



2013 SAFETY PROGRAM

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In the Unlikely Event....

As a working pilot, I like my flights to be boring and uneventful. There are certain lights in the cockpit I only want to see once a year in the simulator. The Engine Fire Light is one such example. This light coming on starts a procedure that demands strict flight discipline, especially at low altitude, and a heightened awareness of where you are in relation to the ground and what the energy state of the airplane is. We have the luxury of doing this every year in a fancy simulator, not in the airplane. We can make mistakes and practice it over if required.

I learned a long time ago to treat every takeoff in the simulator or in the airplane as if the Engine Fire Light was going to illuminate. Or that an engine was going to fail. It did not matter if the aircraft was taking off from 10000 feet of concrete or 350 feet of steel on the carrier. I always wanted to be pleasantly disappointed that the takeoff was uneventful.

So what, if anything, does this have to do with flying sailplanes?

It took me a long time to realize I fostered this attitude in my earliest days of glider training. My instructor imparted with great vigor to me that I always brief a thorough list of departure contingencies. A loud verbal callout at 250 feet AGL was required. Being mentally prepared for the sudden rope break was emphasized.

If you look at all the incidents that involved a Premature Termination of the Tow (PT3) event, far too many end with a broken sailplane or even worse, loss of life. The vast majority of these are self inflicted PT3's. Practice rope breaks were the leading culprit. I really wonder if these incidents might have been precluded if the pilots had had the mindset I mentioned above. What if they too were ready for the worst and pleased it did not happen?

How can we foster this line of thinking?

It all begins with training. On your flight review, your CFGI should talk about and hopefully make you demonstrate a PT3 recovery. For the longest time, I was a proponent of the surprise PT3 practice. What I found out was, that having the student or flight review candidate brief and then execute the PT3 in the air, was far better training than the surprise rope break. The candidates basically made the same mistakes at the same places, but now they were doing it in a proactive training mode instead of a reactive evaluation mode.

Also, expecting a pre-solo student to adequately fly the PT3 on their first look is optimistic at best. Make the pre-solo PT3 flight a specific training event.

Start with the brief. Break the takeoff into parts and discuss what you are going to do in each regime. An example would be to break the takeoff into four parts: Start of the takeoff roll until the tow plane is airborne; Tow plane airborne up to 250 feet AGL; 250 feet AGL up to 500 feet AGL; 500 feet AGL up to pattern altitude. Each of these regimes requires a specific set of headwork skills and a specific set of aircraft maneuvering skills. Tailor your briefing to the specific local circumstances that exist today. Wind, weather, aircraft, and pilot ability level are just a few of the particulars to factor in. Brief the plan you would actually expect to do if the dreaded PT3 happens.

Do not forget about the aircraft maneuvering skills. As an experiment, get a small inclinometer and measure the nose up angle of the sailplane while on tow. It will generally be 3 to 5 degrees nose up. Once off tow, take the measurement again when flying at best L/D. Now pull the nose up to the tow angle and watch what happens. The sailplane will slow dramatically. This is what will happen if you fail to push the nose down once the PT3 happens. Do not compli-



cate a low situation by making it a low and slow event.

Fly the PT3 at best L/D speed. If you think about it, you are actually trying to maximize the distance you fly over the ground, not the time you remain airborne. Best L/D gives you this and a better stall margin and more controllability.

The turn back to the airport has to be coordinated. Remember that the wing turns the aircraft, not the rudder. If you need more turn rate, increase the angle of bank. Inside rudder or trying to pull the glider around the turn is the wrong technique. The primary purpose of the rudder is to keep the yaw string straight. Failure to keep the turn coordinated has the potential of turning PT3 practice into low altitude stall/spin recovery practice.

As the CFGI, you need to keep your hands off the controls. Only one person should manipulate the controls at a time. If you need to take over in the interest of safety, do so absolutely. However, do not "help" the candidate with inputs you deem necessary but the candidate does not see. Let the candidate make mistakes to the edge of your comfort zone. Talk to them as required. Even demonstrate a mistake. (Did someone say simulator?)

Impress on your student or candidate that every launch will end with a PT3, and it is just a matter of when and where it will happen in the launch. If you are mentally ready for the PT3, you are much more likely to successfully complete the maneuver in a manner that allows the glider to be used again.

So go ahead and get in the habit of being pleasantly disappointed the PT3 wolverine failed to bite again. ✈