

MINNESOTA SOARING CLUB 2019 SAFETY QUIZ

1. Does the FAA provide any official notice of drone flying by hobbyist within 5-statue miles of an airport?
2. If you had a close encounter with an Unmanned Aircraft System (UAS), can you report it to the FAA?

Questions 3 through 6l require use of the SZD 50-3 Owl 'Puchacz' pilot operating handbook, which provides a performance polar on page 5-11. The POH can be found on the MSC website. Arithmetic is required. Round your answers to the nearest integer (e.g. 22, 14, 27, 19 no need for an answer like 19.6250196).

[Hint #1: (Airspeed in knots) divided by (sink rate in knots) = glide ratio].

[Hint #2: For our calculation purposes, 1 knot = 100 FPM, 5 knots = 500 FPM, 8 knots = 800 FPM, and so on].

3. At Maximum Gross Weight, with no wind, and in still air, what is the glide ratio of the Owl glider when flown at an airspeed of

45 knots? _____
56 knots? _____
68 knots? _____
77 knots? _____
90 knots? _____

4. At Maximum Gross Weight, with no wind, and in an airmass subsiding at 5 knots [e.g. 500 feet per minute], what is the glide ratio of the Owl glider when flown at an airspeed of

45 knots? _____
56 knots? _____
68 knots? _____
77 knots? _____
90 knots? _____

5. At Maximum Gross Weight, with no wind, and in an airmass subsiding at 8 knots [e.g. 800 feet per minute], what is the glide ratio of the Owl glider when flown at an airspeed of

45 knots? _____
56 knots? _____
68 knots? _____
77 knots? _____
90 knots? _____

6. At Maximum Gross Weight, with no wind, and in an airmass rising at 1.5 knots [e.g. 150 feet per minute], what is the glide ratio of the Owl glider when flown at an airspeed of

- 45 knots? _____
- 56 knots? _____
- 68 knots? _____
- 77 knots? _____
- 90 knots? _____

7. The Soaring Safety Foundation lists 10 Steps to Safer Soaring. Identify one thing you plan to do in 2019 to address each of these steps.

Maintain Personal Proficiency	
Use Checklists Effectively	
Properly Prepare for Each Flight	
Conduct Positive Control Checks Frequently	
Know the Standard American Soaring Signals	
Always Plan for Emergencies	
Maintain Situational Awareness	
Use Effective Collision Avoidance Techniques	
Eliminate Obstructions in Close Proximity to the Runway	
Make Safety the Primary Goal in all Decision-making	

8. When performing an off-field landing, which of the following are RECOMMENDED.

- A. Do a “Fly it ON” landing rather than a “hold-off stall” landing
- B. Choose a plowed field rather than a cultivated field with low crops
- C. It is better to land down a slope into a headwind rather than up a slope with a tailwind
- D. Upon touchdown do not apply hard brakes as the nose could dig in and cause structural damage
- E. Fly the final approach at the minimum sink speed to reduce the length of field needed
- F. Declare an Emergency on 121.5 MHz
- G. Plan your stopping point to be as close to a road as possible
- H. Continue to work the lift above the chosen field until your altimeter reads 500 feet AGL
- I. Land gear-up
- J. Do the opposite of All the Above

9. When it is your turn to fly you notice the glider’s altimeter from the prior flight was reading 1000 feet rather than KSYN’s field elevation of 920 feet. What is the mostly likely cause of this and how might this impact your flight once reset back to 920?

- A. The prior pilot set it to 1000 feet to make the math easier when determining AGL in flight
 - B. The air pressure in the area increased thus increasing the reading
 - C. The air pressure in the area decreased thus increasing the reading
 - D. Faulty instrument
10. Which of the following are characteristics of a glider with its CG near the aft limit? Select all that apply. (Ref: "Glider Flying Handbook", FAA-H-8083-13A)
- a. More aft stick force to maintain constant pitch.
 - b. More apt to enter a spin.
 - c. Less pitch sensitive.
 - d. Less induced drag.
11. If the maximum certificated weight of a glider is 1100 : (Ref: CFR 14 Part 91.309(3))
- a. What is the least breaking strength allowed for the tow line?
 - b. What is the greatest breaking strength the tow rope allowed for the tow line?
12. What do the regulations say about how weak links are used?
13. What do the regulations say about criteria for mandatory reporting of an accident?
14. In the event of a reportable accident who must be notified and within what time period?
15. How do the regulations define a "fatal injury"?
16. How do the regulations define "serious injury"?
17. How do the regulations define "substantial damage"?
18. What are the signs of an impending stall?
19. What is the recovery from a stall?
20. What is the pattern altitude for gliders and ultralights at Stanton?
21. What is the recovery from a spin?
22. Why can you fly slightly faster with the CG at the aft limit? What is the risk with a CG beyond the aft limit?
23. Given that traffic funnels into the airspace around an airport, what steps can improve lookout and collision avoidance?

24. A well-run ground operation (FOO, wing runner, tow plane signaler, glider staging, and glider retrieval) is vital to maintaining Soaring Safety. As a wing runner, name something you should do in helping a pilot and passenger prepare for launch in each of these areas:

Prior to getting into the glider	
Entering the glider	
In the glider	
Pre-takeoff checklist	
Coordinating with other ground crew	
The take-off roll	
The next 30 seconds after take-off	
Other thoughts	