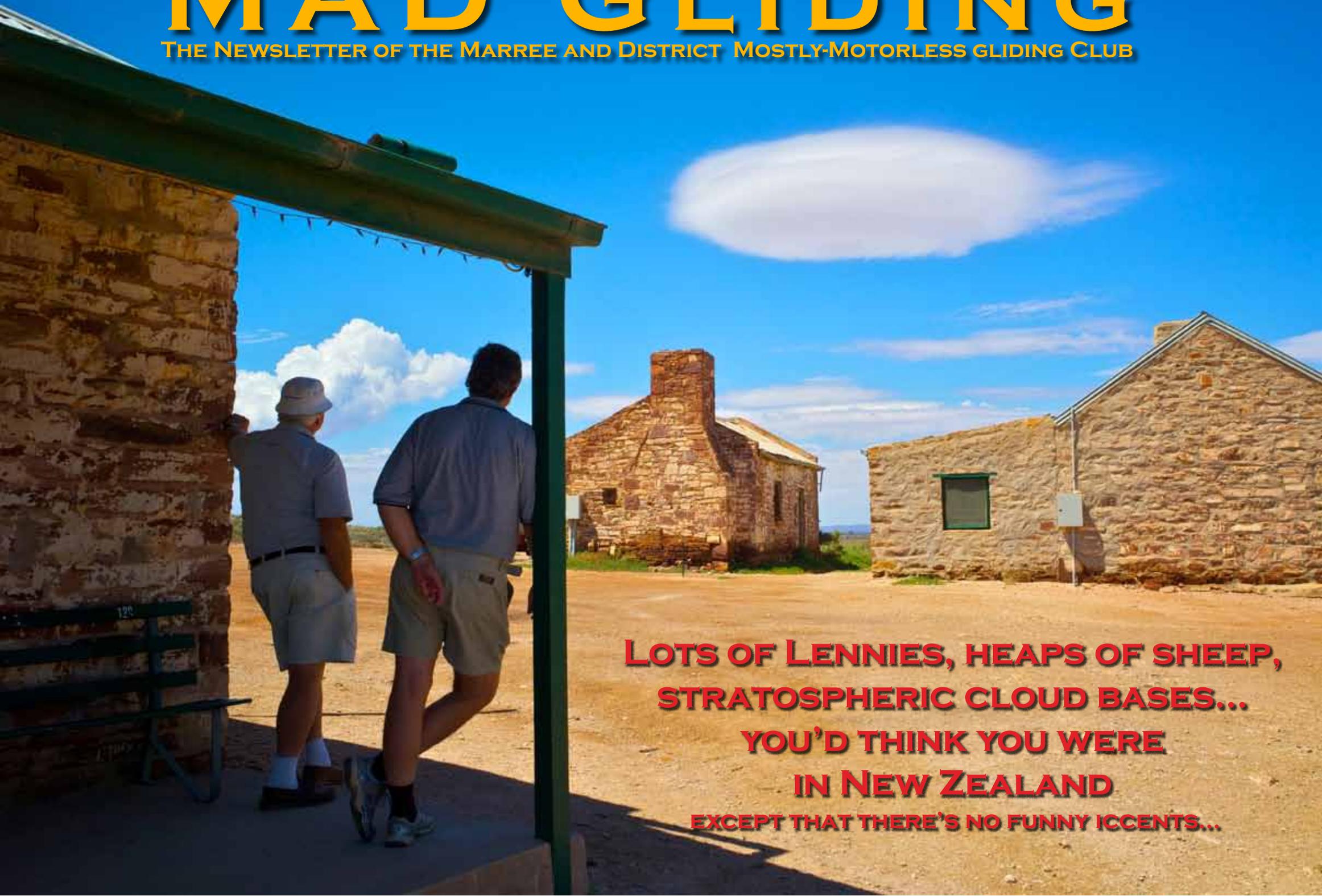


# MAD GLIDING

THE NEWSLETTER OF THE MARREE AND DISTRICT MOSTLY-MOTORLESS GLIDING CLUB



**LOTS OF LENNIES, HEAPS OF SHEEP,  
STRATOSPHERIC CLOUD BASES...  
YOU'D THINK YOU WERE  
IN NEW ZEALAND  
EXCEPT THAT THERE'S NO FUNNY ICCENTS...**

# MAD GLIDING

THE NEWSLETTER OF THE MARREE AND DISTRICT MOSTLY-MOTORLESS GLIDING CLUB



## ESTOFADO!

It's a difficult time of year. My November begins with a trade show in Amsterdam where they only eat Stamp Pot whose calorific value is measured in megajoules. This show was closely followed by another in Strasbourg where they only eat Schweinenfleisch und Sauerkraut. Ditto megajoules \_ gas. Three weeks of this does your CofG no good at all. After that, it's only a few short weeks to the Festival of Overeating.

This festival is the main cultural event of my ancestors, the indigenous people of West Sussex, the traditional owners of the country from Normandy to Biarritz (though there are claims through the land and environments courts from various Pict, Scot, and Gaelic peoples who dispute our ownership of this land).

Until commercial religion pushed out the old ways, we celebrated the mid-winter solstice with a festival of guilt-free excess in all possible forms. I believe this manifests as a race memory when my daughter, who is at an age where worries CofG and wing loading amounts to a mental illness, said at the dinner table "I'm stuffed to the point of spewing! I'm only eating because I can't stop!" ... She takes after her mother.

The problem with being nose heavy is that it can put an excessive load on your elevator and none of your clothes fit. Right now, I can scarcely bend over enough to sit at the keyboard and bang out this, the first issue of the Marree and Districts Soaring Association magazine. Why the change of title? Why the big change of location?

After coming into Marree on the LKSC Lake Eyre Safari which fills a lot of this issue, Ian Barraclough and Geoff Sim decided that it was a perfect place for a gliding club. There's already a yacht club (the nearest water is 50 km away) and they'd be sure to welcome a gliding club since there's bugger all else to do.

It's a great location... zillions of square kilometres of outlanding area, off-the-scale thermals and a better than 12,000' cloud base, you could set world records in a Horsa... if that was what you wanted to do. There are drawbacks... Marree is further away from civilisation than most places... about 200 years at last reckoning and is inclined to be warm in summer... but we're not going to let that bother us.

Meanwhile... the club website has undergone a major change. The reason for this was to give us

more disc space and bandwidth than the previous site and to allow separate areas for tuggies, instructors and the committee so that important documents and other secret mens business can be conducted through the "cloud" ... whatever that means.

It's regrettable that the change-over had to be done at Christmas time, but one of the "features" of Google and other services of similar kidney is that they download terrabytes of data to index the internet and our club site was being absolutely hammered to the point that our bandwidth adequate otherwise limit was exceeded many times in the last month.

It looks like being a busy time at the club with many visitors and competitions such as the regatta turning up. The weather in Sydney has been moist to say the least but looking at the weather on the club website, the forecast looks good... and in any case, you have to be there to fly don't you?

All this is a roundabout excuse of saying sorry for any mistakes in this MAD newsletter and any problems with the website but I'm going gliding!

*Complaints as usual to the Editor@Keepitsoaring.com*



## PRESIDENTS MESSAGE

Dorothea MacKellar certainly got it right about Australia being “a land of droughts and flooding rains”. After years of near certainty that you could visit the Club anytime and enjoy wonderfully flyable weather we have had the wettest spring on record! How hard it is to get used to. Each morning I look at my iPhone weather app to see if I can spot a clear period to go flying, but the forecast remains dismal. Let’s hope like last year the early months of the New Year prove to be exceptionally good.

I shouldn’t be too negative about the weather for there has still been some great flying. At the Kentucky Camp in November a few of us got to experience “thermal wave”, which for me was a revelation. Flying above and along a magnificent street of the Cus was an experience that will forever remain in my mind, almost displacing the sadder memory of the pock-marking of my ute by hail at the Club just after we returned from Kentucky!

And our Japanese visitors seem to think that our poor weather is really quite good for they are posting 5 hours, flight after flight. Reports elsewhere in this Newsletter on the Lake Eyre Safari, the Kentucky Camp and the November Cross Country Weekend further attest that all has not been bad.

The Club had a good representation at the NSW Championships at Temora from 27th November with 8 members racing and Ian Downes flying a tug. Building on members success in the Queensland Comps notable results were Bruce Taylor 1st in 18m and Open Class, Brian Du Rieu 3rd in 18 m and Nick Singer 3rd in Club Class.

As I write this Bruce Taylor and Todd Clark are participating in the South African Championships at Welkom. To round out the season there will be a strong Club representation at the Multiclass Nationals to be held at Narromine in early February.

**We have a busy program at the club for the next 4 months which provides plenty of opportunity for you to have fun while honing your soaring skills.**

In January, from the 13th to the 16th, our Cross Country Weekend will focus on planning and completing a 500km flight. Overlapping this will be the annual visit of the Air Force Cadets for their Cross Country Camp. So do come to the weekend and test yourself on a 500 and by flying against the young guns.

The Keepit Regatta, our annual blue ribbon event, is on from 19th to 26th February. Aply organised by David Bull, who you should contact about participation, there remains space for a couple of further participants.

In March the Australian Gliding Team has fully booked the Club for a training camp from 19th to the 25th. This is immediately followed by Steve Hedley’s “Big Bird” Grand Prix for 25m Gliders.

Our March (15th to 18th) and April (13th to 16th) Cross Country Weekends will focus on developing planning and navigational skills.

Jacques Graells has done some superb work to develop a Club ranking system using the OLC and the Committee has decided to get right behind it. Henceforth the results of all competitions, including Cross Country Weekends and the Regatta, will be based on OLC postings.



There will be prizes at the Club's Annual Awards Dinner in July for the longest, fastest and most flights posted on the OLC for pilots with less and more than 200 hours. The rankings are already live on Soaring Stuff (<http://www.soaringstuff.net>) so have a look. Soon an up-to-date summary will also appear on the Club's main home page.

So if you are not posting your flights to the OLC begin now. There are no bragging rights attached to unrecorded flights.

In October we were advised by the IGC that the Club has been selected to stage a World Qualifying Grand Prix from 12th to 18th November 2012. Other QGPs are to be held in Romania, South Africa, Chile, Slovakia and France in 2012/13 feeding into the World GP final at a yet to be announced location.

For those of you unfamiliar with the format, GP

racing involves a maximum of 20 aircraft starting together across a 1 km line and racing for roughly 2 hours around a triangular course to finishing across the start, a format very similar to F1 car or dinghy races.

By using modern tracking and display systems it is hoped to popularise the sport by making it more spectator friendly. *(Or less spectator unfriendly! Ed)* The exciting finish in our March GP shown by the following photo, where 4 aircraft finished within 500m of each other, illustrates the possibilities.

Pilots from anywhere can participate in any one or more of the Qualifying GP's, with 2 or 3 pilots from each competition qualifying for the finals. We hope to attract a number of international pilots to our GP along with Australia's best and it will be fantastic if we can get a full field.

So those of you interested in having a go... why not have a trial run in the "Big Bird" GP in March.

Last issue the success of maintenance week was reported. This time I can advise the completion of a major refurbishment of the cockpit of the Club's Jantar. The aircraft is now in top condition, so do fly it. Huge thanks go to John Trezise, Lee Braithwaite and Todd Clark who spent more than 200 hours on the job.

On behalf of all in the Club I pay tribute to the tremendous effort put in by Ian Downes and Luke Kingston Murphy and the many individual members who have laboured tirelessly during the year to make our Club such a great place to have fun. To close I wish you and all your family a most wonderful Christmas and a great New Year.

Chris (Gary) Bowman

IAN'S IPAD  
MY IPAD

JOHN - CAN YOU CHANGE THAT  
TO BEER O'CLOCK?  
TODAY AFTER WORK

110% □

Hello Mates! I have to say I'm fair ~~bugged~~ worn out by the time the Festival of the Turkey comes around and it's nice to have a few days off with ~~a beer or three~~ with my beloved. However the newsletter bully has been in my ear to get some scribbles thoughts in for the newsletter so a few piccies seems the easy way out...

The last few months have continued the interesting times at LKSC. Our honoured guest at Speed Week was Ingo Renner a ~~to~~ 4 time world champion who was most gracious with ~~imparting his knowledge~~ telling us how to do it and memories of a lifetime in gliding.

Another world champion, Atilla Bertok of hang gliding fame and now the proud owner of "Zulu Romeo" was pleased to meet up with Ingo and hear of his exploits at Walkerie in 1974 in ZR.



It's difficult to catch sight of 1 Stemme (above you at least Hehehe!) but at LKSC between the Safari and Speedweek we had 2 of the critters!

367  
9/4  
40

WE were fortunate to host a visit by G Dale in October and our Prez Chris Bowman took the opportunity to ~~learn something for a change~~ "broaden his gliding knowledge". JC- Cris is either the bugger in the front or the back... difficult to tell without me glasses!



We are trying very hard to get members to post flights to the OLC but it is difficult to get Miro Mikus to do so - he likes to keep a low profile but with 3 days of +400 km flights every day recently, I'll have to change that.. when I have mastered that bit of ticknowledgy. (after Xmas")

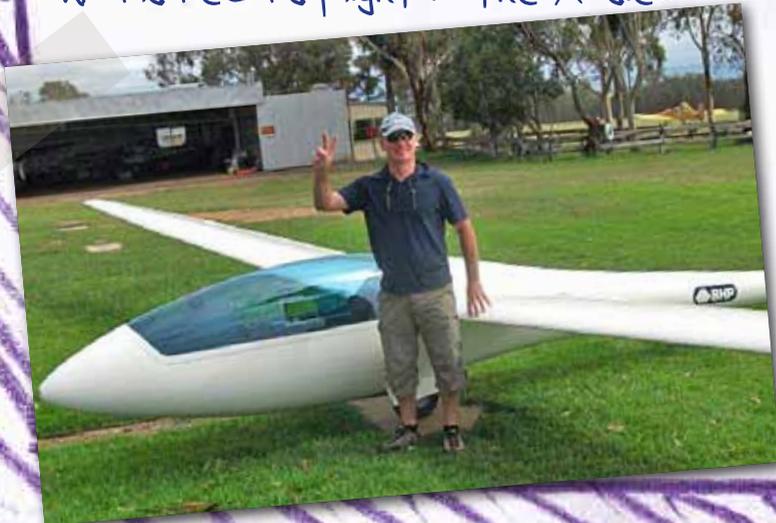


Our mates from Boonah Gliding Club stayed with us in early November and while the weather wasn't that flash, they made the best of their time with lectures/talks from Garry Speight in the morning and flying in the afternoon. This is a rare shot of Jan Dircks at a dinner she didn't cook.



After the Kentucky Camp, Gary Ransby and David Bull, got stuck into some serious mowing around the place. The result was so good the committee has agreed to purchase a new ride on mower and conversions to the mower will start in January with log book endorsements if you want them.

Keisuke Eguchi from Japan was a guest during the last 4 day weekend which was organised so very well by David Bull. David has a report elsewhere on the weekend including Keisuke's World record flight in the Andies mountains.



Also here over the 4 day weekend was Federico Martini from Switzerland who hit the ground running in the LS7 with some great flights. Federico has gone to Forbes for a hang gliding comp but will try to get back to Keepit before going home - he assures us he will be back next year.

And so girls and boys, 2011 draws to a close with some fabulous memories of a great year not the least is the excitement I feel when submitting these reports for Keep Soaring- "what will the editor do to this one?" is a question I ask myself every time as I look for the send button.

I almost forgot! I had the opportunity of giving the ~~bastard~~ editor his AFR last month before the Safari... it may not look like it but I can tell you he was ~~shitting himself~~ heaps nervous and had to change his reg grundies after I'd finished with him!

Our club, led by a most capable committee, continues to thrive and the result is, quite simply, a great place to work and for members, a great place to enjoy an exhilarating past time with some great things planned for 2012.

May I take this opportunity to wish every one a Happy Christmas and a memorable year ahead.





# THE LAKE EYRE SOARING SAFARI



**147 km to run to goal, 1500' below final glide and climbing through 11,000' in 9+ knots... the task was in the bag!**

What started out as a grizzly 150 km leg to Hawker in South Australia to avoid bad weather in conditions which probably meant motoring all the way, had turned into an absolute screamer of a day, typical of the 2011 LKSC Lake Eyre Safari.

**Ian Barraclough:** *I was looking for the big adventure of the 1995 'Heart of Australia Tour' where a dozen gliders circumnavigated the Simpson Desert ... and I got it. After months of planning, rising anticipation and a wobbly start, the excitement built and a really good adventure unfolded. 10 knots to 11,00 ft day*

*after day is heady stuff and kept me going through the weaker conditions nearer home.*

The idea for this Safari had germinated in late 2010 when Ian Barraclough and Al Giles were discussing another event to equal the 1995 epic Heart of Australia Tour. Since no tug was going to be available, the Safari was proposed as a self-launching glider event and since Ian Barraclough has a share in an ASH 25, Sierra India, the legs were designed with that in mind. "It will not be for the faint hearted of course ... there will be some flying over unlandable territory."

In spite of being certifiably faint-hearted, I signed on immediately because this was the type of flying I had got out of hang gliders into sailplanes to do, but for several months afterwards, I was too terrified

by Ian's ambitious plan to concentrate on the actual details. Of the 9 proposed legs, 5 were over 400 km including one of over 500 km.

Initially, there were a lot of people interested in the Safari but only 4 gliders actually started. This is not a bad thing because trying to find accommodation in the bush at very short notice for a big gang of people could be a nightmare.

Apart from having your glider in tip-top condition, it's difficult to prepare for an event such as this. I already had a small remote area flying kit in a lightweight backpack and a set of tie-downs. The LX 8000 in my glider has no real limit on waypoints so I have about 2500 of them installed, including almost all of the Safari waypoints.



It turns out that Google Earth is not a good way for the faint-hearted to prepare for something like the Lake Eyre Safari. The territory looks even more unlandable than Ian Barraclough had suggested and some of the emergency airstrips were all but invisible!

Most of my extra preparations were involved with making sure I had huge quantities of water... I bought a 6 litre water bladder and squeezed my old 4 litre one in behind the oxy cylinder with another 1 litre bottle for emergency emergencies.

I resurrected an old Filofax and printed out all the legs, contact details and frequencies, airstrip and waypoint details etc. on waterproof nevertear paper which all folded down neatly into something you could carry in a glider cockpit.

When we left LKSC, Paul Mander's Speed Week was just about to kick off. While us straight-liners stowed fuel cans, emergency tents and sleeping bags in a box trailer, the "fish-bowlers" all sat down with notepads and sharp ball-points in important looking briefings.

While they gridded, we pushed our gliders up and down the strip wondering whether to wait or jump the queue and go early.

The first two days were blue, soft and short. On the radio, we could hear the people from LKSC moaning about the day turning to worms as we plodded on into the blue and the (normal for a Safari) 20 knot headwind.

The first leg to Nyngan goes via Coonabarrabran and the Warrumbungles which can generate a big lee rotor in a strong wind. You either go north via the dread Pillager Scub (unlandable) or cop a pasting in the rotor. The second ASH 25 outlanded and damaged its landing gear while the rest of us in the air or on the ground diverted to either Coonabarrabran or Coonamble (or both).

**Al Giles:** *Greetings from Nyngan, capital of Bogan Shire!. Yes, yes, I know we should have been here yesterday...Paul and I were on final glide in the Stemme for Nyngan when we got the call that Ian and Geoff in the ASH25 and John in the DG808 had headed north to Coonabarrabran or Coonamble to dodge the sink in the lee of Bungles, so we turned around and landed with them. Fortunately, Paul's 1954 Caltex road map (our principal source of navigation) showed both.*

*Unfortunately by then Lynne, Paul's wife, had reached Nyngan and checked into a motel. Her phone was Vodaphone, so she was uncontactable. Paul rang the Nyngan cops, who went around to tell her but she'd already decamped to the airport to wait for us, so they had to nose around to find her.*



*Le cloud du jour over the dread Pillaga Scrub. Not looking down started early!*

Today was equally stable with adverse winds and cruddy broken up thermals, which the Stemme doesn't like all that much, but Paul likes turning right and I like turning left so we split the flying equally. Lynne filled up the 4WD with diesel and got petrol in the jerries for the Stemme but forgot to pay for the petrol, so the cops turned up yet again and put the cuffs on Lynne - then one of the cops said 'ahhh...I've left my cuff keys in Quirindi'. Fortunately all NSW cop handcuffs have the same key.

Fraser Vickers, P2 of the broken ASH, decided he had to see Lake Eyre so he got up early and drove to meet us in Coonamble, just as Lynne Thompson was being arrested. I can't imagine that you'd get the city police to cuff someone just for a joke photograph! We made the front page of the Coonamble Times the next day and were followed by police for the rest of the trip.

At the start of the third day at Nygan, we were already one day behind schedule and the goal was the opal mining "town" of White Cliffs, 400 km away, where most people live underground and there are barely a few dozen buildings scattered between the craters left over from mining.

If the day was bad, we'd stop at Cobar but this was only 133 km away and not going to get us anywhere and nobody wanted to land at the only other alternative, Wilcannia.

As we launched, faint wisps of CU dotted the sky and soon we were making good progress under a 5,500' cloudbase. Towards Cobar, the terrain turns from farming land to something else... and something you don't want to look at too long.

## Coonamble Times Gliding safari falls foul of the law

MEMBERS of the Lake Keepit Soaring Club (gliders to you and me, sail planes to most members) received a bit of a rude shock on Monday when one of their members was seemingly apprehended by police at the aerodrome.

After refuelling vehicles and jerry cans for support vehicles one of the members went in to pay and assumed the console operator had taken note of what pumps were used.

When they drove off leaving one pump unpaid for a call to police was made and a late model Range Rover was tracked down at the airport.

A most unlikely set of fuel thieves greeted police who quickly deduced that their had been nothing more than an innocent mix up at the road house.

One of the party went with an officer to pay for the outstanding fuel purchase whilst the others stood about laughing about the incident.

Local bobbies were also kind enough to allow themselves to pose for photos with the alleged thief in hand cuffs as a memento of

their overnight stay in Coonamble.

The group are on their way to Lake Eyre from Lake Keepit and are heavily reliant on the weather and most importantly thermals.

Not underwear in this case but rising columns of warm air that give the gliders lift.

At the start of the trip four gliders started but by the end of day one three were left due to a heavy landing and a collapsed undercarriage.

In this case all the gliders are self launching in that they have a propeller that folds out for take-off and allows the glider to reach a suitable altitude before it is stowed away and the glider goes hunting for thermals.

Lake Keepit Soaring Club is one of Australia's best known cross country soaring sites.

Making the trip were an Ash 25, DG 808 and a Stemme S10.

The ladies and gents from the Lake keepit Soaring Club were hoping to make a trip from Coonamble to White Cliffs on Monday.



• Officers Matt Dalkeith and Adam Hitchen are forced to restrain one of the members of the Lake Keepit Soaring Club after it was determined she was the guilty party who made off with the fuel.



• Taking a break and waiting for the ground to warm up before heading to White Cliffs.

On these long legs over desert country to a point destination so small you could easily miss it, you can let your mind run away with thinking the GPS coordinates are incorrect and you're flying the wrong way.

Before the Safari, on the recommendation of several other pilots, I had bought a copy of OzRunways, an iPad and iPhone 'electronic flight bag app'. It was a simple matter to get out my iPhone and see my position on the WAC chart. A single tap on the screen brings up a dialog which shows bearing and distance to the nearest waypoint which can be compared with your glide computer. A tap on a waypoint entry in the list and OzRunways brings up the ERSA entry for the airport. Very nice!

Telstra 8:36

**Closest Points** Done

**Custom Waypoint**  
S30° 48.4' E143° 05.0'

<b>YWHC - White Cliffs</b>	126.7
ALA 450.5nm 283° ESE	530 ft
<b>TAROR - TAROR</b>	
WPT 459.2nm 281° E	

*One tap on the Ozrunways WAC chart gives you most of what you need to know... bearing, distance, CTAF and altitude of the strip.*



As the terrain became less friendly between Cobar and White Cliffs, the cloudbase went up fairly abruptly to 8,000' and we finished the 420 km leg in high spirits at close to 100 kph.

White Cliffs is one of those towns where nobody uses their real name and everyone is called "John". We shared a beer with a few of them while waiting for the ground crew.

The next leg was to Jamestown in South Australia, some 520 km away or if the weather didn't cooperate, to Broken Hill at 200 km. The forecast was for the day to end early near Jamestown and the following day looked worse so the plan was to push on.

We got an early start into some very bumpy blue air with no great signs of thermals. There were giant areas of lift and bigger areas of sink but not a lot to turn in. I was taking a picture of White Cliffs soon

after take-off... normally the glider will keep itself out of trouble while I organise the camera... when it was upset by a bump and dropped a wing into a spin. Never has a camera been stowed so fast! After that, the others were oddly reluctant to cooperate in any air-to-air photography.

After Cobar, the landscape had increasingly taken on the appearance of something more Martian than Lunar... there's no better incentive for finding a climb than looking down at something like that below!

Since there were few if any outlanding places directly between White Cliffs and Broken Hill, the choice was to either track via Wilcannia (and hope you didn't have to land there) or if the conditions were good, straight-line it to Broken Hill. Paul Thompson and Al Giles in the Stemme were navigating in the "traditional" way with a road map and chose to make

a leg in towards the main road to Broken Hill (which also gave them a better looking OLC score), but the day did look good enough to go direct... as long as you didn't look down.

Around 100 km out, the thermals organised themselves and small CU started to appear at 9,000' which meant that we could get a move on. There was a big blue hole around Broken Hill and for a while, the faint-hearted thought that the day might be over early.

But it got better and better. Soon, big cloud streets were going our way with 7-8 knot climbs to 9,000' and we had Jamestown well in the bag and landed after about 520 km just as it began to rain. Paul and Al ominously radioed in to check what Jamestown strip looked like in case they were about to land in Peterborough!



*Left: Soggy conditions between Nyngan and White Cliffs. It was surprising how much water was on the ground to the east of Broken Hill and where ever we found rivers and lakes, we also found about two knots less lift.*

*Below. Looking back to cloud streets between Broken Hill and Jamestown. Not sucky enough for pure dolphin flying but with a 10,000' cloud base, conditions were predictable enough to give a fast, easy ride.*

*Looking in the other direction, towards Jamestown, the predicted bad weather could be seen on the horizon and made a high ground speed look more interesting than sightseeing!*

*AG: White Cliffs to Jamestown was another great run, although we had to deviate south a long way around Broken Hill to avoid its airspace. I was really loving flying the Stemme and as we approached the Goyder line, the red desert started to green up and the first folds of the Flinders rose up out of the flat horizon.*

*We had a skinny final glide into Jamestown... there were heavy clouds above but a little lift in the rain too. We didn't have a waypoint for Jamestown either but we had a map and I was sure I could see destination which was correct as it turned out.*





The following morning we woke to an almost complete cloud cover. The forecast and blipmaps showed more rain on the way and the whole area socked in for several days. However, the area north, which was where we intended to go, was clear and showed good thermals, so we decided to motor towards Hawker, 185 km away, and wait for something better to turn up.

Motoring long distances in an SLG is as much fun as a sore tooth so we were a bit subdued when we set off north. Little did we know that we'd be on oxygen in a few hours.

Mostly, on the LKSC Safaris, you fly alone. You may head out on task immediately after take-off and not see anyone until you land. This day was no exception. Ian Barraclough and Geoff Sim left first in the ASH. Their climb is fairly flat and like the DG, the ASH works best when motoring and gliding in sore-tooth mode. The big men, Paul Thompson and Al Giles in

the Stemme also have a fairly flat climb but at a much higher speed; say 80 knots as opposed to 55-60 knots. The DG-808 has a much better rate of climb but at only 49 knots... so within 10 minutes after take-off, the gliders were well spread out along the track.

There were bubbles of thermals and though the numbers on Hawker got better when turning, there was also a 20 knot headwind... it was going to be a slow day. As we headed north, the cloud deck thinned out a little.

After my third motor run, as I switched from static to total energy, the vario just would not settle down... normally when you switch over, it swings to 10 knots up for a while... but this time it didn't come off the stops and it was a moment before I realised that the darker area I had been heading for was really sucking! Geoff Sim and Ian Barraclough were also recording 6-9 knot climbs and all of us were soon within glide of Hawker. So the taskmaster decided to push on...

*IB: Escaping from Jamestown was an unlikely and spectacular day. Totally overcast, a trough imminent that would ground us for days with only the hope that the Blip map said there were good conditions way to the north.*

*A long climb out with the engine and then finding unexpected lift whilst still under total overcast led to a day that got better and better. We made it to Hawker, our initial objective and then pushed on to Leigh Creek our second objective.*

*Finally bursting out from the overcast yielded to climbs of 11 knots to 11,000 ft. Every cloud worked ... there was certainty that if you were feeling low at 8,000 ft any cloud would get you back to 10,000 ft or more.*

*From the gloom of Jamestown, we arrived 450 kms later at our Safari goal, Lake Eyre.*



*Left: Flying over conditions north of Leigh Creek which could only be described as Martian! And 12,000' felt like the right height to be flying at!*

*The leg from Jamestown to Marree was the most outstanding, both in terms of adventure and scenery. Barely an hour before, we'd been flying over neat green fields and gentle hills.*

*Right: Beer was taken at Marree... thanks to the ground crew!*

*In fact, the number of pictures containing beer in this article have had to be restricted in case it should present an unfair view of gliding.*

*Left to right: Lynne and Paul Thompson. Geoff Sim, John and Geraldine Clark, Ian Barraclough. Fraser Vickers and Al Giles. The ASH 25 makes a nice bar.*





More than 140 km out and at 12,000' we had final glide on Marree. The faint-hearted tend not to believe final glide calculations, especially not when 140 km away, but soon the problem was getting down! The ASH 25 burned off height by heading out over Lake Eyre for a look while the back marker (me) tried to burn it off in a rough-as-guts 110-120 knot dive for the strip.

Landing was a bit exciting because they use a local CTAF frequency which was not preset on my radio and there was a slab of emus on the strip... but what a cracker of a day!

These Safaris are unlike round-the-can racing (or whatever it's called in gliding!) The great flying days stand out clear and sharp in your mind, even years later. What also stands out is the comradeship of the other people on the Safari, the pilots and the friends on the ground, which is built over these shared experiences and a beer and dinner at the end of each day.

**Geoff Sim:** *I thought the Safari would be a bit of a challenge... As it turned out it was a tremendous experience with the best company. The legs that stand out for me were when it came good after our struggle from Keepit on the Cobar to White Cliffs leg... it boomed over unlandable country and we spent the night underground in a place I had never been to ... Then launching into the gloom at Jamestown to end a spectacular days gliding to Marree. To sum up... excellent company... lots of fun and fantastic flying with all the challenge of doing your best to stay safe.*

**AG:** *Marree pub was our home for the next day or two and being slightly different from the usual run of tourists, we got a top welcome.*

*You know how we refuse to buy water in Oz? well, when the alternative is bore water, it suddenly becomes a grim commitment, but I got my mineral supplement. And didn't piss more than once in 48 hours.*

*Fraser, Lynne and Geraldine were taken in the Stemme and ASH out over the lake (some great photos) which made it for them because we'd been having fun the whole time but they were focused on making it to the lake.*

*In the evening we took a picnic in the 4WDs 60km up the track and walked out from the lake's edge to where things got sticky and sloppy underfoot and popped champagne to Lake Eyre. Geoff Sim caught a taste for bubbly from Geraldine which he refined daily over the rest of the trip.*

*The sunset reflected in the lake was superb and after dark, John and Paul decided to test the ESP and traction controls of the 4WDs... both vehicles tried to roll a couple of times but we got back to Marree pronto... at that rate, we could have done the Birdsville track in a few hours, Coopers Creek crossing included.*

Planning the return from Marree was interesting because there was no phone coverage and not much internet. What internet there was up there was secretly absorbed by Paul Thompson to post his scores on the OLC to get an (unfair) advantage over me!

We set off towards a Warriealpa station, 185 km away, expecting another great run but were surprised to find the thermals very hard work. It took a long time to get to cloudbase and turn on the oxy.

Then it all went to a sort of worms when the clouds rapidly overdeveloped. Ian B reported "zero lift, zero sink" for the rest of the task. Being at 11,000' and on final glide is fine except that the ground was high (Flinders ranges) and sloped down towards the Warriealpa strip at glide angle... so the last 30 mins of the flight were all at 2500' AGL... a bit nail biting.

Warriealpa is a working sheep station set in the eastern edge of the Flinders range about 60 km north of Wilpena Pound. Fortunately Paul T had been a sheep strangler in a previous life and was able to explain the workings of the shearing shed and help the following day with roundups and crutching. In most respects, this was the highlight of the trip. We were sleeping in the old shearers quarters and eating in their kitchen and dining room. Geraldine almost wore her camera out it was so photogenic.

**IB:** *The Safari Team of widely different personalities and interests increasingly melded into a happy frictionless group. The planned overnight stop at Wirrealpa Station that turned into a four night stay was a very relaxing and rewarding break ... there was no anxiousness to get away. And the highlights kept coming each day.*

We had a day out at Wipena Pound which is quite something... from the air... but a bit underwhelming when it's 30° and you have to walk miles for not much of a view. The following day was windy, rainy and blown out so we stayed where we were (possibly for two days... I can't remember!)

**AG:** *We lounged around all day, enjoyed a beer and a walk, helped out on the property - bit of fun. A visiting Cessna reported a mob of 200 wild goats, so sheep work (crutching, mustering, etc) was instantly dropped in favour of yarding the goats - good money when sent to the abattoir.*

*Wednesday dawned clear and sunny so we loaded up the 4WDs, sent the girls off the long way round via Wilpena and Hawker and Peterborough to then turn north to Broken Hill, and we took the straight run over the desert. Not a lot out there - couple of properties and that was it.*

*Below: The ASH 25 already on the ground at Wirrealpa. Coming in at about 2500' agl was a relief since that had been my height above ground for about 30 minutes. The strip looks remarkably like the Google Earth version!*







Our diagonal across the Strzelecki desert to Broken Hill to make up the lost day meant Lynne and Geraldine doing an epic 7 hour drive along the other two sides of the triangle while we soared effortlessly at 12,000 over the trackless waste below. Or so we had hoped.

In fact, the day was very tough. We had about 260 km to run which should have been quite easy except it was cold, stable and blue with high cirrus blocking out much of the ground.

The thermals were weak bubbles, often difficult to centre and topping out at 5,000' early in the day. So we got to see a lot more desert than we'd planned. I would have said that we got more than our just deserts, but I will leave that sort of comment to Al Giles.

**AG:** *The lift wasn't strong or high and was a bit broken and the day died as we got into BH, so no arguments as to where we would spend the night. Good restaurant in BH, the Astra, champagne and good red with a good sirloin and a great quandong pie with creme Anglaise...it's a tough life, this safari.*

Gliding in to Broken Hill is difficult because it's a busy airport...getting enough height for a safe final glide was slow and long... then a Kingair from the RFDS called a straight-in from 15 NM and bumped me out of my approach, forcing an engine run to hold above the town.

The leg from Broken Hill to Cobar was another 400 km run. Again the day started blue, broken and slow.

There were tantalising CU way off in the distance... 160 km away as it turned out... which looked like vaporising before we arrived. But they didn't and at least gave you something to look at because you sure as hell didn't want to look down! It was a difficult day at 87 kph, made harder by our big night out in Broken Hill.

Cobar was really the end of the line. The taskmaster had proposed an easy 460 km run to Lake Keepit for the last day with an Plan B of landing at either Coonabarrabran or Coonable (or both). I was having enough fun that I would not have minded stopping at Nygan or slumming it at Narromine but the forecast over Keepit was not so good and it seemed prudent to push on... usual for this Safari.



For a change, the CU popping all over the place were delusional. Turning off the motor quite low after takeoff, it was hard to find anything going up very fast. In fact the ASH had to come back and do a restart. It was one of those days when you pass up on so many clouds that you finally have to take anything to get back in contact.

Conditions around Nyngan were as soggy as on the way out and getting over the Bungles at Coonabarrabran was hard work. I saw the ASH polishing rocks close to the observatory for some time while I went around the low end of the ridge to the south.

Keepit was almost in view with a couple of hours soaring still on the cards but the clouds were starting to break up and get even more unreliable. Big holes were appearing and it was a real gamble trying to pick a path around them and a mistake occasionally required a huge diversion later on the track.

The DG flew out of lift with only 30 km to go and the Stemme only a little sooner. The ASH had a technical relight over Cobar but with its long legs, managed the rest of the leg OK.

**What an event! What a couple of weeks! As I sat in my glider disconnecting the plumbing after touchdown at Keepit, I thought, "If someone asks, I will turn around tomorrow and do it all again".**

Each day, the Safari had taken us further and faster than we would have flown if we were flying round the cans and we'd flown and continued to fly on days which we otherwise would have given away. We'd flown thousands of km over ground where the previously faint-hearted would have fainted and we'd returned to tell the tale.

**AG:** *The bleak desert scenery was superb, even the times we had neither a waypoint nor a WAC to cover the area we were flying in!*

*It was a joy to observe Wilpena and the Chace and Druid Ranges from 11,000' ... no chance of ridge soaring them, we couldn't get down there. Lakes Torrens and Frome are almost as specky as Eyre, and crossing the Strzelecki Desert reminded me that civilisation is confined to quite a small part of Oz (Newcastle mainly). Wirrealpa was good too... got to check out (and help out on) a working sheep station.*

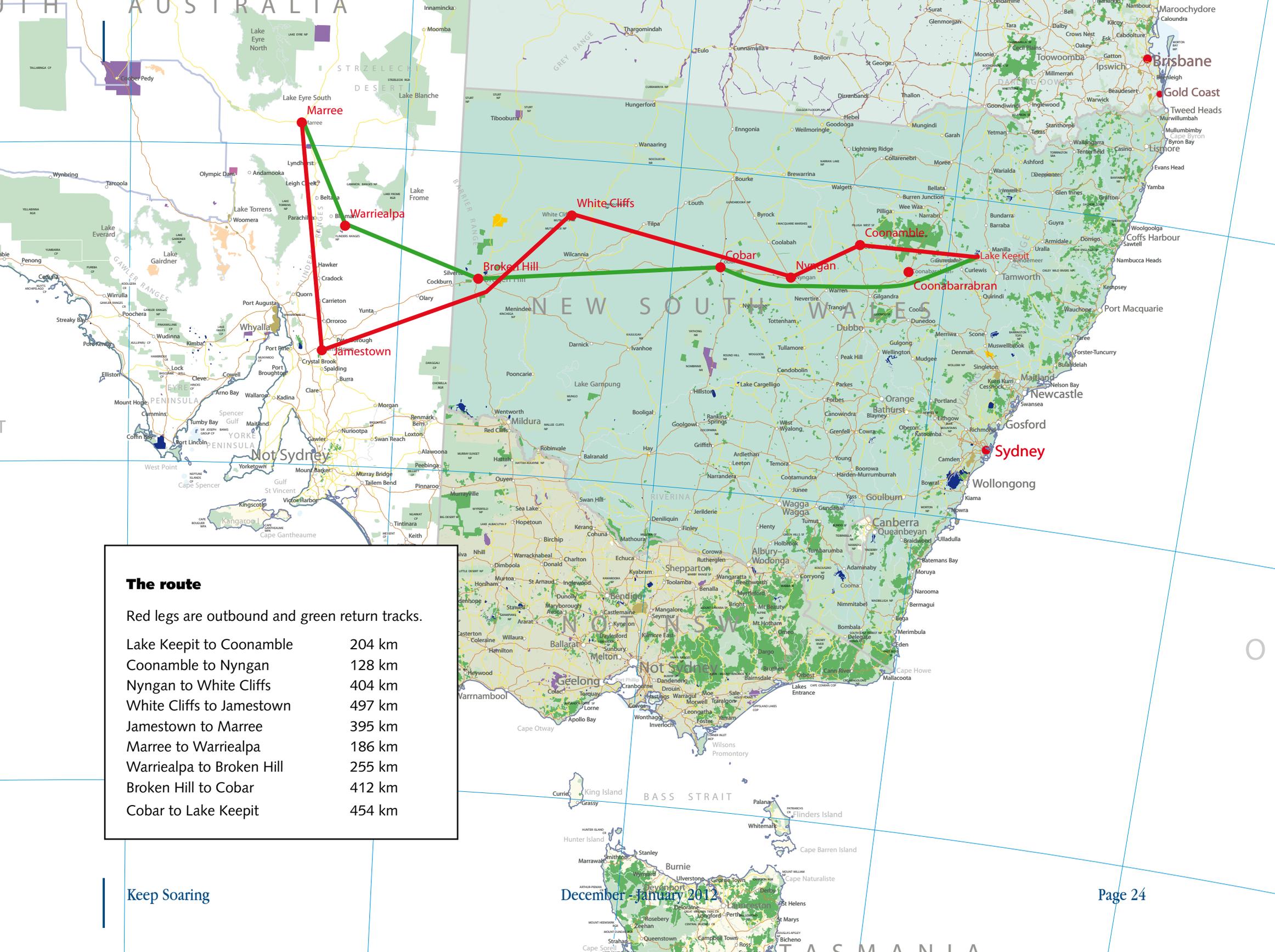
*Best of all was the good company, even of the iDevice people. All those in our little caravanserai were fun to be with, and having audaciously bluffed my way into the Stemme cockpit in the first place, it was a pleasant surprise to discover how well I got on with Paul and Lynne. I admired Fraser's tenacity... having signed up for a glider safari, he then drove about 4000km to get a glimpse of Lake Eyre. And everyone else looked like they were enjoying it as much as me. I even learned a little about iDevices. Just a little.*

iPads and iPhones were used extensively on the Safari by those who had them, running software for task planning, weather reports and general information with programs such as OzRunways. Did we rub in their superiority over simple eBooks and not-particularly-smart phones? Did we what!

This Safari was an event designed around the ASH 25. On almost all the days, the ASH got ahead in the last hour to land 10 minutes or more ahead of the rest. It was only let down by the difficulty of ground handling such a big glider with a non-steering tail wheel.







**The route**

Red legs are outbound and green return tracks.

Lake Keepit to Coonamblabran	204 km
Coonamblabran to Nyngan	128 km
Nyngan to White Cliffs	404 km
White Cliffs to Jamestown	497 km
Jamestown to Marree	395 km
Marree to Warrietalpa	186 km
Warrietalpa to Broken Hill	255 km
Broken Hill to Cobar	412 km
Cobar to Lake Keepit	454 km





## G DALE COACHING CLINIC.

This was a four day event held at LKSC organised by the Vic, NSW and Qld coaching panels and run by G. Dale, a top ranking British pilot and coach (who is known to one and all simply as "G". The event I attended was for pilots of any ability and this followed a similar event run over the four days prior for Australian coaches.

The event was also attended by LK members Greg (AKA Chris) Bowman, Matt Atkinson and Bob Dircks. There were also members of Temora, Central Coast, Hunter Valley and Kingaroy clubs attending along with David Wilson (Vic Head Coach), Greg Schmidt (Qld) and Ross McLean (NSW).

Total number participating were probably around 8 or 9 full time with others coming and going so it was on a much smaller scale than Speedweek. The format was supposed to be a combination of lectures, dual flights in the LK and Kingaroy Duo Disci with either G or David Wilson on small tasks, and solo flights on small tasks with post flight analysis of traces by G using See You.

The thermalling issue was just one aspect of the clinic. The theme overall was identifying areas of our flying where improvement is possible and could be achieved. Bruce Taylor even acknowledges that he found a couple of things at Uvalde that Brad does better than him. If we think there is simply nothing we can improve in our flying, then don't change anything, don't try anything different. If by analysis of task traces on See You, you find another pilot is clearly doing some things better, focusing on this particular aspect might be worthwhile. Once we are happy that

that part of our performance, it might be good to lock whatever we are doing in and move onto focussing on another aspect. G made the point that sometimes significant improvement can be brought about by just improving on one aspect.

Before G became a full time gliding coach/instructor at about 30, he was a professional piano teacher. Having studied musical instruments for many years, I believe there are many similarities between the two endeavours. To play well, you have to put the practice time in and do it in a productive manner, you have to identify weaknesses or areas for potential improvement and work on those, and when those are sorted, go through the whole process again to see what the next issue is likely to be holding back overall performance.

The big question during the clinic which was asked by several participants in different ways was: Is there any way that progress towards becoming a proficient glider pilot can be short-tracked by coaching, or at the end of the day will proficiency just be related to hours flown ? Gs answer obviously was that considerable short-tracking can be achieved by coaching and directed practice.

In music, there used to be a saying that "practice makes perfect" but this should be changed to "perfect practice makes perfect" as it is easy to bring out the hours just doing the same things without achieving any significant improvement.

I am surprised in gliding that coaching is not an intrinsic part of glider pilot development. There is certainly an attitude having to work things out for oneself to progress which is contrary to most other

similar endeavour where coaching plays an important part in ensuring maintenance and development of skills (eg elite level sports ... tennis, cricket, golf where coaching is applied to top ranking participants.)

Unfortunately, the weather did not co-operate with the first two days being non-soarable (*except for the return of the Lake Eyre Safari from Cobar, 460 kms away on the first day! Ed*). Nevertheless, G proved to be a very accomplished lecturer/teacher and the sessions were very interesting and informative giving many new angles to the familiar topics.

Because of the days lost to weather, the dual flying programs had to be rushed through with G and David Wilson taking on two dual task flights per day for the two days remaining.

I flew with David in the Duo but unfortunately we landed out in a barley field about 10 km short of the finish (David was not endorsed to use the sustainer). Still, it was a useful exercise. Post solo, we probably do not do enough dual coaching type flights (as distinct from AFRs) so can develop bad habits, or not develop requisite skills for cross country flying. Discussions and reading books can only go so far.

Following on from Speedweek the week earlier, I found it very useful and G's method of presentation was well suited to low time pilots getting the key concepts through very well without too much mathematics or complexity (eg "...I have three basic speeds I fly at Speed 1 when I am not happy, Speed 2 when I am happy, and Speed 3 when I am very happy !" .... ).

Anyway, I got some good points out of it and I think the other LK attendees were the same. I think the coaching panels are looking at how this could be

fitted into the annual calendar, but it would very much depend on G's availability.

On the Monday night we were treated to another feast at Chez Dircks, and on Tuesday, Joy whipped up another great dinner for the mob at the Club which was much appreciated.

Although small this time around, if properly marketed and promoted this could easily grow into being another significant annual event at the Club.

John Trezise.

*AB: I can only add that I agree with John that the G's visit was a great success. In fact it was so absorbing that none of us stopped to hear the Melbourne Cup on Tuesday and that was a first for me in more than 50 years.*

*Flying with G was fascinating. His analysis of the sky was impressive and his tracking of lines of lift exact. And he reckons we Australian's go about centering thermals the wrong way and was able to demonstrate why.*

*I learnt a lot and hope he comes back again soon. Now to put it into action.*

JC: Great! I'm glad I know that now and will never do it wrong again... So is there any expansion or clarification of this?!?

GS: Re: thermal centring: G. Dale covered this very well in discussion with the coaches a few days earlier.

He reviewed at least six different techniques that are taught for centring a thermal. Some directly contradict each other. He did not reject any of them. Centring is not an easy skill to learn or to teach.

There is one technique that G teaches specifically to pilots who have NO IDEA where the centre of the thermal is: fly with gentle bank so long as the lift is weak; fly with steeper bank so long as the lift is strong. He says that this is terribly inefficient, swinging the glider in and out of the thermal without getting closer to the core. But it is "low risk" (one of G.'s watchwords).

I remember that G. taught this technique to some solo pilots when he and Annie Laylee instructed at Lake Keepit through the 1995-6 season. He said to me: "I get fed up with seeing solo pilots back on the ground every ten minutes, and it is bad for club revenue."

For myself, I much prefer to see pilots learning how to find the core from their very first encounters with thermals.

*JC: How well I remember our animated discussions from a few years ago about my hang gliding thermalling technique (where we tend to bank tighter in lift) compared with your suggestions for opening out in lift. I think that the gist of the conversation was that you thought I did not believe your method worked while the truth was more that my technique was not adequate to follow your instructions. I am mostly cured now, and do as I was told :-)*

*I also remember that John Hoyer told me off (gently in the normal JH manner) that I didn't spend enough time searching for the best lift but was content to circle in the first reliable bit of the core I flew into. HG*

problems again. I am also mainly cured of this too.

*The first part of this season and several days on the Safari were typified by days where there wasn't any traditional ISO 9002 core but either several quasi-cores or thermals where one core would suddenly expire and you'd find a new and better one a few hundred metres away which might work for another thousand feet or so.*

*At other times, the thermals conformed to DIN standards and you could just aim for the right part of the cloud, count to five and crank the glider over into 11 knots. Even though there might have been a part of the core which was going up at 12 knots, the time spent in the thermal was so short that recentring was hardly worth the effort.*

*In the parson's egg type of thermal (and I am not sure if there is a DIN standard for parson's eggs), if you have a glide computer which shows a snail trail, you can be reasonably sure that you have flown a good circle and if you hit a bubble, you can be reasonably sure that you can fly back through it... so you can be as reasonably sure that what you are in is as good as it gets for the time being.*

*To get the best out of these recalcitrant thermals, I think you needed to be fairly flexible in what you do and to search more widely both at the time of entry and the time you gave the core you were in away, and in accepting the idea that there might be another "core" worth circling in. You also needed to be prepared to accept a climb which by traditional standards is uncentred... at least until you get enough height to change gear or look for something better.*

JT: I guess what G Dale is saying is that there are many ways to skin a cat and some will involve less scratching than other ways and may be considered as the low-risk approach.

It's amazing that thermalling techniques can still be a matter of contention. With us mugs, G was much less diplomatic than he appears to have been with the coaches. His line was that Australian pilots don't know how to thermal, and whilst their techniques might work here with big thermals, they don't work in Europe with the smaller weaker thermals encountered there. He said that having flown with a number of the coaches over the last couple of weeks, this view he has held was reinforced.

The key issue was what to do when the surge was encountered. Do you flatten the turn, or bank up? Australians he believes flatten the turn whereas they should dramatically increase bank, and flatten only if the lift decreases. He believes straightening or flattening is a good way to lose the thermal as, it is most possible that you will fly out of the thermal. If the vario peak is being relied upon, the 1 - 2 second delay plus the position of the probe, plus pilot reaction time could carry the glider well to the outer edges of the thermal before the turn takes effect whereas an immediate banking action will be more likely to retain the glider in the core. If the lift eases, a reducing bank action will bring the glider back into the core.

Apparently, hang glider pilots are told to bank up immediately when encountering the surge and are bemused when converting to gliders that the advice is the opposite!

G believes Australian pilots will always have difficulty competing in Europe until they learn to thermal correctly.

Disclaimer: These comments reflect my understanding of the discussion which took place. I must say that I tried this technique on a cross country flight and found it worked really well. However, one of the other coaches commented that he did not think it worked at all.

What has come out of Speedweek and G. Dale is that the vario alone should not be relied on and it should be turned down so the decisions were made on feel as well as vario indications.

*G(C)B: It is a great relief that by sitting back and waiting for just a brief period someone else would explain G's proposition far better than I ever could. I can only reinforce John's comments that I too found G's technique worked well. I only regret I did not stay a further day to test it further.*

JennyG: This is interesting.

I believe that I bank up as G suggests - because by the time you have registered that you are in the strongest part, at sailplane speeds you will be right out of it again if you don't! The problem is how do you know whether you are in the main part of the thermal or just a misleading bubble? How do you find the centre of the best bit and how do you do it quickly?

In speed week, the seat of the pants, was the favoured lift indicator, as there is less lag than the vario, and I agree with this too. In fact the pilot flying the LS6 was obliged to use this method during the whole task one day as neither vario was working! However Ingo did tell us that he took his own vario with him when flying at various international comps in borrowed gliders - so the vario is still important.

I have also tried Garry's technique of moving the circle away from the worst part of the lift - which seems to work OK when the thermals are large, but when they are small and D shaped, you end up moving the next circle back again! Therefore the next thing to try is to make the circles much smaller to try to keep the whole turn in the lift - i.e. bank up more. During speed week, I spent a whole day struggling with what felt like D shaped thermals thinking I couldn't thermal for toffee - only to find that everyone else was having almost as much trouble as me.

I think a lot of pilots don't bank up enough - but then again it seems to be a law of thermals that everyone else in the thermal looks as if they are turning flatter than oneself. I found this to be true both with hang gliders and sailplanes!

*GS: It is quite clear that, as G. said, there are many techniques in use. As I said, centring is hard to learn and to teach. I am always amazed at how what people say I teach is totally different from what I think I teach.*

*I must protest that I NEVER teach to "open out in lift" as John Clark wrote. I think what he is referring to is "Open out towards the lift." A very different thing - you must be almost certain you know where*

*the lift is before you open out. If you get it right you will again be pulling hard into it just before the surge arrives. To my mind, banking in after the surge arrives is too late.*

*As to G.Dale's claim that Australian pilots' technique would not work in small European thermals, my experience with pilots visiting from Britain is the very opposite (and I said so)! They are the ones who fly as if the thermals are enormous. I have to tell them firmly to pull in much tighter!*

*I am surprised that Jenny thinks that the main technique I teach does not work well on small thermals. I use it myself when I am pulling as tight as I can. Every dip in lift strength calls for a slight shift of the circle. In such thermals I often find that my co-pilot is happy to leave it all to me!*

*The words definitely get in the way in this subject. I believe people argue fruitlessly about "lift" when one person means the surge, another that the vario pointer is rising, and a third that it is staying at a high value.*

*With the benefit of G.'s overview, I am thinking of having a go at the subject myself, but the project will take some time. It must:*

*Reconcile different views;*

*Be very easy to understand;*

*Explain the advantages and disadvantages of different techniques;*

*Suggest how to learn to do it;*

*Etc.;*

JacquesG: When I first started to fly gliders I was taught different methods to centre a thermal, Jenny,

Gary and Jay were among the people who greatly helped me centering a thermal, at the time the tuition was invaluable and without that solid foundation I would still be doing circuits, but nowadays, I feel the things are a bit different.

I do not think centering thermals is about a technique you use, it is about feel, yes IF I have a 100% clear picture of what the thermal looks like and where you are I will do like Gary said and I will turn right into the core before vario or seat gives me any indication but that is just one case.

Often I will feel that I was too optimistic and the thermal is much more narrow than the "Last" thermal so I will have to do a turn and fly straight, and use the "Bruce" method of the larger circle getting more narrow as I feel it increasing. Some time XCsoar will tell me exactly where the core is and I will bank 45° and pull where it tells me it is because I think "this time" it matches what I "feel" or I have nothing better to rely upon.

Sometimes I would do what Jay told me and look all around to get any help from anything that can help. And sometimes I just can hear Jenny say " just fly the bloody thing"

All in all I do not think there is a magic miracle method of centring thermals (even the bloody eagles got it wrong sometimes) it is just about creating a picture of the thermal in your mind and getting the glider where you think that picture is with whatever ability (and sometimes dirty tricks if no other glider are around) you have.

Now deciding which thermals to keep within a turn or two.... That is the real challenge J who cares if you only get 3.9 kts of a 4 kts avg thermal while you could be circling in a 6 kts.

*JH: There is nothing to stop you having more than one technique for centering thermals in your repertoire. The method I use most of the time involves feel and intuition and usually works well but some days it is useless and I try something else.*

*Your comment "Now deciding which thermals to keep within a turn or two.... " worries me because your wasting time. You must be able to reject a thermal quicker than that. Perhaps your instrumentation leaves a little to be desired.*

*Modern vario's generally give good results and are configurable to suit the owner which is great until they are fitted into club gliders and then everybody gets to tweak them! It is important to have good total energy system so as to be able to slow down and pull into thermals with the vario giving an accurate reading in the shortest time. If you can sample the thermal in the first 90 degrees of a turn and it fails the test then you just reverse the turn and go back on track. When you're ready to take a climb slow down from your fast cruise and look for a strong, solid thermal rather than a surge that will disappear and remember, keep searching.*

HM: As one whose background is that of a winch launch pilot regularly finding lift after a 1,400 ft launch at best and specialising in long distant flights and regularly flying and making distance for 2 hours when

thermals were lucky to reach launch height, then these comments may be helpful.

In conjunction with Gee Dales advice :-

A fast responding audio vario with accurate total energy compensation is essential. The pilot should be very familiar in its use.

The angle of bank should be in the range of 40-50 degrees. To ensure this a 90-45-45° plastic set square can be placed on top of the instrument panel with the 90° point pointing upwards. An alternative is pieces of tape or marking the canopy appropriately.

When thermalling an edge of the set square should be on the horizon. This gives a subtle indication of where the best lift is. If the edge lifts closest towards the centre of the thermal, even by a very small amount, then the angle of bank needs to be tightened for no more than a second at that point.

Similarly, if the outside of the set square lifts then the angle of bank should be flattened for no more than a second. It may take several adjustments to centre a thermal but the each must be small or the risk is of losing the thermal.

A weak thermal may have a potential climb rate of 200 FPM. Initiating a less than perfect turn may generate a sink rate in excess of 200 FPM so that even if you are in lift, your instruments will not show it. Practice in smooth air, making sure you look out both ways first, a balanced turn of not less than 45° angle of bank, executed as promptly as possible.

The skill to do this is essential low down when thermals are usually small and weak. When you first try this you may well be surprised at your lack of skill and just how much height is lost in 360 deg .

My belief, although sure some experts will disagree, is that thermals expand and strengthen with altitude. It is most unusual, except perhaps on a hot summers day, to find a strong broad thermal below 1,000 Ft. but common at greater heights.

Not sure why, entrainment of adjoining air certainly occurs and air expands with the reduction in pressure with height, but this must be balanced with the contraction caused by cooling. It is possible that amalgamation of thermals occur with height.

What is certain is that when low finding and successfully working a small weak thermal is an essential part of a glider pilots skills. At altitude, it is quite different. My experience is different to G.Dales' in that when one encounters a strong surge or a lifting wing, full aileron and rudder are immediately used to commence a turn.

The thermal can be trying to kick you out and strong control inputs may be needed. Quite different when you want a climb and the lift is weaker, then more polished flying is required, similar to when low.

The hardest part is determining when initiating the turn is to decide whether to complete the turn or to roll the other way and search there. A wrong turn can cost you 100ft and lost distance.

The other gliders will be off in the distance if you make this mistake. How to avoid it? The decision must be made by the time you have turned 45 or 60° off track. Of importance is that your turn is smooth and that you have an accurate fast acting audio vario. With practice you will gain the skill of making a good decision before being committed to a 360° turn.

Another point which is a personal preference. I set the vario so that it doesn't give an audio signal between thermals but starts beeping when in rising air. Having the sound going hour after hour is distracting and one becomes inured to the noise.

Better to have sound when in good air close to a thermal and one is concentrating on just where the best air and thermal are located.

*IM: Interesting Harry. Personally when low I put big emphasis into achieving lift in a full circle and so I guess you would say initially I am are trying to move away from the sink in a circle. Once this is achieved I then work on re-centring the thermal. I do then like to compare the 20 sec averager with the overall average from bottom of thermal*

*Re: sink tones I set a dead band of +/- 25 kph so in effect I get no sounds in sink (I hate that noise).*

*I totally agree winching sure makes you try and get away. Dick Johnson 30+ years ago would use autotow and that really taught him to climb away in those days below 1000ft.*

*I was wondering what Gee's thoughts were on actual entry into thermal.*

HM: Ian has raised a point which was missed in my hastily cobbled together ramblings which sought to address some of the issues in earlier emails. It was not intended to be a treatise on all aspects of thermalling.

Completely agree when low, and that means really low, you have no option but to complete a turn once you have initiated it. Often you are partly in and out of sink and not climbing. There is no surge to guide you and then moving away from the sink in small increments is an excellent procedure. Making certain

your turns are tight and well balanced with minimal control inputs is all important

Ian is a highly experienced pilot and a good instructor. We have many very good instructors and pilots in Australia both in early training and cross country flying. Not sure why we have to spend many thousands of dollars bringing in talent from overseas, even when it is of undisputed quality.

*GS: This particular exercise was extremely good value, in my opinion. The cost, in fact was very small, as G. was simply diverted from his annual trip from England to New Zealand.*

*I found G. Dale's work exceptionally good. He is not only on top of the subject, but has a style of presentation that would be hard to beat.*





## IN THE HALL OF THE MOUNTAIN KING

Al Giles

The Keepit Kentucky Derby (2011 edition) was a long weekend with wave, thermal and storm lift and sink, outlandings, over-the-hill aerotow retrieves, Fudpucker lager and wheel-down soaring – something for most.

Aerotowing the Duo from Keepit to Kentucky provided a good example of how different the weather is from the flatlands to the top of the Divide. Chris Bowman and I started the aerotow behind Luke in MRP at 0930 Friday in perfect sunshine. As we approached the Tamworth control zone, little fluffy cu's started to pop with a base of 3000' QNH, increasing to 5/8 as we climbed the Moonbis, and then to 8/8 over the Divide, so that we were scooting along on tow just below cloudbase (now 5000') and about 1000' AGL.

Since some of that country would be interesting to land anything other than a hang glider in, it had our full attention – especially as the first tow rope had snapped near the rings when we started our takeoff roll.

With Kentucky identified ahead, we pulled  
**Keep Soaring**

the bung and MRP dived away to Armidale for its 100-hourly while we tried and failed (OK, I failed) to milk the gentle bumps below base. The grass runways at Kentucky are beautifully mown and ZAB rolled smoothly to a halt by the hangar where lots of gliders were tied down but no one was to be seen.

It's 4km by the track from the hangar to the Huts (the shearer's quarters where the pilots stay), so when a passing stockman offered us a lift in the back of the ute with the dogs, Chris and I were willing to practice our barking. Way back, get waaaaay back...

We arrived in the middle of briefing, which Bruce Taylor, our host and recent Pre-Worlds winner, gave each morning, along with a talk on mountain flying. Europeans and Sierra pilots would still regard 4000' ASL as the flatlands – after all, it's easily landable everywhere around Kentucky itself – but as flat-earthers from Keepit, we found it nose-bleedingly challenging stuff.

Bruce and his brothers own and run a fifth-generation family property, now producing superfine merino wool, where it snows every winter. One of his brothers imports, sells and teaches riding on Ural sidecar outfits on the property (a Ural is a Russian copy

of a captured 1944 BMW motorbike with bolted-on sidecar, originally intended for mounting a machine gun on – ask Vic how they handle). So this is one of the few sheep stations where you might see a glider being aerotowed one way while a platoon of WW2 motorbikes 'flying the chair' head the other. The Russians are coming...

Bruce thought the day had good potential for when the 8/8 cloud cover broke up, and as usual he was right. The solid overcast realigned itself into perfect cloudstreets, although still almost within reach of an outstretched arm from ground level. We repaired to the airstrip and Markus (Brad's son) arrived in IGR, Brad's immaculate Pawnee 285 (flush-riveting on a Pawnee?

Surely this is lipstick on a tug). Bruce took a tow in his JS1, and we watched him duelling with gravity close at hand before he climbed away to base and above...above? Yep, there was thermal wave over the top of the cloudstreets, and one by one we tried to match him, only to fall ignominiously back. 'It's easy', Bruce called over the radio, 'just thermal up on the north side of the streets'.

So Chris and I did, and thermalled right back

down again too, although for a brief moment there it looked like we might even succeed. John Hoye and Chris had another go in the Duo, Greg Wilson in his Pegase, Gary Ransby in the ASW20, Discus Dave (one of them) and Harry and Wendy in the LS8 all gave it a go and I may be doing someone a injustice here but I believe only Bruce could get up into the wave without being aerotowed there first.

Just to rub our faces in it, he landed the JS1 and took Louise Ransby up in the Duo to prove it was no fluke, and after disappearing effortlessly upstairs, rocketed up and down the wave lines at will until the sun headed for the horizon and we headed for the wine and nibblies.

Louise was wandering around with an ecstatic look afterwards - a glorious way to experience silent flight, with Bruce in the Duo zipping along wave lines from the gorge country to the western plains; I don't think she'll forget the 11.11.11.

Dave Shorter had picked up his new JS1 at Wollongong dock that morning and the trailer was ceremonially opened and the glider christened, while Carol looked on tolerantly at her new competitor for Dave's attention.

Harry's new Volvo developed starting problems and it was banished from the Huts, to be supplanted by a hoonmobile – a Holden sports car, much to Wendy's delight. Anna rode up on her 650GS and a good time was had by all.

Next day at briefing Bruce explained how the weather systems had been working and had the grace to acknowledge that it was a most unusual and interesting day. We agreed that it was certainly unusual

that we couldn't stay up, but as the perfect guests we said nothing about his lack of grace in showing his guests up so thoroughly.

Storm clouds started to grow as we headed for the airstrip, but they were well spaced and we all launched one by one as light lift started to turn glorious with cloud streets at 8000' QNH running east-west from the gorge country to Gunnedah.

The braver pilots joined Brad in his ASG29 and Bruce in the JS1 in streaking out past Keepit and running back to Kentucky.

Gary got caught by a raincloud at Armidale and decided to have a rest on the grass cross-strip there, hoping that someone would venture over and demand his ASIC. 'No one came near me the whole time', he said aggrievedly after Markus had towed him out of there.

**Gary turned to Louise and said, 'Dear, I need a JS1'. She replied sweetly, 'but darling, you tell me that your present glider is already a better aircraft than you are a pilot... that would only increase the gap'.**

Gary was noted to be slightly damp around the edges and explained that he had been trying to shelter from the storm under his wing. In hang gliding, you get low aspect ratio gliders and high aspect ratio pilots, so shelter from rain and sun is easier to obtain.

The same rainstorm put Brad down in a paddock near Kingstown, from which Markus also towed him. 'I've got no idea where I am', said Brad on the radio

to Bruce's question. From landing hang gliders there, I knew there were very few fields which conformed to the definition of an aero-retrievable paddock, so I quizzed him afterwards.

'Oh yes, I paced it out – it was 700m'. 'On the level?' 'No, over a hill'. During the ground roll, the Pawnee had been taking off downhill on the far side of the hilltop, out of sight of Brad who was rolling up the hill on tow. They breed 'em different in the hills...

Bruce announced slightly shamefacedly that he needed an annual check, so John Hoye took him up in ZAB. Not sure if he passed but Bruce did a beautiful beat-up in the JS1 a bit later, possibly a required procedure, after which he took some visitors up in the Duo.

Greg Wilson, an ex-hangy I hadn't seen for 20-odd years, landed his Pegase and was silly enough to offer it to me, so I took the offer with alacrity (alacrity is almost my middle name) and launched before he could change his mind. It's a French copy of a German single-seater, and was just the thing for following the streets out to the west.

Harry came with me in the LS8, after Wendy had been cruising up and down at base in it for an hour or two. Discus Dave (both of them) were out there too, and Allbutts took the Duo up with Chris Bowman.

At 400'AGL on tow, Allbutts adjusted the trim (he thought) and the rope and tug promptly disappeared, so the Duo arced gracefully around and landed back the other way on the main strip, rolling all the way back to the launch point as though he'd meant it all the time. It was a delightful day and the undulant hills were green and bountiful...very hard to take.

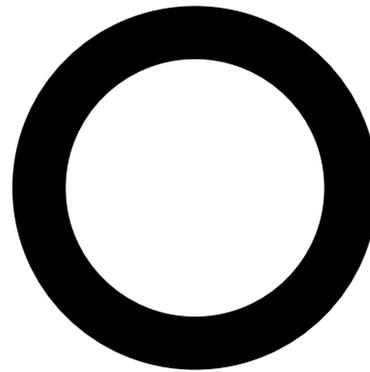
At last, reluctantly, we tied the beasts down and headed out to dinner at the Eastview Estate winery in Kentucky village. We started the evening with the products of their boutique brewery, such as Sick Puppy ale and Fudpucker lager, and continued with their 'Falling with Grace' gliders' label red, served up with intriguing hors d'oeuvres and solid steaks, very hard to take.

Allbutts reports having quite a good conversation with the geese in the garden after this repast. Following a stopper of a dessert with stickies, we retreated to Bruce and Anita's for coffee, chocolates and midnight conversation, while the rainstorms started to rumble outside.

Next day, base was on the deck and the rumbling was all around us, other than to the east where we weren't going, of course. It was obviously not VMC, so after a country breakfast in the Huts, we headed for the airstrip and put the birds in their boxes, a glider at a time between rainshowers.

The Duo Bruce was kind enough to put in his hangar and it spent the next week there comparing wingspans and aspect ratios with the JS1. David and Ann Bull kindly rearranged their car and gave me a lift back to Keepit, and Chris Bowman rode with Gary and Louise. The storms we drove through made me glad we hadn't tried to aerotow back, and the storm that hit Keepit at 4pm that Sunday was a beauty, with hailstones larger than golfballs, as Vic has described.

Many thanks to Chris Bowman for organising a great weekend of flying and fun, and to Bruce and Anita for being tolerant enough to host our motley crew. It's on again next year...



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## ALL HAIL INTERESTING WEATHER!

Was it Garry Speight or Einstein who said "May you live in interesting weather"? I forget. Anyway, here's the story from David Bull...

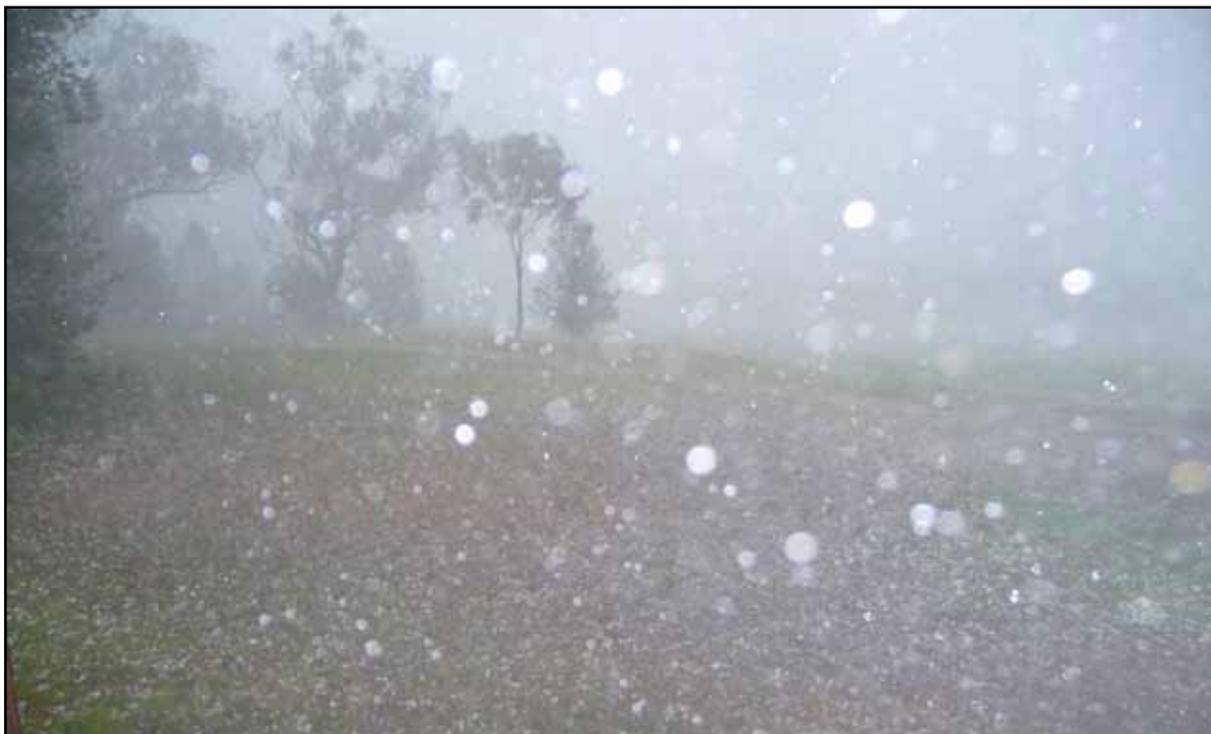
We arrived at the club on Sunday 13th November after Kentucky. It was late afternoon and the storm clouds were building to the west in a rather nasty way. Gary Ransby suggested I put my car in his hangar along with his as he thought there could be a bit of hail around. I did this as it was getting darker and darker and our trusty President followed us to the hangar in his car to take us back to our cabins. He was very caring and concerned we might get struck by lighting.

Both Gary and I suggested Chris put his sporty XR6 bright yellow ute undercover as well, to which he replied:

**"It won't hail and besides it is not my car....it's my wife's".**

Well within moments it started. Firstly with one or two hail stones, but they were enormous. A moment or two later we copped the full force of the storm... hail stones bigger than golf balls and absolutely pelting down. The noise was scary and the force and size of the hail was something I have not witnessed in my lifetime. The hailstone on the cabin veranda rail will give you some idea of the size, I think the rail is around 150 mm wide.

As the storm pasted the hail stones reduced in size to around 10 cent pieces, however it was accompanied with copious amounts of rain.



however it allowed us and a willing band of helpers to tidy up around the club and carry out minor repairs. We managed to mow all the grounds around the club, between the hangars and the tie down area between the hangars and bus hill.

Unfortunately we came across a few dead birds, including frog mouth owls, galas and magpies who had succumbed to the hail. The Kangaroos seemed to escape although I am sure there were a few with head aches.

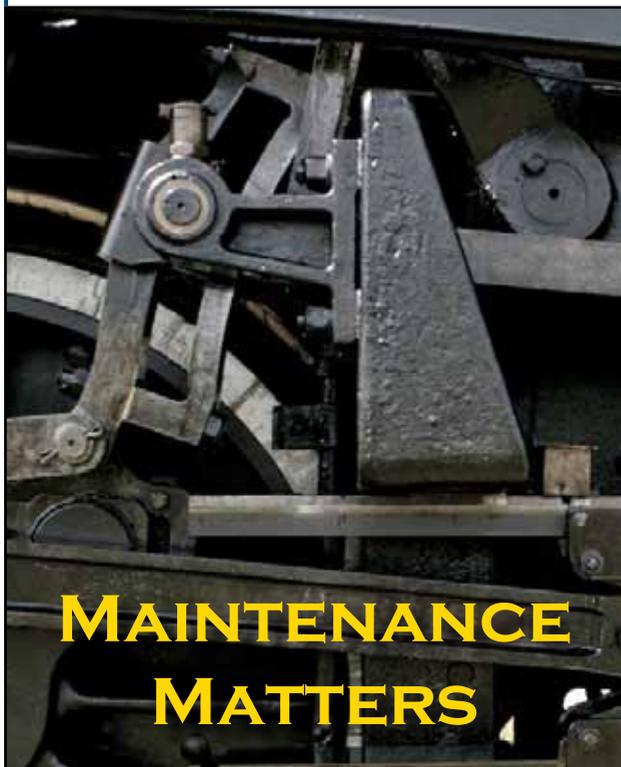
Gary also took the opportunity to give the trees and shrubs a good haircut and the girls continued with cleaning and tidying up the club house and cabins. I must say the club, grounds and adjacent areas are looking very tidy and presentable.

Within 20 to 30 minutes it had passed and there was significant flooding around the club, trees shredded and Chris's car looking like a the surface of a golf ball. (Perhaps you should leave out his comments about his wife's car as I don't think he would be too popular on the home front!!!!) Windows were broken in the cabins, the club house and caravans. The awnings on the caravans were looking like a piece of Swiss cheese and the glider trailers with aluminium tops were not much better than Chris's car.

Several hangars were inundated, some to a lesser extent than others although there did not appear to be any damage to aircraft. Your hangar was covered in silt but otherwise ok. Most were very smelly with the wet carpet so over the next couple of days we opened the hangars to allow a flow of air and bit of sun to help dry them out.

During the course of the week Gary and I managed just a couple of flights as the weather was not conducive to gliding,





## AIRWORTHINESS REPORT DECEMBER, 2011

Below, I have tried to present a comprehensive list of all issues in action or under consideration. The order is a bit random. Recent events have shown the importance of having as many people as possible being made aware of what is happening so things don't get lost, or to prevent doubling up of activities.

1. L Nav Units: The unit purchased for IUR has now been rectified by Macca and had been swapped into the LS6 to replace a faulty unit. The LS6 unit is now with Macca for rectification.

2. GPS-Nav Displays. The unit purchased for IUR is now in the Jantar as the unit destined for the Jantar

has gone missing. We must continue to search for this unit. Brief history of the lost unit is that it was the 303 unit which came with the Duo and was converted to a GPS Nav display and installed into the Junior. Earlier this year it was removed from this glider, and the unit purchased for the Jantar (from G. Dale in the UK) was installed in the Junior with the Junior unit going to Macca for repair. From here, the trail has gone cold.

3. The Borgelt probe for the LS6 has still not been installed. The probe itself is in my possession but needs two sleeves to be made up by Bob Dircks so installation can be completed. Low priority at the moment as the current probe seems to working OK. But I will keep it on here so it eventually gets installed.

4. Pee System Supplies. All purchased, packed, priced and ready for delivery to Keepit.

5. Jantar. Refurbishment completed and will be delivered back this week with the Form 2 to be completed. Lee Braithwaite has just spent 8 full consecutive days undertaking the re-wiring. I will circulate photos and descriptions of work undertaken when it is back in the air. The cost of this refurbishment is probably around \$3-4000 in parts alone with the major components being the GPS Nav system and the Borgelt B700 vario. Refurbishment has taken around 200 man hours. An altimeter for this glider was obtained by Todd from Rod Tizzard and is now ready for fitment after serviced and changeover of the QNH scale by Sigma.

6. Colibri 11 Logger. Now with Jacques. This is a simple device purely for enabling pilots to record traces for the OLC as the private owners of this service are apparently having issues with Cambridge. In all other

respects, nothing has changed with the legality of traces from the Cambridge L Nav/ Gps Nav system. At this stage, we should not get carried away with trying to exploit its potential capabilities (eg back up nav system, vario etc ...). Taking a bit of an effort to get this point through to Jacques.

7. LS6 Release Handle. New handle with swages in LS6 drawer. Needs to be fitted.

8 Junior Clear View Panel Bottom Rail. Replacement unit received from Poland. I will bring up to LK and have fitted.

9. Grob GFP. Completion now advised for March.

10. LS6 Wing Walker. Old unit with Bob Dircks. This needs to be repaired as the LS6 is now using the Jantar unit which is required for the Jantar.

11. IUR Trailer. As discussed when purchase of IUR was being considered, this trailer needs to be re-designed and altered. Need to discuss this in the New Year sometime. I would suggest we decide on what has to be done and contract the work out. The end result needs to be a trailer which will enable transportation of the Grob, and which will enable the glider to be packed away with a maximum of 3 people.

12. Hydraulic Lifter. The unit needs to be modified to incorporate a cradle, and to be fully castoring. I have modified a similar unit at my house at it works really well. Just a job for the future.

13. PNA/PDA Units in Club Gliders. I think this issue needs to be given consideration on two counts: use of glider battery systems, and use of suction cups on glider canopies. Please see arguments in discussion notes below.

## PNA/PDA UNITS IN CLUB GLIDERS

Since this issue has been raised a couple of times in the past 12 months, I would like to make a few comments as I believe we should think this matter through before rushing into any action plan.

Firstly, our focus over the last 12 months for the Club fleet has been to provide gliders which are both airworthy and capable of meeting the expectations of users. I believe we are now close to getting there (although it is still early in the season) due to the concentrated effort we have made to bring this about, and the good work of Jacques, Lee and others in doing the necessary work. So you will understand my reluctance to allow anything to happen which could interrupt this progress.

I don't think it is a right for anyone using a club glider to tap into the glider power supply and use this resource to power a PNA/PDA/Android etc they have brought with them. Nor should we allow attachment of devices to glider canopies by suction cups if we think there is any (even remote) possibility of this causing damage to canopies.

The power supply from the glider batteries in an airworthiness issue and requirements for aspects such as circuit protection, cable size, switching all subject to annual checking by airworthiness inspectors. The ability for the glider radio to operate satisfactorily is also a requirement in some instances.

Where we have come unstuck in the past is in ensuring that optional equipment (vario, flarm, GPS/Nav) operates satisfactorily for the duration of the flight. If any of these systems fail to operate satisfactorily during the flight, the desired outcome

from the flight might not be achieved, and the pilot would rightly be disappointed. This could mean everything from ending up in a paddock, not being able to verify a flight (badge, contest etc ...), or just not being able to achieve an optimum outcome from the flight (eg speed, distance). If a Flarm failure was involved, this could result in air safety consequences.

My contention is that by providing the means for the pilot to tap into the glider power supply devices about which we have no knowledge or control, we could be jeopardising our ability to provide this satisfactory package.

Some devices, particularly PNAs which are designed to operate in cars where current draw is not an issue, can require up to 700 ma to power their coloured moving map screens. Added to the normal draw on batteries, this could lift the total current drain to as high as 1.5 to 2 amps. A 7.2 amp-hour battery (the 7 figure is based on discharge over 20 hours) would provide usable amp-hours around 5 amps (and if this capacity is used on a regular basis, the battery won't last long).

So for say the LS6 which has only one battery, you are just not going to get home. Even with 2 batteries on a long flight could be very marginal. So the customer/member lands out, comes back home and is unhappy/demands a refund/tells us our gliders are crap/joins another club etc ..... There is also the issue of current draw through the glider wiring.

Apart from the Junior and Jantar, the wiring on the rest of the fleet, and the adequacy of fusing is doubtful.

So there are two approaches we could take.

(i) prohibit the connection of any device to the glider power supply, but allow use of such devices provided all power requirements (internal and supplementary) are provided by the user, or

(ii) provide the means for users to power devices they may bring along, either from the glider supply or through other means provided by the club.

Looking at the second option for the moment. Rechargeable supplementary power supplies are available through Wings and Wheels and Cumulus for around US100, however, these are designed for 5V PDA applications. Similarly, a separate 12 V portable supplementary supply would not be difficult to set up. So an option would be for us to have these available of hire.

If we did set something up to utilise the glider batteries, we would need to issue a warning to users of the potential issues and absolve ourselves of any responsibility for problems associated with batteries running flat during flight. In the short term, it is a simple matter to rig up a tap off one of the batteries which works off a link between one battery connector and terminal in the glider.

I made one of these with Matt Atkinson for the LS6 and it worked fine. It does not stay with the glider so its use can be controlled. It also does not require any wiring to the panel which would be a big hassle. The advantage of this is that it draws from only one battery so power can be managed to ensure the second battery is kept in reserve.

My preferred option at this time would be to have supplementary power supplies available which could be lent out to provide additional power requirements

for any devices so the integrity of our basic system is not lost. However, if we were happy that the device to be used was not likely to be a big current drawer, or if the pilot was aware of the risk and willing to proceed, maybe we could provide the connection.

The second related issue is the use of suction cup mounts to attach devices to glider canopies. Do we allow these on our glider canopies? Some of these are getting pretty strong with large toggle clamps and are designed for laminated glass, not 2-3 mm Perspex.

Many of our gliders now show evidence of these having been used with circles appearing on parts of the glider canopies. So there are two possibilities here: we seek further advice on whether these cups are likely to damage canopies, or we simply ban attaching them to the canopies of club gliders.

*John Trezise.*



# 2012 LAKE KEEPIT REGATTA

## 19TH – 25TH FEBRUARY 2012

**Do you want to improve your cross country flying skills?**

**Do you want to learn more about competition flying?**

**Do you want to fly in a relaxed mentoring and coaching environment?**

**Do you want to have some fun?**

**If this sounds like you, then the Keepit Regatta is for you!**

The Keepit Regatta is a fun, friendly and informal regatta, with entries restricted to 30 gliders. The idea is that this is a mentoring event where pilot pairs will fly together around AAT tasks. We match up early cross country pilots with a seasoned pro, and they compete together as a team, either in two gliders or in a twin. Only the slowest time of the pair is scored, so it is in the interest of the more experienced

pilot to coach and assist right throughout the flight. Coaching, team flying and mentoring are all encouraged at this event.

Really, this is a great opportunity to introduce budding cross country pilots to competition type AAT flying, while not getting caught up in all the formal competition hoo-hah. It will be run in a low key and relaxed way, all the while making sure people have fun.

We would like to get as many two seaters involved, so organise a few pilots from you club to share a two seater or two! We will be running a briefing session each morning where one of the experienced pilots will talk to a topic of interest of the pilots. We have lined up some hot comp pilots to mentor the less experienced pilots. So come along and learn from the best.

Contact David Bull (davidannb@bigpond.com) or look for the entry form on the website (in January!)