

THE
OFFICIAL NEWSLETTER
OF THE
EL PASO SOARING SOCIETY

EL PASO, TEXAS

DUST DEVIL TRIBUNE

Issue #55

January-February, 2007

FEATURES:

**THE MOUNTAIN
WAVE IS HERE!**

CLUB UPDATE

**A GREAT YEAR
AHEAD!**

**CHRISTMAS
BANQUET**



The Mountain Wave is Here!

Just in case you haven't looked up lately, we have had several days already this season where lenticular clouds, the signposts of mountain wave lift, have filled the sky. During the winter months, if the wind is blowing, we have mountain waves! But for us at Horizon Airport to be able to soar these waves, we need to have a specific weather profile.

On December 20th, this profile appeared to be forming, and I announced a wave day to the club membership. Ron Clark jumped at the chance to get a 2nd wave climb under his belt, and made arrangements to fly the Grob 103 with me early Wednesday morning to soar the mountain wave. I reminded him to dress warmly; it gets cold up there!

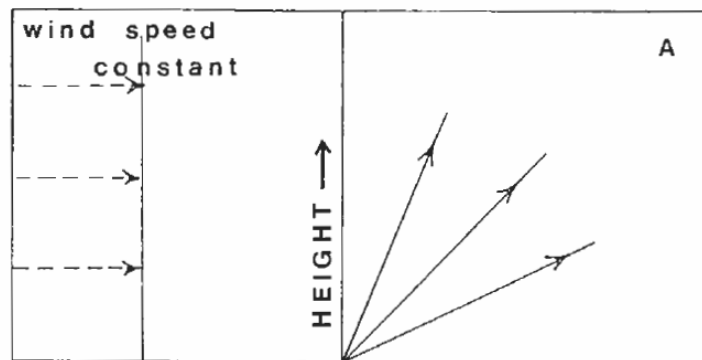
“Over the next 15 minutes, a single, rough lenticular formed in the primary wave position along the length of the entire Franklin Mountain ridge.”

We arrived at the airport to discover that the surface winds were much stronger than forecast, with the winds blowing from the west at 30 knots. We stood outside looking skyward, and we noticed that there were some clouds in the sky, but no lenticulars. We decided to keep the glider in the hangar until we had reason to believe that the wave was forming. Ron told me that he had some errands to run, and we agreed that I would call him if conditions improved.

About an hour later, the clouds began to cap the mountaintop, and shortly thereafter a Föhn gap began to form on the lee side of the mountain. Rather than recalling Ron, I chose to observe the wave’s development. Over the next 15 minutes, a single, rough lenticular formed in the primary wave position along the length of the entire Franklin Mountain ridge (see cover photo). Throughout the day, the lenticular cloud never formed the textbook ‘lens’ shape, nor did a secondary lenticular ever form above Horizon Airport. Without the development of a secondary wave, we wouldn’t be able to make contact, and we wouldn’t be able to climb.

So what happened? Well, just like with cumulus clouds and thermals, lenticular clouds and mountain waves come in all different shapes and sizes. A primary wave will form almost any time winds blow over the mountain during stable conditions—which is the norm during the cool winter months. For a secondary wave to form, the wave’s energy needs to be channeled downwind. Two common ways for this to occur are for the winds to increase in strength steadily with altitude, and for a temperature inversion to exist near the top of the mountain ridge. Unfortunately for us, the wind strength was relatively constant with altitude, and an inversion didn’t exist at the optimum altitude.

As the wind blew over the mountain’s top, its velocity increased and its pressure decreased, due to Bernoulli’s Principle, the same law in physics that allows our gliders to fly. The low-pressure air forced the moisture in the air to condense, creating the cloud at the top of the mountain. As the air blew downwind, it descended the mountain’s eastern slope, again due to Bernoulli (but rather than lifting the mountain, it pulled the air down); it



With constant wind speed at all altitudes, the wave’s energy is lost after the primary wave; there isn’t any energy remaining for a secondary wave.

“This rise in temperature caused the moisture to evaporate, and created the blue hole between the clouds, which is called a Föhn gap.”

compressed and its temperature increased, due to Boyle’s law. This rise in temperature caused the moisture to evaporate, and created the blue hole between the clouds, which is called a Föhn gap. As the air reached the bottom of the mountain, its temperature was warmer than the surrounding air, and was therefore buoyant, and it began to rise—creating the region of lift of the primary wave. As the air rose, it expanded and cooled, again due to Boyle, and eventually the moisture condensed again creating the primary lenticular cloud. But because there was no temperature inversion at the mountaintop level, the rising air remained warmer than the surrounding air, and continued to ascend. This is why the lenticular had a ‘rough’ appearance, and not the ‘lens’ shape we see in more optimum wave conditions.

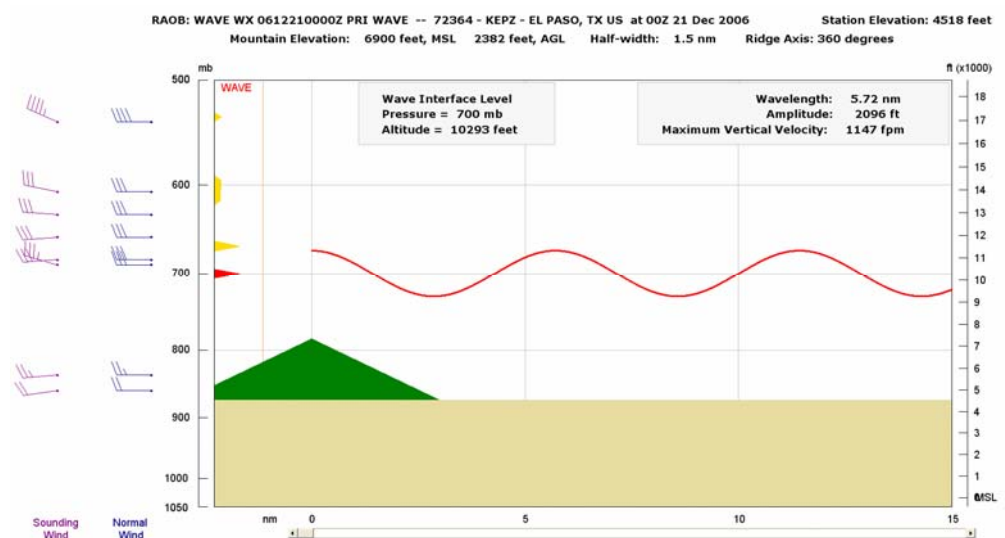
When I returned home, I downloaded the evening’s weather balloon data from Santa Theresa Airport, and was surprised to see that there was in fact a temperature inversion and stronger

winds at higher altitudes, which created a nice wave above the 10,000 foot level. Since the wave’s energy was channeled above the lenticular clouds, the moisture was already squeezed from the air, and didn’t create any secondary lenticular clouds.

So in hind sight, we actually did have wave conditions above Horizon Airport on the 20th, but we would have needed a tow to 10,500 feet to make contact! Besides costing Ron \$70, holding on to the towplane for that long would have defeated the whole purpose!

This year’s mountain wave season has just begun! There will be many opportunities for you to climb in the mountain wave in the next few months! The best way for you to take advantage of the wave season is to keep a flexible schedule, make sure that the glider you will fly is ready, and have your flight gear standing by.

I will continue to be available to fly with anyone wishing to give it a try! Diamond altitude anyone?



Mountain wave analysis software indicated that a strong mountain wave with 1,000+ fpm lift occurred later in the afternoon above El Paso.



“We have fully recovered from the financial losses of the past few years!”

Administrative and Financial Update

First, the good news: We have fully recovered from the financial losses of the past few years! Through the new tow rates and a healthy student training schedule, we have recovered our losses and returned to a positive cash flow. Furthermore, after the sale of the Schweizer 1-26 and the purchase of the Grob 102, we have improved the quality of our fleet without hurting our balance sheet. And finally, we have reinvested our accounts into higher interest-bearing Certificates of Deposit, without stretching our cash reserves too thin.

And now, the bad news: While we are currently in good financial shape, the administrative foundation of our club is in complete disrepair. Our club is a state-approved non-profit corporation, but nobody has maintained the required paperwork for many years. Furthermore, the club has never filed any paperwork with

the IRS, so our non-profit status isn't recognized by the federal government. While it is possible that this means that there might be some penalties due, that's not the part that concerns me. Since our corporation is not currently in good standing, it means that we don't enjoy the benefits of being incorporated—specifically: protecting the membership from lawsuits.

Therefore, the highest priority of your club leadership is to overhaul the administrative foundation of the club. I am already in contact with the SSA's Clubs & Chapters Committee, and we will enjoy their guidance during this process. Furthermore, our new SSA Regional Director has experience with this process, and he may prove to be a valuable asset.

While the process of rebuilding the club will take many months, we have much to look forward to! When

“We have a lot of work ahead of us, but the stronger club foundation that results will help us with all of our long-term club goals.”

completed, the club will enjoy all of the benefits of being a 501(c)(3) non-profit organization, including legal and financial protection. Other clubs that have completed this process have made significant club improvements as a result, such as membership growth, fleet upgrades and facility improvements.

Another topic of concern to me is the current dues structure of the club. Currently, the club's fixed expenses far exceed its fixed income, but we make up for this with the income from glider rentals. As long as club members regularly fly club gliders, the current system works. But if we stop operations for an extended period of time, such as when the towplane was down for maintenance for several months in '05, the system fails. This is a major reason why the club lost so much money two years ago. I have created a Finance Committee that will review this topic, and will make its recommendations to the Board of Directors.

Finally, safety is an issue that always requires attention, and there are three areas which require focus. First, we continue to have jet traffic interfere with our glider operations. In the coming months, I will work closely with the Air Traffic Controllers (ATC) to develop a plan to protect us from this threat. This may result in drafting a Letter of Agreement between our club and ATC, which will legally require the airspace above Horizon Airport to be free of jet traffic during glider operations. We won't be able to get something for nothing, however, and we need to be prepared for having ATC require some limitations on our soaring activities. While

nobody wants to have our freedoms limited, the consequences of a midair collision between a glider and a jet are simply too great to ignore.

Second, downwind launches have never been a good idea, but with the runway's new sharp edge and steep downward slope the likelihood of injury and significant glider damage resulting from a downwind launch are greater than ever before. Therefore, I will propose to the Board of Directors that we invest in equipping both the Grob 102 & 103 with single-person tow-out gear. This will greatly improve the convenience of towing these gliders to the compass rose for Runway 26 launches, and will hopefully eliminate the temptation to launch with a tailwind.

And third, our ability to reliably communicate between gliders and ground personnel is a critical element to safety. Our current ground radios are unreliable, and are never able to communicate with gliders more than a few miles from the airport. Therefore, I will propose to the Board of Directors that we invest in a new base station radio. This radio would be installed in the club's golf cart, and would include a loudspeaker. This arrangement would eliminate the need for ground personnel to carry hand-held radios, and would finally permit reliable communication.

We have a lot of work ahead of us, but the stronger club foundation that results will help us with all of our long-term club goals. And your club needs you more now than ever before! Please contribute to these or other club projects—and come out and fly with the rest of us regularly!

“April is the beginning of the cross-country soaring season, and Charley Shuffler and I have big plans for state records, including a massive 750 km task.”



A craftsman meticulously sands the wings of my new glider in Germany.

A Great Year Ahead!

I returned to the Schempp-Hirth glider factory in December to inspect the progress of my new glider. The fuselage is complete, and the wings are nearing completion. They informed me that my glider will be completed and shipped by the end of January, which is ahead of schedule! It should arrive in Houston by mid-February, and it should be certified by the FAA and ready to fly by the end of February. March will be dedicated to fulfilling the FAA's test-flying requirements, and I will use it to become comfortable in my new ship. April is the beginning of the cross-country soaring season, and Charley Shuffler and I have big plans for state records, including a massive 750 km task! The calendar in July has two races: the Region 9 race at Parowan, Utah, at which both Charley and I

intend to compete, and the Standard Class Nationals at Hobbs, New Mexico, where I will compete just one week after racing at Parowan. We will need August to relax, for in September Charley and I plan to take our gliders to New Castle, Virginia, to soar the Appalachian ridges during the fall ridge season. As winter approaches, I will begin making preparations for next year's mountain wave season. My new glider is equipped with a transponder, which will hopefully allow me to climb above 18,000 feet in the Franklin Mountain Wave with little resistance from the Air Traffic Controllers. Also, my new glider's oxygen system is of high enough quality that it will be safe to attempt very high altitude climbs, where I hope to complete my Diamond Badge with a gain of 16,404 ft!

THE
OFFICIAL NEWSLETTER
OF THE
EL PASO SOARING SOCIETY

EL PASO, TEXAS

THE DUST DEVIL TRIBUNE

EDITOR:
CHRIS FLEMING
CJFLEMING@ELP.RR.COM
(915) 491-4920

PHOTOGRAPHER:
RON CLARK
CLARKWERKS@SBCGLOBAL.NET

EL PASO SOARING SOCIETY

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

EL PASO SOARING SOCIETY

BOARD OF DIRECTORS:

PRESIDENT:
CHRIS FLEMING
CJFLEMING@ELP.RR.COM
(915) 491-4920

VICE PRESIDENT:
FRANK KENNEDY
FRANKKEN@JUNO.COM
(915) 637-5916

TREASURER:
CHARLEY SHUFFLER
SHUFFLEC@MINDSPRING.COM
(915) 307-7202

SECRETARY:
KEITH FONG
KIKIFONG@EARTHLINK.NET
(915) 351-7535

MEMBER AT LARGE:
JOHN HARDY, JR.
(915) 852-7674

MEMBER AT LARGE:
LOU CHAMALES
CAPTABNRGR@AOL.COM
(915) 526-4248

Current Club Rates as of January 1, 2007

El Paso Soaring Society Rates

Introductory Ride	\$75
Club Dues	\$40/mo.
SSA Dues	\$64/yr.
Tow	\$5 hookup fee, then \$1/100 ft.
Grob 102/103	\$15/hr.
Schweizer 2-33	\$10/hr.

White Sands Soaring Association Rates

Tow \$25 to 2,000ft., then
50¢ 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.



On December 3rd, Frank and Carolyn Kennedy once again hosted a great Club Christmas Banquet at Horizon City's Emerald Springs Country Club. The evening started with casual drinks and conversation. For dinner, we divided into groups of six to eight guests and

enjoyed a traditional Christmas Feast. Afterwards, Carolyn and my mother, Shirley, became Santa's helpers as they raffled off Christmas gifts that Carolyn collected throughout the year. A great time was had by all who were able to attend. Thank-you Frank and Carolyn!