

Towlines

The Newsletter of the Albuquerque Soaring Club

November 2004

From the President Kathy Taylor

The club meeting on Saturday, November 20, at the club house, was to discuss the club hangar policy. It also had a talk on how to become a tow pilot.

Tom Tichy has been doing some systematic troubleshooting on the club's radios and has made good progress on identifying and addressing problems. Steve Schery also worked on the 62Y radio problems and that radio seems to be working now. Thanks to hard work of these members we will start out the new season with much better communication equipment. The Board also agreed to buy a transponder for the 1-26.

Club elections are coming up in December and we will hold the December club meeting at 9 AM on Saturday, December 18, at the club house. Please consider running for a club office or volunteering to perform one of the key club appointed officer jobs. A number of the current Board members will be stepping down. These jobs provide an opportunity to put your imprint on the way our organization runs. They provide key functions that keep our fleet flying and our flight and ground operations running. If you cannot volunteer for one of these jobs, think about who could do a good job in these positions, verify that they are willing to run, then come to the December meeting and place their names in nomination.

Those damn log sheets

You were warned. Take a careful look at your bill this month. There were three days in the latest billing period where tow

heights and flight duration were not properly logged. The deal is that it is the pilot's, *not* the Ops', responsibility to check that the log sheets were fully filled out and, if they were not, then billing will go to the default of 3,000ft for the tow and, on club ships, one hour for time.

Now, Laury Carlton is a nice lady and this is the first time that it has happened. If you send her wine, flowers – and beg and plead your case – you may be given a break. But this is the last time. From now on, it will be check the log sheet when you have done flying, or Pay Up!

Ideas for our fleet *Brian Resor*

At the membership meeting on October 23 I started a discussion of potential changes to the club's fleet of gliders. In the past I've heard various people suggest things like getting rid of the Grob 103 because it has a low useful payload, selling the Twin Astir because it doesn't get used, buying a different single-seater, buying a Duo Discus because they are awesome. In order to get a feel for what the club *really* wants, the Board advertised the discussion and as a result learned a few things.

First, we must find out which gliders are least utilized and why. Those least valuable to members would be a candidate for a sale. Members seem to be happy with the current selection of single-seat gliders. Our instructors (mainly Billy Hill) are excited about the idea of having an advanced 2-seat glider in which to train members in cross-country soaring. Such experience is invaluable to new pilots and would promote more (and safer) flying in the club single seaters. I can back that up.

My first *real* cross country flight in a glider was a little jaunt from Julian, PA to Mountain Grove, VA and return with Tom Knauff in a Duo, 750km in about 7 hours. Flying gliders was not the same after that.

In the long run, members seem to agree that a fiberglass fleet would be nice. The ideal long-term plan could be as follows: sell one or both Grobs, buy a Duo Discus, DG505, or DG1000, build more capital for some time, sell the 2-33, buy something like an ASK-21 for primary training.

The next steps are to conduct surveys and to take a look at the feasibility of the finances required to make this happen. The long term goal will not be realized without implementing some kind of budget with a good plan for building capital in the upcoming years.

OLC: new challenges

If you haven't gotten the message yet, just look at the scores so far this year. The gauntlet is down, the eastern ridge-bashers are hard at it and Warner Springs and Arizona Soaring think they can whop us. We are off to a good start with long wave flights, notably by Mark Mocho (see below). And new challenges have been added to the OLC this year. The international aviation body, the FAI, has adopted the contest and has just announced its first move, which will mark this august body's centenary. FAI Centenary Diplomas will be issued for the pilots in each hemisphere who make the longest flights during set two week periods. Each FAI class will get its own diploma -- open, 18m, 15m, standard, club, ultralight and world class. The north's two weeks run from June 25 to July 10th, great soaring weather at Moriarty.

Wave Bye-bye *By Mark Mocho*

I may not be the best one to write an article on XC flying in wave. One of the

most dangerous things in aviation is a low-time pilot beginning a statement by saying, "Based on my experience...." Nevertheless, I have made a grand total of three or four flights in wave conditions that could qualify as genuine cross country. Needless to say, they pale in comparison with the awesome flights made in South America and New Zealand, but for New Mexico, they weren't bad – especially since most pilots from Moriarty fly wave with as much lateral movement as your average American Pro-football fan in front of his TV on Game Day.

Just parking in lift has been my own style on most of my wave flights, and there are a few reasons for it. The XC flights, however, have a few things in common that made them candidates for leaving the home patch. The best clue is the same thing that makes us head out in the summer – clouds.

The two most common cloud types that serve as indicators of wave are lenticular and roll clouds. Lennies are pretty and are generally pretty high around here – 16,000 to 18,000 ft. MSL – although they can be much lower. Sometimes there are roll clouds under them, but not always. Roll clouds can often be mistaken for cumulus clouds, and indeed, sometimes they may be cumulus clouds with real thermals under them. Or not. As with many things in soaring, some indicators are there to give God a laugh as you land out.

The existence of rollers or lennies constitutes my basic criterion for trying to go cross country. On the "other" kind of wave day – no clouds, blue skies and a guessing game as to whether the wave is there or not – another kind of indicator becomes invaluable, the radio. You know how it is, everybody standing around waiting for a report from someone who launched earlier and actually found the wave. One call saying, "Moriarty ground, Catty-Wampus is in six knot wave over Highway 41, going through thirteen" and

you better get your butt in gear lest you be run down by six or seven gliders being pushed out to the staging area and you end up at the end of the line. To quote George Moffatt, "There is no variometer better than another sailplane." Especially if the pilot will share information. Failure to invite your buddies into *your* wave is impolite and a serious social gaffe. We will sneer at you and drink all the beer, saving you none.

OK, so what inspires me to go cross country? First of all, being at the airport is the biggest advantage. I'm lucky by working out there every day. I can't help it if my employees (me) are lazy and shiftless, especially when Rick Kohler makes a special trip down to my shop to point out that the lenny right over the airport might suck the hat off my head if I walk outside. Say no more – the rivet gun hadn't hit the floor by the time the hangar doors were off the end of the track.

That particular day (11/08/2002) had three awesome sets of lenticulars running from the Ortiz Mine area all the way down to Willard. They actually went further north and south, but the upwind primary set had extended downwind to join up with the secondary set over the airport, leaving blue sky over the Estancia Valley, but a solid layer of cloud at either end. No matter though, a 2,500 ft. AGL tow found me in 8-10 knots over Highway 41. I went back and forth for a bit to gain altitude and then took it up to the Ortiz Mine and was at 17,000 MSL by the time I got to where the cloud sets joined together. I turned and went south at very high speed along the leading edge of the lenticular to Willard, where the clouds met again.

By then I was freezing due to being kinda underdressed. Went back to Moriarty and dumped the spoilers to get down. Total flight time was only 1:35, but the OLC would have scored it as 194.64 km at an average speed of 146 km/h! According to SeeYou, the mean L/D was 183:1!

OK, I guess I thought my first XC flight was a fluke, made possible only by unbelievable conditions. About the next real wave XC (18/10/04) there was absolutely no doubt. It was my longest distance ever, and again the clouds made it possible. What helped most was a flying partner who pushed me to go farther than I would have attempted on my own. Al Whitesell (Niner Delta, DG-400 motorglider) called me on my cell phone to get a visual report on the conditions as I was heading out to the field. There were no lennies but lines of impressive roll clouds all over the Estancia Valley. I made quick preparations and zipped into Moriarty for a nutritious junk food lunch.

By the time I got back to the airport, Al was just taking off under his own power. I towed up behind Billy Hill in Sundance's Pawnee about twenty minutes later and released at 2,500 ft. AGL over Highway 41 again. The wave wasn't working where I was, but I was hanging on. I had made it to about 10,000 MSL when Al radioed that he had found 10 knots north of the Interstate. I headed in that direction, sinking all the way. By the time I got a visual on Al, he was going through 16,000 MSL. Veering upwind, I hooked into the magic carpet and climbed up the face of the roll cloud until I was *way* above it. Al had headed north, and urged me to follow.

We took the wave up past Cerrillos and I turned back, even though Al had gone almost all the way to Los Alamos! Obviously, we had transitioned from the Sandia wave into the wave coming off the Jemez Mountains. The wind speed was brisk at our altitudes – Al reported 270 degrees at 60 knots above 16,000. I often found myself drifting downwind over the top of the roll cloud into weaker lift. With the cloud indicators below me and hard to see under the belly of my Pegasus, I found it difficult to stay in the best lift. After hearing Al's report, I made a conscious effort to point more westerly and fly faster. After turning south, Al joined up

with me and we elected to jump upwind to the primary wave behind the Sandias. I thought the secondary looked better south of Chilili, so I dropped back. Al stayed with the primary, and we continued south of Mountainair.

I was plenty pleased by the flight so far, and even thought of heading back to get a little work done. Fortunately, Al was more than willing to play the part of the devil by saying he thought the wave would last until sunset and I would make it obvious to all and sundry that I was a weenie if I cut this flight short. I'm easy, so I decided he was right. Rivet gun? What rivet gun?

I stuck with the secondary and Al continued in the primary until we met up again over the Ortiz Mine. Once again, I thought about just heading home, but Al made derogatory comments – a bit like Schwarzenegger and his girlie-man routine. I pushed on. Once again, we turned south and followed the secondary, turning north from Mountainair again. Now I was really ready to head for the barn. Once again, Al wouldn't let me.

At this point, the roll clouds were starting to get capped by some gorgeous lenticulars above 16,000 MSL. Even I can take that sort of hint. North again.

We made the run up to the Ortiz Mine again, and Al suggested we could make Santa Fe and back before sunset. I wasn't so sure, but once again, *he made me do it!* We turned together over the Santa Fe Airport at 16,500 MSL and headed home, joining up for some formation flight for part of the way. Al claimed to have an easy glideslope back, with 4,000 ft. more than necessary. He pushed up the speed and left me behind. Shortly afterward, he started reporting serious sink, so I moved upwind to avoid the rotor Al was in.

Normally, if my flight computer shows a 20:1 glideslope back to the field, I figure nothing except a mountain in the way is

going to screw with me. Wrong. I was showing a 17:1 to the field, but was only getting 13:1. You do the math. Time to head farther upwind to try to get out of the rotor. It worked and I headed home from just east of Horizon ranch. I landed about ten minutes after Al, who ended up with only a thousand feet over the field instead of 4,000, as his flight computer predicted.

Total flight time was 5:08, distance done according to the OLC scoring was a whopping 539 km (604 according to SeeYou), average speed was 121 km/h, average glide was 151 km and the Mean L/D was (are you ready?) 402:1! Al's flight scored on the OLC at 614 km.

I had another 217 km wave XC with Carl Ekdahl (India Yankee, ASW-27) on October 31, and Carl made 294 km. That flight was very interesting as I towed to 10,000 MSL, couldn't find the wave and sank back to pattern altitude. I was ready to drop the gear and land but got a thermal back to 11,000 MSL. We headed north to some better clouds over Stanley. Carl headed upwind and reported the wave over Horizon Ranch. Mike Abernathy (Sierra Golf, Discus) and I followed and we took it from there north to the Ortiz Mine (again) and then south to Mountainair (again) and then home, as it was much colder, and the wave quit working shortly after we landed.

With only these three flights, my experience is limited at best. All I can say is that clouds are the main reason to try wave XC. It is too difficult to fly distance without some visual cue of where the lift is and how it is lining up. The difference of just a quarter of a mile upwind or downwind of the best lift can really hurt your climb and/or speed. If you are going to try something different, use your GPS or flight computer to mark the position of good lift. If what you try doesn't work, you can head back to where you were. Just don't wait too long. Things change rapidly

in wave conditions, and often the lift band will shift or even disappear.

Other important factors in a wave XC include warm clothing, plenty of oxygen, drinking water and a means to get rid of it when you are done with it. Note that a pee tube can freeze up, causing plumbing problems. Just ask Billy Hill. His new Discus 2's cockpit smelled for a time like a nursing home.

Partners always make a flight more enjoyable, and efficiency goes way up with more than one pilot reporting lift and sink. Remember to reciprocate, or we'll shun you and, like I said, drink all the beer. Finally, fly a lot! There is no excuse for not remaining current, and you will be a safer pilot

Got diamonds? *By Billy Hill*

So cross countries over five hundred km are possible in Mountain Wave, but what about the altitude diamond? As this is a more likely diamond attempt, let's focus on the "big climb." High altitude flights require more preparation for a number of reasons and safety is the most important.

If you have not done a high altitude chamber ride, you should read all the available information on the risks of flying at an altitude that requires supplemental oxygen. Hypoxia is an insidious robber of I.Q. The longer you are above an altitude which impacts your ability to make cogent decisions while flying, (which can be lower than that prescribed by regulations), the more you place your self at risk.

Recently a single place motor glider and its pilot were lost at Minden. The pilot was going on a local flight and had no supplemental oxygen with him. It was an exceptional wave day, so it is suspected the pilot decided to sample mother nature's wares. Apparently he was lured by the siren song of his audio vario and climbed high enough to become

incapacitated. It appears he exceeded VNE and pulled the wings off the glider. At this time it's unknown if he was conscious at the time. The value of a chamber ride is that you can become acquainted with your own personal signs of hypoxia in a controlled environment.

Dressing for the occasion is also important in that it can become very uncomfortable when the temperature in the glider drops well below freezing. Layers of clothing along with heated socks are very important. But be sure when you are looking like the Michlen tire man that you can access the controls as well as any other accessories you will need in the cockpit. An external catheter plugged into some sort of receptacle is also important. On the one hand you should remain hydrated and on the other you should be able to relieve your self during the flight. There is nothing worse than being just shy of diamond altitude and needing to return to the airport because of a full bladder.

Next you will have to review the Letter of Agreement between the ASC and air traffic control. (On the club web page, go to links on the left and there is a link to wave details, which include the agreement plus a neat map of the two windows courtesy of Brian Resor.)

It is of utmost importance that you understand how the contract we have with ATC works in order for you to use it correctly and avoid putting the letter, your self or the club in jeopardy. The Wave Window is a three dimensional block of airspace that starts at 18,000 feet and extends vertically to the limits prescribed by ATC. It's horizontal limits are as depicted in the Letter of Agreement. You must be fully familiar with all the dimensions of the Wave Window in order to use it properly. When the window is in use, ATC is providing separation between those in the window and aircraft flying at 18,000 feet and above. ATC *is not separating* you personally from traffic it's

working. ATC is separating the aircraft on an IFR flight plan from the window. It is only when you are within the confines of the window that you are afforded protection from the fast movers. This also means that when you are below the window, you are still in a see and be seen environment. There is no guarantee that ATC will not run some of its inbound traffic *under* the window while you are attempting to climb into it from below. In reality ATC cannot see you when you are parked in the wave. You, for all intents and purposes become a stationary target on ATC radar.

It is of utmost importance that you understand the restrictions and limitations

ATC may place on the use of the Wave Window on any given day. For example, if you are still above 18,000 feet after the window is closed to gliders, you may have company intercepting you from behind at very high speed. The same applies to flying outside the confines of the window when above 18,000 feet. If you do that and are seen by anyone who is flying at altitudes above 18,000 feet you can expect that they will turn you in to ATC. It's all down hill from there.

So, as a recap, know your oxygen system and how to use it. Dress warmly and provide for bladder relief. Know the Letter of Agreement. If you don't know, ask! Then go get your diamond altitude badge.

ASC Operations Schedule

8-Jan-05	Saturday	Cumiford	McKnight
9-Jan-05	Sunday	Bloch	Buenafe
15-Jan-05	Saturday	Vreedenburg	Levy
16-Jan-05	Sunday	Boyce	McGhin, T
22-Jan-05	Saturday	Sigala	Ekdahl
23-Jan-05	Sunday	Lubitz	Martinez
29-Jan-05	Saturday	Gallegos	Woods
30-Jan-05	Sunday	Okandan	Stewart
5-Feb-05	Saturday	Kawal	Resor
6-Feb-05	Sunday	Ferguson	Guillory
12-Feb-05	Saturday	Travelstead	Huss
13-Feb-05	Sunday	Hudson R	Sharp
19-Feb-05	Saturday	Duling	Banks
20-Feb-05	Sunday	Heerman	Denman
26-Feb-05	Saturday	Graeber	Devine
27-Feb-05	Sunday	Trammel	B Wilson

Contact Mike Kleinfeld with questions about Ops scheduling

