



TWO SEAT

1) Experienced pilot syndrome is ...

- a. A state of insecurity manifested by expert pilots after more than one hundred flights.
- b. A state of nervousness that expert pilots manifest when being overtaken by another less expert pilot.
- c. The one that takes the expert pilot to the risk of accident, due to overconfidence and routine by not respecting established procedures.

2) The two-seater pilot considers that ...

- a. The passenger is responsible for obeying the pilot's instructions at all times.
- b. The passenger should not help in any process, because if he makes a mistake it can be dangerous.
- c. The passenger is not, and cannot be responsible for anything. The pilot is solely responsible for everything.

3) When going from a passenger weighing 50 kg to another weighing 90 kg ...

- a. It costs more to take off and land because you need more speed, but in flight you pilot the same.
- b. There is a forward movement of the entire flight speed range (pole shift), the rate of sink increases, the turning speed and stability increase, the pendulum inertia increases.
- c. It takes off better if the take-off is very steep, since the weight helps in the race, but if the terrain is not very inclined, it will slow down the race. The controls feel harder and the turns are slower.

4) When going from a passenger weighing 90 kg to another weighing 50 kg ...

- a. It costs less to take off and land because less speed is needed, but in flight it is still piloted.
- b. A backward displacement occurs throughout the flight speed range (pole shift), the rate of fall decreases, the turning speed and stability decrease, the pendular inertia decreases.
- c. The internal pressure of the glider decreases and the profile is less defined, which reduces glide and penetration in strong wind.



5) In a 45° bank turn, the wing loading increases by ...

- a. 33%.
- b. 50%.
- c. It depends on the total weight in flight, the more load, the more increase.

6) In a turn at 60° bank, the wing loading increases by ...

- a. 75%
- b. 100%
- c. It depends on the total weight in flight, the more load the more the increase.

7) On the final approach in windy conditions, a two-seater will land ...

- a. Reducing speed to limit the glide and not miss the shot due to the upward gradient of the wind.
- b. At maximum speed, straight and without corrections in the final section, braking fully to maintain the horizontal trajectory until speed is reduced.
- c. Braking at 50% until about 10-15 meters high and then de-braking to penetrate better in the last meters, with more stability and energy reserve.

8) On final approach in windless conditions, a two-seater will land ...

- a. At maximum speed, straight and without corrections in the final section, braking fully to maintain the horizontal trajectory until speed is reduced.
- b. Taking into account the inertia to calculate where we will drop the sail, avoiding dragging on abrasive or cutting materials.
- c. Braking at 50% until about 10-15 meters high and then de-braking to penetrate better in the last meters, with more stability and energy reserve.

9) A two-seater flying with a wing load of 4.8 kg / m² ...

- a. It will have good stability in the roll and pitch axes, the pendulum inertia will be high.
- b. The bends are infrequent and the opening will be fast, explosive, although they generate strong pendulums.
- c. All are correct.

10) A two-seater flying with a wing loading of 3.2 kg / m² ...



- a. It will have little stability in the roll and pitch axes, the pendular inertia will be low.
- b. The bends are relatively frequent and the opening will be slow and smooth, without large pendulums.
- c. **All are correct.**

11) At takeoff, at the end of the day we are already prepared and the situation is with very little wind, but tail .

- a. We take off fast because we run the risk that the catabatic will get stronger.
- b. We take off head-on.
- c. **We wait for a better wind to take off.**

12) With strong wind at takeoff ...

- a. **You have to ask for help from several companions to act as an anchor and be able to inflate without being dragged backwards.**
- b. It can be inflated asymmetrically, allowing me to be carried back so that the inflation is more progressive.
- c. It would take off depending on whether the passenger is large or not.

13) Flying on hillside, traffic rules between aircraft ...

- a. They will be met at all times.
- b. We will adapt them taking into account the turbulent wake so as not to affect other aircraft.
- c. **All except priority ones will be met. The two-seater will always move away for safety, even if it has priority traffic.**

14) With strong wind, once landed, the two-seater pilot ...

- a. He will release the passenger before setting down the sail.
- b. It will pull the bands "A", "B" or "C", but never the "D" or brakes, because a drag would occur.



- c. It will turn towards the sail and brake with several turns on the controls, or it will pull the bands "B", "C" or "D" until the sail is knocked down.

15) What is the usual weight range for a tandem paraglider?

- a. 230 - 260 Kg.
- b. 110 - 140 Kg.
- c. 160 - 220 Kg.

16) What are the symptoms of flying a two-seater paraglider above the weight range?

- a. Fast and difficult take off.
- b. Slow and unstable behavior.
- c. Slow behavior and easy take off.

17) List the important points to inform the passenger in the pre-flight briefing.

- a. Reassure, don't sit down ahead of time
- b. Position to vomit, don't panic and run.
- c. Pilot introduction, explain the takeoff process, what to do once in flight.

18) Differences between flexible and rigid spacers

- a. More compact rider and passenger with the rigid ones.
- b. More compact rider and passenger with flexible ones.
- c. There's no difference.

19) To reduce the stress of my passenger ...

- a. Make physical contact.
- b. Act quickly and efficiently. Point out and show that you are both united.
- c. All are correct.

20) The procedure to fly in a two-seater paraglider ...

- a. Includes 2 typical briefings: Inflation facing the slope without wind and facing the sail with wind.
- b. It is written, I act on it, I review it from time to time, especially if something fails or changes.
- c. All are correct.



21) My procedure guidelines are ...

- a. Ensure passenger safety from the moment we take over until we leave the landing area.
- b. It includes a briefing that is as short as possible but complete, adapted to the terrain and conditions, at the right time and with the right words. LESS IS MORE.
- c. **All are correct.**

22) It is essential to review 7 vital points once we are about to go flying. Some of these 7 points are:

- a. Leggings, belly and passenger clothing.
- b. **Pilot's parachute and leg loops.**
- c. Carabiners, GPS radio, and brakes.

23) It is essential to complete 4 phases once we are about to fly. In these 4 phases we find:

- a. Review a minimum of 7 vital points.
- b. Show address to passenger, last

words, ask feedback,

check stop line and abort procedure.

- c. **All are correct.**

24) Why is it dangerous to use rigid spacers with children or light weights?

- a. It's not dangerous.
- b. **Because the suspended weights do the balance effect.**
- c. The passenger will be positioned below the pilot.

25) Is it correct to install the parachute to the anchor of the shoulder pads of the pilot's chair?

- a. Yes.
- b. **Do not.**
- c. Only if we have 2 parachutes.

26) Assistance on a two-seater flight ...



- a. It can be used, but requires specific briefing.
- b. It has to be used as much as possible.
- c. You can be held responsible for passenger security checks.

27) For a light pilot ...

- a. If I fly a heavy passenger, it is better to release trimmers to gain speed and improve the return on landing.
- b. If I fly a heavy passenger and loose trimmers it will increase the harshness of the brake and I may have a hard time making a good landing.
- c. To fly a light passenger, better close trimmers while making ears.

28) A pilot flies with a PTV of 120Kg and the stall speed is 20 Km / h. What will be the stall speed with a 180 kg PTV?

- a. About 20 km / h
- b. About 15 km / h
- c. About 25 km / h

29) The manufacturer mentions on the label that the glider is approved up to 200Kg. What maximum load does it hold on time?

- a. We cannot know.
- b. 1200 Kg.
- c. 1600 Kg.

30) What is the best trimmer position at takeoff?

- a. In strong wind, trimmers closed to prevent the glider from advancing (abata).
- b. In strong wind, I release trimmers to penetrate better.
- c. With little wind, I close trimmers to climb better.

31) How does the variation of the Total Weight in Flight affect the speed of the paraglider?

- a. Double weight, double speed.
- b. At double weight, the velocity will be the square root of the surface of the previous velocity.



- c. At double weight, speed increases by 40%.

32) What situation can distract the passenger the most?

- a. Successive abortions.
b. Pilot complaining about the weather.
c. All are correct.

33) I always fly my tandem well loaded. Tomorrow I fly for the first time with little load. I must hope that ...

- a. The hardness of the brakes will increase.
b. The trim speed decreases, the stall speed decreases, and the speed range does not vary.
c. Trim speed decreases, stall speed increases and the speed range decreases.

34) There are 5 important things when making a two-seater. Which of them is NOT?

- a. The passenger never consciously takes a risk. The first flight is full of emotions, radical maneuvers are not necessary.
b. In the event of an accident, the passenger is directly exposed. Deciding to fly is a very personal decision, it is interesting to think why the passenger has made this decision.
c. The passenger deserves the best service. I should give him a good cross and / or stunt flight if possible.

35) The main obligation when making a two-seater is ...

- a. Have the best possible means.
b. Comply with the Civil Aviation regulations.
c. Fly with the passenger without injuring him in any way.

36) Flying in a two-seater ...

- a. It requires a professional attitude, even if you don't fly commercial flights.
b. It requires constant attention to choose and maintain my work tools (sail, chair, carabiners ...).



- c. All are correct.

37) I will choose my flight team to work based on ...

- a. Ease of use, regulation and comfort.
- b. The best performance.
- c. The newest to look professional.

38) In a two-seater ...

- a. Putting the passenger's arms in front of the spacers makes the "Superman" position easier, especially if the seat anchors are very low.
- b. Putting the passenger's arms in front of the spacers allows the passenger to protect themselves in the event of a fall and prevents them from sitting down too early.
- c. They are all true.

39) After landing ...

- a. I remove the passenger's hull and then separate the passenger from the sail.
- b. I adjust the trimmers to the neutral position to be ready for the next flight.
- c. I take care of the passenger safety until we leave the landing zone.

40) Describe how to land in the water if there is no other option:

- a. I tell my passenger to hold his nose.
- b. I unzip the chair just before I hit the water.
- c. I ask my passenger to relax.

41) Do we have to inform the passenger of how to abort takeoff?

- a. No, we don't scare him.



- b. **Yes.**
- c. Only if the weather is bad.

42) What can we expect when we fly with an inexperienced passenger?

- a. That the passenger runs too much.
- b. Let the passenger run anywhere except in the right direction.
- c. **Most likely the passenger will be seated before take off, but the other answers are possibilities that may happen.**

43) Advantages of a large candle over a smaller one

- a. More top speed, less effort to inflate the sail.
- b. **Less effort to inflate the sail, smoother landing.**
- c. Higher maximum speed, lower upload speed.

44) How long should we fly as a general rule, with a passenger flying for the first time?

- a. An hour to show how beautiful it is to fly.
- b. **About 20 min, to avoid dizziness.**
- c. The time that we estimate and the conditions allow it.

45) The connection to the two-seater wing will be made:

- a. Pilot, passenger, sail.
- b. **Pilot, sail, passenger.**
- c. Passenger, sail, pilot.

46) How many and what are the vital points before takeoff in a two-seater?

- a. They are 5: leggings passenger, carabiners, pilot leg loops, position and symmetry trims, free brakes.
- b. Are 4: leggings, carabiners, position and symmetry trims, free brakes.
- c. **Are 7: Leg warmers passenger, passenger carabiners, carabiners candle, carabiners pilot, leggings pilot, position and symmetry trims, brakes free.**

47) The polar speed of a two-seater subjected to different loads:

- a. **Both horizontal and vertical speeds are modified.**



- b. Only the horizontal speed that increases is affected.
- c. It remains unchanged.

48) Two identical wings subjected to different wing loads take off:

- a. With the same speed and incidence.
- b. **With the same incidence, but with different speeds.**
- c. With the same speed, but different incidents.

49) The more the wing loading is reduced, the two-seater:

- a. It is less stable.
- b. It has a lower sink rate.
- c. **All are correct.**

50) The load factor is the ratio:

- a. Total weight (wing + pilot) over apparent weight.
- b. Pilot weight over total weight (wing + pilot).
- c. **Apparent weight over total weight (wing + pilot).**

51) We call wing loading the relation:

- a. Wing surface over total weight (wing + pilot).
- b. **Total weight (wing + pilot) on wing surface.**
- c. Pilot's weight on the wing surface.

52) Stall speed:

- a. It decreases when the weight of the pilot increases.
- b. **It increases when the weight of the pilot increases.**
- c. It decreases when the load factor increases.

53) Flying at the same height the priority is:



- a. The wing that comes from the right.
- b. The wing that reaches the ascending first.
- c. Both are correct.

54) The two-seater pilot:

- a. He is 100% responsible for the passenger.
- b. Your decisions must be below the limits set in single-seater flights.
- c. The answer a and B both are corrects.

55) On landing with a two-seater:

- a. We should not make a landing with loose trim as the wing is more unstable and prone to a collapse.
- b. To land with the two-seater we can do it with the trims completely loose and thus land with a good reserve of energy.
- c. The use of loose trims when landing is only important when we are flying lightly loaded and there is a lot of wind.

56) Flying a two-seater we must bear in mind that:

- a. We fly a kind of truck with wings and we can be totally confident.
- b. Because it has a larger wing area and more weight, it is not necessarily different from a single-seater wing.
- c. That precisely because we have almost double that of everything, all incidents multiply and we should never be overconfident.

57) Working as a biplacero:

- a. The wrongdoing of the passenger relieves the pilot of his total responsibility.
- b. The insurance always covers both, it does not matter if we fly with weather warnings in our area and suffer a mishap.
- c. I have legal, moral and technical responsibility with respect to the passenger.

58) Regarding flexible and rigid spacers:



- a. The flexible ones will facilitate the race, but in the air we will be more uncomfortable, very close to the passenger.
- b. The rigid ones facilitate the race, but the movements in the air are not so homogeneous.
- c. Actually, there are no big differences to take into account.

59) In the briefing with the passenger before the flight:

- a. We should explain what we do and what to do, step by step, to avoid any mistakes and be well informed.
- b. Follow the slogan "less is more" and thus not confuse him by giving him too much information.
- c. The answer a and B both are corrects.

60) With respect to the passenger. What is more important?

- a. Know if you get dizzy easily.
- b. If you have understood everything that we have explained to you before the flight.
- c. Assess your stress level and physical fitness.

61) Flying on hillside or thermal:

- a. When in doubt, the two-seater will always move away, even if it has the traffic priority.
- b. We will try without exposing ourselves to any risk to make our priority prevail, to comply with the time agreed with our passenger.
- c. The answer a and B both are corrects.

62) Of the most important aspects to take into account in the flight preparation phase are:

- a. Make sure the passenger knows what to do and connect it to the splitter before the pilot.
- b. Give the passenger confidence so that they do not get nervous.
- c. The pilot must verify the emergency before putting on the chair, and connect the passenger after the pilot.

63) If due to conditions it is not possible to take off immediately:



- a. We will be waiting with the passenger connected, to arrive at the moment, to leave as quickly as possible.
- b. Minimize the time that the passenger pilot assembly is connected to the wing, without being about to take off.
- c. We will leave when we see that the other local pilots start to take off.

64) Two-seater harnesses and seats:

- a. The chairs must have an effective crossover and automatic closures.
- b. The chairs must have a crossover and be comfortable and light.
- c. Absolutely forbidden automatic closings.

65) Why is a two-seater protocol so extremely important?

- a. To unify criteria and make it more comfortable.
- b. To never forget all the phases to take into account before making a two-seater flight.
- c. To make our work easier.

66) In the case of wind the basic rule is:

- a. Don't accept help, if you can't take off on your own, don't. Except if we have help from someone we absolutely trust.
- b. Don't accept help, if you can't take off on your own, don't.
- c. Accepting help from other pilots is also a good idea.

67) According to most manufacturers, we must change the carabiners at least every:

- a. 5 years.
- b. All are correct.
- c. Anytime they show obvious signs of wear.

68) The two-seater sails:

- a. All are correct.
- b. They need a level of piloting that corresponds to the technical level of the pilot.



- c. The candles are starting to be blatantly comparable to intermediate or even high yield candles.

69) When choosing a two-seater wing:

- a. We must find a compromise between our tastes and benefits.
- b. **We must choose a wing that suits our level of piloting.**
- c. All are correct.

70) The landing briefing:

- a. We will do it first at takeoff and then in flight shortly before landing.
- b. **We will do it in flight well in advance before landing.**
- c. It is not important in what order we do the briefing, the important thing is not to forget.