

Ridge Dancer

Coastal Advisory and Dump Checklist in this Issue

- by Ann Sasaki

You will find updated versions of the Coastal Site Advisory and Dump Site Checklist in this edition of the Ridge Dancer. These two documents were written a few years ago in response to an abysmal safety record at the Dump. We had seen serious incidents, including lots of blowbacks and several fatalities at our favorite coastal site and things felt out of control. In recent years there have been fewer accidents and no fatalities since 1996.

One of the key factors in our improved safety record is a

concerted effort on the part of local pilots to speak to visiting and new pilots and to disseminate site information. People like Al Baldini (Mr. Personality) and Phil Neri really stand out in this effort to make visitors feel welcome and at the same time help them understand conditions and hazards.

In order to continue our positive trend of fewer incidents, if you fly the coast, please consider printing a few copies of the advisory and checklist and having them with you

when you go to fly. That way, if you meet a visitor or new pilot, you can give them this information.

Of course, the Advisory is not something you can read in 5 minutes, but it is useful to have and pilots can take it home to read. The one-page Checklist can easily be reviewed while at the Dump, before setting off to fly.

Let's all continue to promote safety and site understanding at the Dump. We want to keep flying there through the second century of paragliding!

Accident Report

- reprinted from the paragliding listserv

On November 27, 1999, I had a serious paragliding accident at Dunlap Flight Park, resulting in multiple medical injuries, and necessitating a helicopter evacuation to a trauma center in Fresno. Before I write about the accident, I want to thank all those who helped me that day. Thanks to Kim Galvin, who identified me as the pilot down by radio, and phoned 911, thanks to Darron Guberman, Martin Lades, and Greg Thomas who landed out and put their safety on the line in order to assist me, stayed with me, gave first responder care,

and helped to get me to the ambulance. Thanks to Mike Galvin, who rode shotgun with Wally down the mountain at breakneck speed and called 911 for an ambulance. Thanks to Steve, who from Dunlap Flight Park, provided support and stored my hang glider for the time I was in the hospital. Thanks to everyone at the flight park, some of you whose names I don't even know, who took such good care to pack our camping gear and my flying gear. Again, thanks to Kim and Mike, who stayed overnight in

Fresno and gave Wally support and gave me encouragement while we were still unsure of the extent or implications of my injuries. Thanks to everyone else who helped us out during that time, with kind words and deeds, when I was too out of it to know even what was being done to help me. Thanks to the fire department, the paramedics and EMT's who responded, and the medivac flight crew, who flew me to the hospital.

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BAPA Dues are Overdue-

2000 membership dues are now overdue. Please renew your BAPA membership by mailing a \$25 check to P.O. Box 1809, Pacifica, CA 94044-9998, or you can bring a check to the next BAPA meeting. Dues are used to pay for BAPA site insurance, site improvements, club sponsored activities and our monthly newsletter, the Ridge Dancer. Please complete the enclosed membership application/renewal form indicating any changes in your address, phone number, e-mail or other vital statistics, to help us keep the BAPA database up to date.

Trips and Stuff - by Jerry Schimke

A month between flights is so very gloomy

But the sky out there must be very roomy.

Let it not get your goat,

Just grab it by the throat.

Take the breaks in the weather,

Act just like a feather

Get out and fly

High in the sky

After all the talk about flying in the bright equinoctial moonlight, I guess it never really came to pass. However, on my way to Seattle for Christmas, my wife and I stopped for a couple of nights at Timberline Lodge at 6000 feet on Mt. Hood. Wouldn't you know it? The timing was just right for that bright moon. We had a couple of really beautiful sunrises and sunsets, and at night "the moon was so bright you could read the newspaper by moonlight." Well, not quite bright enough to read the fine print. But you could read everything down to the byline on the articles.

PAST STUFF -- There has been some flying going on, but mostly I haven't been the one doing it. The exception being last Saturday, January 8, when Darron Guberman, Gregg Thomas, and I did get a couple of brief but nice flights in at Potato hill. The Sacramento Valley was blanketed by its usual Winter High Pressure fog, but only a few hundred feet of elevation makes all the difference. Stoneyford

was crystal clear and from the Spud launch you could see the peak of Mt. Lassen sticking up above the valley fog blanket. All the local peaks and ridges were so clear it looked like you could reach out and touch them. The weather was wonderful (I'd guess 60's) and the road was moist enough so there was no dust getting to launch. Even the bikers you could hear all over the place didn't stir up much dust. What a change from the summer heat and dust. Of course, the thermals were not booming, and we noted that the sun at 2:30 PM was about as high off the horizon as the summer sun at 6:00 or 7:00 PM. I don't think anyone got a flight longer than about 25 minutes. Still, the flights were very satisfying overall, and we each did our best to milk every last ounce of lift from the small thermals that did exist. So that's winter flying at Spud.

Gene Pfeiffer's report on flying 1000-2000 feet over launch at Anderson Flat on New Years Eve and seeing an inch of snow the next morning sounds like good times to me. And I gather that Big Sur was a really spectacular soaring event over the New Year weekend. Launching off those coastal mountains and flying out over the green and white breakers is incomparable pleasure, especially when it's soarable too. Watching the whales too, oh my, what a show.

I spent the two days on either side of

the millennium rollover on 12-hour night shifts in the state's Emergency Operations Center waiting for the dreaded Y2K bug to destroy the Earth. It was my first time back on duty since I retired two years ago and was kinda fun getting back into the groove with all the old associates. It was really great to witness all the celebrations rolling around the world (starting at 3:00 AM on January 31, over by the International Dateline). Kind of impressive too, I thought, to see the two superpowers decide that they really didn't want to blow up the world and take active steps to ensure that it wouldn't happen by accident.

FUTURE STUFF -- Don't forget the BAPA sponsored party at **No Limits Paragliding, 3620 Wawona Ave. in San Francisco**. It starts at 7:30 PM on January 29. All foot-launched pilots from Bay Area clubs are welcome. Bring a friend.

If you have future flying events scheduled, please let me know. If you desire to have specific events put on the calendar, please let me know. I want to fly some more.

Have Fun. Fly Safe.

Bay Area Wind and Weather

Wind Talker Phone Numbers

Ed Levin	408.946.9516
Fort Funston	415.333.0100 or 415.584.9891
Mt. Diablo	925.838.9225
Mt. Tamalpais	415.381.9463
Stinson Beach	415.868.1922

Internet URL's

Funston Webcam – www.sirium.com/~mlbco/webcamx.html
Bay Area Wind Patterns – sfports.wr.usgs.gov/wind/
USHGA – www.ushga.org/
BAPA – www.igi.org/BAPA

Accident Reporting Procedures

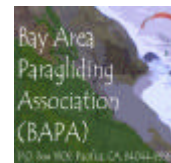
Paragliding is an evolving sport. Safety awareness and knowledge are vital components for avoiding accidents. If you sustain a paragliding injury, please help to raise the awareness of your fellow pilots by submitting an Accident Report to USHGA. If your accident occurs in the Bay Area, please also send a copy to :

BAPA Safety Director
P.O. Box 1809
Pacifica, CA 94044-9998

Contact the BAPA Safety Director to Obtain an Accident Report form. Forms are also available online at : www.ushga.org/emilacc.htm.

BAPA PARAGLIDING CALENDAR, 2000

Updated January, 2000 by Jerry Schimke



JANUARY

- 29 BAPA Party for foot-launched pilots and friends
7:30 PM at No Limits Paragliding (formerly Airtime)
3620 Wawona St. San Francisco
Hang Glider pilots, Paraglider pilots—Come one, come all.

FEBRUARY

- 2 BAPA Club Meeting 7:00 PM
Pacifica Round Table
- 6-13 Super Fly trip to Mexico -- Fly Valle de Bravo.
Contact: Chris Santacrocce – (801) 255-9595

MARCH

- 1 BAPA Club Meeting 7:00 PM
Pacifica Round Table
- 16-19 USHGA Spring BOD Meeting and Air Sports Expo a
Albuquerque, New Mexico
- TBD Elk Mountain Fly-in
- 25 Gaspo's moving out party. Stay tuned for details.

OTHER CLUB MEETING INFORMATION

Wings of Rogallo meets every 3rd Tuesday of each month at the Omega Restaurant in Milpitas (corner of South Park Victoria and Calaveras Blvd.) Social hour @ 7:00 pm, meeting starts at 8:00 pm.

Sonoma Wings Hang Gliding Club meets every 3rd Monday of the month at the Round Table Pizza, Hwy 12 and Stonypoint Rd. in Santa Rosa at 7:00 pm.

Marin County Hang Gliding Association meets on the last Thursday of the month at 7:30 pm at the Round Table Pizza in Corte Madera. (Come early to start on your pizza)

BAPA Club Officers

President	Darron Guberman	
V. President	Chris Northcutt	415.584.5610
Secretary	Cheryl Cohen	650.593.7458
Treasurer	Pam Brenner	415.883.4332
Site Director	Gene Pfeiffer	408.356.7782
Safety Dir.	Phil Neri	
Activities Dir.	Jerry Schimke	650.355.8888
Past Pres.	Mike Galvin	510.748.0451
Editor	Steven Pease	650.556.1978

BAPA Site Administrators

Stables	Dave Sondergeld	650.756.4530
Mt. Tam	Wally Anderson	415.456.3670
Mt. Diablo	M. Zabetian	925.933.9045

USHGA Region 2 Examiners

Jack Hodges	650.728.0938
Ed Stein	650.367.9707
Kathy Wilde	650.556.1320

USHGA Region 2 Observers

Mt. Diablo	Eric Wilcox	415.474.8057
Stables	Dave Sondergeld	650.756.4530
Ed Levin	Dave Bingham	408.923.0394
Ed Levin	Claudia Lehman	510.893.4787
Ed Levin	John Wilde	650.556.1320

Ed Levin paragliding observation by appointment, contact :

Kathy Wilde	650.556.1320	wildeblu@aol.com
Kim Galvin	510.748.0451	kim_galvin@mpsh.com

The Bay Area Paragliding Association (BAPA) is an organization of paragliding enthusiasts. The charter of the club is to promote and encourage the sport of paragliding.

BAPA is a registered chapter of the United States Hang Gliding Association (PC006).

The material presented here is published as part of an information dissemination service for BAPA members. BAPA makes no warranties or representations and assumes no liability concerning the validity of any advice, opinion or recommendations expressed in the material. Readers are encouraged to report errors of fact to the Editor.

The Ridge Dancer is published monthly. Material for publication should be sent to the Editor and may be edited for format or space considerations only. Deadline for submissions is the 15th of each month. Submissions can be made via email to : spease@interserv.com. Classified advertisements are free for BAPA members

Address changes should be sent to : BAPA Address Change, PO Box 1809, Pacifica CA 94044-9998. To receive the Ridge Dancer electronically (.PDF format) requests may be sent via email to Pam Brenner at jnpsf@mindspring.com.

BAPA Meeting Minutes of 1/5/00 – submitted by Cheryl Cohen

President Darron Guberman called the meeting to order at 7:07. Thirteen members were present, plus Tim West, the President of Fellow Feathers.

Notable Flights

Mike Galvin is back flying after his incident in Turkey. Gene got to 1000' over launch at Anderson Flat on New Year's. Pilots had nice flights at Big Sur New Year's weekend.

Officer Reports

Treasurer

Pam reports that we have about \$2,000 in the bank.

Site Director

Gene will attend the meeting of the Open Space District to find out more about Mt. Baldy.

Dave reported that the site permit for The Stables has been renewed for three months while decisions about use of Fort

Funston are worked out. The cost of the permit will increase to \$500. Mike will check with USHGA about their support for opening up use of Fort Funston to paragliders.

Activities Director

The joint Hang Glider/Paraglider party sponsored by BAPA will be at the Airtime shop on January 29th at 6:30.

Old Business

The minutes of the last two meetings were approved.

New Business

Kim received a note from the president of the Berkeley Hang Gliding Club proposing that we form a joint Bay Area Free Flying Club composed of representatives from local paragliding and hanggliding clubs to lobby for site access.

Kim proposed that we discontinue the Phone Board since no one uses it. Motion

passed.

Jerry moved that we grant \$200 toward expenses for the Fort Funston Web Camera. The motion was tabled pending accumulation of actual expenses to be reimbursed.

Mike will arrange to have renewal stickers printed for the administered sites. Stickers will be available from the Site Administrators. A motion was passed to pay for the stickers.

The meeting was adjourned at 7:55

Accident Report

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And lastly, thanks to Wally, my partner in life for the past 16 years, for your insight, endurance, patience, encouragement, support, and for constantly maintaining a cool, calm demeanor when I needed it most. Thanks to all of you, as I write this 4 weeks later, I'm up walking around, participating in rehab, and considering going back to work soon.

Dunlap Flight Park has always been one of my favorite places to fly. We flew there in the mid 1980's in our hang gliders, usually in the spring and fall to avoid the summer turbulence. We were looking forward to our first flights there since the park has reopened. I'm a HIV, PIII, who began flying hang gliders in 1982, and gradually phased into paragliding several years ago. I went through a period of working on getting a private pilots license, and have always had a love of aviation. This is the first accident of consequence that I've ever had, and I'm finding it difficult to analyze just what did happen.

We flew on Friday, November 26, in slightly inverted conditions, smooth air, and very little convection at launch or in the air. Saturday morning brought the same sort of conditions.

There was an inversion, and the horizon around the valley looked hazy and brown. Several paraglider pilots had launched and were attempting to make the most of what little lift and buoyancy there was. I did a light wind reverse launch from the house launch,, turned left, and flew down the ridge in 50 FPM down air. The air felt the same as it had the previous day, but a bit more buoyant. There was nothing along the ridge worth stopping and turning in, so I continued flying just below ridge level, in smooth air. I could see Kim working something in the bowl at the head of the canyon leading to the LZ, and it looked smooth and not very strong. I was maintaining 50 - 100 FPM down along the ridge, in smooth air, enjoying the scenery. It felt good to be in the air at Dunlap again, and I could see the

snowcapped mountains and the patterns of sun in the LZ, playing on the autumn colored leaves. My plan was to fly to the bowl, do some figure eights, and see if I could climb out and share the air with Kim.

Suddenly, without warning, it felt like the right side of my glider had collapsed, and I was being pulled up by the left riser, and looking straight up into the wing. The right side of the wing was cascading down toward me, and I wondered if it was going to actually come within my reach. I went for my chute, but intuitively, I felt the wing was still flying, and beginning to recover, so I didn't throw the chute. I heard a loud crack or snap, which I think was the glider reinflating, and I felt a surge.

The rest of my memory of the flight is not very clear. When the glider collapsed, I think the chest strap was completely unweighted on the right side, from the lack of tension on the right riser. The tension on the left riser pulled the chest strap up sharply on the left, allowing it to slip under my rib cage on the right. When the glider recovered, I think the chest strap on the right pulled up under my rib cage and liver with such force as to cause internal bleeding, extremely sharp pain, and loss of consciousness. From that point on, I have to give the glider all credit for getting flying again and getting me on the ground in flight, rather than free fall. I remember vaguely at one point, not seeing the glider anywhere, thinking it had stalled, and stuffing the brakes (probably totally inappropriate), and I remember feeling for my chute at one point on the front of my harness (where my HG chute is located). I don't remember any of the surges, riser twists, or spirals reported by other pilots, and have to assume I was unconscious when these occurred. I don't remember hitting the ground, or very much after that for the next 24 hours. However, at this point, 4 weeks later, the injury that predominates, is the posterior, inferior liver hematoma, and subsequent internal bleeding, which is consistent with a

"seat belt injury".

Observing pilots said that the whole incident took between 10 and 20 seconds from initial collapse to impact. I would estimate that I was approximately 300 ft AGL at the time of the collapse.

In the years I have been hang gliding, I have encountered rogue thermals several times, been "over the falls", and past vertical several times in turbulent conditions. Luckily, in all those cases, I was high enough and far enough from the hill to allow the glider to recover. I have gone for my chute on occasion, but never had to throw it. Over the years, I have begun to pick the conditions that I fly in more carefully, and generally don't fly when there is obvious turbulence or marginal conditions for my comfort level.. However, you never can completely know what's out there. I think I hit an unexpected "rogue" in November, at Dunlap, which rocketed 20% of the glider up and pushed the other 80% of the glider down forcibly.

In retrospect, I would have thrown my chute immediately, although, with my harness in the position it was in, I probably would have ended up with the same injuries, and may have landed a lot further from the road, delaying rescue attempts significantly. When I get back to flying, I intend to get a front mount chute, so that it's consistent with the location of my hang gliding chute. I'm thankful I was flying a glider that kept trying to recover, despite my eventual lack of input, and a harness that had a moose bag with kevlar reinforcement, side protection, and a good helmet. With less protection, my injuries would have been significantly worse. I'm awfully glad my fellow pilots were flying with radios, keeping their eyes open, and their skills honed and hearts open, all leading to their quick response. I apologize to all who put their safety on the line to help me. And... I'm just happy to be alive and recovering.

Thanks, again, to all.

A good day at the Dumps . - photo by A. Sasaki



Bay Area Paragliding Association
Membership Application & Renewal Form

Instructions : Complete and mail this form, along with your payment, to : BAPA, PO Box 1809, Pacifica, CA 94044-9998. Forms may also be given directly to the Treasurer at the monthly BAPA meetings. Make your check payable to: "Bay Area Paragliding Association".

Member Information :

Name _____ Street Address _____
Home Phone _____ City, State, Zip _____
Work Phone _____ Email Address _____
FAX _____ HAM Call Sign _____
USHGA Number _____ USHGA Rating _____ Expiration date _____
First Aid Rating(s) _____
Other interests _____

- * Check here if you do not wish this information to be published to other club members []
- * Check here if the information above has changed since your last renewal []
- * Check here to reduce club costs by electing to receive our monthly newsletter, "**The Ridge Dancer**", by e-mail (.PDF format) []

Membership dues (based on a calendar year) :

Dues Renewal - \$25.00 per year	\$	_____
New Members - \$2.00 per month	\$	_____
from application date until end of year		
Club Donations	\$	_____
Total Enclosed	\$	_____

Site Sticker Information :
To obtain a sticker to fly a BAPA administered site, you must apply in person at :

Mission Soaring
1116 Wrigley Way
Milpitas, CA
408.262.1055

You may also obtain stickers, as well as additional site information, by contacting the following Site Administrators :

The Stables Dave Sondergeld 650.756.5430 dsonder@slip.net	Mt. Diablo Mahboud Zabetian 925.933.9045 mahboud@aggroup.com	Mt. Tamalpais Wallace Anderson 415.456.3670 tipvortx@thegrid.net
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Site Sticker Renewal :
To request a sticker renewal for the current year, please send BAPA a photocopy of your current USHGA membership card, write your sticker number on the photocopy and include a self-addressed, stamped envelope. Mail to: BAPA, PO Box 1809, Pacifica, CA 94044 9998. Please indicate which site(s) you wish to renew your sticker(s) for :

The Stables [] Mt. Diablo [] Mt. Tamalpais []

Your donation will help to defray site maintenance, insurance and sticker costs - ENCLOSED \$ _____

Additional Site Information :

Ed Levin & Mission Ridge Point Reyes	Stickers and info available by contacting Wings of Rogallo, PO Box 361885, Milpitas, CA 95036-1885.
Pacifica Dump	Permits are available at the Bear Valley dispatch office on weekdays between 8:00 A.M. and 4:30 P.M. Flying without a permit is a \$200 fine. The dump is an unregulated site. BAPA recommends that you speak with an experienced local pilot for a site intro. prior to flying this site.

----- FOR BAPA USE ONLY -----

Payment Amount received _____	Payment Method _____
Date of Receipt _____	Date in Database _____

Coastal Site Advisory

Early Spring, 2000



Local Situation

Local city ordinances do not allow flying in this area, and the authorities have the right to stop our activities anytime they choose to. However, paragliding, hanggliding and RC activities have been tolerated in the Mussel Rock area (also known as “The Dump”) for a number of years. Because of three fatalities, and a high number of blowbacks and other incidents, local pilots have banded together to deal with these problems. Many of the incidents involve pilots who are unfamiliar with the site, or are new to paragliding. This site is situated in a metropolitan area so homeowner complaints about blowbacks onto their property, excessive noise, and a high number of medical evacuations greatly increase the risk of negative attention from the authorities.

We strongly encourage new and visiting pilots to talk to local pilots before flying, and learn about the conditions and hazards for the day. If you are honest, objective and open about your experience and skill level, the locals will help you make the most of your flying time here.

Special notice to pilots visiting from other countries. Site access in the USA is a very sensitive and complex issue. We have to work very hard to keep our sites open, and we ask that you respect our efforts. Please don't assume that the laws and customs of your country apply to this site.

We appreciate your help in reading this advisory and working with us to keep this great flying site open and accessible to everyone.

Site Conditions and Hazards

WATER LANDINGS ARE NOT AN OPTION, and must be avoided at any cost. The Pacific Ocean at this site is cold and turbulent. Hypothermia, the risk of line tangles in surf, and the wing's tendency to drag pilots below the surface when filled with water all contribute to an extremely hazardous situation. Any landing on the ground is better than landing in the water. In 1995, a pilot drowned in the ocean because he did not unhook from his equipment after landing in knee deep water. Several other water landings resulted in very serious danger to the pilot and to those trying to help. **Before launching, check the tides and how much beach there is, and adjust your flight plan accordingly.**

If you or your wing land in the water, UNHOOK. Do not try to retrieve your wing. UNHOOK from your harness, reserve and wing. Live to regret the loss of your equipment and appreciate being alive.

Wind Gradients need to be taken into account when analyzing flying conditions. Simply put, the higher you are, the stronger the wind is. **In stronger conditions pilots should fly low and out in front, and avoid the upper ridges and the backs of bowls.** This is especially true of the upper ridge line to the east of Tomcat launch, the launch closest to the parking lot. Do not go far back along the ridge where it cuts in to the east. The wind vents in here and pilots have gotten stuck in this bowl and blown back. At the Westlake cliffs, the wind gradient is usually quite noticeable. It can be very light on the ground at launch but strong up above. Do not fly above or close to the top of the Westlake ridge when the wind is very strong because you are likely to get blown back.

Shears are where two air masses meet, that have different wind velocity and direction. The interface between the air masses is usually extremely turbulent. When an air mass with high velocity (over 20 mph) overtakes a slower air mass (usually out of the NW), there can be very strong lift in the overtaking air. Hanggliders will take these shears thousands of feet up. Unfortunately, these conditions are outside of the operating envelope of paragliders, and should be avoided by all pilots. Shears can be recognized by a low altitude cloud line, usually running SW-NE, by a waterline with whitecaps on the 'outside' of the line, and by birds and hanggliders soaring very high. **Shears are extremely hazardous. Pilots need to be observant of these conditions, and land well in advance of approaching shears.**

Strong and/or gusty winds are a factor in most of the incidents here. Pilots need to know how to determine wind speed and direction while in flight, and take the appropriate actions if the wind changes speed or direction. The following is only an introduction. Local pilots have literally hundreds of hours of experience with site conditions, and should always be consulted as to whether conditions are appropriate for a given skill level.

Wind strength, direction and condition can be determined by watching birds, other pilots in the air, kiting of canopies on the ground and your own ground track and heading. The texture and color of the Ocean is an excellent indicator of the wind, and all pilots should learn what the indicators are, and frequently check the water for them during the flight. Here are a few of the indicators to look out for:

Texture An even, rippled surface, with a deep, consistent color is a very good sign of a steady onshore breeze. Wind speeds in flight will range from about 8 to 15 mph. However, if the sea surface has alternating smooth and textured areas, this indicates gusty

conditions, with abrupt changes in velocity and direction. **These are very hazardous conditions, not suitable for any pilot level.**

Wind Lines Roughly straight lines in the water, running parallel to the wind direction, indicate wind speeds in flight will be from about 14 to 18 mph. While these conditions are within safe parameters for suitably equipped pilots with site experience, experienced pilots new to the site should plan on staying low and in front. Novice pilots not familiar with the site should land.

Whitecaps **Beware whitecaps on the water.** The presence of whitecaps means that the winds in flight are exceeding 18 mph, possibly by quite a bit. Only pilots who are **very** experienced with these conditions at this site should fly in them. Sometimes there will be whitecaps just offshore, but with lower winds at launch. This is an indication of an approaching shear, and pilots shouldn't launch because the shear line may come in very rapidly.

Seagulls are excellent indicators of conditions. The main thing to keep in mind is that seagulls prefer straight and level soaring flight. If you see them soaring and sometimes flapping their wings, this indicates turbulence and holes in the lift. If they are popping up and down, rocking back and forth, decreasing their wingspan, or all three, then conditions aren't suitable for paragliding. If they are smoothly gliding 50 feet above the ridge top, the conditions are probably excellent. Watching their flight is a good way to map out wind speed and direction, and the areas of lift and sink along the terrain.

Rotors and ground-induced turbulence have caused problems for a large number of pilots at this site. **Please ask local pilots about these hazards before launching.** Pilots have suffered collapses from rotors caused by offshore rocks, spines and points in cross conditions, and from rotors on the lee side of ridges. Pilots should be extremely cautious when scratching in light conditions, or otherwise flying close in to the hill. Fly out and around a spine, rather than over it.

The Mussel Rock rotor and the rotor at the point of Westlake are two significant hazards to look out for. When launching at Tomcat, the launch closest to the parking lot, beware the rotor that Mussel Rock (the large rock out in the ocean in front of the launch) can put off. This is true in a straight in or southwest condition. If you kite your wing and find rotor turbulence, go to another location such as Lemmings (the flat area to the north where instruction often takes place) or Walkers (the launch at the top of the hill above Lemmings).

The point which sticks out at the southern end of Westlake puts off a rotor on WNW or NW days. Avoid going deep into the shadow of the point in these wind conditions.

Also, be careful in the first large gap you encounter where there is a landslide along the Westlake cliffs just north of the Dump. The wind can swirl around inside this gap and create unexpected turbulence. Do not go deep inside the gap/landslide area.

Wing induced turbulence, or wakes are a part of coastal ridge soaring. Beware of the wakes from other wings that may hit you, and how your wake may affect other wings. Flying in front of and below another pilot coming in to land or trying to launch is particularly rude and dangerous, and will probably earn you a few choice words. If you are heavy on your wing and deep in your brakes, you will put off a big wake. Try to let up on the brakes as you pass lower and outside another pilot.

Clouds and fog. The primary rule is to be aware of cloud and fog development (it can form quickly) and take action to avoid it well in advance. Do not launch on days with a low fog ceiling. If you find yourself in fog, immediately use your speedbar and Big Ears to descend out of it. B line stalls are potentially hazardous because of the proximity of the ground, and should only be used as a last resort.

Fly in front of the ridge, always. Behind the ridge, you may encounter lee side rotors, which can cause full wing collapses. Behind the upper ridges, you will encounter much stronger wind velocity, with no lift, making penetration forward much more difficult.

Avoid the power lines and houses at the top of the Westlake Ridge. On a strong day it is CRITICAL not to fly high above the ridge and back close to the power lines and houses. Approximately nine years ago a pilot was electrocuted when he got blown back into the power lines. In 1997 another pilot was lucky enough to survive hitting the power lines - a very close call with burn marks on his harness and carabiners. In 1996 a pilot broke both legs when he slammed into the roof of a house at Westlake.

Exert caution when crossing in and out of the Dump to and from the South. The profile of the land is uneven with spines sticking out so big rotors are possible. One of the dangers is that if you cross low on a day with a northerly component it is often hard to get back to the Dump and you can get massively rotored trying. In addition, there is an inaccessible cove between the Dump parking lot and Cheetah Ridge. You do not want to land in this cove because the sheer walls make it almost impossible to climb out.

Needed Skills and Equipment

Pilots must be competent in ground handling their canopy in strong winds, and able to reverse inflate, kite the canopy in both a reverse and forward position, transition smoothly between the two, maneuver in the launch area, and deflate their canopy in a controlled and safe fashion. If a pilot isn't able to demonstrate competence in ground handling, local pilots will recommend areas to practice these skills.

Pilots should avoid scratching too close to the ridge in light conditions unless very familiar with the site. In a WSW condition, experienced pilots use Walker Ridge, the ridge south of Walkers launch to bench up. There is sometimes thermal activity in addition to ridge lift on this ridge. The penalty for scratching too close and hitting sink can be serious. An inexperienced pilot had a severely broken ankle when he impacted the ridge while scratching.

Pilots should be aware of wind direction and not fly close to the ground downwind. Several pilots and a tandem passenger have been injured (broken hip, fractured vertebrae, broken ribs, broken arm) impacting the ground going downwind. When flying a downwind leg, be sure you have enough clearance above the ground or away from the ridge to complete a turn back into the wind without coming into contact with the ground.

Pilots are responsible for keeping track of all other traffic with frequent and deliberate eye contact. Pilots must know and follow 'Ridge Rules'. All turns need to be 'cleared', with the pilot looking and turning their head in the direction of the turn **before** the turn is made. All turns should be away from the ridge. When approaching another glider head on, **pass to the right**.

When overtaking a slower glider, pass to the inside if there is a safe margin of room and the other pilot is aware of you, or if there isn't enough room, **turn back**. Never pass on the outside in case the pilot ahead of you makes a turn unexpectedly.

If you are not experienced with ridge soaring in traffic, be sure to review ridge rules with a local pilot before flying.

Dress warmly, with an outside wind breaking layer for both top and bottom. The temperature can be in the 50s or lower, in any season on the coast.

Gloves are important, both for warmth and for protection against line cuts when ground handling or pulling Big Ears.

Appropriate footwear: Boots with good ankle support should be worn. There is always the possibility of landing on hard ground, thick brush with Poison Oak, rock, rubble and broken glass.

Canopies must have speed equipment (trim tabs and/or speed bar) and be capable of 'Big Ears' canopy reduction. Common sense says that the canopy, harness, risers, etc. should be in good condition and inspected regularly. Pilots need to know how to use this equipment, and be experienced at pulling Big Ears.

Helmets are mandatory. Expect local pilots to become very upset if you try to launch without adequate headgear. Construction hats, climbing helmets, bicycle helmets and the like are not appropriate headgear. Full - face helmets are strongly recommended.

Hook knives should be quickly accessible by the pilot, and prominently visible to others who may need to give assistance during an emergency.

Quick release buckles on your harness are important so you can get out of the harness and away from your wing if you go in the water. However, note that if the quick release buckles get full of sand, they will not open. In that case, your only option is to cut the harness webbing to get out.

Wing and speedbar carabiners that are easily opened can also be important in a water landing. If you can't get out of your harness, at least you can detach from the wing and speedbar. But of course, the carabiners have to be secure in flight.

Pretty Good Rules to Follow

- 1) **Decide for yourself if conditions are right for you.** Seeing other wings in the air is no indication of safe conditions. There have been many days when local pilots weren't flying and were advising the visitors not to fly either. Since some of the visitors came a long way to the site, it's really hard for them to stay on the ground when they see other wings in the air. Don't let this suck you in. Nearly all of the problems have been caused by pilots flying in conditions above their experience and skill level. "Flyable" is a term relative to your skill level, experience, wing loading and site familiarity.

- 1) **Use the right launch for the conditions of the day.** There are several launches at this site, and they are not all suitable for all days depending on wind direction and strength. Again, check with the locals if you are in doubt.
- 2) **Always check your equipment and do a complete pre-flight before inflating, every time.**
- 2) **Decide on a flight plan before launching.** Think ahead of time what you will do after launch, where you plan to fly, what options you want to give yourself in case conditions change, and where you want to land. There is nothing wrong with revising your flight plan once aloft, but you should always think it all through before taking off. Always keep alternate flight plans in mind, in case things change mid-flight.
- 2) **When in flight, continually monitor other traffic, conditions on the water, changes in wind direction and velocity, your airspeed and groundspeed, your heading, your ground track, and your own mental and physical condition.** This is what is meant by being a pilot. A good way to keep track of other traffic is to count the number of other wings in the air, both paragliders and hanggliders, and make sure your count adds up each time you scan. Keep an especially close watch for hanggliders, as they have a very thin profile head on, and a much higher airspeed.
- 6) **Maintain deliberate eye contact with all pilots, and clear your turns.** This is worth repeating. We are all responsible for looking out for each other.
- 6) **Don't hog the launch window.** On most days there is plenty of flying room for everyone. Give the other pilots a break, and let them use the ridge by launch to gain altitude. Do not endlessly soar back and forth at launch level when others are trying to launch. If conditions are such that the launch area is the only soarable spot, then pilots are expected to limit the duration of their flights, and allow others some air-time.
- 1) **Be courteous.** This is especially true with non-pilots using the area, park and city officials and law enforcement officers. With other pilots, please keep in mind that we're all here to fly and have fun.
- 1) **Check the beach before flying.** Better yet, check to see when the high tide will be before coming out to fly. Often there is NO beach at high tide so landing there is not an option.

Frequently Asked Questions

How do I find a 'local pilot' ?

Ask the pilots you see here how much they have flown the site, and who you should talk to for a site introduction. You need to take responsibility for yourself when acting on the advice from others. It is always useful to cross-check any information someone may give you.

What should I do if the wind gets too strong and I start going backwards?

First of all, think rather than panic. Second, focus on getting lower and away from the ridge. Immediately use your speedbar or trim tabs to increase your airspeed, and keep off your brakes. If you are well ahead of the ridge, you probably want to pull Big Ears, while staying on the speedbar, to get lower in the wind gradient. Keep in mind that Big Ears may increase drag, thus decrease airspeed. You may lose ground at first, but once you're lower in the wind gradient, the windspeed should be less, and it will be easier to penetrate.

In cross conditions you may be able to fly downwind along the beach, losing altitude and land on the beach if it is big enough. Do not fly back into bowls. This makes the situation much worse because the wind venturis in the back of bowls and gaps. If you are able to penetrate, then fly out in front of the lift band, and use Big Ears and/or wingovers to descend in the laminar (non-lifting) air. When you have reached an altitude just a little higher than the LZ, carefully fly back to just in front of (west) of the LZ, making sure to initiate the turn out well in advance. Using a combination of Big Ears and speedbar, descend to the LZ (which may be the beach in this case). **Once again, do not land in the water.**

Once on the ground, get your wing out of the air as soon as possible to avoid being dragged along the ground. Use your C risers or B risers to quickly deflate the canopy.

If the wind direction is straight in and you find yourself unable to penetrate out and down, there is a point at which you must make a decision. If you are being blown back over the Westlake cliff despite using your speedbar or trim tabs, you may have to turn downwind (East) and find a spot to land. This is not a trivial thing. You may be rotated when you try to land. There are also many obstacles at the top of the Westlake cliffs including power lines, houses, a major road with fast moving traffic, parked cars, trees, etc. Pilots have been blown back into all of these, some suffering significant injury and one fatality.

Local pilots fly the site all the time, in all sorts of conditions, and never get close to being blown back. The best way to cope with blowbacks is to never give them an opportunity to occur.

What should I do if I screw up my launch or landing, and I start getting dragged backwards?

Immediately begin pulling in on one or both brake lines or rear risers, hand over hand, until the pressure lets up, while running towards the wing. If you've fallen down, focus first on pulling in the brake lines, then try to roll over onto your feet, and get up and run toward the wing. This procedure should be practiced under instruction before flying the Coast.

How do pilots screw up ?

Nearly all accidents have a pattern where a bad decision leads to a bad situation, and then subsequent decisions and actions (or lack of) keep making things worse and worse. In most cases this happens because of lack of experience leading to panic. Thinking ahead and keeping several options open is the best way to prevent bad situations from developing in the first place.

What is the flying season here ?

The summertime onshore flow is caused by the thermal low in the Central Valley pulling in the marine layer off of the Pacific through gaps in the Coast Range. This site is well situated to take advantage of these winds. During the rest of the year, soarable conditions occur on the edges of passing storm fronts, which call for a lot of observation and local site knowledge to fly safely. An excellent reference book on local climatic conditions is Weather of the San Francisco Bay Region, by Harold Gilliam.

What about paramotoring ?

Not welcome. The noise draws complaints from the neighbors. No motorized vehicles are allowed in the Mussel Rock area.

Will this site be regulated ?

The primary focus of the local flying community is to have a good safety record. If we are successful in self-regulating this site, we hope that the current situation will continue indefinitely.

Why will I see people flying, but I'm advised not to fly ?

Several reasons. An experienced local pilot on an advanced wing has more options and can fly in a wider range of conditions than an intermediate pilot on a slower wing. When the conditions are very strong, often the local pilots are on the ground, wishing the pilots in the air will soon figure things out and land.

How can I become familiar with coastal flying at this site?

Practice is the key. In order to understand coastal flying at this site, you need to spend many hours slowly and steadily working on your ground handling and soaring skills. This is not something that happens overnight. Being an experienced thermal pilot does not mean that you are an experienced coastal pilot as some of the skills and experience are different, though related. Having a killer forward launch won't get you off the ground in strong coastal winds. Getting high may be great in the mountains but can be disastrous on the coast. Developing the necessary skills makes coastal flying enjoyable and makes you a safer pilot.

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Updated by Ann Sasaki - 1998

Updated by Ann Sasaki - 1999

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DUMP SITE CHECKLIST



Since 1992, four pilots have died here - one from electrocution, one from drowning and two from crashing into the cliff. Additionally, there have been many serious accidents and incidents involving visiting and local pilots. The "Dump" is a potentially dangerous paragliding site, often not suitable for beginning pilots. Please review this Checklist AND the more comprehensive Coastal Site Advisory before you fly here. Your cooperation is appreciated.

Pilot Skills:

- Minimum of a Para2 rating (or foreign equivalent) - otherwise you should be under instruction
- Be able to ground handle your canopy in high winds
- Have a strong reverse launch
- Know how to deflate your wing quickly upon landing in high winds
- Know how to increase penetration and decrease altitude
- Be familiar with ridge rules and follow them

Conditions to be aware of:

- Large Wind Gradient: The wind can be MUCH stronger aloft than at launch. Stay LOW and WELL in front of the ridge on strong days.
- Shear Turbulence: There can be strong turbulence where two air masses going in different directions meet. Shears are common at the Dump and pilots should not launch into or fly in strong shears.
- Whitecaps: Whitecaps indicate strong winds. Pilots should land when these form.
- Fog: Fog can develop quickly and creates a dangerous lack of visibility. Do NOT fly into the fog.
- Rotors: Rotors are found in the lee side of a ridge, spine or other obstruction. Rotors CHANGE according to the wind direction. Do NOT fly into rotors - you will find severe turbulence.
- Wind Direction: Wind direction can change. Continually check the direction as you fly and before you land. Do NOT fly downwind close to the ground or land downwind.
- Changing Conditions: Wind direction, wind speed and gust factor can change quickly. Fog and shears can develop rapidly. Always check for changes in the flying conditions and land if prudent.
- High tide and no beach: In the winter and at high tide other times of the year, there is often NO beach in front of Westlake. Be aware of this and be within glide of an alternate LZ if there is no beach.

Hazards to beware of:

- Power lines and houses along the ridge, major roads and highways behind the ridge.
- Bowls and gaps where the wind is stronger because of the venturi effect.
- The ocean which is extremely cold and often has large waves. Landing in the water can be fatal.
- Concrete and other debris at this site because it has 20 years of landfill use.
- Heavy traffic in the air - paragliders, hanggliders and RCs. Clear all your turns and follow ridge rules. Be respectful of other pilots in the air and give them plenty of room.
- The high Westlake cliffs which have a big wind gradient. Do not fly Westlake if you are inexperienced.

Equipment all pilots should have:

- Certified glider in good condition
- Harness with quick release buckles
- Helmet, proper footwear, gloves
- Hook knife or other knife that can cut through risers if you go in the water
- Speed bar or trim tabs to increase penetration in strong conditions

Please note: It is important to get a site intro from an experienced local pilot or instructor.

In an emergency: Call 911 from the pay phone at Safeway (Manor Plaza) or the video store. Some pilots carry cell phones so ask around if there is an emergency.