

SKYLINE



SKYLINE SOARING CLUB NEWSLETTER

March 2008

Flying the Minden Wave

By Mike Ash, SSC rostermeister

In January I had the chance to go soaring in the San Francisco area. I was scheduled to work at the MacWorld exhibition there and took a couple of days after the show to fly.

After asking around, Craig Sutherland convinced me that Minden, Nevada was well worth the drive and I made plans to fly there.

Minden lies in the Carson Valley just east of the Sierra Nevada Mountains. It's about 40 miles south of Reno and a four-hour drive over the mountains from San Francisco. The Sierras generate frequent wave in the winter, and occasionally in the summer, and the summer thermals are, I'm told, fantastic, often extending well into class A airspace.

After the show ended on the afternoon of Friday, Jan. 18 I rented a car in San Francisco and hit the highway. I arrived around midnight and spent the night at a hotel in Carson City, just down the road from Minden.

Saturday morning I went to the airport and met my instructor, Mike Moore, who showed me around the place and talked me through the procedures.

Compared to Front Royal, the Minden

airport is enormous. Gliders typically operate off the short runway 12/30, a mere 5,300 feet long, while power traffic generally stays on runway 16/34 which is 7,400 feet long. There're a lot of gliders as well as a fair amount of power traffic, and it all seems to coexist quite well. Like Front Royal, gliders and power traffic fly patterns on opposite sides of the airport to maintain separation. We took our time briefing on radio procedures, traffic patterns, the airport layout and also discussed local navigation and landmarks; then we went out to fly.

The forecast predicted the possibility of some light wave but it didn't look too good. The plan was to tow out to a likely wave area, hunt around and use the flight as an orientation and checkout flight if no wave was found. We strapped into our glider, a Grob 103 which was wonderfully familiar, and took off. We released at 4,000 feet above the airport elevation of 4,700 feet and did our best to stay in the air. We found something, either light rotor or a thermal, but in any case it wasn't strong and we didn't find any wave, so it made for a fairly short flight.

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Glider Ground School

Dave Seymour of Glider Pilots Ground School offers his one-day glider ground school course March 15 in Ashburn, Virginia.

The course guarantees students will pass their glider written exam. The private pilot glider course costs \$180; commercial pilot glider and certified flight instructor glider courses \$200. [All books and study materials are included in the price.] Out of 2500 students all but three have passed.

I've taken the course and recommend it. A number of SSC pilots have completed their written test with this course.

—Cheers, Richard Freytag, SSC safety secretary

The Glider Pilots Ground School will be held at the Embassy Suites-Dulles North, 44610 Waxpool Road, Ashburn, VA 20147. (703) 723-5300 Register with Dave Seymour by e-mail at Z3plt@yahoo.com or call (303) 670-2362, or 1-(877) FLY-GPGS. For information go to: www.glider-pilotsgroundschool.com.

Copy That

Board of Directors' Meetings Summary Glidens

- All club members are reminded to put the ballast weights in the box in the trailer, unlock the spoilers and put the mothball bottles in aircraft at end of the day.
- The Sprite's canopy has been repaired and is back flying. Later this spring Chris will recover the elevator before its annual inspection in March.
- The Grob's annual inspection has been completed.
- The ASK's annual inspection is due in March.

Ground Operations

- Duty officers need to arrive early and strive to get the first launch off the ground at or before 10 a.m. if possible.

Operations Manual Update

The current operations manual is being updated to reflect multiple changes that have occurred over the last two years, and hopefully it will be finished by March.

SSC Strategic Plan Update

The board agreed that the 2000 SSC Strategic Plan needed to be updated and asked Joe Rees to chair a new Strategic Plan Review and Update Committee. Joe will be looking for former club presidents to join the committee.

Volunteer Status

The board is still looking for a volunteer to fill the chief flight instructor position.

Exemptions from Club Duties

- The club treasurer and Skylines editor are the only two positions that are exempt from pulling normal scheduled club duties.
- Anyone who's injured or has a medical problem may be given a temporary exemption by the rostermeister. All temporary exemptions will be identified to the SSC board so that they can determine if there are other club duties the member could perform.

Warrior Program

The board agreed that the club would be interested in participating in a program proposed by Jim Kellett to fly some of the recovering disabled serviceman in the area. The board recommended that a committee be formed to determine the details, including how many we can handle and how it will be funded. Anyone interested in volunteering for the committee should notify the board.

Second Tow Plane

With this e-mail, SSC president Shane Neitzey started the fundraising for a second tow plane.

Fellow members,

During the annual meeting the total vote in favor of a second tow plane was 87 percent. This includes 30 percent in favor of both tow plane and glider; compelling. We need to raise cash to purchase this second tow plane. The best method is to borrow, with interest, from the membership. The same method was used to purchase our Grob. Pay back was about two years, not bad. So I ask, who is willing to participate and how much can you invest in this short-term loan?

I'll start by committing \$2000.

We'll settle the details soon after we reach our goal. Goal: \$40,000. The club treasury will pay the balance on the particular aircraft the board decides on.

—Regards, Shane, SSC president

As a past president of the club, I want to second Shane's plea for pledges. If each of the club members who has not yet pledged puts only \$500 in the pot, we are just about there. The club will repay you with interest, as much interest as you would get leaving the money in a CD, more than your savings account. We paid for the Grob this way, and we paid back the members in about three years. The club has a good track record. As Shane notes, it's a pretty safe investment monetarily, and it helps keep your club alive and growing. I personally know what it means to the club and how important the tow plane is. I also think it will go a long way toward solving many of our current problems. I have pledged and given money to the club in the past. It is clear to me that I have gotten more than my money's worth out of every pledge and donation. If you are active in the club, you too will benefit.

—George Hazelrigg

Fellow Members

We still need \$2500 to meet the \$40K. The 3 percent is better than most bank CDs cooking at 2 percent and beats the heck out of savings account interest at 0.2 percent. Please send checks to our club treasurer: Dan Noonan, Skyline Soaring Club, 660 Gillums Ridge Road, Charlottesville, VA 22903.

Regarding the purchase of a second tow plane the board has approved:

1. Treasury will not be drawn below \$20,000 for cash reserves. That gives us about \$35,000, maximum \$40,000 from treasury towards purchase.
2. Approved up to \$40,000 in member loans at 3 percent annual simple interest, term not to exceed 36 months, but may be paid down by the board sooner without penalty.
3. Priority in repayment may be given to members taking long term inactive status.

Once the cash is in the bank, the "Second Tow Plane Committee" will start shopping with all due diligence with consideration for two-place, performance, ADs, parts availability, pre-purchase inspections, etc. Thank you,

—Shane Neitzey


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 or e-mail welcomer@skylinesoaring.org.

President — Shane Neitzey

Secretary — Craig Bendorf

Treasurer — Daniel Noonan

Membership — Steve Rockwood

Chief Tow Pilot — David Dawood

Skylines Editor — Dennis Johnson

Directors — Robert Creedon, Spencer Annear, Paul Seketa

Skyline Soaring Club website — www.skylinesoaring.org

Soaring Society of America website - www.ssa.org



Membership Notes

Membership has grown through the winter months and the club now has 91 active members, including three introductory members.

Bill Burner and James Warren recently joined the club as probationary members. Bill has just about done it all when it comes to flying. Bill completed his 10 check-rides in the Pawnee to certify as a tow pilot.

James Warren has ATP and CFI ratings for powered flight and he's working toward a glider rating to add to his repository.

Jeff and Trice Cesnik, David (Chip) and Caroll Ambrose, and Peggy Kenney upgraded their introductory memberships to probationary. Hugh McElrath is an avid hang-glider pilot looking for his next adventure.

Bruce Codwise has reactivated his membership. Welcome back Bruce.

We have three introductory members, Phillip Barger, Russ Etheridge and Scott McGinnis. Phillip is new to flying but anxious to learn. Russ and Scott are power pilots looking for the glider challenge. Welcome all to the club.

Bob Neff and Bill Wark, both founding members of the club, have decided to go inactive. We're sorry to not see them flying with us any longer, but I'm sure they'll come out and visit from time to time and support club extracurricular activities.

—**Steve Rockwood, SSC membership officer**

Paper or Plastic?

Still hanging onto your paper pilot certificate? You'll need to upgrade to a plastic certificate by March 31, 2010. The FAA released its final rule Feb. 28, announcing the required switch to the certificate it deems more counterfeit resistant. When the FAA proposed this mandate in 2005, AOPA members overwhelmingly supported the move to a more secure certificate. If you're attached to your paper certificate and original issuance date (the plastic certificate will have a new one), don't worry. You can keep your paper certificate for nostalgia; you just can't use it to fly.

—**George Hazelrigg**

Do You Speak English?

For those who have powered aircraft ratings and may fly internationally you now need an English language proficiency endorsement, which the FAA will give you automatically since it's a condition of getting a pilot's certificate in the first place. It's an International Civil Aviation Organization requirement. The Aircraft Owners and Pilots Association suggests that the requirement may have temporarily flooded the system, so you may want to wait a couple of weeks to change over to plastic, since that will not be required for 2 more years. For information go to:

www.faa.gov/licenses_certificates/airmen_certification/english_proficiency/
www.aopa.org/flightplanning/articles/2008/080228plastic.html

International Civil Aviation Organization - www.icao.int
Aircraft Owners and Pilots Association - www.aopa.org

—**Steve Wallace**

Clean Sweep

Members,

Hangar cleanout was completed yesterday. Besides generally getting rid of years of accumulated junk the purpose of the cleanout was to move cabinets and desks, etc. to get enough room to move the Pawnee over about 18 inches and put another glider trailer in the hangars facing the runway.

The hangar wall where the right wing of the tow plane sits was cleared. The two metal storage cabinets went on the back wall near the tail and the refrigerators were moved to the wall behind the ASK-21. The desk and the TV/VCR went on the wall in the hangar behind the Pawnee. The other desk went to the hanger next to Jim Kellett's trailer. It now contains all the books for sale, new membership forms, log books and videos for new members.

There are three items that will be tossed next month unless someone claims them or can give a reason to keep them. First there is a mattress. Second, there's an outdoor table, serviceable but apparently unused for a long time. Lastly there is a shelf unit on the wall between the Pawnee and the ASK with all sorts of stuff like spray paint, Bondo, spatulas, etc.

There are also two homemade items that we saved and hope someone will claim or identify. First is a small wooden ramp with a zig-zag pattern routed in the ramp surface. Well made but we're not sure what purpose it served. Second is what appears to be a gust lock.

I would like to thank those few who stopped by to help out. You know who you are and we'll let you remain undicted conspirators, just in case we tossed someone's special something, like the Turkey Burgers in one freezer that had become a biological warfare experiment.

Cheers,

—**Dan Ernst, hangarmeister**

Wave Camp High

Skyline Members,

What a great day to be alive. After a two-hour delay waiting for the snow flurries to pass, patches of blue sky opened up to invite us into the famous

Petersburg wave. We had about 12 launches at the wave camp, about half of those in the ASK-21.

Pilots from New York, Ohio, West Virginia, and Virginia also launched to experience the joy of soaring wave. SSC members Craig Sutherland, Jim Garrison, Bruce Codwise, Mike Ash and Steve Rockwood took turns teaming up to experience the wave. Most came back with huge smiles and frozen feet. Mike and I flew together for two flights, achieving flight level 12.7 on the second flight.

Lift in the wave pegged the electronic vario most of the time, until we reached the top of the wave we maintained two knots lift. Boy, was it beautiful on top of those clouds. Now I understand why pilots are so anxious to ride the wave. The only thing that brought us back to Earth was to let others fly; we could have stayed up all day, as some did.

—**Steve Rockwood**



Photo by Robert Quas
Flying formation at the wave camp over Petersburg, W. Va.



Photo by Robert Quas

Soaring with the eagles at the wave camp in Petersburg, W. Va.

Notes from SSA Board of Directors' Meeting Feb. 15 – 16, Albuquerque, New Mexico

First, on a personal note, this was the 18th Soaring Society of America convention that my wife and I have attended, and the fourth one at which I served as your regional director (and had to miss one full day to attend the directors' meeting). I, for one, will miss the annual opportunity to mix and mingle with soaring pilots from all over the U.S., because the next convention won't be until 2010.

And, no, we don't know where that will be. We received expressions of interest from clubs near Indianapolis, Indiana and Houston, Texas, so they will be doing research on venues (we need lots of space) and costs; and I hope to be able to report to you after the fall director's meeting in September where that'll be.

The composition of the directors is changing. The board approved a schedule, which had been proposed by the Future Restructuring Task Force (chaired by our own Dave Pixton) for reducing the number of directors over the next few years. In addition, that process was speeded up by the early resignation of Jim Skydell of Region XII, and Fred LaSor of Region XI. The program will definitely have an impact on what is now Region IV. Region II and Region IV will be combined in 2010 and a single regional director will be elected at that time. Both directors (myself in Region IV and Dianne Black-Nixon in Region II) have expressed the desire to not continue as directors, so this will prove to be interesting for representation of our interests at the national level. I had "recruited" a candidate for Region IV director to replace me in 2010 before this restructuring was approved. I'll not mention his name for obvious reasons—who shares my interests and concerns for what constitutes a healthy society and a healthy regional organization— but I have no idea how that recommendation will fly in Region II, which has a very differ-

ent composition of soaring enthusiasts. Forewarned is forearmed.

We have a new editor for Soaring magazine, Charles Coyne, who comes to SSA from being the editor of a niche magazine for recumbent and tandem bicycles. (Hey, for those of you who don't know, I've been a cycling tourist for three decades, and a recumbent rider for 1.5 decades) Anyhow, for those of you who are cyclists, and who are aware of the fractionalism that exists in that community between vendors; and between mountain bikers, tourists, racers, roadies, etc., you'll instantly agree, I think, that we have chosen an editor who is already prepared to work with soaring pilots.

The Public Broadcasting Service affiliate in Albuquerque, KNME, will start shooting a really neat video, "Cloudstreet," in northern New Mexico and southern Colorado this

summer. We were treated to a "teaser" of the film made from a Stemme S-10 and the board instantly agreed to promote this project and to urge members to urge their local PBS stations to broadcast it. We'll be alerted this summer to production and distribution dates, so expect to hear from me to call your local PBS affiliate and encourage their use of this film. I have hopes that this may be a new "Boy Who Flew with the Condors."

SSA has "turned the corner" financially after the disaster with Gleason's embezzlement. This was due in large part to the record-setting contributions made by SSA members to the Eagle Fund, and to the directors' stewardship in cutting costs at all levels during 2007.

Dianne Black-Nixon, the chairman of the SSA, announced at the General Membership Meeting at the Albuquerque Convention her personal donation of a \$25,000 "Challenge Grant Gift." That's right, donations to this Challenge Grant by May 31 will be matched by Dianne, dollar for dollar, up to \$25,000. Of course, if this motivates someone to extend her challenge beyond \$25,000, that's good too.

When met, this fund will put SSA back on track for sure. So, do it now; a check to the "SSA Challenge Grant Fund" before the end of May will be doubled.

Yes, my check's in the mail.

—Jim Kellett

Soaring Society of America Region IV director and SSC resident curmudgeon



"Greater prudence is needed rather than greater skill."
— Wilbur Wright, 1901

After giving up the fight I had a chance to look around the area. It stands in stark contrast to our familiar Front Royal environment. Snow covered everything, particularly the mountains in the Sierras, which loomed over us for the entire flight. Human habitation was sparse and good land-out spots were few and far between.

Mike pointed out various landmarks, including a bright white, boxy Starbucks coffee plant and the Nevada women's prison, both which could be landmarks to find the airport. These are particularly handy since the Minden airport doesn't stand out nearly as well against the desert as Front Royal Airport does against the forests and fields of the Shenandoah.

Back on the ground we discussed the flight and the possibility for wave. Mike suggested that I should get lunch and come back later in the afternoon, as the wave often strengthens later in the day. I went into Minden for lunch as the weight of my week at MacWorld finally started to catch up with me. I was tired after such a busy week and was thinking of just calling it a day and maybe trying again on Sunday.

As soon as I got back from lunch, Mike told me that another glider pilot had contacted the wave, and all thoughts of calling it a day vanished. We quickly prepared to launch, towed to 3,300 agl and contacted the wave. It wasn't strong but it was more than good enough, and we climbed to 15,500 msl and headed off down the valley to explore a little. Staying in the wave, we made our way to Reno and then turned for home. At this point it became a bit of a race, as there was not a great deal of daylight remaining, and Mike gave me the challenge of managing our energy and the wave to get us home on time.

Even 40 miles away, 10,000 feet in a Grob 103 gave us a comfortable margin for the return. The wave was still working, so this was a pretty easy challenge, but it was still a good exercise to manage my speed and position without input from the back seat. It was tough to overcome the urge to conserve every inch of altitude, but I kept my speed up and we made it back with a little time to spare.

Unfortunately, during the descent my week at the show caught up with me in another way when my left ear refused to equalize. Some Valsalva maneuvers helped a bit, but for the most part it refused to clear and started to get pretty painful. We slowed the descent a bit to give it some time but it refused to give, and I finally had to just ignore the pain and land the glider. We touched down right at sunset and taxied into the parking area. I was cold, my ear hurt, but it had been a great flight of about 130 kilometers out and return.

The question turned to the next day, Sunday, and what I



Photo by Mike Ash
Mike Ash absorbs local knowledge from Soar Minden instructor Mike Moore during a wave flight from Minden, Nevada in January.

wanted to do. The forecast looked much better, and Mike was willing to let me fly alone, but I elected to fly with him again, thinking I'd get a much better flight by taking advantage of his skill and knowledge of local conditions.

I woke up Sunday morning and threw open the curtains of my hotel room to see lenuies everywhere. Beautiful lenuies all over the valley and cap clouds over the Sierras indicating wave. I excitedly checked out of the hotel and drove to the airport. Mike briefed me on a triangle he wanted to fly and we took off into light rotor.

If you'd like to follow along on this flight from home, you can access the sectional online on SkyVector: <http://skyvector.com/#32-16-2-5572-1896>

We released at 3,000 agl and it was probably a bit too early because we nearly fell out. But Mike's expertise came in handy here, and after fighting the rotor for about 45 minutes we finally managed to climb into the wave. It was a beautifully clear day

and I could see all up and down the valley. The nicer-looking lenuies lay to the north and we decided to head in that direction just as soon as we had enough altitude for it. We got our cannulas set up for oxygen and I got to watch Lake Tahoe gradually appear from behind the mountains as we climbed. Once we got to a reasonable altitude we headed towards Reno and continued our climb in the wave.

It was a nice, relaxing sort of flying and I got a good education on cross country in wave. Mike let the weather illustrate while he explained the theory. The area of lift is a big wedge-shaped tube, skinny at the bottom and generally growing fatter with altitude. Flying cross country in these conditions is a matter of juggling a bunch of different goals, as usual. You want to go fast, but not exceed Vne, and always remember that Vne is a function of true airspeed, so it appears to get slower as you get higher. You want to get high, but not break into the class A. You want to manage your position within this tube to make the other goals possible.

As we climbed through 16,000 msl, Mike mentioned that I had better start to think about that class A and how I was going to avoid it. (If you're reading this and thinking it doesn't apply to flying around Front Royal, not so. The wave can get that good around here, and even in weaker wave it's probable that you're flying without oxygen, so replace 18,000 msl with 12,500 msl.) The climb can be stopped by going faster or moving into weaker lift. Going faster has its limits due to Vne, so position within the wave is important to ensure that the lift isn't too strong. Since the strongest lift is found in the middle of the tube, moving out to the edges will help eliminate some of that pesky lift. To avoid inadvertently falling into sink, it's best to move to the upwind edge of the tube. This in turn requires slowly working upwind, so it's best to start



Photo by Mike Ash

Nevada's Topaz Lake and the Sierra Nevada Mountains pass below the wing of a Grob 103 piloted by SSC club member Mike Ash during a flight with Soar Minden in January.

thinking about this early. Given all of this, 16,000 msl is not as early as it sounds.

At 50-60 knots airspeed we were still climbing at 4-5 knots, meaning that I only had 4-5 minutes to maneuver before hitting the ceiling. Speeding up and working forward, I found an area where we could run at 70-80 knots and stay a few hundred feet below 18,000 msl. And of course that's indicated airspeed, so we were really doing around 110 knots over the ground, not bad for a couple of guys with no engine.

With our positioning figured out, we finished our run to Reno. As we got closer to Interstate 80, which runs from Reno into California, the wave started to drop off due to a change in the shape of the mountains in that area, but we pushed out a little to make some distance, then headed back south. Here I had the interesting experience of looking down at a pretty sharp angle at Reno International, complete with airliners taking off and landing. It's not the busiest airport in the world but it's by far the biggest airport I've ever flown over, and there's just something unwholesome about flying a glider over a large international airport.

The wave was right where we left it and we quickly regained our lost altitude and headed back to Minden. We arrived with plenty of altitude and oxygen. My feet were getting cold but pulling them into the sun helped a lot. With no reason to land, we pressed on south with the goal of reaching Alpine County Airport, about 20 miles away. The wave weakened greatly south of Minden but we kept on going. With the kind of altitude we had, things really open up. We could afford to fly for quite a long way before turning back home. Multiply our 12,000 feet over Minden pattern altitude by even a conservative glide ratio for a Grob 103, it takes you a long way.

The wave shaped up again as we got closer to Alpine County and we started to think about the next phase of the

flight. The idea was to drop back to another wave system in the next valley to the east and see if we could explore that valley before going home. Our initial goal was Topaz Lake, about 13 miles east of Alpine County.

If we started out just under 18,000 msl we could be reasonably assured of arriving at Topaz Lake at 15,000 msl, which would give us a good margin for a return to Minden if there was no wave present above the lake. If the wave was working above Topaz Lake then we could think about going a little further. With all of this in mind, I turned east and made a run downwind.

The terrain on this leg was even more desolate than before. It was mountainous, covered with snow and leafless trees, and there was little indication of civilization. We made good progress over the mountains and arrived at Topaz Lake above the planned altitude of 15,000 msl, and were very happy to discover good wave. I started flying figure eights above the lake to gain altitude so that we could head for our last target of the day, the town of Walker at the southern end of the valley.

The wave in this valley was wonderful and we quickly hit 18,000 msl once again and I had to work to stay under it. We made fast progress to Walker with the wave working all the way and turned back for Topaz Lake. We hit the lake at 18,000 msl faced with a final glide of 25 miles back to Minden, and still found lift even as we tried to descend. I finally pulled spoilers at about 10 miles out so we could arrive over the airport ready to enter the pattern. My ear started acting up again but it was a bit more cooperative and we had a fairly uneventful final descent and landing. Our total time in the air was three hours and 12 minutes, covering about 275 kilometers. Accounting for the 45 minutes we spent struggling in the rotor that works out to an average speed of around

70 mph.

If you're reading about this and are starting to think about planning your next vacation around Minden, I'll discuss some practical information about it.

I flew with a commercial operation called Soar Minden, which can be found on the Web at www.soarminden.com. Call ahead to discuss your plans and to reserve a glider and instructor. I flew with Mike Moore who was excellent and I highly recommend requesting him by name.

As a commercial operation their costs are considerably more than we pay for flying at Skyline but in exchange you get nice golf carts, dedicated wing runners, reserved gliders and a great operation all around. In addition, once signed off to fly solo, you can take advantage of their daily rates. They include one tow and if conditions are good enough to stay up, the overall hourly rate ends up being very good.

A new operation which is just opening on March 1 is Soaring NV, which is a new commercial operation in Minden. Not having flown with them I can't give any direct information there, but it's run by Fred LaSor, a former SSC member, and I'm told, a friend of the club. They can be found at www.soaringnv.com.

Lodging in the area can be found easily. I stayed in a hotel with very reasonable rates at the south end of Carson City, just a 10-minute drive to the airport. Other hotels can be found in Minden or South Lake Tahoe, which is also fairly close.

The simplest way to get to the area is to fly into Reno, 45 minutes from Minden. If you're in San Francisco like I was, Minden is about a four-hour drive.

To keep things simpler it would be nice to arrange your return flight from Reno and do a one-way rental, but I ended up driving both ways and that works out just fine too.

If you're going in the winter, keep in mind that the area around Minden is mountainous and gets winter weather, despite its proximity to the calm coastal weather of San Francisco. If you're driving, plan for the possibility of snow. I ended up driving back to San Francisco through the mountains in a blinding snowstorm. Luckily, all my years

living in Wisconsin paid off and I got through without too much difficulty, but be aware.

And winter flying, especially winter wave flying, means preparing for cold weather during the flight. Jim Kellett's advice on cold weather flying in the February newsletter was extremely helpful to me, and helped me spend hours near the flight levels without freezing.

Of course the longer you're able to stay in the Minden area, the better the chances are that you'll get good flying conditions. I took a bit of a risk by staying only two days, and lucked out in getting two pretty decent wave days. But even if you only stay a short time and don't get good soaring conditions, you can still get a site check, hopefully some good instruction, and be prepared for the next visit.

Lake Tahoe—More Than Just a Soaring Destination

Minden Nevada, known to most soaring pilots as a great locale for wave and cross country soaring is located just east of Lake Tahoe, one of America's best cities for recreation. If you're planning a trip to Minden to fly you

Lake in the Sky Air Show

The 19th Annual Lake in the Sky Air Show will be held at the Lake Tahoe Airport, in South Lake Tahoe, Calif. June 28. The show will feature some of the country's top aerobatic performers including Bill Cornick, Rob Harrison, the Tumbling

Bear, Spencer Suderman, and Jon Melby defying gravity in his famous Pitts.

A vintage war bird fly-by will highlight the opening ceremony and then you'll be able to get up close to several vintage and modern military aircraft including a Navy F-18 Hornet, an AV-8 Harrier and other military aircraft. Also expected is a precision skydive team.

There'll be opportunities for helicopter and airplane rides, and displays of emergency response equipment and search and rescue teams.

Start the day with a hearty pancake breakfast offered by the Kiwanis Club. For information go to: www.lakeintheskyairshow.com.



don't have to worry that your non-flying loved-ones will have nothing to do.

Surrounded by mountains, Lake Tahoe offers endless possibilities for fun, summer and winter. The lake straddles Nevada and California about 200 miles northeast of San Francisco and 45 miles southwest of Reno.

While you're flying the winter wave your friends can ski 12 Alpine ski areas, cross-country ski, go sledding, snowshoeing, ice skating or snowmobiling.

During the summer the mountains offer great hiking/biking trails and camping. You can sail on the lake, lounge on the beaches, try water skiing, reel in a fish, or play a round at one of 11 golf courses.

Events throughout the year include many ski events, Wooden Boat Week, the Lake Tahoe Shakespeare Festival, Lake Tahoe Music Festival and the Brews, Jazz & Funk fest.

Dining opportunities include European-inspired bistros to four-star restaurants, and cuisines that will suit any tastes: Thai, Italian, Pan-Asian, steaks, California cuisine, and Japanese.

The Nevada side of the lake will tempt you with six casinos. The MontBleu, Harrah's, Harvey's, The Horizon, Bill's, and Lakeside Inn offer you the chance to hit it big 24-hours-a-day. There are endless shops and numerous spas for relaxing and rejuvenation.

Did you know?

- Fleur de Lac, a West Shore residence, served as the site of the Corleone family's home in the Godfather Part II.
- Now a compound of multi-million dollar condos it was originally a 16-acre mansion constructed for Henry J. Kaiser in 1935.
- The 1960 Winter Olympics at Squaw Valley were the first Olympic Games to be held in the Western United States.
- Lake Tahoe is the second deepest lake in the U.S. with a depth of 1,645 feet.
- Lake Tahoe measures 22 miles by 12 miles with a circumference of 72 miles.
- The average surface elevation is 6,225 feet above sea level .
- Lake Tahoe is two-thirds in California and one-third in Nevada.
- The sun shines at Lake Tahoe 75 percent of the year, or 274 days.



Some Miscellaneous Notes on Wave Flying in the Valley

By Jim Kellett
SSC resident curmudgeon

I'm hardly the most experienced wave flyer in the Valley (that'd be Jim Garrison), but during a short flight on February 7 I did notice some characteristics on finding and flying in the wave that's characteristic of wave in our area, and because of the often moister air we have, are sometimes a bit different than depicted in various books or articles.

That particular day started out with some interesting weather features. The wind on the ground was pretty much 270, so augured very well for ridge soaring. You need about 13-20 knots at 3000' msl from about 270-330 degrees for good ridge soaring on the Massanutten. It was 80-90 percent overcast from the Blue Ridge westward but high enough, well clear of the ridges, even as viewed from the ground, which also suggested conditions for good ridge soaring.

Craig Sutherland and I took the ASK-21 for a little photo experience on the ridge, hoping to get some good pictures of Kolie Lombard's new Diana ridge running. However, when we started heading southwest down the ridge the initially very strong lift diminished rather quickly. I have to add that we never did really get down to where one expects to fly—even with or up to 1000 feet above the ridge top—so take that with a grain of salt. Verne Kline, who launched in the Sprite just before we did, was already quite high, 4500-5000 feet, over the ridge within a mile or so of Signal Knob.

From our altitude, 4000 feet, one could see bright sunlight hitting the ground in three locations, all on the west side of the valley with one about five miles away to the southwest; one west of Winchester (15 miles away) and one west of Middletown (9 miles away).

All three were fixed on the ground, although the southernmost one had shadows of cloud wisps moving from west-southwest to north-northeast in the hole. Those wisps indicated that the winds were more west-southwest then west at the altitude of the cloud base which one could then see was at about 5000 feet. Those three fixed



Photo by Kolie Lombard
The view from Kolie Lombard's glider flying in the wave over the Shennandoah Valley.

holes in the cloud deck and evidence that there were strong winds at cloud altitude confirmed that wave action was present. Finally, because of the time of day (about 11 a.m.), those illuminated spots on the ground were from a hole in the deck rather more easterly than the spot on the ground due to the sun angle; the holes in the cloud deck were pretty much in the middle of the valley.

In the several minutes we spent loitering while making these observations, we also encountered some strong lift that carried us easily to cloud base; lift that was some combination of rotor, convection, or possibly even orographic lift, but it was concentrated in the area extending from Signal Knob to about a mile to the southwest.

At this point, we had learned that:

A. There was wave (because of the fixed holes in the cloud deck in high wind).

B. There was some combination of convective/rotor/orographic lift rising to cloud base (because we climbed in it).

C. The ridge may or may not be working well (because of the sharply weakening lift as we moved southwest)

Note: Knowing that wave was forming is a clue that wave suppression of ridge lift is possible).

D. The closest wave to our location was to the southwest (the closest hole in the cloud deck).

With about 5000' under our seats and precisely 500 feet below cloud, base (wink, wink, nudge, nudge, "say on more"), it made sense to poke upwind

using the "wisp drift" direction to determine the direction of the wind at our altitude. Sure enough it was easy to move into moderate wave in the closest hole in the deck and climb at 2-5 knots per hour.

In such a hole, which is obviously in air right on the edge of the dew point of the upwind air mass flowing through it, cloud can form with amazing speed. Sure enough, it was difficult at lower altitudes (around 5000') to dodge around the wisps in the hole to stay in clear air. In the hole itself, it was still necessary to dodge the forming and dissipating

wisps, so the view was a long way from the typical perception of climbing along the front of a clearly defined lenticular or rotor cloud.

As we climbed into clearer air, it became possible to more clearly observe the general environment of the hole, e.g., its size (which changed rapidly) and the wisps forming, now below the glider. One could easily discern the shape and location of the wave by observing the contours of the tops of the clouds, so climbing higher was quite possible. Under these conditions though, it's very easy to get "trapped on top." It's also easy to get lost. Anyhow, between our concern for "hole-closing" and my cold feet (hmmm ... didn't we just discuss dealing with the cold of winter flying?) we abandoned the climb at about 6500' and came back early.

After we landed it was obvious that instead of shrinking the hole(s) got larger and larger, until by about 1 p.m. there were nice, well-formed wave clouds easily marking the valley for miles in either direction, and which permitted Verne, having not chickened out as we did, to make a nice wave-based cross country flight, reaching over 10,000' msl.

Finally, one note about wave orientation. On an ideal day, the wave is more or less oriented up and down the valley. But remember the waves are being generated by features well upwind, and it's possible to find waves, like ripples in a creek, forming at angles to one another and with little or no semblance

to the orientation of the Blue Ridge or Massanutten.

Finally, remember that the wind direction is rarely at perfect right angles to the wave itself. That can be a little disorienting at times, and in blue wave, a little tricky to detect. But it sure is fun.

I learned this "the hard way" many years ago when, with a couple of bud-

dies all flying Schweitzer 1-26s in a more textbook wave with a clearly defined lenticular in the Lexington, Va. Area. I was enjoying flying right on the edge of the cloud and allowing the glider to back its tail into the cloud. The illusion was spectacular; it looked like my wings had a wingspan of several miles. From

that vantage point, you could clearly see the cloud forming right on the leading edge of the cloud. But then a parcel of air with slightly different temperature/moisture characteristics came through, and—PUFF!—in literally a fraction of a second the cloud was now forming several meters in front of me, and I learned to stay further away from the leading edge of a lennie.



Photo by Dennis Johnson

Safety Meeting Kicks Off 2008 Season

Gray day keeps SSC members inside discussing safety, duty officer procedures, wave camp

Richard Freytag welcomed the SSC members who gathered at Front Royal Airport for the annual safety meeting that traditionally kicks off the new flying season.

With low clouds and misty skies members weren't missing much flying while they talked safety.

Fred Winter and John Lewis gave comprehensive presentations describing their 2002 glider accidents and the events, thought processes and decisions that led to the less-than-optimal landings.

Both pilots opened their presentations with the facts of the resulting accident and worked backwards, step-by-step, reviewing what they knew at the time, assumptions they may have made, the options they had, their decisions and how they may have flown toward a different outcome.

It was instructive that they were flying different type gliders on substantially different days; John on a brisk high-wind day and Fred on a very low energy day.

John Lewis's rendezvous with a tree during an out landing in a field was explained in detail. Complex yet subtle terrain differences seemed to affect the wind flowing over a nearby ridge. The effects of this flow to the glide path and

landing pattern were cited as factors in his arboreal confluence.

Fred Winter took the audience step-by-step through his flight, which started in promising weather conditions that suddenly weakened.

A discussion by a few club members who were involved in searching for the downed ASK highlighted just how difficult it can be in the Virginian mountains to spot an aircraft and evacuate injured pilots.

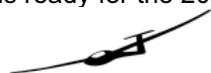
The importance of carrying an emergency kit, including a cell phone or personal locator beacon, spare water and blanket was stressed.

Dick Otis videotaped the meeting for those who could not attend.

After the general meeting a group of duty officers reviewed the latest software the club uses to log flights, squawks and keep track of the all-important cash.

Flight instructors huddled to discuss those thick-headed students while tow pilots did whatever tow pilots do.

With safety in mind the Skyline Soaring Club is ready for the 2008 flying season.



Four-Day Ground School

Dave Weaver is offering a ground school for Skyline Soaring to be held at the Heritage Hunt Country Club in Gainesville March 8, 22, 23 and 29.

There's a little 'flex' in the schedule if, for example, the weather is forecast to be a great wave day.

Here's my 'take' on the two courses offered this month. The Seymour course is a 'cram' course for the Private Pilot Knowledge Test. It guarantees a passing grade and has an excellent record in achieving that goal.

Dave's course also has the Knowledge Test as its primary focus, but goes at it in a much broader way.

As Jim said, "it's learn vs. cram." Time is available for topics that might be discussed in the oral portion of the practical flight check, and as a refresher of stuff the rest of us should know, but don't remember.

For those who need a sign-off for the Knowledge Test there will be several required items that will be distributed to the attendance roster shortly. To attend contact Dave, Jim or me with your e-mail address and phone number.

—Bob Sallada



Photo by Dennis Johnson
Richard Freytag opens the annual SSC safety meeting at Front Royal Feb. 23 that traditionally starts off the 2008 flying season.