCE

Does the pilot school have continuous use of the airport? § 141.31
§ 141.37(a)

Does the airport used by. the pilot school have at least one runway or takeoff area that allows training aircraft to make a normal takeoff or landing at full gross weight - § 141.37(b)

(1) Under calm wind conditions and temperatures equal to the mean high temperature for the hottest month of the year in the operating area;

Yes [ ] No [ ]

(2) Clearing all obstacles in the takeoff flight path by at least 50 feet;

Yes [1 No [1

(3) With the powerplant operation and landing gear and flap operation, if applicable, recommended by the manufacturer, and

Yes [ ] No [ ]

(4) With smooth transition from liftoff to the best rate of climb speed without exceptional piloting skills or techniques?

Yes [ ] No [ ]

FAR REFERENCE

Does the airport have a wind direction indicator that is visible from the ends of each runway at ground level? § 141.37(c)

Yes [1 No [1

If an operating control tower or UNICOM advisories are not available, does the airport have a traffic direction indicator? § 141.37(d)

Yes [ ] No [ ]

If the airport is used for night training flights, does it have permanent runway lights? § 141.37(e)

Yes [1 No [1

SECTION NO. 1.10 GROUND TRAINERS AND TRAINING AIDS

Does each ground trainer used to obtain the maximum flight training credit allowed for ground trainers in an approved pilot training course curriculum have: § 141.41(a)

(1) An enclosed pilot's station or cockpit that accommodates one or more flightcrew members;

Yes [ ] No [ ]

(2) Controls to simulate the rotation of the trainer about three axes;

Yes [ ] No [ ]

FAR REFERENCE

(3) The minimum instrumentation and equipment required for powered aircraft in § 91.33 of this chapter, for the type of flight operations simulated; §141.41(a)

Yes [ ] No [ ]

(4) For VFR instruction, a means of simulating visual flight conditions, including motion of the trainer, or projections, or models operated by flight controls; and

Yes [1 No I 1

(5) For IFR instruction, a means for recording the flight path simulated by the trainer? (Cockpit procedure type trainers are only required to meet the first three requirements.)

Yes [ ] No [ ]

Is each training aid, including any audiovisuals, mockup, chart, or aircraft component, listed in the approved training course outline accurate and appropriate for the course for which it is used? §141.41(b)

Yes [ ] No [ ]

SECTION NO. 1.11 QUALITY OF INSTRUCTION

FAR REFERENCE

Has each graduate or pilot recommended for a pilot certificate or rating completed the course of training and required final tests? — § 141.77(a)

Yes [ ] No [ ]

Does the pilot school - — § 141.77(b)

(1) Conduct training and instruction in accordance with its approved course of training?

Yes [ ] No [ ]

(2) Enroll the student in its approved course before he/she received the instruction and training?

Yes [ ] No [ ]

Has each student's solo practice flight been approved by an authorized flight instructor who is present at that airport? — § 141.79(b)

Yes [ ] No [ ]

FAR REFERENCE

Is the pilot school complying with the approved course of training and providing training and instruction of such quality that at least 8 out of 10 students or graduates of that school pass a test for a pilot certificate or rating on the first attempt, or a test given to a student to determine the student's competence in a completed stage of training? § 141.83(a)

Yes [ ] No [ ]

Has the chief instructor conducted each stage or final test given to a student enrolled in an approved course of instruction? § 141.85(a)

Yes [ ] No [ ]

Has the chief instructor maintained training techniques, procedures, and standards for the school that are acceptable to the Administrator?

Yes [ ] No [ ]

Has the pilot school immediately notified the FSDO in writing of any change in its designation of a chief instructor for an approved training course? § 141.87(a)

Yes [1 No [1

FAR REFERENCE

Has the pilot school conducted training in instruction for more than 60 days without a chief instructor? § 141.87(b)

Yes [ ] No [ ]

During the 60-day period, did each student receive a stage or final test from an FAA inspector or designated pilot examiner?

Yes [1 No [1

SECTION NO. 1.12 ADVERTISING

Has the pilot school made any statement relating to its certification and ratings that is false or designed to mislead any person contemplating enrollment in that school? § 141.23(a)

Yes [ ] No [ ]

Does the pilot school clearly differentiate between courses which have been approved and those which have not? § 141.23(b)

Yes [ ] No [ ]

FAR REFERENCE

If the pilot school has relocated or does not hold a current certificate, has it removed all indications that the school is certificated by the Administrator? § 141.23(c)

Yes [ ] No [ ]

Does the pilot school advertise and conduct approved pilot courses in accordance with the certificate and ratings it holds? § 141.73(a)

Yes [1 No [1

SECTION NO. 1.13 FAR PART 61 ACTIVITY

Does the pilot school conduct any training or instruction not under FAR Part 141 that is not in compliance with FAR Part 61? § 61.1

Yes [ ] No [ ]

SECTION NO. 1.14 MINIMUM EQUIPMENT LIST PROCEDURES

Does the pilot school have and appropriately use MEL's? § 91.213

Yes [1 No [1

SECTION 2.0 AIRWORTHINESS INSPECTION CRITERIA

1. PURPOSE. This section has been developed as a guide for the inspection team's we during the development of the inspection planning document. It should serve as a reference for inspection team members to use during the course of the inspection. The information is not meant to be all inclusive.

2. INDEX.

SECTION NO. 2.1 MANAGEMENT

Does the operator have cold weather operating procedures established (i.e., preheat, deice, check drain holes open, check for frozen water in fuselage and control surface)?

Yes [ ] No [ ]

SECTION NO. 2.2 RATINGS AND AUTHORIZATIONS

FAR REFERENCE

What ratings or authorizations does the maintenance facility have?

SECTION NO. 2.3 PERSONNEL - QUALIFICATIONS/SUPERVISION

Is each person performing aircraft maintenance authorized to perform that function? § 43.3

Yes [ ] No [ ]

Is each person authorizing return to service qualified to do so? § 43.7

Yes [ ] No [ ]

SECTION NO. 2.4 MAINTENANCE PROGRAM/INSPECTION TIMES

Are the aircraft used by the pilot school receiving at least 100-hour inspections? § 91.409(b)

Yes [1 No [1

FAR REFERENCE

Are the aircraft manufacturer recommendations being accomplished as related to the following:

(1) Lubrication requirements (25, 50, 75, 100 hours, etc)

Yes [1 No I 1

(2) Retractable landing gear rigging

Yes [1 No [1

(3) Flight control rigging (surface travel and direction)

Yes [ ] No [ ]

Are the following systems and equipment, as applicable, properly maintained?

(1) VOR § 91.171

Yes I 1 No [1

(2) Altimeter § 91.411

Yes [1 No [1

(3) Altitude reporting

Yes [ ] No [ ]

FAR REFERENCE

(4) ATC transponder § 91.413

Yes [ ] No [ ]

(5) Emergency locator transmit&r § 91.207

Yes [ ] No [ ]

Is the condition of the following equipment satisfactory?

(1) Seat belts

Yes [ ] No [ ]

(2) Shoulder harness

Yes [ ] No [ ]

(3) Seats

Yes [ ] No [ ]

(4) Seat tracks

Yes [ ] No [ ]

SECTION NO. 2.5 FACILITIES

FAR REFERENCE

Are all required manufacturers' maintenance manuals available: aircraft, engines, avionics, etc? § 43.2

Yes [1 No [1

SECTION NO. 2.6 RECORDS

Are maintenance records maintained in accordance with § 91.417? § 91.417

Yes [1 No [1

SECTION NO. 2.7 AIRWORTHINESS DIRECTIVES

Has any person operated a product to which an airworthiness directive (AD) applies except in accordance with the requirements of that AD? § 39.3

Yes [ ] No [ ]

Has the operator kept AD records to include the AD number, method of compliance, revision date, and the time and date when the next action is required if the AD involves a recurring action? § 91.417

Yes [ ] No [ ]

REFERENCE

Have some of the AD's permitted the local FAA Airworthiness Inspector to approve reasonable adjustments in the AD inspection intervals to allow compliance at the operator's established inspection periods? FAA Order 8300.9, Chap. 3

(These adjustments require prior approval of the engineering and manufacturing branch in the controlling region.)

Have some of the AD's permitted an alternate method of compliance when it is possible that other repairs, modifications, and inspection methods could correct a particular difficulty?

Yes [ ] No [ ]

(These alternate methods, providing equivalent levels of safety, must be approved by letter after close coordination with aircraft certification division, engineering, etc.)

Note: Cannot be transferred with aircraft sale. New owner will need approval.

When the service bulletins are part of an AD, have all manufacturers' service bulletins been completed in their entirety unless the FAA has approved an alternate method of compliance?

Yes [1 No [1

(This includes all non-destructive testing processes, detailed maintenance procedures, and the use of specific chemicals, fasteners, and tools.)

Note: When an operator fails to comply with the applicable terms and conditions of an AD, the affected aircraft, power-plant, or appliance is considered unairworthy and the FAA inspector must act accordingly. Time extensions must not interfere with any AD requirements, such as repetitive inspections. Use sampling techniques and verify AD compliance with actual hands-on inspections.

FAR REFERENCE

Are the aircraft used in IFR operations properly equipped and maintained? § 141.39(e)

Yes [ ] No [ ]

Are pretakeoff and prelanding checklists and the operator's handbook for the aircraft (if one is furnished by the manufacturer) or copies of the handbook (if furnished to each student using the aircraft) carried on each aircraft used for flight instruction and solo flights? § 141.75(a)

Yes [ ] No [ ]

Are the aircraft data plates in place and legible for the aircraft and engine(s)?

Yes [1 No [1

SECTION NO. 2.10 INOPERATIVE EQUIPMENT/DEFERRED MAINTENANCE

Have any multiengine aircraft been used with inoperable equipment without an MEL? § 91.213

Yes [1 No [1

	FAR REFERENCE
Are there established procedures for reporting **malfunctions** or defects?	§ 141.93(a)

Yes [1 No [1

*U.S. Government Printing Office: 1993 — 343-120/85918

SECTION NO. 2.8 FUELING/SERVICING

Does the operator have an STC to use automotive fuel?

Yes [1 No [1

(1) Is storage of automotive fuel adequate?

Yes [1 No [1

(2) Is handling of automotive fuel adequate?

Yes [1 No [1

Are the aircraft fuel tanks marked with type and grade of fuel?

Yes [ ] No [ ]

Is the required emergency equipment in each aircraft?

Yes [ ] No [ ]

SECTION NO. 2.9 AIRCRAFT/MANUALS/PILOT OPERATING HANDBOOK

FAR REFERENCE

Are the aircraft used by the pilot school registered as civil aircraft of the United States? § 141.39(a)

Yes [ ] No [ ]

Are the aircraft certificated in the standard airworthiness category (except agricultural or external load operations where a restricted category aircraft may be acceptable if training is not prohibited by the operating limitations of the aircraft)? § 141.39(b)

Yes [1 No [1

Are the aircraft maintained and inspected in accordance with the requirements of FAR Part 91 that apply to aircraft used to give flight instruction for hire? § 141.39(c)

Yes [ ] No [ ]

Are the aircraft used in flight instruction at least two place with engine power controls and flight controls that are easily reached and operate in a normal manner from both pilot stations? § 141.39(d)

Yes [ ] No [ ]

U.S Department
of Transportation

**Federal Aviation
Administration**

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