



MATERIALS

1) What is the current certification system for paragliders?

- a. ACFPULS classification, with two categories: PA and PE.
- b. **Standards EN-926-1 and EN-926-2.**
- c. Several 100% equivalent certification systems coexist: ACFPULS, ACPUL, DHV and EN.

4) What is the range of weights usable in paragliding?

- a. Only the one that is established in the homologation for each specific size.
- b. **The one indicated by the manufacturer in the sail manual and, if any, in the approval of said size.**
- c. The one that still allows a safe takeoff and landing.

5) What settings on the chair affect the stability and behavior of the paraglider?

- a. No saddle setting affects the sail reactions.
- b. **Mainly the adjustment of the ventral strap, but the others also affect.**
- c. The adjustments of the shoulder straps and the lumbar strap because they vary the center of gravity of the lace.

6) What is a pre-flight check of the chair?

- a. **The systematic, tactile and visual check, prior to taking off, of the positioning and adjustment of the chair.**
- b. A thorough inspection of the entire chair before putting it in for any breakage or damage.
- c. That revision of the chair carried out by a workshop in an annual safety inspection.

7) What are the main materials of a paraglider?

- a. Polyester fabric, polyamide cords and cotton thread.
- b. **Nylon fabric, polypropylene cords and different elements in polyester and stainless steel.**



- c. They are all organic and unalterable materials due to environmental action.

8) How often is it recommended to open and re-fold and check the emergency parachute?

- a. Only after it has been used in an emergency.
- b. Once a year in any case.
- c. What your manual says, better every 6 months or at least once a year and always after using it in an incident.

9) What causes increase the porosity of the fabric of a paraglider?

- a. All environmental agents, because the passage of time does not affect the increase in porosity.
- b. Oxidation by the presence of oxygen in the air, combined with solar radiation, which produces a chemical reaction.
- c. Friction with the air in flight and with the ground, the sun, humidity, changes in temperature, folding and the passage of time.

10) What is the useful life of the sail and the lines?

- a. The one indicated in the sail manual and the manufacturer.
- b. The one that comes out of the porosity test and resistance and dimensions of the lines.
- c. All of the above answers are correct when considered at the same time.

11) With an emergency parachute, will we always obtain, on average, the vertical fall rate indicated in its approval or a lower one?

- a. Yes, because it has been tested at the maximum weight and therefore it will always be the same or less.
- b. No, because that data is extrapolated to sea level in standard atmosphere.
- c. No, because it will vary only with load and horizontal wind speed.

12) What is the calendering of the emergency parachute?

- a. A pressing procedure that reduces its porosity and increases its resistance.
- b. Part of the coating of the UV protection coating.
- c. The ripstop braiding and weft that gives the fabric its anti-tear property.



13) Why is it important to check the length of the line from time to time?

- a. Because it tends to shrink or stretch and that changes the speed of flight.
- b. **Because it shrinks or stretches and that changes the angle of attack and the shape of the profile.**
- c. It is not important until the candle has at least 200 hours or two years of use.

14) What is more important for safety, the porosity of the fabric or the correct draft of the sail?

- a. Porosity, because there may be a risk of loss and parachutaje if the porosity increases more than 80%.
- b. **It is much more important that the sail draft is correct.**
- c. The draft is more important only when the variation is greater than the tolerance of 4 cm in the length of the line.

15) When do we consider that the resistance of the line begins to be compromised?

- a. If it has lost 40% or more, of its original resistance already discounted the 5000 cycle test.
- b. If multiplying the maximum total weight by the number of main lines gives us less than 8G.
- c. **Answer a and b are correct.**

16) What are the main differences between Dyneema and Aramid for lines?

- a. **All the answers that follow are correct.**
- b. Dyneema is lighter, stronger, flexible, cheaper, easy to sew, white, elastic and unstable in dimensions and sensitive to heat and melting at a lower temperature.
- c. Aramid or kevlar is yellow, more brittle, dimensionally stable and fireproof.

17) The most complete definition of a paraglider would be ...

- a. It is a light foot take-off aircraft.
- b. **it is a glider, ultralight, flexible.**
- c. It is a flexible glider aircraft.



18) The most complete statements, regarding a glider ...

- a. it can fly, move, ascend, driven by gravity and ascents.
- b. descend in a controlled way, move great distances.
- c. swap height for offset,

19) A paraglider is considered an ultralight aircraft because ...

- a. weighs less than the pilot,
- b. allows take-off on foot, without auxiliary means,
- c. Everything is correct,

20) A paraglider is considered a flexible aircraft because ...

- a. its structure has almost no elements that provide rigidity.
- b. it can be folded into an easily transportable backpack.
- c. Everything is correct.

21) A minimum equipment for the safe practice of paragliding are ...

- a. helmet, emergency, gloves, radio, various, GPS.
- b. weather vane, sleeve, suitable clothing, high-top boots.
- c. neither is correct.

22) A paragliding wing or sail is made of ...

- a. nylon or polyester fabric with a polyurethane or silicone coating.
- b. cloth cloths, sewn longitudinally, parallel and diagonally.
- c. Everything is correct.

23) Which of these lists about the parts of a paragliding wing is more complete?

- a. top, bottom, toe, line, ribs, drawers, mouths, bands.
- b. top, bottom, leading edge, trailing edge, wingtip, line, ribs, drawers, mouths, bands.
- c. top, bottom, leading edge, trailing edge, wingtip, line.

24) A paragliding wing or wing maintains the shape of an aerodynamic profile, thanks to ...



- a. to the shape of the ribs.
- b. to the shape of the top and bottom.
- c. to the diagonal bands of load distribution.

25) The line consists of ...

- a. they are hundreds of meters of synthetic fabric ropes, naked or protected by covers.
- b. it goes, from anchor points spread over the intrados, gathering, until joining the bands.
- c. Everything is correct.

26) In relation to the suspension of a paragliding, which statements are correct?

- a. Normally, the separation between the wing and the pilot varies between only 5, up to 15 meters.
- b. they are usually made of materials of very similar thickness, to support up to 8 times the weight.
- c. everything is wrong.

27) Regarding the lines, lines or ropes used in a paraglider ...

- a. They are made of synthetic, organic materials, derived from hydrocarbons.
- b. are made of polyester, polyamides, aramids or polyethylene (Kevlar, Dyneema, Vectram, Tecnora, Paracord ...)
- c. Everything is correct.

28) Regarding the resistance of the lines, lines or ropes used in a paraglider:

- a. Most of the resistance is provided by the soul, the sheath being a rather protective element.
- b. resistance varies and decreases with time, humidity, and temperature.
- c. it usually varies between 200 and 500 Kgf and thicknesses of 2 and 5 mm.

29) In relation to the line of a paraglider ...



a. It is divided into front / rear band, bands A, B, C ... (from back to front) or semi bands.

b. It is divided into right / left bands, bands A, B, C ... (from inside to stabilo) or semi bands.

c. **everything is wrong.**

30) The bands of a paraglider can be divided into ...

a. shape bands (A and B), load bands (C and D) and brake.

b. **load bands (A and B), shape bands (C and D) and brake.**

c. in bands A, B, C,... from the wingtip to the center of the wing.

31) An ideal inflation and control field or driving range would offer ...

a. a smooth, soft floor surface, grass, carpet.

b. smooth and constant air conditions, breezes, no gusts.

c. **you have to adapt to what is available, trying to approach these conditions.**

32) A carabiner is ...

a. the titanium piece that attaches the bands to the harness.

b. It is a component that has helical threads and double safety lock.

c. **They can be made of duralumin and steel, with automatic threads.**

33) Belts may undergo length changes, due to ...

a. elongation of bands A by accelerator action.

b. shortening of bands A by action of trim.

c. **everything is wrong.**

34) Among the constituent parts of a typical paragliding harness, would be ...

a. leg loops, adjustment straps, ventral, anti forgetting, shoulder pads, quick fasteners.



b. Back protection, board, pockets, weight holder, accelerator pedal and pulleys.

c. **Everything is correct.**

35) A paragliding pilot should not go out to fly without thinking of equipping himself with safety elements, such as ...

a. helmet, protective footwear, emergency with daily review and verified before takeoff.

b. (a) + clothing suitable for the conditions, radio loaded, tuned and tested before takeoff.

c. **(a) is essential, but (b) is desirable**

36) A helmet suitable for paragliding would have ...

a. wide field of view and be approved.

b. whether it is integral or open is indistinct.

c. **Everything is correct.**

37) A suitable footwear for paragliding would offer ...

a. protection for the sole and the rest of the foot, in particular ankle reinforcement; with clasps, buckles and external elements, not prone to snagging.

b. ease of running, good grip on uneven terrain.

c. **Everything is correct.**

38) A paragliding flight outfit would offer ...

a. thermal control, cutting the air, ventilating or isolating according to place and conditions.

b. ease of movement and rider comfort.

c. **Everything is correct.**

39) There are auxiliary equipment, desirable for paragliding ...

a. compass, radio, altivario.

b. cut lines, GPS.

c. **the more elements, the better prepared you will be.**



40) Wind sleeves and ribbons ...

- a. They are useful in takeoffs and landings, to identify wind direction and intensity.
- b. They are not essential for the flight, but they help the safety of the flight.
- c. **Everything is correct.**

41) An inflation and control field or driving range should meet ...

- a. Enough width and length space, facing the prevailing wind, with no nearby obstacles.
- b. access / evacuation routes, close to assistance centers, with owner's permission.
- c. **all is important.**

42) Regarding the use of wind sleeves and ribbons ...

- a. with changing wind, greater numbers and spread over the practice area.
- b. Without obstructing the maneuvering area and visible from the inflation area.
- c. **Everything is correct.**

43) The sequence of a pre-flight check of the wing, upon reaching the take-off area, would be ...

- a. take out of backpack, extend in arc, visual inspection of fabric, seams, objects foreign to the wing, unwind, lift jaws, extension, untangle and line verification, band by band, up to the sail.
- b. extend in arc, lift mouths, visual inspection of fabric, seams, foreign objects to the wing, extension, untangling and verification of line, band by band, up to the sail.
- c. **take out of backpack, unroll, extend in an arc perpendicular to the wind, mouths slightly raised, inspection visual fabric, seams, objects outside the wing, extension, unraveling and line verification, band by band, up to the sail.**

44) Once a correct pre-flight check of the wing has been carried out, the wing would be ...



- a. forming an arc perpendicular to the wind, mouths slightly raised, reasonably sure that there are no breaks, or objects (branches / stones / snags), lines free of tangles, knots.
- b. forming an arc perpendicular to the wind, mouths up, absolutely sure that there are no breaks, or objects (branches / stones / snags), tangle-free lines, knots.
- c. arcing against the wind, slightly raised mouths, no breaks, or objects (branches / stones / snags), tangle-free lines, knots.

45) The most logical and complete “typical” procedure for unraveling / line checking is ...

- a. stretches suspended, each free line A from the band to the anchor or untangles each one, like other bands; The brake that the fist is not entangled with other lines and even to the trailing edge, without twists or tangles, is free. It is repeated with the other band.
- b. stretches suspended, each free line A from the band to the anchor or untangles each one, like other bands; The brake that the fist is not entangled with other lines and even to the trailing edge, without twists or tangles, is free. It is repeated with the other band.
- c. pilot centered, back to the wind, extended line, bands separated, each line A of the band is followed to the anchor, checked free or untangles each one, then the same as B, C, Etc ... The brake that does not turn other lines from the pulley to the fist, is tensioned main brake line on pulley, until the trailing edge, if all the lines are on top, without twists or tangles, it is free. It is repeated with the other band.

46) The porosity of paragliding gliders tells us ...

- a. The resistance to breakage of a fabric.
- b. The resistance to deformation of a fabric.
- c. The air permeability of a fabric.

47) The porosity of the fabrics used in the construction of paragliders should ...

- a. Be very big.
- b. Be very small
- c. It should not be below a given limit, otherwise the turbulent layer becomes too laminar.

48) A paraglider that has had contact with salt water must ...

- a. Dry as quickly as possible, inflating it on the back on the same beach with the sea breeze.



- b. Dry in a shady place and then move it to remove any remaining salt.
- c. **Immediately clean with fresh water and then dry well.**

49) Are signs of aging of the fabric of our sails:

- a. **Porosity increases, loss is reached earlier, the wing shows a growing tendency to stall.**
- b. The elasticity decreases, the dynamic pressure drops, the wing reacts more abruptly to the movements of the control.
- c. The fabric expands due to the continuous load, the profile thickens, the speed is reduced throughout the fleece.

50) What are ribs and intercajones for, among other things?

- a. To limit air circulation inside the hood and therefore to reduce the porosity of the wing.
- b. **To uniformly transmit the load of the lines on the upper surface of the wing.**
- c. To improve the structural resistance of the hood in its longitudinal and transverse axis.

51) In which case do the ribs suffer the most under a real load?

- a. **In a very accentuated spiral.**
- b. In hard thermal.
- c. When folding the ears.

52) In what way are the groups of lines different from a paraglider?

- a. According to the color: for example, yellow, red lines, etc.
- b. According to the diameter: for example, 0.9mm, 1.3mm, 1.5mm, etc.
- c. **According to the anchoring site in the hood: for example, lines A, B, C, D.**

53) Where are the anchors of the lines "A" in a paraglider?

- a. On the trailing edge.
- b. In the stabilos.
- c. **Immediately behind the leading edge.**



54) What is required among other things of the lines in the construction of modern paragliders?

- a. Little elasticity, possibility of little load in a small diameter.
- b. High elasticity, possibility of little load in a small diameter.
- c. **Low elasticity, possibility of high load in a small diameter.**

55) In the construction of paragliders, what are lines composed of a core or core covered by a sheath or sheath generally used for?

- a. So that the tensile strength of the lines is increased by the sheath.
- b. **So that the sheath or cover protects the core or core from the effects of light and rubbing.**
- c. So that the lines can be better differentiated when changing the color of the sleeves or sheaths.

56) When changing damaged lines, it is necessary to ensure that ...

- a. The new lines have the same diameter so as not to lose aerodynamic resistance.
- b. Only lines that have the same diameter or greater are used so as not to lose mechanical resistance.
- c. **The length of the new lines is identical to that of the old ones.**

57) On the take-off ground, you notice that a "D" line on your wing has broken. What is the best solution so that this time, at least, you can fly?

- a. Remove the damaged C line and fly without it.
- b. Join the two ends of the broken line with a strong and secure knot.
- c. **Join a small section of line to the two ends of the broken line, so that the repaired line is not shorter but not longer than the original.**

58) After 200 flights with his wing, a pilot notices that the cloth folds over the entire span between lines "B" and "C", ...

- a. You should slightly shorten lines A and B.
- b. You should slightly shorten lines C and D.
- c. **You should have your wing checked and checked by the manufacturer or an authorized technical service.**



59) After a landing, a paraglider ...

- a. It must in no case fall laterally, because a permanent unilateral load of the lines can cause an asymmetric extension.
- b. It must fall in front or behind so that the lines do not get too messy.
- c. **It should not fall forward, because if the air cannot escape through the openings of the drawers, there is an increase in pressure inside the hood; ribs can tear or burst.**

60) The term "yield point" designates the load ...

- a. From which a material is permanently deformed.
- b. **From which a material is no longer deformed and breaks.**
- c. From which a material begins to stretch.

61) A wing that is equipped with bands A, B, C and D. Which bands have the least load in flight?

- a. The A.
- b. Bands B.
- c. **The bands D.**

62) A wing is equipped with bands A, B, C and D. Which bands have the greatest load in flight?

- a. The A.
- b. **Bands B.**
- c. The C.

63) Which lines support greater tension, when we press the accelerator of a modern series wing?

- a. **The lines A.**
- b. The lines B.
- c. The lines C.

64) Brakes or controls can be protected from wear if ...

- a. The braking position is not varied too many times in an unnecessary or superfluous way.
- b. Braking or control movements are carried out forwards and in the middle.



- c. The guide of the brakes or controls on the belt is carried out by means of a pulley.

65) The exact adjustment of the length of the brakes or controls ...

- a. It is determined by the manufacturer and should not be modified other than by the technical service or a professional.
- b. It depends on the band and the position that the pilot wants to take in flight.
- c. It depends on the weight of the pilot and the desired flight speed.

66) What is the most important principle for adjusting the length of the brakes or controls?

- a. It is better if they are too long than too short.
- b. If the brakes are fully released, the brake lines should be slightly taut.
- c. It is better to be too short than too long.

67) What requirements must an emergency parachute meet as a whole?

- a. Extensibility as low as possible.
- b. Absolute resistance to UV radiation.
- c. High strength and elasticity in a clearly defined frame.

68) What are the rays that most attack a paraglider?

- a. Infrared rays.
- b. X-rays.
- c. UV rays.

69) During flight, the variometer informs the pilot of ...

- a. vertical speed.
- b. the density of the air.
- c. The relationship between vertical and horizontal speed.



70) The Trim or accelerator....

- a. It is a set of pulleys and belts, which allow varying the draft angle of the paraglider. It allows more acceleration when chipping and deforming the profile.
- b. When there is turbulence, the use of it is delicate.
- c. **A and B are correct.**