



SKYLINE

MONTHLY NEWSLETTER OF SKYLINE SOARING CLUB, INC SEPTEMBER 2011

Masthead photo by Dick Otis

From the President

Curtis Wheeler

Well we are now in September and our soaring conditions are improving! After many weeks of rather poor conditions, good soaring days are reappearing.

Overall, the club is in good health, with our number of tows up over previous years (240 tows above what we have had in the previous two seasons at the same time), although our average sortie duration is lower.

Here are a couple of administrative items I want to call to your attention. We will be replacing a Board member seat due to normal rotation in January, and its not too soon to consider serving. Also, I will vacate the Chief Tow Pilot job in January and I encourage all towpilots to consider serving in this capacity.

Also, we are in need of towpilots who can tow during week-days. Its an exceptional commitment but please consider flying on weekday ops days, which are usually Thursdays, Fridays and Mondays. We are looking at ways to ensure that a minimum number of tows occur on these days to make it worth the towpilot's time to come out and tow.

Keep up the good soaring. This club is performing very well and I'm quite proud of you all.

See you at FRR,
Curtis

Lessons for Soaring (and Life)

George Hazelrigg

Every club has one (or two or three). It's the pilot who launches when everyone else is falling out of the sky and comes back four hours later. How does she do that? It's the 13-year old who enthusiastically sets the goal of solo on his 14th birthday, and who has blown through primary instruction without a hitch. Some people just seem to get it. Soaring is a guiding light. People who soar in the air soar in life. Teens who fly do better in school, they stay out of trouble and they stay away from drugs. Flying in general does something to people to make them better. But soaring is more than flying, it's a way of life. Indeed, soaring provides many lessons for life. We learn them if we want to do more than sled rides, and they permeate our lives and change who we are. Here are eleven lessons I have learned from soaring.

1. Don't circle in sink—The most poignant lesson taught to me as a powerplane-to-glider transition student was don't circle in sink. He who circles in sink might even beat the towplane back. What a lesson for life! When things aren't going well for you, get out of there. Whatever you are doing, change it. Many times in soaring, we don't know where the lift is. Everywhere we turn, we seem to find sink. At this point, the best strategy is to fly straight. Go anywhere, but go straight, don't circle. Not only are we taught to

go straight, we are taught to point the nose down and get out of there quickly.

2. Release in lift—It's much better to start a flight in a climb at 2,000 feet than to be looking for lift at 3,000 feet. My rule is to stay on tow up to a minimum of 2,000 feet (a rule that I may violate on a really good day). After that, I release as soon as I am in strong lift for ten seconds. In still air on tow I climb at 600 fpm. Thus, when the vario reads 10 kts up for a slow count of ten, I figure I am in usable lift, and that's where I release. If I get a 1,000-foot climb following release, I've done far better than releasing at 3,000 feet to go looking for lift. In life, release occurs when we leave our parents to go out into the world on our own. It's so much better to do this with a good education and positive cash flow than to be in sink looking for a way out.

3. Savor the lift, shun the sink—Slow down when you are in lift and enjoy the ride. Speed up in sink. It just doesn't feel right at first. Our tendency is to want to go fast when the lift is good and, when we hit sink, the last thing that feels good is to point the nose down so that we sink even faster. But this is the strategy that works in soaring. And it works in life too. Savor the good times. Don't rush through them. It's the bad times that you want to get through quickly, and you may have to make sacrifices to speed the process.

4. With good lift comes strong sink—If you're sitting in eight-knot lift, you can bet that there's 10 knots down somewhere nearby. Something has to replace all that rising air. In life, there's good and there's bad, and they often aren't that far apart. Just remember the corollary to this rule: if you are in strong sink, there's bound to be good lift somewhere nearby. After all, something has to get out of the way of all that sinking air.

5. Good enough isn't good enough—Whatever happened to quality? Does anyone care anymore? The good soaring pilot cares. The yaw string stays straight all the time. Speed stays constant in turns. Pitch is always properly controlled. Circles are circular. The soaring pilot who thinks that good enough is good enough is on the ground in 20 minutes. Staying in and working lift demands precise flying. It demands perfect circles in a thermal. It demands maximum performance. The soaring pilot pushes herself to perfection. Challenge yourself to perfection in life as you do in soaring and odds are you'll do well.

6. **it happens—So you've got the perfect plan. A tow to 2K, thermals to 8K, that 50-km silver-badge cross-country. But it just doesn't turn out that way. A rope break at 300 feet on tow, clouds at 3,000 AGL, that pretty cu disappears before you get there: time for Plan B. The glider pilot trains for Plan B: rope breaks, off-field landings, even bailout. We expect **it to happen, and we never put ourselves in a position where we rely solely on Plan A. In life, it's nice to have a Plan A. But what if Plan A doesn't work? Are you ready with Plan B? A glider pilot is. A very wise instructor once told me, "You can fly anywhere that you can land." There's a Plan B for life!

7. If you don't like the conditions now, wait a minute—Nothing ever stays the same for very long, especially in soaring. Watch the clouds. If you don't pay attention, they seem to sit there all afternoon, drifting lazily across the sky. But the soaring pilot sees

that they are ever changing. In 15 seconds, a cloud can form or dissipate. Lift comes and lift goes. The soaring pilot learns to take full advantage of the situation as it is at the moment, and he anticipates that the conditions will be different in 5 minutes. In life, you have to take things as they come, use them to your advantage while they are there, and be ready for the next thing to come a few minutes from now.

8. Clouds can be your friends—In the cartoon strip *Li'l Abner* there was a character named Joe Btfsplk (pronunciation is the Bronx cheer), a jinx who went around with a cloud perpetually over his head. But in soaring, we don't consider it a jinx to have a cloud over our head. Clouds often mark lift, and we are ready to use it. The lesson for life: one man's jinx may be another's gift. Look at everything as an opportunity.

9. Lift is cyclic—There are those days when there is good lift for 30 minutes followed by 10-15 minutes of big sink. Then the lift begins again. Isn't this just like life? In soaring, what we learn is to take maximum advantage of the lift while it lasts. We get as high as we can. Then we have the ability to ride out the sink. In life, when we hit the good times, we need to take advantage to prepare for the bad times. If we work hard and save during the good times, we'll ride out the bad times and be around to enjoy the next up-cycle.

10. There aren't many drug addicts flying gliders—Darwin has something to say about this. It may be that losers choose not to fly, it may be that they automatically take themselves out of the gene pool, or it may be that flying makes people successful. Any way you cut it, losers don't fly. When you go to the glider port, expect to meet a group of people who are winners in life. The airport is not a place to go to meet your drinking buddies. Success by association is not a fantasy in soaring or in life.


11. Help helps—Finally, soaring is a most peculiar sport. It demands strength, endurance, fortitude, clear thinking and spit-second decision making. Being reasonably good at math helps a bit too, and my flights are all rather computationally intensive. It takes a team to launch a glider; it's one sport that you cannot do alone. Yet, when you do it, you are alone, lying on your back in the sun (or better yet under a cu), and this means that soaring people are special. They are always ready to help each other. A midnight retrieve 200 miles from home base was one of my best soaring days, and I was doing the retrieve, not the flying. Soaring helps us to learn how to help others achieve their goals. We do it for them, and they do it for us. Of course, there's payback—that midnight steak dinner after the retrieve sure tastes good. 

Photo by Raul Pruitt





Photo by Martin Gomez

Back to Basics

Barry Schiff

I have commented that if I were king of the FAA I would require students to become glider pilots before allowing them into the cockpit of an airplane. This is because soaring offers a certain purity of flight that better teaches fundamentals by eliminating the masking and distracting effects of power and propeller. Even experienced airplane pilots should seriously consider treating themselves to a glider rating, enjoyable training that is guaranteed to sharpen your skills and improve the way you fly other aircraft.

An extreme example of the value of soaring skills occurred on July 23, 1983 when an Air Canada Boeing 767 ran out of fuel at 41,000 feet. The captain established a normal glide and headed for 60-mile-distant Gimli, a former Canadian air force base used for auto racing.

While on final approach to the 8,000-foot runway, the captain saw that he was high. Drawing on his experience as a sailplane pilot, he lowered a wing, applied opposite rudder, deftly slipped off the excess altitude, and safely landed what has become known as the “Gimli Glider.”

Sailplane pilots learn a great deal about principles that are directly applicable to flying airplanes. Power pilots, for example, learn only one type of glide, the one that presumably results in maximum range from a given altitude.

Glider pilots know better. While flying cross-country, they use the “speed-to-fly.” This is the optimum glide speed corrected for the vertical velocity of the air. When flying in rising air, the pilot reduces airspeed and spends more time taking advantage of the benefit. In sinking air, he increases airspeed to expedite passage through this adverse condition.

The same principle can be applied in an airplane. When penetrating updrafts, power pilots typically lower the nose to maintain altitude. This increases airspeed and decreases the time

spent in rising air. Instead, you might consider using updrafts to advantage. Accept the altitude gain and possibly reduce airspeed slightly to remain longer in those surges of lift (called “green” air by sailplane pilots).

When in sinking air, resist the urge to raise the nose to maintain altitude because this just reduces airspeed and prolongs exposure to the sinking air. Instead, accept the altitude loss and more quickly escape these deleterious effects.

Sailplane pilots also learn that the speed-to-fly increases when flying into a headwind and decreases with a tailwind. An airplane also glides farther when airspeed is similarly adjusted.

Single-engine pilots learn to maintain the best glide speed following an engine failure because this presumably results in maximizing glide range (ignoring the effect of wind). But this assumes that a pilot needs to maximize range. Often he does not because the selected landing site is nearby and extending glide range is unnecessary.

So here is another glider lesson. When soaring in thermals and attempting to gain (or maintain) altitude, glider pilots use the minimum-sink speed, the indicated airspeed at which a glider or an airplane sinks most slowly.

A Cessna 152 gliding at 60 knots, for example, has an average sink rate of 685 fpm when gliding from 10,000 feet to sea level, and the descent takes 14.6 minutes. When airspeed is reduced to the minimum-sink speed of 53 knots, however, sink rate is only 545 fpm. A glide from 10,000 feet would take longer, 18.3 minutes, an endurance increase of 3.7 minutes.

Unfortunately, the POH for an airplane rarely provides the minimum-sink speed. Typically, it is about halfway between stall and best-glide speed.

When gliding an airplane at “minimum sink,” the time required to lose a given amount of altitude is maximized. This provides more time to attempt an engine restart, brief passengers, etc.

The wing span of a sailplane is much greater than that of a lightplane. When ailerons this far apart, there is substantially more adverse yaw effect. Consequently, glider pilots necessarily learn to

be more adroit coordinating stick and rudder.

Since they usually are not preoccupied with air traffic control and airspace restrictions, they have more time to master fundamentals. Power pilots have so much distracting, extraneous stuff to learn that the art of maneuvering often suffers in the process. The duration, range and altitude of a sailplane flight also depend on how well a pilot envisions the motion of the atmosphere. Such skill and knowledge is directly transferable to powered flight because locating and taking advantage of thermals and ridge lift (or avoiding sinking air) significantly improves airplane performance when operating at heavy weights and high density altitudes. Soaring experience helps us to visualize how sun, wind and topography combine to produce rising and descending currents of air.

When sharing a thermal or a ridge with other sailplanes, it is not uncommon for gliders to safely operate within 100 feet of each other, which teaches us to maintain extraordinary vigilance for other traffic.

The relatively low speed of soaring flight makes the effects of wind more observable and more indelibly teaches us about drift and wind gradient.

Glider flying obviously provides experience in power-off ap-



Photo courtesy of the author

proaches and off-field landings, invaluable experience for those accustomed to relying on power.

A most compelling aspect of soaring is that it is an infectious, aesthetic elixir. It is washing your wings in the wind and flirting with the breezy whims of Mother Nature. It is sliding on quiet wings over windswept ridges in the company of a lone hawk and inhaling a sense of freedom and exhilaration like no other.

Barry Schiff is a glider instructor and has been flying sailplanes for 55 years. An award-winning journalist and author, he is well known to flying audiences for his numerous books and more than 1,500 articles published in 100 aviation magazines, notably *AOPA Pilot* of which he currently is a contributing editor.

With 27,000 hours logged in more than 310 types of aircraft, Barry Schiff has received worldwide recognition for his wide-ranging aeronautical accomplishments. He was a rated Airline Transport Pilot at 21, and has earned every FAA category and class rating (except airship) and every possible instructor's rating. Capt. Schiff retired from Trans World Airlines in 1998 after a 34-year career during which he flew everything from the Lockheed Constellation to the Boeing 747 and was a check captain on the Boeing 767

Visit the author's Web site <http://www.barryschiff.com/>

Skylines is most grateful to Barry for use of this article which first appeared in *AOPA Pilot*.

And a big thanks to Skyline member Rob Creedon for alerting us to the article and contacting the author—*Editor*



Photo by Martin Gomez

Membership Report

Steve Rockwood, SSC Membership Officer

After several months of high new introductory memberships and people coming to the airport with FAST vouchers, only one new FAST member joined in August. We added three more Probationary members bringing our active membership to 89 members. Please welcome the following members who have recently joined with Probationary Membership status:

- **Pete McShea:** Pete lives in Fairfax, VA and joined the club with the FAST program to check out our operation. He must have liked what he saw because he joined as a Probationary member shortly thereafter. Pete has 16 years of military aviation experience and accumulated over 4,000 hours of flight time, but little glider experience. No worries, our team of instructors will quickly resolve that issue. Welcome to the club Pete.
- **Rick Smith:** Rick comes to the club with a family of young-

sters ready to learn to soar. Rick joined as a Probationary member with sons Matthew (13 years old) and Timmy (11 years old) as Family members. Rick and both sons have had numerous training flights and should progress very rapidly. Rick also has a 15 year old daughter that may join the club with a little convincing from dad. Younger son Patrick (6 years old) wangled his first glider flight from George H. several weeks back. The Smith's live in Purcellville, VA. Welcome Smith family.

- **Hughes Webb:** Hughes is an extremely experienced pilot with over 19,000 hours of flight time and an ATP certification. He is the proud owner of a Cirrus SR22 GTS. Hughes lives in Middleburg, VA. He comes to the club with very little glider experience, but I am sure his glider add on rating will be coming very soon. Welcome!

Welcome Edward Smith who recently joined with an Introductory Membership. Edward's son-in-law gave him a FAST voucher for his 90th birthday. Charles Norman was the lucky instructor that flew with Edward on August 21st to celebrate his birthday.

Bergfalke 55-2 Flight Review

Doug Hiranaka

Most aircraft reviews tend to concentrate on numbers and performance. This is a real life operations and handling qualities review. First I would like to thank Bill Burner for supplying the aircraft and airport for the flight test.

The flight was very spontaneous and ad hoc as the day was winding up Martin asked if I wanted to fly the plane while he took pictures.

"You realize I am not checked out in the ship so most of the flight will be figuring out how to fly the thing..."

"Ya, ya details, details..."

"Um, ok..."

I searched out Bill and asked if he was alright letting the two of us fly in his plane. He wasn't concerned either so I asked for a cockpit check. The things of note: The blue lever on the left is the air brakes (no wheel brakes), the yellow t-handle on the dash is the tow release, the brass lever on the right of the cockpit is trim (2 position – fast and slow, fast for tow slow for thermaling). Stick forward ground get closer stick back ground gets farther for a few seconds then gets closer... Speeds to fly:

"Don't worry about it, you will figure it out..."

The Bergfalke is a tandem 2 seat tube and fabric cloth covered aircraft designed to fly in light lifting conditions also known as a "floater". The plane is much lighter than the glass trainers and about the same as a 2-33. Visually there is a huge rudder and the wings are swept forward. The tail has a skid which works well for the grass and a removable castoring tail wheel.

I tried on the cockpit and no adjustments were required, I could reach the pedals and could see out. I verified that I could reach everything especially full forward stick remembering my Schweizer tows with lots of forward stick. We closed the canopy to verify that I fit. I asked Martin if he could see out the front.

"Why? You are flying!"

"Um, ok..."

We used a atv to tow out and down to the launch position. The preferred launch area was over the top of the hump at the north end of the runway. I ran through a standard checklist as I buckled in. Last item canopy closed. Pilot ready, signal wing up! Rudder wag and we start rolling. We are off the ground at the hangar (same place as the 1-26). I push forward on the stick to stay behind the Pawnee. So far tows like a 2-33. We are climbing slightly better than the 1-26 behind a 150hp C150 about 5-6fpm. The plane is fairly stable on tow but lighter than a glass trainer. Doesn't have that really heavy, stable truck like feel. Light almost like a single seater but just a little more stability and heft. I call out altitudes and landing options until we reach pattern altitude. The tow is circular around the airport so at 4,000 msl (3,000 agl) we are due east of the airport. A quick check for traffic reveals a couple of gliders in the general area above us so I release and turn. The feeling on tow of lightness is confirmed with a lot of adverse yaw. More than a Grob. Lots of rudder led into a turn (could be the forward sweep on the wings?).

I turn enough to see the tow plane and see the general area so I start my deceleration to feel the low speed flying qualities. Nice aileron response. Lots of buffet at 38 indicated to warn of a stall. Didn't let it break with a passenger in the back. Ok, about 55

Photos by Mike Peterson



for a approach speed. I hear a voice from the back:

"Check the spoilers."

So I open them. Feel nice and effective. I do a slip just to see how it slips. The rudder kicks over to the stop in a slip so I make a note to myself. Only use slips for gross losses of altitude. I turn level and speed up to 55 indicated. Seems to be reasonably close to best L/D speed. The vario is effective in this ship so I point toward the airport and look for thermals. Right over a parking lot where I found a thermal earlier was 3kts up. I turn and center fairly well for a couple of turns but fall out because to get the yaw string in the center I have to use lots of in turn rudder and OUT of TURN stick. Staying in the thermal needed a tighter turn but I really didn't like the stick direction in a steep turn. So I turned to enter the pattern on the west side of the airport. I did a normal 45 pattern entry and aimed for the assembly area 2/3 of the way down the sloping runway. The spoiler are very effective and no slipping was required for a normal approach. As soon as we were 5 feet up I closed the spoilers to surf to the hangar. As soon as I was sure we could make it I opened the spoilers just a crack to pin the plane to the grass as soon as the main was down I closed them again and tried to roll to the hanger (2-33 technique). I forgot about the skid and instead of rolling on a tail wheel I was sliding on a skid so I stopped just before the hanger instead of in front of it.

This is the 39th aircraft I have flown and most require close to 40 hours to learn every quirk and technique to optimize flying so a 20 minute flight pretty much just gives a taste of how the plane flies and an brief intro to how it performs. On the other hand you can learn enough to do safe landings in a fairly short amount of time using standard rules of thumb. 1.5 stall speed for approach. Actually stall it to see how it will arrive on the ground, check low speed maneuvering. Stay coordinated (I broke that one early in the flight but this is a different handling plane).



Photos courtesy of Jim Kellett

Alice, Dan and the Glider Freck.

Alice in 1974 and 2008



It was an experience,

Jim Kellett, Glider Freck

In the fall of 1974, I was working on an 18 month Intergovernmental Personnel Assignment as the Science Advisor to the Illinois General Assembly in Springfield, Illinois. My teenage daughter and I were occasionally flying gliders with the University of Illinois soaring club in Champaign, but we were approached by a couple of pilots who wanted to start a club in Lincoln, just a few miles north of Springfield. So for a few months, I helped them get off the ground, literally and figuratively.

I also had a part time appointment on the faculty of Sangamon State University in Springfield, where we became good friends with one David Sennema, also on the faculty.

Long story short, we soon wound up at the Lincolnland Soaring Club's facility with his family, where I introduced them to soaring. Dan got a 'proper' introduction in the front seat of a 2-33, but we took the others—Dan's wife and three kids, doubled up in the back seat.

The star of the afternoon, at least for me, was Alice, then eight years old, who wrote an essay about the experience; Dan graciously sent it to me, and it still sits proudly in my office as a reminder of how much fun we can have introducing newbies, particularly youngsters, to soaring. I really like the "True" and "He is a glider freck".

Skip forward 35 years...Alice, now 44 and with two kids, lives in Parkersburg, West Virginia and works with a company in Charlottesville that brings kids to DC for tours. Thanks to the miracle of the internet, we touched base recently, and got caught up...maybe I can convince her to bring HER two kids to Front Royal!!

TRUE!
Alice S. Boo October 1 1974
Language
One day a pretty long time ago
My dad said he had a surprise
for us. He took us to an open
field with airplane stalls. We were
going glider riding!!!
My dad's friend is a glider
freck. He is! He took the
family 2 by 2. Dan and I rode.
Julie and Mom rode. And since
it was Dad birthday dad rode
in the front of the glider.

and because it was only
a two person glider it was
very squashed and Dr. Kelet
was in back. We stayed there
all day we even ate lunches
there. It was an experience.

Editorial Gratitude

Phil Jordan

I must confess there are months when I look forward to the production of *Skylines* like a colonoscopy—I know I have to do it but, jeez, again so soon; and the preparation is much worse than the procedure.

I'd be far less than naive to think that there isn't a constituency of Club members that perceive a monthly newsletter as an after-the-fact-retro vehicle. I understand. I work for a massive agency that is suffering mightily from its inability to change as rapidly as technology and is in a low altitude spin with its stick held firmly back by its legislative first officers.

That said, with a total recognition that texting, twitting, twatting and tacking to a wall is where it's at, the last two issues of this Studebaker have filled me with gratitude to so many Club members who have come forward with informative contributions of both stories and photographs of imagination and substance (not that the terms are mutually exclusive).

Given that all my moments are "senior moments" I'll not list all those members who have stepped up to contribute wisdom and beauty to *Skylines* for fear of overlooking someone. For a list of those simply read the bylines and image credits every month.

I can't say "thanks" enough for without all you, I'd have write this stuff. Should that happen the entire Club would be overwhelmingly grateful for all your contributions.

Right: Makeup your own caption for this photo by Mike Peterson—be kind.

Below: One beautiful state-of-the-art aerial creature; speaking of the plane, of course. Photo by Martin Gomez



Above: Multi-talented Martin Gomez photo by Dick Otis



Recycled
Information
Worth
Repeating

SAY AGAIN



Just a reminder that the Air Show is coming up, but it is not too late to volunteer to help out. We already have a great group of volunteers lined up, but we can always use additional help. The Air Show is on September 10th. If you would like to participate please send me an e-mail.

To all those who have already or plan to volunteer, I will be sending out instructions next week on where to park, where and when to meet, what our actions will be, etc.

Stay tuned!

Steven Rockwood, Coordinator

Congratulations to Skyline's newest "A" Badge holder! Robb Hohmann took to the skies alone for the first time on Friday, August 26 after being signed off by the Resident Curmudgeon, who awarded the SSA "A" Badge upon landing. *Well done, Robb!*



Here is another result of recent Operations, written by my guest to her 11 grandchildren and 3 children: Thanks again to everyone who made this possible—*Greg Ellis*

Dear kids etc!

I had a wonderful time soaring! These photos show happy me, the take off, being towed in the air, mountains and farmlands below, clouds above and the plane and it's pilot, Greg Ellis, on the ground! We were towed to about 3000' and released. Then we looked for and caught a thermal and went up to 6000'. We spiraled up the thermal, like a corkscrew, a couple of times! I experienced 2 Gs on a turn and saw mountains, valleys and the Skyline Drive!

We bounced around a little but mostly it was smooth and quiet, just the sound of the rushing air. We were up for 50 minutes and it was fabulous. I hope you all get to soar sometime!

Love Mom and Grandma



(I just attached one of her photos—you have seen many similar to the others—Greg)



This is Randall Burdette, Director of the VA DOAV, presenting me with the Virginia Aviation "Person of the Year" award for my work in founding, and currently coordinating the activities of, the Virginia Soaring Association (see <http://vasoaring.org/>). VaSA is an association of the six SSA Chapters in Virginia who have formed the group in order to have a voice in the State's development of aviation policy and in promoting soaring within the State. (Curtis Wheeler is the current primary representative of Skyline to VaSA.)
—*Jim Kellett, Coordinator, Virginia Soaring Association*



Skyline Soaring Club, Inc.

is a private, 501(c)7 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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