Syllabus:

Private Pilot Flight Training (version 2)

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REVISIONS

Revision	Authorization	Date	Description	Page(s)
N/C	FCA	6/1/2011	Original	
А	FCA	8/17/13	Integrate Emergency Descent & ADM lessons into training structure. Correct time for Session #3.	6, 8, 9, & 10

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1 INTRODUCTION

Congratulations on your decision to become a pilot! You've embarked on a grand adventure -one shared by only a handful of your fellow citizens. According to FAA and U.S. Census Bureau records, in 2010, the total number of pilots in the U.S. (*including* student pilots) was 627,588. Yet, our entire population is estimated to be 308,400,408. Hence, our "fraternity of the air" comprises only about 0.2% of the total U.S. population. But, what we lack in size is more than offset by our sense of camaraderie and shared enthusiasm. Although our standards are high, we willingly accept new fraternity members with an excitement unmatched by other avocations. *Welcome!*

1.1 Learning to Fly

Learning to fly an airplane is an exciting, rewarding process. To promote safety and standardization, the Federal Aviation Administration (FAA) has published a variety of regulations governing this activity. Termed FARs (Federal Aviation Regulations), the rules are contained in Title 14 of the Code of Federal Regulations (a.k.a., 14 CFR). There are a variety of "Parts" to the FARs; Part 61 and Part 141 address pilot certification and flight schools, respectively. Part 141 schools are flight schools run by formal educational institutions such as colleges or universities. Flight training conducted under Part 61 is generally less formal but <u>equally</u> rigorous. This syllabus and its associated flight plans meet the training requirements imposed by 14 CFR § 61 (i.e., Part 61).

1.1.1 Training Structure

Private Pilot training generally consists of two distinct processes: "ground school" and "flight training". For best results, these two processes should be scheduled to overlap; students should plan on completing about half of their ground school prior to undertaking the flight portion of their training.

1.1.1.1 Ground School

As the name implies, "ground school" takes place on the ground, typically at home or in a classroom-like environment. While in ground school, students acquire the necessary aeronautical knowledge to meet the requirements specified in 14 CFR § 61.105. Successful completion of ground school culminates with passing the FAA's required knowledge test (a.k.a., "the written"). Although the minimum passing score is 70%, students should endeavor to *exceed* this minimum standard by a *substantial* margin. As a pilot, your personal safety as well as that of your passengers depends your ability to make proper decisions based on knowledge gained during this portion of your training. *When it comes to flying, Mother Nature gives the test first and the lesson second! Be prepared...*

Students may select from several alternatives for their ground school education. Videotapes, DVDs, and custom-designed written materials are available from well-known, professional sources¹. These commercial sources are economically viable alternatives to receiving one-on-

¹ King, Gleim, Jeppesen, and ASA are four commonly used sources for prepackaged ground school courses. Syllabus: Private Pilot Flight Training (version 2), rev. A Page 1

one ground school instruction from your flight instructor.² Review the course alternatives with your instructor and choose the alternative best suited for you.

1.1.1.2 Flight Training

During "flight training", students develop the flight proficiency and acquire the aeronautical experience identified by 14 CFR §§ 61.107 and 61.109, respectively. By following the syllabus in this document and successfully completing the associated lessons, the student will become a safe, competent pilot and be well-prepared to pass the FAA's practical test on the areas of operation listed in 14 CFR §§ 61.107(b).

Since "ground school" takes place on the ground, you'd expect "flight training" to take place in the air. However, that's only *partially* true! A few flight lessons, notably those regarding Preflight Preparation, take place entirely on the ground. However, since they specifically relate to preparation for actual flight, these lessons are universally considered as part of your flight training.

Flight training sessions typically have three distinct phases:

- 1. <u>Preflight</u> Conducted on the ground prior to the training flight, the instructor and student review the previous homework assignment, discuss today's flight lesson objectives, and talk about the flight operations and/or maneuver specifics relating to the upcoming flight. The duration of this phase depends upon student preparation and understanding. Effective, efficient flight training depends *strongly* upon a solid preflight briefing!
- 2. <u>Inflight</u> Accomplished in the aircraft, this phase of the flight session usually involves a maneuver demonstration by the instructor and a subsequent student performance under instructor supervision. It's important to note that rarely is a flight session dedicated to a single topic or maneuver. All flights begin with preflight planning and aircraft inspection, commence with a takeoff, involve introduction of new maneuvers and review of old ones, and complete with landing and tiedown. Students learn something at each step.
- 3. <u>Postflight</u> Back on the ground, the student and instructor will review and critique the day's results. The instructor notes the student's progress and assigns homework to be completed prior to the next flight session.

1.2 Eligibility Requirements

1.2.1 Student Pilot

While undergoing initial flight training, students must obtain a "student pilot certificate". To be eligible for a student pilot certificate, the individual must:

- a) Be at least 16 years old.
- b) Be able to read, speak, write, and understand the English language.

Prior to Solo, the student must also hold a valid 3rd class (or greater) medical certificate. The FAA has consolidated these two items into a single document, issued by an Aviation Medical Examiner after successful completion of the associated physical exam.

²Plan on using your flight instructor to resolve questions or clarify issues regarding the ground school coursework. Ultimately, your flight instructor must provide a logbook endorsement signifying that you are ready to take the FAA's Private Pilot Single Engine Land Knowledge Test.

1.2.2 Private Pilot

After successfully completing the necessary training, students apply to become private pilots. To be eligible for a private pilot certificate, the student pilot must:

- a) Be at least 17 years old.
- b) Be able to read, speak, write, and understand the English language.
- c) Pass the FAA aeronautical knowledge test for private pilots within 24 months prior to the Practical Test;
- d) Have completed the required training and obtained the required aeronautical experience prescribed in Subpart E of 14 CFR § 61;
- e) Possess a current and valid FAA medical certificate;
- f) Have an instructor's endorsement certifying that the applicant has received (and logged) training within the 60 day period preceding the date of application and that the applicant is prepared for the practical test;
- g) Have an instructor's endorsement certifying that the applicant has demonstrated satisfactory knowledge of any subject areas found to be deficient on the FAA aeronautical knowledge test.

1.3 Student Purchases

In addition to paying aircraft rental and flight instructor fees, successful completion of Private Pilot flight training requires that the student invest in various reference materials, supplies, and equipment. Properly selected, this investment will serve the pilot applicant well beyond the duration of this course.

1.3.1 Reference Texts

Aeronautical Chart User's Guide, ASA-CUG, Aviation Supplies & Academics, Inc., Newcastle, WA

Aircraft Weight and Balance Handbook, FAA-H-8083-1, Federal Aviation Administration, Washington, DC

Airplane Flying Handbook, FAA-H-8083-3A, Federal Aviation Administration, Washington, DC

<u>Aviation Weather</u>, AC 00-6A, National Oceanic and Atmospheric Administration, Washington, D.C. & Federal Aviation Administration, Washington, DC

<u>Aviation Weather Services</u>, AC 00-45E, National Oceanic and Atmospheric Administration, Washington, D.C. & Federal Aviation Administration, Washington, DC

FAR/AIM, ASA-XX-FR-AM-BK, Aviation Supplies & Academics, Inc., Newcastle, WA

<u>Pilot's Handbook of Aeronautical Knowledge</u>, FAA-H-8083-25, Federal Aviation Administration, Washington, DC

Private Oral Exam Guide, Hayes, Michael D., Aviation Supplies & Academics, Inc., Newcastle, WA

Private Pilot - Practical Test Standards, FAA-S-8081-14A, Federal Aviation Administration, Washington, DC

<u>Visualized Flight Maneuvers Handbook for Instructors and Students</u>, Aviation Supplies & Academics, Inc., Newcastle, WA

Airplane Flight Manual (a.k.a. Pilot's Operating Handbook or POH) for training aircraft, published by aircraft manufacturer and certified by FAA³

³ The AFM must include a weight-and-balance record for the training aircraft.

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1.3.2 Supplies

In the U.S., aeronautical charts (called "maps" by nonpilots) for the local area are usually available from the Fixed Base Operator (FBO) running the airport's fuel concession or flight school.

Charts

Airport/Facility Directory (a.k.a. A/FD)

Sectional Aeronautical Chart (a.k.a. Sectional)

VFR Terminal Area Chart

World Aeronautical Chart (a.k.a. WAC)

<u>Forms</u>

Flight Plan

Navigation Log

<u>Misc.</u>

Notepads, pens, pencils, etc.

1.3.3 Equipment

The following equipment is available from a variety of sources. Usual retail outlets include "pilot shops" at various airports, flight schools at airport FBOs, and thousands of Internet-based businesses.

- Flight computer (electronic calculator or manual E6-B) used in-flight as well as on the ground to perform a wide variety of aircraft- and flight-related calculations
- Plotter combination scale and protractor used for chart work and flight planning
- Clipboard or kneeboard placed in lap or straps to leg; used for taking in-flight notes, holding flight plans and logs, recording weather information, etc.
- Headset (aviation-type) used in conjunction with aircraft intercom to communicate with ATC as well as passengers.
- Flight bag soft-sided, zippered bag with multiple compartments for holding charts, kneeboard, hand-held radio, flight computer, plotter, flashlight, logbook, etc.
- Flashlight (mini) small flashlight for illuminating charts and cockpit at night; usually has green or red lens to protect night vision

View restricting device (e.g., foggles or hood) – used to simulate IFR conditions during training

2 PRIVATE PILOT FLIGHT TRAINING

Flight Instruction Format 2.1

The following flight-training syllabus (ref. section 2.3) "maps" topically oriented lesson plans into a chronological sequence suitable for training a typical⁴ student pilot. At first, flight students used to conventional classroom instruction may find the format somewhat unusual. However, consider the key differences between studying a typical classroom subject and learning to fly:

- Syllabi for conventional classroom education identify blocks of learning within a general subject that can be treated in sequential fashion; lesson plans are developed for each learning block. And, typically, students master one learning block before proceeding. The blocks, themselves, are small enough to be treated in a single classroom session. And, after a suitable length of time (i.e., enough classroom sessions), students develop comprehensive subject knowledge and related abilities. This methodology works primarily because the subject being studied exists apart from the classroom environment and each learning session is able to focus on a single topic.
- Learning to fly exhibits fundamental differences:
 - The classroom becomes the subject being studied. And, the subject being studied is the learning environment!
 - A single flight training session involves many topics that must eventually be thoroughly mastered \checkmark before a student becomes a capable, safe pilot. e.g., A single flight whose primary objective is to practice ground reference maneuvers will also include a takeoff and climb, an approach and landing, possibly a forward slip or go-around, radio communications, and airport traffic patterns. As a result, despite having primary objectives for a particular training session, student pilots invariable study *many* topics simultaneously
 - The vast majority of students cannot master a given topic (e.g., cross-wind approach and landing) in a single training session. As a result, topically oriented lesson plans involving flying skills are rarely completed in a single training flight. Instead, the flight instructor will cover several topics (described by different lesson plans) during each flight training session. And, the topics (i.e., maneuvers) will be reviewed on successive training sessions until the student pilot can perform the designated maneuvers to the performance levels specified by the FAA's Practical Test Standards (PTS).

⁴ Of course, there is really no such thing as a typical student! Although student pilots share many traits, the flight instructor will modify the lesson sequence established by this syllabus to support the unique training needs of a particular student. Similarly, lesson times will be adjusted to achieve the required completion standards. Syllabus: Private Pilot Flight Training (version 2), rev. A

2.2 Training Records

All flight-training sessions are logged as line entries in the Pilot Logbooks of both student and instructor. In addition, Gossamer Wings Aviation shall retain the following personalized syllabus as part of the records for:

_____, Student Pilot

2.3 Flight Training Syllabus

The following training syllabus defines flight lessons and their sequence for the mythical "typical" primary flight student. Please note the following:

- For a given training session, new topics being introduced for the first time are listed first in a **bold** font. Subjects being reviewed during that training session are listed next and appear in a normal font.
- The "time" associated with a given training session is the length of time expected to be spend covering all topics during that session. For topics requiring extended "preflight" discussion, time is allocated to Ground as well as Flight.
- As mentioned earlier, all times are estimates. There is no such thing as a typical student; everyone is unique in some respect. And, your training times will vary somewhat from those in the syllabus.
- Training sessions 2-7 are classroom lessons and will be interspersed with related flight training sessions.

Lesson status: U - Unnecessary, I - Introduced by instructor, A - Accomplished by student, S - Safely performed by student, C - student meets Completion standards.

Session	Training Topic / Task	Flt or Gnd Dual or Solo	Date	Time (hr.)	Status
	Stage 1: Presolo				
1	Introduction To Flight	F / D		1:15	
	Flight Training Policies & Agreements	G		0:15	
2	Four Fundamentals of Flight	G		0:30	
	Preflight Procedures – Preflight Inspection	F/D		1:45	
	Preflight Procedures – Cockpit Resource Management	1			
	Preflight Procedures – Engine Starting & Taxi	1			
	Preflight Procedures – Engine Run-up & Before Takeoff Check				
	Postflight Procedure – After Landing, Parking, & Securing	1			
3	Preflight Preparation – Operation of Flight Controls & Systems	G		2:00	
4	Basic Instrument Maneuvers – Straight-and-Level Flight	G		1:15	
	Basic Instrument Maneuvers – Turns to Headings	F/D		1:45	
	Airport Operations – Towered & Nontowered Procedures	1			
	Airport Operations – Airport Signs, Marking & Lighting	1			
	Airport Operations – Radio Communications & Light Gun Signals]		1	
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb]			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing]			

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	Four Fundamentals of Flight				
	Preflight Procedures – Preflight Inspection				
	Preflight Procedures – Cockpit Resource Management	-			
	Preflight Procedures – Engine Starting & Taxi				
	Preflight Procedures – Engine Run-up & Before Takeoff Check				
	Postflight Procedure – After Landing, Parking, & Securing				
5	Basic Aerodynamics	G		2:30	
6	Slow Flight & Stalls – Spin Awareness/Avoidance	G		1:00	
	Slow Flight & Stalls – Maneuvering During Slow Flight	F / D		1:45	
	Slow Flight & Stalls – Power Off Stalls				
	Slow Flight & Stalls – Power On Stalls				
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb				
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing				
	Preflight Procedures – Preflight Inspection				
	Preflight Procedures – Engine Starting & Taxi				
	Preflight Procedures – Engine Run-up & Before Takeoff Check				
	Airport Operations – Airport Signs, Marking & Lighting				
	Airport Operations – Radio Communications & Light Gun Signals				
7	Emergency Operation – Emergency Equipment & Survival Gear	G		0:45	
8	Emergency Operation – Systems & Equipment Malfunctions	G		0:30	
	Emergency Operation – Emergency Approach & Landing	F / D		1:45	
	Airport Operations – Towered & Nontowered Procedures	-			
	Slow Flight & Stalls – Maneuvering During Slow Flight	-			
	Slow Flight & Stalls – Power Off Stalls	-			
	Slow Flight & Stalls – Power On Stalls	-			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb	-			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing				
9	Ground Reference Maneuvers – Rectangular Course	G		0:30	
	Ground Reference Maneuvers – Turns Around A Point	F/D		1:45	
	Ground Reference Maneuvers – S-Turns				
	Performance Maneuver – Steep Turns	-			
	Basic Instrument Maneuvers – Constant Airspeed Climbs & Descents				
	Basic Instrument Maneuvers – Straight-and-Level Flight				
	Basic Instrument Maneuvers – Turns to Headings	-			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb				
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing	-			
	Airport Operations – Towered & Nontowered Procedures	-			
	Airport Operations – Airport Signs, Marking & Lighting				
	Airport Operations – Radio Communications & Light Gun Signals				
10	Takeoffs, Landings & Go-Arounds – Go-Around/Rejected Landing	G	ļ	0:15	
	Takeoffs, Landings & Go-Arounds – Forward Slip to a Landing	F/D		1:45	
	Slow Flight & Stalls – Maneuvering During Slow Flight				
	Slow Flight & Stalls – Power Off Stalls				

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	Slow Flight & Stalls – Power On Stalls			
	Slow Flight & Stalls – Spin Awareness/Avoidance			
	Ground Reference Maneuvers – Rectangular Course			
	Ground Reference Maneuvers – Turns Around A Point			
	Ground Reference Maneuvers – S-Turns			
	Performance Maneuver – Steep Turns			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds - Normal & Crosswind Approach & Landing			
11	Preflight Preparation – National Airspace System	G	1:30	
12	Navigation: Pilotage & Dead Reckoning	G	1:00	
	Takeoffs, Landings & Go-Arounds – Go-Around/Rejected Landing	F / D	1:45	
	Takeoffs, Landings & Go-Arounds – Forward Slip to a Landing			
	Emergency Operation – Emergency Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing			
13	Emergency Operation – Emergency Descent	F / D	1:45	
	Navigation: Pilotage & Dead Reckoning			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Go-Around/Rejected Landing			
	Takeoffs, Landings & Go-Arounds – Forward Slip to a Landing			
14	Airport Operations – Towered & Nontowered Procedures	F / D	1:45	
	Navigation: Pilotage & Dead Reckoning			
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds - Normal & Crosswind Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Go-Around/Rejected Landing			
	Takeoffs, Landings & Go-Arounds – Forward Slip to a Landing			
	Emergency Operation – Systems & Equipment Malfunctions			
15	Presolo Review (topics as req'd)	F/D	1:30	
	Presolo Knowledge Test	G	0:15	
16	Emergency Operation – Emergency Descent	F / D	1:30	
	Emergency Operation – Emergency Approach & Landing			
	Presolo Review (topics as req'd)			
17	First Solo	F/D/S	1:15	
18	Stage 1 Check	F / D	1:30	
	Stage 2: Postsolo			
19	Second Solo	F / D / S	1:15	
20	Preflight Preparation – Performance & Limitations	G	2:00	
21	Takeoffs, Landings & Go-Arounds – Short-field Takeoff & Climb	G	0:30	
	Takeoffs, Landings & Go-Arounds – Short-field Approach & Landing	F / D	1:30	
	Takeoffs, Landings & Go-Arounds – Soft-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Soft-field Approach & Landing			
	Emergency Operation – Emergency Approach & Landing			

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	Takeoffs, Landings & Go-Arounds – Forward Slip to a Landing]		
22	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb	F/S	1:15	
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing			
	Performance Maneuver – Steep Turns	1		
	Ground Reference Maneuvers – Rectangular Course			
	Ground Reference Maneuvers – Turns Around A Point			
	Ground Reference Maneuvers – S-Turns			
23	Preflight Preparation – Weather Information	G	2:00	
24	Takeoffs, Landings & Go-Arounds – Short-field Takeoff & Climb	F / D	1:45	
	Takeoffs, Landings & Go-Arounds – Short-field Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Soft-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Soft-field Approach & Landing			
	Performance Maneuver – Steep Turns			
	Slow Flight & Stalls – Spin Awareness/Avoidance			
	Slow Flight & Stalls – Maneuvering During Slow Flight			
	Slow Flight & Stalls – Power Off Stalls			
	Slow Flight & Stalls – Power On Stalls			
	Ground Reference Maneuvers – Turns Around A Point			
	Ground Reference Maneuvers – S-Turns			
25	Aeronautical Decision Making & Risk Management	G	1:45	
26	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Takeoff & Climb	F/S	1:30	
	Takeoffs, Landings & Go-Arounds – Normal & Crosswind Approach & Landing			
	Performance Maneuver – Steep Turns			
	Slow Flight & Stalls – Maneuvering During Slow Flight			
	Slow Flight & Stalls – Power Off Stalls			
	Slow Flight & Stalls – Power On Stalls			
	Ground Reference Maneuvers – Rectangular Course			
	Ground Reference Maneuvers – Turns Around A Point			
	Ground Reference Maneuvers – S-Turns			
27	Preflight Preparation – Regulatory Requirements	G	2:00	
28	Basic Instrument Maneuvers – Recovery from Unusual Attitudes	F/D	1:45	
	Basic Instrument Maneuvers – Straight-and-Level Flight			
	Basic Instrument Maneuvers – Turns to Headings			
	Basic Instrument Maneuvers – Constant Airspeed Climbs & Descents			
	Takeoffs, Landings & Go-Arounds – Short-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Short-field Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Soft-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Soft-field Approach & Landing			
29	Preflight Preparation – Cross-Country Flight Planning	G	2:30	
30	Dual Cross-Country (short)	G	1:00	
	Basic Instrument Maneuvers – Radio Communications, Navigation Systems/Facilities, and Radar Services	F / D	2:00	
	Navigation (all lesson plans)			

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	Basic Instrument Maneuvers – Straight-and-Level Flight			
	Basic Instrument Maneuvers – Turns to Headings			
	Basic Instrument Maneuvers – Constant Airspeed Climbs & Descents			
	Emergency Operation – Emergency Approach & Landing			
31	Solo Cross-Country (short)	G F/S	0:45 2:00	
32	Night Operation – Night Preparation	G	1:00	
	Night Operation Night Flight	F / D	1:30	
33	Takeoffs, Landings & Go-Arounds – Short-field Takeoff & Climb	F/S	1:30	
	Takeoffs, Landings & Go-Arounds – Short-field Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Soft-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Soft-field Approach & Landing			
	Performance Maneuver – Steep Turns			
	Slow Flight & Stalls – Maneuvering During Slow Flight			
	Slow Flight & Stalls – Power Off Stalls			
	Slow Flight & Stalls – Power On Stalls			
34	Preflight Preparation – Aeromedical Factors	G	1:30	
35	Takeoffs, Landings & Go-Arounds – Short-field Takeoff & Climb	F/S	1:00	
	Takeoffs, Landings & Go-Arounds – Short-field Approach & Landing			
	Takeoffs, Landings & Go-Arounds – Soft-field Takeoff & Climb			
	Takeoffs, Landings & Go-Arounds – Soft-field Approach & Landing			
36	Night Operation – Local Airports	F / D	1:45	
	Night Operation – Night Preparation			
	Navigation (all lesson plans)			
37	Dual Cross-Country (long)	G	1:00	
	Emergency Operation – Systems & Equipment Malfunctions	F / D	2:45	
	Basic Instrument Maneuvers – Radio Communications, Navigation Systems/Facilities, and Radar Services			
	Navigation (all lesson plans)			
	Basic Instrument Maneuvers – all previous lesson topics			
38	Solo Cross-Country (long)	G F/S	0:45 3:00	
39	Night Operations – Cross-Country	G	 0:30	
	Basic Instrument Maneuvers – Recovery from Unusual Attitudes Basic Instrument Maneuvers – Radio Communications, Navigation Systems/Facilities, and Radar Services	F / D	2:15	
40	Solo Cross-Country (short)	G F/S	0:30 2:00	
41	Maneuver Review (topics as req'd)	F / D	1:30	
	Emergency Operation – Emergency Descent			
	Emergency Operation – Emergency Approach & Landing		1	
42	Maneuver Review (topics as req'd)	F/S	1:15	
43	Maneuver Review (topics as req'd)	F / D	1:30	
	Basic Instrument Maneuvers – all previous lesson topics		 	
44	Maneuver Review (topics as req'd)	F/S	1:15	
45	Stage 2 Check	F / D	1:30	

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46 Fill out FAA Form 8710-1 or web-based IACRA application	G	C):45	
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