

# 2022 OSCI Safety Quiz

Name: \_\_\_\_\_

Date of Flight Review: \_\_\_\_\_

Tow-Pilots -- Date of Medical \_\_\_\_\_

CFI's -- Date CFI Expires \_\_\_\_\_

1. T/F An OSCI pilot may act as PIC of an OSCI Glider after June 1<sup>st</sup> of each year provided a safety flight has been scheduled with an OSCI CFI sometime prior to the end of the calendar year.
2. When running the wing for a launch, what are some of the things you should do to help make sure the flight will be safe? List:
  - 2b. What color tow rope is used for the L-23 \_\_\_\_\_, the L-33 \_\_\_\_\_, Rus \_\_\_\_\_, 1-26 \_\_\_\_\_?
3. What is the minimum sink, best L/D, clean stall, and stall speed with spoilers, for the L-23? \_\_\_\_\_
4. What is the L-23's best glide ratio at its best L/D speed? \_\_\_\_\_
5. T/F In accordance with OSCI By-Laws the L23 is required to remain within gliding distance of KBTA?
6. On a no wind, no lift day you've released at 4300' msl. At this altitude how far can you venture from KBTA? Option A – show your independent calculation. Option B - lets work through it together below:

6a. Assumptions: Best L/D is 28:1 at 49Kts and there are ~ 6000ft in a NM

6b.  $6000/28 =$  \_\_\_\_\_ ft/NM (altitude lost per NM) No wind or sink.

6c. Apply factor of safety to (6b) = \_\_\_\_\_ft/NM (altitude lost per NM)

\*\*\*\*\* This figure from (6c) becomes your rule of thumb (ROT) in a no wind situation. Should/could it be used when you're working upwind too? \_\_\_\_\_ Y/N, explain.

6d. Take current altitude above pattern altitude divided by (6c) = \_\_\_\_\_NM.

Extra credit - List some landmarks you use at this distance. \_\_\_\_\_

7. What is the L-23's minimum sink rate on a no wind, no lift day? Use the L-23's polar as determined by the manufacturer (Option A) or.....lets work through it below (Option B)?

7a. Take the feet per NM lost from 6b on the previous page = \_\_\_\_\_

7b. Determine how many minutes it takes to fly 1NM →60min-hr divided by best L/D speed = \_\_\_\_\_ minutes/NM

7c. Take 7a. divided by 7b. = \_\_\_\_\_ ft/min.

8. You're flying the L-23 and you've been blown directly downwind while chasing a weak thermal and you're now worried about being low and getting back to KBTA. You immediately point the nose of the L-23 towards KBTA and fly what airspeed \_\_\_\_\_? (You just checked winds and the AWOS is showing a steady 24-25Knot direct headwind from your position – explain your answer)

9. You recover from the initial shock of wondering if you can get back and feel better after applying a quick rule of thumb (ROT) that you had committed to memory for a ~25 Knot direct headwind. What is the ROT you use and how did you calculate it \*\*\*?

\*\*\*Let's work it out together. You know from the published glider polar that the L-23 has a sink rate of about 2.4Knots (~240ft/min) at 61/62 Knots IAS. Do you really need this figure or can we just use the effective glide ratio? \_\_\_\_\_ (thoughts/opinions)?

9a. What IAS are you flying in 8 above = \_\_\_\_\_?

9b. What is your groundspeed (GS) into the 25Knot headwind (IAS-HW)= \_\_\_\_\_?

9c. What is your effective Glide Ratio using: GS/IAS = \_\_\_\_\_ times 28 = \_\_\_\_\_.

9d. 6000ft per NM divided by 9c = \_\_\_\_\_ ?

9e. ROT →my recommendation – take 9d, round up to nearest 100, & double (FS) = \_\_\_\_\_

\*\*\*\*\*This figure becomes your ROT in a 25Knot headwind condition in the L23.

(You get the essentially the same answer if you calculate using the glider polar of 2.4 Knots, multiplied by the min/NM.)

10. It's a beautiful Saturday afternoon, light winds, strong thermals and every ship in the club is out. We're taking off on 31, and landing on 13 to facilitate a high op's tempo. Three gliders are in the air and the fourth is on 31 in a position to launch. You've completed your landing checklist over the IP, made a radio call and are inbound for the downwind, RW 13 at 2300'msl. You notice that the glider is in position, and the Pawnee is moving onto 31? There is no reply from glider ground. What should you do?

11. See the photo of KBTA on the next page - assume we have a light crosswind from 040, but they really aren't a factor.
  - 11a. Assume we are taking off on RW 31. At the location of the yellow arrow, you have a rope break at approximately 150 feet agl. What is your best course of action – draw it on the diagram.
  - 11b. Assume we're taking off on RW 13. At the location of the orange arrow, you have a rope break at approximately 150 feet agl. What is your best course of action – draw it on the diagram.
  - 11c. What is your best course of action if you had a rope break at 50 feet on 13, and 31? Draw it on the diagram below.
  - 11d. List some of the obstacles you'll encounter using 31 for takeoff if you have a rope break under 200'agl?
  - 11e. List some of the obstacles you'll encounter using 13 if you have a rope break under 200'agl.
12. During the early phase of an aero-tow the Pawnee suffers a total loss of engine power just after it lifts off. You're using RW31. On the airport diagram on the following page draw where you expect the Pawnee to stop and where you should position the glider.
13. Describe the location of Class C airspace from KBTA – altitude and distance. What landmarks do you use to remain outside the lateral boundaries of Class C?
14. When landing you flare high and balloon, or you don't round out smoothly and bounce high – what is the first thing you should do?
15. You're flying the L-23 and landing is assured in the first half of the runway. The last time you flew it you landed tailwheel first which is hard on the ship. Since you don't want to do that again what could you try differently?

