

With the following changes, this text provides complete preparation for the FAA Sport Pilot Knowledge Exam. The FAA may rearrange the answer stems to appear in a different order on your test than you see in this book. For this reason, be careful to fully understand the intent of each question and corresponding answer while studying, rather than memorize the A, B, C associated with the correct response.

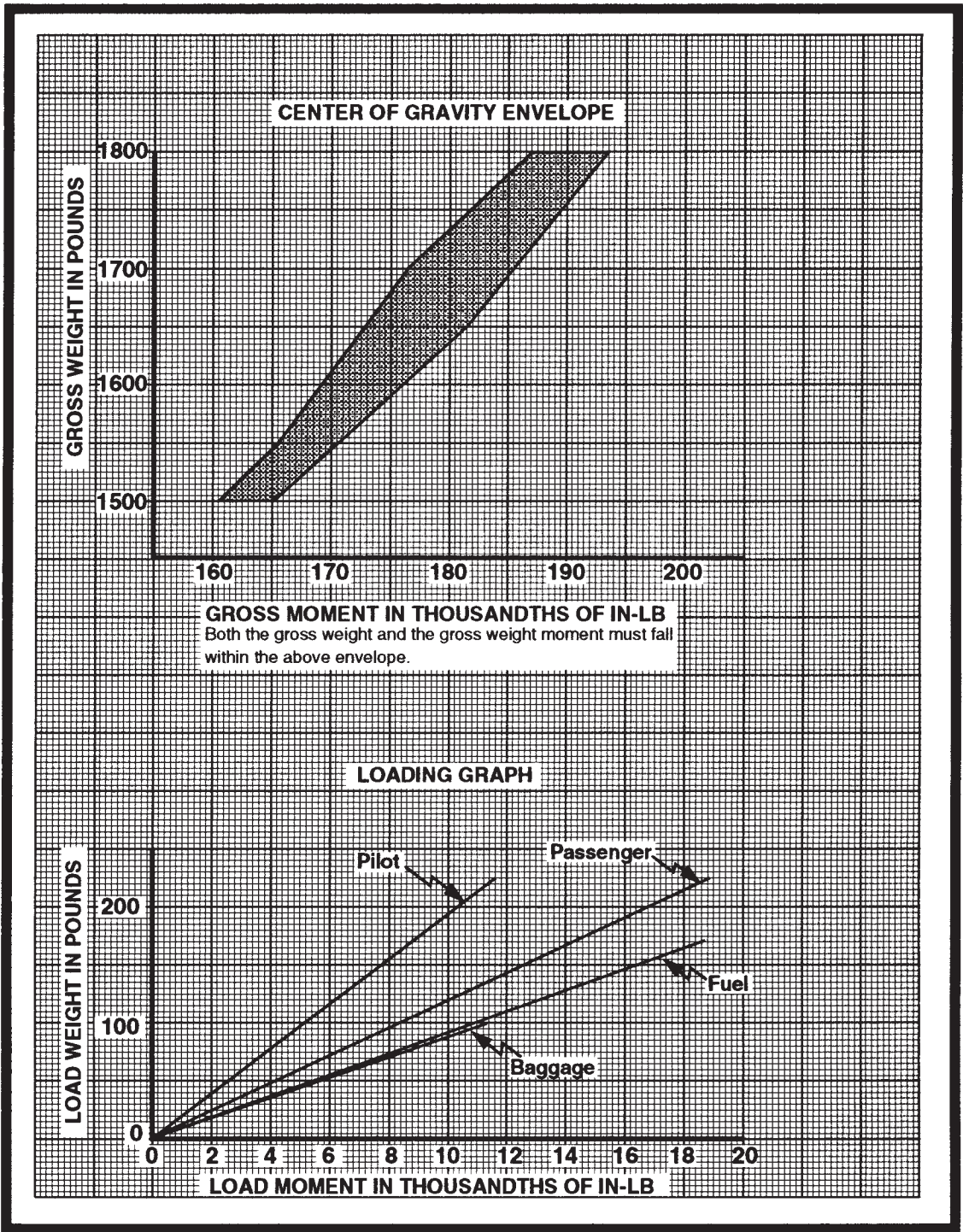
The following changes are printed in ASA's 2009 *Sport Pilot Test Prep*, which ships with the Computer Testing Supplement (#ASA-CT-8080-10A). No figures changed this year. The FAA is expected to release a new test database in October 2008.

<b>Page Number</b>	<b>Question Number</b>	<b>Correct Answer</b>	<b>Explanation</b>						
4-13	2355	[A]	<p><i>A new question is added to read:</i></p> <p>ALL</p> <p><b>2355.</b> (Refer to Figure 24.) Determine the pressure altitude at an airport that is 1,386 feet MSL with an altimeter setting of 29.97</p> <p>A— 1,341 feet MSL.                      B— 1,451 feet MSL                      C— 1,562 feet MSL.</p> <p>Referencing FAA Figure 24, use the following steps:</p> <ol style="list-style-type: none"> <li>1. Since the given altimeter setting is not shown in FAA Figure 24, interpolation is necessary. Locate the settings immediately above and below the given value of 29.97" Hg:                             <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Altimeter Setting</th> <th>Conversion Factor</th> </tr> </thead> <tbody> <tr> <td>29.92</td> <td>0 feet</td> </tr> <tr> <td>30.00</td> <td>-73 feet</td> </tr> </tbody> </table> </li> <li>2. Determine the difference between the two conversion factors: <math>0 - 73 = -73</math> feet</li> <li>3. Determine the amount of the difference to be subtracted from the 29.92" Hg conversion factor: <math>(-73 \div 8) \times 5 = -45.6</math> or 46 feet</li> <li>4. Subtract the conversion factor from the airport elevation to determine the pressure altitude:                             <math>1,386 - 46 = 1,340</math> feet MSL (pressure altitude)                             <p>(PLT041) — FAA-H-8083-25</p> </li> </ol>	Altimeter Setting	Conversion Factor	29.92	0 feet	30.00	-73 feet
Altimeter Setting	Conversion Factor								
29.92	0 feet								
30.00	-73 feet								
4-13	2356	[C]	<p><i>A new question is added to read:</i></p> <p>ALL</p> <p><b>2356.</b> (Refer to Figure 24.) What is the effect of a temperature increase from 30 to 50°F on the density altitude if the pressure altitude remains at 3,000 feet MSL?</p> <p>A— 900-foot increase.                      B— 1,100-foot decrease.                      C— 1,300-foot increase.</p> <p>Referencing FAA Figure 24, use the following steps:</p> <ol style="list-style-type: none"> <li>1. Enter the density altitude chart at 30°F. Proceed upward to the 3,000-foot pressure altitude line. From the point of intersection, move left to the edge of the chart and read a density altitude of 1,650 feet.</li> <li>2. Enter the density altitude chart at 50°F. Proceed upward to the 3,000-foot pressure altitude line. From the point of intersection, move left to the edge of the chart and read a density altitude of 3,000 feet.</li> <li>3. Find the difference between the two values: <math>3,000 - 1,650 = 1,350</math> foot (increase)</li> </ol> <p>(PLT005) — FAA-H-8083-25</p>						
4-20	2350, 2351		<p><i>For Questions 2350 and 2351, refer to Center-of-Gravity Envelope and Loading Graph Figure.</i></p> <p><b>[See Center-of-Gravity Envelope and Loading Graph Figure on Page 4 of this Update.]</b></p>						

Page Number	Question Number	Correct Answer	Explanation
4-34	2361	[C]	<p><i>A new question is added to read:</i></p> <p>RTC</p> <p><b>2361.</b> (Refer to Gyroplane Takeoff and Landing Graphs Figure.) Determine the total takeoff distance required for a gyroplane to clear a 50-foot obstacle if the temperature is 95°F and the pressure altitude is 1,700 feet.</p> <p>A— 1,825 feet. B— 1,910 feet. C— 2,030 feet.</p> <p><b>[See Gyroplane Takeoff and Landing Graphs Figure on Page 5 of this Update.]</b></p> <p>Use the following steps:</p> <ol style="list-style-type: none"> <li>1. Locate the 1,700-foot pressure altitude position on the Takeoff Distance Graph (at right).</li> <li>2. Draw a horizontal line from the 1,700-foot position to the 95°F OAT point.</li> <li>3. Draw a vertical line downward from the point of intersection to the total Takeoff Distance Scale. Note the distance is 2,030 feet.</li> </ol> <p>(PLT011) — FAA-H-8083-21</p>
4-34	2362	[B]	<p><i>A new question is added to read:</i></p> <p>RTC</p> <p><b>2362.</b> (Refer to Gyroplane Takeoff and Landing Graphs Figure.) Determine the total landing distance to clear a 50-foot obstacle in a gyroplane. The outside air temperature (OAT) is 75°F and the pressure altitude at the airport is 2,500 feet.</p> <p>A— 521 feet. B— 525 feet. C— 529 feet.</p> <p><b>[See Gyroplane Takeoff and Landing Graphs Figure on Page 5 of this Update.]</b></p> <p>Use the following steps:</p> <ol style="list-style-type: none"> <li>1. Locate the horizontal line corresponding to 2,500 feet pressure altitude on Gyroplane Takeoff and Landing Graphs figure.</li> <li>2. Draw vertical lines through the points of intersection of the 2,500-foot pressure altitude line with the 75°F point. Note the landing distance of 525 feet.</li> </ol> <p>(PLT011) — FAA-H-8083-21</p>
4-34	2359	[C]	<p><i>A new question is added to read:</i></p> <p>GLI</p> <p><b>2359.</b> (Refer to Glider Performance Graph Figure.) What approximate lift/drag ratio will the glider attain at 68 MPH in still air?</p> <p>A— 10.5:1. B— 21.7:1. C— 28.5:1.</p> <p><b>[See Glider Performance Graph Figure on Page 6 of this Update.]</b></p> <p>Use the following steps:</p> <ol style="list-style-type: none"> <li>1. Locate 68 MPH on the V coordinate (at the bottom) on Glider Performance Graph figure.</li> <li>2. Read upward from the 68 MPH point to the intersection with the L/D curve.</li> <li>3. Read to the left, from the point of intersection, to the L/D scale and read L/D, 28.5:1.</li> </ol> <p>(PLT017) — FAA-H-8083-13</p>

Page Number	Question Number	Correct Answer	Explanation
4-34	2360	[B]	<p><i>A new question is added to read:</i></p> <p>GLI</p> <p><b>2360.</b> What corrective action should the sailplane pilot take during takeoff if the towplane is still on the ground and the sailplane is airborne and drifting to the left?</p> <p>A— Crab into the wind by holding upwind (right) rudder pressure.  B— Crab into the wind so as to maintain a position directly behind the towplane.  C— Establish a right wing low drift correction to remain in the flightpath of the towplane.</p> <p>Crab into the wind to maintain a position directly behind the towplane. (PLT222) — FAA-H-8083-13</p>
5-5	2035	[C]	<p>In the question, change “noncontrolled” to “non-towered.”</p>
5-10	2019	[B]	<p><i>Answer stem B is changed so the question reads (the explanation and answer stay the same):</i></p> <p><b>2019.</b> An airport’s rotating beacon operated during daylight hours indicates</p> <p>A— there are obstructions on the airport.  B— that weather at the airport located in Class D airspace is below basic VFR weather minimums.  C— the Air Traffic Control tower is not in operation.</p>
7-23	2357	[C]	<p><i>A new question is added to read:</i></p> <p>GLI</p> <p><b>2357.</b> (Refer to Figure 59.) If a glider is launched over Barnes County Airport (area 6) with sufficient altitude to glide to Jamestown Airport (area 4), how long will it take for the flight at an average of 40 MPH groundspeed?</p> <p>A— 20 minutes.  B— 27 minutes.  C— 48 minutes.</p> <p>Use the following steps:</p> <ol style="list-style-type: none"> <li>1. Draw a direct course line between Barnes County Airport and Jamestown Airport and determine the distance (31 SM).</li> <li>2. Calculate the time required to cover 31 SM at 40 MPH ground speed using the formula:  Time = Distance ÷ Speed = 31 ÷ 40 = 0.75 hours = 46.5 minutes</li> </ol> <p>(PLT012) — FAA-H-8083-25</p>
7-23	2358	[C]	<p><i>A new question is added to read:</i></p> <p>GLI</p> <p><b>2358.</b> (Refer to Figure 60, area 1.) A glider is launched over Caddo Mills Airport with sufficient altitude to glide to Airpark East Airport, south of Caddo Mills. How long will it take for the flight at an average of 35 MPH groundspeed?</p> <p>A— 27 minutes.  B— 25 minutes.  C— 31 minutes.</p> <p>Use the following steps:</p> <ol style="list-style-type: none"> <li>1. Draw a direct course line between Caddo Mills Airport and Airpark East Airport and determine the distance (18 SM).</li> <li>2. Calculate the time required to cover 18 SM at 35 MPH ground speed using the formula:  Time = Distance ÷ Speed = 15 ÷ 35 = .514 hours = 31 minutes</li> </ol> <p>(PLT012) — FAA-H-8083-25</p>

**Continued...**

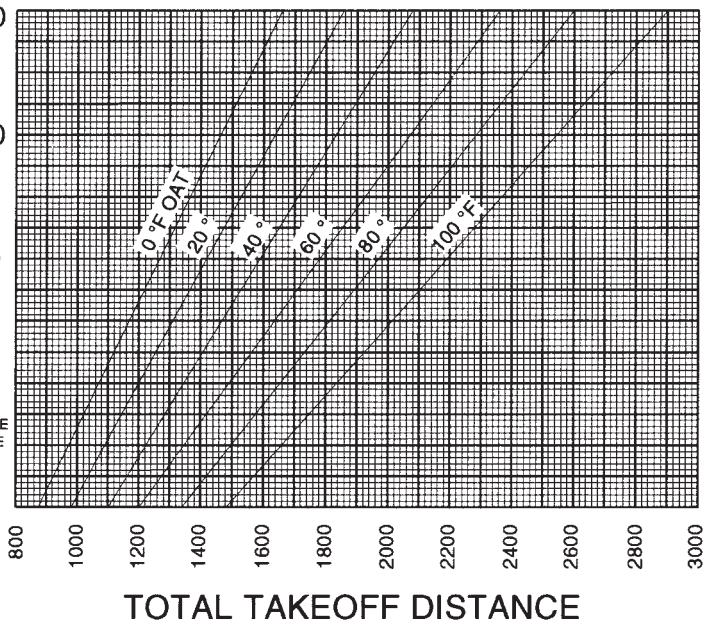
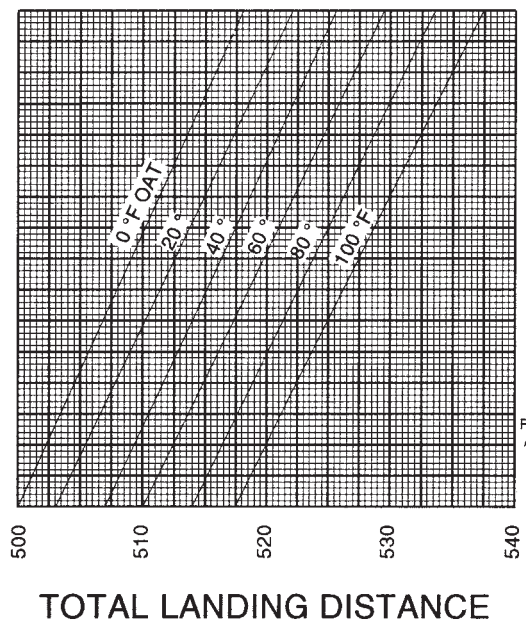


**Center-of-Gravity Envelope and Loading Graph**

TOTAL LANDING DISTANCE  
TO  
CLEAR A 50 FT OBSTACLE

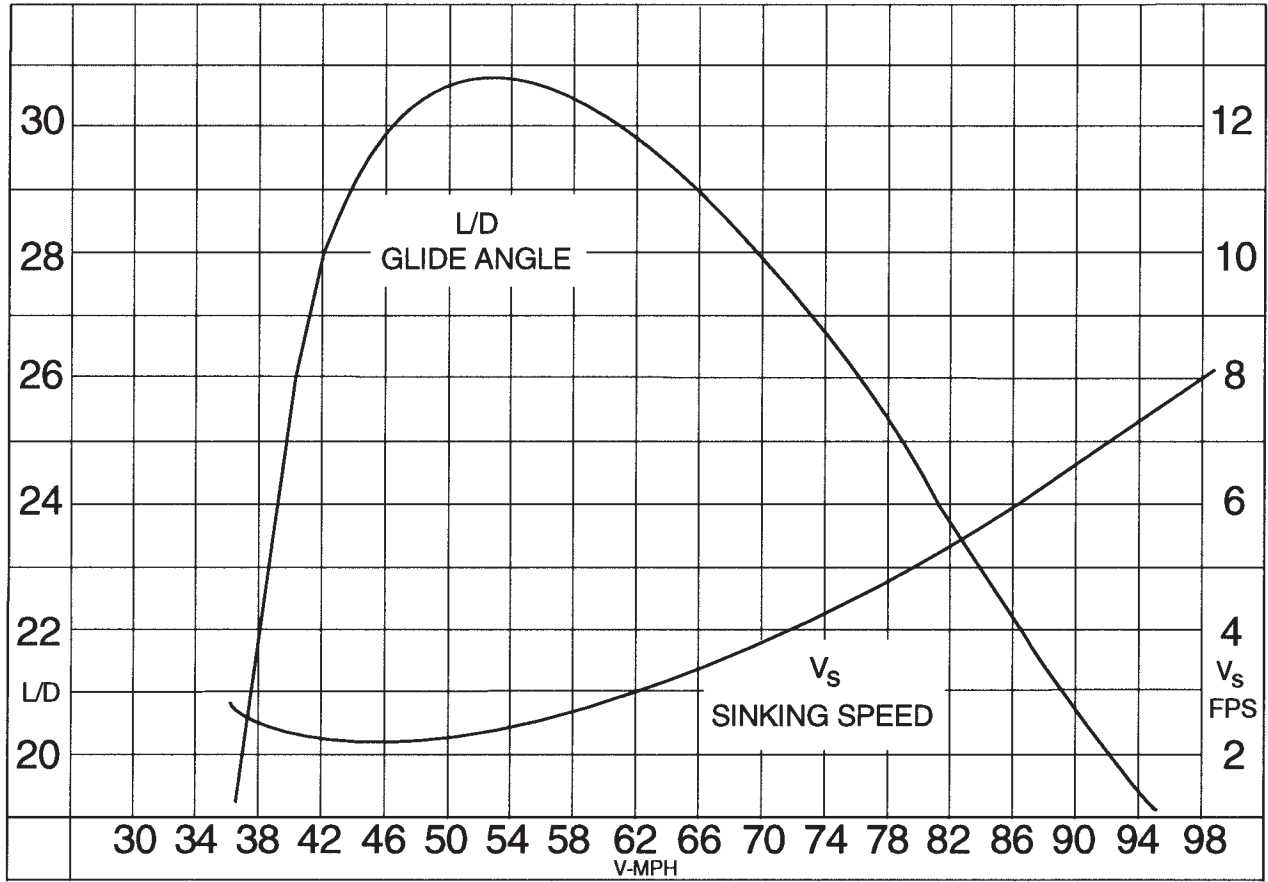
TOTAL TAKEOFF DISTANCE  
TO  
CLEAR A 50 FT OBSTACLE

WEIGHT 1500 LB – ZERO WIND – ROTOR PRE-ROTATED TO 450 RPM – SMOOTH HARD SURFACE RUNWAY



**Gyroplane Takeoff and Landing Graphs**

L/D MAX 30.9:1 AT 53 MPH – MIN SINK 2.2 FPS AT 44 MPH



Glider Performance Graph