

Towlines

The Newsletter of the Albuquerque Soaring Club

April 2006

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From the President *By Bob Hudson*

Spring is in the air and so are a lot of Albuquerque soaring Club sailplanes. It looks like our OLC cadre are finally back into the air and gathering kilometers. We already had several flights over 300 kilometers and it is just a matter of time before we jump up into the really big distances.

I ventured over to Robert Mudds's hangar and took a look at the Libelle. I must admit that I was really surprised at how great the Libelle is looking. Robert has done a good job on getting it back up to speed. Mike Carris has spent a lot of personal time getting the airplane to really shine. John Boyce donated time to see that the wings were polished and the flight control rods were sealed. It looks like a new plane. Mark Mocho has the oxygen system updated and we will soon have the glider back on the line. I want to thank Robert, Mark, John and especially Mike for taking this old tired glider and giving us back a plane that will provide us with many more years of pleasure and service.

While hanging around Robert's hangar I noticed some metal wings resting against the wall of his paint booth. I asked him what they belonged to and I was entertained with a great story about the plane they belonged to: an Antonov AN-15. Robert took me to his back room where the fuselage to the AN-15 rests. Having never seen one, and how could I as this is the only one in this hemisphere, I was fascinated by the plane. Maybe I can talk Robert into putting together the story about how this plane ended up in his collection. We'll see.

A couple of weeks ago, I was sitting in the Ops area enjoying the first really nice day of the spring. Sitting with me was Al. As we were soaking up the sun, Dick Porter, he has the hangar across from Mark, rode up on his "decked" out Honda *Gold Wing*. Well, that motorcycle got Al to reminiscing about his youth. He began to tell me about the four

motorcycles he had owned, two Indians and two Harleys. Al never ceases to amaze me; I wouldn't be surprised if he wasn't one of the original Hells Angels.

We are going to have visitors to our club on the 20th of May. Your Air Force Academy is sending a group of Cadets to learn how to fly cross country from the number one Club in the United States, it feels good to say that. They are bringing six planes and they are towing with Rick. After the time with us they are going to The Region 9 contest. I hope you all come out and help these kids take that next step. I will need help with showing the cadets around our local area.

In support of the Cadets education, Chip Garner will present a "lecture" on how to fly a contest. His talk is designed for those of us who have never competed, however you experienced folks might enjoy and learn something from Chip. His talk will be at 9:30 am, Saturday the 20th of May at the Soaring Museum Hangar at the Airport.

Until we are together, fly safe!

Alternate Signaling Devices

By Bob Hudson

During the Safety Down Day, Larry Richardson gave us some info on individual survival equipment. One of the items he showed was the simple roadside flare. Having the flare does allow you the opportunity to not only signal after dark, but also gives you a great heat source to start a fire, whether for a signal or for heat. Well, let me suggest another night time signal device.

Two years ago I was Elk hunting east of Socorro. I was able to get an Elk around two in the afternoon. The location of the Elk was a long ways from any road and the ground was covered with mud and snow. The person I was

with had to go back about three miles back to get his truck. He then had to go back to town and get some ATVs and a trailer and then try to get back to me so we could get the Elk out. Well, by the time he could get all his stuff together it was after dark.

After a while, I noticed that about four miles down this wide canyon, two ATVs were trying to locate me and my Elk. I could tell by the way they were zig-zaging that they were not sure of my location. I had my digital camera with me which had a flash attachment. By “flashing” my camera, the guys on the ATVs were able to pin point my location. I learned that you use what have and a digital camera, which most of us fly with, is a useful signaling device after dark.

Do's and Don'ts of Glider Cruising

By Brian Resor

My first contest was the “Learn How to Race Race” which was the Mifflin, PA regional contest in spring of 2002. Each morning they had an experienced pilot give a lesson on racing. George Moffat, sometimes referred to as the Dean of American Soaring, gave a nice talk one morning and left us all with a handout. Every spring I review the handout because it summarizes an expert's opinion of ten things to remember to do and not to do when you are racing in a glider. I thought it'd be good to share those tips with everyone in preparation for the upcoming season. *<My comments are in italics.>*

1. Reduce thermal entry use. All thermals come with an entry fee (paid for in time lost). Maximize the use of the operating band. *<In other words, if strong thermals exist between 12,000 and 18,000 feet MSL, don't necessarily try to stay above 17,000 feet!>*
2. Reduce thermal entry use by using reduced sink, streets, etc.
3. Reduce thermal entry fee by using pre-centered thermals *<watch for soaring birds?>* and gaggles. Remember not to get hooked by weak thermals, though.
4. Keep in mind the flat speed curve – very little velocity made good (VMG) penalty for flying slower or faster than ideal. Slower than ideal gives greater L/D or searching range. On dry thermal days, 15% slower can give a 6% increase in VMG. Faster is useful for reaching a

- gaggle before it leaves. *<or if the clouds are indicating reliable lift ahead>*
5. Be alert for streeting in dry conditions if wind exceeds 12 kts. *<I've seen this one multiple times. Try it. If you find a good thermal on a blue day exit and head either directly into or away from the wind and you may find an invisible line of lift as you fly straight>*
6. Be cautious of relying on first or last clouds before or after a blue hole or when utilizing streets. *<Personally, I can't understate the importance of this one. Every year I remind myself of this rule. I know better but I still screw it up! It's really stupid to “bump” through 8kt lift and then have to stop a few miles later to climb in 2kt lift before having to make some sort of strategic glide over rough country or through dead air.>*
7. Course deviations of up to 15% pay. In terms of points for the day, if 0 degrees = 1000 points, then 5 deg = 990, 10 = 980, 15 = 965, 20 = 940, 25 = 895.
8. Be smart about turnpoints and wind. Be high on downwind ones, low for upwind ones.
9. Be sure the set McCready for rate of climb achieved in the last thermal before final glide so that the computer will give proper altitude to attain
10. The effectiveness of ballast is a function of the percent of time spent climbing and the narrowness of the thermals. If percent climb is low due to ridges or streeting, use ballast earlier.

Those are ten important points that one very skilled and experienced pilot chose to share with newcomers to racing. Of all the topics he could have covered, I think it's interesting that these are the things that he chose to focus on. Obviously they are all important to him. I think we can learn a lot from really thinking hard about them ourselves.

Trim *By Billy Hill*

In a previous article, I expounded on the issue of *TASK SATURATION* and how it could lead to a stall/spin accident. In this article I would like to visit the issue of trim usage.

Pilots who fly aircraft with three axis trims in them know that the trim tabs on the aircraft are a very important part of assisting the pilot in flying. As we all know aircraft, unlike helicopters, are inherently stable flying

machines. Of course this includes gliders and sailplanes. The trim system in an aircraft is there to enhance the stability of that aircraft.

We quite often hear stories about sailplanes that can be trimmed to fly “hands-off” in a thermal. These sailplanes have been noted for their ability to “groove” in a thermal. This of course is a great trait to have in one’s flying machine. Unfortunately there is a tendency to forget about trim usage except when attempting to get our winged charge to maintain a proper attitude for thermaling.

Although trim settings are a part of both the takeoff and landing checklists, pilots tend to give them short shrift. For example, trim usage during tow can lighten the workload and make maintaining station behind the tug easier. The only negative thing that comes to mind regarding trim usage is that some pilots will attempt to treat the trim like a secondary pitch control device. Proper trim usage dictates that the aircraft/gliders/sailplane is pitched to the desired attitude with the stick and then the trim is carefully adjusted to relieve the pressure on the stick so that the aircraft/gliders/sailplane will maintain the desired airspeed/attitude without any input from the pilot.

In his book *FOREVER FLYING*, Bob Hoover, (the best stick and rudder pilot to ever take to the skies), says: “ I had learned from experience in other aircraft that if those trim settings were properly set, there was less potential for what was known as a pilot-induced oscillation”. There you have it from one of the most experienced test pilots ever. The whole point of this exercise is to reduce pilot workload during times of task saturation.

I was recently informed that there are pilots who have been taught to trim the glider full nose down in the pattern. Technique of this sort will only increase pilot workload because additional attention must be paid to maintaining the desired pattern speed because of the increased stick pressures. Whereas, if the aircraft/gliders/sailplane is trimmed for the desired airspeed and attitude, (this will be a function of flap configuration in ships so equipped), then the work load is reduced. Some aircraft/gliders/sailplanes have a marked pitch change when flaps are applied, this will require more frequent use of the trim. The argument could then be made is it not easier to

just trim to nose full down and just leave it there? Sure, you could do that. But why not get proficient at trim usage so that it, like keeping the string centered, becomes second nature and then you will be flying with neutral stick pressures most if not all the time?

New Mexico State Records

By Brian Resor

As of the middle of last summer I took over as New Mexico State Record Keeper from Art Hale. As I look over the current records I notice that there are still several very attainable records that are free for the taking. These are good records to challenge as you get familiarized with the process:

Distance up to 3 turnpoints. This is a declared task and it is currently unclaimed in all glider classes. If you fly any badge this summer (which implies that it was declared) then you should be claiming this record. Almost all the documentation will already have been completed from doing the badge, anyway.

Free triangle distance: This will help us to start challenging ourselves by covering more area using FAI triangles. This is free distance so no declaration of waypoints are needed. Currently it’s unclaimed in Sports Class and only a little over 300km in 15-meter and Open. An example of a good 300km FAI triangle is Moriarty, Lamy, Encino, Manzano Peak, Moriarty.

Free 3-turnpoint distance: Our own Bill Hill currently has this one at about 615 km. Not to pick on Billy but come-on folks, all the top pilots at Moriarty fly farther than this a handful of times every summer! This is pitiful. Chip has flown 1000km how many times now?...and we don’t have a record for it. Remember, this is 3 turn (4 legs), not the OLC style of scoring using 6 legs.

Out and Return Speed: This is a declared course and takes some planning, but there are some opportunities here. Standard class 300km O&R Speed stands at 43 mph! (I’m going to regret pointing that out...I kind of wanted to take that one myself before it got difficult). Also Standard class 500km O&R speed is unclaimed. Declare your flight to San Luis (or Culebra Peak or Sunspot) and back

before you fly it and then get a record out of the deal.

300km Triangle Speed: Again, a good course for this is listed above. Think about how the course is laid out. There's a leg down the Manzano shear line and there's a leg down the Clines Corners high ground. It's a racetrack! Let's see what you can do. Sports Class is still unclaimed.

500km Triangle Speed: Standard and Sports are unclaimed. A good 500km FAI task is Moriarty, Taos (or Wheeler Peak), Conchas Park, Moriarty. It'd be a really fun flight. If you did it you could also claim triangle distance records. Kill two birds with one stone by doing this one.

As you prepare for the upcoming season, be sure to check the SSA website for rules and procedures for flying records. I have to admit

that documenting the records is sometimes confusing and tricky. I might make it sound simple in my descriptions here, but really there is a lot to think about at the start, the finish, and everything in between. Don't think that I'm going to bend the rules for our guys just because this little article of encouragement shows up in the ASC Towlines and I also am a member. Be sure to let me know if you have any questions about what to do before the flight so that we can have lots of successful claims this year.

Junior Pilots: ASC Youth members, did you know that there are state record categories to be claimed only by you? A Junior pilot for FAI purposes is a pilot whose 25th birthday occurs in the calendar year (1 January to 31 December) which includes the date of the flight claimed with Junior status. Put another way, you can't claim flights as a Junior during the calendar year in which you are turning 26.

Moriarty Operations Schedule

Date	OPS 1	OPS 2	Instructor	Tow Pilot
Apr 22 Saturday	McKNIGHT P	HUSS J	ROESKE S	FARRIS J
Apr 23 Sunday	STEWART W	MOCHO M		STOGNER M
Apr 29 Saturday	CUMIFORD Jr. J	HARMONY D	SAXTON H	HILL W
Apr 30 Sunday	DULING K	BUENAFE C		THOMAS R
May 6 Saturday	BROTHERS L	POZZI G		TICHY T
May 7 Sunday	HARE J	TRAVELSTEAD B	TAYLOR K	WADSWORTH H
May 13 Saturday	VREDENBURG P	WILSON B	MORRISON B	WILLAN V
May 14 Sunday	CARRIS M	KAWAL D		WRIGHT R
May 20 Saturday	LUBITZ M	BANKS H	BUEHRE K	FARRIS J
May 21 Sunday	GUILLORY S	OKANDAN M		HILL W
May 27 Saturday	HEERMANN A	PHILLIPS C	COLLINS A	THOMAS R
May 28 Sunday	MARTINEZ J	SIGALA M		TICHY T
Jun 3 Saturday	WOODS R	EKDAHL C	DAFFER J	STOGNER M
Jun 4 Sunday	HUDSON R	SANDERS R		WADSWORTH H
Jun 10 Saturday	HARMONY D	BLOCH J	WIER J	WILLAN V
Jun 11 Sunday	HUSS J	BOYCE J		WRIGHT R
Jun 17 Saturday	MOCHO M	FERGUSON K	ROESKE S	FARRIS J
Jun 18 Sunday	AIKEN G	BUENAFE C		HILL W
Jun 24 Saturday	STEWART W	POZZI G	SAXTON H	THOMAS R
Jun 25 Sunday	CUMIFORD Jr. J	TRAVELSTEAD B		TICHY T