## **Private Pilot Airplane Single Engine Land**

Flight Training Syllabus AC 60-14 & FAA-S-ACS-6

20 Hours Dual	I, 20 Hours Solo, 18 Hours Ground or H	lome Study

20 Hours	Dual, 20 Hours Solo, 18 Hours Ground or Hol	ne Study
LESSON	Block 1 Lessons 1- 9: 9 Hours Dual .5 Hours Solo 7.5 Hours Ground	HOURS SOLO - DUAL - GROUND
1	Straight & Level Flight, Climbs, Turns & Descents	0 1 1
2	Coordinated Control Inputs	0 1 1
3	Flying Precise Patterns Over The Ground	0 1 1
4	Dealing With Operational Emergencies	0 1 1
5	Flying Solely By Reference To Instruments	0 – 1* 1
6	Piloting The Airplane Smoothly & Accurately	0 15
7	Review And Practice As Needed	0 15
8	Pre-Solo Preparation	0 1 1
9	First Solo Flight	.5 15
LESSON	Block 2 Lessons 10 - 16: 8 Hours Dual, 5 Hours Solo 7.5 Hours Ground	HOURS SOLO - DUAL - GROUND

**Preparation For Cross-Country** 

Flights

**Solo Practice Maneuvers &** 

Operations

**Dual Cross-Country Instruction** 

Solo Cross-Country Flight

0 -- 1 -- 1

2 - 0 - 0

0 -- 3 - 3

3 -- 0 -- 1

10

11

12

13

14	Night Flight 1	0 1.5 1
15	Night Flight 2	0 1.55
16	<b>Cross-Country Evaluation</b>	0 1 1
LESSON	Block 3 Lessons 17-23: 3 Hours Dual, 14.5 Solo 3 Hours Ground	HOURS SOLO - DUAL - GROUND
17	Solo Cross-Country Flights	10 05
18	Dual Preparation For The Practical Test 1	0 15
19	Solo Preparation For The Practical Test 1	1.5 0 0
20	Dual Preparation For The Practical Test 2	0 15
21	Solo Preparation For The Practical Test 2	1.5 0 0
22	Solo Preparation For The Practical Test 3	1.5 05
23	Practical Test Evaluation	0 1 1
* 3 Hours Total Required prior to Practical Test		
<b>OBJECTIVES:</b> You will acquire specific aeronautical knowledge, flight proficiency, and risk management standards for the private pilot certification in the Airplane Category, Single-Engine Land Class. Training will be augmented for the specific type of avionics, automation and		

certification in the Airplane Category, Single-Engine Land Class. Training
will be augmented for the specific type of avionics, automation and
autopilot systems installed.

**COMPLETION STANDARDS:** You show by written record, and will demonstrate through oral and by practical tests, that you meet the required aeronautical skill, knowledge, experience and performance standards to safely execute the responsibilities of Pilot In Command.

**ENROLLMENT PREREQUISITES:** A person may enroll in this course provided that the person holds at least a third-class medical, and a student pilot certificate prior to his or her first solo flight.

**HOW TO USE THIS SYLLABUS** Lesson elements contain bulleted items represented by a double line arrow to the left of each subject:

#### $\Rightarrow$ Soft Field Takeoff and Climb

The double line arrow serves as a checklist for each lesson element, and is marked solid by the instructor in his copy when that element is completed:

#### ➔ Soft Field Takeoff and Climb

Incomplete elements from previous lessons may be completed on subsequent lessons. If an element of a previous lesson is incomplete, it must be completed prior to starting the next block.

Elements of any Block that are not accomplished should be completed as soon as possible. Each lesson can be repeated as often as necessary, however, no element of the next block should be introduced until all the elements of the previous block have been finished. Hours SOLO - DUAL - GROUND refer to Flight (Dual, Solo) and Home Study or One on One Ground Instruction. Pre and post flight briefings are not indicated on this syllabus, but are generally .5 - .8 hours per flight, except cross-country and preparation for the practical test briefings, which are longer.

**GROUND TRAINING HOME STUDY:** Completion of ground training is required prior to the completion of flight training. If home studying, the student will be administered quizzes or a final knowledge test. The student must show proof that he or she passed the final knowledge test with a score of at least 80% Ground training with home study shall at a minimum consist of the following subjects and elements:

Aircraft General	Environmental Systems
Engines / Propellers	Anti-ice / De-ice
Normal Procedures Checklist	High Altitude Flight
Powerplant Management	Flight in Icing Conditions
Aircraft Fuel System	Aeronautical Decision Making
Performance / Flight Planning	Weight and Balance Procedures
Flight Controls / Wing Flaps	Aircraft Loading Procedures
Fuel Management	Systems Review / FAR's
Flight Profiles	Optional Equipment /Modifications
Emergency Procedures	Emergency Procedures Checklist
Electrical Systems	Scenario Based Flight Training
Flight Instruments Landing Gear Systems Failure Analysis Avionics and Auto-pilot Collision Avoidance CFIT	Single Pilot Resource Management Runway Incursion Avoidance Positive Aircraft Control Risk Management Knowledge Test
ABOUT THIS TRAINING. This training	provides aeronautical experience

**ABOUT THIS TRAINING:** This training provides aeronautical experience requirements of **14CFR 61.109** are met: **At least 40 hours of flight time** that includes at least 20 hours of dual and 10 hours of solo flight training.

#### 20 hours of flight training must include: 3 hours of cross-country (over 50 nautical miles).

**3 hours of night flight training** (1 hour after sunset and 1 hour before sunrise) with one cross-country flight of over 100 nautical miles total distance and 10 takeoffs and landings to a full stop.

**3 hours of flight** training on the control and maneuvering of an airplane solely by **reference to instruments**.

**3 hours** of flight training in **preparation for the practical test** with 60 days of the test.

#### 10 hours of solo flight must include:

**5 hours of solo cross-country** including one cross-country of at least **150 nautical miles** total distance with full stop landings at a minimum of three points (of which **one leg is over 50 NM**).

3 takeoffs and landings to a full stop at an airport with an operating control tower.

GENERAL RULES: (These rules may vary according to your location.)

1- Weather Minimums. The maximum surface wind conditions, existing or forecast for any proposed point of departure or arrival must not exceed: Dual 30 Kts., a crosswind component of 15 Kts., or the maximum crosswind component specified by the manufacturer. Solo 20 Kts., or a crosswind component of 10 Kts. No forecast of severe turbulence, or gust factor of 15% Vs1. Ceilings & Visibilities: Local Day- Dual 1500/3; Solo 1500/5: Night Local- Dual 1500/3; Solo 3000/5: Cross-Country Day- Dual 3000/5; Solo 3000/10: Cross-Country Night- Dual 3000/10; Solo 5000/15.

2- Taxi speed shall be no faster than a brisk walk. Brakes are not to be used to turn, except as necessary. Keep the inside wheel turning during tight turns.

3- In case of fire, get a fire extinguisher and get help.

4- Have at least 1 hour reserve fuel after planned completion of flight.

5- Be alert for other aircraft in the air and on the ground. Shallow turning during climbs and glides will help you see above and below. Before maneuvering, perform two clearing turns of 90 degrees heading change to assure safe separation from other aircraft. See and be seen is the key to collision avoidance.

6- Practice areas will be specified by the instructor. Remain in the areas while practicing, and monitor the appropriate radio frequency.

7- Except for takeoffs and landings, no flight operations will be conducted below 500' above the ground. Recoveries from solo maneuvers such as stalls, slow flight, & constant altitude turning shall be made at least 2000 feet above the ground solo, and 1500 above the ground dual.

COPYRIGHT NOTICE: All words, pictorials, graphics and compiled information are protected from unauthorized use by U.S. Copyright Laws. The protected material may not be copied, reproduced, stored in a retrieval system, or used by any means without prior written consent of Tom Gorski. BLOCK ONE--LESSONS 1 - 9 9 Hours Dual - .5 Hours Solo - 7.5 Hours Ground

BLOCK ONE OBJECTIVES: You will be instructed in the basic flying procedures and skills necessary for the first solo flight.

BLOCK ONE COMPLETION STANDARDS: This block will be completed when you are able to conduct solo flights safely.

#### Lesson #1. Straight & Level Flight, Climbs, Turns & Descents

1 Hour Flight, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_\_\_\_\_

Objectives: During this lesson, you will be introduced to the training airplane, safety precautions, aeromedical factors, preflight preparation, ground operations, airport and traffic pattern operations, and basic flying maneuvers.

Content: Introduce

- $\Rightarrow$  Preflight Preparation
- $\Rightarrow$  Visual Inspection
- ⇒ Airplane Systems
- ⇒ Cockpit Management
- $\Rightarrow$  Starting Engine
- $\Rightarrow$  Normal and Crosswind Taxiing
- $\Rightarrow$  Pre-Takeoff Check
- ⇒ Radio Communications & ATC Light Signals
- $\Rightarrow$  Traffic Pattern Operations
- ⇒ Airport And Runway Marking & Lighting
- $\Rightarrow$  Runway Incursion Avoidance
- ⇒ Normal And Crosswind Takeoff & Climb
- ⇒ Medium Banked Turns, Climbing & Descending Turns

- $\Rightarrow$  Positive Exchange of Flight Controls
- $\Rightarrow\,$  Collision Avoidance Precautions
- $\Rightarrow$  Normal And Crosswind Approach And Landing
- $\Rightarrow$  Post Flight Procedures, Post Flight Discussion
- $\Rightarrow$  Preview Of Next Lesson

Completion Standards: You should, with assistance, perform a line check, use checklists, taxi, perform a pre-takeoff check, display an understanding of ground safety, and maintain altitude within 200 feet, heading within 20 degrees, and airspeed within 20 knots.

#### Lesson #2. Coordinated Control Inputs

1 Hour Flight, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_OFF\_\_\_\_\_ON\_\_\_\_\_IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: You will review the procedures given in the previous lesson, and gain proficiency in basic flight maneuvers and aircraft control. Instruction will then be given with instruments and outside references. Coordination exercises, and ground reference maneuvers will be introduced.

#### Content:

Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson. Review Pilot Operations, Procedures and Maneuvers As Necessary.

- $\Rightarrow$  Preflight
- $\Rightarrow$  Obtaining Weather Information
- $\Rightarrow$  Visual Inspection
- ⇒ Airplane Systems
- ⇒ Cockpit Management
- $\Rightarrow$  Starting Engine
- ⇒ Normal And Crosswind Taxiing
- ⇒ Pre Takeoff Check
- $\Rightarrow$  Radio Communications & ATC Light Signals
- $\Rightarrow$  Traffic Pattern Operations
- ⇒ Airport And Runway Marking And Lighting
- ⇒ Normal And Crosswind Takeoff & Climb

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- $\Rightarrow$  Medium Banked Turns, Climbing & Descending Turns
- $\Rightarrow$  Effects Of Flight Controls
- $\Rightarrow$  Collision Avoidance Precautions

#### Introduce

- ⇒ Climbs, Descents, Climbing & Descending Turns, By Instrument References Only
- $\Rightarrow$  Changes of Airspeed and Configuration in Level Flight
- ⇒ Adverse Yaw & Remedy
- $\Rightarrow$  Forward Slips
- $\Rightarrow$  Glides & Gliding Turns
- $\Rightarrow\,$  Descents With and Without Turns Using High & Low Drag Configurations
- $\Rightarrow$  Post Flight Discussion
- $\Rightarrow$  Preview Of Next Lesson

Completion Standards: You will be able to preflight, make takeoffs & climbs, and control heading within 10 degrees, airspeed within 10 knots, and altitude within 100 feet, with assistance from the instructor.

 $\Rightarrow$  Notes:

#### Lesson #3. Flying Precise Patterns Over The Ground

1 Hour Flight, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: This lesson will be a review of the operations previously introduced. Instruction will be given in takeoffs and climbs, minimum controllable airspeed, and ground reference maneuvers.

#### Content:

Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson. Review Pilot Operations, Procedures and Maneuvers As Necessary.

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations & Radio Procedures
- $\Rightarrow$  Takeoffs and Climbs
- ⇒ Flight By Reference To Instruments, Climbs, Turns & Descents
- $\Rightarrow\,$  Descents With and Without Turns Using High & Low Drag Configurations
- $\Rightarrow$  Coordination Exercises (as appropriate)
- $\Rightarrow$  Post Flight Procedures

#### Introduce

- $\Rightarrow$  Maneuvering At Minimum Controllable Airspeed
- $\Rightarrow$  Spin Awareness
- ⇒ Rectangular Course
- $\Rightarrow$  Turns About A Point
- $\Rightarrow$  S Turns Across A Road
- $\Rightarrow$  Post Flight Discussion
- $\Rightarrow$  Forward Slips To Landing
- $\Rightarrow$  Preview of Next Lesson

Completion Standards: The Student will be expected to display proficiency in maintaining airspeed within 10 knots, heading within 10 degrees, and altitude within 100 feet.

### Lesson #4. Dealing With Operational Emergencies

1 Hour Flight, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

### AIRCRAFT\_

Objectives: This lesson will consist of a review of all previous maneuvers. Instruction will be given in flight by reference to instruments, and flight at critically slow airspeeds.

## Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson. Review Pilot Operations, Procedures and Maneuvers As Necessary.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Turn Maneuvers
- ⇒ Flight At Minimum Controllable Airspeeds
- $\Rightarrow$  Forward Slips To Landing
- ⇒ Constant Altitude Turns
- ⇒ Imminent and/or Full Stalls- Power Off
- ⇒ Imminent and/or Full Stalls- Power On
- $\Rightarrow\,$  Constant Airspeed Climbs And Descents By Reference To Instruments
- $\Rightarrow$  Glides To Approach And Landing

 $\Rightarrow$  Turns To Headings By Reference To Instruments

## Introduce

- $\Rightarrow$  Full Stalls- Power Off
- $\Rightarrow$  Full Stalls- Power On
- $\Rightarrow$  Systems And Equipment Malfunctions
- $\Rightarrow$  The importance of the 1,500-foot AGL minimum altitude.
- $\Rightarrow$  How the maneuver relates to a normal flight.
- $\Rightarrow\,$  Approach to stall indications, Full stall indications, and recovery procedures.
- $\Rightarrow$  Which aircraft inputs are required to meet heading or bank angle requirements.
- $\Rightarrow$  The importance of establishing the correct aircraft configuration during the recovery process and the consequences of failing to do so.
- $\Rightarrow\,$  Aerodynamics associated with stalls and spins in various aircraft configurations and attitudes.
- $\Rightarrow\,$  Circumstances that can lead to an inadvertent stall or spin.
- $\Rightarrow$  Post Flight Discussion & Preview Of Next Lesson

Completion Standards: You will have completed this lesson when you will, with minimum assistance, be able to perform the procedures and maneuvers given in the previous lessons, and display a basic knowledge of elementary emergency procedures and of the importance of airspeed control during approaches.

# Lesson #5. Flying Solely By Reference To Instruments

1 Hour Flight, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

### AIRCRAFT\_

Objectives: This lesson will consist of a review of the previous lesson. Instruction will be given in Flight Maneuvering Solely By Reference To Instruments,

# Content:

- $\Rightarrow$  Flight instrument function and operation.
- $\Rightarrow$  Flight instrument sensitivity, limitations, and potential errors in unusual attitudes.
- ⇒ Flight instrument correlation (pitch instruments/bank instruments).
- $\Rightarrow$  Aerodynamic factors related to maintaining straight-and-level flight.
- $\Rightarrow$  Vestibular illusions (leans) and spatial disorientation.
- $\Rightarrow$  Appropriate pitch, bank, and power settings for the airplane being flown.
- $\Rightarrow\,$  Aerodynamics associated with stalls and spins in various aircraft configurations and attitudes.
- $\Rightarrow$  Circumstances that can lead to an inadvertent stall or spin.
- $\Rightarrow$  Spin recovery procedures.

# Introduce

⇒ Transition to climb pitch attitude and power setting on an assigned heading using proper instrument cross-check

and interpretation, and coordinated control application.

- ⇒ Climbs descents & turns to headings solely by reference to instruments at a constant airspeed to specific altitudes in straight flight and turns.
- ⇒ Recognize unusual flight attitudes solely by reference to instruments and perform the correct, coordinated, and smooth control application to resolve unusual pitch and bank attitudes while staying within the airplane's limitations and flight parameters
- $\Rightarrow$  Level off at the assigned altitude and maintain altitude  $\pm 200$  feet, heading  $\pm 20^\circ$  and airspeed  $\pm 10$  knots
- $\Rightarrow$  Maneuvering at Minimum Controllable Airspeed by Reference To Instruments Only.
- $\Rightarrow$  Full Stall Series, By Reference to Instruments Only.
- $\Rightarrow$  Emergency Approach And Landing
- $\Rightarrow$  Go-Around Procedures From Final Approach
- $\Rightarrow$  Post Flight Discussion
- $\Rightarrow$  Preview Of Next Lesson

Completion Standards: You will display the ability to use smooth and coordinated control inputs to perform all maneuvers previously reviewed, and maintain heading within 10 degrees, airspeed within 10 knots, and desired altitude within 100 feet.

 $\Rightarrow$  Notes:

# Lesson #6. Piloting The Airplane Smoothly & Accurately

1 Hour Flight, .5 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: You will review all previous maneuvers, and will be instructed in engine failures on takeoff and during initial climb. At least three takeoffs and landings will be accomplished with minimum assistance from the instructor.

#### Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson. Review Pilot Operations, Procedures and Maneuvers As Necessary.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport & Traffic Pattern Operations
- $\Rightarrow$  Takeoffs & Climbs
- ⇒ Turn Maneuvers
- ⇒ Flight at Critically Slow Airspeeds
- $\Rightarrow$  Normal Approaches And Landings
- $\Rightarrow$  Forward Slips To Landing
- $\Rightarrow$  Full Stalls, Power On & Power Off
- $\Rightarrow$  Go-Around Procedures From Final Approach
- $\Rightarrow$  Post Flight Procedures

### Introduce

- $\Rightarrow$  Engine Failure On Takeoff & During Climb
- $\Rightarrow$  Go-Around Procedures From The Landing Flare in Various Flight Configurations, Including Turns.
- ⇒ Post-Flight Briefing & Preview Of Next Lesson

Completion Standards: You should perform basic pilot operations with smoothness and accuracy, and demonstrate adequate knowledge of emergency forced landing procedures during climbs.

#### Lesson #7. Review And Practice As Needed

1 Hour Flight, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: This lesson is a review of operations previously performed. You will practice maneuvers and improve the precision of your execution of pilot operations.

#### Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport & Traffic Pattern Operations
- ⇒ Takeoffs & Climbs
- ⇒ Turn Maneuvers
- $\Rightarrow$  Flight at Critically Slow Airspeeds
- ⇒ Flight Maneuvering by Reference to Ground Objects
- $\Rightarrow$  Emergency Procedures
- $\Rightarrow$  Go-Arounds
- $\Rightarrow$  Approaches and Landings
- $\Rightarrow$  Forced Landing Procedures in the Landing Pattern
- $\Rightarrow$  Post Flight Briefing and Preview of Next Lesson

Completion Standards: You will perform basic pilot operations with smoothness and accuracy, and exercise good judgment.

#### Lesson #8. Pre-Solo Preparation

1 Hour Flight, 1 Hour Ground. Ground Briefing & Review of Pre-Solo Written Exam on the last 3 pages of this syllabus.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_\_

Objectives: This lesson will consist of an evaluation of your pre-solo knowledge, and flight proficiency, and of a determination of your readiness for solo flight. You will have the opportunity to correct any faulty performance areas during this lesson. The Pre-Solo Written Exam should be administered before the completion of this lesson.

#### Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson. Administer Pre-Solo Written Exam.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Flight At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering By Reference To Ground Objects
- $\Rightarrow$  Emergency Operations
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Other (Specify)
- ⇒ Post Flight Briefing And Preview Of Next Lesson
- Rev. 9/12/23

Completion Standards: You will perform takeoffs, landings & go-arounds without instructor assistance, and demonstrate your ability to safely solo the airplane in the local area. You will have completed the Pre-Solo Written Exam, and review the exam with your instructor.

#### Lesson #9. First Solo Flight

.5 Hours Dual, .5 Hour Solo, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT \_\_\_\_\_

START\_\_\_\_\_OFF\_\_\_\_\_ON\_\_\_\_\_IN\_\_\_\_\_

SOLO \_\_\_\_\_ OFF\_\_\_\_ ON\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_\_\_\_\_

Objectives: During this lesson, you will accomplish your first solo flight, if the required level of skill is displayed.

#### Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- $\Rightarrow$  Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Flight Maneuvering By Reference To Ground Objects
- $\Rightarrow$  Emergency Operations
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Endorsements for Solo Flight (See Appendix)
- $\Rightarrow$  Other Endorsements (Complex, High Performance)

#### Introduce

- ⇒ Solo Flight In The Traffic Pattern. Approximately 15 Minutes, 3 Takeoffs & Landings
- ⇒ Post-Flight Briefing & Preview Of Next Lesson

Completion Standards: You should display the ability to successfully perform your first supervised solo flight.

#### BLOCK TWO - LESSONS 10 - 16 8 Hours Dual, 5 Hours Solo, 7.5 Hours Ground

BLOCK TWO OBJECTIVES: You will be instructed in the conduct of cross-country flying, and night flying, and will have the opportunity to practice solo flight and maneuvers in the local area.

BLOCK TWO COMPLETION STANDARDS: You will demonstrate that you can safely conduct solo cross-country flights and night flight operations.

# Lesson #10. Preparation For Cross-Country Flights

1 Hour Dual, 1.0 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_

Objectives: You will learn maximum performance maneuvers and radio navigation in preparation for cross-country flying.

Contents:

Review

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- $\Rightarrow$  Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- $\Rightarrow$  Flight At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Go-Around

# Introduce

- ⇒ Maximum Performance Takeoffs & Landings, Soft-Field Takeoffs And Landings
- $\Rightarrow$  Emergency Descent
- $\Rightarrow$  VOR Locating And Tracking Procedures
- $\Rightarrow$  GNSS Courses Interception and Tracking
- $\Rightarrow$  Pilotage and dead reckoning.

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- $\Rightarrow$  Determining heading, speed, and course.
- $\Rightarrow$  Estimating time, speed, and distance.
- $\Rightarrow$  True airspeed and density altitude.
- $\Rightarrow$  Wind correction angle.
- $\Rightarrow$  Topography.
- $\Rightarrow$  Route selection, and plotting a course.
- $\Rightarrow$  Magnetic compass errors.
- $\Rightarrow$  Altitude selection.
- $\Rightarrow$  Power setting selection.
- ⇒ Prepare a document or electronic equivalent to be used in flight for comparison with planned fuel consumption and times over waypoints while dead reckoning.
- $\Rightarrow\,$  Use of the magnetic direction indicator in navigation, to include turns to headings.
- $\Rightarrow~$  Verify the airplane's position within 3 nautical miles of the flight-planned route.
- ⇒ Arrive at the en route checkpoints within 5 minutes of the initial or revised estimated time of arrival and provide a destination estimate.
- ⇒ Maintain the selected altitude, ±200 feet and headings, ±15°.

Completion Standards: Maintain desired headings within 10 degrees, altitude within 100 feet and airspeed within 5 knots, while demonstrating proficiency in maximum performance takeoffs & landings, and in radio navigation.

#### Lesson #11. Practice Maneuvers & Operations 2 Hours Solo.

Name Date TOT

START\_\_\_\_\_OFF\_\_\_\_\_ON\_\_\_\_IN\_\_\_\_

AIRCRAFT

Objectives: You will practice certain maneuvers to develop competency, smoothness and accuracy.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- ⇒ Proceed To and Return From Practice Area
- $\Rightarrow$  Maneuvering at Critically Slow Airspeeds
- $\Rightarrow$  Constant Altitude Turns
- $\Rightarrow$  Full Stalls, Power On & Power Off
- ⇒ Normal and/or Crosswind Takeoffs & Landings
- ⇒ Maximum Performance Takeoffs & Landings
- $\Rightarrow$  Soft-Field Takeoffs And Landings
- $\Rightarrow$  Post Flight Procedures

Completion Standards: You will have practiced maneuvers and pilot operations, and will maintain desired headings within 10 degrees, altitude within 100 feet and airspeed within 5 knots.

#### Lesson #12. Dual Cross-Country Instruction

3 Hours Dual, 3 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: You will be introduced to Cross-Country Navigation (At least 50 NM between two points,) and be able to obtain maximum performance during short and soft field takeoffs and landings. In addition, you will learn to apply the principles of Pilotage, Dead Reckoning, and Radio Navigation, locate the airplane's position relative to a radio facility, and to intercept and track a given radial or bearing.

#### Content:

Introduction Of Technical Subject Areas For Today's Lesson.

- $\Rightarrow$  Preflight
- ⇒ Ground Operations Includes:

   1-Navigation & Flight Planning
   2-High Altitude Operations
   3-Federal Aviation Regulations
   4-Use Of Minimum Equipment List
   5-Publications
   6-Radio Communications & Reporting
   7-Logbook Entries & Certificate Endorsements
   8-Obtaining Weather Information
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs

#### Introduce or review

- ⇒ Short & Soft Field Takeoff And Climb
- ⇒ Pilotage & Dead Reckoning
- $\Rightarrow$  Navigation Systems and Radar Services

- ⇒ Lost Procedures
- $\Rightarrow\,$  Radio Aids And Radar Services
- $\Rightarrow$  Flight On A Federal Airway
- $\Rightarrow$  Diversion To Alternate
- $\Rightarrow$  Short Field Approaches & Landings
- $\Rightarrow$  Soft Field Approaches & Landings
- ⇒ Post Flight Discussion & Preview Of Next Lesson

Completion Standards: You will demonstrate how to correctly perform short field takeoffs and landings, correctly locate your position in relation to a radio facility, intercept and track a given radial of bearing, and be able to explain the radio aids and radar services available.

#### Lesson #13. Solo Cross-Country Flight

3 Hours Solo & Cross-Country, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_\_\_\_\_

Objectives: During this lesson, you will conduct a solo cross-country flight, using pilotage, dead reckoning and radio navigation, with a landing at least 50 nautical miles from the point of origin. Your instructor will endorse you for a specific cross-country flight, after examining your preflight preparation & planning.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- ⇒ Takeoffs And Climbs
- $\Rightarrow$  Navigation
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion & Preview

Completion Standards: You will have successfully completed your flight. The instructor will determine how the flight operations were conducted by oral questioning.

#### Lesson #14. Cross-Country Evaluation

1 Hour Dual, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: During this lesson you will be evaluated to determine your ability to plan and execute a cross-country flight safely. You will also have the opportunity to practice takeoffs, landings and other tasks, in preparation for solo cross-country flights.

#### Contents:

- ⇒ Preflight Discussion
- $\Rightarrow$  Preflight
- $\Rightarrow$  Obtaining Weather Information
- ⇒ Determining Performance And Limitations
- ⇒ Cross-Country Flight Planning
- $\Rightarrow$  Airplane Systems
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Pilotage And Dead Reckoning
- $\Rightarrow$  Navigation Systems and Radar Services
- ⇒ Diversion To Alternate
- ⇒ Lost Procedures
- $\Rightarrow$  Approaches And Landings

 $\Rightarrow$  Post Flight Procedures

Completion Standards: You will demonstrate the ability to conduct cross-country flights, displaying competence and safety, and an understanding of the national airspace system pertinent to the airspace in which the flight is to be conducted. You will also gain further proficiency in takeoffs, landings and other tasks as required to improve technique.

# Lesson #15. Night Flight #1 (1 & 2 may be combined)

1.5 Hours Dual, 1 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

## AIRCRAFT\_

Objectives: You will learn about the necessary preparation and equipment essential for night operations, and will perform navigation to and operations at an unfamiliar airport, including takeoffs and landings.

Contents: Introduce

- ⇒ Preflight Discussion
- $\Rightarrow$  Preflight
- ⇒ Preparation And Equipment For Night Operations
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Normal and/or Crosswind Takeoffs And Climbs
- ⇒ Maneuvering At Minimum Controllable Airspeed
- $\Rightarrow$  Full Stalls, Power On & Power Off
- $\Rightarrow$  Emergency Procedures
- ⇒ Lost Procedures
- $\Rightarrow$  Navigation
- ⇒ Approaches And Landings Including Blackout Approaches And Landings
- $\Rightarrow$  Go-Around

- ⇒ Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion And Preview

Completion Standards: You will maintain orientation throughout the flight, and by oral questioning and demonstration, display competence in performing night emergency procedures.

# Lesson #16. Night Flight #2 (1 & 2 may be combined)

1.5 Hours Dual, .5 Hour Ground.

Name\_\_\_\_\_ Date\_\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: You will learn about the necessary preparation and equipment essential for night operations, and will perform navigation to and operations at an unfamiliar airport, including at least ten takeoffs and landings prior to completion of the final night flight lesson.

Contents: Introduce or review

- $\Rightarrow$  Preflight Discussion
- $\Rightarrow$  Preflight
- ⇒ Preparation And Equipment For Night Operations
- $\Rightarrow$  Physiological Aspects related to Vision
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Normal and/or Crosswind Takeoffs And Climbs
- $\Rightarrow$  Maneuvering At Minimum Controllable Airspeed
- $\Rightarrow$  Full Stalls, Power On & Power Off
- $\Rightarrow$  Emergency Procedures
- ⇒ Lost Procedures
- $\Rightarrow$  Navigation by ATC
- $\Rightarrow\,$  Approaches and Landings Including Blackout Approaches and Landings

- $\Rightarrow$  Go-Around
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion And Preview

Completion Standards: You will maintain orientation throughout the flight, and by oral questioning and demonstration, display competence in performing night emergency procedures.

BLOCK THREE - Lessons 17 - 23 3 Hours Dual - 14.5 Hours Solo - 3 Hours Ground

BLOCK THREE OBJECTIVES: You will complete solo cross-country requirements, and receive instruction in preparation for the practical test.

BLOCK THREE COMPLETION STANDARDS: This block will be completed when you are ready for the practical test.

#### Lesson #17. Solo Cross-Country Flights

Several Flights - 10 Hours Solo Cross-Country, .5 Hours Ground or as necessary for each flight

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_OFF\_\_\_ON\_\_\_\_IN\_\_\_\_

AIRCRAFT\_\_\_\_\_Objectives: You will complete several cross-country flights, including a flight of at least 300 nautical miles with landings at a minimum of three points, one of which is at least 100 nautical miles from the original point of departure.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- $\Rightarrow$  Cross-Country Flying
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Preview of Next Lesson

Completion Standards: This lesson will be successfully completed when, through oral questioning and logbook records, the instructor determines that your cross-country solo flight requirements are met.

# Lesson #18. Dual Preparation For The Practical Test 1

1 Hour Dual, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: The instructor will determine your proficiency in all pilot operations required for the practical test.

Contents:

- $\Rightarrow$  ADM and Risk Management
- $\Rightarrow$  Preflight, Ground Operations
- $\Rightarrow$  Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Cross-Country Flying
- ⇒ Flight By Reference To Instruments
- $\Rightarrow$  Flight At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering By Reference To Ground Objects
- $\Rightarrow$  Emergency Operations
- $\Rightarrow$  Approaches And Landings, Post Flight Procedures
- ⇒ Post Flight Discussion To Include Questioning About In-Flight Distractions
- ⇒ Airman Certification Standards for Private Pilot Certification in the Airplane Category, Single-Engine Land Class
- $\Rightarrow$  Preview of Next Lesson.

Completion Standards: You will demonstrate adequate knowledge and skill required for the successful completion of the practical test. Additional study or practice will be assigned, if needed.

# Lesson #19. **Solo Preparation For The Practical Test 1** 1.5 Hours Solo.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_

Objectives: You will be able to perform specific flight maneuvers with proficiency, as assigned by the instructor.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Flight At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering By Reference To Ground Objects
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion And Preview

Completion Standards: You will have completed solo maneuvers as specified by the instructor, with proficiency and accuracy.

# Lesson #20. Dual Preparation For The Practical Test 2

1 Hour Dual, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: The instructor will make a further determination that you are ready for the flight test, and introduce distractions to reinforce awareness of division of attention and airplane control.

#### Contents:

- ⇒ Airman Certification Standards for Private Pilot Certification in the Airplane Category, Single-Engine Land Class
- $\Rightarrow$  Single Pilot Resource Management
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- $\Rightarrow$  Cross-Country Flying
- ⇒ Flight By Reference To Instruments
- $\Rightarrow$  Flight At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering By Reference To Ground Objects.
- $\Rightarrow$  Emergency Operations
- $\Rightarrow$  Approaches And Landings

 $\Rightarrow$  Post Flight Procedures

#### Introduce

 $\Rightarrow$  Realistic Distractions

Completion Standards: This lesson will be successfully completed when you display the confidence, knowledge and skill necessary for successful completion of the practical test.

# Lesson #21. **Solo Preparation For The Practical Test 2** 1.5 Hours Solo.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_

Objectives: You will practice flight maneuvers assigned by the instructor.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- $\Rightarrow$  Cross-Country Flying
- ⇒ Flight Maneuvering At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion And Preview

Completion Standards: You will, through oral questioning display preparedness for the practical test.

#### Lesson #22. Solo Preparation For The Practical Test 3

1.5 Hours Solo, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_

Objectives: You will practice flight maneuvers as necessary in preparation for the practical test.

Contents:

- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Cross-Country Flying
- ⇒ Flight Maneuvering At Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- $\Rightarrow$  Approaches And Landings
- $\Rightarrow$  Post Flight Procedures
- $\Rightarrow$  Post Flight Discussion And Preview

Completion Standards: You will, through oral questioning display preparedness for the practical test.

#### Lesson #23. Practical Test Evaluation

1 Hour Dual, 1 Hour Ground

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

#### AIRCRAFT\_

Objectives: You will practice pilot operations in preparation for the practical test.

#### Contents:

- ⇒ Airman Certification Standards for Private Pilot Certification in the Airplane Category, Single-Engine Land Class
- $\Rightarrow$  Ground Operations
- $\Rightarrow$  Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs and Climbs
- $\Rightarrow$  Cross-Country Flying
- $\Rightarrow$  Flight at Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering by Reference to Ground Objects|
- $\Rightarrow$  Additional Maneuver(s) as Specified
- $\Rightarrow$  Approaches and Landings
- $\Rightarrow$  Post Flight Procedures

Completion Standards: You will have completed solo maneuvers with increased accuracy, and be ready for the Stage Three Check.

### **GRADUATION CERTIFICATE**

This is to certify that \_\_\_\_\_has

satisfactorily completed the

# PRIVATE PILOT CERTIFICATION COURSE

on this \_\_\_\_\_\_, 20\_\_\_\_\_, 20\_\_\_\_\_.

The above named individual has satisfactorily completed each required stage of the approved course of training including the tests for those stages, and has received

Hours of Cross-Country Flight Training

\_\_\_\_\_

Signature of Flight Instructor Printed Name CFI# Exp. Date

#### **Pre-Solo Written Test**

Instructor's Name\_\_\_\_\_

Student's Name\_\_\_\_\_

Date\_\_\_\_\_

Reference Link to 14 CFR https://www.ecfr.gov/current/title-14/chapter-I

Reference Link to PHAK https://www.faa.gov/regulations\_policies/handbooks\_manuals/aviation/phak

Reference Link to AFH https://www.faa.gov/regulations\_policies/handbooks\_manuals/aviation/airplane\_handbook

(Continue Using Reverse Side Of Page For Answers.)

1. What preflight action is required prior to a solo flight in the local area? (91.103)

2. What are the restrictions on the proximity of one aircraft to another in flight? (91.111)

3. If an Airplane is converging at approximately the same altitude with a glider, which has the right-of-way? (91.113)

4. When two aircraft are approaching each other head-on, in which direction should each pilot alter course? (91.113)

5. When two aircraft, neither on final approach, are approaching an airport for the purpose of landing, but one aircraft is lower than the other, which, in general, has the right of way? (91.113)

6. What constitutes an acrobatic maneuver? (91.303)

7. At what time of day must an aircraft's position lights be turned on? (91.209)

8. Under what conditions may a pilot deviate from control tower instructions? (PHAK 13)

What are the standard light signals for control of 9. airport traffic, and what is the meaning of each signal, both on the ground, and in the air? (PHAK 13)

	Color & Type	On Ground	In Flight	to be	careles
	STEADY GREEN				
	FLASHING GREEN				Excer is cons situatio
	STEADY GREEN				
	FLASHING GREEN			13. conge (91.11	What ested a 19)
	FLASHING WHITE		N/A		
	Alternating RED and GREEN			14. airpor (91.12	There t, what 21)
ma	ohibit operation of	viation Regulations specifica an aircraft in a careless or r at constitutes careless or re	eckless		
٩v	(0110)			15.	What

11. Is intentionally flying in close proximity to any structure, other than for takeoff and landing considered to be careless and reckless operation? Why? (91.13)

ept when necessary for takeoff and landing, sidered to be a minimum safe altitude for all ions? (91.119)

at is the minimum safe altitude over areas as established by regulations?

e is no altimeter setting available at a given at setting should be used for a local flight?

What are the dimensions of class "D" airspace? 15. (PHAK 14)

16. Are there any operations authorized within class "D" airspace other than for the purpose of landing or taking off? (PHAK 14)

17. When operating an aircraft equipped with a twoway radio at an airport with a federally operated control tower, is the pilot required to maintain communications with the tower? (PHAK 14)

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18. When operating at an airport with a control tower, is compliance with tower instructions mandatory? (PHAK 14)

19. May a right-hand traffic pattern be executed at an airport with a control tower even though the standard traffic pattern is to the left? (PHAK 14)

20. What is the difference between a ground control clearance to taxi and a clearance to taxi to a specific runway? (PHAK 14)

21. In the event of transmitter failure, what

communications action is recommended when operating at an airport with a control tower? (PHAK 14)

22. What is the standard direction of all turns for an airplane approaching to land at an airport without a control tower? (PHAK 14)

23. What types of facilities may have a designated CTAF? (PHAK 14)

24. Do instructions received from an airport ground controller have the same authority as those received from the in-flight controller?

25. What are the basic VFR weather minimums in a class D airspace, and it's extensions? (91.155)

26. Is a restricted radiotelephone operator permit required to operate a VHF radio within the US? (FCC.gov)

30. In what direction should the course be altered to pass well clear of another aircraft that is being overtaken? (91.113)

27. What frequencies are necessary for operations at this airport? (AFD)

28a. What are the basic VFR Weather minimums in class E airspace at or below 1200 feet above the ground? (91.155)

28b. What are the basic VFR Weather minimums in class E airspace between 1,200 AGL and 10,000 feet MSL within controlled airspace? (91.155)

29. Which aircraft has the right-of-way when one aircraft is being overtaken by another? (91.113)

31. In the case of lost radio contact with the control tower, what is the prescribed action for the traffic pattern entry, approach, and landing?

32. What are appropriate altitudes when operating an aircraft under VFR conditions in level cruising flight above 3,000 AGL? (91.159)

33. Is it mandatory for the pilot to keep the seatbelt fastened during takeoffs, landings and while enroute? (91.107)

34. What visual display is used to indicate that an airport runway or taxiway is closed to traffic?

35. What class of medical certificate is required for solo flight? (FAA.gov)

36. Is an instructor endorsement required for solo flight?

If yes, where is the endorsement located? (61.87)

37. Who is responsible for determining aircraft airworthiness prior to flight? (91.7)

38. What documents are required to be on board the aircraft prior to flight? (PHAK 8)

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39. What is the maximum useable fuel for your aircraft with standard tanks? (POH)

40. What is the minimum oil required? (POH)

41. What are the best rate-of-climb and obstructionclearance climb airspeeds for your aircraft? (POH)

42. What are the zero-flap and full-flap approach speeds for your aircraft? (POH)

43. What is the maximum allowable flap setting for takeoff? (POH)

44. What is the maximum allowable RPM drop during the magneto check on runup? (POH)

45. What is the first indication of induction system icing? (PHAK 6)

46. What is the maximum flap extension speed? (POH)

47. What is the placarded maneuvering speed, and what is its definition? (AFH)

48. Describe the emergency procedure for a partial or complete engine failure. (AFH)

49. During stall practice, recovery should be completed no lower than what AGL altitude?

What MSL altitude is appropriate for this practice area?

50. Explain the procedure for executing a goaround?

# **APPENDIX 1**

The following pages contain additional flight lessons to be used as necessary. For example, if you need additional lessons prior to solo, or prior to the practical test etc., and for Endorsements.

Additional lessons as necessary.

Aircraft, Avionics and Navigational Systems.

Student, Private and Additional Endorsements.

#### Lesson #A-1. Additional Preparation for Flight

1 Hour Dual, 1 Hour Ground

Notes:

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ OFF\_\_\_\_\_ ON\_\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_\_\_\_\_

Objectives: You will practice pilot operations in preparation for the practical test.

Contents:

- ⇒ Airman Certification Standards for Private Pilot Certification in the Airplane Category, Single-Engine Land Class
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs and Climbs
- $\Rightarrow$  Cross-Country Flying
- $\Rightarrow$  Flight at Critically Slow Airspeeds
- ⇒ Turn Maneuvers
- ⇒ Flight Maneuvering by Reference to Ground Objects|
- $\Rightarrow$  Additional Maneuver(s) as Specified
- $\Rightarrow$  Approaches and Landings
- $\Rightarrow$  Post Flight Procedures

Completion Standards: You will have completed assigned maneuvers and procedures as necessary with increased accuracy, and be ready for the Practical Test.

#### Lesson #A-2. Additional Preparation for Flights

.5 Hours Dual, 1 Hour Solo, .5 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_OFF\_\_\_\_\_ON\_\_\_\_IN\_\_\_\_\_

SOLO \_\_\_\_\_ OFF\_\_\_\_ ON\_\_\_\_ IN\_\_\_\_\_

AIRCRAFT\_\_\_\_\_

Objectives: During this lesson, you will accomplish your first solo flight, if the required level of skill is displayed.

#### Content:

- ⇒ Review Technical Subject Areas during Preflight Discussion Pertaining to Today's Lesson.
- $\Rightarrow$  Preflight
- $\Rightarrow$  Ground Operations
- ⇒ Airport And Traffic Pattern Operations
- $\Rightarrow$  Takeoffs And Climbs
- ⇒ Flight Maneuvering By Reference To Ground Objects
- $\Rightarrow$  Emergency Operations
- ⇒ Approaches And Landings
- $\Rightarrow$  Other (Specify)
- ⇒ Post Flight Procedures

#### Introduce

- ⇒ Solo Flight In The Traffic Pattern. Approximately 15 Minutes, 3 Takeoffs & Landings
- ⇒ Post-Flight Briefing & Preview Of Next Lesson

Completion Standards: You should display the ability to successfully perform your first supervised solo flight.

# Lesson #A-3. Aircraft Avionics and Navigation Systems

3 Hours Ground.

Name\_\_\_\_\_ Date\_\_\_\_ TOT\_\_\_\_\_

START\_\_\_\_\_ STOP\_\_\_\_\_

Objectives: During this lesson, you will learn how to operate the navigation systems installed in your aircraft.

#### Content:

- ⇒ Review Aircraft Systems
- $\Rightarrow$  External Power
- ⇒ Battery Voltage, Charging System, Indicators
- $\Rightarrow$  Electrical Schematic
- $\Rightarrow$  Ground Operations
- $\Rightarrow$  VHF Receiver Operation
- $\Rightarrow$  VOR Navigation
- ⇒ Localizer Receiver
- $\Rightarrow$  Glide Slope Receiver
- $\Rightarrow$  ADF Receiver
- ⇒ NDB LOM Station
- $\Rightarrow$  DME
- $\Rightarrow$  WAAS
- $\Rightarrow$  RAIM

- $\Rightarrow$  GPS Navigation
- ⇒ GPS Receiver
- $\Rightarrow$  Chapter / Page Layouts
- $\Rightarrow$  Concentric Knobs
- $\Rightarrow$  Menu Buttons
- $\Rightarrow$  Function Buttons
- ⇒ Labeled Buttons
- $\Rightarrow$  "Smart" Buttons
- $\Rightarrow$  Manufacturer's Training Aids
- $\Rightarrow$  Databases
- $\Rightarrow$  Marker Beacon Receiver
- $\Rightarrow$  Morse Code Identification
- $\Rightarrow$  GPS Equipment
- $\Rightarrow$  Post Flight Procedures

Completion Standards: Be able operate the avionics and navigation systems installed in your aircraft.

# STUDENT PILOT ENDORSEMENTS

Presolo aeronautical knowledge: section 61.87(	b	).
--	---	----

I certify that	has
satisfactorily completed the presolo	knowledge
exam of 61.87(b) for a	

/	/ [
Signature	Date
	Exp

# **Presolo flight training**: 61.87(c).

I certify that	has received
the required presolo training in a	
have determined he/she has demonstr proficiency of 61.87(d) and is proficien flights in	

/	/[]
Signature	Date
	Exp

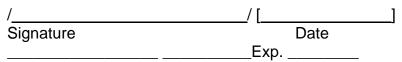
#### **Presolo flight training at night**: 61.87(c) and (o).

I certify that \_\_\_\_\_\_ has received the required presolo training in a (make and model aircraft). I have determined he/she has demonstrated the proficiency of 61.87(o) and is proficient to make solo flights at night in a \_\_\_\_\_.

/	/[
Signature	Date
	Exp

# **Solo flight (each additional 90-day period):** 61.87(p).

I certify that	has received
the required training to qualify for solo	
flying. I have determined he/she meets	the applicable
requirements of 61.87(p) and is	
proficient to make solo flights in a	



# **Solo flight (each additional 90-day period**): 61.87(p).

I certify that	has received
the required training to qua	alify for solo
flying. I have determined h	e/she meets the applicable
requirements of 61.87(p)	and is
proficient to make solo flig	hts in a
1	/ Г 1

/	/ []
Signature	Date
	Exp

# **Solo takeoffs and landings at another airport within 25 nm:** 61.93(b)(1).

I certify that \_\_\_\_\_\_ has received the required training of section 61.93(b)(1). I have determined that he/she is proficient to practice solo takeoffs and landings at (\_\_\_\_\_\_). The takeoffs and landings at (the above names airport) are subject to the following conditions:

,	<i></i>	
/	/ [	
Signature	Date	
	Exp	

# **Initial solo cross-country** flight: 61.93(c)(1).

I certify that \_\_\_\_\_\_ has received the required solo cross-country training. I find he/she has met the applicable requirements of 61.93, and is proficient to make solo cross-country flights in a

/	/ [	]
Signature	Date	
	Exp	_

	, ,		
I have reviewed t	he cross-co	ountry planr	ning of
	I	find the pla	anning
and preparation to	o be correc	t to make th	ne solo flight
from (			_) to
(			_) via
(			_) with landings
at ( on		) in a	
(			_).
Conditions and Li	imitations a	ppear belov	<i>N</i> :
(			)
/ Signature		_	] Date

**Solo cross-country** flight: 61.93(c)(2).

## Repeated solo cross-country flights not more than 50

nm from the point of departure: (1, 02)(2)

61.93(b)(2).

I certify that \_\_\_\_\_ has received

the required training in both directions

between \_\_\_\_\_and

I have determined that he is proficient of 61.93(b)(2) to conduct repeated solo cross-country flights over that route, subject to the following conditions: Conditions and Limitations appear below:

(\_\_\_\_\_\_.) /\_\_\_\_\_/[\_\_\_\_\_ Signature Date Exp.

# Solo flight in Class B airspace: 61.95(a).

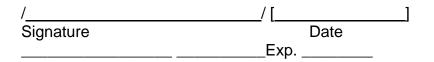
I certify that \_\_\_\_\_\_ has received the required training of 61.95(a). I have determined he/she is proficient to conduct solo flights in (\_\_\_\_\_\_) airspace. (List any applicable conditions or limitations.) Conditions and Limitations appear below:

(\_\_\_\_\_\_.) /\_\_\_\_\_/[\_\_\_\_] Signature \_\_\_\_\_Date \_\_\_\_\_Exp. \_\_\_\_

#### **PRIVATE PILOT ENDORSEMENTS**

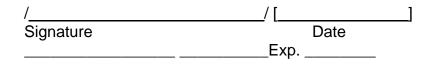
Aeronautical knowledge test: 61.35(a)(1), 61.103(d), and 61.105.

I certify that \_\_\_\_\_\_ has received the required training in accordance with section 61.105. I have determined he/she is prepared for the (name the knowledge test).



Flight proficiency/practical test: sections 61.103(f), 61.107(b), and 61.109.

I certify that \_\_\_\_\_\_ has received the required training in accordance with sections 61.107 and 61.109. I have determined he/sheis prepared for the Private Pilot Practical Test.



# ADDITIONAL ENDORSEMENTS

Completion of a flight review: section 61.56(a) and (c).

I certify that \_\_\_\_\_,

(pilot certificate), (certificate number), has satisfactorily completed a flight review of section 61.56(a) on (date).

/	/[]
Signature	Date
	Exp

PIC in a complex airplane: section 61.31(e).

I certify that \_\_\_\_\_,

(pilot certificate), (certificate number), has received the required training of section 61.31(e) in a (C210-A). I have determined that he/she is proficient in the operation and systems of a complex airplane.

/	/ [
Signature	Date
	Exp

]

PIC in a high performance airplane: section 61.31(f).

I certify that \_\_\_\_\_\_(pilot certificate), (certificate number), has received the required training of section 61.31(f) in a (make and model of high performance airplane). I have determined that he/she is proficient in the operation and systems of a high performance airplane.

/	/[]
Signature	Date
	Exp