



Schweizer SGS 1-26 Pilot Briefing

Pilot Name:

What's so wonderful about a 1-26?

First it's just plain fun to fly. The seating position and responsive controls contribute to that great feeling of man and machine working together. It is possible to soar in weak, small diameter thermals because the 1-26 has a favorable sink rate at very low airspeeds. Great structural strength helps the pilot's peace of mind while flying in strong turbulence.

How can a pilot accustomed to flying a 2-33 safely transition to this lively single place? The flight instructor is the key to this operation - and a checkout by a qualified LESC CFGI is required prior to your first flight in any LESC glider. The following notes will also be helpful and should be digested by the aspiring 1-26 pilot before the actual check out session with their instructor. The experience required to fly LESC's 1-26 (and all of LESC's gliders for that matter) is described in the [LESC Standard Operating Procedures](#).

Obtain a copy of the [1-26 Flight Manual](#). Note that there are five different models: A through E. Memorize the airspeeds for minimum sink and best glide. Consider proper approach speeds for varying surface winds and turbulence.

The model variations consist of structural changes, gross weight, and placard airspeed. There are mechanical differences in spoiler locks also. Be aware that the wheel brake is not built into the wheel but is a shoe in contact with the tire. This works fine but a puddle of water or wet grass can greatly reduce brake action. Tire inflation is also critical. If the tire is under inflated, the brake won't work properly. Plan your landings accordingly. Never in any aircraft depend on the brakes!

Next is the preflight inspection. If possible, do a dry run on this before your actual check out with your instructor. The [LESC 1-26 Checklist](#) will show you what to check and your instructor will cover the preflight in detail. Notice how differently the cantilever wings are attached as compared with the strut braced 2-33. At this time be sure you understand the center of gravity and gross weight limitations of your particular glider. If you are a light weight you may need seat ballast under your cushion, or should you be a heavy weight see if seat ballast was removed after a previous flight. The 1-26 seating is designed to accommodate nearly any size pilot.

The seat back can adjust fore and aft as well as the back angle. Find a comfortable position and see if you can easily reach and operate all the controls. You should be able to get full rudder travel without full leg extension. See if you can easily bring the spoiler handle back to the wheel brake position. Because of the low empty weight ground handling is easy. Position yourself on the right side of the nose and pull glider forward with the shoulder straps, use your left arm inside the opened canopy. **To turn, push nose down with your right hand and pivot on wheel to desired direction.** This method protects the canopy from being blown shut accidentally.

What are the differences in flying a 1-26 compared to a 2-33 and how does the pilot cope with these differences? First, you will notice the limited pitch attitude changes that are

possible while rolling on the ground. While seated in the glider with the canopy closed, your instructor will change the pitch attitude, first with the tail wheel on the ground and then with the skid on the ground to show you these extremes. Next your instructor will change the pitch to the attitude that will be used in take offs and landings. Sight over the nose and note its position relative to the horizon.

Next the transitioning pilot will find that the flight controls, especially the elevators, are more sensitive than the 2-33. Although this makes a joy to fly it also can embarrass the beginner by causing him to make pitch oscillations (PIO) during takeoff and landings. While still seated in the glider, position the stick so that the elevator trailing edge is depressed about 2 inches at the center line. Note the corresponding stick position relative to some feature in the cockpit (a little aft of center for most 1-26s). You want to be able find this position later as you start your take off.

The greatly reduced overall weight of the 1-26 means quicker take offs and less ability to continue rolling after touch down. Nothing new to learn here, just something to be aware of.

You will notice that the 1-26 has a lower pitch attitude than the 2-33. The wings are mounted at a different angle of incidence. You will see much more in front of you for the same airspeed. If you fly at minimum sink pitch attitude for the 2-33 in the 1-26 you will be at or near the stall speed. When you get off tow fly at various pitch attitudes to see what airspeed it wants to fly at.

One last difference, your view of the touch down area will be blocked by the wing as you fly past it on the downwind leg in the pattern. Decide where to turn base ahead of time. As soon as you bank into you turn from downwind to base everything comes back into view and you can still adjust your pattern at this time if necessary.

Now for that first take off and a description of one method that will assure a smooth one. We will assume that you have moved your glider into the takeoff area and have completed your pre-take off check list. Now is the time to position the stick in the takeoff position previously discussed. It is important that the stick be in this position and held there during the takeoff roll. This is done by holding it between the thumb and finger tips with your forearm solidly braced against your leg. Lateral control is maintained by moving hand and leg from side to side as a unit. Practice this motion a few times. The takeoff will be made without moving the stick fore and aft. Upon becoming airborne maintain tow plane on horizon by trimming the nose up or down using finger tips only and forearm still braced against leg. After reaching a safe altitude, relax and see how easy it is to fly a 1-26 on tow.

For your first flight it is suggested that you tow to at least 3000 feet. Even in no lift conditions this will give you time to fly all your training maneuvers and feel at ease. Particularly practice slow flight, imminent stalls and some steep turns. Concentrate on coordination. Time to land so soon?

Simply fly the pattern in the same way and at the same airspeed that you would use for this wind condition when flying solo in a 2-33. Grasp the stick as you did for takeoff and plan to make any pitch attitude changes slowly. Maintain your final approach speed until time to level off for landing. Remember the landing attitude during preflight? This is the attitude you will have at touchdown and during the roll out. Try to plan your approach so that the last part of your approach and landing are made with half spoilers. If a landing is made with

full spoilers, your airspeed will need to be greater than 50 mph or the tailwheel will hit first, driving the main wheel into the ground. If done hard enough, this can damage the glider and injure the pilot by compressing their spine (ouch)!

Inflight emergencies are always a possibility even on your first 1-26 flight. The procedures you learned in the 2-33 will work equally well in the 1-26. For example, a tow line break on takeoff should be handled in the same manner as in the 2-33. A different problem would be presented by an inoperative airspeed indicator. What must be done now is to find a nose position that will equate to a safe airspeed for your landing approach. First put the nose in the level attitude previously discussed and practiced on the ground. Now note the apparent distance from the top of the instrument panel to the horizon. Lower the nose to double this distance. This should equate to 50-52 mph. If the air is smooth this airspeed will give you approximately 200 FPM down on the vario. This method will provide a safe speed for your landing approach. Plan your landing so that the entire length of the airport is available to you.

Now for some final thoughts on safety. All aircraft have different flying characteristics but all respond similarly to the basics. Remember you are flying a 1-26 not a 2-33. Due to its light weight, the 1-26 doesn't penetrate the wind as well as the 2-33. Until you get used to the 1-26, stay up wind of the airport. You will find much lighter and more responsive controls in a 1-26. Keep a light touch and fly by nose attitude relative to the horizon. Fly coordinated. A 1-26 will spin more readily than a 2-33. In all your flying, plan ahead and think safety.

HAVE FUN and [check out the 1-26 Association](#) (it's the best source of information on this little Humility Machine).

List the appropriate performance limitations and speeds (in MPH)					
Model:	A	B	C	D	E
Stall speed:					
Stall speed at 45° bank:					
Stall speed at 60° bank:					
Minimum sink speed:					
Pattern speed:					
Maneuvering speed:					
Never exceed speed:					
Maximum Aero Tow speed:					
Maximum Ground Launch speed:					
Best L/D speed:					
Best L/D:					
Sink rate (FPM) @ best L/D:					
Maximum gross weight:					