

# SKYLINE



SKYLINE SOARING CLUB NEWSLETTER

April 2009

## www.xcskies.com

### *A Review of XC Skies Cross-Country Flight Planning Tools*

Since last summer I've been using a Web-based tool called XC Skies to forecast conditions before I head out to the field. XC Skies is a relatively new tool for soaring forecasts but it has rapidly become my favorite. The forecasts can be accessed at [www.xcskies.com](http://www.xcskies.com). It's a paid service but quite cheap, as low as \$30 per year depending on how you pay, and with a 30-day free trial period to test it out. It provides colorful, easy-to-read forecast maps overlaid on a terrain map. The result can be understood at a glance and the accuracy has been surprisingly good after using it for the past nine months or so.

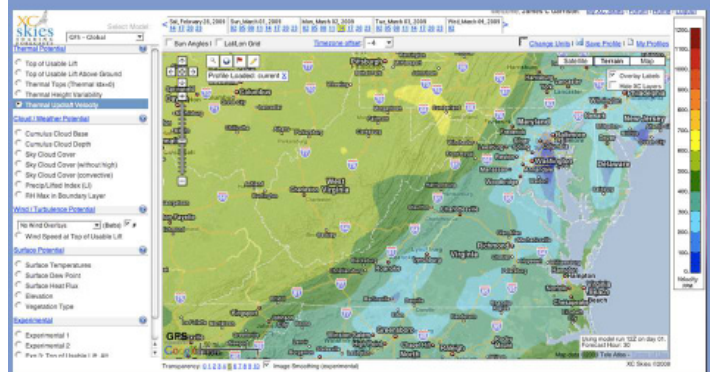
After logging in, you'll be presented with several different forecast tools. XC Explorer will display a route forecast, intended for planning cross country flights. XC QuickCasts provides an entire day's worth of forecasts at a glance using a grid to display the different times of day. But the workhorse is XC Maps which provides a detailed forecast view that's easy to explore by overlaying the forecast data on an interactive Google Maps view.

When entering XC Maps the first thing is to be sure that you're viewing the right area. The map can be moved by clicking and dragging, and the zoom controlled by using the slider on the side. To help with this, once you've found the right area (for example, the Front Royal area), you can save it to a profile which will take you back there every time.

The next thing is to make sure you're viewing the right time. I usually use it at night and it starts by showing me the forecast for that night. Not too helpful. And, for some unknown reason, the forecast thermals for 11 p.m. are always dead. You can set the time using the bar along the top of the window. Keep in mind the time zone offset from GMT, which can be adjusted just below the time bar, to make sure you're working with local time.

Lastly, pick the model. There're three choices here. GFS

### XC Skies Web Site



A combination of the NOAA models with Google Maps and some soaring expertise

**The [www.xcskies.com](http://www.xcskies.com) Web site presents weather forecasts in various formats designed specifically for soaring pilots.**

covers the entire world and provides forecasts up to three days in advance, but it's the least accurate. NAM covers only North America and only two days in advance, but it's generally more accurate. RUC also covers North America but only for the next day and it tries to be the most accurate. I always use NAM myself, but it never hurts to experiment.

Once you're looking at the right area (such as Front Royal) and the right time (the next day at 2 p.m.), the next thing is to examine the parameters on the left side. There are a lot of choices here, but I like to look at just a few of them in this order.

1. "Thermal Updraft Velocity" gives a good general idea of how the day will be, especially if you check a couple of different times around the middle of the day. If the forecast shows five-knot thermals at 11 a.m. and even better at 2 p.m., the odds are that it will be a good day. If this one is flat and blue all day, abandon all hope.

2. "Top of Usable Lift above Ground" shows how high you can expect that lift to go. Using the one without "Above Ground" will take terrain into account, which can be useful for visualizing conditions, but it's less useful for seeing what

the atmospheric conditions will be.

3. "Cumulus Cloud Base" shows how high the cloud base is expected to be or whether cumulus clouds can be expected at all.

4) "Precip/Lifted Index" will give an idea of whether those clouds are likely to produce rain or develop thunderstorms.

In addition to these it can also be useful to turn on wind barbs at different altitudes, which will show up overlaid on top of the other forecast data you're currently viewing.

I usually find this tour to be plenty to judge whether a day is worth driving to the airport, but there's more to be found. I left out a bunch of parameters that you can explore for even more information. By right-clicking on the map you can also view a three-day point forecast and forecast sounding information for any point on the map.

There is much more to the site than this, including the XC QuickCasts and XC Explorer tools which I'm barely familiar with myself, but this is already enough to be quite useful.

In terms of accuracy I've been tremendously pleased since I started using it last year. Like any weather forecasting tool it won't always get everything right, but my experience has been that for the most part you can count on XC Skies to get it right. In particular it's not as optimistic as Dr. Jack's BLIP-MAPS, which tend to show good days even when the day turns out not to be so good. When XC Skies shows six-knot thermals to 6,000 feet, odds are good that it will really be that good or even better.

XC Skies can be found on the Web at [www.xcskies.com](http://www.xcskies.com) and it offers a 30-day free trial. It's not free, but it's cheap and well worth it. The current price is \$30 for a year, \$20 for six months or a subscription at \$3/month. It provides value well and above its cost and I will certainly be renewing my yearly subscription. Check it out and give it a try.

—Mike Ash, SSC Rostermeister

**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](http://www.skylinesoaring.org) or e-mail [welcome@skyline-soaring.org](mailto:welcome@skyline-soaring.org).

**President — Craig Bendorf**

**Secretary — Jim Kellett**

**Treasurer — Daniel Noonan**

**Membership — Steve Rockwood**

**Chief Tow Pilot — Curtis Wheeler**

**Chief Flight Instructor — Jim Kellett**

**Skylines Editor — Dennis Johnson**

**Directors — Shane Neitzey, Spencer Annear, Paul Seketa, Jim Parrish, Vern Kline**



## Notes from the SSC Board

Probationary members Gyoergy Gulyas and Richard Griggs were approved as full members. Welcome to the club.

For several months the board has wrestled with the issue of how to promote membership growth through some kind of short-term membership for potential new members without exposing itself to insurance and liability risks. It's not as simple as it seems.

At the March meeting it was decided to experiment by purchasing a small inventory of the Soaring Society of America's "Fly a Sailplane Today" packages, making them available to potential members. This program has proven to be a "win-win" deal for clubs, the SSA and members by making the packages available on the field. Potential new members will not be required to purchase the packages from the SSA before they can fly with a club instructor. Managing the sale of these packages will be another of the duty officer's responsibilities.

Skyline has been approached by the staff at Potomac Consolidated TRACON (the air traffic control facility that controls the airspace where we fly) to consider a letter of agreement similar to those in place at other Region IV clubs. Spencer Annear will act as the club's representative.

—Jim Kellett, SSC Secretary

## Win a T-shirt

Here's all you have to do: first, make a pledge to purchase the Cirrus for the club; second, make the longest flight in the Cirrus in April.

You will be recognized for your skill and generosity with this one-of-a-kind T-shirt.

—Jim Kellett  
Resident Curmudgeon





# Copy That **i**

## U.S. to Host 2012 World Soaring Championship

The Soaring Society of America received confirmation from the International Gliding Commission that the U.S. bid to host the 2012 World Soaring Championship was accepted. Uvalde, Texas will host the competition to be held in July or August, 2012. The contest will feature the world's finest soaring pilots competing in Open, 18-meter and 15-meter classes.

## Cirrus Pledge Drive

The club has received pledges totaling \$14,400 to buy the Cirrus and the board has decided to use club funds to reach the \$16,000 needed. For everyone who has already pledged, it's now time to send your checks to:  
Skyline Soaring Club  
c/o Dan Noonan  
660 Gilliums Ridge Road  
Charlottesville, VA 22903  
Thanks to everyone for all your support.

—Craig Bendorf, SSC President

## Soaring Photo Albums

Martin Gomez posted some of his best soaring shots online at [www.flickr.com/photos/21003395@N08/sets/72157615264057926/](http://www.flickr.com/photos/21003395@N08/sets/72157615264057926/). Have a look.

**March 2009** - <http://www.flickr.com/photos/21003395@N08/sets/72157615264057926/>

**August 2008** - <http://www.flickr.com/photos/21003395@N08/2772465289/in/set-72157605563244722/>

**Old Images** - <http://www.flickr.com/photos/21003395@N08/sets/72157609838126353/>

**Shane Flying the Husky** - <http://flickr.com/gp/21003395@N08/Ua3z87>

## Talk to Your Tow Pilot

To get the tow you want, be sure to communicate with your tow pilot. On busy days more than 25 tows by a single tow pilot is not uncommon. After awhile it all runs together. So if you're particular about how you are towed - where to, what speed, the kind of start you prefer, don't be afraid to speak up. The radio check is a good time to let the tow pilot know what you'd. They are more than happy to deliver. Otherwise, a rather generic and unimaginative tow may result, especially after a long, busy day.

We love the new Husky tow plane but visibility from the cockpit is rather less than from the Pawnee. There is only one mirror in the Husky and its view is quite limited. Additionally, when taxiing it can be rather

difficult to clear the area under and forward of the nose. Ground personnel should be quite conscious of this difficulty with this airplane and be on guard at all times when the Husky is taxiing around them.

Finally, not only is it hard to see the glider in the Husky before and during tow, especially if the glider is



slightly low on tow, but often the tow pilot cannot feel the release. A radio call stating you have released is always much appreciated.

—Curtis Wheeler



## Learning to Cross the Countryside

Jim Garrison (far right), a Shenandoah Valley Soaring member and experienced cross-country flyer, presented an introduction to cross-country soaring in Harrisonburg, Va. March 27-28. The course was attended by 30 glider pilots, primarily from Virginia soaring clubs, including SSC members Vern Kline, Craig Bendorf, Mike Ash, Hugh McElrath, Steve Rockwood, Dennis Johnson, Gordon Roesler, Curtis Wheeler, Frank Banas, Jim Kellett and Steve Lander.

# Doofus Report:

## Aviate ... Navigate ... Communicate ... Urinate

**M**embers who've joined in the last couple of years may not know about "Doofus Reports." A DR is a member-written self-critique of an experience from which others might benefit; one of the several facets of the SSC's "Culture of Safety."

Sunday, March 22 was a beautiful day at Front Royal. I launched just before 2 p.m. and released very close to a nice thermal. A half hour later I'm was sitting at over 8,000 feet and detecting little-bitty hints that wave might be up there. I'm monitored 123.3 and heard several M-ASA pilots reporting they're in wave near Fairfield, Pa.

The cloud structure was not typical of a wave day, but the thermals were. I find they're not really thermals, but rotor; rough and tiny, but pretty darn strong if you keep in a tight circle. Sure enough, about an hour into the flight, I sneaked into weak wave (1-1.5 knots) and started cruising southwest. I chatted with a Duo Discus flown by Jim Garrison out of Waynesboro, Va. who's headed north. We never hooked up because when I got to New Market at a little over 10,000 feet he was still well south and I was getting cold.

I had to take a leak - this is part of the story not prurience on my part.

As I moved northeast, just short of Winchester, there was pretty good wave, up to 3 knots, albeit in a fairly small band, and soon I was a tad over 13,000 feet. Before the armchair analysts bring it up, a lack of oxygen wasn't a factor. Thanks to my pulse oximeter I know my blood oxygen level never got below 95 percent.

The photos I shot say it all; it was a truly beautiful day. This is really what soaring is all about.

It was after 4 p.m. and still cold. Realizing it'd take me over an hour at normal cruising speed to get back down I cranked the speed up, dropped back to the east out of the wave and headed home. Still at about 8,000 feet and a half hour out I really needed to pee again. This time though, I discovered the dreaded drain-tube freeze, so there I sat with a swelling you-know-what, fumbling around to get the bulge in the catheter to drain, which it did very slowly. It took nearly 10 minutes to get things squared away while I was zipping around at 80 knots and 7,000 feet. Cruising in circles over the airport at 100 knots it seemed that there was lift everywhere. At that speed, even a well-sealed ASW-20 with the vents closed is noisy, making it hard to even hear the radio.

Finally, at about 2500 feet MSL I called in a "long 45," and went through the checklist, "flaps 4, undercarriage down,

speed 55 knots, trim check, spoilers check." I descended steeply from a high downwind leg, turned base to a short final when the radio blared, "H3, gear down." I checked the gear handle; it's right where I put it. Another radio call, "H3, gear down." I checked again, the person calling must be at some strange angle so it looks like it's still up. He has to be wrong.

I flared, settled to the runway and "*cruuuunch*," there's a new centerline on the runway. Yup, flying gliders for 41 years, owning a high performance retractable for 21 and I'd finally done what I'd seen so many others do over the years, landed gear up.

It took only about five minutes to clear the runway. It's

easy to drop the gear after landing but I was surprised that not many club members know it. Two people lift the glider's tail high enough for a third to drop the gear. The glider sustained some scratches to the gel-coat and I towed it to New York for repairs the next day. If I'd used the grass it probably would have just gotten muddy.

Gear-up landings in gliders are almost an everyday occurrence; there were two at the Seniors

contest in Florida in March. Like most accidents there's a train of individually minor errors that add up. Like this:

1. Dropped the gear, took a leak and retracted the gear. In this glider you have to drop the gear to free up the drain tube.
2. Didn't clear the drain tube since I didn't plan to pee again this flight.
3. Flew at high altitude and got cold.
4. Dropped the gear to take another leak. Found the tube frozen—potential mess in cockpit—fumble—fix it. What's missing here?
5. Continued to fly at high speed (90-110 knots) bleeding off altitude. Cockpit noisy at this speed, even with a well-sealed glider with vents closed.
6. Completed checklist. Here's a really critical one, notice that I apparently had not retracted the gear after the second pee break, so when I did the checklist I "properly" moved the handle and retracted the gear.
7. Heard radio warning. Checked handle, remembered doing check list. Ignored warning.
8. Repeated warning, repeatedly ignored. Thanks to whom-ever it was who called, he truly tried to help.
9. Crunch!

### Lessons:

1. Do as I say, not as I do.
2. Pay attention when someone yells at you.
3. Don't forget what you're really doing (flying) just because you're about to pee your pants.
4. Just because it happens to a lot of glider pilots, it still shouldn't happen at all.

—Jim Kellett, Resident Curmudgeon





# A Creative Soaring Photo Album

*A selection of artistic photographic images by SSC member Dick Otis*





# Photos by Martin Gomez

Recent photos of SSC operations by club member and tow pilot, Martin Gomez. To see more of Martin's images go to [www.Flickr.com](http://www.Flickr.com) and search for the screen name Xferner.



# Thought Experiment: Airspace

**Joe Parrish** has been thinking (oh my!) and he wants to get you thinking too. Every month he will pose a soaring scenario or problem and call for SSC members to come up with their best solutions. The best answer, and the author's identity, will be revealed in the next month's Skylines. Members should e-mail their best guess and reasoning (however murky) directly to Joe at [joe@parrish.net](mailto:joe@parrish.net).

**Q:** **How to Glide to Dulles**  
You take a tow to 3000 feet AGL in the ASK-21. It has a two-way radio but no other navigational or communication equipment such as a transponder or encoding altimeter. You have a handheld GPS and a current Washington D.C. sectional. The winds are from the west and lift conditions are such that you can maintain altitude. You decide that you want to visit the Steven F. Udvar-Hazy Center at Dulles Int. Airport, so you'll downwind dash straight over to KIAD and land there. Without declaring an emergency or receiving any unusual (i.e., inconsistent with the FARs) treatment by air traffic control, at what point, if any, would you no longer be able to legally continue your flight to KIAD?

**This month's answer is provided below, plus a question to be answered in the May Skylines.**

**A:** **Skyliners,**  
**Thanks to those who submitted entries. Here's my take on the problem.**

You've been towed up to 3000 feet AGL. Being a conscientious pilot you know that KFRR is within 60 nm of DCA so you've already taken the ADIZ operations course and have your course completion certificate with you. So, you set off toward KIAD on a direct course (097 degrees magnetic) at 3700 MSL. You're in Class

E airspace. In about 8 miles you encounter your first consideration for airspace, the 30 nm Mode C veil centered on IAD. But, because you're in a glider (see FAR 91.215(b)(3)) you're good to continue. (This tripped up quite a few folks. Unfortunately FAR 91.215 is a twisted, confusing mess of exceptions and references to other sections.) You continue.

The next airspace segment that you encounter is the 100/45 ring of the IAD Class B, 20 nm from IAD. You're maintaining 3700 MSL so you're below that segment and there's no prohibition on flying "under the ledge" of Class B. (This tripped up a few others.) The long paved runway at Upperville Airport is just off your left side. You continue on.

The next airspace segment you encounter is the 100/25 ring of the IAD Class B, 15 nm from IAD. Stop! FAR 91.215 (b) (1) prohibits all aircraft types from flight into Class B without a transponder. There is a provision for ATC-authorized deviations (FAR 91.215(d) (3)), but you must make your request one hour before the operation. Since you decided on the spur of the moment to visit Udvar-Hazy this provision is not applicable.

If you decided to cheat a bit and descend below the 100/25 ring, first realize that you're 15 miles from your destination and you're approximately 2000 AGL. Are you comfortable with that in the ASK-21? You'll soon encounter the 100/15 ring, 12 nm from IAD. Still comfortable? In another 2-3 nm you'll encounter the ADIZ, which requires a transponder. So, even if you were willing to descend below the 100/25 ring you'd only make it to 9 nm from IAD.

The answer I was looking for was "the edge of the 100/25 ring, just west of the Hickory grass strip." Piet Barber was the first respondent to get this right. He receives a gold star.

Those of you who said "the ADIZ," and explicitly mentioned that you had

to descend below 2500 MSL, you're correct too, just not quite as precise as I hoped. You receive silver stars.

I had one other interesting entry. Judah Milgram reminded me that maintaining 3700 MSL on an easterly course is in violation of VFR altitude rules (FAR 91.159) because the terrain east of KFRR slopes down and therefore I would be above 3000 AGL, so I couldn't even turn on course without busting the FARs. Judah gets gold star number two for thinking way outside of the box.

This was great fun. Please suggest other thought experiments. Keep thinking and experimenting.

—Joe Parrish

**Q:** **You're Going Cross-Country; Like it or Not**

It's a remarkably calm day, with no evidence of lift, sink or wind in any direction. You take an aero tow from Front Royal Airport to 3000 feet AGL in the ASK-21 and release directly over the field. The ASK-21 is brand new and you believe that it is performing as well as it possibly can within its design limitations.

Immediately after you release from tow Skyline ground calls you on the radio to tell you that hordes of locusts, AIG executives, North Korean dictators and American Idol judges have descended upon the airport and it's now impossible to land there.

You have a handheld GPS on-board. It's springtime and there have been heavy rains lately so landing on a grass surface is likely to result in an unpleasant retrieve at least, and could possibly damage the ship. You feel a very strong obligation to not land anywhere that might cause injury to people on the ground.

Where would you go to land, given that Front Royal is no longer available?

—Joe Parrish