Gleim Private Pilot Syllabus

Seventh Edition, First Printing
Updates
March 2023

NOTE: Sections with changes are indicated by a vertical bar in the left margin. Text that should be deleted is displayed with a line through it. New text is shown with blue underlined font.

If you are tested on any content not represented in our materials or this update, please share this information with Gleim so we can continue to provide the most complete test preparation experience possible. You can submit feedback at www.GleimAviation.com/questions. Thank you in advance for your help!

We have changed “student” to “learner,” “Notice to Airmen” to “Notice to Air Missions,” and “cockpit” to “flight deck” throughout the book to reflect the FAA’s changes in nomenclature.

For the multiple-choice questions, we have corrected the references to the cover figures to indicate that Figure 25 is on the inside of the back cover and Figure 23 is on the inside of the front cover.

Introduction

Page 1, What Else Do You Need?: These edits clarify and modernize the text.

WHAT ELSE DO YOU NEED?

If you purchased this syllabus as part of the Gleim **Private Pilot Kit**, you will need to purchase or gain access to a local sectional chart and a Chart Supplement appropriate to your region. They are published by the FAA every ~~6 months and~~ 56 days~~, respectively~~. You will need a current copy of each for your FAA practical test. Gleim does not include these publications in your kit because there are 37 different sectional charts and seven different Chart Supplements for the conterminous U.S.

Additionally, you will need to ~~purchase~~obtain a copy of the Pilot’s Operating Handbook and/or Airplane Flight Manual (POH/AFM) (or a Pilot Information Manual) for the make and model of your training airplane. ~~Alternatively, you may make a photocopy if a POH/AFM is not available for purchase.~~

Page 3, Part 141 vs. Part 61 Schools: These edits update the information on syllabus approval.

~~The Gleim syllabus has been reviewed by the FAA in Washington, D.C., and found to adequately meet the requirements of a syllabus under Part 141 or Part 61, as appropriate. However,~~ ~~t~~The final approval of a syllabus for use under Part 141 must come from the responsible FAA Flight Standards office. ~~Thus, t~~The Gleim ***Private Pilot Syllabus*** can be used by any Part 141 school with minimum effort once approved by the appropriate Flight Standards office.

Page 3, New Part 141 vs. Part 61 Aeronautical Experience Requirements: These edits add information on aeronautical experience requirements.

PART 141 VS. PART 61 AERONAUTICAL EXPERIENCE REQUIREMENTS

The following table compares the minimum training hour requirements for a private pilot certificate under Part 141 and Part 61. Though these are the minimum hours, the average time taken to complete a private pilot training program is roughly 70 hours.

PART 141 14 CFR Part 141, Appendix B, Secs. 4-5	**PART 61** 14 CFR 61.109

35 hr. flight time
20 hr. dual
• 3 hr. cross-country
• 3 hr. night training
  ▪ One cross-country over 100 NM
  ▪ 10 takeoffs and landings to a full stop (involving flight in the traffic pattern) at an airport
• 3 hr. solely by reference to instruments
• 3 hr. dual in preparation for practical test within preceding *60 days*
5 hr. solo
• One solo cross-country over 100 NM
  ▪ 3 landings at a minimum of 3 points
  ▪ One segment over a 50 NM straight-line distance
• 3 takeoffs and landings to a full stop (involving flight in the traffic pattern) at an airport with an operating control tower
	40 hr. flight time
	20 hr. dual
	• 3 hr. cross-country
	• 3 hr. night training
	  ▪ One cross-country over 100 NM
	  ▪ 10 takeoffs and landings to a full stop (involving flight in the traffic pattern) at an airport
	• 3 hr. solely by reference to instruments
	• 3 hr. dual in preparation for practical test within preceding *2 calendar months*
	10 hr. solo
	• 5 hr. solo cross-country
	• One solo cross-country over 150 NM
	  ▪ 3 full-stop landings at 3 points
	  ▪ One segment over a 50 NM straight-line distance
	• 3 takeoffs and landings to a full stop (involving flight in the traffic pattern) at an airport with an operating control tower

Page 5, Explanation of *Private Pilot Training Record*, New Training Record Grading Legend: This update adds information for recording grades for lessons.

Training Record Grading Legend

Lesson items within each flight lesson record may be graded according to the flight school's grading system of choice. There are multiple grading systems that could be used, and four (abbreviated, lettered, numbered, symboled) are depicted below.

Comprehensive Grading Systems

Grade	Abbreviated	Lettered	Numbered
Outstanding	O	A	1
Good	G	B	2
Satisfactory	S	C	3
Unsatisfactory	U	D	4
Incomplete	I	I	IN

Simplified Grading Systems

Grade	Abbreviated	Numbered	Symboled
Satisfactory	S	1	✓
Unsatisfactory	U	2	X
Incomplete	I	3	(blank)

Fill in the table below with your flight school's grading system.

Your Flight School's Grading System

Grade	Character

Pages 8-9, Gleim *Private Pilot Syllabus*: This update changes the title, explains the addition of text references to the syllabus, and adds clarifying details.

USING THE GLEIM *PRIVATE PILOT SYLLABUS*

[. . .]

Ground Training Syllabus

[. . .]

Each ground lesson involves studying the appropriate study unit in the Gleim ***Pilot Handbook***. Each study unit also includes supplemental text references to the *Aeronautical Information Manual (AIM)* and Advisory Circulars (ACs) when applicable. Note that the Advisory Circular numbers are listed, but the issue letters are not included due to the varied publication dates. However, you should always refer to the latest edition of each Advisory Circular. After each reading assignment is completed, you need to answer the questions in the appropriate study unit in the Gleim ***Private Pilot FAA Knowledge Test Prep*** book and review incorrect responses with your instructor.

[. . .]

Because OGS is a self-study program delivered via the Internet, the classroom is always open, so you can study as it fits in to your schedule. When you complete the program and pass the end-of- course knowledge test, an endorsement will be provided to you that will enable you to take the FAA knowledge test at a testing center. The endorsement will be valid for 60 days from the date of course completion, inclusive of the day of graduation. This feature makes OGS especially valuable to those users electing to complete their ground training before beginning flight training.

At the end of each stage, you are required to complete the stage knowledge test before proceeding to the next stage. The end-of-course knowledge test ~~is completed~~will be available after the stage two knowledge test. Shortly after the end-of-course test, you should take the FAA private pilot ~~airman~~ knowledge test. The stage and end-of-course knowledge tests in the ground syllabus will refer you to FAA figures found ~~after~~within the front and back cover and at the end of~~end-of-course knowledge test in~~ this syllabus.

~~If this ground training is home study, we recommend that you complete the syllabus as quickly as possible and pass the FAA private pilot knowledge test so you will have more time to prepare for your flight lessons.~~

Flight Training Syllabus

[. . .]

The length of the preflight briefing and postflight critique will vary with each ~~student and with his or her degree of preparedness for the lesson~~learner and depend on the learner's level of preparation and performance in flight.

Page 11, New Part 141 Appendix B Compliance Chart: This update adds Part 141 compliance information.

PART 141 APPENDIX B COMPLIANCE CHART

The following are the aeronautical knowledge areas and flight tasks required for compliance under 14 CFR Part 141, Appendix B, Private Pilot Certification Course. The following tables dictate where the items are located in this syllabus.

Ground Training Per 14 CFR 141 Appendix B Sec. 3(b)			Gleim Ground Lesson(s)
(1)	Applicable Federal Aviation Regulations for private pilot privileges, limitations, and flight operations		4
(2)	Accident reporting requirements of the National Transportation Safety Board		4
(3)	Applicable subjects of the *Aeronautical Information Manual* and the appropriate FAA Advisory Circulars		All
(4)	Aeronautical charts for VFR navigation using pilotage, dead reckoning, and navigation systems		9, 10, 11
(5)	Radio communication procedures		3
(6)	Recognition of critical weather situations from the ground and in flight, wind shear avoidance, and the procurement and use of aeronautical weather reports and forecasts		7, 8
(7)	Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence		3
(8)	Effects of density altitude on takeoff and climb performance		5
(9)	Weight and balance computations		5
(10)	Principles of aerodynamics, powerplants, and aircraft systems		1, 2
(11)	If the course of training is for an airplane category or glider category rating, stall awareness, spin entry, spins, and spin recovery techniques		1, 5
(12)	Aeronautical decision making and judgment		6
(13)	Preflight action that includes		11
	(i)	How to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements	
	(ii)	How to plan for alternatives if the planned flight cannot be completed or delays are encountered	

Flight Training Per 14 CFR 141 Appendix B Secs. 4(a), (b), (d); 5(a)	Gleim Flight Lesson(s)
35 hr. of flight training, including	All
20 hr. of dual instruction	1-14, 16-19, 21, 23, 25, 26
• 3 hr. of cross-country	17, 19
• 3 hr. of night flight training	18, 19
▪ One cross-country more than 100 NM total distance	19
▪ 10 takeoffs and 10 landings to a full stop, each involving flight in a traffic pattern at an airport	18, 19
• 3 hr. of flight training solely by reference to instruments including items in 4(b)(iii)	3, 9, 12, 16, 18, 19, 23, 25, 26
• 3 hr. of flight training in preparation for the practical test within 60 days preceding the date of the test	21, 23, 25
5 hr. of solo flight training, including	11, 13, 15, 20, 22, 24
• One solo 100 NM cross-country flight with landings at a minimum of 3 points and one segment of the flight consisting of a straight-line distance of more than 50 NM between the takeoff and landing locations	20
• 3 takeoffs and 3 landings to a full stop, with each landing involving a flight in the traffic pattern, at an airport with an operating control tower	11, 13, 15, 20, 22, 24

Page 12, Use of Flight Simulation Training Devices (FSTDs) and Aviation Training Devices (ATDs): These edits add detail.

ATDs include basic aviation training devices (BATDs) and advanced aviation training devices (AATDs). To credit time in an ATD it must be FAA-approved ~~and~~with allowances described in the Letter of Authorization (LOA). Additionally, the training time towards a private pilot certificate must be ~~provided~~conducted by an authorized instructor. AC 61-136B provides information and guidance for the use of ATDs.

Private Pilot Ground Training Syllabus Airplane Single-Engine Land

Page 14, Stage One, Stage One Objective: These edits clarify the objective.

~~To~~The objective of this stage is to develop the ~~student's~~learner's knowledge of airplanes and the aerodynamic principles of flight. The ~~student~~learner will ~~learn about~~understand the operation of various airplane systems, airport operations, radio communication procedures, air traffic control (ATC) radar services, and the National Airspace System (NAS). Additionally, the ~~student~~learner will become familiar with pertinent Federal Aviation Regulations (14 CFR) and the accident-reporting requirements of the National Transportation Safety Board (NTSB). Finally, the ~~student~~learner will ~~learn~~determine how to predict airplane performance and how to ~~control~~calculate the weight and balance of the airplane.

Page 15, Ground Lesson 1: Airplanes and Aerodynamics, Text References, New Additional References: These updates edit a text reference title and add additional references.

Gleim *Pilot Handbook* Study Unit 1 Contents	Gleim *Private Pilot FAA Knowledge Test Prep* Study Unit 1 Contents
1.1 Definitions 1.2 The Airplane 1.3 Composite Construction 1.4 Axes of Rotation 1.5 Flight Controls and Control Surfaces 1.6 Forces Acting on the Airplane in Flight 1.7 Dynamics of the Airplane in Flight 1.8 Ground Effect 1.9 How Airplanes Turn 1.10 ~~Torque (Left-Turning Tendency)~~ Turning Tendencies 1.11 Airplane Stability 1.12 Loads and Load Factors 1.13 Stalls and Spins 1.14 Angle of Attack Indicators	1.1 Flight Controls 1.2 Aerodynamic Forces 1.3 Angle of Attack 1.4 Stalls 1.5 Spins 1.6 Ground Effect 1.7 Airplane Turn 1.8 Airplane Stability 1.9 Torque and P-Factor 1.10 Load Factor 1.11 Velocity Vs. G-Loads

Additional References

Advisory Circulars

- AC 61-67: Stall and Spin Awareness Training

Page 16, Ground Lesson 2: Airplane Instruments, Engines, and Systems; Objective; Text References; New Additional References: These edits clarify the objective, update text reference titles, and add additional references.

Objective

To develop the ~~student's~~learner's knowledge of airplane instruments, ~~engines~~powerplants, and systems.

[. . .]

Gleim *Pilot Handbook* Study Unit 2 Contents	Gleim *Private Pilot FAA Knowledge Test Prep* Study Unit 2 Contents
2.1 Pitot-Static System 2.2 Altimeter 2.3 Vertical Speed Indicator 2.4 Airspeed Indicator 2.5 Gyroscopic Flight Instruments 2.6 Turn Coordinator 2.7 Turn-and-Slip Indicator 2.8 Attitude Indicator 2.9 Heading Indicator 2.10 Magnetic Compass 2.11 Compass Errors 2.12 ~~Glass Cockpit~~Electronic Flight Instrumentation Systems (EFIS) 2.13 Powerplant 2.14 How an Engine Operates 2.15 Ignition System 2.16 Induction System 2.17 Fuel System 2.18 Oil System 2.19 Cooling System 2.20 Propellers 2.21 Full Authority Digital Engine Control (FADEC) 2.22 Electrical System 2.23 Landing Gear System 2.24 Environmental System 2.25 Deice and Anti-Ice Systems	2.1 Compass Turning Error 2.2 Pitot-Static System 2.3 Airspeed Indicator 2.4 Altimeter 2.5 Types of Altitude 2.6 Setting the Altimeter 2.7 Altimeter Errors 2.8 Gyroscopic Instruments 2.9 Glass ~~Cockpits~~Flight Decks 2.10 Engine Temperature 2.11 Constant-Speed Propeller 2.12 Engine Ignition Systems 2.13 Carburetor Icing 2.14 Carburetor Heat 2.15 Fuel/Air Mixture 2.16 Abnormal Combustion 2.17 Aviation Fuel Practices 2.18 Starting the Engine 2.19 Cold Weather – Attention 2.20 Electrical System

Additional References

Aeronautical Information Manual (AIM)

- Chapter 7. Safety of Flight
  - Section 2: Barometric Altimeter Errors and Setting Procedures
  - Section 3: Cold Temperature Barometric Altimeter Errors, Setting Procedures and Cold Temperature Airports (CTA)

Advisory Circulars

- AC 20-125: Water in Aviation Fuels
- AC 43-12: Preventive Maintenance
- AC 91-59: Inspection and Care of General Aviation Aircraft Exhaust Systems
- AC 135-17: Pilot Guide – Small Aircraft Ground Deicing

Page 17, Ground Lesson 3: Airports, Air Traffic Control, and Airspace; Objective; New Additional References: These updates clarify the objective and add additional references.

Objective

To develop the ~~student's~~learner's knowledge of airports, recognition and avoidance of wake turbulence ~~and~~, collision avoidance, radio communication procedures and phraseology, ATC radar services, and the National Airspace System. Developing such knowledge will promote the safe and efficient operation of aircraft.

[. . .]

Additional References

Aeronautical Information Manual (AIM)

- Chapter 2: Aeronautical Lighting and Other Airport Visual Aids
  - Section 1: Airport Lighting Aids
  - Section 2: Air Navigation and Obstruction Lighting
  - Section 3: Airport Marking Aids and Signs
- Chapter 3: Airspace
  - Section 1: General
  - Section 2: Controlled Airspace
  - Section 3: Class G Airspace
  - Section 4: Special Use Airspace
  - Section 5: Other Airspace Areas
- Chapter 4: Air Traffic Control
  - Section 1: Services Available to Pilots
  - Section 2: Radio Communications Phraseology and Techniques
  - Section 3: Airport Operations
  - Section 4: ATC Clearances and Aircraft Separation
  - Section 5: Surveillance Systems
- Chapter 6: Emergency Procedures
  - Section 1: General
  - Section 2: Emergency Services Available to Pilots
  - Section 3: Distress and Urgency Procedures
  - Section 4: Two-way Radio Communications Failure
  - Section 5: Aircraft Rescue and Fire Fighting Communications
- Chapter 7: Safety of Flight
  - Section 4: Wake Turbulence

Advisory Circulars

- AC 90-23: Aircraft Wake Turbulence
- AC 90-48: Pilots' Role in Collision Avoidance
- AC 90-66: Non-Towered Airport Flight Operations
- AC 91-63: Temporary Flight Restrictions (TFR) and Flight Limitations

Page 18, Ground Lesson 4: Federal Aviation Regulations, Objective, New Additional References: These updates clarify the objective and add additional references.

Objective

To develop the ~~student's~~learner's knowledge of ~~pertinent~~ Federal Aviation Regulations (14 CFR), including private pilot privileges, limitations, and flight operations, and the accident-reporting ~~rules~~requirements of the National Transportation Safety Board (NTSB).

[. . .]

Additional References

Aeronautical Information Manual (AIM)

- Chapter 7: Safety of Flight
  - Section 7: Safety, Accident, and Hazard Reports

Advisory Circulars

- AC 61-91: WINGS – Pilot Proficiency Programs
- AC 68-1: BasicMed

Page 19, Ground Lesson 5: Airplane Performance and Weight and Balance, Objective, New Additional References: These updates clarify the objective and add additional references.

Objective

To develop the ~~student's~~learner's ability to determine airplane performance, including weight and balance~~.~~ computations. The learner will find that conditions such as density altitude can have a tremendous effect on takeoff and climb performance. Additionally, the ~~student~~learner will ~~learn~~discover the adverse effects of exceeding the airplane's limitations.

[. . .]

Additional References

Advisory Circulars

- AC 91-79: Mitigating the Risks of a Runway Overrun upon Landing

Page 20, Stage Two, Stage Two Objective: These edits clarify the objectives.

Stage Two Objective

~~To~~The objective of this stage is to develop the ~~student's~~learner's knowledge of medical factors and the aeronautical decision-making process related to all flights. The ~~student~~learner will ~~learn~~discover how weather affects flying. The ~~student~~learner will ~~learn how to obtain~~be proficient in obtaining weather briefings and how to interpret aviation reports, forecasts, and charts. Additionally, the ~~student~~learner will ~~learn~~discover how to use navigation charts, plotters, flight computers, and flight publications for cross-country flight planning. Finally, the ~~student~~learner will ~~learn how~~be introduced to ~~use~~the various navigation systems.

Page 21, Ground Lesson 6: Aeromedical Factors and Aeronautical Decision Making (ADM), Objective, New Additional References: These updates clarify the objective and add additional references.

Objective

To develop the ~~student's~~learner's knowledge of the medical factors related to flight and ~~to~~ the aeronautical decision making (ADM) and judgment process.

[. . .]

Additional References

Aeronautical Information Manual (AIM)

- Chapter 8: Medical Facts for Pilots
  - Section 1: Fitness for Flight

Advisory Circulars

- AC 20-133: Cockpit Noise and Speech Interference Between Crewmembers
- AC 60-22: Aeronautical Decision Making

Page 22, Ground Lesson 7: Aviation Weather, Objective, Text References, New Additional References: These updates clarify the objective, edit a text reference, and add additional references.

Objective

To develop the ~~student's~~learner's knowledge of the fundamentals of weather and critical weather situations, as associated with the operation of an airplane. Additionally, to develop the learner's understanding of the importance of wind shear avoidance.

[. . .]

Gleim *Pilot Handbook* Study Unit 7 Contents	Gleim *Private Pilot FAA Knowledge Test Prep* Study Unit 7 Contents
7.1 The Earth's Atmosphere 7.2 Temperature 7.3 Atmospheric Pressure 7.4 Wind 7.5 Moisture, Cloud Formation, and Precipitation 7.6 Stable and Unstable Air 7.7 Clouds 7.8 Air Masses and Fronts 7.9 Turbulence, Wind Shear, and Wind Shear Avoidance 7.10 Icing 7.11 Thunderstorms 7.12 Fog	7.1 Causes of Weather 7.2 Convective Currents 7.3 Fronts 7.4 Thunderstorms 7.5 Icing 7.6 Mountain Wave 7.7 Wind Shear Avoidance 7.8 Temperature/Dew Point and Fog 7.9 Clouds 7.10 Stability of Air Masses 7.11 Temperature Inversions

Additional References

Advisory Circulars

- AC 00-6: Aviation Weather
- AC 00-24: Thunderstorms
- AC 00-30: Clear Air Turbulence Avoidance
- AC 00-54: Pilot Windshear Guide
- AC 00-57: Hazardous Mountain Winds and Their Visual Indicators
- AC 20-113: Engine Induction System and Fuel System Icing
- AC 91-74: Pilot Guide: Flight in Icing Conditions

Page 23, Ground Lesson 8: Aviation Weather Services, Objective, Text References, New Additional References: These edits expand on the objective, update two titles in the text references, and add additional references.

Objective

To develop the ~~student's~~learner's ability to procure and interpret ~~and use~~aeronautical weather ~~charts,~~ reports~~,~~ and forecasts~~, and broadcasts and~~ in order to ~~develop~~foster the ~~student's knowledge~~recognition of ~~the procedure to obtain~~critical weather ~~briefings~~situations from the ground and in-flight.

[. . .]

Gleim *Pilot Handbook* Study Unit 8 Contents	Gleim *Private Pilot FAA Knowledge Test Prep* Study Unit 8 Contents
8.1 Flight Service Station (FSS) 8.2 Aviation Routine Weather Report (METAR) 8.3 Pilot Weather Report (PIREP) 8.4 Terminal Aerodrome Forecast (TAF) 8.5 Graphical Airman's Meteorological Advisory (G-AIRMET) 8.6 Graphical Forecasts for Aviation (GFA) 8.7 In-Flight Aviation Weather Advisories 8.8 Winds and Temperatures Aloft Forecast (FB) 8.9 Surface Analysis Chart ~~8.10 Ceiling and Visibility Analysis (CVA)~~ ~~8.11~~8.10 Radar Observations ~~8.12~~8.11 Short-Range Surface Prognostic (PROG) Chart ~~8.13~~8.12 Low-Level Significant Weather (SIGWX) Chart ~~8.14~~8.13 ~~Leidos~~ Flight Service Online ~~8.15~~8.14 Aviation Weather Resources on the Internet	8.1 Weather Briefings 8.2 Aviation Routine Weather Report (METAR) 8.3 ~~Pilot Weather Report (PIREP)~~Aircraft Observations and Reports 8.4 Terminal Aerodrome Forecast (TAF) 8.5 Radar Weather Reports 8.6 In-Flight Weather 8.7 Wind and Temperature Aloft Forecasts (FB) 8.8 Significant Weather Prognostic Charts 8.9 AIRMETs and SIGMETs

Additional References

Aeronautical Information Manual (AIM)

- Chapter 7: Safety of Flight
  - Section 1: Meteorology

Advisory Circulars

- AC 00-45: Aviation Weather Services
- AC 00-63: Use of Flight Deck Displays of Digital Weather and Aeronautical Information

Page 24, Ground Lesson 9: Navigation: Charts and Publications, New Additional References: This edit adds additional references.

Additional References

Aeronautical Information Manual (AIM)

- Chapter 9: Aeronautical Charts and Related Publications
  - Section 1: Types of Charts Available

Advisory Circulars

- AC 91-78: Use of Class 1 or Class 2 Electronic Flight Bag (EFB)

Page 25, Ground Lesson 10: Navigation Systems, Text References, New Additional References: These edits update a text reference and add additional references.

Gleim *Pilot Handbook* Study Unit 10 Contents	Gleim *Private Pilot FAA Knowledge Test Prep* Study Unit 10 Contents
10.1 Characteristics of Radio Waves 10.2 VHF Omnidirectional Range (VOR) 10.3 Distance-Measuring Equipment (DME) 10.4 Automatic Direction Finder (ADF) 10.5 Radio Magnetic Indicator (RMI) 10.6 ~~Area~~Performance-Based Navigation (~~RNAV~~PBN) 10.7 VORTAC-Based RNAV 10.8 Global Positioning System (GPS)	10.1 VOR Test Facility (VOT) 10.2 Determining Position Using VORs 10.3 Global Positioning System (GPS) 10.4 Pilotage and Dead Reckoning

Additional References

Aeronautical Information Manual (AIM)

- Chapter 1: Air Navigation
  - Section 1: Navigation Aids
  - Section 2: Performance-Based Navigation (PBN) and Area Navigation (RNAV)

Advisory Circulars

- AC 90-100: U.S. Terminal and En Route Area Navigation (RNAV) Operations
- AC 90-108: Use of Suitable Area Navigation (RNAV) Systems on Conventional Routes and Procedures

Page 26, Ground Lesson 11: Cross-Country Flight Planning, Objective, New Additional References: These edits expand the objective and add additional references.

Objective

To further develop the ~~student's~~learner's ability to properly plan a VFR cross-country flight~~.~~ and to utilize pilotage and dead reckoning. The learner will determine how to obtain information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements. Additionally, the ~~student~~learner is introduced to lost procedures and the procedures ~~to use~~used when ~~lost and when diverting~~required to divert to an alternate airport if the planned flight cannot be completed or delays are encountered.

[. . .]

Additional References

Aeronautical Information Manual (AIM)

- Chapter 5: Air Traffic Procedures
  - Section 1: Preflight
  - Section 2: Departure Procedures
  - Section 3: En Route Procedures
  - Section 4: Arrival Procedures
  - Section 5: Pilot/Controller Roles and Responsibilities
  - Section 6: National Security and Interception Procedures
- Chapter 7: Safety of Flight
  - Section 5: Bird Hazards and Flight over National Refuges, Parks, and Forests
  - Section 6: Potential Flight Hazards

Advisory Circulars

- AC 20-35: Tiedown Sense
- AC 43-9: Maintenance Records
- AC 60-11: Test Aids and Materials that May Be Used by Airman Knowledge Testing Applicants
- AC 61-134: General Aviation Controlled Flight into Terrain Awareness
- AC 91-36: Visual Flight Rules (VFR) Flight near Noise-Sensitive Areas
- AC 91-73: Parts 91 and 135 Single Pilot, Flight School Procedures during Taxi Operations
- AC 91-92: Pilot's Guide to a Preflight Briefing

Private Pilot Flight Training Syllabus Airplane Single-Engine Land

Page 31, Flight Training Course Completion Standards, Content, Reading Assignments for Flight Lessons: The edits to this page remove the table containing CFI grading methods and direct the reader to the new Training Record Grading Legend added to the Introduction in this Update.

Figures

Page 77, 84, Figures: These edits update four figures to match the current FAA testing supplement. Only the new versions of the figures are reproduced.

Figure 12. – Aviation Routine Weather Reports (METAR).

METAR KINK 121845Z 11012G18KT 15SM SKC 25/17 A3000

METAR KBOI 121854Z 13004KT 30SM SCT150 17/6 A3015

METAR KLAX 121852Z 25004KT 6SM BR SCT007 SCT250 16/15 A2991

SPECI KMDW 121856Z 32005KT 1 1/2SM RA OVC007 17/16 A2980 RMK RAB35

SPECI KJFK 121853Z 18004KT 1/2SM FG R04/2200 OVC005 20/18 A3006

Figure 14. – Pilot Weather Report.

UA/OV KOKC-KTUL/TM 1800/FL120/TP BE90/SK BKN018-TOP055/OVC072-
TOP089/CLR ABV/TA M7/WV 08021/TB LGT 055-072/IC LGT-MOD RIME 072-089

Figure 15. – Terminal Aerodrome Forecasts (TAF).

TAF

KMEM 121720Z 1218/1324 20012KT 5SM HZ BKN030 PROB40 1220/1222 1SM TSRA OVC008CB
FM122200 33015G20KT P6SM BKN015 OVC025 PROB40 1220/1222 3SM SHRA
FM120200 35012KT OVC008 PROB40 1202/1205 2SM-RASN BECMG 1306/1308 02008KT BKN012
BECMG 1310/1312 00000KT 3SM BR SKC TEMPO 1212/1214 1/2SM FG
FM131600 VRB06KT P6SM SKC=

KOKC 051130Z 0512/0618 14008KT 5SM BR BKN030 TEMPO 0513/0516 1 1/2SM BR
FM051600 18010KT P6SM SKC BECMG 0522/0524 20013G20KT 4SM SHRA OVC020
PROB40 0600/0606 2SM TSRA OVC008CB BECMG 0606/0608 21015KT P6SM SCT040=

Figure 40. – Airplane Takeoff Distance Graph.