

Mark your calendars – the 2021 Annual Meeting will be held virtually at 10:00 AM on Saturday, January 30. You will get a link to the meeting in mid-January.

SOARING IN A B757 Bruce Thomas

Editor's Note: Bruce Thomas was one of the many teens who learned to fly gliders at the Warrenton Soaring Center by bartering ground work for lessons. He's now a pilot for FedEx.

This morning [December 2, 2020] we flew from IAD to IND, FDX1540. We departed at 8:42am this morning. We took off Rwy 30 and headed west. The winds on departure were out of the north west 10-15kts on the ground.

Potomac Departure leveled us at 5,000 for crossing traffic. I looked around and noticed the ridge and the cloud formation. I remarked to the FO that that is a beautiful lenticular cloud that glider pilots love to see. The controller said it would be a few minutes for the crossing 787 traffic before he could climb us. So now we are going to cross the ridge at

250 kts, 5,000 ft with winds out of the NW at 51 kts. As we passed under the lenticular guess what happened....

It was nice and smooth, as we neared the crest of the ridge I noticed the autothrottles had moved to idle to maintain no faster than 250 kts, then we began to climb, only a 100 feet or so. The autopilot pitched down to maintain altitude and our airspeed climbed to almost 260 kts indicated.... 5,000 ft, idle thrust and airspeed increasing...We were in the lift baby!



That 13 year old kid from Warrenton Soaring Center that ran wings so he could learn how to fly had the biggest smile knowing that he was soaring a 757!

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SPIN ENTRY SENSATIONS William O. Bank

I recently wrote an article on my experiences when I learned to spin. Actually, I learned twice, once in the T28C while training to be a Naval Flight Surgeon, and once in France in an ASK13 glider.

When I submitted my article for publication in the Skyline Soaring Club's monthly newsletter, the editor asked me for some pictures. I wanted to take illustrative screen shots with my Condor 2 Soaring Flight Simulator, but ran into problems and finally settled for some stock photos. But it started me thinking about the differences between the two experiences.

The definition of a spin that I received in the Navy: "an aggravated stall resulting in auto-rotation"; includes the word "aggravated." While that applies to the way we learned to spin the T28 (nose above horizon, keep pulling back stick, when you feel the stall-break, full rudder in one direction and count the rotations out loud), was entirely related to an intentional spin. As students we learned what we would feel when we intentionally entered a spin, and how to recover from that spin and the unusual attitudes produced thereby.

Unfortunately, that same approach to the spin is evident in Spin Training in sailplanes. Although the recovery-techniques from spins are almost identical, the initial sensations are actually not the same. The sensations encountered are related to three elements of the entry into that spin:

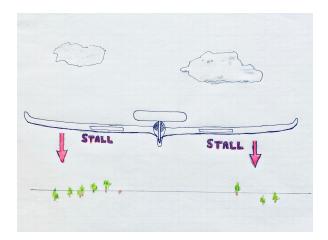
- 1. Intentional as opposed to Unintentional or Accidental;
- 2. Climbing Attitude as opposed to Level Flight; and
- 3. Pilot-Focus on the Spin as opposed to Pilot-Focus on Landing.

When I was introduced to spinning in the T28, it was intentional but scary. The week before I was to learn, I had hoped into a Saturday "maintenance flight" to allay any fears inherent to being in such a powerful airplane (1825 hp radial engine up front), and while we were doing clearing turns at 9,000' before executing the first spin I was to encounter, we had to break off because a depressed solo student spun from above us into the ground below. After reporting the location of his crash, we climbed back to altitude and I was introduced to the sensations of the spin itself.

In flight training, my focus was on proper execution of the maneuver: accurate statement of entry altitude at stall (out loud), accurate counting of the number of rotations (out loud), proper recovery and accurate statement of our recovery altitude (out loud). With time and repetition, I actually started to enjoy the sensations. They all occurred just as planned.

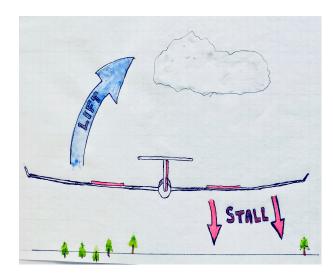
During subsequent flying in the Navy, I never encountered an unintentional spin, and when we soloed, Student Naval Flight Surgeons were forbidden to do a spin.

Figure 1. An Intentional Spin. The pilot is focused on the performance of the maneuver, the sailplane is in a nose high attitude with wings level until the stall, that effects both wings symmetrically until rudder is applied to cause rotation.



I next encountered a spin in an ASK13 while earning a French glider pilot's license in St.-Remy-de-Provence. I was seduced into that spin by a cagey flight instructor while practicing slow flight. I thought the clearing turns were nothing more than demonstrations of my ability to turn while flying really slowly. And when told by the instructor to add a bit more right rudder, and a bit more ... suddenly we were on our back with the nose pointed down in a spin. No problem. We had plenty of altitude. I knew where I was and how to recover. I actually enjoyed the sensation in spite of my surprise.

Figure 2. The Skidded Approach-Turn Stall/Spin. The pilot is focused on landing. The sailplane is wingsalmost-level to delay landing, turning to the right with a bit too much rudder, that moves the left wing forward producing more lift from the left wing until the stall, which unilaterally effects the right wing suddenly.



In fact, for soaring flight training, the subtlety of onset of the conditions that initiate the spin must be emphasized. The skidded approach-turn stall/spin is one that is usually fatal. The other dangerous spin for the soaring pilot is the skidded steep turn while thermaling which can turn fatal if you fall into another glider in a gaggle before recovery. Both should be practiced at altitude because the physical sensations are phenomenal.

During advanced training, the military pilot encounters unintentional stalls and spins, especially during air combat maneuver training when pilotfocus is on the "bad guy." For the soaring pilot, the experience of these physical sensations at altitude can be reinforced by practice at low altitude using the Condor 2 Soaring Flight Simulator, especially if you can avail yourself of an installation with a Virtual Reality Headset.

In the section on "Spin Recognition and Recovery", Manley's Condor flight syllabus says: "If you enter a spin from sufficient altitude, you will need to know how to recover. At low altitude, there is no time to recover from a spin, so your best bet is to avoid entering the spin in the first place by recognizing the warning signs."

I agree that it is best to avoid entering a spin at low altitude, but I would add that simultaneous recognition and institution of recovery techniques can be learned by a combination of spins during actual flight at altitude, and spins entered at low altitude in the VR environment on the Condor 2 Soaring Flight Simulator (where you can get another life and a new sailplane for free). So get real-life spin training from a qualified flight instructor AND practice it repeatedly in the Condor 2 Soaring Flight Simulator with Virtual Reality — at altitude and during intentionally skidded approach-turn stalls.



A HOPEFUL VIEW OF 2021 Erik van Weezendonk

The year is 2004, and the war in Iraq isn't exactly popular. My battalion has been activated (reserve artillery unit) and we're heading to Fallujah. For now, we're training in Twentynine Palms, CA-the Marine Corps playground- because there we can train, practice convoys, shoot, communicate, call in air support--we can do it all!

I've got 160 Marines and a few sailors (chaplain, corpsman) under my command (and by the time we get to Boots on Ground in February 2005, I've got 250). At home, my wife (active duty Air Force) and my almost one-year old son are worried. She knows where I'm going, and he's obviously too young to understand. I miss them terribly. However, right now I'm concerned with the Marines I need to lead.

My battalion has been struggling, as we're training all the time, but also getting new folks arriving every day. This means we sometimes have to backtrack to ensure they get the training they'll need. Two steps forward, one step back. Finally, there's a respite. A no-kidding weekend to ourselves. Granted, nowhere to go, but the Marines can take a break and I can catch up on paperwork (yay!). I discover that the local Twentynine Palms airport (about the size of KFRR) actually has glider rides. Heck, I'm thinking, I haven't flown a glider since 1991. Might as well go have a little fun. I ask the Bn Commander (my boss) if I can go off-base to the airport and catch a glider flight. He says it's fine, don't get hurt, be back in time for the meeting.

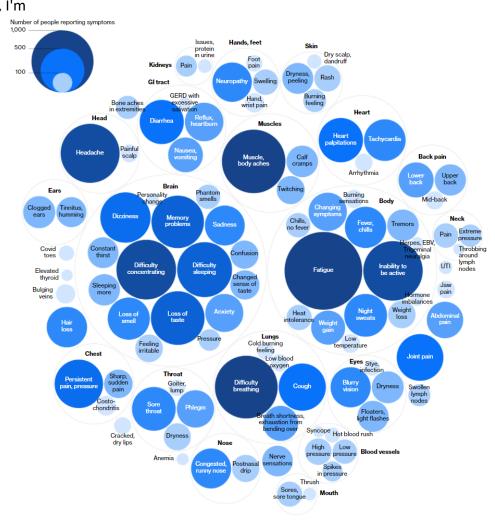
So, off I go. I remember two things....again, I'm flying in an old Schweizer wood and fabric glider (2-33, I think) for a short flight on tow, maybe a few quick circles, and then we land. More importantly, the freedom. The freedom to simply walk up at an airport and drop a bit of \$ and go fly a glider. Concentrating on the task at hand, remembering how aerotow works, and then simply enjoying the relative quiet (once off tow), the cool view, and the serenity. No worries about family, Marines, deployment, etc. Just enjoying the moment.

I hope in 2021 we can all get out to KFRR and get back into "normal" glider flying. Much like a bad deployment, or even a good one, the challenge eventually subsides. When we all get to that point where we can come out and enjoy camaraderie and the flying, that'll be the best gift we could get! Peace be with all of you, and I'll see ya in 2021!!!

ONE SOARING PILOT/INSTRUCTOR'S EXPERIENCE/PERSPECTIVE ON COVID

Similar to checking out the weather forecast for the day's flight, monitoring the changing conditions, and adjusting plans to adapt to the weather's challenges, one should look at the forecast for you or ones you care about contracting Covid with all its various symptoms. **Error! Reference source not found.** shows many symptoms that are enough to make one medically unfit to fly. It is important to note, that this survey is only for long haulers which is estimated at 10% of the people diagnosed with Covid-19. About 70% of long haulers have fatigue. Long covid: How to define it and how to manage it] The BMJ is a more recent article.

My symptoms included body (fever, chills, fatigue, inability to be active, weight gain, heat intolerance,



Cold intolerance), lungs (91 SpO2, Dry air

intolerance), head (headache), brain (difficulty sleeping, sleeping more, dizziness, irritability, night sweats, constant thirst), heart (tachycardia), GI tract (bloating, constipation, diarrhea, reflux, heartburn), high blood pressure), hair (eye brow extensions, and rapidly growing finger nails), and throat (sore, dryness), and skin (poison ivy like rash, and pimple like sores). The symptoms started at the end April with most of the symptoms clearing up by August. My symptoms are mild compared to symptoms I have seen in the covid support groups. Only 3 days of work were missed, and with grocery deliveries could always take care of myself.

The 2 predictable lingering symptoms are fatigue and Inability to be as active as I used to be. The fatigue is brought on by too much mental or physical work, so I meter everything I do. Pre-covid activity level was 220 watts on a bike trainer, 27 watts (a slow walk with 2 steps per second) was the starting point in May. Going from 60 to 70 watts in may resulted in post exertion malaise (https://www.cdc.gov/me-cfs/healthcareproviders/clinical-care-patients-mecfs/treatingmost-disruptive-symptoms.html for 1 to 2 days at 2 to 16 hours after the exercise was performed. 118 watts on the bike trainer is the Christmas limit.

In July, I received a negative Covid-19 test results, though I wasn't feeling good enough to fly. I visited in the morning to repair tow ropes, which was an experiment because I had not driven that far since May, and I had not been outside standing and walking around for 3 consecutive hours. On that day I went home and slept for 2 hours. Subsequent trips did not need the afternoon sleep. In July, I had never been sick for 3 months, so began to doubt if I would ever fly as pilot in command or instructor again. At that time, I was reminded that I can still see beautiful things as shown in figure 2 though the doing beautiful things was hanging in doubt.



Later in July an echocardiogram and nuclear imaging stress test was performed to see if something was wrong with the heart, which could be a reason for the fatigue, not resuming flying, and not moving on to more vigorous exercise. Everything came back good. However, when training the throat would start to itch, sleep apnea increase, so a trip to the Ear Nose Throat doctor was done, and he found slight acid reflux. So medicine was taken for the acid reflux. Increasing exercise power resumed at a higher rate.

In August, Covid Recovery Boot Camp from <u>Pulmonarywellness.org</u> was started. The Covid Recovery Boot Camp is a free go-at-your-own-paceand-intensity online pulmonary post Covid recovery program (as in several weeks out from resolution of initial symptoms) which includes breathing exercises, meditation, acupuncture point massages, yoga and Qigong, which has helped breathing, sleep patterns and lowers heart rate. Interactive and recorded seminars on Covid are there, too.

In October, 86 watts was reached on the bike trainer, a 90 day+ check flight was performed with an instructor, and 2 more solo flights were done. I resumed giving flight instruction in November. So for 6 months, I didn't conduct any flight instruction.

A big thank you to my sister, who coached me on the deep breathing exercises, which probably kept me out of the hospital and limited me to missing only 3 work days. Another big thanks to Noah Greenspan, who directs the Pulmonary Wellness Foundation at pulmonarywellness.org, and who's Boot Camp, seminars, lecture series and support group meetings and books increased my rate of understanding and healing, so I could fly in the fall of 2020.

Appendix: How to Get Less Sick and Get Better Sooner

- 1. Keep in contact with your doctor, and check if this advice is OK for you.
- 2. Wear a mask. Decreases chances of catching the virus and the amount of virus. Per High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice – Skagit County, Washington "Following a 2.5-hour choir practice attended by 61 persons, including a symptomatic index patient, 32 confirmed and 20 probable secondary COVID-19 cases occurred (attack rate = 53.3% to 86.7%); three patients were hospitalized, and two died. Transmission was likely facilitated by close proximity (within 6 feet) during practice and augmented by the act of singing.", a high concentration of this virus is to be avoided. I may have gotten covid from being coughed on by a person in March, or a 30 person maskless piñata party on the ground outside my second story apartment window.)
- Hydrate with warm liquids (which may have slowed down my sore throat). Some Covid-19 survivors have noticed that their throats are dry. Caffeine free is recommended to stay more hydrated. Eat your water with fresh fruits and vegetables.
- Perform deep breathing exercises. One variation is Slowly inhale (about 4 seconds) through the nose, hold breath (about 4 seconds), slowly exhale (about 8 seconds). Repeat 10 times per hour. (This would bump my SpO₂ (Peripheral oxygen saturation) up 2% for minutes when I was feeling better, and 2% for seconds when I was feeling worse.)
- Sleep adequately and stay well rested. (When run down, you get sicker quicker and better slower).
- Take a multi-vitamin/multi-mineral with <u>Vitamin D₃ and Zinc</u>. Also, 10-30 minutes a day in the midday sun 3 days/week provides Vitamin D.
- 7. Increase exercise prior to becoming sick.

- 8. If sick get tested, it could affect treatment and disability.
- If sick or anxious buy a pulse oximeter (\$30-\$60) and a (\$50-\$130) heart rate monitor, (preferably a chest heart rate monitor, which is more reliable).
- 10. Monitor pulse, oxygen and body temperature 3 times a day and report to a friend.
- 11. If oxygen goes below 92%-94% (depending on doctor) contact medical support.
- 12. If sick and test negative, still act like you tested positive.
- 13. Develop a support network of family, friends, church members, and Covid-19 Facebook groups.
- 14. Buy supplies, acetaminophen, ibuprofen, guaifenesin.
- Buy a heart rate watch or chest heart rate monitor. If heart rate is abnormal, contact your doctor and cardiologist.
- 16. Don't overdo it once sick. Monitor heart rate and keep it below your resting heart rate plus 10-30 beats per minute. After the 3 or 4 weeks and if you feel up to it, and a doctor says it is ok. Start exercise at 5% -10% of power and duration, and increase 1-5% every 5 days.

http://recoveryfromcfs.org helped my fatigue the most in the first 4 months with preemptive naps, pacing, not overdoing it, and keeping heart rate below 95 bpm.

- 17. <u>Pulmonarywellness.org</u> 's Covid Recovery Boot Camp is a free go at your own pace and intensity online pulmonary post (as in several weeks out from resolution of initial symptoms) Covid recovery program which includes breathing exercises, meditation, acupuncture point massages, yoga, Qigong, webinars, which has helped breathing, sleep patterns and heart rate.
- 18. Help women out, 90% of long haulers are women.
- 19. Hope! 40% have no symptoms (watch out as some of these turn into trolls), 40% just have a cold, 20% benefit from medical attention.

Joel D. Hough,

CFIG since 1996 at Pittsburgh Soaring Club and Skyline Soaring Club.

SOARING WITH COVID Jim Kellett

Here's what we currently expect to be our policy for the start of the 2021 season, although it is likely to change as we learn more about the pandemic and as mitigating resources (tests, vaccines) become available. Klaus Esser, PhD, an infectious disease specialist and glider pilot with the Philadelphia Glider Council, has developed a detailed list of mitigation procedures for their use which are almost identical to those we have been using, confirming that we are on the right track.

A note of caution and reality: no mitigation measures are 100% effective, so every time we come to the field, interact with others, especially if we choose to fly with others there is some degree of risk. Each person should consider their personal situation (health, family, other contacts) in making decisions about whether it is safe for them to fly or to bring their risk factors with them to the gliderport.

Masks, sanitizing, hand washing, and avoiding others who are not following recommended public health measures will continue to be important in 2021 and should be followed by all members in their personal lives. Obviously, anyone who is ill or may be getting ill, is coughing/sneezing for any reason, or has been exposed to someone who might be affected by COVID should not fly and should also not even be at the field. Let's start the new season safely, and as more information and/or therapies become available, we will follow the science.





Skyline Soaring Club, Inc. is a private, 501(c7) non-profit organization, dedicated to the enjoyment and promotion of the sport of soaring. SSC is based at the Front Royal-Warren County, Va. Airport and is an affiliate club of the Soaring Society of America. For information about the club go to www.skylinesoaring.org

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