NOTE: Text that should be deleted is displayed with a line through it. New text is shown with a blue background.

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

Part I/Study Unit 2: Optimizing Your Flight and Ground Training

Page 10, Subunit 2.5 B.2.: This edit was made to reflect a change in the Gleim *Private Pilot Syllabus*.

2. A listing of the 27 lessons is presented in the table below.

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage One</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Introduction to Flight</td>
</tr>
<tr>
<td>2</td>
<td>Four Fundamentals of Flight</td>
</tr>
<tr>
<td>3</td>
<td>Basic Instrument Maneuvers</td>
</tr>
<tr>
<td>4</td>
<td>Slow Flight and Stalls</td>
</tr>
<tr>
<td>5</td>
<td>Emergency Operations</td>
</tr>
<tr>
<td>6</td>
<td>Steep Turns and Ground Reference Maneuvers</td>
</tr>
<tr>
<td>7</td>
<td>Review</td>
</tr>
<tr>
<td>8</td>
<td>Go-Around and Forward Slip to a Landing</td>
</tr>
<tr>
<td>9</td>
<td>Presolo Review</td>
</tr>
<tr>
<td>10</td>
<td>Presolo Review</td>
</tr>
<tr>
<td>11</td>
<td>First Solo</td>
</tr>
<tr>
<td>12</td>
<td>Stage One Check</td>
</tr>
<tr>
<td><strong>Stage Two</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Second Solo</td>
</tr>
<tr>
<td>14</td>
<td>Short-Field and Soft-Field Takeoffs and Landings</td>
</tr>
<tr>
<td>15</td>
<td>Solo Maneuvers Review</td>
</tr>
<tr>
<td>16</td>
<td>Navigation Systems</td>
</tr>
<tr>
<td>17</td>
<td>Dual Cross-Country</td>
</tr>
<tr>
<td>18</td>
<td>Night Flight -- Local</td>
</tr>
<tr>
<td>19</td>
<td>Night Cross-Country</td>
</tr>
<tr>
<td>20</td>
<td>Solo Cross-Country</td>
</tr>
<tr>
<td>20A</td>
<td>Solo Cross-Country (Part 61)</td>
</tr>
<tr>
<td>20B</td>
<td>Solo Cross-Country (Part 61)</td>
</tr>
<tr>
<td>21</td>
<td>Maneuvers Review</td>
</tr>
<tr>
<td>22</td>
<td>Solo Practice</td>
</tr>
<tr>
<td>23</td>
<td>Maneuvers Review</td>
</tr>
<tr>
<td>24</td>
<td>Solo Practice</td>
</tr>
<tr>
<td>25</td>
<td>Stage Two Check/End of Course Checks</td>
</tr>
</tbody>
</table>
Part I/Study Unit 4: Basic Flight Maneuvers

Page 23, Subunit 4.4 C.: These edits were made to clarify the effects of lift.

C. The lift produced by the wings is used to turn the airplane. When you bank the airplane, the lift is separated into two components known as the vertical and the horizontal components of lift, as shown below.

1. The horizontal component of lift is the force that turns the airplane creates a force that is directed inward toward the center of the airplane’s rotation. This force, known as centripetal force, causes the airplane to turn.
   a. The steeper the bank, the sharper the turn due to the increase in the horizontal lift.

Part I/Study Unit 5: Your FAA Practical (Flight) Test

Pages 33-36, Subunit 5.5: These edits update instructions for filing Form 8710-1. The form on pages 35 and 36 was removed, and information about IACRA was added.

5.5 PRACTICAL TEST APPLICATION FORM AND IACRA

A. Prior to your practical test, your instructor will assist you in completing a paper version of an FAA Form 8710-1 (which appears on pages 35 and 36) and will sign the top of the back side of the form before filling out the 8710-1 on IACRA.

1. An explanation on how to complete the form is attached to the original, and we have reproduced it on page 34.
   a. The form is not largely self-explanatory.
   b. For example, the FAA wants dates shown as 02-14-25, not 2/14/25.

2. Do not go to your practical test without FAA Form 8710-1 being properly completing the IACRA application process; remind your CFI about it as you schedule your practical test.
B. If you are enrolled in a Part 141 flight school, the IACRA Air Agency Recommendation block of information on the back side may be completed by the chief instructor of your Part 141 flight school. (S)he, rather than a designated examiner or FAA inspector, will administer the practical test if examining authority has been granted to your flight school.

C. Your examiner or Part 141 flight school chief instructor will forward this and other required forms (listed on the bottom of the back side) to the nearest FSDO for review and approval. They will then be sent to Oklahoma City. From there, after review and approval, your permanent private pilot certificate will be issued and mailed to you.

However, you will be issued a temporary certificate when you successfully complete the practical test (see Subunit 5.9, “Your Temporary Pilot Certificate,” on page 39).
AIRMAN CERTIFICATE AND/OR RATING APPLICATION
INSTRUCTIONS FOR COMPLETING FAA FORM 8710-1

I. APPLICATION INFORMATION. Check appropriate block(s).

Block A. Name. Enter legal name. Use no more than one middle name for record purposes. Do not change the name on subsequent applications unless it is done in accordance with 14 CFR Section 61.25. If you do not have a middle name, enter "NMN." If you have a middle initial only, indicate "Initial only," if you are Jr., or a Jr II, III, etc. indicate. If you have an FAA certificate, the name on the application should be the same as the name on the certificate unless you have had it changed in accordance with 14 CFR Section 61.25.

Block B. Social Security Number. Optional. See supplemental information. Privacy Act. Do not leave blank. Use only U.S. Social Security Number. Enter either “SSN” or the words “Do not Use” or “None.” SSN’s are not shown on certificates.

Block C. Date of Birth. Check for accuracy. Enter eight digits; Use numeric characters, i.e., 07-09-1925 instead of July 9, 1925. Check to see that DOB is the same as it is on the medical certificate.

Block D. Place of Birth. If you were born in the USA, enter the city and state where you were born. If the city is unknown, enter the county and state. If you were born outside the USA, enter the name of the city and country where you were born.

Block E. Permanent Mailing Address. Enter residence number and street, P.O. Box or rural route number is the top part of the block above the line. The City, State, and ZIP code go in the bottom part of the block below the line. Check for accuracy. Make sure the numbers are not transposed. FAA policy requires that you use your permanent mailing address. Justification must be provided on a separate sheet of paper signed and submitted with the application when a P.O. Box or rural route number is used in place of your permanent physical address. A map or directions must be provided if a physical address is unavailable.

Block F. Citizenship. Check USA if applicable. If not, enter the country where you were a citizen.

Block G. Do you read, speak, write and understand the English language? Check yes or no.

Block H. Height. Enter your height in inches. Example: 5’6” would be entered as 68 in. No fractions, use whole inches only.

Block I. Weight. Enter your weight in pounds. No fractions, use whole pounds only.

Block J. Hair. Spell out the color of your hair. If bald, enter “Bald.” Color should be listed as black, red, brown, blond, or gray. If you wear a wig or toupee, enter the color of your hair under the wig or toupee.

Block K. Eyes. Spell out the color of your eyes. The color should be listed as blue, brown, black, hazel, green, or gray.

Block L. Sex. Check male or female.

Block M. Do You Now Hold or Have You Ever Held An FAA Pilot Certificate? Check yes or no. (NOTE: A student pilot certificate is a "Pilot Certificate")

Block N. Grade of Pilot Certificate. Enter the grade of pilot certificate (i.e., Student, Commercial, Private, or ATP). Do NOT enter flight instructor certificate information.

Block O. Certificate Number. Enter the number as it appears on your pilot certificate.

Block P. Date Issued. Enter the date your pilot certificate was issued.

Block Q. Do You Now Hold A Medical Certificate? Check yes or no. If yes, complete Blocks R, S, and T.

Block R. Class of Certificate. Enter the class as shown on the medical certificate, i.e., 1st, 2nd, or 3rd class.

Block S. Date Issued. Enter the date your medical certificate was issued.

Block T. Name of Examiner. Enter the name as shown on your medical certificate.

Block U. Narcotics, Drugs. Check appropriate block. Only check “Yes” if you have actually been convicted. If you have been charged with or convicted of any violation which has not been adjudicated, check “No.”

Block V. Date of Final Conviction. If block “U” was checked “Yes” give the date of final conviction.

II. CERTIFICATE OR RATING APPLIED FOR ON BASIS OF:

Block A. Completion of Required Test.
1. AIRCRAFT TO BE USED. (If flight test required) – Enter the make and model of each aircraft used. If simulator or HUD, indicate.
2. TOTAL TIME IN THIS AIRCRAFT (Hrs.) – (a) Enter the total Flight Time in each make and model. (b) Pilot-in-Command Flight Time - In each make and model.

Block B. Military Competence Obtained In. Enter your branch of service, date rated as a military pilot, your rank, or grade and service number. In block 4a or 4b, enter the make and model of each military aircraft used to qualify (as appropriate).

Block C. Graduate of Approved Course.
1. NAME AND LOCATION OF TRAINING AGENCY/CENTER. As shown on the graduation certificate. Be sure the location is entered.
2. AGENCY SCHOOL CENTER CERTIFICATION NUMBER. As shown on the graduation certificate. Indicate if 143 training center.
3. CURRICULUM FROM WHICH GRADUATED. As shown on the graduation certificate.
4. DATE. Date of graduation from indicated course. Approved course graduate must also complete Block “A” A COMPLETION OF REQUIRED TEST.

Block D. Holder of Foreign License Issued By.
1. COUNTRY. Country which issued the license.
2. GRADE OF LICENSE. Grade of license issued, i.e., private, commercial, etc.
3. NUMBER. Number which appears on the license.
4. RATINGS. All ratings that appear on the license.

Block E. Completion of Air Carrier’s Approved Training Program.
1. Name of Air Carrier.
2. Date program was completed.
3. Identify the Training Curriculum.

III. RECORD OF PILOT TIME. The minimum pilot experience required by the appropriate regulation must be certified. It is recommended, however, that ALL pilot time be entered. If decimal points are used, be sure that they are legible. Night flying must be entered when required. You should fill in the blocks that apply and ignore the blocks that do not. Second in Command “SIC” time used may be entered in the appropriate blocks. Flight Simulator, Training Device and Flight Training Device and Flight Simulator time may be entered in the boxes provided. Total instructions received, and Instrument Time should be entered in the top, middle, or bottom of the boxes provided as appropriate.

IV. HAVE YOU FAILED A TEST FOR THIS CERTIFICATE OR RATING? Check appropriate block.

V. APPLICANT’S CERTIFICATION.
A. SIGNATURE. The way you normally sign your name.
B. DATE. The date you sign the application.
D. Integrated Airman Certification and/or Rating Application (IACRA)

1. Purpose of IACRA

a. IACRA is an Internet database application that allows its users to electronically input information normally submitted in an 8710-1 application.

b. Using IACRA to apply for a certificate or rating from the FAA replaces the need to use Form 8710-1.

c. IACRA is freely available from the FAA, and all pilots and instructors are strongly encouraged to use it.

d. Benefits of IACRA

   1) Less paper to keep up with
   2) Less work for the FAA inspector/DPE after a checkride
   3) Ease of data entry/correction
   4) All forms transmitted electronically – no mailing
   5) Faster processing time from the FAA


2. Getting Started with IACRA

a. Since its launch in 2003, the FAA has done a lot to update, simplify, and educate pilots on the IACRA system. A host of informational and training resources is available to potential and current system users.

   1) This section assumes you are a new user who has no experience using the IACRA system.
b. Step 1: Learn how the IACRA system works.

1) IACRA has defined roles that users occupy to accomplish various tasks. A full list of roles can be obtained here. The most common roles you will work with are the
   a) Applicant (Student)
   b) Recommending Instructor (RI)
   c) Designated Examiner (DPE)
   d) Aviation Safety Inspector (ASI)

2) When applying for a pilot certificate or rating under Part 61, IACRA is a five-part process, as defined below.
   a) You register with IACRA and are issued a FAA Tracking Number (FTN).
      i) Keep the FTN secure but accessible since you will retain that same number forever.
      ii) If you forget and/or misplace your FTN, the IACRA Help Desk can retrieve it after you verify your identity with Help Desk personnel.
         • Contact the IACRA Help Desk via
           • Phone: 1-877-287-6731
           • Email: 9-NATL-AVS-IT-ServiceDesk@faa.gov
   b) Log in to the IACRA system and complete the equivalent of an 8710-1 form.
      i) You will fill out information in 6 tabs, found at the top of the application screen.
      ii) To speed up the application process, you should have your existing pilot certificate and total flight times before attempting to complete the application.
      iii) The sixth tab, “Summary,” includes an error-checking utility that examines the application for errors that must be corrected before submitting the application.
   c) After you have submitted your application, your instructor will sign in to verify your information. (S)he will need your FTN to do this. Once your CFI is finished reviewing your application, (s)he will digitally sign it.
   d) On the day of the practical test, the DPE/ASI verifies your identification and has you digitally sign the application in his or her presence.
   e) Upon successful completion of the practical test, the DPE/ASI inputs the necessary information into IACRA, digitally signs the application, and prints a temporary pilot certificate.
c. Step 2: Obtain IACRA system documentation for present and future use.

1) The general IACRA training resource page can be found at http://iacratraining.faa.gov/.


3) Download the complete IACRA Instruction Manual (http://iacra.faa.gov/iacra_manuals/IACRA_Instruction_Manual_8.pdf) for later reference when using the system yourself and when assisting your students to complete applications.

4) System Frequently Asked Questions (http://iacra.faa.gov/IACRA/faq.aspx) and answers can be useful in preventing you from having to contact the Help Desk should questions/issues arise.

Part II: Flight Maneuvers and FAA Practical Test Standards: Discussed and Explained

Page 76: These edits update the FAA reference list and related information.

Each task has an FAA reference list that identifies the publication(s) that describe(s) the task. Our discussion is based on the current issue of these references. Make sure you use the most current published version of each of these references. For example, the most current version of AC 91-13 is AC 91-13C. The following FAA references are used in the Private Pilot PTS:

- 14 CFR part 39 Airworthiness Directives
- 14 CFR part 43 Maintenance, Preventive Maintenance, Rebuilding, and Alteration
- 14 CFR part 61 Certification: Pilots, Flight Instructors, and Ground Instructors
- 14 CFR part 91 General Operating and Flight Rules
- 14 CFR part 93 Special Air Traffic Rules
- AC 00-6 Aviation Weather
- AC 00-45 Aviation Weather Services
- AC 60-22 Aeronautical Decision Making (ADM)
- AC 61-65 Certification: Pilots and Flight Instructors
- AC 61-67 Stall and Spin Awareness Training
- AC 61-84 Role of Preflight Preparation
- AC 90-48 Pilot’s Role in Collision Avoidance
- AC 91-13 Cold Weather Operation of Aircraft
- AC 91-55 Reduction of Electrical System Failures Following Aircraft Engine starting
- AC 91-73 Part 91 and 135 Single-Pilot Procedures During Taxi Operations
- AC 120-51 Crew Resource Management Training
- AC 120-74 Parts 91, 121, 125 and 135 Flightcrew Procedures During Taxi operations
- AC 150-5340-18 Standards for Airport Sign Systems
- AIM Aeronautical Information Manual
- AFD Airport Facility Directory
- FAA-H-8083-1 Weight and Balance Handbook
FAA-H-8083-25  Pilot’s Handbook of Aeronautical Knowledge
FAA-P-8740-19  Flying Light Twins Safely
NOTAMs         Notices to Airmen
Other          Navigation Charts
                Navigation Equipment Operation Manuals

In each task, as appropriate, we will provide you with the study unit and/or subunit from the Gleim Pilot Handbook for additional discussion of an element (or concept) of the task, along with the approximate number of pages of discussion.

**FARs ARE NOW REFERRED TO AS CFRs**

**NOTE:** The FAA has begun to abbreviate the Federal Aviation Regulations as “14 CFR” rather than “FARs.” The Office of Management and Budget uses FAR as an acronym for Federal Acquisition Regulations. CFR stands for Code of Federal Regulations, and the Federal Aviation Regulations are in Part Title 14. For example, FAR Part 1.1 and FAR 61.109 are now referred to as 14 CFR Part 1.1 and 14 CFR Sec. 61.109, respectively. Due to CFIs’ and pilots’ widespread use of the acronym FAR, we continue to use FAR rather than 14 CFR interchangeably to familiarize you with both.
Part II/Study Unit III: Airport Operations

Page 155, III.B. Task: Traffic Patterns, B.3.b.: The image was updated to provide additional information.

![Traffic Patterns Diagram]

**Key:**
1. Enter pattern in level flight, abeam the midpoint of the runway, at pattern altitude.
2. Maintain pattern altitude until abeam approach end of the landing runway on the downwind leg.
3. Complete turn to final at least 1/4 mi. from the runway.
4. Continue straight ahead until beyond departure end of runway.
5. If remaining in the traffic pattern, commence turn to crosswind leg beyond the departure end of the runway, within 300 ft. of pattern altitude.
6. If departing the traffic pattern, continue straight out, or exit with a 45° left turn (right turn for right traffic pattern) beyond the departure end of the runway, after reaching pattern altitude.

Part II/Study Unit VIII: Slow Flight and Stalls

Page 261, VIII.A. Task: Maneuvering During Slow Flight, B.2.a.1): This edit corrects the math explanation in the outline.

2. **Select an entry altitude that will allow the task be completed no lower than 1,500 ft. AGL.**
   a. Select an altitude that is easy to read from your altimeter.
   1) If the terrain elevation is 300 ft. above sea level, the FAA requires the maneuver to be performed no lower than 1,800 ft. MSL (1,500 ft. AGL). Add 4,000 **500** ft. (2,300 ft. MSL) for a margin of safety and then round to the nearest **500**-ft. increment (2,500 ft. MSL) to make it easier to identify on your altimeter.