



A GOOD DAY TO RUN RIDGES

Tuesday, June 17, 2023

Piet Barber with Nelson Brandt

Around Wednesday, I got a clue that the upcoming weekend was going to be an absolutely amazing soaring day. A cold front was scheduled to pass on Friday night, leaving cold air, and a brisk northwesterly wind. These two factors meant that this is going to be a great soaring day. The best part of all -- this excellent soaring day was going to happen on a Saturday, and not on some random Tuesday.

Not only was the weather going to be great in Virginia, the winds and air aloft was predicted to be a great soaring day all the way up into Pennsylvania, too. This could be one of those rare days where the soaring is great all the way into the ridge system in Central Pennsylvania. I had to start looking for a copilot.

I asked two people who had previously indicated that they were interested in doing a cross-country soaring adventure with me. Both of them were

scheduled to be out of town. This caused me to expand my search. I asked a glider pilot who lives in Miami, FL if he would be interested in joining me. Nelson Brandt had indicated that he would drop everything and show up for a good ridge adventure, so I asked him about his availability.

Nelson dropped everything, and found a flight to DCA on Friday. I have a spare room in the house, so he spent the night. We woke up early, and got to the field by 0800. The glider was assembled by 10:00. The tow pilot reported that conditions aloft showed strong northwesterly winds, and



QQ is assembled and ready for flight by 10:00 A.M.

even that the tow plane could soar on the ridge. What a great start!

I had come up with an ambitious task to take advantage of the great soaring conditions. The plan was to launch from Front Royal as early as we could get aloft; somewhere before noon would be preferable. The task starts at the southern end of the Massanutten mountain at Laird's Knob. From there, we would head north along the Massanutten ridge, find some thermals, and cross terrain using thermals for lift. The goal was to get to Dickey's Mountain in Pennsylvania. At that point, we could scream along the Tuscarora mountain past McConnellsburg, PA. We could make a transition to Shade Mountain, and go to the planned turn point on Shade Mountain near Snook airport (PS06). Then we'd turn around and come back. The whole trip was planned to be 560 kilometers out and return. We would get more credit on OLC for the trip down to Laird's Knob to start, and the trip back from Laird's knob after the finish.

The night before included preparation by measuring 60 liters of water for the wings, and another 15 liters of water we'll use for adding tail ballast. I put the water into 20 liter jugs, so we didn't have to spend valuable time measuring water in the morning. Adding water will get the mass of the glider much closer to the maximum gross weight. This allows us to fly faster when the conditions are strong, and have a smoother flight while on the ridge. We'll add water to the tail to make it easier to center thermals, while we're not ridge soaring. Last year I wrote a Microsoft Excel spreadsheet to calculate and display the weight and center of gravity, when programmed with pilot weights, oxygen bottles, liters of water, etc. Loaded with 60 liters of water in the wings, we're going to be heavy!



Adding 11 liters of water to the tail before takeoff

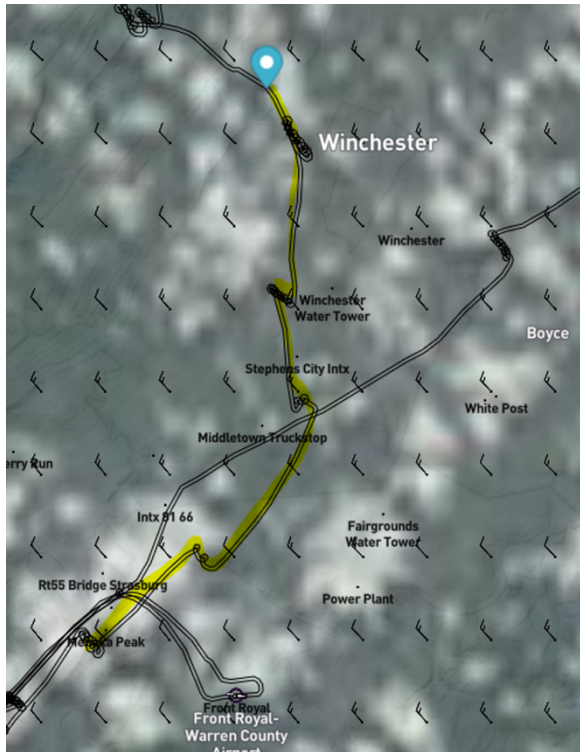
We launched just before noon. We headed straight to the northernmost portion of the Massanutten mountain, to a location named "Signal Knob". We flew along the ridge, and it seemed like it was working well. We descended down to 2200 feet MSL, and I started to take note that the flight computer was reading a wind velocity of 6 knots at ridge top height. I spent some time doing figure 8 motions where the lift was stronger. Maybe the winds weren't strong enough yet?

Also of note was the fact that the visibility was terrible. I hadn't seen any prediction of such poor visibility in the forecast. It was hard to see more than about 5 miles down the ridge due to smoggy haze.

We made it down to Laird's Knob near Harrisonburg, VA. There, we turned around, and I had increased confidence that the ridge was working. As we approached the part of the Massanutten where route 211 passes through the mountain, I made some figure-8 turns to gain height. Here's a link to a short video of that run:

<https://www.youtube.com/watch?v=wwLkf8MmHVI&t=5s>

By the time we got back to Woodstock, VA, a hang glider launched and was soaring in thermals. We joined him for a short bit. After getting past the Massanutten, we blundered out into the hazy smog, looking for thermals.



Satellite photo of the clouds at 14:00

14:00 By the time we got north of Winchester, we were way behind my time plan. I really wanted to launch earlier, I really wanted that ridge lift on the Massanutten to be more reliable, I really wanted the thermals to be stronger by this point. I was starting to get anxious that the day was going to run out of soaring while we were still far from home!

We found some marginal thermals -- one near Gore VA -- that got us closer to the West Virginia border. We headed north and finally found a thermal that gave us a really comfortable altitude of around 6000 feet MSL. The valley in front of us didn't have as wide a selection of suitable landout fields that we can usually find in the Shenandoah Valley. This wasn't treacherous terrain, though.

A few more thermals got us to within gliding range of [Potomac Airpark](#), which is right across

the river from Hanover, Maryland. I knew once we had a good altitude over the Potomac river, we could easily connect with the Pennsylvania ridge system.

The winds had been really reducing our speed for all these thermals. For each thousand feet we climbed in a thermal, the wind would push us 5 or 6 miles perpendicular to our course. It would be a really welcome change to have a high ground speed, instead of inching along with thermals.

By 3 PM, we had finally reached the southern end of Dickey's Mountain, and the Tuscarora mountain ridge behind it was sure to be a great ridge run at 100 to 110 knots. It did not disappoint! Here's a link to another short video of this segment:

<https://www.youtube.com/watch?v=q-4O1MZoxIkTuscarora Ridge Soaring>

We were way behind on my time plan. I was growing increasingly nervous about how we weren't as far along as I had hoped. Back on Friday, when I was planning this flight, Skysight told me that the task was impossible considering the conditions. I was starting to wonder if the software was right!

The task I had planned included one transition to an upwind mountain range. This is a place where I would need a thermal to get high enough to go up wind and connect with Shade Mountain. Unfortunately, by the time we got to that part of the ridges, things were not looking so good. The haze had set in, there was a really thick cloud over that area. We had no idea how the conditions were ahead on Shade Mountain.



Sat Photo of the terrain for that transition



Sat photo of the cloud conditions when we got there

It just didn't look good. I really didn't want to get stuck on Shade Mountain for the rest of the day. I really didn't want to have to land out at the bottom of one of those mountains. (The fields around here are quite landable, and I would have made a safe landing for sure). We had another 60 miles to go on the ridges to get to the

turnpoint. We had another 60 miles to get back. At 100 knots (a very realistic speed), it would take us nearly an hour to get back to this point on the ridge again. And who knows if the conditions are going to allow for a thermal to jump back from Shade Mountain to the Tuscarora?

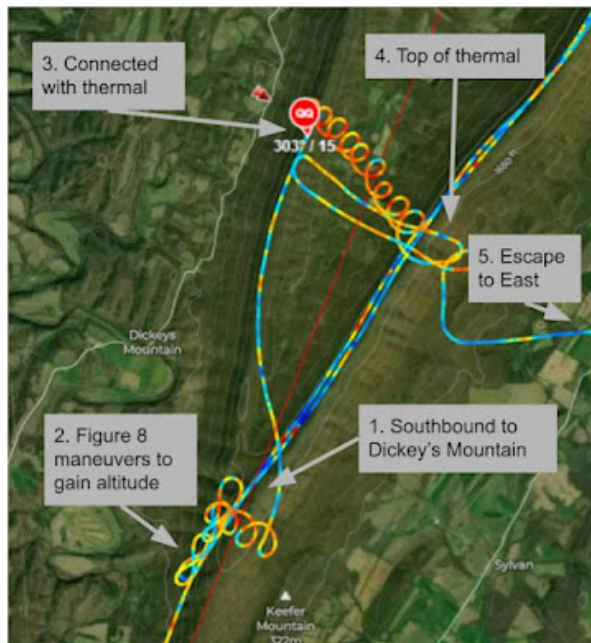
I decided to turn back. You know, we had already made an excellent trip up here, and the conditions weren't looking that great up ahead. I stand by my decision. Now we just had to get home! This looked like it was going to become increasingly difficult.

We headed south on the Tuscarora back to Dickey's Mountain. There, we would have to find some sort of thermal to get off of the Pennsylvania ridges. The thick layer of clouds above looked like they were going to shut off the thermals for sure. Maybe we will be landing in Pennsylvania, after all! Here's a short video southbound on the Tuscarora:

<https://www.youtube.com/watch?v=q0kx5kxKErQ&t=9s>

Once we got to the bottom of Dickey's Mountain, we faced the challenge of climbing up to escape the ridge system. At first, there was no real lift to work. We needed to hang around for a bit to find something strong enough to get us high. The overcast wasn't helping. I took over and performed some figure 8's in front of Dickey's Mountain. We noticed a nice cloud had formed over the track we just flew under. Given the wind strength, there was no way the mountain we just flew along generated that lift, it had to come from a source upwind.

I took the glider upwind on the other, smaller ridge, and found a great strong thermal to get us out of that mess. By the time we got out, the thermal had gotten us from 2900 feet to 5300 feet, and we had made our escape to the East.



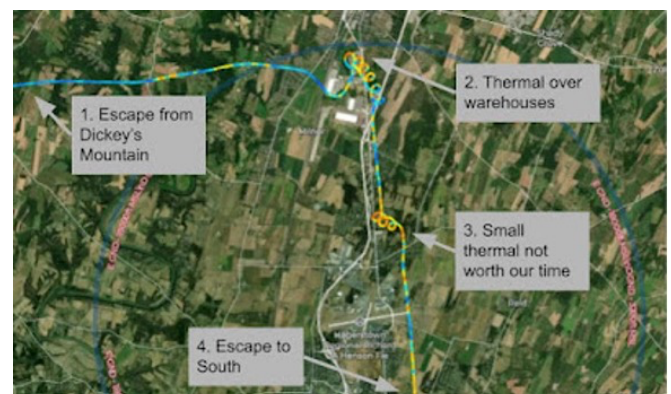
Our escape from Dickey's mountain required a strong thermal on the upwind slope

Once we successfully escaped from Dickey's Mountain, we still had a long way to get home. Dickey's Mountain is 55 miles away from the Front Royal Airport, and things aren't looking that great. There are a few clouds in front of us, but all of the clouds to the left of our track (to the North) look like total garbage. In the meantime, the radio chatter from Mid-Atlantic Soaring in Fairfield, PA is asking their duty officer to check for radar echoes. The grey clouds looked ominous enough to them to make them wonder if some rain showers were developing.

Since our task of going to Snook and back was canceled, maybe we can scrounge a little bit of glory back from this flight by landing at M-ASA and getting the Boomerang trophy... again. We tune the flight computer, and at one point, we were 500 feet below glide slope to make it to M-

ASA. After hearing the negative words from M-ASA, and seeing the yucky clouds, we make a right turn to continue heading home. But that takes us right over the Hagerstown Class D airspace.

When we got to the airspace around Hagerstown, MD, we got down to about 3700 feet MSL. The Hagerstown Class D is at 3200 feet. In order to get into that airspace, we needed to establish radio contact with the control tower. I looked up the frequency in the flight computer. Nelson called the control tower and got us clearance to transition the airspace if necessary, as we transitioned south. We found some nice thermals over some warehouses. We got a good look at the airport as we crossed nearly overhead. There was a DHL cargo plane parked on the ramp, and there were a few fire-fighting airplanes that I didn't get a good enough look at.



We found a thermal to the south of Hagerstown, MD. It is very likely that this thermal was generated by the Maryland Correctional Institution, or the Roxbury Correctional Institution. By looking at the circles we flew, it sure does look like the solar panels they have in the southwest part of that property are what kicked off that thermal.

Somewhere around here, I suggest that the thermals haven't been that good lately. Maybe we should dump the water ballast so we can work the weaker thermals. Of course, once we dumped the water ballast, the thermals got much stronger. We dumped the water at 16:23, according to the flight logs. Four minutes later,

we find a great thermal right over the Potomac River. We climbed from 2600 feet to 5640 feet in a matter of 10 minutes. I had some time to look at the scenery, and I noticed some kayakers on the Potomac river below. It had been over four hours since we took off, so I took advantage while Nelson was flying. Nelson was doing the circling while I was... uh... dumping my own water ballast. Sometimes it's really good to have two pilots on-board for these long flights.

Things started getting easy again. We had escaped the overcast yucky skies to the north, and the thermal clouds are looking better. The visibility was improving. I could just barely make out the Massanutten mountain at Signal Knob about 15 miles away.

"Do you really want to land back at Front Royal, or do you want to run the ridge again?" Of course Nelson said, "Yeah! Let's run the ridge again!"

We made Signal Knob at 2400 feet MSL, just slightly higher than the mountain. Yep. The ridge was working, and it was working well. Unfortunately, we didn't have any water ballast, so this ride was a bit rougher than the ride along the Tuscarora a few hours earlier.

Nelson did the ridge run southbound, and I took over once we passed the turnpoint at Laird's Knob. On the way back northbound, Nelson got out his iPhone and started recording. We had a great video of the glider's shadow on the mountain. As we approached Route 211, I spotted some hikers on the [Yellow Cliffs Mountain Overlook](#). See them in this video:

<https://www.youtube.com/watch?v=huUPxGBSbt&t=74s>

While I'm doing all the flying, Nelson made a time-lapse video of the ridge run on the northern part of the Massanutten. You can see from this video the transition across Short Mountain. Take a look, but try to not get dizzy!

<https://www.youtube.com/watch?v=cczN8fy-5oA>

We safely landed after 6 hours and 48 minutes of flying. What a day!



Piet Barber (left), Nelson Brandt (right) after almost 7 hours of flying

I'm happy that the ground crew stuck around to help us put the glider away. We spent another 45 minutes cleaning the wings, taking the wings off, putting the fuselage back into the trailer. I wear a special apron when I'm assembling and disassembling the glider.



Another safe put-away after a day of soaring!

We had the 11th highest score in the US for Saturday. We had the highest score east of the Mississippi River. All of the other OLC pilots in the USA had flights out of Region 9 or Region 12 (Warner Springs and Parowan)

Flight Log Links: [WeGlide](#) / [OLC](#) / [SeeYou.Cloud](#)



BADGES

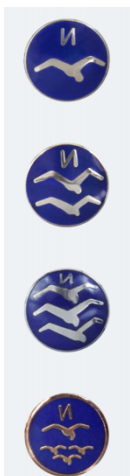
Ralph Vawter

Skyline Soaring does an outstanding job of training new glider pilots, all the way from Ab Initio members to experienced pilots who wish to add a glider rating. Instructors are available at every flying operation, at no cost, following an extensive curriculum developed over the years. It's not easy or fast to become a qualified glider pilot with Skyline, but when one does, they are safe and capable pilots.

What about after that? A lot of us, myself included, show up at the airport, take off, fly around for as long as we can, land and regale ourselves with having a safe flight, caught a few thermals, gained some altitude. Are we developing our soaring skills as much as we could?

I started off with the idea that the club should have some sort of "program" for experienced pilots to learn to fly longer and farther. In other words, a cross country program. After talking with a couple of our seasoned instructors, it was pointed out to me that such a program exists, the SSA Badge Program.

We know about it, there is the ABC program, Bronze, Silver, Gold, etc., but we don't seem to make very much noise or push towards them. For the students with Skyline, when they first solo, they are eligible for the A badge. I have heard or been at the airport when somebody solos for the first time, but I haven't heard any proclamation that an A badge has been earned or awarded. Each of our instructors are endowed with the power to bestow a badge to a recipient. Are they doing it? Or are



they just making an entry in the student log book endorsing the privilege of solo flight?

How about that B badge? Again, a few of our less experienced aviators have flown that time-qualified flight. With the time restriction on usage of a two-place glider coinciding with the conditions available on a given day, it is tough to earn that badge. Some of our members have done that, with little fanfare or acknowledgement.

Paint me guilty of the lack of energy towards this program. I have been a glider pilot for over thirty years and have yet to earn the C badge. I think it is time to start a movement within the club to promote the club members to strive towards earning badges, gaining recorded acknowledgement of achievements, developing skills towards cross county flying. The club now has two high performance, single place fiberglass gliders. We have an Oudie for member use to record and submit flight accomplishments. SSA has started a free membership program with WeGlide to log flights. The tools are here, when are we going to pick them up and use them?

How about a "Badge Meister"? We have meisters for a lot of functions within the club. How about somebody who notes when students first solo and touts that accomplishment in the club newsletter. Tells the club that somebody flew a Silver Badge Leg, earned a Bronze Badge. Set a bar, give members something to shoot for. Let's put into action a self-paced program to advance the skill set of our members while encouraging them to reach greater heights. Waddy think?



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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