



SECURITY

1) When we talk about passive safety, we refer to the protections and cross-sections of the harnesses, the function of the helmet, boots, clothing, gloves, the parachute, the stability and reactions of the wing to possible turbulence and errors.

However, "active safety" refers to ...

- a. the correct evaluation and observation of the level of the pilots of the place; the precision of our piloting; knowledge of takeoff and landing; knowing that we can violate some of the safety rules when we fly alone in a place, as long as we keep the radio frequency open.
- b. the anticipation and precision of the piloting, the correct evaluation and observation of the conditions, the scrupulous respect to the traffic rules, and an adequate physical preparation and good state of mind and mind.
- c. know the piloting demands of our wing.

2) Good learning, mastering the technical aspects, knowing the environmental conditions and having a certain continuity in practice, greatly increase safety.

But it is considered ACTIVE SECURITY ...

- a. The elements of flight equipment that provide some level of protection; the stability and reactions of the wing to turbulence and errors; and the emergency parachute once opened.
- b. The anticipation and precision of the piloting, the correct evaluation and observation of the conditions, the scrupulous respect for the traffic rules, an adequate physical preparation and a good state of mind and mind.
- c. A and B are false.

3) When the accelerator pedal is depressed and / or the trims are released, ...

- a. A higher horizontal speed and a lower vertical speed.
- b. Lower horizontal and vertical speed
- c. Higher horizontal and vertical speed.

4) When the accelerator pedal is pressed and / or the trims are released, it works ...

- a. More to advance than to descend.
- b. Less to advance and more to descend.
- c. - A and B are false.

5) When you need to move forward and descend a little faster - and safely - the throttle is perfect ...

- a. to land earlier.
- b. when it is necessary to advance and at the same time descend a little faster, being feasible to increase the pressure in said accelerator provided that the level of turbulence allows it to be used up to the required speed.
- c. for fun or for show.



6) If you combine the "ears" with the accelerator ...

- a. You advance a little more and you descend even faster than if you only put "Ears" in.
- b. progress is less and the descent increases notably than if we only put "ears".
- c. less progress is made and there is no difference in the rate of descent than if we only put in "ears".

7) Which action increases the vertical rate of descent the most?

- a. Ears.
- b. Ears with accelerator.
- c. Ears tucked in and make tight turns.

8) The correct and safe way to insert the "Ears" is ...

- a. Release the controls, grasp band A and pull down.
- b. Take the outer "A" lines on each side (one or two, depending on the size you want) and pull down.
- c. Without releasing the brakes, take the lines Outside "A" on each side (one or two, depending on the size you want) and pull down, first one side and then the other.

9) The "Ears" ...

- a. They decrease stability because they increase the wingspan and elongation and decrease tremendously aerodynamic drag.
- b. They increase stability.
- c. They provide stability because they reduce the wingspan and elongation, increase the load factor (at the same weight with less surface area), and greatly increase aerodynamic resistance.

10) The consequences of the frequent use of "Ears" provoke ...

- a. The deterioration of the sail, as the tension lines rub against the folded fabric.
- b. The friction of the tension lines brushing against the sail, deteriorates the protective silicone of the fabric and the sail itself.
- c. A and B are correct.

11) Flat "Auger" and "Autorotation" ...

- a. It is the same maneuver.
- b. It's the same maneuver, just change the degrees of incline.



- c. The first are tight 360° turns with a lot of bank inclination and whose speed increases from the second or third turn; and the second is the result of an asymmetric loss, which can happen after a strong asymmetric folding.

12) To get out of an "Auger" ...

- a. You have to stop turning by raising the brakes not too fast and prepare to control the return of energy, including climb, and the important pitch that will follow.
- b. You just have to raise the braking control and to avoid a climb or pitch, you have to perform the maneuver facing the wind.
- c. We stop turning and keep both brakes up to let the wing fly again.

13) Some "wings" have spiral stability, how does this affect the "wing"?

- a. It prevents the "wing" from going into autorotation.
- b. The "wing" will tend to come out of the bit or it will be difficult to tilt them beyond certain limits.
- c. It helps that once you get out of the "Spin", the "wing" stabilizes automatically by itself.

14) When performing the "B-Bands" maneuver, if both B-bands are not lowered at the same time and symmetrically, it may happen that ...

- a. Nothing, the wing continues to fly in a straight path.
- b. There may be turning oscillations or some snaking of the wingtips.
- c. A and B are wrong.

15) "Bands B" ...

- a. The problem with the maneuver is that the wind will take you drifting, since the horizontal speed will be zero.
- b. The problem of the maneuver is that the wind will take you drifting, since the vertical speed will be zero.
- c. A and B are wrong.

16) To exit the "Bands B" maneuver ...

- a. You have to go up slowly the first half of the route of the Bands B that was lowered, but in the end you have to drop the last 10 cm suddenly. to help the wing make a slight pitch and come out of parachute, accelerating and returning to normal, straight flight sooner.
- b. You have to quickly go up the first half of the route of the Bands B that was lowered, and at the end you have to slowly release the last 10 cm. to prevent the wing from pitching and stalling.



- c. You have to slowly climb the path of the B-Bands that was lowered, and once the "wing" is open, accelerate with the pedal to return to normal and straight flight.

17) The consequences of suddenly releasing both bands in the "Band B" maneuver are ...

- a. A strong roll and pitch reaction.
- b. The fabric and the rib reinforcements in the anchors of the "B-bands" on the soffit, resisted by the sudden recovery of lift.
- c. A and B are wrong.

18) To enter "Loss" ...

- a. You have to lower both brakes to the end of their travel, and maintaining them is relatively easy as the "wing" does not create resistance.
- b. Both brakes have to be lowered until the end of their travel, but that limit may be too far and the effort required costs keep it with your arms fully extended downwards.
- c. A and B are wrong.

19) To enter "Loss" ...

- a. Both brakes have to be lowered until the end of their travel, but that limit may be too far and the effort required costs

keep it with your arms fully extended downwards.

- b. The trick is to give the brakes a couple of turns before starting the maneuver and put the weight on your arms, so the loss will come sooner and with more flexed arms you can better control the effort.
- c. Both are correct.

20) What happens when you enter a "Loss"?

- a. After the stall, the wing collapses, and we descend vertically.
- b. After stalling, the entire wing recoils and begins to flap violently.
- c. After stalling, the entire wing recoils and remains stable, being able to maintain the flight path.

21) Once in "Loss" ...

- a. A very fast vertical descent begins with slight pitch and turn oscillations, which are amplified if the pilot raises his hands a little, fatigued by the effort.
- b. In its horizontal speed it suffers the translation caused by the drift of the wind and it can start to fly in reverse if the trailing edge acts as a precarious leading edge, being able to control the turn or the slight glide in reverse by playing with the brakes.
- c. Both are correct.



22) In a "Loss" ...

- a. By raising the hands slowly, the wing recovers its shape again and the downcast is better dosed, being able to leave it at a minimum level.
- b. By raising the hands at once, the wing recovers its shape again and the downcast is better dosed, being able to leave it at a minimum level.
- c. It doesn't matter what we do with our hands.

23) The parachute handle must be at hand in the ventral, lateral or cervical position and is launched ...

- a. Forward to have a correct visualization of its opening.
- b. Backwards and to the side, taking advantage of the centrifugal force for its deployment.
- c. A and B are correct.

24) Once the "parachute" is open ...

- a. In a PDA it is necessary that we collect the paraglider, since it may attempt to open and cause pendulums that increase the rate of fall. In the worst case, the paraglider and parachute are mirrored, which increases the rate of fall.
- b. Using the Rogallo, although they are not essential, quick release carabiners are carried to separate the glider and be able to pilot the Rogallo.
- c. Both are correct.

25) The "Roule-Boule" maneuver ...

- a. It can absorb up to 90% of the energy of the fall.
- b. It consists of touching the ground with the tips of the feet, flexing the legs in tension allowing the knees to go to the side with inertia.
- c. All are correct.

26) When should the emergency "parachute" be used?

- a. Never if in the possible landing zone there are some obstacles such as pylons in the vicinity.
- b. When irreversible collapses occur, entanglements during take-off that prevent flight control, collision with other pilots, breaks in the line or fabric and physical indisposition to pilot.
- c. Never when colliding with another pilot.

27) The "Variometer" indicates graphically or acoustically ...

- a. The vertical speed of ascent or descent in kilometers per second.



- b. The vertical speed of ascent or descent in meters per second.
- c. The vertical speed of ascent or descent in centimeters per second.

28) The "Altimeter" ...

- a. It tells us the flight height with respect to sea level.
- b. It can tell us the flight height, either with respect to the take-off, landing or above sea level, depending on how it is programmed.
- c. It tells us the flight height with respect to the takeoff level.

29) The "compass" indicates the North and the flight course and they can be spherical, in oil or flat needle, but we have to take into account ...

- a. If it works well in turning with the compass tilted, either works.
- b. They are sensitive to the magnetic fields of the radio, the vario and the metallic elements of the harness.
- c. Both are correct.

30) The "compasses" mark the magnetic North ...

- a. Which is the same as the geographic North.
- b. Which is different from the geographic North.
- c. Both are correct.

31) While taking off, if you are told that you must maintain a heading of 318°, the trajectory of your flight would be in the direction ...

- a. S-SE (South-Southeast)
- b. NW-N (Northwest-North)
- c. E (East)

32) While taking off, if you are told that you must maintain a heading of 85°, the trajectory of your flight would be in the direction ...

- a. NE-E (Northeast-East)
- b. E-SE (East-Southeast)
- c. East.

33) Front fold is ...

- a. Fully folded the leading edge of the glider, or most of the central part of it.
- b. They can be complicated if a

"Croissant" (the tips of the glider are open and the center is not, so they continue to fly and join in front)



- c. All are correct.
- d.

34) In a "front fold" it is recommended ...

- a. Brake when the glider is behind, as we can cause a stall or stall.
- b. Push the "A bands" forward.
- c. The wing will reopen immediately, in some cases it is necessary to assist by slightly braking both brakes at the same time.

35) From the list detailed below, select the option that you think is the highest priority to perform a rapid descent maneuver:

- a. When a large cumulus sucks us in, because a strong wind or storm is approaching or to help an injured companion.
- b. In competition to cross the finish line earlier.
- c. To land next to takeoff, for fun or to give a show.

36) The "Ears" maneuver

- a. B and C are correct.
- b. It hardly increases the horizontal speed, but increases the vertical. If they are combined with the accelerator, you go a little further and descend even faster.
- c. They provide stability by reducing the span and elongation, increasing the load factor (= weight with less surface area) and increasing aerodynamic resistance. It is advisable to use it on very turbulent flights and you want to descend faster and avoid greater collapses.

37) The "Barrenas" maneuver

- a. It starts like any 360° turn, braking and loading the weight to the opposite side of the turn, but maintaining the action and even increasing as the turn accelerates; supposes an affection to the sensory capacities of the pilot by the strong rotation and increase of the centrifugal force; and adds a very large structural overload to the wing.
- b. It starts like any 360° turn, braking and loading the weight to one side, but maintaining the action and even increasing as you accelerate the turn; negatively affects the sensory capabilities of the pilot by strong rotation and increased centrifugal force; and adds a very large structural overload to the wing.
- c. It starts like any 360° turn, braking and loading the weight to one side, but maintaining the action and even increasing as you accelerate the



turn; Strong rotation and increased centrifugal force do not affect the pilot's sensory capabilities; and maintains the structural load of the wing.

38) The "Barrenas" maneuver

- a. It is the most effective method to get down quickly over a point.
- b. No progress is made, and the bit, given its strong rotation and increased centrifugal force, is not affected by drift.
- c. A and B are correct.

39) The maneuver of the "Bands B"

- a. It serves to go down vertically, quickly and without moving forward, it is a kind of parachute. It is achieved by lowering both B bands at the same time; It may cost a bit, but when you break the aerodynamic flow over the wing, they go down easily; the horizontal speed will be zero, so the wind will take you drifting.
- b. To exit, you have to go up slowly (always the two B risers) the first half of the route that was lowered, and at the end drop the last 10 centimeters suddenly to help the wing make a slight pitch and come out of the parachute, accelerating and returning before to normal and straight flight.
- c. "A" and "b" are correct.

40) The "sustained loss" maneuver

- a. After stalling, the entire wing recoils and begins to flail violently. With this maneuver, a very rapid vertical descent begins with slight pitch and turn oscillations, which are amplified if the pilot raises his arms a little, fatigued by the effort.
- b. If it is suddenly released, it will cause an impressive dive that can carry the wing below the feet, which often leads to a total strain on the line as the pilot falls against the wing, becoming caught in a line of the wing. line or until it is wrapped in the sail.
- c. "A" and "b" are correct.

41) All the pilot can do during the flight to reduce risk and fly better is:

- a. Passive security.
- b. Active safety.
- c. Answers A and B are correct.

42) What elements greatly increase security?

- a. Learning, following your instincts and trusting in our abilities for flight.
- b. Good learning, mastering the technical aspects, knowing the environmental conditions and having continuity in practice.
- c. We cannot modify security.



43) Adequate physical preparation and a good state of mind and mind influence the flight such as:

- a. It has nothing to do with the flight.
- b. **Active safety.**
- c. Passive security.

44) The elements of the flight equipment that provide some level of protection comprise:

- a. Active safety.
- b. It only has to do with the aesthetics of the pilot.
- c. **Passive security.**

45) The wing's reactions to turbulence refer to....

- a. **Passive security.**
- b. Active safety.
- c. Answers A and B are correct.

46) In which flight situations (always safely) would you descend quickly?

- a. Because strong wind or storm is coming.
- b. To help an injured partner.
- c. **The answer a and B both are corrects.**

47) With the accelerator we get:

- a. **a vertical descent of 1 to 3 m / s and a horizontal speed of 36 to 45 or even 60 km / h.**
- b. We didn't increase the horizontal speed just a bit, but the vertical speed increases dramatically.
- c. A vertical descent of 3 to 6 m / s and a horizontal speed of 25 km / h.

48) Make ears:

- a. reduces glide, but does not provide stability.
- b. **dramatically reduces glide and increases wing stability.**
- c. increases stability and glide.

49) If we make big ears:

- a. **We achieve a vertical speed of 3 to 4 m / s and half normal glide.**
- b. We will increase our speed
horizontal because we reduce wingspan and we will fly safer.
- c. We increase horizontal and vertical speed displays.

50) The ears give stability:

- a. Because they increase the horizontal speed.



b. They do not give stability, since it only increases the vertical and horizontal speed.

c. Because they reduce the span and elongation, increasing the load factor.

51) What problem could cause us to make big ears?

a. It depends on which wing we are flying, its approval and deterioration.

b. Possible line breakage due to exceeding the resistance limits.

c. The answer a and B both are corrects.

52) When we execute a spin:

a. We are executing a descent maneuver without angular velocity.

b. We are executing a descent maneuver, whose angular velocity is constant.

c. We are executing a descent maneuver that increases the speed of the angular speed by more than 100km / h.

53) Auger is considered the method:

a. More effective to go down quickly on a point .

b. To move very fast due to the great horizontal speed it has.

c. It is a very radical method and only for competition pilots.

54) What problems can an auger cause us?

a. If you execute it perfectly there can be no problem.

b. Just a little dizziness turns very fast.

c. Disorientation, due to the great angular velocity and therefore, losing all references with respect to the ground, obstacles and other companions that are nearby.

55) Precautions with "B" bands

a. Do not release the bands at once (structural overload in the B), do not release them slowly (risk of stalling), avoid asymmetry in effort (causes rotation), fairly physical sustained action, with wind, it will fly in reverse.

b. the necessary ones when practicing acro.

c. drop the bands all at once, never slow, fairly physical sustained action, windy, it will fly in reverse.

56) Sustained loss:

a. It is the most difficult maneuver and whose exit is more delicate.



b. It is the easiest maneuver you just have to bear the pressure, and the exit is very smooth.

c. It is the most difficult maneuver, but once the start is executed it is very smooth.

57) You can fly while in sustained stall:

a. No, practically what we do is fall very fast.

b. **Yes, you can fly in reverse if the trailing edge acts as a precarious leading edge.**

c. No, because the vertical speed is very high and the horizontal speed is zero.

58) The most frequent emergencies that require the use of a parachute are:

a. Strong bends very close to the ground or with tangles of the fabrics in the ropes that prevent reopening (ties, twists, etc.)

b. Collision with other pilots.

c. **The answer a and B both are corrects.**

59) The emergency parachute opens fast if the pilot reacts quickly. How long does it take approximately?

a. **2 to 5 seconds.**

b. 5 to 8 seconds.

c. It is instantaneous.

60) Why should the emergency parachute be checked on a regular basis?

a. So that it is not caked and loaded with static electricity or moisture.

b. So that it opens as quickly as possible.

c. **The answer a and B both are corrects.**

61) The emergency parachute must be:

a. **The right one for full load in flight and having the correct containers, anchors and extraction systems for the harness used.**

b. The right one for full load in flight.

c. The right one for every pilot and flight situation.

62) How do flight instruments intervene in safety?

a. **They provide useful information to the pilot that improves their use of conditions and their safety in flight.**



b. They do not intervene at all in safety, they only give information related to the flight (height, vertical and horizontal speed, etc.)

c. They do not give any information that the pilot can use to improve his safety in flight.

63) Speaking of safety, how does a compass help us?

a. It is not useful, it is an obsolete instrument.

b. Nowadays for nothing having a GPS.

c. Although it is forbidden to fly in clouds, to get out of one leveling the course if we have gotten into "accidentally". Yet another resource apart from GPS.

64) It is wise to use the radio:

a. To give directions to students in flight, communicate the position or useful information to other pilots in flight.

b. Contact the ground support team for collections, accidents and rescues.

c. The answer a and B both are corrects.

65) Approvals, how does it help us in security?

a. With safety nothing, it is only a matter of giving category to the sails, as with cars (utility, sports)

b. Not at all, it only has to do with the elongation of the candle.

c. Divide the wings into categories, and that is a great help when choosing a model according to the level of the pilot.

66) In the event that a brake line breaks or loosens during flight (it should never happen), what should we do?

a. use the rear risers to control the glider, they will be harder to the touch than the brakes, operate them carefully to avoid stalling, help the turn by loading weight on one side of the saddle or the other, and go to land.

b. Try to fix the brake or pull the emergency parachute if I can't.

c. let the paraglider fly alone as it will face the wind alone and land us.

67) Almost all sails are more prone to collapse when flying at maximum speed and / or with the accelerator applied, so it is convenient ...

a. always have the brakes in your hands and keep some tension on them, especially if you are flying in rough air.



- b. We must never influence the speed of our paraglider.
- c. fly at free controls.

68) Why is flying inside the cloud forbidden and not recommended?

- a. because inside, visibility is zero and all our landmarks disappear.
- b. because it is very easy to change direction without realizing it.
- c. **A and B are correct .**

69) In an "asymmetric folding", if the folding causes a turn towards the deformed side, it is recommended ...

- a. Pump the folded plane to accelerate its opening.
- b. Make up with the chair.
- c. **Compensate with the saddle and brake on the opposite side. Then, pump the folded plane until it opens.**

70) Possible reactions of an "asymmetric folding"

- a. Reduction of the horizontal speed of flight.
- b. Increase in vertical speed.
- c. **Both are correct.**