

The Southern Cross Journal

March – April 2009



Bob Merkenhof at the Narromine Cup with his Duo Discus (photo: Derek Ruddock)

NEWSLETTER OF THE SOUTHERN CROSS GLIDING CLUB

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The President's Thermal

Don Palmer

Last month we had our first Youth Day, where we ran a side-by-side operation to give cadets a taste of gliding thanks to a program where the RAAF sponsors their costs.

The day started at 8 am getting the gliders and tug ready for a 9 am start. Unfortunately we had a hiccup when they all turned up without their parents' consent forms filled in.

Keeping positive, we helped some parents get the forms to us during the day, by fax and in person, and managed to do a total of 16 flights for them, with the remaining cadets coming back at the end of the month. It all finished a great success.

The side-by-side operation worked well, and we had many regular students doing their usual training with the rostered instructors. With the extra tug, we kept things moving at an easy pace.

Many members came to help with both operations and also managed a flight or two for themselves. It really was a pleasure to see everyone helping out and great seeing the club work so professionally.

Our plan is to run four of these days a year, one in each season, the next possibly in late May.

The most important points of the Youth Day program are:

- We can introduce young people to our wonderful world of soaring without us losing money
- Currently they also get this for free thanks to the RAAF program
- We have the possibility of snagging some really enthusiastic young future pilots
- It's a win/win situation for Gliding and for our future pilots

The committee realises that with the large number of members we currently have, and with new members continuing to join, our fine club is growing at a rate greater than we have ever seen.

I'm sure you all have something you can contribute to help us continue to grow, to help retain members, and if possible to find improvements we can make to have the club run even better.

Many of you are professionals from a variety of different fields – if you think you can help the already busy volunteer-based club that you are a part of, please let me know. If you have a suggestion to help our club in any way, please also let me know.

Autumn is now upon us and the heat is reduced. The weather is more pleasant and we have already seen some really good soaring days, with many more to come.

The number predicted to take up the bulk flying scheme this year has already been surpassed, with an improvement in the amount of club flying encouraged by the scheme.

Looking at some of our stats (last year's stats now being available), our flying is up by 33% and graphs for some other activities are even higher. Our 5 and 10 flight packages and member retention are also up greatly, so keep up the good work, in whatever capacity you are already helping the club, and thank you for everything you do.

I know I always remind you all to use our Flying Intentions page on the web, and keep nagging about it, but so often it saves our skin. If we can see there is going to be a busy day, or if we know a key volunteer is missing, our logistics for running the day are so often improved when you all make use of it. Just last weekend Robert Pope, our web master, enhanced the page to make it more streamlined, so others don't have to refresh it each night, and made it more stable and user friendly. Please make good use of it.

One item that needs doing by a volunteer is to tidy up our pie cart, especially inside. It really needs a revamp – we have stickers on the walls and stuff everywhere. We simply need someone to reorganise the inside design so it is a more professional operations office.

If you think you could do this, please contact me at don@portablebuildings.com.au

A note from the Editor

This edition of the Journal contains one of the most important articles we've published for some time. It concerns the seemingly simple task of moving our gliders around the airfield.

Phil Endicott has put pen to paper (none of this fancy word processing – Phil's a biro man) and he's given us the benefit of his enormous experience and knowledge. And it seems we need it.

In the couple of years I've been flying with the club, I have not heard of one incident where an aircraft has suffered significant damaged when taking off, in the air, or landing. But there have been numerous incidents on the ground in which our aircraft have acquired chips, dings, scrapes or dents. Worse, on more than one occasion our aircraft have suffered damage requiring lengthy and expensive stays in the workshop.

When we climb into the cockpit we are acutely aware that our safety is at stake, and we treat the aircraft accordingly. I'm not sure how or why it happens, but once we land and open the canopy, that level of care sometimes seems to diminish. The end result is unsightly blemishes on our aircraft, insurance claims which drain our resources and aircraft off-line rather than in the air being flown and enjoyed.

Phil's article should give us all something to think about. It's written with the dry humour we've come to expect from Phil, but it's a serious topic, and I commend the article to you.

CFI News

Eddie Pike, CFI

Congratulations to everyone on another good soaring season free of flying accidents and significant incidents.

Especially, congratulations are due to the following pilots for their achievements in the last couple of months:

- Jacques Graells and Brian Kranz both flew solo on a course at Lake Keepit and have since soloed at Camden with our club. Both are very keen and progressing well through their daily checks. Welcome to the club.
- Julian Holmes attained his passenger rating and took up his dad Rick first, followed by a seemingly endless string of friends. Well done Julian.
- Steve Garner converted to the K 21.
- Alan Jones progressed to Off Checks and has converted to the Junior.
- Steve Smith has conquered the IS-28.
- David and Mitchell Thom, two new junior members who both soloed at a recent cadet camp, joined our club and have now both soloed on the K 21. Some longer-term members may recall their grandfather Trevor who served the club very well as secretary in the 1980s.

Also, encouragement to all the newer members coming through the system. Keep up the good work and may your gliding careers be long and enjoyable.

But now, unfortunately, to the non-congratulations. There is still much room for improvement in ground handling to avoid stupid unnecessary damage to the aircraft and equipment. Several recent examples:

Somebody has apparently driven the roll bar of the tractor into the support for the awning on the pie cart. By good luck there was no serious damage (but why would you drive the tractor so close to the pie cart in the first place?).

Someone left the tow bar for the IS-28 in the wrong place in the hangar and on the next flying day the K 21 was found with the underside of the wing resting on top of it. Two problems here: (1) someone put the tow bar where it was a hazard and (2) whoever put the K 21 away did not check for obstructions before barging into the hangar with it.

A crew putting the IS-28 into the hangar found that the mainwheel was not aligned with the track. Instead of taking it out of the hangar and starting again, they were trying to reposition it by lifting the tail out to the side and moving it back and forth, trying to line it up. A very good way to smash the tail into the hangar stanchion. Fortunately they missed.

The DG-1000 was being prepared for towing away from the hangar. The tailwheel was placed on the tow bar and the bar was being lifted to hook it onto the back of the tractor when someone noticed that the tailwheel was sitting on the edge of the cup provided, instead of in the middle of it. Most likely it would have fallen off somewhere along the way to the launch point, with a good chance of serious damage.

And so it goes on... Please people, a little care and forethought is all it takes to prevent expensive and totally avoidable damage. It's all about common sense and airmanship, so let's all do our bit and look after the equipment.

And having said that, keep up the good work, fly and have fun!

Coach's Open Sky

Martin Feeg

During the last week in February I was away with some private aircraft owners on a kind of camp. We had good flying, as you can see on the OLC, but the weather was already very much like autumn. We usually couldn't hold our own before 12:00 noon, and the days only fully developed after 1:00 pm. So I am seriously talking about the end of the season 2008/09. But this is not the end.

In fact it is the beginning of the new season 2009/10. Now, while you are spending less time in the air, it is the right moment to consider and prepare.

Are you happy with your achievements? Did you enjoy yourself soaring? If not, it is time to consider why your flying hasn't been rewarding – after all, it is about fun, enjoyment and recharging your batteries. Once you find out why you didn't get what you desired you can mix in what you want. Between the two – knowing why you didn't achieve and knowing what you want next season – you can come up with a plan.

Prepare yourself, the aircraft, the trailer, the car and even your work and social life. For example, as you may know I missed out on the Nationals this year, simply because my aircraft wasn't ready. While I thought it would be OK to have maintenance done early in the season, it wasn't. One small thing lead to another and yet another, and Xmas had come and gone. It is the same old story with just a few different ingredients.

If you are not satisfied, I invite you to discuss things with my fellow coaches or myself and we will give you guidance on how to avoid this frustration.

Soaring is about fun – let's have fun.

Safe soaring.

Making it to the flight line

Phil Endicott (FN)

This article is an overview of the ground handling procedures for the club's gliders. It's addressed to our newer members to give them an insight into the unfamiliar territory into which they have perhaps stumbled when they committed themselves to "learn to fly".

Consider what a glider is: we all know it's an aircraft – an aircraft. The air is its element and that's emphasised in the overall design. On the ground, it has obvious limitations. Those long wings want to snag on anything in their vicinity. Attach its tow gear, hitch it onto a vehicle and then tow it backwards, and we have a very unstable and vulnerable combination.

The glider can readily suffer damage at any stage in the process of getting it to the launch point or back into the hangar at the end of the day. If it is significantly damaged (and that's easily accomplished, with or without experience) it won't be flying that day, and maybe not for several days or weeks thereafter.

Any time a vehicle – tow car, tractor – any vehicle – is within 20 metres of an aircraft, take it as a law of nature that the aircraft is in DIRE PERIL!

When you have the glider in tow, cultivate a keen interest in any objects (hangars, runway markers/cones, vehicles, trailers, fences) or ground features (Hangar Hill, ditches, drainage pipes, long grass, slopes) that you approach. This especially applies to our Pie Cart. Despite the fact that it's just sitting there, we once managed to scrape the wingtip of a glider along its side. This seemingly innocuous conjunction did not have any discernable adverse effect on the Pie Cart. But trace the impact point from the wingtip, along the spar to the wing root junction with the fuselage,

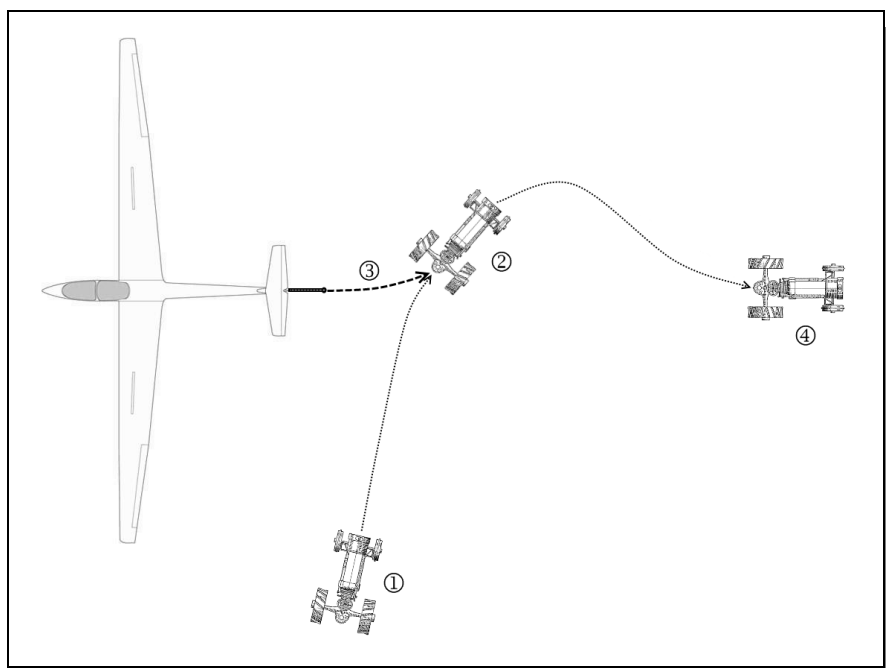
and you might be amazed at the magnitude of the forces that concentrate at that remote point, eminently manifested in the buckling and distortion in the wing root rib of a metal aircraft (IS-28).

This stressing of the wing root can easily be achieved when the glider is being towed with a rope by the person walking the wing pulling back at the wingtip to "turn" the glider. So find other ways to make the turn.

Moving vehicles have some unfathomable attraction to the grounded or raised wingtips of parked gliders, which induces them to either run over the former or bite a piece out of the latter. In these cases the offending vehicles are not particularly put out by contact with part of the glider.

Tow vehicles have reversed into the empennage of various gliders (by dropping the clutch, a foot slipping off the brake, ineffective brakes, or simply rolling back due to the slope of the ground), much to the chagrin of those members who had been so much looking forward to a pleasant flight in their favourite flying machine that day.

The way to approach the glider in a tow vehicle is to drive slowly (use 1st gear in the tractor) towards the glider from its side without pointing the tow vehicle directly at the glider at any time. Come to a halt about 2-4 metres behind and somewhat across the tail of the glider, again ensuring neither the front nor rear of the tow vehicle points directly at any part of the glider (you can straighten up after you hook on and begin towing the glider).



Approaching the glider, hooking up and towing away...the Endicott way

The glider's individual tow-out gear is now attached to the glider. This process requires specific guidance for each of the club's gliders if you are not to cause damage inadvertently when attaching (and subsequently detaching) the gear.

To this end, consult any instructor. He has been waiting eagerly for the opportunity to pass on his hard-won knowledge to anyone who evinces even the slightest interest in some aspect of his passion for soaring. You'll learn a new and useful skill from an expert, and he'll feel

appreciated and think it is, after all, worthwhile putting his life on the line day after day in his normal role of flying instructor. On the downside, he continues to be astounded by the multifarious diabolical schemes his students devise to terminate his existence during flight training. So do your bit to uphold his morale: ask his advice and make his day. He'll be ever so grateful, and he might even let you go solo...some day.

The glider is now ready to be attached to the tow vehicle. You pull the glider to the tow vehicle, you do not manoeuvre the vehicle closer to the glider (that goes for two seaters as well). And never reverse the tow vehicle when it's anywhere near the glider (that's why the tow car's reverse selector has been hobbled).

I trust you are now suitably impressed with the hazards of bringing any vehicle too close to any aircraft, or vice versa for that matter. In every case when an impact does occur, the more vulnerable glider comes off second best.

Each time you tow a glider, you are taking on a SERIOUS RESPONSIBILITY. It then becomes your PERSONAL MISSION to deliver that glider SAFELY (ie in an airworthy condition) to the launch point or back to the hangar (getting the glider safely into and out of the hangar is yet another skill you'll have to master). It's up to you to seek the proper training before you shoulder this responsibility.

Once the glider is attached to the tow vehicle, you do not just head off to the flight line. If one of your mates has hitched the glider onto the tow ball, it remains your responsibility to check everything is okey dokey before you drive off.

Don't assume anything. Are the controls tied back, the undercarriage handle firmly in its slot and the canopy secured? Is the wing walker installed properly, the tail dolly clips fastened and sufficient air in the tail dolly tyre? Is the tow bar correctly attached at both ends and the tow car's rear view mirrors locked onto wingtip and tailplane? Do you know where you're going and have you planned the route? (If towing with the tractor, you'll be looking over your shoulders regularly, checking the glider whilst on tow). This is how your mind works when messing about with sailplanes. It's not all beer and skittles, and cavorting up there in the wild blue yonder.

Towing a glider is no time to adopt a gung-ho attitude. You may believe you can handle the job, but it's your fellow pilots who will bear the consequences of your grandiose confidence in your assumed abilities. Again, seek the necessary training or mentoring. But, no need to worry – you'll learn to enjoy doing it right.

Now, proceed cautiously. Learn to anticipate the hidden hazards awaiting you and your charge at every step on your perilous journey to the flight line. And there may be another risk you have not even suspected. It resides within you. A classic example is not requesting assistance when you really could use some. For example, you move off at the hangar with a glider in tow, and the tug or another glider is crowding your path. There's just enough room to squeeze by...maybe. But why risk it? Stop and get help to move the tug or obstructing glider further back, or get a couple of blokes (or sheilas) to walk your wingtips as you now expertly guide your vulnerable charge past the perils that have lain in wait for you to take that "courageous" decision to "give it a go" all by yourself. It's in every club member's interest that you deliver that glider safely to the flight line, so don't be backwards in calling for assistance when obstacles pop up.

The fact that we are towing a glider means we are driving an articulated vehicle. This presents a special set of problems. Observe truck drivers as they widen their turns by using two lanes to get around a tight corner. Tow bars can bind up if you take the corner too sharply. Braking is another hazard for articulated vehicles: the glider being towed is both unstable, has considerable momentum of its own, and has no brakes when on tow. So don't be in a hurry. For instance, use gears and brakes appropriately to control your speed when you're negotiating Hangar Hill.

This article by no means covers all aspects of safely towing a glider. What do you do (or not do) if the glider comes adrift while on tow down Hangar Hill? How do you tow safely with a rope? How do you safely negotiate a turn when towing with a rope? What about crossing a runway on tow? Looking out for aircraft landing, preparing to take off, or in the circuit? Towing on windy days? These and other questions can involve you and your instructor in fruitful discussion during and at the end of a day's flying.

Useful Tips

1. Watch converging shadows (wingtip : obstacle)
2. When driving the tractor, beware that roll bar behind and above you. It will chew up the raised wings of parked gliders, and even Pie Cart awnings
3. When driving the tow car, if you have size 16 feet (or smaller), beware the proximity of the brake and accelerator pedals – it could be pot luck which one you actually press
4. When driving articulated vehicles, do not turn and brake simultaneously

Safe towing.

Narromine Cup Week – November 2008

Dave Boulter

I woke up suddenly. I had been dreaming that I was on the ocean; an aircraft carrier was in my mind. It has to be too many viewings of Top Gun again. I reach down and all around me is...wet! But I am in Narromine, how can this be? It never rains here. More on this later.

For those of you who don't know, SCGC has a camp in the last week of November each year at Narromine. The Narromine Cup sounds like a competition but it is far from that. The spirit of the week is to enable any pilot to achieve their aim for that week. You may wish to stay up for 5 hours. You may wish to fly 50 km or more. You may wish to do all of that and achieve a height gain of 1000 metres and get your Silver C. You may wish to try a 300, 500, 750 or 1000 km flight. All of this is available and encouraged. Of course, you have to be ready: a novice pilot expecting a 500 km flight may be a bit bold, but the guys at the camp will work with you on what is possible.

Back to my story. How did the water get into my tent and manage to soak everything except the air mattress and bedding? A small hint is that if there has been one thunderstorm that night there may be others around. Secondly, leaving the tent flaps open to cool the tent down is not always a good idea. Thirdly, it is a bad idea while you are in town at the pub!

As Narromine Cup weeks go, it was pretty bad weather-wise. We had a number of storms and a lot of rain. Very unusual.

I do remember one great day though where Battlestar Galactica and the Mothership (Bob Merkenhof's Duo Discus and our DG-1000) led off on a task which was Narromine-Warren-Parkes-Narromine. Mark Barnfield was in his LS 1 and I was flying my Mosquito, dragging the chain as usual when we got to Warren.



How many pilots does it take to change a spark plug?

Around Warren the big ships called up the weather along the way to Parkes and I met up with Mark. Bernie Baer and Bill Pain were in the DG-1000 and Bob M and Derek Ruddock were in the Duo.

Mark and I decided to fly together, helping each other with spotting lift and keeping tabs on each other. Just after we left Warren there was a huge blue hole in front of us, with strong clouds on the far side closer to Parkes. Battlestar and Mothership assured us it was okay if we could get across as we would hook up with good lift. So over we went on a long glide. We glided for about 20 minutes without any lift from around 9000 ft down to 6000 ft before we connected with the clouds and had a good climb back up to 8500 ft again. Along the way Mark and I were about 1 km apart at times and then maybe 5 km apart at others. We were matching glide at around 65 kt to preserve height and it was great fun calling each other to better air as we went along. We had fun in the clouds on the way to Parkes, right until I drove myself into a big hole south of the Parkes Gold Mines and not far from Parkes A/F. So I found myself at 2500 ft about 15 km from the airport, looking at paddocks. Of course, I went straight for the farmhouse on the nearest bit of hill I could see and found 1½ kt. I worked this, sweating away till it turned to 3 kt and then I knew it would organise (I hoped) and get bigger. This one took me to 9000 ft again. In the meantime, while I was digging the hole at the mine, Mark called me up to say he was at 9000 ft turning Parkes. He mentioned that on the other side of the turnpoint were some great climbs, so once I reached the top I set off around the turnpoint and back to catch up with Mark.

Flying the Mosquito in negative flap at 110 kt is a wonderful feeling. I was soon near Mark again and called him up with my view of what lay ahead. I was in a climb around Alectown and close to

Herveys Range. There was nothing really working up the mountains which I had used previously many times to get home in the late afternoons. When I got to 10 km south of Peak Hill I called Mark up to say I couldn't see anything ahead to Narromine and that this was the last climb.

So at 8000 ft with 67 km to run, I headed off at a conservative 65 kt again to get home. We had about 5-10 kt of headwind so the 8000 ft was making it a good test of glide back home. Stupidly I didn't wind back the MacCready to zero and had it still on 2½ kt. It urged me on to speed up and slow down. Normally I fly block speeds around the task but on final glide I use the MacCready. Still not set correctly, I brought back the speed to 60 kt as there was no evidence of lift the further we went, just almost zero sink along the way, thank God.

The canopy vent was closed up, and I even closed the nose vent and flew as accurately as I could. I wish I could say the yaw string was rock solid but it was really as good as I have ever flown. I ran out of chewing gum, the water was almost gone and so finger nails are a good option at this time. With 30 km to go I had 3800 ft when I ran into some air going up. This I learned from Paul Matthews. I had a habit of watching too far ahead and not keeping a close eye above me. There was not a wisp but a change in the blue above me so it "could" be a wisp. I flew at it as it was 10 degrees off task, and bingo! I spent the next 5 km climbing to 4200 ft. Four hundred feet is a great thing sometimes.

To cut a long story short, I flew over Narromine at 2700 ft and asked permission to "buzz the tower" (got to stop watching that darn DVD). Mark flew in about 10 minutes later and we both shook hands after a great team fly bringing us home. We were both quiet on the radio on the way in but passed enough info so we were encouraged and hopefully found good air.

To me, that was my best timed and most controlled final glide. I have done plenty of these over the years but usually I have picked up air on the way and have been flying at 100 kt to burn it off on the way home. I also remember back to my first "50 km" flight which was Narromine-Peak Hill-Narromine. All up, that flight took me around 4 hours. Here I was doing a final glide from 10 km south of Peak Hill to Narromine and it took me forty minutes.

So after we met with the big ship crews and laughed about the highs and lows of the flight, I naturally had a few beers and ended up at the pub with my tent open and the second thunderstorm for the night arriving...Geez I love gliding!

If you want to come to the Narromine Cup next year, talk to me at Camden one day or email me at daveboulter@boulterassociates.com.au

You can see the flight at <http://www3.onlinecontest.org/olc-2.0/gliding/flightinfo.html?flightId=-750604913> optimised at 350 km and 81km/h (I had to drag the LS 1 around...sorry Mark, John Jurotte made me say that).

Hangar Rash Corner

Dave Boulter

It's Sunday, it's late and as usual we are putting the gliders away. The K 21 is being pushed back in with three of us handling it. All is going well till somebody calls out "Stop!". The IS-28 tow bar has been placed in the hangar so that it sits behind and just clear of IS-28 ZAY. The problem is that the space between the IS-28 trailing edge and the K 21 trailing edge opposite is so tight we are almost guaranteed that one of the gliders will touch the tow bar if it is left there.

One solution is to not place the IS-28 tow bar in the space between glider trailing edges. Another is to make sure that if it is placed there, it is put in at an angle between the support braces.

Luckily we were moving so slowly that there was no damage to the K 21 wing.

[Do you have any tales of hangar rash suffered – or avoided? Please send them in (anonymously if you wish) and we'll publish them in Hangar Rash Corner – Ed]