

sporty's[®]

PRIVATE PILOT FLIGHT SIM TRAINING GUIDE

Sporty's Academy, Inc. Clermont County/Sporty's Airport Batavia, OH 45103



© 2011, 2020 by Sporty's Academy, Inc.
All Rights Reserved

sportys.com

1.800.SPORTYS
(776.7897)

Trademark Notices and Disclaimers

Microsoft, Flight Simulator, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Sporty's and What You Should Know are registered trademarks of Sportsman's Market. Sporty's Private Pilot Flight Sim Training Guide is an independent publication and is not affiliated with, nor has it been authorized, sponsored, or otherwise approved by Microsoft Corporation.

This product is intended as a supplement to your flight training and not a substitute for competent flight instruction. When differences arise, follow the teaching of your authorized flight instructor.

FLIGHT SIM TRAINING GUIDE

PRIVATE PILOT - AIRPLANE

INTRODUCTION

Welcome to the *Flight Sim Training Guide* for the Private Pilot from Sporty's Academy. This book is intended to help you prepare for a number of your flight lessons as you will find them in *Sporty's® Private Pilot Training Course Outline*. The *Flight Sim Training Guide* lessons are designed as a self-guided learning curriculum. Understanding and completing these lessons prior to the designated flight lesson will enhance your learning in the actual airplane with the potential to reduce time and costs in your training.

CONCEPT

The *Flight Sim Training Guide* for the Private Pilot in conjunction with the *Private Pilot Training Course Outline* utilizes the building-block theory of learning, which recognizes that each item taught must be presented on the basis of previously learned knowledge and skills. While the *Flight Sim Training Guide* can be used as a stand-alone product, it is best utilized as a part of *Sporty's Learn to Fly Course*.

For optimum effectiveness, the reading material and viewing of the associated video volumes should be completed prior to the respective flight sim session.

ELEMENTS

The *Flight Sim Training Guide* for the Private Pilot was designed with *Microsoft® Flight Simulator (MSFS)* in mind.

Many of the elements of this book can be successfully implemented on older versions of *Microsoft Flight Simulator* and with any number of other flight simulation products available. The keys to successful implementation are good graphics quality and realistic modeling characteristics for the airplane being flown in the simulation. You generally will not get a realistic "feel" in home simulation equipment but the airplane must act like an airplane for a positive transfer of learning to occur when moving to the real airplane. When using alternative simulation software, enter the settings found under "FS Settings:" for each session manually for an optimum session experience.

FS SESSIONS

Each flight simulator session is organized for self-guided study. You will find the following parts for each session:

Completion Details Box - This box provides a place for you to record your completion of each session. Space has been provided to allow you to repeat and record the session multiple times as you go back to practice a session again. Repeating a session is not a requirement but can be a useful part of the learning process.

Objective - The objective lets you know the intention of the session.





Scenario - The scenario is a flow that will allow you to complete all of the tasks within the session. The scenario may also provide additional details to make your practice more beneficial.

Tasks to Accomplish - Tasks are individual maneuvers that you can accomplish in the session. If you are not sure how to complete a task, review the maneuver in the books and videos indicated under "For More Information." You can also review the animated maneuver in *Sporty's Learn to Fly Course*.

FS Settings - This section provides information on the manual settings to use for MSFS. At times, the settings may suggest the use of a particular cockpit setting. This is the view that our instructors found to be the most useful for the particular maneuvers on a single-monitor setup. You are not required to use this setting. If you have multiple monitors, you might find it useful to set different views on each monitor (front view and side view, for example). Use the view settings that work best for you and your hardware.

Performance Goals - These goals are what you should strive for during your session. The session is about self-guided study so nobody will be checking up on you, but be honest with yourself. Meeting the goals will provide the most benefit in your airplane training.

For More Information - The FMI section provides a list of resources for you to review in preparation for and again after the session. The videos listed are a part of the Private Pilot track in *Sporty's Learn to Fly Course*. The books listed are published by the FAA and may be purchased in printed form from Sporty's Pilot Shop (sportys.com). You can also obtain PDF versions of the books in the Library section of Sporty's course. The Sporty's videos list specific segments for review.

Notes - This section is provided for you to create your own notes and questions after the session. Take any questions that you have to your next meeting with your flight instructor.

SELF EVALUATION OF FS SESSIONS

Self evaluation of your performance during a FS session can help you focus on where you need to improve next time. You can grade individual tasks and the overall session. These “grades” are for your own use so be honest. Your instructor doesn't need to see them.

The following scale is suggested for the evaluation of each pilot operation or task.

1 = EXCELLENT	You demonstrate appropriate skills with no procedural or mechanical errors. You didn't need to pause and review any procedures.
2 = ABOVE AVERAGE	You demonstrate skills that exceed standards. Occasional procedural or mechanical errors are quickly recognized and corrected.
3 = AVERAGE	You consistently demonstrate skills that meet standards with timely recognition of procedural or mechanical errors.
4 = BELOW AVERAGE	You demonstrate skills with difficulty and are slow in recognizing and correcting procedural or mechanical errors.
5 = BELOW STANDARDS	You do not demonstrate adequate skills and are unable to recognize and correct procedural or mechanical errors.
I = INCOMPLETE	You have not completed the pilot operation or task listed.

Each FS Session can be assigned an overall grade based on the following criteria.

S = SATISFACTORY	The content of the session has been completed to the goals outlined in the individual lesson Performance Goals with no need for improvement.
N = NEED IMPROVEMENT	The content of the session has been completed to the goals outlined in the individual lesson Performance Goals but with some room for improvement.
U = UNSATISFACTORY	Indicates that all or part of the session content was not completed to the goals outlined in the individual lesson Performance Goals. One or more pilot operations or tasks graded as a “5” would indicate an overall grade of unsatisfactory.
I = INCOMPLETE	Indicates the content of the session was not completed, but the pilot operations or tasks covered were satisfactory. Pilot operations or tasks not completed should be noted with an “I”

REVIEW OF SESSION AFTER FLIGHT LESSON

After completing the flight lesson associated with a particular session, you may find it useful to go back and review the session with your simulation device. This practice will help to reinforce your learning process. This is yet another way to potentially save time and money during your flight training.





FREQUENTLY ASKED QUESTIONS

How can I make it more realistic?

We strongly encourage you to change the default settings, in order to make your flight simulator sessions more realistic. With *Microsoft Flight Simulator* running, select "Flight Model" from the "Options > General" menu. Change the setting to "Modern" for more realistic settings. This turns on the stall horn, allows you to crash, allows you to overstress and overspeed the airplane, and stalls are more realistically represented. You can also customize these settings individually if you prefer, by choosing "Legacy." Another option is to set "True to Life" in the "Options > Assistance" menu.

You should also use realistic flight controls with at least a yoke, a throttle, and rudder pedals. The more realistic your controls, the more realistic your experience.

Can I make changes to the location or aircraft?

Yes. If you would like to practice in the airplane you train in, or at your home airport, it's easy to make changes. Choose the "Aircraft" menu or the "Departure Airport" menu from the World Map and select from the wide variety of options. The speeds indicated in the book may vary if you use a different airplane. Some of the airports in the lessons have been chosen for specific characteristics. You may need to find an airport with similar characteristics if you do not want to use the one in the lesson plan.

Can I log these flights in my logbook?

No. To log a flight simulator session, you must use an FAA-approved training device, which most controls are not. However, these flight simulator sessions will save you time and money in the airplane.

How can I reduce lag in flight if I have poor internet connection?

If you notice a deterioration in gameplay and you think it's due to a slower internet connection, we recommend turning off unneeded add-ons. Go to the "World Map" tab from the home screen and click on "Flight Conditions" in the top right corner. On the left side of the screen, for multiplayer, choose "Off (Group Only)." This command stops other flight simmers from being populated into your simulation. The next step would be to turn off Air Traffic. This will stop the simulator from adding live traffic from the physical world into the simulated world. Lastly, you can turn off Live Weather to prevent your simulator from reviewing and programming live weather depictions from the locations where you will be flying. Try these steps sequentially to see if they improve in-flight speed.

How can I reduce lag in flight if I have a stressed processor?

To reduce the workload on a computer's processor and video card, there are a few visuals you can degrade which won't interrupt the physics of the simulator. Click on the Options tab from the home screen and highlight the graphics window. Start with "Global Rendering Quality" and downgrade from high-end to medium, or medium to low-end. The next option is to reduce the frame rate limit, which is set at 60 by default. We've found through trial and error that 40 frames per second is not noticeable and will reduce

the workload on your machine. A final option is to lower the quality of buildings, trees, grass, and bushes if you really want to trim some fat.

Where should my first flight be?

Head on over to Clermont County Airport (I69) and if you have live traffic active, chances are you'll see one of our airplanes in the area. Keep an eye out for N706SP, our Piper Aztec, or one of the 14 Cessna 172s that are training budding aviators. We can't offer you a complimentary hot dog (on Saturdays they're free on the flight line) but we can provide 3,700 feet of asphalt to get you airborne and start you on your digital journey.

I'm having trouble keeping up with the simulated airplane and working the radios. What can I change?

There isn't a way to slow down time but the active pause command which is the far-left button in the toolbar drop down screen is very helpful. The active pause allows us to make avionics changes, load flight plans or approaches, edit engine profile, all while keeping the aircraft in the set location and engine running. This is a very helpful tool to make sure we don't get behind the airplane. When active pause is disengaged keep in mind that the autopilot will be engaged in the level flight profile. Be sure to disengage the autopilot when a heading change is necessary.





MSFS 2020 KEYBOARD SHORTCUTS

Keyboard shortcuts can be useful for some functions. Many common functions can also be activated by manipulating the associated control represented on the screen with your mouse. Functions can also be mapped to buttons or switches on a control yoke. Better control yokes designed for MSFS will map these functions during their installation process.

Miscellaneous

Description	Key(s)
Toggle fuel pump	Alt + P
Toggle marker sound	CTRL+ 3
Minus	CTRL + NUM SUB
Plus	CTRL + NUM PLUS
Toggle pushback	Shift + P
Request fuel	Shift + F
Display navlog	N
Display map	V
Sim rate	R
Skip RTC	BACKSPACE
New Ui window mode	RIGHT ALT
Toggle delegate control to copilot	CTRL + ALT + X

Instruments and Systems

Description	Key(s)
Toggle anti ice	H
Toggle pitot heat	SHIFT + H
Toggle master alternator	ALT + A
Toggle master battery	ALT + B
Toggle master battery and alternator	SHIFT + M
Decrease cowl flap	SHIFT + CTRL + C
Select engine	E
Auto start engine	CTRL + E
Engine autostop	SHIFT + CTRL + E
Increase cowl flap	SHIFT + CTRL + V
Magneto	M
Magnetos both	SHIFT + ALT + F
Magnetos left	SHIFT + ALT + S
Magnetos off	SHIFT + ALT + Q
Magnetos right	SHIFT + ALT + D
Magnetos start	SHIFT + ALT + G
Toggle master ignition switch	ALT + I

Flight Instruments

Description	Key(s)
Select airspeed bug	SHIFT + CTRL + R
Select altitude bug	SHIFT + CTRL + Z
Toggle autorudder	SHIFT + CTRL + U
Set altimeter	B
Decrease heading bug	CTRL + DEL
Increase heading bug	CTRL + INSERT
Select heading bug	SHIFT + CTRL + H
Set heading indicator	D
Toggle alternate static	ALT + S

Fuel

Description	Key(s)
Toggle fuel dump	SHIFT + CTRL + D
Fuel selector all	ALT + W
Fuel selector off	CTRL + ALT + W
Toggle all fuel valve	ALT + V

Camera - Slew Mode

Description	Key(s)
Slew translate backward	NUM 2
Slew translate forward	NUM 8
Slew translate down (slow)	A
Slew roll left	NUM 7
Slew roll right	NUM 9
Slew X Axis translation freeze	NUM 5
Slew Yaw left	NUM 1
Slew Yaw right	NUM 3
Slew translate left	NUM 4
Slew pitch down	NUM 0
Slew pitch up	9
Slew translate right	NUM 6
Toggle slew mode	Y

Camera Mode Switches

Description	Key(s)
Cockpit/external view mode	END
Toggle drone	INSERT





Cockpit Camera

Description	Key(s)
Load custom camera 0	ALT + 0
Load custom camera 1	ALT + 1
Load custom camera 2	ALT + 2
Load custom camera 3	ALT + 3
Load custom camera 4	ALT + 4
Load custom camera 5	ALT + 5
Load custom camera 6	ALT + 6
Load custom camera 7	ALT + 7
Load custom camera 8	ALT + 8
Load custom camera 9	ALT + 9
Load next custom camera	K
Load previous custom camera	SHIFT + K
Save custom camera 0	CTRL + ALT + 0
Save custom camera 1	CTRL + ALT + 1
Save custom camera 2	CTRL + ALT + 2
Save custom camera 3	CTRL + ALT + 3
Save custom camera 4	CTRL + ALT + 4
Save custom camera 5	CTRL + ALT + 5
Save custom camera 6	CTRL + ALT + 6
Save custom camera 7	CTRL + ALT + 7
Save custom camera 8	CTRL + ALT + 8
Save custom camera 9	CTRL + ALT + 9
Decrease cockpit view height	DOWN
Increase cockpit view height	UP
Translate cockpit view backward	RIGHT ALT + DOWN
Translate cockpit view forward	RIGHT ALT + UP
Translate cockpit view left	LEFT
Translate cockpit view right	RIGHT
Cockpit look down	SHIFT + DOWN
Cockpit look left	SHIFT + LEFT
Cockpit look right	SHIFT + RIGHT
Cockpit look up	SHIFT + UP
Cockpit quickview up	CTRL + UP
Cockpit quickview rear	CTRL + DOWN
Cockpit quickview right	CTRL + RIGHT
Cockpit quickview left	CTRL + LEFT
Cockpit quickview cycle	Q
Reset cockpit view	CTRL + SPACE
Cockpit view upper	SPACE
Unzoom cockpit view	-

Toggle smart camera	S
Zoom cockpit view	=

Drone Camera

Description	Key(s)
Drone top down view	CTRL + SPACE
Attach drone to next target	CTRL + PAGE UP
Attach drone to previous target	CTRL + PAGE DOWN
Lock drone to next target	T
Lock drone to previous target	SHIFT + T
Translate drone backward	S
Translate drone down	F
Translate drone forward	W
Translate drone left	A
Translate drone right	D
Translate drone up	R
Reset drone roll	SPACE
Reset drone target offset	NUM 5
Pitch drone down	NUM 2
Roll drone right	NUM 9
Pitch drone up	NUM 8
Yaw drone left	NUM 4
Yaw drone right	NUM 6
Roll drone left	NUM 7
Toggle drone follow mode	TAB
Toggle drone lock mode	CTRL + TAB
Increase drone zoom	NUM PLUS
Decrease drone zoom	NUM SUB
Toggle Plane Controls	C

External Camera

Description	Key(s)
Reset external view	CTRL + SPACE
External quickview left	CTRL + LEFT
External quickview rear	CTRL + DOWN
External quickview right	CTRL + RIGHT
External quickview top	CTRL + UP
Unzoom external view	-
Zoom external view	=





Fixed Camera

Description	Key(s)
Toggle fixed camera 10	CTRL + SHIFT + 0
Toggle fixed camera 1	CTRL + SHIFT + 1
Toggle fixed camera 2	CTRL + SHIFT + 2
Toggle fixed camera 3	CTRL + SHIFT + 3
Toggle fixed camera 4	CTRL + SHIFT + 4
Toggle fixed camera 5	CTRL + SHIFT + 5
Toggle fixed camera 6	CTRL + SHIFT + 6
Toggle fixed camera 7	CTRL + SHIFT + 7
Toggle fixed camera 8	CTRL + SHIFT + 8
Toggle fixed camera 9	CTRL + SHIFT + 9
Reset fixed camera	F
Previous fixed camera	SHIFT + A
Next fixed camera	A

Instrument Views

Description	Key(s)
Previous instrument view	SHIFT + A
Next instrument view	A
Toggle instrument view 10	CTRL + 10
Toggle instrument view 1	CTRL + 1
Toggle instrument view 2	CTRL + 2
Toggle instrument view 3	CTRL + 3
Toggle instrument view 4	CTRL + 4
Toggle instrument view 5	CTRL + 5
Toggle instrument view 6	CTRL + 6
Toggle instrument view 7	CTRL + 7
Toggle instrument view 8	CTRL + 8
Toggle instrument view 9	CTRL + 9
Select next POI	PAGE UP
Reset smartcam	CTRL + F
Set custom smartcam target	T
Next smartcam target	PAGE UP + CTRL
Camera al player	HOME + CTRL
Previous smartcam target	PAGE DOWN + CTRL
Toggle follow smartcam target	PAGE DOWN
Unset custom smartcam target	SHIFT + T

Autopilot

Description	Key(s)
Autopilot airspeed hold	ALT + R
Decrease autopilot reference altitude	CTRL + PAGEDOWN
Increase autopilot reference altitude	CTRL + PAGEUP

Toggle autopilot approach hold	CTRL + A
Toggle autopilot attitude hold	CTRL + T
Toggle autopilot localizer hold	CTRL + O
Toggle autopilot mach hold	CTRL + M
Toggle autopilot master	Z
Autopilot N1 hold	CTRL + S
Decrease autopilot N1 reference	CTRL + END
Increase autopilot N1 reference	CTRL + HOME
Autopilot nav1 hold	CTRL + N
Decrease autopilot reference airspeed	SHIFT + CTRL + DEL
Increase autopilot reference airspeed	SHIFT + CTRL + INSERT
Decrease autopilot reference vs	CTRL + END
Increase autopilot reference vs	CTRL + HOME
Toggle autopilot wing leveler	CTRL + V
Autopilot off	SHIFT + ALT + Z
Autopilot on	ALT + Z
Arm auto throttle	SHIFT + R
Auto throttle to GA	SHIFT + CTRL + G
Toggle avionics master	PAGEUP
Toggle flight director	CTRL + F
Toggle yaw damper	CTRL + D

Brakes

Description	Key(s)
Brakes	NUM DECIMAL
Left brake	NUMMULT
Right brake	NUM SUB
Toggle parking brakes	CTRL + NUM DECIMAL

Flight Control Surfaces

Description	Key(s)
Aileron left (roll left)	NUM 4
Aileron right (roll right)	NUM 6
Center ailer rudder	NUM 5
Elevator down (pitch down)	NUM 8
Elevator up (pitch up)	NUM 2
Toggle water rudder	CTRL + W
Rudder left (yaw left)	NUM 0
Rudder right (yaw right)	ENTER

Secondary Control Surfaces

Description	Key(s)
Toggle spoilers	NUM DECIMAL





Control Trimming Surfaces

Description	Key(s)
Aileron trim left	CTL + NUM 4
Aileron trim right	CTL + NUM 6
Rudder trim left	CTL + NUM 0
Rudder trim right	CTL + ENTER
Elevator trim down (nose down)	NUM 7
Elevator trim up (nose up)	NUM 1

Landing Gear

Description	Key(s)
Toggle landing gear	G
Gear down	CTRL + G
Toggle tail wheel lock	SHIFT + G

Exterior Lights

Description	Key(s)
Toggle landing lights	CTL + L
Toggle strobes	O
Toggle beacon light	ALT + H
Toggle nav light	ALT + N
Toggle taxi lights	ALT + J

Interior Lights

Description	Key(s)
Toggle flashlight – Alt + I	ALT + L
Toggle lights – I	L

Menu

Description	Key(s)
Toggle active pause	PAUSE
Toggle basic control panel	CTRL + C
Clear search	DEL
Toggle pause	ESC
Display checklist	SHIFT + C
Next toolbar panel	.
Previous toolbar panel	/
Back to main menu	END
Close menu	BACKSPACE
Fly	ENTER
Help menu	TAB
Restart free flight	HOME
Restart activity	HOME

Radio

Description	Key(s)
ADF	SHIFT + CTRL + A
Com radio	C
Set com1 standby	SHIFT + ALT + X
Com1 switch to standby	ALT + U
DME	F
Decrease nav1 frequency	SHIFT + CTRL + PGDOWN
Increase nav1 frequency	SHIFT + CTRL + PGDOWN
Nav1 swap	SHIFT + CTRL + N
Nav radio	N
Decrease VOR1 OBS	SHIFT + CTRL + END
Increase VOR1 OBS	SHIFT + CTRL + HOME
VOR OBS	SHIFT + V
Transponder	T
Set transponder	SHIFT + ALT + W
Display ATC	SCROLL LOCK
ATC panel choice 0	0
ATC panel choice 1	1
ATC panel choice 2	2
ATC panel choice 3	3
ATC panel choice 4	4
ATC panel choice 5	5
ATC panel choice 6	6
ATC panel choice 7	7
ATC panel choice 8	8
ATC panel choice 9	9
Frequency swap	X
Increase wheel speed	SHIFT



Page Intentionally Left Blank

FLIGHT SIM TRAINING GUIDE

PRIVATE PILOT - AIRPLANE

OBJECTIVES

.....

You will become familiar with aeronautical procedures in a flight simulation device in preparation for flight lessons prescribed in *Sporty's Private Pilot Training Course Outline*, a part of *Sporty's Learn To Fly Course*.

PERFORMANCE GOALS

.....

You should be able to demonstrate basic control of the airplane and an understanding of the procedures during maneuvers in simulation device sessions. Your flight training should be enhanced.





FS Session 1

This FS session will help you to prepare for Lesson 2 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with the engine start procedures, aircraft taxi, the before takeoff checklist, and the basic aircraft controls.

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Scenario:

You are preparing to depart on a local pleasure flight. Complete your before takeoff checks and depart the airport using a normal takeoff. Climb straight ahead to exit the traffic pattern. Continue a climb to 3500 feet and proceed east to a nearby lake. Circle around the lake while maintaining 3500 feet. Descend to 2000 feet while continuing to circle the lake to get a better view. Return to the airport and enter the traffic pattern. Complete a normal landing and exit the runway at the first available taxiway.

Tasks to Accomplish:

- | | |
|---|----------------------------------|
| _____ Engine Starting | _____ Pitch / Power Coordination |
| _____ Taxiing | _____ Shallow Banked Turns |
| _____ Before Takeoff Check | _____ Descents / Level Off |
| _____ Normal Takeoff & Climb | _____ Traffic Pattern Operations |
| _____ Climb / Level Off | _____ Normal Approach & Landing |
| _____ Straight & Level Flight / Use of Trim | |

FS Settings:

Cessna 172 on the ground at Clermont County Airport (I69). Weather - clear skies.

Performance Goals:

You should be able to perform an engine start and be able to taxi the aircraft to the run-up area and perform the before takeoff checks. You should be able to demonstrate basic control of the airplane during in-flight maneuvers.

For More Information:

- FAA-H-8083-3 Airplane Flying Handbook (AFH), Chapters 2, 3, 5, 7, 8
- FAA-H-8083-25 Pilot's Handbook of Aeronautical Knowledge (PHAK), Chapters 6, 8, 9, 14
- Private Pilot Airman Certification Standards (included with Sporty's Learn To Fly Course).
- Sporty's Learn To Fly Course - Video Vol 1: Segments 12-22

<p>Notes:</p> <hr/> <hr/> <hr/> <hr/>
--

FS Session 2

This FS session will help you to prepare for Lesson 5 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft at various airspeeds and performing imminent stalls and recoveries.

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Scenario:

Your flight today will explore the full range of your training airplane's airspeed envelope. Depart the airport using a normal takeoff and climb straight ahead to exit the traffic pattern. Continue a climb to 3500 feet. Maintain approximately 3500 feet while exploring the airspeed range from full power level flight cruise airspeed to very low airspeed, with and without the use of flaps. Explore power-on and power-off (idle) stall entries with and without the use of flaps. Execute recoveries prior to entering a full stall. Return to the airport and enter the traffic pattern. Complete a normal landing and exit the runway at the first available taxiway.

Tasks to Accomplish:

- | | |
|---|---|
| <ul style="list-style-type: none"> _____ Normal Takeoff & Climb _____ Climb / Level Off _____ Straight & Level Flight / Use of Trim _____ Pitch / Power Coordination _____ Maneuvering during Slow Flight _____ Power-Off Stalls (Imminent) | <ul style="list-style-type: none"> _____ Power-On Stalls (Imminent) _____ Use of Flaps _____ Descents / Level Off _____ Traffic Pattern Operations _____ Normal Approach & Landing |
|---|---|

FS Settings:

C172 on the ground at Clermont County Airport (I69). Weather - clear skies.

Performance Goals:

You should be able to perform a normal takeoff. You should be able to demonstrate basic control of the airplane during in-flight maneuvers. You should be able to demonstrate slow flight and stall entry and recoveries without losing control of the aircraft.

For More Information:

AFH, Chapters 4, 5, 7, 8
 PHAK, Chapters 5, 6

Private Pilot Airman Certification Standards
 Vol 1: Segments 19-26

Notes:





FS Session 3

This FS session will help you to prepare for Lesson 7 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft during constant airspeed climbs and descents and airspeed transitions.

COMPLETION DETAILS					
DATE _____	TIME SPENT _____	OUTCOME	S	N	U I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U I

Scenario:

Your flight today will explore the full range of your training airplane's airspeed envelope. The scenario will start at Clermont County Airport (I69). Perform a normal takeoff. At pattern altitude (1800 feet) climb at 80 knots until reaching 2500 feet, then adjust the pitch to climb at 90 knots until reaching 3000 feet. Adjust the pitch to climb at 80 knots again while continuing to climb to 3500 feet. Adjust the pitch trim to alleviate control input requirements after airspeed changes. Reduce the power to maintain 80 knots and approximately 3500 feet. Now maintain 3500 feet while increasing the power to establish a level flight cruise airspeed of 100 knots. Explore flight at an airspeed within 20 knots of a stall. Explore power-on and power-off (idle) stall entries with and without the use of flaps. Execute recoveries prior to entering a full stall. Using medium bank turns, select some headings and turn to them. Descend to the airport using a pitch and power setting that will allow you to maintain 90 knots. Level off and enter the traffic pattern at this airspeed. Slow to 85 knots while on downwind and lower the flaps to 10°. Begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Complete a normal landing and exit the runway at the first available taxiway.

Tasks to Accomplish:

- | | |
|--------------------------------------|---------------------------------------|
| _____ Maneuvering during Slow Flight | _____ Airspeed Transitions |
| _____ Power-Off Stalls (Imminent) | _____ Climbs to Altitudes |
| _____ Power-On Stalls (Imminent) | _____ Descents to Altitudes |
| _____ Constant Airspeed Climbs | _____ Turns to Headings (Medium Bank) |
| _____ Constant Airspeed Descents | _____ Flight at Low Cruise Airspeeds |

FS Settings:

C172 climbing from Clermont County Airport (I69). Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic control of the airplane during in-flight maneuvers. You should be able to demonstrate slow flight and stall entry and recoveries without losing control of the aircraft. You should be able to execute straight and level flight, climbs, descents, and turns. You should have an awareness of the need for proper aircraft trimming during airspeed transitions.

For More Information:

- | | |
|--|-----------------------|
| AFH, Chapter 4 | Vol 1: Segments 24-26 |
| PHAK, Chapters 5, 6, 11 | Vol 2: Segments 1-7 |
| Private Pilot Airman Certification Standards | |

<p>Notes:</p> <hr/> <hr/> <hr/> <hr/>
--

FS Session 4

This FS session will help you to prepare for Lesson 9 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft during power-off and power-on full stalls as well as steep turns.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Scenario:

Your flight today will continue to explore the stall characteristics of your airplane. The scenario begins at 90 knots and approximately 3500 feet. Explore power-on and power-off (idle) stall entries with and without the use of flaps. Execute recoveries after entering a full stall. From a known heading, execute a left turn at 45° of bank and continue the turn until returning to the previous heading. Now, execute a right turn using the same conditions. Descend to the airport using a pitch and power setting that will allow you to maintain 90 knots. Level off and enter the traffic pattern at this airspeed. Slow to 85 knots while on downwind and lower the flaps to 10°. Begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Complete a normal landing and exit the runway at the first available taxiway.

Tasks to Accomplish:

- | | |
|--|--|
| _____ Constant Airspeed Descents | _____ Power-On Stalls (Full) w/o Flaps |
| _____ Power-Off Stalls (Full) w/ & w/o Flaps | _____ Steep Turns |

FS Settings:

C172 at 3500 feet near Clermont County Airport (I69). Altitude=3500, Heading=90, Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic control of the airplane during in-flight maneuvers. You should be able to demonstrate stall entry and recoveries without losing control of the aircraft. You should be able to execute straight and level flight, climbs, descents, and turns including steep turns. You should have an awareness of the need for proper aircraft trimming during airspeed transitions.

For More Information:

- | | |
|--|----------------------------------|
| AFH, Chapter 4 | Vol 1: Review Segments as Needed |
| PHAK, Chapter 5 | Vol 2: Segments 7-10 |
| Private Pilot Airman Certification Standards | Vol 3: Segment 3 |

Notes:





FS Session 5

This FS session will help you to prepare for Lesson 11 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft during constant rate climbs and descents.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Scenario:

Your flight today will explore climbs and descents at a constant rate. Depart the airport using a normal takeoff and climb straight ahead to exit the traffic pattern. Maintain full power and adjust the pitch for a climb at 500 feet per minute while continuing a climb to 3500 feet. Adjust the pitch trim to alleviate control input requirements after each airspeed change. Reduce the power to maintain a level flight cruise airspeed of 100 knots. Explore power-on and power-off (idle) stall entries with and without the use of flaps. Execute recoveries after entering a full stall. From a known heading, execute a left turn at 45° of bank and continue the turn until returning to the previous heading. Now, execute a right turn using the same conditions. Descend to the airport using a pitch and power setting that will allow you to maintain a 500 foot per minute descent without gaining excessive airspeed. Level off and enter the traffic pattern at an airspeed around 90 knots. Slow to 85 knots while on downwind and lower the flaps to 10°. Begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Complete a normal landing and exit the runway at the first available taxiway.

Tasks to Accomplish:

- | | | | |
|-------|--------------------------------|-------|------------------------|
| _____ | Maneuvering during Slow Flight | _____ | Power-On Stalls (Full) |
| _____ | Normal Takeoffs & Landings | _____ | Constant Rate Climbs |
| _____ | Steep Turns | _____ | Constant Rate Descents |
| _____ | Power-Off Stalls (Full) | | |

FS Settings:

C172 on the ground at Clermont County Airport (I69). Weather - clear skies.

Performance Goals:

You should be able to perform a normal takeoff. You should be able to demonstrate basic control of the airplane during in-flight maneuvers. You should be able to demonstrate stall entry and recoveries without losing control of the aircraft. You should be able to execute straight and level flight, climbs, descents, and turns including steep turns. You should have an awareness of the need for proper aircraft trimming during airspeed transitions.

For More Information:

- | | |
|--|--|
| AFH, Chapter 4 | Vol 1: Segment 19; Review Segments as Needed |
| PHAK, Chapter 5 | Vol 2: Segments 1-11 |
| Private Pilot Airman Certification Standards | Vol 3: Segment 3 |

Notes:

FS Session 6

This FS session will help you to prepare for Lesson 13 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft during ground reference maneuvers.

Scenario:

Your flight today will explore the effects of the wind on your groundspeed and ground track. Begin the flight approximately five miles to the east of Clermont County Airport (I69) at the default altitude of 2400 feet. Fly towards Clermont County Airport and descend to 1700 feet, reaching level flight over the airport. The ground elevation near our airport is approximately 900 feet above mean sea level (MSL). This puts our airplane at approximately 800 feet above ground level (AGL). Maintain a level flight cruise airspeed of 95 knots. Adjust the pitch trim to alleviate control input requirements at this airspeed. The wind should be blowing out of the north at 24 knots. Turn to a heading of north (360) and note your speed passing over the ground. Turn to a heading of south (180) and note the difference in speed passing over the ground. Turn to a heading of east (090) and note that your ground track is not directly east. You should be drifting to the right of a directly east course. Turn to a heading of west (270) and note that you ground track drifts to the left of a directly west course. Now, locate a rectangular shaped field to use for flying a rectangular course. Enter the rectangular course on the leg which is most closely the downwind leg of the rectangle. Fly the course correcting for wind drift through the turns and on each leg. Now, find a long road running east and west. Cross the road heading downwind and perform s-turns across the road, correcting for the wind using a combination of bank angle and crab angle to keep the loops symmetrical. Next, utilize an intersection of two roads as a point for turns around that point. Employ a combination of bank angle and crab angle to fly a circle with a constant radius from the point. Return to the airport and enter the traffic pattern at an airspeed around 90 knots. Slow to 85 knots while on downwind and lower the flaps to 10°. Begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Complete a normal landing and exit the runway at the first available taxiway.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

- _____ Wind Effect on Ground Track
- _____ Rectangular Course

- _____ S-Turns (across a Road)
- _____ Turns around a Point

FS Settings:

C172 at 2400 feet, five miles east of Clermont Country Airport (I69). Altitude = 2400, Heading = 270, Weather – wind from 0 at 24 knots (choose "Custom" under weather & time and select the "Clear Skies" tab above the time horizontal scroll line. Next click ADD WIND LAYER with the speed and direction).

Some users prefer to use the virtual cockpit for this session; others prefer to have the 2D cockpit with the instrument panel hidden and only a few key instruments visible. Use your preference.

Performance Goals:

You should be able to demonstrate basic control of the airplane during in-flight maneuvers. You should be able to maintain the desired ground track at the specified altitude during ground reference maneuvers.

For More Information:

- AFH, Chapters 1, 5, 6, 7, 8
- PHAK, Chapter 14
- Private Pilot Airman Certificate Standards

- Vol 2: Segment 1; Review Segments as Needed
- Vol 3: Segment 1

Notes:





FS Session 7

This FS session will help you to prepare for Lesson 19 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with flying the aircraft during slips and crosswind takeoffs and landings. The effect of wind on ground track should be reviewed.

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Scenario:

Your flight today will explore slips and crosswind takeoffs and landings. Based upon our flight settings, the wind should be blowing out of the west at 16 knots. Depart the airport using a crosswind takeoff and establish a crab to fly a rectangular traffic pattern. Turn onto the crosswind leg at 1500 feet and continue climbing to your pattern altitude of 1800 feet. Reduce the power to maintain a traffic pattern airspeed of 85 knots on downwind. Adjust the pitch trim to alleviate control input requirements at this airspeed. Lower the flaps to 10° when approximately abeam the point of landing and begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Utilize a side slip to maintain the runway centerline while on final approach during this exercise. Complete a crosswind landing and exit the runway at the first available taxiway. Takeoff and fly the traffic pattern once again but leave the flaps up throughout. Utilize a forward slip to help lose altitude while on final approach.

Tasks to Accomplish:

- | | |
|---|------------------------------------|
| _____ Crosswind Takeoff & Climb | _____ Forward Slip |
| _____ Go-Around from a Rejected Landing | _____ Side Slip to a Landing |
| _____ Traffic Pattern Operations | _____ Crosswind Approach & Landing |
| _____ Wind Effect on Ground Track | _____ Forward Slip to a Landing |
| _____ Side Slip | _____ No Flap Landing |

FS Settings:

C172 on the ground at Clermont County Airport (I69). Weather - wind from 270° at 16 knots at the surface. Some users prefer to use the virtual cockpit for this session; others prefer to have the 2D cockpit with the instrument panel hidden and only a few key instruments visible. Use your preference.

Performance Goals:

You should be able to perform slips, crosswind takeoffs and landings, and correct for wind effects during maneuvers. You should be able to maintain the desired ground track at the specified altitude during traffic pattern operations.

For More Information:

- | | |
|--|---------------------|
| AFH, Chapters 5, 7, 8 | Vol 2: Segment 13 |
| PHAK, Chapter 2 | Vol 3: Segments 1-4 |
| Private Pilot Airman Certification Standards | |

<p>Notes:</p> <hr/> <hr/> <hr/> <hr/>
--

FS Session 8

This FS session will help you to prepare for Lesson 25 in Sporty's Private Pilot TCO.

Objective:

To help you review correct operating procedures prior to the stage check.

Scenario:

Your flight today will review a number of items in preparation for your stage check. Depart the airport using a crosswind takeoff and establish a crab to exit the traffic pattern. Maintain full power and adjust the pitch for a climb at 80 knots. Climb at 80 knots for 500 feet then adjust the pitch climb at 90 knots while continuing a climb to 3500 feet. Adjust the pitch trim to alleviate control input requirements after each airspeed change. Reduce the power to maintain approximately 3500 feet. Explore power-on and power-off stall entries with and without the use of flaps. Execute recoveries after entering a full stall. Review slow flight operations with and without the use of flaps. From a known heading, execute left and right steep turns at 45° of bank. Continue each turn until returning to the known heading. Descend to the airport using a pitch and power setting that will allow you to maintain 90 knots. Level off and enter the traffic pattern at this airspeed. Slow to 85 knots while on downwind and lower the flaps to 10°. Begin a descent in the pattern. Lower the flaps to 20° and slow to 75 knots after turning base. Lower the flaps to full (30°) and slow to 65 knots after turning final. Utilize a side slip to maintain the runway centerline while on final approach during this exercise. Execute a go-around and fly the traffic pattern once again but leave the flaps up throughout. Utilize a forward slip to help lose altitude while on final approach. Complete a no flap landing and exit the runway at the first available taxiway.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

- | | |
|--|---|
| <input type="checkbox"/> Before Takeoff Check | <input type="checkbox"/> Power-On Stalls |
| <input type="checkbox"/> Normal and/or Crosswind Takeoff & Climb | <input type="checkbox"/> Straight and Level Flight |
| <input type="checkbox"/> Traffic Pattern Operations | <input type="checkbox"/> Turns to Headings |
| <input type="checkbox"/> Side Slip to a Landing | <input type="checkbox"/> Constant Airspeed Climbs |
| <input type="checkbox"/> Forward Slip to a Landing | <input type="checkbox"/> Constant Airspeed Descents |
| <input type="checkbox"/> Go-Around from a Rejected Landing | <input type="checkbox"/> Steep Turns |
| <input type="checkbox"/> Maneuvering during Slow Flight | <input type="checkbox"/> Normal and/or Crosswind Approach & Landing |
| <input type="checkbox"/> Power-Off Stalls | |

FS Settings:

C172 on the ground at Clermont County Airport (I69). Weather - wind from 270° at 8 knots at the surface, calm above 2500 feet.

Performance Goals:

You should be able to demonstrate basic control of the airplane during takeoff, in-flight maneuvers, and landings. You should be able to demonstrate stall entry and recoveries and slow flight without losing control of the aircraft. You should be able to execute straight and level flight, climbs, descents, and turns including steep turns.

For More Information:

- | | |
|--|--|
| AFH, Chapters 2, 4, 5, 8 | Vol 1: Review Segments as Needed |
| PHAK, Chapters 2, 5, 14 | Vol 2: Review Segments as Needed |
| Private Pilot Airman Certification Standards | Vol 3: Segments 22-25; Review Segments as Needed |

Notes:





FS Session 9

This FS session will help you to prepare for Lesson 34 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with the maximum takeoff and landing performance of the training airplane. You will also become familiar with the maximum performance capabilities of the aircraft.

Scenario:

Your flight today will explore the procedures for short-field and soft-field takeoffs and landings. You will utilize two separate flight starting points for this lesson. Depart the short, hard-surfaced runway using short-field procedures for takeoff with an obstacle. Fly the traffic pattern and execute a landing over the obstacles back to this short field. Change to the grass runway. Depart the turf runway using soft-field procedures for takeoff. Fly the traffic pattern and execute a landing back to this turf runway.

Tasks to Accomplish:

- _____ Short-Field Takeoff & Climb
- _____ Soft-Field Takeoff & Climb

- _____ Short-Field Approach & Landing
- _____ Soft-Field Approach & Landing

FS Settings:

1. C172 on the ground at Cincinnati West Airport (I67). Weather - clear skies.
2. C172 on the ground at Red Stewart Airfield (40I). Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic control of the airplane during the takeoffs and landings. You should concentrate on the procedures rather than perfect execution during these operations.

For More Information:

AFH, Chapters 5, 8
PHAK, Chapter 11

Private Pilot Airman Certification Standards
Vol 6: Segments 5-8

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Notes:

FS Session 10

This FS session will help you to prepare for Lesson 46 in Sporty's Private Pilot TCO.

Objective:

To help you review correct operating procedures prior to the stage check.

Scenario:

Your flight today will review a number of items in preparation for your stage check. You will utilize two separate flight starting points for this lesson. Depart the short, hard-surfaced runway using short-field procedures for takeoff with an obstacle. Exit the traffic pattern. Maintain full power and adjust the pitch for a climb at 80 knots to 5500 feet. Reduce the power to maintain approximately 5500 feet. Assume an emergency has occurred in the airplane requiring an emergency descent to pattern altitude. Level off and enter the traffic pattern. Fly the traffic pattern and execute a landing over the obstacles back to the short field. Change to the grass runway scenario. Depart the turf runway using soft-field procedures for takeoff. Fly the traffic pattern and execute a landing back to this turf runway.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

- _____ Short-Field Takeoff & Climb
- _____ Soft-Field Takeoff & Climb
- _____ Short-Field Approach & Landing
- _____ Soft-Field Approach & Landing
- _____ Emergency Descent

FS Settings:

- C172 on the ground at Cincinnati West Airport (I67). Weather - clear skies.
- C172 on the ground at Red Stewart Airfield (40I). Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic control of the airplane during takeoff, in-flight maneuvers, and landings.

For More Information:

- AFH, Chapters 8, 17
- PHAK, Chapters 14, 16
- Private Pilot Airman Certification Standards
- Vol 4: Review Segments as Needed
- Vol 5: Review Segments as Needed

Notes:





FS Session 11

This FS session will help you to prepare for Lesson 50 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with basic instrument flight maneuvers and VOR navigation.

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Scenario:

Your flight today will explore basic instrument flight maneuvers and VOR navigation. Depart Clermont County Airport (I69) in clear skies and climb up to 5500 feet, staying within 5 miles of the airport. Once at altitude in steady flight, use the drop-down menu to select weather and set an overcast cloud layer with a base at 1500 with tops at 10,000. Maintaining 5500 feet, turn to a heading of 360. Once straight and level turn to a heading of 180. Tune the VOR receiver to 117.00 and track to the VOR station on the closest radial. Upon crossing the station, intercept and track outbound on the 014 radial. Descend to an altitude of 2500 feet at an airspeed of 100 knots. Continue below the clouds on the 014 radial and land at Clermont County Airport, which is on the 014 radial.

Tasks to Accomplish:

- _____ VOR Navigation
- _____ Basic Attitude Instrument Flight - Straight and Level
- _____ Basic Attitude Instrument Flight - Constant Airspeed Climbs and Descents
- _____ Basic Attitude Instrument Flight - Turns in Level Flight
- _____ Basic Attitude Instrument Flight - Recovery from Unusual Flight Attitudes

FS Settings:

C172 on the ground at Clermont Country Airport (I69). Weather – Clear skies. Transitioning to overcast clouds with a base of 1500 feet and tops at 10,000 feet.

Performance Goals:

You should be able to demonstrate basic control of the airplane while flying on instruments and have an understanding of VOR operations.

For More Information:

- AFH, Chapters 3, 4
- PHAK, Chapters 6, 8
- Private Pilot Airman Certification Standards
- Vol 4: Segment 8
- Vol 5: Segment 15

Notes:

FS Session 12

This FS session will help you to prepare for Lesson 51 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with VOR navigation, GPS navigation, and ADF homing.

Scenario:

Your flight today will explore VOR navigation, GPS navigation, and ADF homing (if equipped). The flight will begin a few miles east of the Falmouth VOR (FLM). Stay to the east of the VOR and climb at pilot's discretion airspeed up to 4500. Once straight and level, tune the VOR receiver to 117.00. Intercept and track to the VOR station on an inbound course of 250 degrees. Upon crossing the station, intercept and track outbound on the 030° radial. Tune the ADF receiver to 245. Use homing to proceed to the NDB. After crossing the NDB, turn on the GPS screen by using "Shift 3" on your keyboard. Select the "NRST" button at the bottom of the GPS case. On the GPS select the "direct to" button and type in KLUK. Press enter twice to activate KLUK or Lunken Airport as our destination. Track the GPS course to Lunken Airport.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

- | | |
|--|---|
| <input type="checkbox"/> VOR Navigation
<input type="checkbox"/> ADF Homing (if equipped) | <input type="checkbox"/> GPS Navigation
<input type="checkbox"/> GPS Nearest Functions |
|--|---|

FS Settings:

C172 at 4500 feet a few miles east of the Falmouth VOR (FLM). Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic understanding of VOR, ADF, and GPS operations.

For More Information:

- | | |
|--|--|
| AFH, Chapter 16
Aeronautical Information Manual (AIM), Chapters 1-5
Private Pilot Airman Certification Standards | Vol 4: Segments 8, 9, 10, 16, 18
Vol 5: Segments 1, 7, 15, 16
Vol 6: Segment 3 |
|--|--|

Notes:





FS Session 13

This FS session will help you to prepare for Lesson 54 in Sporty's Private Pilot TCO.

Objective:

To help you become familiar with night flight operations.

Scenario:

Your flight today will explore night flight operations. The flight settings will start your flight on the ground at a well lit airport. Utilize normal takeoff procedures to depart the runway. Fly the traffic pattern and execute an approach to a normal landing back to the same runway. Prior to touchdown, you receive a call on the radio that deer have been spotted on the runway and ground crews are working to clear them. Execute a go-around. Fly the traffic pattern. You receive word that the deer are clear of the runway. Execute a normal landing back to this runway. After landing, taxi off of the active runway and note the differences in the taxiway and other lighting.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

_____ Night Flight Operations

_____ Night Takeoffs and Landings

_____ Go-Around from a Rejected Landing at Night

FS Settings:

C172 on the ground at Lunken Airport (LUK). Weather - clear skies and at night.

Performance Goals:

You should be able to demonstrate basic control of the airplane during takeoff, in-flight maneuvers, and landings at night.

For More Information:

AFH, Chapters 10, 17
PHAK, Chapter 17

Private Pilot Airman Certification Standards
Vol 4: Segments 1-2

<p>Notes:</p> <hr/> <hr/> <hr/> <hr/>
--

FS Session 14

This FS session will help you to prepare for Lesson 59 in Sporty's Private Pilot TCO.

Objective:

To help you review correct operating procedures prior to the final stage check.

Scenario:

Your flight today will review a number of items in preparation for your stage check. You will utilize three separate flight starting points for this lesson. Depart the airport using a crosswind takeoff and establish a crab to exit the traffic pattern. Maintain full power and adjust the pitch for a climb at 80 knots to 3500 feet. Reduce the power to maintain approximately 3500 feet. Explore power-on and power-off (idle) stall entries with and without the use of flaps. Execute recoveries after entering a full stall. Review slow flight operations with and without the use of flaps. From a known heading, execute a left turn at 45° of bank and continue the turn until returning to the previous heading. Now, execute a right turn using the same conditions. Set the simulator view to just the instrument panel and fly at your current heading and altitude for a short time. Climb to an altitude 4500 feet at a speed of 80 knots. Descend back to an altitude 3500 feet at a speed of 100 knots. After leveling off, turn to a heading of 180° then turn to a heading of 360° in the opposite direction of your prior turn. Return the simulator view to a normal cockpit view, change the flight view to focus on the GPS stack. Use the NRST function to find the airport and use the Direct To function to return there for landing. Descend to the airport using a pitch and power setting that will allow you to maintain 90 knots. Level off and enter the traffic pattern at this airspeed. Slow to 85 knots while on downwind and complete the traffic pattern to a crosswind landing. Exit the runway at the first available taxiway. Change to the short runway scenario (I67). Depart the short, hard-surfaced runway using short-field procedures for takeoff with an obstacle. Fly the traffic pattern and execute a landing over the obstacles back to this short field. Change to the grass runway scenario (40I). Depart the turf runway using soft-field procedures for takeoff. Fly the traffic pattern and execute a landing back to this turf runway.

COMPLETION DETAILS						
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I
DATE _____	TIME SPENT _____	OUTCOME	S	N	U	I

Tasks to Accomplish:

- | | |
|--|--|
| <ul style="list-style-type: none"> _____ Normal and/or Crosswind Takeoff & Climb _____ Soft-Field Takeoff & Climb _____ Short-Field Takeoff & Max Performance Climb _____ Traffic Pattern Operations _____ Maneuvering during Slow Flight _____ Power-Off Stalls _____ Power-On Stalls _____ Steep Turns _____ GPS Navigation _____ Basic Attitude Instrument Flight - Straight and Level Flight | <ul style="list-style-type: none"> _____ Basic Attitude Instrument Flight - Constant Airspeed Climbs _____ Basic Attitude Instrument Flight - Constant Airspeed Descents _____ Basic Attitude Instrument Flight - Turns to Headings _____ Basic Attitude Instrument Flight - Recovery from Unusual Flight Attitudes _____ Normal and/or Crosswind Approach & Landing _____ Soft-Field Approach & Landing _____ Short-Field Approach & Landing |
|--|--|

Continued on Next Page...

Notes:





FS Session 14 (Continued from Previous Page)

FS Settings:

1. C172 on the ground at Clermont County Airport (I69). Weather - wind from 270° at 16 knots.
Some users prefer to use the virtual cockpit for this session; others prefer to have the 2D cockpit with the instrument panel hidden and only a few key instruments visible. Use your preference.
2. C172 on the ground at Cincinnati West Airport (I67). Weather - clear skies.
3. C172 on the ground at Red Stewart Airfield (40I). Weather - clear skies.

Performance Goals:

You should be able to demonstrate basic control of the airplane during takeoff, in-flight maneuvers, and landings. You should concentrate on the procedures rather than perfect execution during these operations.

For More Information:

AFH
PHAK

Private Pilot Airman Certification Standards
Review Video Segments as Needed

<p>Notes:</p> <hr/> <hr/> <hr/> <hr/>
--



RECORD OF EXTRA SESSIONS

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Tasks Accomplished:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notes:



RECORD OF EXTRA SESSIONS

COMPLETION DETAILS

DATE _____ TIME SPENT _____ OUTCOME S N U I

DATE _____ TIME SPENT _____ OUTCOME S N U I

DATE _____ TIME SPENT _____ OUTCOME S N U I

DATE _____ TIME SPENT _____ OUTCOME S N U I

Tasks Accomplished:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notes:



RECORD OF EXTRA SESSIONS

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Tasks Accomplished:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notes:



RECORD OF EXTRA SESSIONS

COMPLETION DETAILS			
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I
DATE _____	TIME SPENT _____	OUTCOME	S N U I

Tasks Accomplished:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notes:
