SKYLINES

MONTHLY NEWSLETTER OF SKYLINE SOARING CLUB, March 2013

Masthead photo by Dan Earnst

Safety Meeting

By Doug Hiranaka

Photo by Martin Gomez

Charles Norman hosted the Skylines annual safety meeting that is the traditional kick off of weekly flying operations in the Front Royal library. Soaring accidents were reviewed with no open spoiler early release accidents this year. Remember rudder waggle means: Something is amiss with the glider (usually spoilers open). Several mid-air collisions were discussed while gaggling. Remember always know where the other glider is. If you loose sight leave the thermal and re-enter only after you can see the other glider.

After the time was up for accidents we were treated to a talk by a master parachute rigger. The key points being know your chute, inspect before every flight, and REHEARSE EGRESS procedures every time you get in the glider with a chute and every time you get out of the glider.

Photo by Martin Gomez

Shane then briefed the members on the club oxygen system including a reminder of the altitudes that each delivery type is appropriate to.

Photo by Martin Gomez

Note to members: I prefer devices that are simpler and have fewer

failure modes. This MAY be the Aerox system. However the Sun Ship Group has purchased a Mountain High which we have christened at the Petersburg Wave camp and will continue to use for our high altitude flights. We did find that we may spend the extra money for the silicon face masks to avoid fogging of the glasses which the clear plastic masks do when used.

Photo by George Hazelrig

Maria Haas was awarded an SSEF scholarship. Maria is a senior at the Warren County High School, and she has aspirations of going to Virginia Tech to become an aeronautical engineer. We look forward to flying with Maria.

George

Petersburg Wave Camp 2013

By Joe Lingevitch

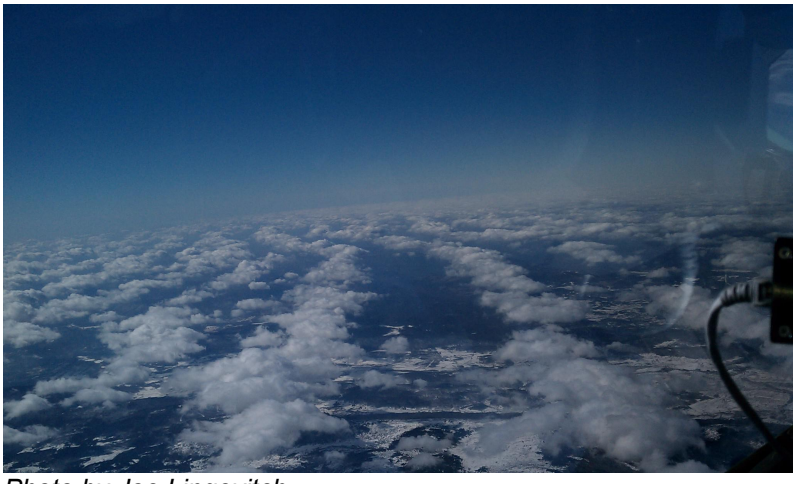
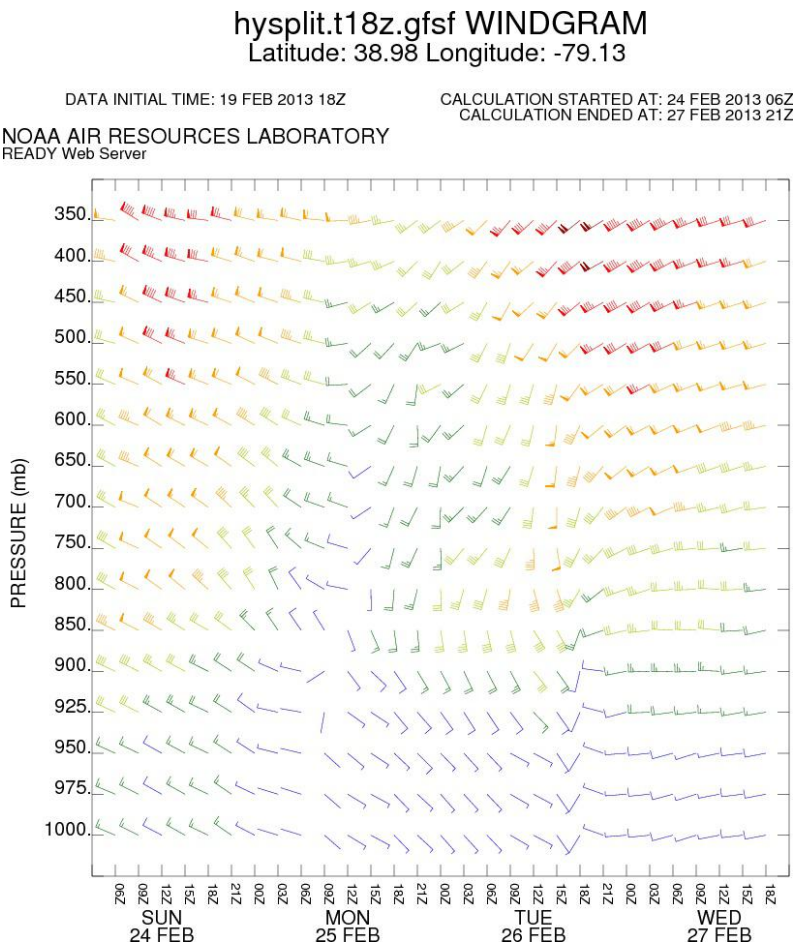


Photo by Joe Lingevitch

18000 feet over Petersburg

Wave camp 2013 got off to a good start on Sunday, Feb 24. My goal for this year's wave camp was to try for a Gold altitude climb of 3000 m, about 9842 feet. Diamond altitude climbs (5000 m) are not uncommon at Petersburg, thus there is a lot of interest from East Coast clubs. This year, there were participants from at least 3 local soaring clubs - Shenandoah Valley Soaring (SVS), Mid-Atlantic Soaring Association (MASA), and Skyline Soaring Club. The Grant County Airport facility is quite nice with a 5000 ft runway, a large hanger available for storing assembled gliders, a nice FBO with big windows overlooking the field, a camp site area just outside the airfield, and a lot of room on the tarmac for assembly and staging of gliders.

A group of Skyliner's drove out the club ASK-21 and two private ships (XZ and TO) after the safety meeting on Feb 23. One of the neat things about Petersburg is the interaction between many experience levels of soaring pilots. This creates a great atmosphere for learning and handing down the knowledge gained in previous years. I have been to Petersburg twice before, but have not been lucky enough to fly in the wave there. The rotor turbulence stories from Petersburg are legendary; one of the questions going in to wave camp was "How do I decide when to fly and when is it best to just sit back and observe the power of nature?" The answer is complicated because you need to push yourself without overstepping. Wave camp at Petersburg is a learning laboratory for challenging yourself, and exploring the answer to this question. It also provides an impressive venue for learning about wave soaring which is very different from thermal soaring.



I was about 5th in the tow queue on Sunday, Feb 24. All eyes were on the first gliders towing out to gauge the level of rotor turbulence near the ground. The early tow-outs looked pretty manageable with no major upsets of the tow plane or the glider for as far as I could track. It was also pretty neat to see that the observed conditions were in good agreement with the forecast from 5 days earlier (courtesy John Noss). Winds at the surface at noon were about 15G22 knots from 280. At altitude, I estimate a station keeping airspeed of about 55 KIAS at 18000 ft (about 500 mb pressure level), corresponding to a 75 knot wind from about 310 degrees. When my turn came, we hooked up TO to the SVS Pawnee and I had a very manageable tow to about 5000 AGL. The tow plane took me to the west to the leading edge of lennie at the primary wave. It's pretty recognizable when you tow into wave, the turbulence stops and the ride is exceedingly smooth. Off tow I had about 2 knots lift and from there I experimented a bit with my

airspeed to find the sweet spot. I pressed forward and found that the lift increased to about 6 knots and my ground speed was close to zero. Note to those of us who use Nano IGC flight recorders: if you fly in wave turn of the "Automatically finish flight" on your Nano. My Nano was configured to "Automatically finish flight", so when my ground speed was close to zero the Nano concluded that I had landed and closed the IGC file; this resulted in my flight being split into four separate files. This was also my first flight using our new Mountain High Oxygen system and it worked very well. I started the flight using the canula and as I climbed through 17K, I unplugged my cannula to switch over to the mask. Immediately my glasses fogged over and I had to take the mask off and slow down the climb by drifting back in the wave. I experimented for a while trying to get the mask to fit better, but eventually decided to stay below 18 K using the cannula while enjoying the beautiful view.

TO at 18k by Joe Lingevitch

Petersburg wave by Joe Lingevitch

Thanks to those who organized and attended wave camp, it was an unforgettable experience.

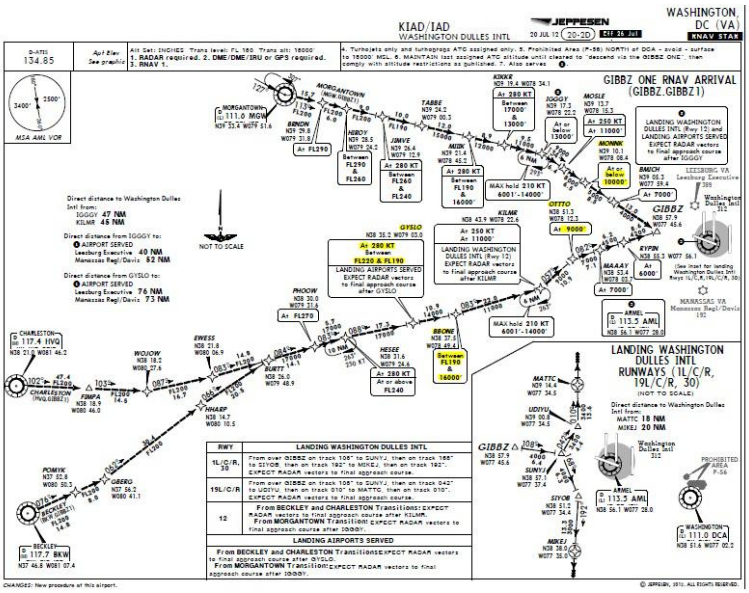
Gibbz1 Arrival

By Chuck Stover UAL, DG200 "RW"

Occasionally there is conversation at the field about where to find airline and jet traffic. This explanation is aimed at our students, so experienced folks bear with me please.

Major airports often have published arrival and departure procedures to sequence and separate air traffic in the area. What affects us most at FRR is the Gibbz1 arrival serving Dulles International. The chart for this arrival is shown in Figure 1. There are three entry points, over Morgantown, Charleston or Beckley WV. Beckley and Charleston joint out to our West and these in turn joint with the Morgantown leg to our East.

Unlike a sectional chart, IFR (Instrument Flight Rules) charts lack any reference to ground features. The four point stars are waypoints to be overflown by aircraft on the arrival. Each waypoint is named, it's Lat./Lon. Coordinates shown and any altitude or speed restrictions required by Air Traffic Control. Two waypoints of interest to us are Monnk and Otto. Monnk, on the Morgantown leg is located approximately over the White Post airport east of Winchester. Expect to see traffic at 10,000ft or lower descending to 7000ft. at a speed of 250kts. Otto, on the Southern Charleston, Beckley leg is located over Dickey hill. Expect to see traffic there at 9000ft. also at 250kts.



I had some idle time flying home from the West coast recently and took the photo in figure 2. We were cleared to Dulles via Charleston and the Gibbz1 arrival. The magenta line represents our active route. A segment of the Gibbz1 is shown here with North up. The several waypoints connected with a blue dashed line represents the New Market wave window. Notice the Gibbz traffic will be passing the very edge of the wave window between 19,000ft. and 16,000ft. If we're down there wave soaring that puts us and them really close together.

The hot spots would seem to be White Post, Dickey Hill and the

Southeast corner of the New Market wave window. There are always exceptions. ATC will vector aircraft off the arrival for a number of reasons, so please keep your traffic scan going at all times and all places.

Badge Flying

By Doug Hiranaka DG303 "TO"

How do you tell when you are ready to start learning about leaving the nest (flying cross country)? Two years ago I saw a 3 hour flight as almost unimaginable and going somewhere was in the realm of those few members that had flown for decades. Cross country is defined as the instant you can't return to the departure airport without more lift. This can change in seconds if you are in convection. One second you can make it, you fly 5 feet further you can't, then you hit a thermal and you have miles of margin. Good planning and monitoring of the current situation allows us to be beyond return to FRR but well within another known safe landing area.

ABC and Bronze badges provide stepping stones and land marks for progress. Each skill demonstrated for a badge moves the pilot incrementally closer to breaking the bonds that hold us to KFRR. The ABC badges provide basic flying skills, the Bronze starts with the advancement of thermalling and duration skills learning to stay aloft long enough to get somewhere, planning and basic skills required for remote airport or off field landing. The badges themselves are less important than the skills acquired and practiced. Most authors note that once a skill has been performed it becomes one of the tools available to the pilot. One of the skills learned and practiced is tenacity, continuing to fly despite discouragement due to slow progress or jealous peers.

Learning to get a glider on the ground safely is a basic skill for a pilots check ride. Intermediate landing involves being able to land with precision (anywhere on a runway or in the grass) and altering a touchdown point in response to changing conditions including when lift cycles or stops when many gliders can return at the same time. Always landing on the close end of the grass can cause stress if four gliders need to land. There is enough real estate at KFRR to land at least 9 gliders all at once: short medium and long on the runway, grass and the taxiway. Same concept works for an out landing. Changing the approach is continuous until the glider touches the ground.

Altitude gain is usually the first step in long flights. Scratching for lift down around 2500ft agl is a useful skill but to get somewhere the mantra is get high and stay high. A 3,000ft altitude gain is usually the first task before leaving the local area. This is not always true with ridge lift or consistent low thermals but if it is possible to get high the stress level on long flights is reduced. Around northern Virginia there is a band of lift that is strongest from about 3-4000ft to 6-8000ft. This is what all the pilots that fly for more than 3 hours have discovered. Flying cloud streets also requires knowing speed to fly. If the lift is strong up under clouds you can bet it is strong down surrounding the lift and in the blue holes. Flying 70-100mph is common pushing through the sink. The Sprite is an excellent trainer to learn speed to fly. Learn to fly at the right speed and you can stay up, fly too slow thermals can dissipate before you can arrive and utilize them. Flying Mcready speeds and becoming more aggressive (higher MC) allows duration in the Sprite and speed in a glass ship.

A 5 hour flight forces a pilot to explore thermals, which side of a cloud to fly under. Is there lift in blue holes? Sometimes. Is there sink under a cloud? Yes, but where? Can you ride a thermal under a cloud? above the cloud? Sometimes if the wind is blowing and you fly on the upwind side. Are thermals all round? Not even most of the time. Some are alternating up and down some are elongated most get stronger in the middle altitudes. There is a horizontal cylindrical thermal that forms with a south east wind off the north west end of the runway. All thermals cycle. What supplies do you need to bring to make 5 hours? After you have done something once it gets easier each successive time. A 5 hour flight starts a pilot having the faith that lift exists in other places when the current lift is topped or plays out.

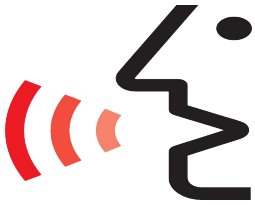
A 50km cross country is a introduction. 35 miles. A remote start can put KFRR 17.5 miles at the farthest at 35:1 (Grob) 2,000 + 4,500 = 6,500 ft (4,500 * 3.5 miles/1k ft) a safe altitude to remain above for a really conservative person. That could mean that the glider is never out of gliding distance back to KFRR. If you can climb to 10k it is possible to do only a final glide provided you meet the gradient rule. Though this defeats the learning and confidence building aspect of finding lift away from home.

Ratings, Badges, Milestones

Joe Lingevitch and Ertan Tete have unofficially flown the Gold altitude at Petersburg. The Nano continues to challenge wave pilots with the auto land feature which restarts the igc files when the ground speed records zero.

Recycled Inforation

Worth Repeating



SAY AGAIN

Photo by Dan Earnst

Ask 21 and Conditional Inspections

We will need a work party beginning @ 8:00am March 16.
Eric Litt has generously agreed to do the annuals on K, Sprite and Grob March 16, 2013. Like last year we should do one of the 2 place gliders in the morning one in the afternoon. We are asking for volunteers for the dis & re-assemblies. The benefits of helping out include seeing the internal workings of the gliders, and esprit de corps and hands on review of the internal parts of the gliders for students approaching their check ride. Every time you see the parts it makes it easier to describe to Marvin what the parts are and what they do.

Mike Christensen

Chris Zaboji meeting Dave Barger, President and CEO of Jet Blue

Stacked 2 high Petersburg 2013 by Shane Neizy

Vern Klein in wave above FRR Feb 24

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.skyinesoaring.org