

THE  
OFFICIAL NEWSLETTER  
OF THE  
EL PASO SOARING SOCIETY

EL PASO, TEXAS

# DUST DEVIL TRIBUNE

Issue #48

November-December, 2005

## FEATURES:

SOARING IN  
FRANCE

BEYOND  
THERMALS

SOARING THE  
RIDGE

SOARING  
MOUNTAIN  
WAVES

MOUNTAIN  
SOARING AT  
HOME

IT'S ALL  
ATTITUDE

CHRISTMAS  
PARTY

DUO DISCUS X  
IN EL PASO



## Soaring in France!

A lifelong dream of mine was fulfilled in November: I went soaring in France! All of my life's passions intersected in the small town of Fayence: French food, French culture, Friendships and Soaring! During my week-long stay, my mother and four of my close friends lived in a small three-hundred year old house in a

medieval hilltop village, and we enjoyed the warm hospitality of the people of Provence. I was able to learn from a couple of veteran French glider pilots, and soared the foothills of the French Alps. Over the next few pages, I will share my adventure with you, and hopefully my excitement will be contagious!

## Beyond Thermals

“My first impression of soaring in France was that we were playing chicken with a four-thousand foot rock!”



By the end of my stay in France, I had logged over 15 hours, but had not found a single thermal. The clouds rarely parted long enough for the sunshine to reach the ground, and the temperature never climbed above 65° Fahrenheit. But most of my flights were over an hour; the longest over three. I climbed above 10,000 feet a couple of times, but most of my time was down low, even below ridge-top level. While flying between the mountains without a thermal to be found, I somehow was able to soar over 150 miles on my best day. But how?

Lift can be caused many ways. In El Paso, we are most familiar with convective lift, or thermals. While in France, I used orographic lift, or lift caused by wind flowing around and above mountains. In textbooks, we've read about ridge soaring and

climbing in mountain waves, but while soaring in the mountains I learned that the image of this type of soaring and actually using it are two very different things. Ridges aren't usually very long, and mountain waves aren't usually very tall. To soar in the mountains, you need to connect the dots quickly and efficiently, or you don't make it. And there aren't many places to land! Safety is always the highest priority, so wherever you are, you always have many exit strategies.

My first impression of soaring in France was that we were playing chicken with a four-thousand foot rock! We flew directly at the face of the cliff, and it appeared that we expected the invisible currents of air to be there. The truth is that while we hoped they were there, we didn't expect them to be there, and planned for them not to be there.



## Soaring the Ridge

“The altimeter continued to climb throughout the tow, but our altitude never exceeded 500 feet above the ground. My heart was pounding—I’m a student again!”



My first flight in France was on an overcast day with the wind out of the southeast at about 10 knots at the airport, and at about 30 knots at the ridge. We launched the Duo Discus behind the Katana tow plane and turned towards the ridge. Soon I was holding onto the stick with two hands, as the turbulence could only be described as severe! The altimeter continued to climb throughout the tow, but our altitude never exceeded 500 feet above the ground. My heart was pounding—I’m a student again!

My instructor released from tow, and said “J’ai le command!” I quickly replied “Vous avez le command!” and showed him both of my hands so he knew I was off of the controls. He then made a sharp diving turn towards the ridge, and a moment later I felt another massive bump as the variometers pegged full scale up! He made a couple of zig-zag figure-8 turns along the ridge, explaining to me how to climb on the ridge, and to

never turn towards it. After climbing to the ridge crest, he returned the controls to me, and I repeated the maneuver.

The ridge wasn’t a perfect slope, though. During the flight along the ridge, you see parts of the mountain ahead of you that are above you! You fly right at them, hoping that the lift will carry you over them. If the lift isn’t there, you make an immediate turn down the slope. But the lift was always there, and the trees passed just a few feet beneath me! Some parts of the ridge create more lift than others, and you can sometimes circle the glider and climb well above the ridge top. If you climb high enough, you can glide to the next ridge and start all over again. The “Bunny Hill” in Fayette is actually a series of steps: You can climb up to the higher ridges and still remain within gliding range of the airport. It was a very safe way to learn ridge soaring, and to build self-confidence.

## Soaring the Mountain Waves

“On the return leg to the airport, I found myself below the mountain peaks. I needed to fly around the side of the mountain before looking for the initial oscillation of the wave downwind and behind the mountain.”



When I fly mountain waves in El Paso, I'm climbing in textbook-perfect waves. I forecast them, and I climb in them up to high altitudes. But mountain waves are very common, even though they might not be strong enough to reach all the way to Horizon Airport. The waves that I found in France were small and localized. They only went up to about 10,000 feet, only cycled for one oscillation, and were only about a mile wide. At lower altitudes, the wind speed was low enough to actually allow circling to climb. It was bizarre to realize that this lift wasn't a thermal, even though it was behaving exactly like one!

At higher altitudes the wind speed was too strong to allow circling, and I needed to switch to shallow s-turns to remain in the lift. Once at the peak of the wave, we maneuvered the glider to the side of the wave before pro-

ceeding upwind and deeper into the mountains. From one mountain to the next, the wind shifted slightly, and the shape of the mountain was always different, so each wave was different. Each climb required a new strategy, and sometimes a change was needed mid-climb.

On the return leg to the airport, I found myself below the mountain peaks. I needed to fly around the side of the mountain before looking for the initial oscillation of the wave downwind and behind the mountain. This can be very dangerous! If you position yourself incorrectly, you may find yourself in a very strong downdraft, with no altitude or airspeed to recover! But with the assurance that the instructor was in the back seat, I searched for and found the waves, and I pulled the glider rapidly up chandelle-style to quickly enter and climb in this amazing form of lift.

## Mountain Soaring at Home

“Our club members can now get a tow from Alamogordo, which is just a few miles away from the Sacramento Mountains of southern New Mexico.”



Soaring directly above Horizon Airport is like learning to swim in the shallow end of a swimming pool. While it is a lot of fun, it is nothing like touching the bottom of the deep end of the pool for the first time. Then you discover snorkeling at the local lake, and then perhaps scuba diving or surfing. Soaring has so much to offer those who choose to explore the sport deeper. Our club offers more than just trying to find the top of the closest thermal to the airport. We have the Grob 103 available for cross-country and wave instruction. The Grob 102 is currently available for solo cross-country flights for qualified club members, and everybody is welcome to try to climb in the large winter mountain waves that we are so fortunate to have!

Over the past few months, your Board of Directors has negotiated with the White Sands Soaring Association (WSSA) in Alamogordo to

approve a reciprocal towing agreement. Our club members can now get a tow from Alamogordo, which is just a few miles away from the Sacramento Mountains of southern New Mexico. These mountains allow easy and safe ridge soaring, and trigger mountain waves which have allowed some glider pilots to climb above 30,000 feet! Also, the Sacramento Mountains are situated under a massive meteorological convergence between pressure areas of the plains and the mountains. This allows gliders to launch early in the day, and to get a head start on large cross-country tasks, some of over 1,000 kilometers!

Flying a high-performance glider certainly makes the sport a dream! Perhaps a few club members can get together and buy a nice ship to share among themselves. A modern high-performance glider will leave you breathless! Trust me—you won't be disappointed!

## Keith Fong: It's All Attitude

“Flying a glider: the pilot’s ability to attain and maintain the desired pitch attitude is what separates the ones who struggle with everything—tow, turns, thermalling, and landing—and those that fly with precision and confidence.”



Attitude is everything. And I’m not just talking about mental attitude.

Flying a glider: the pilot’s ability to attain and maintain the desired pitch attitude is what separates the ones who struggle with everything—tow, turns, thermalling, and landing—and those that fly with precision and confidence.

This year I’ve had the opportunity to instruct regularly and I’ve noticed the pattern: The student attempts to circle in a thermal and, suddenly, we’re riding the pony on a carousel. Up and down, up and down, up and down all the way around the thermal. We are not making a circle but some weird amoeba-shaped path that puts us outside of the thermal in short order.

Why does this happen? Based on observing and questioning students plus reflecting on my own experiences, I’ve come to conclude that we fall into an unhealthy relationship with the airspeed indicator.

Almost all of us join the club with experience driving cars, cars whose speedometers give an accurate reading of vehicle speed regardless of the steering wheel position. The car’s speed is easily and quickly controlled by the pedals. The speedometer measures the true speed with respect to the ground; wind and thermals have no real role in the ground speed.

Contrast the car experience to the glider experience. In a glider, airspeed is controlled by the control stick (pitch attitude)—your hand, not your feet. If you change pitch, even by a small amount, it takes time for the glider to speed up (or slow down). And, of course, if there is any wind, the airspeed of the glider and the ground speed can be significantly different; enough, with a strong wind, to notice a change in ground speed by simply changing direction.

Back to the unhealthy relationship to the airspeed indicator: an instructor (me, for example) will tell his student

## Attitude, continued

The soaring  
season is  
never over!

Winter is  
Mountain  
Wave  
Season!

Try  
something  
new!

to fly at 60 knots so the student dutifully checks the airspeed indicator which says, in our illustration, 50 knots. The student pushes the control stick forward and keeps an eye on the airspeed indicator. In a few seconds we've reached and then passed 60 knots with increasing speed, so the student pulls back on the control stick. A few moments later we've reached and passed 60 knots with decreasing speed, so the student pushes the control stick forward. This can go on and on. Not good.

The basic problem is that the student is transferring one type of experience to another, in this case cars to gliders. Car speed is dictated by the engine output. A glider's airspeed is dictated by how fast altitude is converted to motion. In other words, if Glider X, on a still air day, is sinking 200 feet per minute, it's going about 45 knots, but if it's sinking at 300 feet per minute, it's going 70 knots.

Here, Grasshopper, is the secret: you control the airspeed by controlling how fast altitude is converted to motion. You control this conversion of

altitude to airspeed by how high or low the nose of the glider is pointed, i.e. the pitch attitude. If you hold the nose down, you go fast and if you hold the nose near the horizon, you go slow. If you hold the pitch attitude steady, your airspeed will be consistent.

To learn how to control the airspeed consistently, fly straight and level at an airspeed for a couple of minutes. Remember what it looks like and any time you want to fly at that airspeed, hold the horizon at that position in your view. When you make a turn, you hold the horizon at the level and your airspeed will be maintained through your turn.

You can accelerate the learning process by covering the airspeed indicator in subsequent flights. Covering the airspeed instrument can be very liberating. You'll discover that you can fly the glider safely and comfortably without it. You'll also find yourself looking outside of the cockpit more—a real boon to “see and avoid” collision prevention.

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## Annual Christmas Party

The Kennedy's are again hosting the annual Christmas Party on Sunday, December 11th at 6:00pm. This is without a doubt the club's most anticipated annual social event! This year, we will enjoy a traditional dinner with turkey and ham, plus all of the fixings!

The party will be at the Emerald Springs Golf Club in Horizon City at

1600 Ashford Street. The charge of \$17 per person plus gratuity will be charged to your January, 2006 club statement. Bring your family and friends to share great stories and great company!

If you plan to attend, please call Frank Kennedy at 852-9125 ASAP, but please, no later than December 7th! We look forward to seeing you!

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EL PASO SOARING SOCIETY

WE ARE LOCATED AT HORIZON AIRPORT, ON PELLICANO STREET JUST EAST OF LOOP 375. WE NORMALLY OPERATE ON WEEKEND AFTERNOONS, AND AT OTHER COORDINATED TIMES. PLEASE CONTACT ANY OF THE BOARD OF DIRECTORS FOR MORE INFORMATION.

EL PASO SOARING SOCIETY

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## Current Club Rates as of December 1, 2005

### El Paso Soaring Society Rates

Introductory Ride	\$75
Club Dues	\$40/mo.
SSA Dues	\$64/yr.
Tow	\$150/hr.
Grob 102/103	\$15/hr.
Schweizer 1-26/2-33	\$10/hr.

### White Sands Soaring Association Rates

Tow \$30 to 2,000ft., then  
75¢ for each additional 100ft.

Currently, reciprocal benefits to EPSS members at the WSSA in Alamogordo are limited to aero tows. If you do not own your own glider, EPSS club gliders may be available to you with prior approval from the Board of Directors.



## Duo Discus X in El Paso

While in France, I had the pleasure of flying a Schempp-Hirth Duo Discus. This is a fantastic machine! It is a two-place glider with a larger wingspan than the Grob 103, but feels light and maneuverable. Plus it has amazing glide performance! I was so impressed with the Duo, I decided that I wanted one!

When I returned to El Paso, I shared my experience with John Hardy, and soon he started to like the idea of a Duo as well! The Duo will let us give high-performance demo rides to prospective and current club members alike. It will also be perfect for cross-country, and

even competition. It would be perfect to introduce club members to actual cross-countries to Van Horn or Mt. Guadalupe, and climbs in the mountain waves above the Sacramento Mountains to Diamond-Altitudes!

I am in the process of getting more information from the manufacturer, but for now I can tell you that we are looking for more partners in its purchase. If the idea of a high-performance two-place glider appeals to you, this is something you should seriously consider. Please contact me or John Hardy for more information!