

### **Spring Safety Quiz**

As the snow continues to fall and the temperatures dip below zero every night, it is hard to believe that we will be soaring in the next month or two. I know everyone is excited.

After a period of being grounded, it's good to review some of the regulations and procedures unique to our sport. That is the purpose of this month's safety quiz. I've compiled a list of 30 questions that will jog your memory and challenge your understanding. MSC has pilots at all levels of training and expertise. Because of this, I've included questions from the most basic to very advanced. All of the questions, with the exception of the last few, are from the FAA question test bank. Even though the answers are from the FAA and are the "official word" they are bound to inspire debate and lively conversation.

We will go over these questions at the March 9<sup>th</sup> meeting. Please bring your completed test with you. If you are due for a BFR then I encourage you to correct it to 100% and hand it in at the end of the meeting. If desired, I will then give you a logbook entry signifying that you have accomplished the ground portion of the BFR. You may then accomplish the air portion with your favorite CFI-G.

Enjoy the rest of winter. As the days get longer, thermals can't be that far away...

Safe soaring,

Greig Glover

### 2001 Spring Safety Quiz

Name \_\_\_\_\_

1. Which action will result in a stall?

- A-Flying at too low an airspeed.
- B-Raising the aircraft's nose too high.
- C-Exceeding the critical angle of attack.

2. Which statement is true concerning the aerodynamic conditions that occur during spin entry?

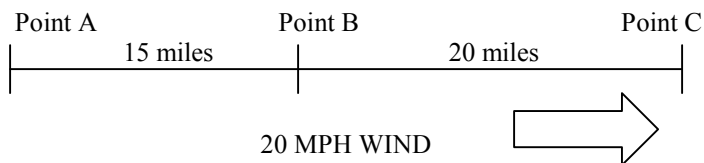
- A-After a full stall, both wings remain in a stalled condition throughout the rotation.
- B-After a partial stall, the wing that drops remains in a stalled condition while the rising wing regains and continues to produce lift, causing rotation.
- C-After a full stall, the wing that drops continues in a stalled condition while the rising wing regains and continues to produce some lift, causing the rotation.

3. Refer to Figure below. A glider is flying from A to C. With a normal L/D ratio of 20:1 and a constant airspeed of 40 MPH, what minimum altitude AGL is needed at B to arrive over C at 800 feet AGL with no sinking air?

A-3,520 feet.

B-4,320 feet

C-6,080 feet



4. The best lift/drag ration of a glider is a value that

- A-varies depending upon the weight being carried.
- B-remains constant regardless of airspeed changes.
- C-remains constant and is independent of the weight being car

5. Which is true concerning total energy compensators?

- A-The instrument responds only to up and down air currents.
- B-The instrument indicates an average rate of climb in a thermal.
- C-The instrument reacts to climbs and descents like a conventional rate-of-climb indicator.

6. An aircraft is loaded with the CG at the aft limit. What are the performance characteristics compared with the CG at the forward limit?

- A-The aft CG provides the highest stall speed and cruising speed.
- B-The aft CG provides the lowest stalling speed, the highest cruising speed, and least stability.
- C-Cruising speed is lower because of more induced drag created by the elevator or stabilizer being required being required to provide more lift with an aft CG.

7. What is the effect of center-of-gravity on the spin characteristics of an aircraft?
- A-A flat spin may develop if the CG is too far aft.
  - B-If the CG is too far forward, spin entry will be difficult.
  - C-If the CG is too far aft, spins can become high-speed spirals.
8. Which statement is true regarding the effect of fronts on soaring?
- A-A slow moving front provides the strongest lift.
  - B-Excellent soaring conditions usually exist in the cold air ahead of a warm front.
  - C-Frequently the air behind a cold front provides excellent soaring for several days.
9. Which thermal indices would predict the best possibility of good soaring conditions?
- A- +5.
  - B- -5.
  - C- -10.
10. The vertical limits of class-D airspace will normally be designated at
- A-the base of class E airspace.
  - B-up to, and including, 2,500 feet AGL.
  - C-up to, but not including, 3,000 feet AGL.
11. While in class E airspace in VFR conditions, what in-flight visibility is required when flying more than 1,200 feet AGL and at or above 10,000 feet MSL?
- A-5 SM.
  - B-3 SM.
  - C-1 SM.
12. Notification to the NTSB is required when there has been substantial damage which
- A-adversely affects aircraft performance.
  - B-causes small punctured holes in the skin or fabric.
  - C-results in more than \$25,000 for repairs to the aircraft.

13. To act as pilot in command of a glider using ground-tow procedures, a person must have
- A-received 5 hours of ground and flight training on ground-tow procedures and operations in a glider, and completed a practical test.
  - B-received ground and flight training on ground-tow procedures and operations in a glider, and received an endorsement from an authorized instructor certifying proficiency.
  - C-made three solo takeoffs in a glider of the same make and model using aerotow procedures, and received an endorsement from an authorized instructor certifying proficiency in the procedures.
14. If an in-flight emergency requires immediate action, a pilot in command may
- A-deviate from FARs to the extent required to meet that emergency.
  - B-not deviate from FARs unless permission is obtained from air traffic control.
  - C-deviate from FARs to the extent required to meet the emergency, but must submit a written report to the Administrator within 24 hours.
15. When must each occupant of an aircraft wear an approved parachute?
- A-When flying over water beyond gliding distance to the shore.
  - B-When practicing spins or other flight maneuvers for any certificate or rating.
  - C-When an intentional maneuver that exceeds 30 degrees noseup or nosedown or 60 degrees of bank is made.
16. A coded transponder with altitude reporting capability is required for all controlled airspace
- A-below 14,500 feet MSL.
  - B-above 12,500 feet MSL(excluding airspace at or below 2,500 feet AGL).
  - C-at or above 10,000 feet MSL(excluding airspace at or below 2,500 feet AGL).
17. Unless each occupant is provided with supplemental oxygen, no person may operate a civil aircraft of U.S. registry above a cabin pressure altitude of
- A-12,500 feet MSL.
  - B-14,000 feet MSL.
  - C-15,000 feet MSL.
18. An aircraft not equipped with the required position lights must terminate flight
- A-at sunset.
  - B-30 minutes after sunset.
  - C-1 hour after sunset.

19. If an ATC transponder installed in an aircraft has not been tested, inspected, and found to comply with regulations within a specified period, what is the limitation on its use?

A-Its use is not permitted.

B-It may be used anywhere except in Class A and B airspace.

C-It may be used for VFR flight but not for IFR flight.

20. A flight review for a glider pilot must consist of at least 1 hour of ground instruction and

A-three takeoffs and landings.

B-1 hour of flight training to include three 360-degree turns.

C-1 hour of instructional flights, each of which includes a flight to traffic pattern altitude.

21. After assembling a glider and before initial takeoff, which important safety item needs to be accomplished?

A-A positive control check.

B-A positive control check.

C-A positive control check.

22.

Match the airborne emergency signals in column A with the description given in column B.

Column A

Column B

23. \_\_\_\_ Turn right

A. Rocking sailplane wings.

24. \_\_\_\_ Turn left

B. Rocking towplane wings.

25. \_\_\_\_ Increase airspeed

C. Fishtailing of sailplane.

26. \_\_\_\_ Decrease airspeed

D. Fishtailing of towplane.

27. \_\_\_\_ Immediate release

E. Maneuver sailplane to left and pull towplanes tail gently.

28. \_\_\_\_ Sailplane cannot release

F. Rocking of sailplane's wings when positioned to side of towplane.

29. \_\_\_\_ Towplane cannot release

G. Maneuver sailplane to right and pull towplane tail gently.

30. \_\_\_\_ Close spoilers

H. Rapid fanning of towplane's rudder.