

First Flight – A great way to start a new Decade
Richard Carlson – SSF Chairman

Earlier this week I received a couple of emails informing me that winter is rapidly approaching and the soaring season in the Chicago area is coming to an end. The first email reminded me that it was time to disassemble most of the club gliders and pack the hangers with private trailers for the winter months. The next email indicated that it was time to start our winter council meetings, one night a month – starting at 7:30 PM. Who in the glider world starts something after the sun has set?

What this means is that a bunch of our friends and colleagues in the northern states will stop flying gliders for a the next few months. Given that the weather hasn't been all that conducive to soaring, it is possible that some of them will have been stuck on the ground for the better part of the past year.

Now we all know that our skills, both mental and physical, degrade when we don't use them. Try tossing that baseball or football around next weekend if you don't think it happens to you. The question is, how are **you** going to get back in flying shape next spring? And it doesn't have to be a forced winter holiday, did you take the summer off in Arizona because it was just too hot to fly? Are the cooler winter temperatures making you come out of hibernation? Are you heading to the Seniors in Seminole in March?

Whatever the reason, getting back into your glider, club or private, means thinking about how to knock the rust off without knocking the gelcoat off instead.

The Soaring Safety Foundation (SSF) has one answer, it is called First Flight! That is, make your first flight after a break with an instructor. Get them to put you through your paces, both on the ground and in the air.

When was the last time you really hit the books and studied something? If I say the glider stalls when it reached critical AOA, do you know what that means? Do you agree and can you explain why that is true? How can AOA change? Is it just something you the pilot can adjust or can external gusts also cause it to change? Is the AOA constant across the entire wing or does it vary?

OK, AOA is Angle Of Attack, the angle between the relative wind and the chord line of the airfoil, Moving flaps, and/or ailerons will cause the AOA to change over that portion of the airfoil as the chord line moves, changing the gliders pitch attitude will also cause a change in the AOA due to a change in the relative wind. Yes a vertical wind gust can cause the AOA to change by changing the relative wind direction too. A wing with washout or one with multiple airfoil sections will have a different AOA at different points along the wing.

Here's one I use to stump my students. What will a Total Energy compensated variometer show while the glider is accelerating down the runway on takeoff before the glider becomes airborne? 1) it will show 0 (no climb or descent); 2) it will show a descent; 3) it will show a climb. *Hint: Total Energy = Potential Energy (height) + Kinetic Energy (speed).*

For those of you who fly with transponders, did you remember that January 1, 2020 is the magic date for when the new Automatic Dependent Surveillance – Broadcast (ADS-B) out devices must be used. Do you need to upgrade? What about your tow-plane, does it need an upgrade? *Hint: if you did not need a transponder, you do not need an ADS-B transmitter.*



As you can see, you may need to hit the books to even answer some basic questions no matter how many hours you have in your logbook.

What about those flying skills? When was the last time you practiced boxing the wake, or flying in low tow? On your last flight review? How about slow flight (flight at minimum controllable airspeed). What bank angle would you use when making a turn? How about speed-to-fly calculations? Here's another stump the pilot question. What is the difference between flying at the correct MacCready setting and flying at the correct speed-to-fly speed? *Hint: where is the glider at the end of each flight segment?*

I'm sure your flight instructor gave you a rope break exercise on your last flight review, no – complain about not getting a thorough review. However, if he/she pulled the release then you only got half the experience. How would you plan and then fly that maneuver without putting your self, your instructor, or the tow-pilot at risk? By that I mean how would **you** take the wind, tow-plane performance, traffic, runway configuration, density altitude, and your proficiency into account if you were planning on pulling the release at 300 ft AGL? Your instructor took all of these factors into account on your flight, did you? Talk to him/her to figure out how they did that.

The Soaring Safety Foundations's First Flight program encourages pilots to take advantage of the instructors who give their time and energy to your club or commercial operation. You can learn something and your instructor can have a fine time playing stump the pilot or just enjoying a flight with someone who knows where the yaw string is supposed to be pointed.

First Flight helps to demonstrate that you don't want to just be a current pilot, you want to be a proficient pilot. Safety through Training, something we should all strive for.

Safe Soaring.