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Flying a Sailplane

By Tom Winters

Me: "You know, Jason, I believe we're stuck up here!"

Jason: "Isn't it grand!"

We are high over the Arizona desert in a Schweitzer 2-33 sailplane. Jason Stephens, CFI-G (and four-time national aerobatics champion) was my main instructor at the Estrella Sailport. "That mountain at three o'clock," he added, "is on the other side of Tucson: 90-mile visibility!"

(L) Tom Winters, (R) Jason Stephens, and Schweitzer 2-33 Sailplane

Visibility! Wow! In a sailplane, you, not the engine, are the weight up front, and the visibility out the canopy will spoil you for anything less -- like, for instance, the visibility out of your Cessna!

And we actually were sort of stuck in the sky. We were in lift, no matter turning right, or turning left, or going straight. Lift. The variometer kept saying "lift." Of course, we eventually found some descending air, and returned to the serious airmanship matter, of planning and executing our landing.

I was there a week, for my retirement present to myself, in quest of the glider rating.

The place has a deep history. 46 years ago, Lazslo Horvath, being primed for the Hungarian Soviet Republic Air Force, by means of glider training, was fed up with Communism, and managed to escape to the West. No interest in jets; he was in love with soaring. He made it to London, then to the U.S. He Americanized his first name to Les, scouted out and found the perfect spot for soaring, and started Arizona Soaring, Inc. in April, 1969.

Les Horvath was national champion in Aerobatics thrice, and he taught Jason Stephens, the current owner, aerobatics starting when Jason was a teenager.

The airmanship was a constant challenge. I break it down as follows:

1. The acceleration behind the towplane: Back on the stick just a tad to get us off the skid. (There's one wheel and a skid in front of it.)

2. Skimming over the runway: forward pressure on the stick so we do not lift up the tail of the towplane. Side drift? Touch of wing low to correct for drift. Keep adjusting because control authority is changing as we accelerate.

3. Climbout. Tiny let-up of forward pressure to climb with the towplane. (In tow, there is ALWAYS FORWARD PRESSURE ON THE STICK: Tow speed is ~25 mph faster than the Schweitzer's best glide speed, so the glider wants to climb and pull the tail of the towplane into the sky. Not good!!

4. The tow: focus on the horizon, and adjust so the towplane STAYS on the horizon. You cannot see your own wings. Fortunately, the pitot-static tube is straight up-and-down in front of you, and it becomes your attitude indicator, so you keep the pitot tube vertical to the horizon and your wings are LEVEL. When the towplane banks in the turn, match its bank angle. How? Just keep the pitot tube parallel to the tail of the towplane. If you are really focused on the horizon, your two eyes may give you a paired doubling of the pitot. No prob: keep the towplane right between them!

5. The release: Get your left hand on the release knob. Drift to the right of the towplane. Wings level. A little whoop-dee: up, down. (This puts slack in the tow line.) See the curve of the slack and pull the release. You do a climbing turn to the right. Climb? Oh yeah: you've got ~ 25 mph of extra speed going: do it right, and you end up above the towplane.

6. Since airmanship was the mission, you're perhaps 700 feet above TPA. Descending around 200 feet per minute, you have only two and one half minutes. Do not shilly-shally: Plan the landing.

A. Staying upwind of the field, turn in to eyeball the windsock. Gauge windspeed and any X-wind factor. Choose target aiming point on the runway. Choose runway; choose your descent speed based on the wind. Do not waste any time getting this done. Jason was adamant: You MUST see the windsock; you MUST see the runway aiming point.

B. Adjust so you find yourself on midpoint when you get to TPA and the downwind. Get the attitude right by the position of the horizon on the pitot. Soon you learn the 60 mph noise, the 65 mph noise. Keep the noise! Put your left hand on the dive brake handle.

C. When to turn base? Look back: see your aiming point behind and left; judge by your angle relative to the aiming point.

D. Keep the pitch angle (Pitch controls speed!) the same all the way down final.

E. Keep the angle to the aiming point the same all the way down final. Do this by adjusting the dive brakes as needed. This keeps your speed the same. Pitch!

F. Keep the runway right between your feet. And the runway is nine paces wide!! Sideslip as needed, but the big glider wings need less wing-low than your 150. Footnote: be alert for rogue thermals that even on final may lift a wing and try to bank you into an off-runway turn! (Did I tell you there were challenges?)

G. Transition to level flight at about a man's height. Gradually add more spoilers and keep it off, keep it off, keep it off. Centered the whole time, of course.

Every one of these steps, 1 through 6, and what I have called 6A through 6G has to be practiced and you have to have them

wired before you've got the whole package. And the beginner, even a power-plane pilot (especially a power-plane pilot?) has problems with every one of them. And at every step, you will hear the instructor's calm voice saying what to do, or even saying "I have control." Oh, the things I had to unlearn!

First challenge: I kept trying automatically to control the plane with body language. Sit up straight; control only with your feet and your hands. Move your body and you change your sight picture. Not good. Lilienthal controlled gliders with body language, but we have advanced. I guess I kept doing it getting used to a 700-pound plane in busy boisterous air. I only fly the Cessna 150 in smooth air. Is there lift in smooth air? Not much! It took them five days to break me of this.

I kept holding the stick with my left hand, just like the yoke in my C-150. Not good. The stick is in your RIGHT hand so your left hand is free to set the trim lever, adjust the spoilers, and pull the release knob. And once, I even pulled the spoiler lever instead of the release knob. How on earth? The spoiler lever is on your left side: the release knob is as big as a baseball, and it is dead center in front of you! I can laugh at it now, but...

My difficulty with the tow was this: if the towplane got high, I'd start moving the stick the wrong way. Same thing if the towplane got low. I called the result the "Tom Winter roller coaster." I finally figured that one out: I was flying the towplane as if it were in a video game! That problem got better as soon as I realized which plane I was flying!

Finally it got so the towplane stayed on the horizon, and when turning, did a clean sweep on the horizon. What a great feeling! Nevertheless, being on tow commanded my alert concern every second, every flight. And a good thing!

Beautiful scenic backdrop in Arizona

I did not complete the glider rating; I did not even solo. But the last landing of my last day, I put the Schweitzer down smack in the middle of the 25-foot-wide runway despite a 7- 8 knot direct crosswind, and brought it to a stop centered in front of the hangar.

My "diploma"? Jason Stephens said "The sideslip in crosswind was everything it should be." I'm going back. Meanwhile thinking of the classic motto of the aerobatic pilot ("If you don't want your plane over there, don't LET it go over there"), I'm adopting Jason's calm words "I have control," as my personal pilot mantra.

Council Bluffs Fly-in

By Jess Banks

It was a "just right" day for a Fly-in breakfast Saturday, September 14th, a bit cool in the early morning but with little wind and mostly clear skies. Sitting on the ramp at Council Bluffs Municipal Airport was a North American P-51 "Mustang" next to a Boeing B-17 bomber

P-51 "Gunfighter", B-17 "Sentimental Journey" and T-6's

and two North American T-6 radial-engined aircraft. In the next row forward was another P-51 and several civilian aircraft of Cessna and Piper makes.

Inside the Commemorative Air Force hangar was the "Pancake Man", Jim Kuper, who told me he's somewhere in the 5 to 6 million pancakes cooked and tossed. He has the right mixture of ingredients to go along with sausage, juice and coffee and a great blend of pancake syrup.

Guarding the flight line were three uniformed Military Police (MP's) in uniform with their ever-ready Jeep carrying attached rifles in leather scabbards. They looked very professional and I suspect would have caught any perpetrators trying to sabotage the former military aircraft.

L to R: "Military Police" Terry Klahn, Bill Tibbles and Tom Ryan

You could take a tour of the B-17 for $5 and a flight for $425. Two passengers would sit in the clear Plexiglas nose and six would ride on the troop seats about midway back in the fuselage. The mid-fuselage Browning 50-caliber machine guns poked their barrels out an opening nearly 24" by 24." Today they were screened in by clear Plexiglas, but during WWII, the 135mph wind and cold would have gone through the openings into the uninsulated interior of the aircraft. Only 13 of the B-17 aircraft remain in flyable condition as of 2011.

Browning 50-Caliber Machine Guns

Perhaps you would like a 20 minute ride in the P-51 "Gunfighter" for $1,650. That money goes for maintenance and upkeep for the aircraft and to keep the memories alive for those who either worked on or flew them in our country's time of need.

Another great fly-in breakfast which had over 350 people for breakfast and over 800 total to eat and to come look and enjoy seeing the WWII aircraft.

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