On Safari!

Another Wild Issue!

With

Almond & Michaela the Dentists

The Opera of the Skies!

Water Ballast

Block Speeds

Wild Animals

Sheep, Ghosts & Albatri

Tms wrts (in English)

Wave at Mount Kaputar

Macca with a Mo!

We may not be the best at what we do but we're cheaper and bigger than almost those other gliding comics with bad typography and no proof-reading

UNDER THE WHUP

One of my favourite American expressions is "Pussy Whipped". Like the words "uptown" and "downtown" I don't know what it means, but using it can get the leader of the opposition pretty cross where I live. Anyway, after she discovered that I tried to get a kitten through a mangle (at the age of 4) she gave away my cat and I'm not allowed to mention anything feline at any time.

Part of this draconian regime applies to my flying. If I don't fly enough, my glider will be sold. If I fly too much, my glider will be sold. To get the necessary minimum hours up, I had 10 days at Lake Keepit after Christmas, 9 days over the Regatta in February and another 6 during the Safari in March and got some great flying in.

Those of you who have read these editorials before will understand they're usually a roundabout way of making an excuse for the late appearance of Keep Soaring. Consider it made. I was flying.

Anyway, after the last "Revenge" issue, it was probably better to let things calm down for a while.

It turns out that Ian Downes will not be going to give me an easy time on my next AFR so I had better be good for a few issues and hope he forgets the picture of him in the bondage rubberwear.

After a very wet spring, the weather around Keepit was great over summer while areas to the north and south were not very good at all. Many overseas visitors, expecting the normal excellent conditions in South Australia, went home disappointed… they should have come up our way!

Maybe they would not have gone home with 1,000 km flights in their logbook but they still could have flown over 500s almost every day. While the southern sites seem to do well for a while in the height of summer, Keepit is flyable almost all year around and has a lot to offer pilots who want to get in days of consistent cross country flying.

A lot has gone on at the club since the last Keep Soaring… The Regatta, the Safari, the NSW State Titles, the Grand Prix… Membership is up, the manager has bought a new aeroplane and we've got a new tractor. That's the good news.

It was with some disappointment that I read the news that we are to have a new magazine called "Gliding Australia". "Gliding Australia will be dedicated solely to gliding including features, news, technical and club articles and much more."

Gliding! Surely that's exactly what the previous Soaring Australia mag was all about! But no! Gliding Oz will *not* be featuring the activities of any of those filthy disease carrying hang glider and paraglider pilots. In fact, I have heard rumours that the GFA has applied to have the word "gliding" registered as a trade mark so the general public won't confuse the exciting and energetic doings of hang gliding and paragliding people with our more sober flying.

At a time when sailplane pilot numbers are falling all around the world, our lot seem to think it's a smart idea to cut ourselves off from the single most likely source of new pilots. LKSC is regularly visited by flexwing pilots keen to try something new. A large number of our members have flown one or more type of flexwing. What's wrong with reading a few articles about a different sort of flying? (See below.)

Considering the quality of the articles submitted to the old Soaring Australia magazine by sailplane pilots, some of which are so dense that I have difficulty in understanding what they are about, I don't know how they are going to fill 6 issues a year.

Yes, it would be lovely to think we could do what Sailplane & Gliding does so well, but they have 5 times the pilot numbers that we have. OK… enough of moaning.

You have in your hands or on screen one of the last genuine tiger skin gliding newsletters in captivity. Stroke it, read it and enjoy!

The Editor

PRESIDENTIAL ADDRESS

Hi everyone, Another proud event in my life has occurred on the 11th of April with the birth of my second daughter, Charlie Rose. Mum and Charlie are both well.

With now collectively five grand daughters in the Carr clan, there is bound to be a resurgence in the women's gliding movement over years to come. While I haven't been able to get to the club since the successful Regatta in Feb, the Committee has been flat out cementing the future of the club following the Committee's annual planning summit just prior to the Regatta.

A number of initiatives are underway which are worthy of mention. Firstly, we are arranging a club working bee during the upcoming 4 day weekend in May, being the 20-23rd of May.

Al Butts is doing the honours of drumming up attendees for lots of good flying and good curries! One of the days will be set aside for the working bee where we are looking to tidy up the decks and railings of the cabins, lay a slab in front of the fuel pumps and many other chores that need to be done to keep the place ship shape.

Following the recent Committee planning Summit in February, the Committee has prioritised the development activity of the club for the next few years. We asked all Office Bearers to submit ideas for enhancing the club, and we then ranked these in order of preference and do-ability.

The funding for these initiatives is currently being investigated, and we have just submitted three grant applications to the Dept of Sport and Recreation. The three applications are to fund the following activities;

1. Airfield Health and Safety

a. Shade structures at the launch points

b. Deck and shade structure in front of the flight centre

2. Clubhouse and kitchen upgrade

a. Kitchen upgrade in clubhouse

b. Flooring in clubhouse

c. Extend verandah on southern side of clubhouse

3. Airfield improvement project a. Irrigation installation

b. Purchase of a slasher

c. Soil improvement and grassing

Thanks go to Chris Bowman for doing most of the legwork to get these grant applications submitted. Can you all keep your fingers crossed that these proposals get over the line.

Chris Bowman and I are meeting the new local member to start the lobbying process next week. As previously noted, we were successful in receiving a capital assistance grant to facilitate the sealing of our entrance road.

This upgrade is due to commence in May, thanks to Sam Clift and Ron Cameron who are doing the heavy lifting on this project. So far this year the club is tracking well financially with hopefully a better result than last year.

One of our goals for the year was to increase membership to 120 from 100 at the start of the year. As at March we now have 116, with three months to go.

Thanks must obviously go to Ian and all the Team at the club for doing a magnificent job in promoting the club to new members! Membership growth like this almost unheard of in gliding clubs these days.

A great effort so far, and only a couple of new members needed to achieve our goals. Who can you introduce to the club?

Unfortunately we have seen a rise in incidents and accidents at Keepit over the last few months, with fortunately all having occurred without any injury to the pilots involved. While the Training Panel looks at every incident at the Club to work out how we can improve our safety, it is important that safety is every pilots primary concern.

Each pilot operating at the club needs to keep this front of mind, in order for us to operate in a best practice environment with regards to safety.

While safety is paramount from a personal safety aspect, incidents and accidents have also cost the club dearly this year. I ask every member to keep this in mind, as every dollar the club spends on repairing equipment could have been used to further develop the club, and every dollar the insurance company spends repairing aircraft costs us all in the long run.

Can I please ask everyone to think safety! Most recently, we had an accident in the Grob 3 in April, which resulted in the tail boom being broken off. Very fortunately, the pilot was uninjured.

Current indications are that it may take through till November to have the repair completed.

I look forward to catching up with everyone in the coming months as home duties allow!

Tim Carr

The Opera of the Skies!

For a number of reasons not worth repeating here, the 2010 edition of the Keepit Safari was run in March 2011.

The idea was to go down to Corrowa or Benalla in the deep south. Armed with suitable WAC charts as far as Antarctica, the relatively small but intense fleet of Michael and Bronwyn Shirley in the ASH25, John Clark in a DG-808 and Ray Tilley and Al Giles in the Duo Discuss set off for points south in search of adventure.

Al Giles begins the tale…

Ray and my outbound flight was fast and fun. After a false start to sort vario and battery problems in the Duo, we got going well after John in the DG and Bron and Michael in the ASH had disappeared over the horizon, and by then the horizon itself was starting to disappear as the cu's got taller and closer together.

Cumulus castellanus...well, there were certainly castles in the sky as we took the straight line to Narromine, destination for the day, with the hope we'd get there before it OD'd.

And hey, it was a glorious day, with solid climbs under the close-spaced cu, even if cloudbase was more basso profundo than coloratura.

Glad to be on our way, we raced along the hills west of Gunnedah, waved to Mullalley Mountain, sniffed the smoke of a fire at Tambar Springs, then dived into the tiger country on the way to Merrygoen - what a good name for a waypoint.

By now sunlight was becoming a scarce commodity and virga (every opera should have some) started to put in an appearance - naturally enough, just as we left the flat open country behind.

Weaving between the showers and dodging from patch of sunlight to patch of watery sunlight, we kept an eye on the available landing paddocks - you're not supposed to use the Duo's sustainer in the rain. Naturally enough, the few landing fields were well away from the sunlit areas - goodo, ops normal, Huey and Murphy singing in harmony as always.

Basso became even more profundo and we decided to conduct a survey of Mendooran. The last safari had a headwind at this point and I had ample opportunity to memorise the layout of Mendooran from 2000' AGL and to wonder what it looked like from street level.

Now I knew. At one point, we were looking up at people on ladders, but Ray found a handy rabbit hole for us to thermal in and we climbed away on a thermal smelling suspiciously of mammalian poo.

And the way of the universe meant that as soon as we left the tiger country behind, the sky promptly reverted to glorious cu's on a deep blue background, no showers, just perfect smooth climbs over lovely flat farmland.

The slow movement was ended and the vario recovered its pleasant tenor from the gloomy stranglehold of the bass as the Duo raced across the plains north of Dubbo into Narromine.

We pulled up overhead the strip as the ASH was being hooked up and towed off to the tiedowns, then Arnie was good enough to do the same for us.

Ian B was there too so after tying down the Duo, the bar was opened and beer and nonsense were passed around

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in equal quantities. No sign of the DG - hmm, John left Keepit an hour or more before us, what's going on? No worries, we've got Geraldine and the Rangey here with the gear, and I bags his hangar spot if he never shows up.

Excuses from the DG-808.

When you have a motor-glider, everyone says "it's OK for you. When the going gets tough, you just start the motor." And so it is. But that's only part of the story. Once the motor is started, the cockpit is filled with shame… far more than from a casual outlanding.

When you reach your destination and find that others didn't use their motors at all, there's little said but their silence means plenty. And the reek of failure fills the motel room at night (either that or you should have left your flying clothes outside.)

For some reason I was lured towards Connabarrabran… probably sightseeing… the desire to overfly the might Warrumbungles or something like that. However, as I approached the high ground, some nasty rain clouds appeared between me and Narromine. There were gaps here and there and sunlight beyond the murk.

I'd had a couple of interesting storm flights over the last 12 months where I managed to get in under the black and scoot around the nasty bit in the middle at warp speed.

Rather than aiming for a small and diminishing gap between showers, I decided to aim for the sunniest edge and skirt around them, hitching an exhilarating ride around the storm. Or so I hoped… Unfortunately the storm is a puny 2D thing… just thin curtains of rain. Seemingly within seconds, I am looking upwards towards the most likely landing spot and reach for the starting handle.

As Al Giles relates, from there on in it was all sunshine and loveliness and I chased clouds for the last 100k with the Shirleys. Knowing I would get a serve for starting the motor when I got to Narromine and to kill

There's got to be a way through this stuff… Getting into the black bits and screaming around the wet bits seemed like a good idea at the time!

time until Geraldine arrived there with a cold beer, I took a sightseeing tour around the local area…the less said about that the better. "There won't be any paperwork" as they say in the ATC business.

Al Giles…

The Sundee night barbie at the Narromine club is an institution and Arnie performed the official duties at the barbie plate, damn fine.

Paul with the Stemme and Goe with the Ventus discussed the day's flying with us - turns out the day was better all around at Narromine, and they ran away in fear and trembling from the waterfalls we had emerged from, freshly washed.

Monday looked less than wonderful for our planned next leg south to Temora, so a local triangle was declared. Ian graciously accepted my offer of the back seat of ZAB, and he and Ray enjoyed a leisurely perambulation around the local 300km milk run, while I explored the back streets and riversides of Narromine on foot.

More excuses from the DG-808.

With bad weather to the left of us and bad weather to the right, Beryl "It never Rains in Narromine" Hartley had set us a nice task out west… Nygan Peak Hill, Narromine with a long and a short last turnpoint option… 300 or 250 km. And while Ray, Ian and the Shirleys may have had a leisurely perambulation around the short course, I had something to prove and flew around the long one at quite good speed.

It's not polite to be rude about someone else's country, but damn! it's flat around there and one turnpoint looks much the same as the rest. As has been said before, the Safari is not a competitive event, but this day was one up for me.

Al Giles…

There's some interesting architecture in Narromine, mostly because the river has been through it a few times...not a right angle to be seen. Reminded me of the old houses along the river at Raymond Terrace, which have the unusual feature of an outside door on the second storey...so the occupants can step straight into the rowboat.

That night we checked out a local pub - you can get a good steak anywhere in country Oz, you wouldn't be vegetarian for quids.

Next day was gloomy and Beryl smiled at morning briefing as she explained that more gloom was on its way. However, it never rains in Narromine.

What gloom, Fidelio...so where's this fabled Narromine weather? A lay day was declared and various bods headed off in different directions, according to their wont.

The Clarks headed for the Western Plains zoo in Dubbo. What's a Safari without striped fur?

A magnificent storm ascended the western horizon and headed our way, arriving suddenly with ml-a-minute intensity (that's red rain to those who watch the BoMsite radar). The red dust of Narromine turned instantly to elephant snot which clung to our boots with great friendliness - ah, this must be the country welcome we've heard about.

More rain was forecast in the next few days and dinner at the club that night was a bit more subdued - I noticed Ray checking out the prices in a real estate agent's window, and Geraldine looking over the "fashions" in shop windows. Hmm, how long do you have to be in Narromine to become a local?

At morning briefing next day, Beryl's message was 'go home now, or you'll be here for a long time' - sort of like a tsunami warning. The day didn't look great - it was fully overcast - but the Blipmaps and sat shot suggested there might be some action a bit later, before it all clagged.

Would it be enough to get us back to Keepit? We readied the gliders in desperation and watched the southern edge of the overcast heading our way, with blue skies and cumulus beyond. Paul had agreed to hang around and launch us (the DG and ASH being self-launching) and he and we were keen to get airborne.

As the blue sky and cu reached us, Ray and I hooked up and got rolling, pinning off under the best looking cu at exactly the pre-agreed and pre-paid launch height (cash only - the Narromindeed ones don't trust the Keepitese one bit).

Base was even lower than Monday and the climbs were a bit anaemic over the cool damp ground but hey, we were in the air and the varios were singing... an error message.

Shortly after Paul disappeared in the tug, the electrics in the Duo gave up the ghost and we proceeded on mechanical vario, handheld VHF and (shock horror) analogue navigation - map, compass, timepiece, bearing, track, heading, what an outrage. Well, if it's good enough for Ingo...

We tiptoed across the sky from one slow climb to the next, Ray keeping us moving as we waited for the ground to warm up. The Duo headed for the edge of the Warrumbungles which yesterday's storm hadn't visited and where the sloping ground would be drier, having a good look at Gilgandra on the way.

Of course, it would also be higher and base wasn't all that high yet...and as we reached the edge of the rising ground, I became very grateful that we didn't have an electric vario, so it couldn't frighten us with the sound of strong solid sink.

Out came the sustainer but when you're in persistent 8kt sink, the turbo just reduces it to 6kt sink and a better choice of paddocks. Which very quickly came in handy, and a minute or two later, we'd made our selection and were rolling gently to a halt in a perfectly flat, recently harvested, 1km x 500m field by a road. Hmm,

On Our Selection...were we to meet Dad and Dave? We were.

I walked down to the gate and read the name on the letterbox… Bearbung.

Ah, Bearbung! You know those placenames on maps that leap off the page at you, like Come-by-Chance, Tangambalanga, Patchewollock, Driggle Draggle Creek, Backwater and so on? Well, I'd noted Bearbung on the map a few times and liked the sound of the name, and now, here we were!

How good was that? Ian Barraclough was not far away at all; that is to say, he was at Uranus. The Siding Spring Observatory has set up billboards with models of the solar system planets along roads at appropriate distances from the telescope (being Sol) and Ian got my call as he reached the seventh rock from the sun.

I know what you're thinking and that's not a fair thing to think of Bearbung at all... Still, that's the furthest out I've landed so far. We tied down the Duo and jumped in with him for a ride back to Keepit, pausing near Saturn for a well-earned lunch.

No excuses from the DG-808!

I had made my mind up that I was not going to use the motor to get home. I did not mind how I got back… even in a trailer, but no motoring. Fortunately I could use the excuse of self-launching to avoid taping the engine bay doors up and being forced to keep my promise.

To the north towards Keepit the sky looked bad and it looked worse towards the south. However, between the tiger country and Dubbo airspace there was a corridor of modest sunlight.

I was fixated with getting a good trace and instead of getting en-route as soon as I was airborne, I headed back to a cloud over Narromine so I could make a proper start. Of course any lift under the cloud was negative and I wasted 15 minutes getting nowhere.

I could hear Ray, Al and the Shirleys getting fainter as they flew away. It's funny how when you're cross with yourself, you can lose your sense of humour in an instant. Under normal conditions, I would have just laughed at the idea that their batteries were getting flat… which turned out to be the real cause of their weak transmissions.

Patientez! The idea was to get home, not to break records. However the gap between the northern and southern murk was closing up and it felt as if by following sunlit areas, I was travelling more towards Temora than Keepit.

A year ago on the Safari, we'd had better than 13,000'… but now I could not get much more than 5,000' and since the ground comes up to 3,000' in places, there's not much air under you. I spent almost half an hour with barely 1,500' over one sunny patch of ground. Fortunately this was Coolah AD which looked like a fine place to outland!

After getting back up again with enough height to cross the next range, I continued hopping between sunlit patches, arcing north whenever possible, and trying to make the best speed over the ground while there was some sun.

By the time I came in over Spring Ridge, to the south of Sam Clift's place, it was really time to head north. I was around 6,000' by then and probably could have had a nervous final glide back to Keepit. The high cloud cover had increased and the ground was evenly gloomy, but it was mid-March and three hours more daylight. I turned in anything which was going up and started to relax and enjoy the fact that I wasn't going to need any motor.

With vents closed, drifting silently over Breeza as the curfew tolled the knell of parting day, the lowing herd wound slowly o're the lea and presumably Sam Clift swam his weary way home across that lake which appears to cover his place these days, I heard that Ray and Al had outlanded and that the Shirleys had used their motor. I felt a small sense of redemption. It was a great shame that Ray had outlanded because otherwise I would have been able to wind the old bastard up for months. I wondered if the time I had wasted over Narromine had perhaps given me slightly better weather on track than they had.

It was Michael Shirley's birthday and fortunately Ray and Al just made it to the restaurant in Gunnedah to meet the rest of us. It was a grim evening. I had to keep my mouth shut all dinner and not say a word about the great day I'd had!

Al Giles…

Next day, with the promised storms looming all around, Ray, Lee Braithwaite, Ian Barraclough and I went back with the trailer and retrieved the Duo from a paddock we expected to have drowned overnight… but to our complete surprise, it was still dry.

We lost no time in putting the Duo in the box, and rolled home happily through heavy rain. So Ray and I claim the fastest time Keepit-Narromine (by quite a bit) and the slowest Narromine-Keepit (by quite a bit more).

Many thanks to Lee and Ian for the company and the assistance, to Geraldine for braving the Narromine fashions and a big round of applause, ladies and gentlemen, to Ian Barraclough for organising yet another intrigue-packed Keepit Safari - The opera of the skies!

See! It never rains at Narromine!

MEMBER PROFILE
GEOFF PRATT
THE QUIET ACHIEVER

AND NOW THE LAKE KEEPIT QUIZ:

Which pilot first flew the morning glory in 1996 and has been back every year since then, at first with a Monerai (Question 2: what's that?) and later with a PIK20E?

A: Geoff Pratt. Bet you didn't know that one!

Geoff was born in Brisbane and went to State schools there and in Cairns. While still at school he thought he would be interested in farming (they had friends on the land) and went to Gatton Agricultural College for a year or two as a junior. But the attraction did not last and he became an electrician.

He always enjoyed making things and his parents bought him rubber powered kits which he assembled and flew, then he went on to control-line models.

At Gatton he flew a radio controlled free flight model at night when he was meant to be asleep but on one flight it got away from him and flew off into the WBY. He says he must have put too much fuel in it. He is still flying radio-controlled models: last year he brought one to Lake Keepit. He has electric models which he says don't annoy people with their noise. He has made some scale models including an electrically powered scale Spitfire which he designed and built from scratch.

No one in the family flew and Geoff's interest was his own. He had his first flight in glider at Mount Isa with Neil Hart, another model builder, in about 1970. Geoff was working for an electrical company, installing cables in a mine shaft.

They flew in a Kookaburra, with a Cosim variometer and on winch launch. I'd better explain a Cosim variometer for the benefit of Generation X: it had a capacity flask but the airflow into and out of the flask was measured by red and green pith balls in two tapered tubes… hence the expression "green air". Generation Y will not even have heard that expression.

Geoff remembers a thermal that took them to 7,000 feet. He says that flying seemed to come naturally and by the time they reached the top of the thermal he was flying the aircraft. The wind noise was a reminder of the airspeed.

Geoff left that job and went to Adelaide. He was now in his early twenties. He went solo on a course with Adelaide Soaring Club at Gawler with Gordon Redway. Col Curches was the CFI. The club launched by auto tow with a Holden utility sponsored by General Motors Holden. Geoff trained in a K7. His first single seater was a Grunau 4 which you could fly with or without a canopy.

He flew Silver distance in the Grunau 4. I can appreciate that effort… I flew 49km in Grunau Baby 2. He progressed to Ka6, Boomerang, Arrow and Libelle. Launching at Gawler was later by DH82 Tiger Moth.

Geoff helped Cleve Gandy to build a K8 and in due course he flew gold distance out and return from Gawler to Renmark in the K8. He landed out on the return leg but got the distance. He flew diamond goal in a Ka6… beat that! Geoff forgets where but somewhere to the north east of Gawler. It seems to have been just another flight. He achieved diamond height at Omarama in 1997 in the course of nine days' wave flying in Ls3.

Geoff moved back to Cairns and was instrumental in forming a gliding club with a Blanik that they got from Townsville club. They launched by auto tow from the wartime strip at Mareeba. This is an hour's drive west of Cairns via Kurunda, the terminus of the cable car that runs over the spectacular rainforest of the Barron Gorge.

Mareeba aeodrome has a 1500 metre sealed runway. Its elevation is 1560 feet. It is close enough to Cairns airport to have Class C airspace at 6,500 feet but the ceiling is higher to the west. There are occasional ultralight and balloon operations and there is a warbirds museum.

USAF and RAAF aicraft operated from there against the Japanese in the Second World War. Tobacco was once grown in the district but now there is coffee, sugar cane and mangoes. They launched by auto tow until they made themselves unpopular by dropping the rope over power lines. Club members refurbished a Pawnee but there were too few gliders to support a tug and it had to be sold. Kevin Sedgman persuaded the club to buy a Grob 109 motor glider but eventually interest declined and the Grob had to be sold. Kevin Sedgman started a winch club nearby with a K4.

Geoff completed an instructor course at Kingaroy with Bill Keyes. Ingo Renner was there at that time. Geoff then became the only instructor at Mareeba.

The Monerai is a homebuilt kit sailplane designed and sold in the early and mid 1980s. Designed by John T. Monnett and sold by Monnett Experimental Aircraft, Inc. of Wisconsin, USA.

It has a welded steel tube fuselage and a V tail. The main spar is an extruded aluminium I beam. Eleven and 12 metre versions were available. It could be fitted with an engine on a fixed pylon. About 400 kits were sold. Geoff bought his newly completed but not yet test flown. He did the test flying and fitted an engine. It first flew in 1996.

He lost no time in trailering it to Burketown the same year to fly the morning glory. Burketown was then in its first three or four years as a soaring site. On one of his early visits he was able to motor out to the east to meet the morning glory.

The fuel endurance was 30 minutes and he had used perhaps half of this on his way outbound so he left after it crossed Burketown and motored home. Geoff has been there every year since then and has made about 75 flights in the Glory.

His longest flight he thinks was "about 700km". He bought his PIK 20E at Burektown and the Monerai is now at Kingaroy. He is now the only glider pilot at Mareeba, flying his PIK 20E as an Independent Operator. He has to go south to Kingaroy or Darling Downs for his annual check flight. Rather than forming a classic sea breeze front the sea breeze divides around the hills and forms a convergence line running east-west.

Flying the 11 metre Monerai with its engine permanently in the airstream, he hankered after higher performance and joined Darling Downs Soaring Club at Jondaryan to fly LS6 and LS7. This was in Jim Stanley's day. He first came to Lake Keepit to fly over more forgiving country than the Queensland savanna and hills.

Geoff has 3.500 hours gliding experience, 1300 of which was in the Monerai and about the same in the present PIK 20E, which he has had for six years. He has never been interested in power flying

He is an electrician and for a time had his own business in Cairns in an electrical workshop. Geoff and his wife Yvonne have lived for 30 years in the house they had built for them in Cairns. He says there has only been one big blow in that time. Cyclone Yasi swerved away from Cairns but strong winds extend a long way from the centre of a category 5 cyclone and trees were blown down in Cairns.

Geoff says it has been raining ever since Yasi went through. They have two adult children. David is an electrician and Kay lives in Brisbane.

Geoff Neely

From Ian Dowson

This is written knowing full well the final result is in the able hands of the editor and his golden fingers on the keyboard (better than his hans on the joystick eh' and I don't have to write too hard. ~~I've got a new plane and~~

I've been flat out very busy working. 2011 promised to be a great year and thus far we haven't been let down though it's mroe work than they said it would be like herding cats.

The Regatta was ~~outstand~~ big success with all the notables leading from the front, but all suffered from the Tim Carr krool Handicapping System. This saw Garry Ransby (a northener) being acknowleged as the quasi winner of the Regatta. Tim's subterfuge must have worked because Garry has since decided to join LKSC and has also purchased a hangar spot for his glider. We look forward to welcoming Garry and Lou to Lake Keepit on a more regular basis.

Spanish cooking featured at the Regatta and this, with the organisation, was the work of Tim Carr. A job well done on both counts. (Tim did not cook espanish, but he knew someone who did.)

The next major activity was the 2011 Australian Qualifying Grand Prix. This is straight out racing over a prescribed course with a countdown to a set start time. Initially the finish height was not below 300 ft, but after a couple of days when everyone was in the groove the finish height was reduced to just above the ground. This led to some great finishes, especially from the north over the lake and shortened some grass too.

Bruce Taylor dominated the results in his new JSI Revelation with placings of 1st, 6th, 1st, 1st, and 2nd in the daily standings. Brad Edwards was looking good but ~~slipped off the podium~~ dint do so well on the last day. All the other gliders were ASG-29s. David Jansen and Graham Parker were second and third overall (northers) with 29 and 28 points. Is this local knowledge or does the JS-1 seem to suit our local ~~conditions~~ weather?

The NSW State Comps followed immediately after the GP and the weather Gods continued to smile upon us. Some great tasks were set and a couple of days were possibly under-tasked

From a Contest Director's point of view the week went very well with high levels of airmanship being displayed. A couple of notable efforts were Richard Frawley winning Club Class in only his second contest year and our own Dennis Stacey. Dennis has been away from comp flying for some time, but managed to win 2 days in YL at great speeds. Well done Dennis.

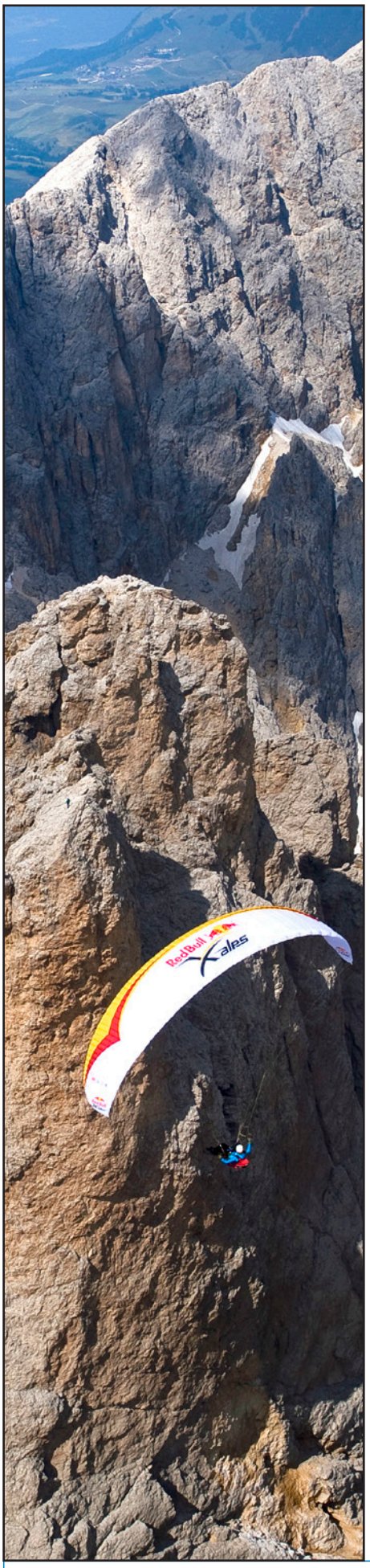
No account of the comps could exclude the ~~tremendous catering experience~~ grate munga organised by Chris Bowman and kooked by Jan Dirks and her band of helpers... grate work Jan and the leftovers were tops!

Tomas Munk our summer Tuggie has gone without being snake bit. He jagged a job with SUSI Air in Indonesia in June. Tomas will be starting as a ~~fish-eater~~ 2nd officer and hopefully will be taking advantage of the free planes to come and visit us.

Tomas has been a cheerful and diligent Tuggie and we wish him well.

Can you fix this better than last time" Or I will fix you. I also will get some other papper next time butthis will do for now.

Can you use a snap me and my mate Tomas to cover the sauce stain?



The world's most spectacular X-C Race returns for a fifth edition.

But it's not the next sailplane Grand Prix! Partly because spectacular the GP ain't! Much as we love sailplane racing, it's a lonely and somewhat selfish sport and like other sports which don't lend themselves to proper spectator participation, it's unlikely that sailplanes will ever (again) get the sponsorship that other forms of gliding and aviation get. At a hang gliding comp in Australia this year, there was $50,000 in prize money… when did sailplanes get that level of sponsorship? This is not a complaint… it's just trying to establish a perspective.

Some sporting events achieve legendary status because of the almost insane demands they place on the competitors. The Tour de France is one such. Thousands of kilometres of roads, hours of bum-pinching agony in the saddle and it's the most watched annual sporting event in the world.

The Mini-Transat race could win the title for the most barking-mad sporting event on the calendar. Who but the French could race a 21 foot boat solo across the Atlantic? In fact the idea originally came from the UK as a low-rent way to ocean race, but was abandoned as being too silly… and now almost a hundred boats set out on this biennial race… and most make it… fatalities very are common on the Mini-Transat.

Recently the Red Bull X-Alps has become a contender for the barking-maddest flying race, though it is not all flying… the race is over an 800 km course from Eastern Austria, right across the Alps at the top of the boot of Italy, to finish in the best of all finish locations, on the beach at Monaco.

The only means of transport is by paraglider or on foot. You can fly from dawn until sunset but the rules don't prevent anyone running most of the night other than during the 5 hours mandatory sleep.

A crew of one is allowed who has to be a mountain guide and an expert on extreme mountain conditions. Recent race winners have been very reliant on their crew with some being sports psychologists as well as mountaineers.

It's Red Bull so the race is highly geared towards the media. All teams have to produce 5 minutes of video footage every 2 days and be available for interviews 24 hours a day. Teams keep video diaries during the training period covering their race preparation from their ultralight equipment to their state of mind.

The result is a truly spectacular race both in terms of the gruelling physical challenge but also the for technical mountain flying.

By having our own sailplanes-only magazine, we're walking away from the breeding ground of new ideas, new pilots, new forms of competition. It's as if we've admitted that the parade's gone by for us. We're turning our heads and going our own lonely way. That's OK if it is what we really want to do.… Is it?

Sorry mate! I know this bit is late but I had some problem with getting it in the modem thing or whatever it's called. Jenny to rescue! What a woman. Anyway I took some snaps which may be interesting to people.

Chris Bowman's son Sam went solo after a week of training. He has now joined the club, so now we have a father and son combination. Things might get competitive.

Here's a snap of Robbie McDonald being congratulated by Phil "Red Plane" Anderton our tug master after soloing and converting to the Junior all in a week (robbie not Phil). Robbie is a Qantas Link pilot and flies Dash 8s for his day job and has just received his promotion to captain so maybe he could have done better hehehehe!.Another new member!

Do you reckon I'm getting better with the camera?

I recently had the opportunity to again visit the Jonker Sailplanes Factory in Potchefstroom, South Africa. As always, I was warmly welcomed by Uys and Attie Jonker and their team. After a quick coffee and chat, Uys said he had something new to show me… what could this be?

Off we went in the direction of the prototyping shop. I could tell Uys was quite excited about this as he said "it" had just arrived from Italy! "It" turned out to be a new toy for Attie and Uys. A huge 3D CNC machining table, capable of turning large chunks of aluminium into all sorts of interesting shapes.

So I asked innocently what sort of work this new piece of expensive gear might be used for. Uys showed me an alloy JS1 canopy handle which is about 150 mm long and involves a lot of complex milling to produce. Currently the production of this item is out-sourced to a company in Joberg, which is quite an expensive process.

I was left wondering about the economics of purchasing a machine with an 8m bed for half a million euro to produce canopy handles in-house, but I could see that was all I was going to be told about this new toy as Uys and I headed off, next stop was the wing closing fitting shop.

My JS1 Revelation #26, had just had its wings removed from the huge steel jig used to drill and bush the wings, these were now nearly ready to meet with the fuselage for the very first time. This was my first look at my glider where you could see it as more than a collection of parts.

I thought about jumping in the cockpit for a test sit, but decided against this as Uys was busy explaining that recently the factory had moved to a fifteen day staging process down from 20 day.

This means that a JS1 Revelation moves through the various areas within the factory, spending only 15 days at each station before moving on. As such, production numbers have increase to nearly 20 gliders a year.

I was able to sell all of my Australian 2011 delivery positions in January this year, and so as an agent I'm very pleased to hear of this increase - it seemed a long wait to 2012 for more production spots.

With the increased numbers available next year I am looking forward to the possibility of additional Australian allocation. Uys was on the move again in the direction of the fuselage layup shop. A few days earlier, #27 had emerged from the moulds, and #28 was now in the moulds having all integral pieces installed.

I was very keen to see these two gliders, as #27 is Jay Anderson's and #28 will be Dave Shorter's. I know they are both keen to receive their gliders before summer, and the factory schedule is currently on track to achieve this.

As we walked back to the main office Attie Jonker (Chief Design Engineer) and Johan Bosman (a.k.a 'Bossie' - Chief Aerodynamic Engineer) were busy taping guide rings to the LE of the JS1 Jet prototype.

I looked on as Uys and Attie engaged in a vigorous conversation in Afrikaans, none of which I understood. I was thinking this must be very technical, but Uys seeing the blank look on my face switched to English and I quickly learned that Attie was planning to perform a wing stain test at several positions on the JS1 wing, using a horrible looking green dye.

Uys explained to Attie that the container he was planning to hold this dye in was suspect, and that if it spills, he might ruin his new red chute! After this was sorted out I gave Attie and Bossie a hand to push #23 the Jet prototype onto the rwy for the test flight. With Attie's launched it was time for lunch.

I really enjoy my time when I visit Potch as not only are these great guys, but they all have such a passion for gliding. Uys, Bossie and I talked about all sorts of things. Bossie is extremely determined to understand how the complete glider interacts with its real world environment and be able to model this. He's way too smart for me, so I tend to nod my head and pretend to understand.

As #26 is fast approaching the finishing shop, Richard, one of the design engineers was keen to sit down with me and check that he had all the instruments drawn and correctly placed for the instrument panel cut out.

Jay and I had also just finalized the instruments for his JS1 #27, and so I worked through this with Richard to ensure everything on the panel was a neat fit. This is not as easy as it first appears, as modern glider panels have become smaller to improve forward visibility, and new nav displays (such as the LX9000 and ClearNav) are now quite large. After several adjustments, Richard seemed to have everything neatly displayed.

Later that evening Uys and I again had a chance to talk about all things gliding over dinner and a few beers. As we talked I reflected that this is a guy, together with his brother and Bossie, designed and built their own glider that achieved a second place in the world championship. I think says a lot about the talent that resides in Jonker Sailplanes, and their continued quest to improve.

Todd Clark

Todd Clark is an official JS-1 Agent.

Your Committee's Summit Outcomes

The Committee of LKSC met in late February this year to discuss the strategic opportunities for the year ahead. This was our third summit, with the first focussing on the club survival, the second on how we could develop and market the club better.

Very pleasingly, the outcomes from the first two summits are now paying dividends. Our membership is now up to 120 (with two months to go) from 75 three years ago, and the club is now looking at returning a healthy result for the year.

By the end of this year, the Committee is also planning that all member loans can be repaid, leaving the club debt free.

As well as working through the required operational issues of the club, this years summit was focused on were we take the club from here.

I asked all participants to come prepared with a list of their ideas and suggestions that they would like to see implemented at the club.

As you would suspect, this produced a long list of weird and wonderful ideas, however all ideas were meaningful and would be great if we could afford it!

So the difficult task for the Committee was to prioritise this wish list of initiatives, based on a number of criteria. The outcome of this ranking process saw the following ten initiatives (out of 36) being voted as the highest priority:

1. Training 2 seater replacement
2. Flight centre deck and shade structure
3. Fleet upgrade to include a Discus CS
4. Launch point shade structures
5. Airfield maintenance
6. Clubhouse and catering upgrade
7. Website search effectiveness - increase LKSC profile
8. Formalised club development strategy
9. Buying our site
10. Maintenance workshop

Obviously there is much work to be done to get any one these ideas off the ground, and the Committee will be working towards these goals. There has been a great amount of work done on these items to get them to this proposal stage, and I intend to provide an update at the AGM based on further review by the Committee over the intervening months. I thank all those who contributed to these plans.

Our biggest challenge with any of the proposed items is how the club is to fund them. To this end, the Committee has lodged three grant applications this year with the NSW Dept of Sport and Recreation, to assist us with the funding of items 2, 4 and 6 in the list above.

The potential results of the hard work that goes into these application is huge, so hopefully these pay off for us.

A sub-committee has also been progressing initiative 9, buying our site. A significant amount of the items in our wishlist involve extensive investment in our infrastructure and it would be great if this was done in the knowledge that we own our own site.

While our current lease runs for about another 15 years, and there are no current intentions to kick us out, we feel that this is a worthwhile barrow to push.

We have been lobbying hard with the Park Trust, the Dept of Lands, and have also met the new local member Kevin Anderson to plead our case. I can only say that this will be a long road, but one that is well worth pursuing.

Another item that is currently being worked on is the LKSC proposal to host the 2015 World Junior Gliding Comp. Expressions of interest were sought by GFA to clubs having the will and ability to host such an event.

Only Narromine and Keepit have put in an application and we are now going through the review process with the GFA. I will keep you posted as any advances are made.

If we were successful with this bid, it would make a huge contribution to putting Keepit on the international soaring map. Fingers crossed!

No doubt you will start to see the fruits of all the hard work over the coming months, and please make yourselves available to assist the Committee wherever possible to help achieve these goals.

Cheers

Tim Carr

Registering a Glider Trailer in NSW

Well I was warned this would be a hassle!

Now that I have finally got my imported (ex UK) second hand Cobra trailer registered, I just want to forget about it ... but before I do, I thought it might be worthwhile jotting down a few notes for the guidance of those going down this path in the future.

Whether are trailer comes from overseas or interstate, the process is much the same as far as the registration with the RTA goes. However, from overseas an import permit is required before it can be accepted here, so I will start with this process.

Import Permit

To land a glider here, no government authority is required, however, not so for the trailer. If a trailer arrives here and an import permit has not been obtained, it goes into bond at around $150 per day until one is received, or the trailer re-exported or destroyed!

The department issuing the permits warns that a trailer is not to be shipped until a permit has been received. Freight forwarders officially give the same advice, but will then tell you that they have never known for a permit for a glider trailer to be refused.

To apply for a permit, an application form needs to be downloaded from the website of the Australian Government, Department of Infrastructure, Transport, Regional Development and Local Government:

http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/importing_vehicles/general/Application.aspx.

The applicable form is titled "Application to Import a Small Road Trailer. This form requires some detailed information (ie details of dimensions and weight) about the trailer so this should be obtained from the overseas contact. It is really good if the trailer comes from a known manufacturer with a proper vehicle identification plate and information can be obtained directly from the manufacturer.

When this form is completed, it needs to be mailed to the Administrator of Vehicle Standards, GPO Box 594, Canberra, ACT, 2610 along with the $50 fee, a copy of a bill of sale, photographs, and photo identification of the applicant.

The bad news is that, although the form states that a reply could take 30 days, the currently reality (Feb, 2011) is that it is taking 9 weeks to process, and there is no opportunity to expedite that process.

There is also the warning that nothing should be shipped until a response has been received. This means that the glider you have purchased will be sitting around for a couple of months before it can be shipped.

I took a bit of a punt and shipped a week or so before I had received a response on the basis that there was little likelihood of the application being rejected, however, a week after I had shipped, I received a request for a photograph of the trailer identification plate ... which fortunately I had.

To put a timeline on the process, I mailed the application on 18 December, shipped (from UK) on 10 February, received the permit on 25th February, and received the glider on 27th March. A sideline here, my shipper neglected to have the glider trailer cleaned before shipping which resulted in an additional cost of $650 being incurred on arrival.

As stated previously, customs will not release the trailer without a permit.

Registration in NSW

Before a trailer can be considered for registration in NSW (irrespective of whether it has been imported or has previously been registered in another State), a letter of authority is required from the RTA Engineering giving the approval for the trailer to be considered for registration. This can be obtained in parallel with the import permit application, but as it only takes about a week to obtain, it is not a big issue provided it is not rejected.

To apply for approval to register the trailer, write to Senior Vehicle Engineer, Vehicle Standards Compliance, RTA, PO Box 1120, Parramatta, NSW, 2124. To support this request, I supplied the following information:

Import Permit (Probably not strictly necessary)
Dimensioned Drawing of the Trailer (Required)
Photographs of the Trailer (Required)
Photograph of the Manufacturer's Identification Plate (Details required)
Copy of a Weighbridge Certificate for the Empty Trailer. (Not required at this stage, but needed later)

There was no cost for this application ... that came later.

Prior to the Blue Slip inspection, it is necessary to get a weighbridge certificate for the empty trailer. This was a bit of a pain because you have to get the glider out of the trailer. I explained this to the Blue Slip guy, but he said it would be simpler to just do what the RTA wanted ... he was right. Cost of the weighbridge ticket was $35.

With the letter of approval, I could now proceed to get a Blue Slip, but firstly, I had to fix a few things on the trailer. Regulations are located at:

http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/vsb1/vsb_01_b.aspx .

The major issues were the fitment of side clearance lights, and the fitment of a safety chain. I also adjusted the brakes and cleaned/painted a few areas which were rust affected. I had no problems with the Blue Slip ... cost was $65. For anyone getting a Blue Slip, it might be preferable to get someone who had done these before as some mechanics get thrown as they have never seen a glider trailer before and become over cautious.

Then it was off the RTA. The people in the registry were fairly black and white (in more ways than one) and did not know what a glider was let alone having every dealt with such an application. When I purchased the glider, trailer and accompanying bits and pieces, I was advised not to separate out costs of the various elements of the package on the Bill of Sale as a trailer appearing as a stand-alone item would attract duty, whereas as an "encasement of a glider" it would not.

Not having a stand-alone bill of sale for the trailer, really threw the RTA people. This is where I made a big mistake. They asked me to estimate the value and without thinking (remember this is after a week of hassles and I could actually see the rego plates on the counter!) I just used the insurance value ($8,000) which was very much on the high side. Unfortunately, this triggered a big stamp duty bill making the cost of registering the trailer over $400.

So once the Application Form was completed, I then had to supply the Blue Slip (still a hand-written document), a Weighbridge ticket for the empty trailer (original or duplicate supplied ... not a photocopy), and the ORIGINAL of the Import Permit (this caused me another trip back home).

And then it was all done !!!

So the simple steps:

Import
1. Apply for Import Permit.
2. When Approval received (expect 8 – 10 weeks) ship trailer, but have cleaned externally first !
3. Apply to RTA Engineering for approval to register. With request, will need to provide details.
4. When RTA approval received (1 – 2 weeks), have empty trailer weighed (Public Weighbridge), check for compliance with regulations, and when satisfied it complies, present for Blue Slip inspection.
5. Take the following documents to RTA Registry for registration:
Bill of Sale
Letter of Approval From RTA Engineering (original)
Import Permit (Original)
Weighbridge Ticket (Original)
Application Form
Blue Slip Inspection Report (hard copy)
Credit Card !

Transfer From Interstate
1. Apply to RTA Engineering for approval to register. With request, will need to provide details.
2 . When RTA approval received (1 – 2 weeks), have empty trailer weighed (Public Weighbridge), check for compliance with regulations, and when satisfied it complies, present for Blue Slip inspection.
3. Take the following documents to RTA Registry for registration:
Bill of Sale
Details of Previous Registration
Letter of Approval From RTA Engineering (original)
Weighbridge Ticket (Original)
Application Form
Blue Slip Inspection Report (hard copy)
Credit Card !

John Trezise

The Wandering Albatross must be the master of all gliding birds. Much of last January I watched and admired these beautiful birds, wishing I could fly like them.

With great self-sacrifice I gave up January this year, the best of the soaring season (and the Benalla Nationals), to travel on a three week boat trip south to the island of South Georgia and the Antarctic peninsula. (I gather the weather was so-so at Benalla so perhaps my decision was vindicated.)

And what a wonderful holiday choice it was. We'd been to Antarctica many years ago and this time the planned trip was to include the Falklands, and South Georgia. The ship's Doctor was a very good gliding friend who's been lured away from gliding by the attractions of working semi-permanently on these Antarctic journeys, so the company of Giles and his wife made the prospect that much more appealing.

The tour company, Aurora Expeditions, operate a small Russian ice strengthened ship, with Russian crew, and Australian cook, and the 50 passengers on board kept the show nice and intimate. But the small ship tends to go in and out of every swell, and a force 8 gale for a couple of days made travel "interesting".

The sub-antarctic islands and the peninsula abound in a stunning array of wildlife – seals, penguins, orcas, seabirds, whales. The Falklands a staunchly British outpost flaunting Maggie Thatcher's war relics. South Geogia redolent with Ernest Shackleton's epic memorabilia. And ice of all kinds in the Antarctic peninsula.

But the show that kept me mesmerized for hours on end during the sea crossings was the flight of the sea birds, and particularly those most wonderful of birds – the Wandering Albatross. From the ship's bridge, or hanging over a side rail I'd watch as these birds performed their beautiful display of perpetual motion.

Never flapping. Seemingly gliding forever, up into the wind and then diving back into the hollows between the swells, skimming the ruffled surface. Wing tip feathers just inches above the surface, but never touching, no matter how rough or turbulent the wavelets. And back up again to top up with a bit more energy.

The Albatross interestingly has the ability to "lock" the joints into an extended position, thereby reducing the effort used in flying. Researchers have placed heart monitors on birds, and shown that the energy expended when in soaring flight is close to basal levels – no more than when sitting on the surface of the ocean. (The biggest energy requirement is when walking on land or during takeoff.)

GPS monitoring of their flight patterns also reveals the incredible extent of their flights. When foraging for food to feed chicks in the nest, a typical flight may be from 3,000 to 12,000 km over several days and range way up into the Atlantic ocean, (almost half way up South America, and Africa). After leaving the nest Albatross may not return for 6-7 years and will circumnavigate the southern ocean many times.

They mate for life, and may live for 80 years. They are enormous birds weighing from 8 to 10 kg and with a wingspan of up 3.5m. Their world population is declining and baited hooks from the long line fishing boats cause enormous destruction.

Rats on South Georgia from the whaling fleets have also cleaned out most of the nesting sites on the main island, and nesting is now limited to smaller islands.

As a glider they are reported to have glide angle of around 22:1 and they achieve their "endless flight" either by ridge soaring the wave fronts or by dynamic soaring.

Dynamic soaring is the technique used to gain energy by repeatedly crossing the boundary between air masses of significantly different velocity. When the albatross pulls up into the wind out of the still air in the lee of a wave, it becomes exposed to a head wind, and its airspeed increases.

It then turns in the other direction and, with the wind behind it, dives back into the shelter of a wave. This also results in an increase in its airspeed.

By continuing this "wheeling" pattern the albatross harvests energy from the wing gradient and can continue

Carol of the Antarctic… about to get bit by an albatross mounted in the Grytviken Museum, South Georgia.

flying indefinitely without any input besides steering.

Another interesting fact revealed by GPS tracking is that the birds appear to fly in patterns which take them away from the centres of high pressure where winds are lowest, so that they can utilize the higher wind areas of "the windiest ocean on earth" where their dynamic soaring technique works best.

In the classic gliding text "Cross country Soaring", Helmet Reichmann describes this technique and its possibilities for use by sailplanes and quotes a couple of flights performed by Ingo Renner at Tocumwal.

On 24 October 1974 a day with no wind at the surface, but a strong wind of about 70 km/h (40 knots) above an inversion at 300 metres, Ingo took a tow up to about 350 m from where he dived steeply downwind until he entered the still air; he then pulled a sharp 180-degree turn (with very high g) and climbed steeply back up again.

On passing though the inversion he re-encountered the 70 km/h wind, this time as a head-wind. The additional air-speed that this provided enabled him to recover his original height. By repeating this maneuver he successfully maintained his height for around 20 minutes without the existence of ascending air, although he was drifting rapidly downwind. In later flights in a Pik 20 sailplane, he refined the technique so that he was able to eliminate the downwind drift and even make headway into the wind.

In the late 1990s, radio-controlled gliding awoke to the idea of dynamic soaring and they now perform incredible feats of speed using the leeward side of ground features such as ridges, circling in and out of the upper wind. Speeds of 750kph have been reported using this technique.

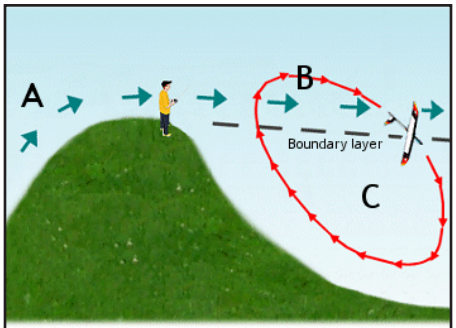


Diagram from www.rc-airplane-world.com which explains the dynamic soaring technique employed by rc gliders.

Richard Frawley, a frequent visitor to Lake Keepit, is an aficionado of this sport. He has flown his hi tech gliders at sites in Vic - Johanna and Camperdown where ground features favour a large wind shear.

This is a hi-tech sport - the models are all carbon fibre and pull up to 60g during the turns at the top and bottom, they carry g-meters which measure up to 100g, and the pilots use radar cameras to measure the speeds achieved.

See http://www.youtube.com/watch?v=WaQB16ZaNI4 and http://www.rc-airplane-world.com/dynamic-soaring.html

A bit different to the albatross who've been performing these feats in their own way for millennia. I'd just like to be able to fly my sailplane like the albatross thank you!

References:

http://www.antarcticconnection.com/antarctic/wildlife/birds/albatross.shtml

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1690761/pdf/11052538.pdf

and Wikipedia

I can't remember when I stopped being good at maths. Once upon a time I was good enough to do advanced maths but I lost my learning. Perhaps it was when I discovered sex… or when it discovered me and everything turned to porridge up upstairs. Or maybe it was working with Fred Cheesman.

Fred Cheesman worked in a wholesale grocers where a friend of mine and I had jobs in our summer holidays. As you would expect with a name like that, Fred ended up running the cheese department. My friend was a brain… scholarships to Cambridge and all that while I was trying to forget about girls in mini-skirts for long enough to pick up another A level and scrape into university.

Working in the cheese section with Fred was a source of constant humiliation. Pounds, shillings and pence were the currency of the day. 20 shillings to the pound, 12 pence to the shilling and four farthings to the penny. You could get a good bag of chips for thruppence and a pint of ordinary cost ninepence.

Shopkeepers were a canny lot in those days and chose their cheese with care, measuring off exactly how much they needed for the week which we had to cut off the block, weigh and then calculate the cost… 2 pounds (how can you use the same name for a unit of weight as a unit of currency!) three and three quarter ounces of best red Leicester at one and tuppence three farthing a pound. The fog descended within seconds of the grocer's doors opening in the morning.

"Fred! What's 2 pounds, three and three quarter ounces of red Leicester at two and tuppence three farthing a pound?"

I don't know how Fred did it, but he'd have the answer as soon as you'd finished speaking. Fred took great delight in lording his mental arithmetic gifts over kids whose education probably cost as much as he earned in a year.

And we just gave up mental arithmetic. Either you can work the trick or you can't. Anyway, there was a girl walking towards the cheese section who looked a bit like Twiggie with the shortest skirt and best knees in the world…

What's all this to do with gliding? Just this; I don't think about girls as much as I used to and with the enormous amount of spare thinking time and space made available, I think about things like gliding. However, I'm no better at mental arithmetic that I used to be.

My equivalent of Fred Cheesman sits on the panel in front of me except this time he's called LX, and reads off the final glide and all that other complex stuff while I concentrate on looking for lift, other gliders, and girls in mini-skirts who look a little like Twiggy.

But there you in the cockpit towards the end of a seven hour flight, tired, your mind slightly wondering and the Fred Cheesman thing suddenly turns off! (Actually it never does, but that's not the point.) Do you carefully calculate the required LD back to the strip based on your cross country speed, the average thermals over the last 30 minutes, your current height, the windspeed etc?

Or does your brain become like porridge and outlanding or starting the motor become the best options? Unless you're Fred Cheeseman, Harry Medlicott or Garry Speight, porridge is the state of mind and outlanding is a good option.

Harry Medlicott was giving a talk during the regatta about block speeds in reply to one by Garry Speight on MacCready… or something along those lines. Lots of maths in both cases. In fact, Fred would probably not have understood either since I suspect that he was some sort of idiot savant and unless it was cheese, his maths would fall to pieces. This hope I cherish.

Anyway, Harry says this… If you spend 30% of your time circling and you fly between thermals at 75 knots, you will never fly cross-country faster than 100 kph.

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Bloody hell! Eureka! Why didn't I work that one out? Even blind Freddy can see that. (One questions here how little I had been thinking about girls that day to have the brain-space to even work that out!)

It's obvious when you think about it. Yes, only take the good thermals. Yes, leave them as soon as they slacken off. Yes to all that stuff, but unless you keep the glider moving along at the speed it is designed to fly at, you will never get a decent average speed cross country!

Harry went on to discuss things about how modern foils have a flat curve and within a fairly wide speed range won't suddenly fall out of the sky. I understand this, because it's something I can picture in my head. I can see a low-drag bucket as clearly as that those wonderful knees in that min-skirt…

But here's the point. Flying block speeds is easy on the brain! You hardly have to think. It is far less tiring than slavishly following the beeping of that speed-to-fly thing calling out the price of cheddar.

I have done enough sailing to know that every time you move the stick, you disturb the airflow and it takes some time to reestablish the flow and that

flying smoothly is more efficient that continually making small corrections. It's an energy conservation thing.

Have you read that "Fly Now, Bunga Bunga Later" book by that Italian Berlusconi chappie? In it he says " a glider is like a woman… she wants to be caressed with slow, gentle movements…" and I believe this is true. By all means fly rough on rough days, but on most days, fly smoothly and keep speed changes to a minimum… and the easiest way to do this is with block speeds.

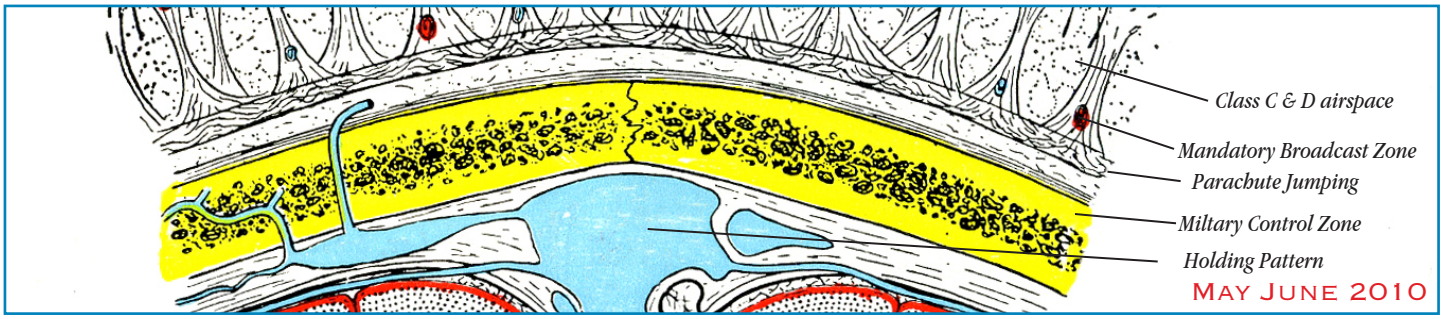
As Harry says, you vary the speed you select as your cruise speed depending on the strength of the day and the height you are at… the lower you are, the more you fly for survival instead of speed… but you keep flying steadily and smoothly. Don't slow down to 50 knots as soon as you feel the slightest bump of turbulence… you can feel a proper thermal as easily at 65-70 knots as you can at 50 and continually slowing down and speeding up destroys energy and destroys your average speed.

That day was a good day. Along with a number of others who had the same Eureka moment during this talk, I went out and flew like a hero. For the first time, I averaged well over 100 knots… it was probably 112 but I had programmed Fred Cheesman with the wrong start points and was horribly penalised by Jacques the Merciless Scorer. And the next day, still on a block-speeds high, I more or less flew the glider into the ground in a day which was almost 100% overcast!

Nevertheless, I have received the Knowledge! It's nothing to do with not believing the gospel of MacCready… I don't doubt a word of that. It's just that the shining path of block speeds is much easier to follow by folk with porridge for brains. And with all that spare thinking time, if I can just concentrate, I'll recover that dim memory of those wonderful knees… or fly cross-country a little faster!

DO YOU NEED A HANGAR SPACE?

There are plans to construct another hangar at Keepit and there are currently 3 places up for grabs. If you are interested, please contact president@keepitsoaring.com<mailto:president@keepitsoaring.com> for further details.



COPING WITH CHANGE... FOR GLIDER PILOTS.

'In the 70s, the world was normal and we took drugs to make it weird. Now the world is weird, and we take Prozac to make it normal'.

It's come to the attention of this column that there is dissent and revolt rampant in the rancourous, nay rancid ranks of the ribald readers of this fine organ. A posse of pedants, with Mr. Pink and the Elder Speightsman in the van, have suggested that the column on incontinence aids might contain the odd smelling pistake, and even an occasional misplace'd apostrophe.

To them all I say onomatapoeiacally, 'Pssshaw!'

This month's column is about developing coping mechanisms (or coping with developing mechanisms) for glider pilots faced with change.

We all know that the so-called 'future shock', 'shock of the new', or increasing rate of change in life, is more of a problem for glider pilots than most, since advanced age and conservative outlook are risk factors for regarding innovation with fear and loathing, otherwise known as failure to cope.

Failure to cope is of course but one Websterpak short of nursing home admission, and when did you last see a nursing home with a gliding strip? Other than Benalla. As Darwin observed, the race is not to the Swift, but the quickest to adapt to change.

Not that I'm saying our founding fathers were a bunch of crusty, cranky reactionaries who were more comfortable with wing warping than ailerons but now you mention it.... could this be why the GFA is slowly mummifying while the RA-Aus flexes its youthful pecs?

Anyway, back to how to cope with change. Faced with Flarm, ADS-B, Piggott hooks, rotating thermals, turbine and electric self-launch capability, iPads in cockpits, nose rings other than on gliders, tattoos on girls, boys with back, crack'n'sac jobs but no other, how is the pilot of today going to cope without resorting to Prozac or developing an end-stage case of the screaming meemies?

Possible techniques include:

1. **Denial**.

The Vintage Gliding Club is the largest gliding club in Oz and most parts of the world are the same. Dead-tree gliders with L/Ds almost as good as a mid-70s Rogallo are lovingly restored to the 1950s ideal of perfection with the minimum maintenance hours being twice the flight time.

It takes the full back row of the Wallabies to rig and derig one, and termites are a problem to watch for. (A uniquely Australian design was in fact called the Thermite for this very reason - flying ants indeed). However, these are rarely if ever flown, because that's not the point. The point is - er, well frankly I'm not sure what the point is, other than being a minimally effective technique for coping with change.

Note that denial always fails catastrophically at the very end, just like casein-based glues, and those who indulge in denial won't be happy when they come unstuck.

2. **Desensitisation**.

This involves graded exposure to change. Start with the use of 'impact' as a verb instead of a landing technique, and practise saying 'proactive' when you mean 'active' and 'prior experience' when you mean 'experience'.

Then read the XCSoar manual, and try playing Condor on the Altair in the back seat of the Duo while the front seat occupant thinks you're navigating.

Finally sign up to the aus-soaring forum and duel with Mike Borgelt on the subject of turbines in gliders, followed by assisting Paul Mander to turbine-launch his ASH25J.

You will by now be nicely desensitised; in fact those of you who have served in the armed forces can now put in for an increased pension on the grounds of PTSD (I said Post Turbine Stone Deaf, Ray).

3. Dissociation. Pretend you're not a glider pilot, and thus don't have to confront change. Indecision is, after all, the key to flexibility. Heading for the bar helps.

4. **Flooding**. This is an overwhelming exposure to all that is new, nothing to do with the weather at most Australian glider strips recently.

You could try thermalling a gyrocopter, like Andrew Gray of Manilla - you know you're in the core and no one's going to turn inside you, when there's no wind on your face and no airspeed on the dial. Regrettably, if you push the stick fully forward on a gyro, you unload the blades and enter an irrecoverable dive.

Or you could try flying Godfrey's Swift Lite, a self-launching flying wing with pedals which are billycart steering on the ground but rudder pedals in the air, and which aren't linked so you can deploy both tip rudders as high-drag devices on approach.

The motor is just powerful enough to get you into trouble although not out of it, and if the fuel tank in front of your eyes isn't concern enough, there's a rocket-deployed chute under your knees. The pitch control from the side stick is hypersensitive but the roll is sluggish as a wombat on Valium.

After trying these new forms of flight, you'll return to your current glider with deep gratitude and the knowledge that progress, like nostalgia, is not what it used to be.

FD

Just pulled in here at Bovec in Slovenia and noticed a glider tied down at the local airstrip. Rode in and found a rather forlorn and weatherbeaten Blanik gently rocking back and forth in the katabatic from the snowstorm on the nearby peaks. I enquired among the toothless peasants drinking slivovitz and grappa at the airstrip bar and they mustered enough English between them to inform me that I could get a flight this coming Samstag. Damn, this Saturday I'll be flying Air Lao into Vientiane. Hmm, Blanik, DC3; DC3, Blanik...

Bunion Wave Camp 2011

Wasn't it Samuel Johnson who said those immortal words… "When a man is tired of his willy, he's tired of life"…? Well if you are tired of 10 knot thermals, tired of flying 500 kms, tired of long and hot cross countries over the mountains, plains, hills, ridges and ranges that constitute our playground at Lake Keepit, why not give wave flying a go?

Admittedly, if you read the article on getting 18,000' (in a Blanik) over Mount Kaputar you may think that you don't need to leave your home strip, but if not, why not join the others from LKSC who are intending to go to the Bunion wave camp.

September 17th to 25th 2011 – Bunion Airfield (YBUY) – 15km North of Cooma NSW on the Monaro Highway.

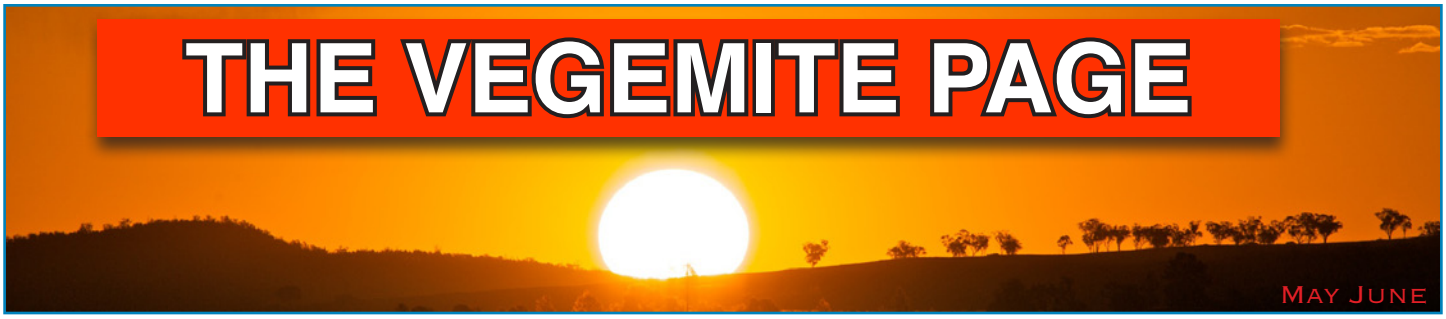
Limited Club House accommodation and on field camping available, commercial accommodation available in Cooma.

Access to the "Snowy Mountain Wave Soaring Areas" available to suitably endorsed and equipped pilots*. Daily Weather Briefings, Coaching and Oxygen Refills for O2 bottles with CGA540, standard Medial valves or suitable adaptors to CGA540 available provided the O2 bottle is in current inspection.

Pre-registration is preferred for planning purposes. To register your intentions to attend, to make accommodation bookings or other camp enquiries contact either John Clark or Ian Downes. The latter is likely to be less unreliable.

* Pilots wishing to fly in this airspace will need to know Controlled Airspace Procedures and have the required navigation tools and knowledge navigate at those levels.

If required suitably qualified members of the Canberra Gliding Club will provide you with a briefing and will endorse your log book with the club's approval to fly the airspace under this agreement.



There's no doubt that one of the best fun you can have is laughing at foreigners Normally the further you go from home, the funnier foreigners get.

Sometimes it's language that's funny and the Kiwis take a lot of beating. How come they're so close to Oz and talk so funny? Once (a mistake you only make once) we bought a Fisher and Paykel washing machine.

It came complete with a VHS tape which for a while, we thought was some side-splitting Kiwi comedy show. Only after turning the sound down to stop ourselves suffocating with laughter did we discover that the tape was just the videotaped instructions for the washing machine.

Sometimes it is foreigner's customs which are funny. Like the American fear of automatic doors, diesel cars, beer, roundabouts and motorbikes with brakes which go around corners.

Sometimes its foreign munga. There's no better test of foreigners than Vegemite. They just don't get it. (Foreigners also don't get beetroot on sandwiches, but then neither do I) so we'll concentrate on Vegemite.

For those who don't know, Vegemite is a Universal Substance developed in Australia in the 1920s. English people will say that Vegemite is a pale copy of Marmite. While it is true that Marmite was invented almost two decades earlier in the UK, it's like comparing a Model T Ford with a Bugatti Veyron.

It's claimed that the critical shortage of Marmite during WW1 was the impetus for developing Vegemite, it's also true that traces of Vegemite have been found from an era far before Marmite was ever thought of.

Leading scientists and researchers have discovered unmistakable traces of Vegemite between the toes of many Pharaohs in ancient Egypt supporting the Australian claim to Vegemite's primacy.

As per usual, irregular readers of Keep Soaring will by now be asking "what's this got to do with gliding". So here's what. Twice.

At the end of last year, a very interesting article on hydration and sports drinks was published in Australian Soaring which suggested that drinking lots of water when flying could be positively bad for you and wash salt out of your system.

http://www.sportsdietitians.com.au/content/511/SportsDrinks/

"Sports drinks include the electrolytes sodium and potassium. The addition of sodium to sports drinks does have potential benefits. Sodium-containing beverages can encourage fluid intake by driving the thirst mechanism. Sodium also increases fluid absorption and retention. Sports drinks may also help with salt replacement for athletes who are heavy or salty sweaters."

Following on from this article, several pilots including me were topping up water bottles with Gatorade and similar products over summer. The first time I flew with Gatorade, I felt sick throughout the flight… mainly caused by the frankly kindergarten taste of the stuff (see real beer above).

I've grown out of sugary drinks and there was something so chemically *weird* about Gatorade, that I had to look around for other things.

One possibility was Lemon Saline. I remember when we first arrived in Western Australia from that cold, dark country in the north, Saline was a very popular drink in the 40° summer.

You can still get Lemon Saline from Coles, just beside the Gatorade shelf and there's no doubt that it tastes fine and is a good thing to drink before or after a flight, but it's not something you can put into a water bag because it's effervescent.

But what about the Universal Substance? Vegemite is quite salty… surely it could be used as a sports solid?

After a consultation with the Flying Doctor, he confirmed that Vegemite could well be salty enough to work and that he was thinking of taking some on his next trip to the Himalayas in case he ran out of chain lube on the mighty Royal Enfield.

So armed only with a tasty Vegemite sandwich and a water bag full of plain water, assisted by Saline before and after the flight, I was able to get the full benefits of a sports drink without actually drinking a sports drink. A victory for Vegemite and grown-up taste!

Here's another use for Vegemite. One thing the Germans have never managed to perfect is the fitting of canopies to gliders, especially gliders in hot countries.

The canopy on my glider was jammed tight when it arrived off the boat and on a really hot day couldn't be closed without

a bang from the outside… tricky with the big noisy fan so close to the person who has to do the banging.

I decided to have a go at the canopy fit but, to see where there was interference, I needed a substance like engineer's blue… something which would not stain the PU paint on the fuselage (like engineer's blue) but something sticky enough to retain it's shape and not give false readings against the fuselage when the canopy was closed (like Marmite).

Vegemite to the rescue! Vegemite is more waxy, viscous and opaque than Marmite and more like engineer's blue. A series of dabs applied around the cockpit frame clearly showed where there was excessive contact.

After a sequence of light sanding and re-applications of engineer's Vegemite, and the fit was perfect.

An added plus for Vegemite over engineer's blue is that I could lick and surplus off my fingers, the glider or the sandpaper and the canopy now shuts single-handed on the hottest day.

It's expected that Vegemite will be going by the container-load to Germany after they read this.

Vegemite is truly the Universal Substance! We've used it to align the beam paths on CO^2 lasers, for camouflage on paint ball games, as boot black, for minstrel shows and even as a sandwich spread.

If you've found any unusual uses for Vegemite (other than attempting to laminate it with cheese slices) be sure to write to the Food Editor c/o Keep Soaring. It's unlikely that a beetroot page will follow.

THE RIDDLE OF THE TWO AIR TRAFFIC CONTROLLERS

A well known pilot was flying a long task over unknown country when he approached a mountain range which lay parallel to his track.

He had been told that one side of the range invariably had excellent gliding conditions, plenty of thermals and safe outlanding opportunities whereas the other side had poor or no thermals, bad downdrafts and nowhere to safely outland.

He couldn't remember which way to go but all was not lost. He was near a small airport staffed by two ATCs.

The difficulty was that one was highly experienced and knew the area well whereas the other was absolutely hopeless and you could be sure he would get it wrong.

He radioed for advice but was told " pretty busy, don't have much time for glider pilots flying their bits of expensive plastic and creating hazards for genuine pilots but will answer one question only"

Not knowing whether he was speaking to the ATC who always got it right or the one who could be guaranteed to make a mistake, what one question did our did our pilot ask the ATC?

P.S. If you can work this out in less than two minutes you are smarter than me!

Harry M.

Approaching the club from the north with the sport and rec strip clear below.

ACCIDENTS REPORTS SINCE MAY 2011

1. Wheels Up Landing

30 Sept 2010.
Injuries; Nil.
Glider: LS 7 Damage minor
Pilot Said

I was taking it really easy just flying locally between Gainey's and Carrolls . I was pretty tired from our trip back from a trip the days preceding as well as poor sleep in the clubhouse and waking up 4.30 am. I did a fair bit of slashing on the tractor then took the LS 7 up for a few hours.

I did an unorthodox circuit as I had plenty of height, flew 110 knot down the strip down to 300 ft to " learn " about height regain on a pull up. Easily did a 700' left base turn for runway 14, put the wheel down and FUST check but did not look at the wheel handle. I did hear the noise of the wheel down .

Later, as soon as I popped the airbrakes on late final, the alarm sounded really loud. Of course this rattled me a bit as it was late final. I tried three times to " wheel down" but actually was putting it UP!! Mentally tired I presumed it was not locking in.

Just as I touched down Ian Downes called undercarriage on the radio and I managed to save most of it by just getting the wheel down but not locked as I touched I had decided to concentrate on the landing at that point. Any way I tore the undercarriage doors off but not much damage otherwise as it was up on the wheel after a bit of a ground loop.

Pissed me off a lot!! I noticed at home the next few days I was really tired and I feel sure that is the main reason I stuffed up and failed to realise my mistake at the crucial moment. I think the "beat up" circuit was a small factor in that I still did a good 700 ft base turn, and approach. I hope it will never happen again as I usually crack airbrakes on base and check the wheel down position is locked.

CFI Comments

Yes, I think fatigue played a big part in this, meaning that when the buzzer went off the wheel was cycled up and not locked down.

Practice at high speed finish is a good idea for competition pilots.

Radio calls, familiarisation and good planning needed before Competition finishes are practiced

So the lesson is when you have a problem (and especially when tired) with a configuration;

Locate,
Identify (with placards) and then
Operate..

2. Taxi behind Vehicle Accident.

13 Nov 2010
Injuries; nil.
Glider: Libelle. Damage significant
Pilot Said;

I had forgotten that I had hooked the glider tow out bar onto the tow bar of the vehicle. I was indecisive about towing out, as I was intending to do some 2 seat winch launch training, before flying the Libelle.

I had returned to the hangar to tidy up and secure doors etc. In that time I decided (without definite recognition) that I would not tow out but proceed with dual winch training.

As I entered the vehicle I was distracted by launch operations on the strip, and started the vehicle without recognising that the glider was hooked on. I drove as if it was not hooked on, along a track at the left of the taxiway, instead of along the centre of the taxiway, and at about 30km/h instead of a tow out speed of 10km/h.

The glider's right aileron struck a very solid timber fence post, slewing the glider around. The tail dolly did considerable damage before it came off the glider.

Substantial damage occurred to the right aileron, the wing attachment structure of the fuselage, the rear of fuselage, the lower rudder, the right elevator.

What have I learnt? ….. FOCUS… FOCUS…FOCUS !

What will I do in future? .... Whenever I hook a glider onto a towbar, I will place a high visibility notice on the dashboard of the vehicle. Several such notices will be kept in my glider and in my vehicles :

CAUTION….GLIDER ATTACHED…. FOCUS !

CFI Comments

a) This was a taxi accident which occurred before entering the runway.

b) Key message is accidents happen when change of plans occurs at last minute.

c) This pilot is usually very careful indeed, but is easily distracted. Lesson is to put in place rigid checks to overcome distraction.

d) TIP: When start Taxiing say to yourself. " I am taxing the wing tips" Even when you leave an active runway or park location at Aerodrome in a motorglider. Most Taxiways and fuel bowser markings are not built for 15m wings spans

3. Landing Short and Ground Loop.

Monday 22 Nov 2011
Injuries; Nil,
Glider: LS -6 YL. Damage; significant, new wheel frame required.
Pilot said;

1. Aero tow released at 2000'. Entered thermal, pulled up wheel – alarm sounded

2. Put wheel up and down again twice, alarm still on, lost thermal

3. Returned to airfield to land RWY 20

4. Lost too much height and realised would not make 20 and turned to land on grass beside RWY 20 (to south of 20 and east of 27)

5. High grass at that point and ground looped.

Observer said;

I first noticed YL over trees as if on a left downwind for RWY 20. YL was low and turned hard left to try and make RWY 27. The glider appeared to drop whilst still at high angle of bank and bounce to a stop at 120 deg to RWY 27. I observed this from between Hangers and Bus. There where 3 distinct marks in the grass, one where the wheel door was found, a second and then the final resting place of YL.

CFI Comments

a) Lessons here are to not let the distraction of an alarm sounding impair your aviation and landing.

b) It could be that the air brake was not properly closed causing the alarm plus very high sink rate.

c) Currency in flying, on type and accurate checks are critical to safe flights.

4. Loading into Trailer.

Friday 17 Dec 2010
Injuries; Nil.
Glider: Pik 20E. Damage; significant, broken canopy.
Pilot Said;

Loading the glider into trailer. As the last wing was removed a strong gust of wind from the west rolled the fuselage onto its left side and the canopy was broken when it contacted the fuselage cradle. No other damage sustained.

Analysis reveals several contributing errors/factors;

The strong gust of wind was on the right side of glider. Usually I would load with into wind situation but I did decide to shelter on the east side of trees to get some protection. There was a 2 man team, with these wind conditions I should have had a 3rd person to help us.

I had to extend engine to dis-engage the control couplings and I did not retract engine again before wings removed. Thus higher c of g plus more wind exposure. I did not remove the canopy before wings were removed.

Upon inspection the Fuse dolly was back to front and maybe there is more friction on the fuse when dolly is correct direction

CFI Comments

This accident shows;

The need for careful attention when rigging and de-rigging aircraft and always allow for things to go wrong so always limit the risk

That the pressure of time to get loaded before the rain so that could leave first thing next morning.

The errors caused by doing critical tasks at the end of a hard day, fatigue

5. Turbulence and Out Landing

Thursday 20 Jan 2011,
Injury ; Nil,
Glider LS 6 Damage significant, canopy broken.
Pilot said;

I have been flying at LS-7 - HY-XYJ. This day it was cross-country flight - start at 12.23. During the day I was on the route between: Lake Keepit - Narrabri - Breeza - on the way to Barrabra I saw bad conditions and rerouted myself into Boggabri - where I decided to wait.

In the meantime it has started to rain and thunderstorm above LKPT. During this time I kept my altitude between 4500'and 8500'.

As the thunderstorm wasn't passing, I came back from Boggabri and was flying from Wean Race - into the South as I couldn't see runway 14 towards runway 32 on the edge of hills and edge of clouds. During this flight with the speed about 90-100 knots, when I was de-focused with drinking water I get into turbulence.

Then I found that my harness weren't secured as I expected and I hit myself with canopy and as well my bottle with drinking water hit me back. This caused additional hazard situation as I didn't expect and at the same time glider started to speed up without getting ether positive or negative acceleration.

Then I have put control in neutral position and opened airbrakes. However at the same time I hit one more time high sink & rising air that I hit for third time canopy with my body where it broken.

Once I got more stable flight with open airbrake and in one direction I have secured my belt as I could keeping stable flight with another hand. At that time I wanted go as fast as possible from that region and I directed glider into Gunnedah. However I kept airbrake open too long I got into 5000' and decided no

to go to airport at Gunnedah. Instead I selected place for out landing, did landing check, contacted by radio Lake Keepit base that I am going to outland. I have out landed and reported situation that happened to duty instructor.

CFI Comments

Contributing Factors;

Pilot has not paid enough attention to the possibility of severe turbulence near thunderstorm. In such conditions should be ready with harness very firm and loose object secured and limit speed

After the first turbulence speed was not immediately reduced using attitude/ elevator (claims neutral position which presumably would give 100 knots). Then dive brake applied. This meant aircraft would drop suddenly and speed would reduce slowly or not at all. Causing speed to be still high on second and third turbulences.

After first turbulence harness was not tightened immediately. Thus still loose on 3rd turbulence when damage was done to glider.

Out landing was required due loosing too much height with dive brake

Lessons

There is a possibility that opening of air brakes at high speed caused the aircraft drop which made head break canopy

Situational awareness in possible turbulences should keep speed down (well inside the green arc), harness tight and object stowed securely.

When in turbulence keep speed down with attitude and use dive brake for descent rate

6. Taxiing behind Vehicle Accident

Sunday 20 Feb 2011,
Injuries Nil.
Glider Discus B. Damage minor

Pilot Said;

I had finished rigging, gone to the briefing and upon my return, had attempted to tow out to the grid. I headed out to the edge of the tie down area and because I was close to the hangar end, chose to turn left and attempted to use the 'old route', between the trailers and the newly laid grass area. I was so 'focussed' upon staying clear of the laid turf, that I just spaced it & entirely forgot to clear my left wing, which hit the trailer.

I should have turned right and gone up the inside of the laid turf, as had been made clear at the briefing was now possible. I had been at the Club Class Nats the previous year (when turning right was not an option) and just fell into old habits I guess. That, and the fact that the northern route out, looked a quicker option.

I was travelling very slowly, although my glider did sustain some damage to the aileron and outer wing area, which necessitated de-rigging and returning to get it fixed in time for the State Titles.

CFI Comments;

Unfortunately our second vehicle taxi wing into object accident

Attention while taxiing important

Distractions are human factor that divert attention

When taxiing I teach students to think… "I am taxiing the wing tips"… it helps focus

7. Taxi Glider into Tug on ground roll.

Wednesday 23 Feb 2011.
Injuries; Nil
Glider; ASH 25 Damage nil, Pawnee significant
Pilot Said

At around 4:30pm during the Lake Keepit Regatta I completed the task of the day, which had taken me firstly South West, then North, then North East of Barraba. I had on board a visiting New Zealand pilot.

I made a normal right hand circuit for landing on runway 14. The wind was South Westerly, 5-10 knots which creates curl over and turbulence in the lee of the tree covered ridge which parallels the runway on the windward side.

I carried out a normal landing, experiencing some wind sheer during the final stages and landed to the right of centre line of the runway.

Being an extremely heavy glider it is my concern to veer off the runway at the end of my ground roll, so as to provide a clear runway for following gliders. This I did, changing direction about 15 degrees to the right which would take me towards the clubhouse.

I noted that two tugs had been left parked in front of the clubhouse. Only as the ground roll progressed did I realize that one of them had been parked further north than had been the previous practice, and that I would have to pull up shorter than I had expected.

At that point I actuated the wheel brake but it did not function as normal. I tried to initiate a ground loop but by this time the speed was too low and the glider rolled into the tail of the parked tug plane causing damage to the empennage.

I did not have the presence of mind to pump the brake, which might have restored some functionality. Damage to the glider was a chip to the gel coat of the wing.

There were no witnesses to the incident. I took some photos with my iPhone,

CFI Comments;

This accident shows the importance of taxying in a glider in such a way that you do not have to rely upon a wheel

brake to avoid a collision. And as when taxing a power plane if you are going to rely upon a wheel brake test it for suitable operation first.

Lesson; Do not rely upon wheel brakes in gliders

8. Tug Plane Engine Fails on Take off

Sunday 27th March 2011.
Injuries; Nil.
Plane Damage; Nil
Pilot said;
Whilst taking off on RWY 32, at about 50ft above ground during climb out with glider (Cirrus) on tow, power from engine failed.

Nosed over landed straight ahead, released glider tow rope. Cirrus landed to right of me. See separate report

Upon landing it was found that the fuel selector was selected as OFF

There must have been sufficient fuel accumulated in lines plus leaked past selector to give around 10 minutes running

CFI Comments

Pre-take off, and indeed all check are very important. This shows that the required checks where either left off or not done properly.

b) Human Factors; In this case I know that the pilot had some other very important jobs to do with the competition and that there was large pressure to get the fleet started.

c) One of the Lesson here seems to be to keep workload and responsibility for all operators to a reasonable level.

d) Training Panel Recommends that the Fuel be left on at all times to reduce this risk.

9. Ground Loop on landing after Tug Engine Failure

Sunday 27th March in combination with above accident
Injuries; Nil.
Damage to Cirrus; Minor
Pilot said;
1. Tow Plane VH-MRP lost power at about 50ft, partial recovery and then total

2. Glider was manoeuvred right to clear area, turn was continued towards better landing area,

3. Wingtip contacted ground causing ground loop.

CFI Comments;

Pilot took all required actions to clear the tug to the right.

Lesson for us all;

Always be ready to clear a failing tug plane to the right. It will slow faster than a glider.

Always be ready for a launch failure at the worst possible time. The "O" check in CHAOTIC should list Safe Speed near ground and possible options for a low level break.

This pilot was ready and delivered a safe outcome. Well Done

10. Wheels Up Landing,

Friday 11th April
Injuries; Nil
Glider Ventus Private; Damage; very minor scratch
Pilot Said;
On commencing down wind to land R/W 14 Lake Keepit A/F, unable to satisfactorily lock down U/C. After several attempts and at 500 ft. AGL elected to retract undercarriage and land wheels up on grass.

This happened without incident but might have been better if I had deliberately flown the glider on rather than a normal stall landing. After landing carefully inspected operation of undercarriage but could find no damage or reason for malfunction. U/C operated normally.

I believe the possibility is that tow out prior to launch was over long grass and slightly rough surface and that foreign matter may have lodged in U/C system and impeded complete locking of U/C in down position. Operation of U/C has been normal in subsequent landings.

CFI Comments

With undercarriage failing to lock properly then this would seem like the best action. The important thing was that pilot having made the decision focussed 100% on landing and therefore prevented the distraction of the non-locking undercarriage from adding hazard to the landing operation

11.Take off Accident

Wednesday 20 April 2011
Injury; Nil
Glider G103 . Damage; significant
Pilot said;
On initial roll for aero tow take off RWY 32 Lake Keepit ands rolling stick back to balance on main wheel… Centred controls… Shortly after this glider seemed to lift…

Correct with rudder and re-align with tug… Then glider lifted off tug still on ground roll Nose dropped sharply and hit ground; aircraft bounced to the left; tug still on ground roll… Nose again dropped and bounced on the ground; tug still on ground roll.

Aiming at this stage to stay behind the tug without much control movement. Again bounced on the nose; tug lifted off; and I pulled the release. To the best of my recollection the tail then seemed to hit the ground, then the main wheel; This seemed to happen 3 – 4 more times until the glider skidded to a halt.

Accident reports continued…

The controls felt lighter than usual in the initial ground roll and to the point of take off. After the bouncing commenced the aircraft seemed un-responsive.

CFI Comments;

It was important that this immediate post-solo pilot had the chance to fly again when ready. He did a dual flight with Garry Speight that afternoon.

This would appear to be a case of Pilot Induced Oscillations causing glider to bounce on ground after separation. A lighter glider (two seater) being flown solo is always more responsive and separates more rapidly.

Pilots especially on a first solo in a two seater must be advised to allow for this.

Lessons;

Instructors to advise pilots on effect of lower wing loadings with lower take off weights, and the effects of Pilot induced oscillations

Pilots should have hand on release at all times after take up slack until combination is safely separated from RWY

Pilots should be trained at the first sign of problems on ground roll to RELEASE. In this case an early release would have significantly reduced the speed and the risks of the accident.

Ken Flower.
CFI LKSC.

Thoughts on an Emergency

Or A Whiter Shade Of Pale.
By Mr Pink.

Bit of background;

This was at the State Competition at Lake Keepit in March, 2011. I had been to Japan twice for Snow Skiing in the previous 7 weeks.

I hadn't flown a glider for over 10 weeks until the practice day (the day before this incident). I was flying a Std Cirrus, in club class and therefore unballasted.

On the day;

The fleet was lined up on Rwy 32 at Keepit, about 27 gliders, there was a slight quartering tailwind from the left, I estimated 3 to 5 kts of wind, about 3 of tailwind at worst.

Club Class was at the front of the grid, I was at the front of the group, first cab off the rank!

I recall doing the CHAOTIC checks and noting the wind as above and deciding on 55 kts for safe speed near the ground. I also considered the impact of the wind on the land ahead, turn-back and modified circuit scenarios.

The ground roll and lift off was normal, as was initial climb.

Hmmmmmm…

Transition through to low tow was normal. I was watching through the tug to the horizon (working out how best to teach this phase of lift off to a student).

Feeling pretty smug about that I then noticed that the tow rope had a significant bow in it, I thought, "Don't touch the air brakes, too low", applied a fine touch of left rudder to create a bit of drag and watched the rope straighten and normal tow resume.

Not for long! Shortly after the first slack in the rope it happened again, the tug visibly descended ahead of me and I called "Ian, are you ops normal", a redundant call as the rope dropped away from the tug at about the "Ops Normal" bit.

I, too pulled the release, twice. (The two sets of rings were found to be beside each other later.)

Goodness Me!

I'm now a fair way down the field, about 50' altitude, doing a bit over 60 kts with the tug rapidly disappearing under the nose.

I started a turn right to clear the tug; looking ahead at the end of the runway, fence and lake, I didn't particularly like the thought of that option and chose to continue the turn to land along the fence line in the Ultralight strip direction, North east-ish, selected full air brake and assessed the final approach.

All looked OK, to the point that I considered the ground roll would end in the long grass and perhaps some small saplings. I then noticed the mown 09/27 North runway, about 40 degrees further right and thought "If I can get to that the ground is much better".

I looked at the ASI, 53 kts, enough height to do the turn, just! I turned for it.

Arrival;

I felt cheated when the right wingtip touched the ground, my judgement had me clear by about 5' with time to level the wings and land.

"This is going to hurt" I thought as the glider rotated through about 80 degrees, this was followed by a few loud bangs and a very abbreviated ground roll.

I sat stunned for a few moments, stayed seated to gather my senses, realised I was unhurt and thought that the glider may be damaged near the tail!

Next surprise was the cavalry arriving, cars appeared around the edge of the trees, I was still in the cockpit, people asked after my welfare, I asked after the nether regions of the glider, all seemed well!

I turned off the battery and GPS to stop various alarms and climbed out unscathed.

The glider had lost the "sacrificial tail skid" (great design point), had some grass stains on wing tips, tail and nose and had grass between the wheel and hub. Otherwise all looked OK.

I walked through the landing with the RTO ops. for our area (so many expert witnesses at a State Comp.) and we were in unison about my good fortune.

The aftermath;

The glider was pretty much de-rigged, all spars, gaps and controls were examined, the seat pan came out, several gear retractions were made, sort of a mini form 2. Very Senior and Experienced Maintenance People oversaw the work and all agreed that the aircraft was serviceable to fly.

On Reflection;

Hindsight being the great leveller it is, I'm inclined to think that after the first part of the turn straight ahead along the fence to the north east and into the long grass might have been the best option.

I have always had a healthy respect for fences, frangible or not and the drain and lake did not seem attractive.

Given my lack of recency I think my judgement was not up to its usual standard, if the event had happened a few days later I would have been more aware of ground proximity.

I feel that the point of the tug failure was at about the worst possible place regarding options.

I also got distracted; watching the antics of the tug caused me to lose situation awareness of progress along the flight path.

I have considered the question of releasing at the first loop in the rope and decided it would have been premature.

Sometimes you get an apple with half a worm in it!

The subsequent Court of Inquiry;

Over to all the experts!

Allbutts

THE GREEN CORNER

We have a great natural resource at Keepit and we're not using it! Suitably managed, this resource could not only improve facilities at the club but also help prevent the extinction of endangered species and generate considerable income for the club from visitors and tourists.

The strip is plagued by pests which wander over the strip at night or bound over at random times during the day. But these pests could also be is dinner to many endangered and hungry species! Big cats who would jump at the chance of a nice home such as the club and help keep pests at bay just like small cats.

I'm no naturalist but I would think that a kangaroo would give a tiger a reasonable run for its money… being eaten (as far as the roo was concerned) would be no lay down misère… at the poor tigers, whose habitat is threatened everywhere, would have a home away from home at Lake Keepit.

If you support this idea, please send donations to:

The Manager's Tiger Fighting Fund.

P.O. Box 292. LKSC.

The Use of Water Ballast

Garry Speight

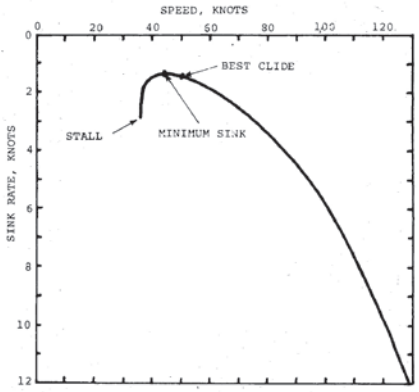
This article is reprinted from Australian Gliding September 1982. The decision to reprint it was not forced upon Keep Soaring after the recent flurry of letters to the editor… Rather because this article challenges some preconceptions about the use of ballast and therefore is a great help the real understanding of using ballast.

There are several graphs and many numbers without which it would not be an article from Garry!. This may not appeal to all. If you're in that category, read it twice, quickly to get the effect!

Since this is a period article, the gliders mentioned are "heritage" gliders with Shakespearean timbered performance. It's amazing to read how much the performance of gliders have changed.

The performance of a sailplane is usually expressed by a curve showing the way that the rate of sink varies with forward speed. This is called the performance polar, although it is not nowadays plotted using polar co-ordinates.

The performance polar for the Astir CS (Ref. I) is shown in Figure 1a, plotted in the customary way, with airspeed in knots along the horizontal axis and rate of sink, also in knots, plotted at a much coarser scale on the vertical axis, reading downwards.



There are three key features on this curve. The highest point of it is the point of minimum sink: this corresponds to a minimum sink rate on the vertical axis (1.34 knots) and a speed for minimum sink on the horizontal axis (44 knots).

As the airspeed is reduced below this figure the sink rate increases more and more rapidly until at the stalling speed the curve is going just about straight down.

On the right hand side of the curve, as the airspeed is increased above that for minimum sink, the sink rate increases rather slowly at first so that for a time the glide angle actually gets flatter, down to a point called best glide which corresponds to a best glide speed on the horizontal axis (50 knots).

The ratio of this speed to the corresponding sink rate on the vertical axis (1.43 knots) is called the best glide ratio (35:1) At higher speeds the glide angle become increasingly steep.

By tradition, because lightness of construction used to be highly regarded, test flying for polar curves is done at the minimum practical loading of a sailplane that is, its empty weight plus about 100 kg of pilot, parachute and instruments.

If a glider is more heavily laden as by adding ballast, its performance polar will not the the same: every point on the curve will move both to the right and downwards by the square root of the ratio of the heavier weight to the test weight.

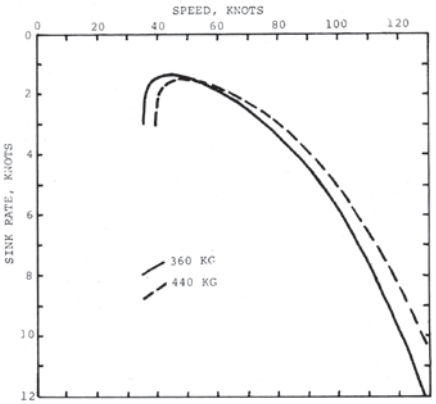


Figure 1b shows the performance polars of the Astir CS at 360 kg weight near its minimum practical loading, and at 440 kg weight, a little below its designed maximum loading.

The ratio of these two weights is 1.22 Since the square root of this ratio is about 1.10, or 110%, each point on the second curve is obtained by adding 10% to both the airspeed and the sink rate of a point on the original curve.

According to this formula (which is little over-simplified) the stalling speed, the speed for minimum sink and the best glide speed will all go up by 10% and so will the minimum sink rate, while the best glide ratio will remain just the same as it was.

By increasing the weight of the glider, we have made it a higher-speed

machine. During the sixties many pilots became convinced, whether by "gut-feeling", by comparison flying, or by calculation, that adding weight to their gliders was an advantage in cross-country soaring, particularly when the thermals were strong.

Some carried lead, and the more ingenious began to carry water which could be jettisoned if slow-speed performance became vital.

Some experts were sceptical of the value of water ballast but the idea caught on so well that by 1971 most of the high performance gliders in production had provision for it, and it had even been specifically permitted tinder the Standard Class rules.

The reason why ballast confers an advantage in cross-country flight is not immediately obvious, and I believe that many pilots rely on a vague idea that a faster best glide speed must somehow produce a faster cross-country speed through MacCready speed-to-fly theory.

Actually, it may be an advantage to carry ballast on a day when simple MacCready theory predicts that unchanged inter-thermal glide speeds and slower average cross-country speeds will result, given the prevailing thermal strength.

The key to the problem is that the most important effect of carrying ballast on the performance polar is not that the curve shifts to higher airspeeds, but that the two curves cross each other (at 52 knots) so that the ballasted glider sinks more at the slow airspeeds used for thermalling and sinks less at the high airspeeds used for cruising (Figure 1b).

Ballast and MacCready Speed

The effect of ballast on cross-country performance may he studied using the thermal models developed in the article "Rate of Climb in Thermals" (Ref. 2) and the thermal interception diagram (Ref. 3).

The thermal interception diagram (Figure 2, above) is constructed from the performance polars (Figure 1) using an arbitrary thermal spacing of 10 nautical miles.

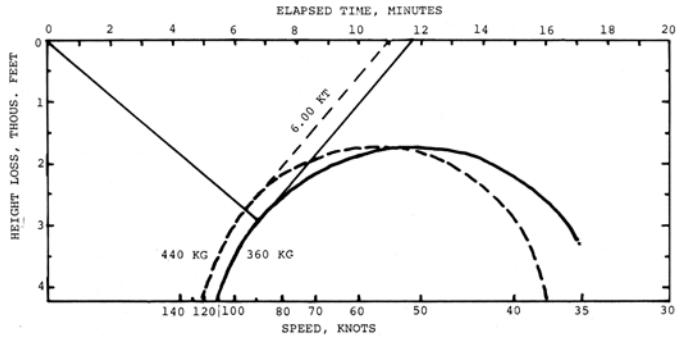


Figure 2a shows how, if the pilot flies at the correct MacCready speed to a thermal yielding a particular rate of climb (6 knots), the ballasted glider has both a higher optimum glide speed (as read on the bottom scale below the point of arrival at the thermal) and a higher cross-country speed (as read below the point of return to the starting altitude).

The comparison for equal rates of climb, is, however, quite misleading, as we wish to compare performance in the same thermal. The rates of climb will then differ, with the unballasted glider able to climb faster.

In "Rate of Climb in Thermals" it was concluded that, if a ballasted Astir CS were flown in a "normal" thermal (requiring less than 40° of bank), the effect of jettisoning 80 kg of ballast would be to increase the rate of climb by 0.50 knots. In a "narrow" thermal (requiring 45° of bank) the climb rate would go up by 0.84 knots.

In discussing the use of ballast, it seems more sensible to take the case of the ballasted glider as the standard for comparison, using round numbers for its rate of climb. In a ballasted glider one can take a decision whether to dump or not; in an unballasted glider there is no decision to be made!

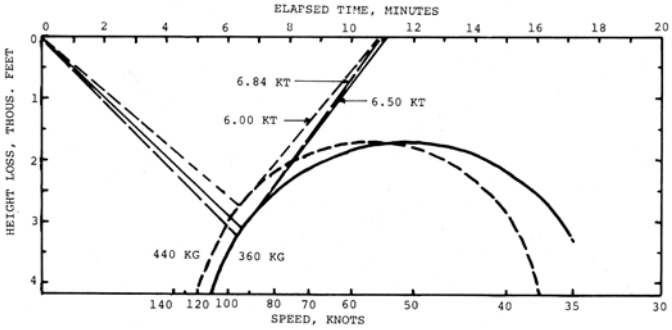


Figure 2b shows the MacCready construction for a thermal that yields 6 knots climb rate for the ballasted glider and 6.5 knots for the unballasted glider if the thermal is of normal diameter, or 6.84 knots for the unballasted glider if the thermal is narrow.

It is clear from the reduced gap between the points where the gliders arrive back at their starting altitude that the speed advantage of the ballasted glider is not nearly as large as appeared in Figure 2a, and is particularly small if the thermal is narrow, because of the relatively rapid rate of climb that is possible without ballast.

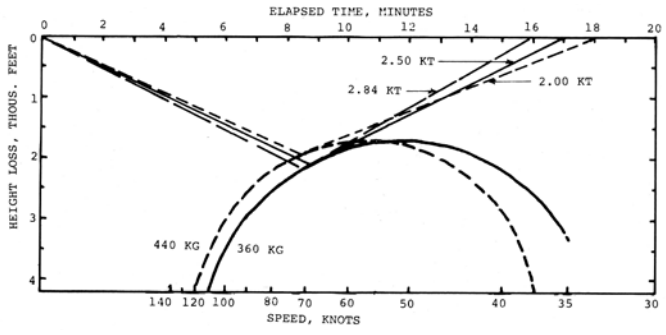


Figure 2c shows how, in a thermal yielding 2 knots rate of climb (ballasted), the glider's better rate of climb after dumping ballast increases the cross-country speed, especially if the thermal is narrow.

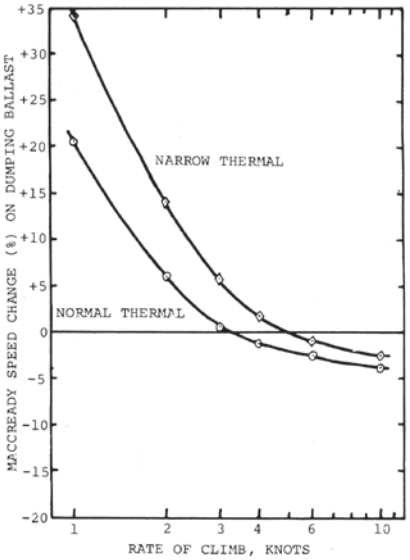


Fig. 3. Change in cross-country speed resulting from dumping ballast versus rate of climb (ballasted) for the Astir CS in normal and narrow thermals according to simple MacCready theory.

By plotting the cross-country speeds in this way for various thermal strengths we can construct Figure 3. This shows that, for normal thermals, dumping ballast will yield a speed advantage if the rate of climb is less than 3.2 knots and this advantage increases rapidly with weaker lift, until at 1 knot it is 20%.

When the rate of climb is greater than 3.2 knots it is better to carry ballast but, even in very strong conditions, the speed advantage does not amount to 5%. If the thermals are narrow the break-even point comes at 5 knots climb rate. The speed advantage of carrying ballast does not exceed 3% even in strong conditions, whereas the advantage of dumping ballast in weak conditions goes as high as 35% for a 1 knot climb rate.

So far, ballast scarcely seems to be worth all the trouble and expense.

Dolphin Soaring

Herbert Pirker of Vienna wrote a paper on this subject which he presented to OSTIV in Finland in 1976 (Ref. 4). His approach was much more comprehensive but, in part, his results agree very well with mine.

He took the case of the DG100 which has a higher wing-loading than the Astir CS so that its performance polars are a little further to the right. However, the ratio of ballasted to unballasted weights is much the same. Unballasted, the Astir CS wing loading is 29 kg/m^2 against the DG100's 30 kg/m^2 ; ballasted, the figures are 36 kg/m^2 and 38 kg/m^2 .

Pirker used a Konovalov Type B thermal model to simplify calculations but, of the four thermal sizes that he quoted in his results, the two narrower ones, "Grad 0.015 sec^{-1}," and "Grad 0.03 sec^{-1}, are closely equivalent to my "normal" and "narrow" thermals respectively, requiring 40° and 46° of bank for best climb when ballasted.

The break-even points for dumping ballast were calculated as 3.4 knots and 5 knots respectively.

However, Pirker was concerned with analysing the effect of dolphin soaring on the decision to carry ballast.

To do this he introduced a term called "thermal density" which he defined as "the sum of the gliding paths in the up-drafts, divided by the whole distance" ex- pressed as a percentage. This does not include the thermals used for circling, but only those that are flown through dolphin-fashion on the glides.

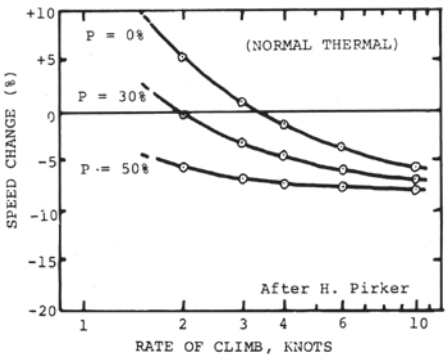


Fig. 4. Change in cross-country speed resulting from dumping ballast versus rate of climb (ballasted) for the DG100 in a normal thermal with varying thermal density (after Herbert Pirker).

The higher the thermal density and the stronger the lift the less circling is required. Pirker found that no circling at all would he necessary if 20% of the sky was going up at 10 knots or if 50% of it was going up at 3 knots.

Figure 4 is re-drawn from the part of Pirker's Figure 19 equivalent to a "normal" thermal, and shows the change in cross-country speed of a DG100 that would result from dumping ballast, not only for the circle-and-glide case, but also for mixed circling and dolphin soaring with thermal densities of 30% and 50%.

This shows a substantially greater benefit for the ballasted glider when dolphin soaring is possible amounting to more than 7%, even in rather weak lift conditions, provided that the thermal density is 50% or more.

Unfortunately, I cannot agree that Herbert Pirker's analysis accurately represents the sky. My barograph traces indicate very low thermal densities. I estimate a typical value of 4%.

Perhaps truly skilled pilots can push the figure up to 10%, but I am sure that the influences of thermal density on decisions to load up or dump ballast must be very small.

Thermal search range

I believe the advantages of ballasting to a high wing loading lie in quite a different direction: in increased range as it relates to the varying spacing and varying strength of thermals.

Looking again at Figure 2b, we can see that, whereas the ballasted glider, in this particular ease, loses 2,750' on the way to the thermal, the unballasted glider, also flying at optimum Maccready speed to the same thermal will lose 3,100' or 3,200', depending on whether the thermal is normal or narrow.

The normal and narrow thermals should perhaps be on separate diagrams: the narrow thermal must actually be a stronger thermal for the ballasted glide to achieve the same rate of climb in each That is why the unballasted glider lose more height in getting to the narrowe thermal.

Thus the height lost on this glide would be 11% greater after dumping ballast in the case of a normal thermal and 14% greater in the ease of a narrow thermal. A lightened glider is very much worse a conserving altitude than a heavy one.

Since we usually do not know when our next thermal is, an 11% increase in height lost over a given distance may more usefully be thought of as an 11% decrease in range for thermal search. To use traditional term, it is a decrease in penetration.

Points plotted on thermal interception diagrams like Figure 2 can be used to produce curves showing how the reduction in thermal search range varies with climb rate: Figure 5.

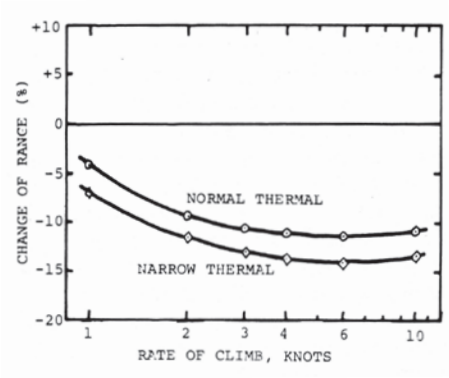


Fig. 5. Change in thermal search range resulting from dumped ballast versus rate of climb (ballasted) for the Astir CS in normal and narrow thermals.

This figure indicates that the variation is rather small, with an apparent minimum at the figures already given for a 6 knot climb rate.

Consequences of reduced range.

How important is this reduction in search range? This depends on some estimates about the way thermals of different strengths are scattered around the sky.

First there is the matter of whether we are going to make it to the next thermal. In a current type of Standard Class glider we will be flying at a glide ratio of about 25:1.

Now the evidence of a number of barograph traces is that the average spacing of thermals encountered on cross-country flights is about seven times the depth of convection. This means that, if we make some allowance for circuit height, a glide from the top of the convective layer will intersect three thermals on the average. But we know that the spacing of thermals commonly varies from half as wide to twice as wide as the average so, on every inter-thermal glide, even one from the top of the convective layer, there is a very real chance of having to land out. An 11% increase in range could prove very useful indeed.

Next, there is the matter of "scratching": desperately holding height in zero sink at low altitude, waiting and hoping for a useful thermal to break loose. This situation will arise 11% less often for a glider carrying ballast.

The loss of time while scratching can be very large: ten minutes in a 200 minute race is a 5% reduction in speed, equal to the disadvantage already demonstrated by Figure 3.

Finally, there is the variation in thermal strength. Cross-country races are won by the pilot who spends the most time in the strongest lift. Mediocre lift is to be used only to get enough height to resume the search for the very best lift.

When you have dumped your ballast and have lost 11% of your search range you are committed to circling in 11% more thermals. These will not be boomers that the other pilots have missed: they will be the rags that they did not bother to circle in.

This is the answer to the old riddle of how the hotshots of yesteryear, with lead cushions in their Boomerangs, always seemed to find better thermals than anyone else: better penetration allowed them to reject the weak lift and press on with the search for the very best.

Some may argue that you do not have to lose all that height; you can fly at a lower ring setting. Provided that the ring settings mentioned so far have all been realistic settings, this policy will surely slow you down just about as much as if you repeatedly got too low.

Without more information and more detailed analysis, one cannot accurately express the effects of reduced search range as a quantitative reduction in cross-country speed.

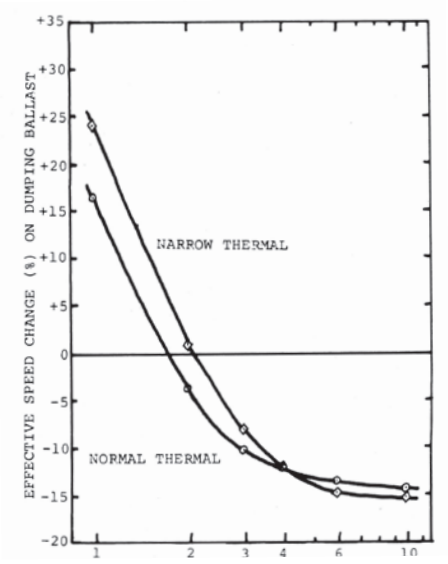


Fig. 6. Estimated total effective change in cross-country speed resulting from dumping ballast versus rate of climb (ballasted) for the Astir CS, combining the effects of MacCready speed and search range.

However, I believe that the effects are at least in proportion: an 11% range reduction producing at least an 11% reduction in speed. So one can take a stab at the combined effects of

MacCready speed ratio and search range ratio by multiplying them together, with the results shown in Figure 6.

According to this estimate, ballast can yield a 15% advantage in achieved cross- country speed in strong thermal conditions. The break-even point comes at about 1.6 knots climb rate, or 2 knots climb rate for narrow thermals, but it is still much better to be without ballast in 1 knot thermals.

Tactics

If search range is an important feature in the use of ballast, it follows that one should not dump ballast during the thermal search, even at low altitude. You will only reduce your search area, and you may still find a thermal strong enough to justify keeping it on board.

The time to dump it is when the lift that you are working at 800 feet is not much better than zero sink. A social problem may then arise if another glider comes to circle below you(!),

Having once been guilty of dumping water on another, I think I have the answer: either he has already dumped, or he soon will (unless there is someone below him). He should be able to climb through you and it may, be possible, with his assistance in finding the centre, for you to climb quite well without dumping the water after all.

Dan Pare mentioned that European pilots have discussed the point as to whether you dump the ballast the first time you have to scratch, or the second, or the third… Clearly it depends on how much value you expect to get out of the ballast after you have struggled up again.

When climbing for final glide, search range is no longer relevant and the simple MacCready argument applies.

If you are climbing for final glide in a 2 1/2 knot thermal, dump the water, change the MacCready ring or speed director to "dry", set your increased rate of climb on the final glide computer, also on the "dry" scale, and go home in the minimum time.

Other aircraft

The comparative cross-country performance of various types of current Standard Class glider depends largely on their wing-loading. Differences in stalling speed and minimum sink rate when measured at the same wing-loading are scarcely significant.

Advantages in best glide ratio definitely favour certain of the latest types but these can he negated by inappropriate management of water ballast.

The latest models generally have provision for ballasting up to a loading of about 45 kg/tn2, and the Mini-Nimbus is designed to take 51 kg/m2. Whether the advantages of ballast continue to increase up to that figure I have not attempted to find out.

I am fairly sure that the limitation of the Astir CS and the Standard Libelle to only 36 kg/m2 is a definite handicap. No manufacturers of competition gliders are now bothering with minimum wing loadings less than 31 kg/m2: the LS 1f has a minimum of 34 kg/m2!

The Americans, with their cavalier attitude to loading limits, have apparently found performance benefits in loadings substantially greater than the manufacturers allowed for.

We would do well to find out more about the relationship between performance and wing-loading. We should be analysing championship results, and we should be collecting data on the size, strength and distribution of thermals.

It would also help if glider designers spoke out on what they are trying to achieve and why they think it will work.

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3 The Thermal Interception Diagram, by Garry Speight. Australian Gilding, April 1987, pp. 4-8.

4 Some Computer Calculations on the Optimum Waterballast of Sailplanes, by Herbert Pirker, Swiss Aero Revue 3/77 (1977), pp. 173-178.

The Great Man himself…Garry Speight, known internationally as "that Kiwi who can thermal a fart" standing in full regalia in front of the modern equivalent of an Astir CS.

G' DAY MATES!
HOW ARE YA GOIN' ?

For people who are not LKSC members, it had better be explained that this article was written by our irrepressible summer tuggie, Tomas Munk.

Although Tomas comes from a country where few vowels were issued when they started writing (probably a long time before we did) and he's been taught most of his "Englishg" by Christian Linnet (see Tomas' comments below on this…) he seems to have grasped the idea of how to use vowels and how to speak 'strine like an… ahem… native!

It's gonna be already seven months, what I arrived to Tamworth and Joy and Ian came to pick me up. Jet laged and tired like a Koala bear I went to Gunnedah with everybody to enjoy my first Australian steak.

That time I didn't know that Gunnedah will be one of the most civilized place in this area, beside the Bush Life in Lake Keepit.

It took me a while to get used to Australian language, especially after I met Christian, whose language sounded like some Aboriginal slang rather than English. (Editor's note: I never touched that bit!)

That all seems to be like yesterday and now it is time to go, but lot of things happened...

Before I arrived I thought I will just fly the tug and maybe some gliders and if I will be lucky I will manage to survive all attacks of spiders and deadly snakes. Now I know that it's not too bad with the spiders and there are no snakes here (still haven't seen one). Also it wasn't only about nice flying, but about the place as such, great atmosphere and mainly about awesome team of club members, who make this place so pleasant.

Combination of these people, bouncing kangaroos, happy parrots, peaceful pelikans, lake and gum trees in the sunset makes this place unique and friendly.

This period was basically my first „job" after graduating at university and I have to say that first thing I realised was, that I am actually living the life and not sitting in the classroom all day listening to many times useless theories.

Every day, when I woke up in my lovely caravan after great sleep under starred sky I could enjoy the concert of parrots and

whatever else making noise on my roof. Trust me, you cannot find this anywhere where I live. Living the life at Keepit meant flying the tug everyday and doing other things around from 9 o'clock to sunset so at the end of the week I was usually quite tired and it was good to have weekend off to go shopping or to clean the caravan, wash the clothes etc.

But not always it was that easy, because there were some Saturdays, when Christian knocked (or banged) on the door of my caravan and screamed: „Hey sleazebag! Get out of there! It's gunna be a good day! Take the „Jamjar“ and let's go flying!“

Not having much chance, I went to the briefing and since the Jantar was the only available glider for me and the blipmaps looked better than the day before I put my name on the board.

If I remember well, that day we had nice day of flying with Christian and Vic and I finished declared 300km FAI triangle with reasonable speed. (Sorry Christian that I didn't want to wait for you near Split Rock Dam and Narrabri, but I wanted to get going).

So it was really great that I could fly such nice gliders as Jantar, LS7 and my favourite rocket LS6 and do few 300km, couple of 400 and 450 and one 500 km FAI triangle.

Various countrysides as hills, flatlands, lakes, high country on the east, never-ending forest Pilliga etc. make this place very interesting for cross country flying. Gliding as a sport is not only about nice views and strong or weak thermals, outlandings or successful final glides, but also about friends sharing stories at beer o'clock. I loved to listen to these talks even when I wasn't flying the glider that day and I used to stay in the clubhouse with other club members and visitors till late night.

This lifestyle was definitely outside of reality. The only reason I went to town was usually – food. So it happened, that I haven't left Lake Keepit for two months. In the morning there was no need to care about having key, phone, documents and money as I always check when I am at home, in Europe (or any other civilization).

Here at Lake Keepit I only had to make sure I have suncream, water, sunglasses, hat and camera (always ready). By this I want to say, that simplicity of this life was just enormous: SLEEP – EAT – FLY (- DECLARE).

General Aviation has relatively more incidents than commercial flying and I've been lucky I could fly in such a safe club with high standards of airmanship and procedures. In gliding aerotow operation is essential to have good liveware and hardware, because these two elements are always critical.

By Liveware I mean my boss, colleague and mate Ian Downes, who ran the operation in the most professional manner and I really enjoyed working with him (although the lunch breaks could have been a bit longer).

Flying was always well organised and the operation was nice and smooth. Usually we had nice people here who became our friends and it was always quite sad when they had to leave. But their feeling of having great time here (even if they had bad weather) makes it all even more satisfactory.

Another proof that Lake Keepit is not only about flying. Of course we had few strangers here, but I think we always managed to deal with them without any troubles. This all couldn't have been achieved by huge effort of Ian, who is not only good instructor (and I think I will remember some things he was explaining to students many times, again and again), but his job means to wake up early in the morning to sort all office jobs, prepare the briefing, which was always done very professionally and plan the flying day so as everyone was happy.

Beside flying, answering the phone calls, repairing things etc. etc. working 24/7 to make people satisfied and enjoy their gliding holidays. I am sure Lake Keepit wouldn't be so successful without this man and good committee. It was more than pleasure and great fun to work with Ian.

It's a pity we didn't have a chance to fly some 500 FAI triangle together, but at least I have another reason to come back. (picture me and Ian).

By Hardware I mean my yellow tractor VH-MRP. Without reliable machine no operation can be done and I was lucky to have one. Apart of ASI at the beginning and minor unimportant defects, which had been solved quickly, MRP has been very comfortable and safe office for 7 months. Especially the engine – I loved to start it up each morning and enjoy perfect rhythm and melody of Sydney symphonic orchestra, if not better.

Floods in November and December were not very good for me (and club), but after that the weather wasn't too bad and we (Ian and me) could continue cracking every day. The big part of my stay was participating on few competitions (Regatta, Grand Prix, State Comps).

I will never forget a great comp atmosphere, all nice people we had here and challenging towing with many tugs on final at the same time. I do like idea of Regatta – connecting glider pilots with all sort of gliding experience, having lectures in the morning and trying to beat each other. I wish I could be part of it as a glider pilot one day.

Last year when I received an email from Dave Shorter about conditions at Lake Keepit, he wrote I can expect 100hrs of flying. That was a bit marginal, but I am happy I took good decision and gave it a go.

In these seven months, since October, I have flown more than 220 hrs on Callair and Pawnee, about 40 hrs and 1700 kms on gliders and made about 1300 aerotows, what brought my total flight time well above 500 power hrs.

Maybe this helped me to got an invitation for the interview from Indonesian company called Susi Air. That was the only invitation I got after 900 applications, so I had to take advantage of that and after short visit of Jakarta I have been accepted as First Officer of Cessna C208B Grand Caravan starting 1st June 2011.

Beside Susi Air I had more opportunities than I expected. Instructor job in Slovakia, 2 tug pilot jobs in Canada, but the biggest chance was crop-dusting job in Middlebrook allowing me to settle down, buy LS3 and basically stay at Lake Keepit and Australia.

But after proper consideration I decided to get the Caravan job, as a better stepstone in my career. I am looking forward to fly all over Indonesia including Papua and landing at short, narrow and steep strips surrounded by cannibals (snakes and spider and crocs too) and maybe after this experience I will be able to find a job back here in this lucky country full of kangaroos, Cu's and happy people.

During my stay I met lot of nice people who didn't mind to help when I needed, so I would like to say Thank You to everyone, even to those I forgot to mention below.

First of all big THANKS for each single pilot/student who took a launch or retrieve behind me and helped me to build my hours.

Next, thanks to each single girl, who stayed home and didn't come to Lake Keepit, so I could be nice and safe, concentrated on flying only.

Thanks to Maren and Jay for flying Saratoga from Armidale.

Thanks to Phil for flying his little RED aeroplane and as a tugmaster for giving me this job.

Thanks to Matthew, that he wasn't too angry when he found my dried carrot in the LS6 canopy.

Thanks to Atilla for his offer to fly his Cirrus.

Thanks to Chris for his hospitality at his nice house in Sydney

before flying to Jakarta. Don't forget Chris, your task to beat Jaques is still on.

Thanks to Lee for his kangaroo meat.

Thanks to Allan for his nice aviation career giving me many goals.

Thanks to Chris for giving me an advice to always fly LS6 full of water.

Thanks to Tim for being president of such a great club.

Thanks to John for publishing this article in the best magazine of the history of gliding.

Thanks to Todd for looking after my yellow tractor and for explaining me PT6 engine and helping me with my preparation for the interview in Susi Air.

Thanks to Rob, that I could see his fairy tail house in the hills of Bingara.

Thanks to Jan and Bob for beautiful food, crocket nights and driving me to Sydney before my flight to Jakarta.

Thanks to Brian for his opinion about my dilemma with the jobs.

Thanks to Brad for flying his beautiful Pawnee.

Thanks to Lisa and Richard for tomato plant, bread and butter cake recipe, for nice stay in Sydney after my arrival from Jakarta and for not letting me go back to talk to girl from bakery in Singleton (where everyone has to be single).

Thanks to Dr. Death for his incredible stories.

Jaques, make sure you'll beat Chris, the task is still on!

Thanks to Vic for his jokes and for interpreting safety in a funny way.

Thanks to Steve for not fineing me on comp and for flying in his Nimbus 3.

Thanks to Graham for his Indonesian advice.

Thanks to John for towing for me when I went to Newcastle to fly Tiger Moth.

Thanks to Mark for his tasty wines.

Well, thanks to Christian for many things except calling me Seaze Slovakian. Especially thank you very much, mate for spending Christmas with you and your family. For driving 8hrs to Entrance via bush looking for goannas, fishing the carps with a shovel, flying Grob to Armidale Cloney - Brad's airstrip in the poor weather with operation altitude 2000' GND and thanks for not bringing your daughters to the airfield (for the reason mentioned above).

Thanks to Wendy for the snake skin which I will try to bring to Europe and for the bird book.

Thanks to Harry for his 750km FAI triangle advice, hopefully one day I will come back to fly it.

Thanks to Miro for his bananas, avokados and invitation to visit Coffs Harbour.

Thanks to Matthew for owning car which rolls uphill.

Thanks to Harry – I've never met a ship captain before!

Thanks to Andrew for the effort with organizing Tiger Moth and for the stay at his place.

Thanks to Peter Sheils for crossing fingers to get the job in Indonesia.

Thanks to Dave for sending me email last year with this „job“ offer and for AAT thinking.

Thanks to Geoff that he wasn't too angry when I hit his fence at RWY32 threshold with a rope.

Thanks to Greg for flying in his Maule.

Thanks to Garry for all the lectures, although I still like to fly with a water ballast.

Thanks to Dennis for flying in his Glaceair.

Thanks to Gerhard for his advice about Jantar.

Thanks to Margharite and Ray for staying at their place in Armidale when I came to pick up MRP and the weather was poor.

Thanks to Robin for helping me with water ballasting the gliders and driving me from Newcastle.

Thanks to Ken for a great weekend in Central Coast, fishing, night walks in the bush looking for fauna and flora. Ken, please visit Gunnedah Wildlife Park to make sure that Stewart, the gallah, is doing well and send him my best greetings.

Thanks to Andy for the cross country flights we've done together, sharing the food and cooking together and for being such a nice visitor.

Last but not least I would like to express huge thank to Joy and Ian. Awesome couple making me feel like being in a family. Thanks for nice Joy's cooking and organizing dinner in the club house each week.

Thanks for all the help with everything and for looking after me for seven months. Also, Ian thank you for accepting my „monkey and the jar“ situations.

Thanks to all for making my time in Lake Keepit fantastic. I will certainly miss this place and people. See you soon somewhere in the sky, hopefully above Lake Keepit lake.

As my boss used to say: Fly safely and have fun!

Your Summer Tuggie

Tomas Munk

EMPIRE OF THE CLODS

When I was in shorts back in the south of the UK, when summers were endless and it never ever rained, the sky was a different world. Above us every day, to the delight of boys and grown men everywhere, fast jet fighters, the new wonders of the age, would be breaking the sound barrier and better, smashing world speed records.

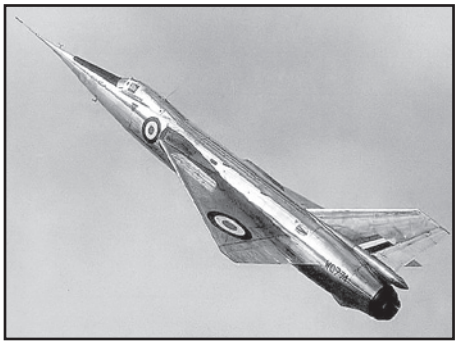
Yes windows were broken. Yes, ceilings came down and walls cracked but this was the sound of progress… the sound of peace and it was Made in Great Britain.

At the end of the second world war, England built the best fighter aircraft in the world. There were dozens of companies… Avro, Vickers, Shorts, Supermarine, Hawkers, Bristol, Glouster, English Electric, De Havilland, Hunting, Percival, Saunders Roe, Miles…

And they made dozens of (what appeared to a schoolboy with the Observers book of aircraft) wonderful planes… the Meteor, the Vampire, the Venom, the Vixen, the Swift, the Hunter, the Javelin, the immortal Vulcan, the Lighting and the Fairy Delta 2.

They were flown by the rock stars of the day… Cunningham, Duke, Twiss, Trubshaw, Winkle Brown and Waterton.

Before I was born, Bill Waterton was part of a team which upped the world speed record to 616 mph in 1946 flying at 300' above the sea between Wittering and Bognor. Wittering where a decade later I paddled about looking for crabs and Bognor, where two decades later, I walked uneasily down the beach front between opposing gangs of mods and rockers.



In 1956, Peter Twiss, in the Fairey Delta 2, raised the world speed record to 1,132 an increase of 300 mph over the record set by the Super Sabre… an aircraft which was as homely as a mud-brick fence compared with the sublime Fairey Delta 2.

The Fairey Delta 2 was exactly what a jet aircraft should have looked like… " This wonderful aircraft flew as gently as a bird into the hard supersonic sky. From that moment, I knew we had a world beater," said Peter Twiss in his book Faster than the Sun.

Heady days for an air-mad school boy. By 1970, the British aircraft industry had all but disappeared. Where did it all go? What went wrong?

Empire of the Clouds looks at this period from the point of view of this baffled schoolboy… the writer was in shorts at the end of the war and has not lost his love for the aircraft and the men who designed and flew them and the book is at the same time a romantic paean to a lost age and a critical summation of the failures of management, industry, government and politicians.

Reading about the problems with the joint strike fighter, one wonders if anything much has changed and if aircraft such as the TSR2 had not been scrapped, the modern aircraft industry might not be quite different today.

Empire of the Clouds does not attempt to gloss over the faults of the British industry or the aircraft it produced but it is the highlights that stick in your mind.

The Avro Vulcan is still a truly awesome aircraft but it had performance

to match. With its huge wing and low wing-loading, the Vulcan could be chucked around like a fighter. It had a very small radar print and good below the radar.

In a secret NORAD exercise in 1961. 7 out of 8 Vulcans, flying towards the USA from the north and south, penetrated US defences, technically wiping out Washington, New York and Chigao with one Vulcan, flown via Bermuda, landing in New York state. A photograph was pinned on a notice board in a mess at Nellis air base, Nevada showing a deep furrow carved in the desert by the wingtip of a Vucan keen to show the Americans what low-flying was really all about.

Patterson calls himself a child of the Jet age "We hero-worshipped the pilots, while the aircraft themselves were above all awesomely beautiful: streamlined, violent, slitting the sky with surgical precision to reveal a dazzling - if not quite undefined - future."

Patterson has talked to pilots and people from the industry and does a good job in explaining the rise and fall of this empire. The book is full of personal anecdotes and stories about flying…. triumphs, disasters, record flights and crashes and there's a good dose of men (in uniform) behaving badly…

Tangmere was a famous Battle of Britain fighter base, just over the hedge from where I lived in West Sussex. Douglas Bader was stationed there in 1941.The immensely dangerous SOE flights had been based there, ferrying agents to and from Occupied France by night in 'Teddy' Petter's black Lysanders.

After the war, Tangmere was home to the Fighter Leaders School and the High Speed Flight in which Bill Waterton, Neville Duke and Group Captain Donaldson had set the world airspeed record in Meteors. In the year of the Coronation, it was the base from which Duke had captured a new world record in his red Hawker Hunter.

1968 was the 50th anniversary of the RAF. Very much the junior service, the RAF wanted to commemorate this anniversary and started planning a fly-past over London. When it was discovered that the awful Harold Wilson's Labour government was not planning any celebration, the RAF was understandably upset. At a gloomy party at Tangmere, pilots gathered from various stations to mourn this miserable state of affairs.

The next morning, Al Pullock and the others climbed into their Hunters to fly hack to West Raynham. Overnight, Al had taken a decision he kept to himself. Since London lay directly on his course to Norfolk, he was determined to slip away from the others and carry out a solo defiant 'celebration flag-wave' of his own over the Houses of Parliament, Downing Street, the Ministry of Defence and - most particularly - the RAF Memorial on the Westminster Embankment.

The pan at Tangmere now became loud with the shrill hiss of Avpin starters and acrid with drifting gases as the five started their Avons. As their jet-pipe temperatures stabilised the men carried our the ritual pre-flight check: bang seat live and pins stowed, trim, fuel, flaps, instruments, oxygen, hood, harness and hydraulics.

Then, having checked in on Tangmere's local traffic radio frequency, brakes off and taxi out to turn on to the runway: 'the last section of the last Hunters and fighters of the RAF to fly into and out of our nation's historically greatest fighter airfield', as Pollock later wrote in valediction.

Immediately after take-off he gave the others the slip, quickly dropping to low level so his Hunter's camouflage would render it invisible from above as he sped across the Sussex countryside. On the way to London he paused briefly to beat up Dunsfold airfield - the home of Hawker, who had designed and built so many great aircraft, including the one he was flying.

Two minutes later he was over the reservoirs just to the south of Heathrow. He joined the Thames and flew eastwards along it, banking low to follow its sinuous curves. 'The weather was one of those rare, perfect, 8/8 Gordon's-crystal-gin-clear days when all the colours shout out brightly . . . I swept round over Wandsworth, Battersea and Chelsea bridges, keeping a special eye open for any helicopters.'

Within seconds he was over the Houses of Parliament and Whitehall. His approach so far had been discreet: slow

and comparatively quiet. Now, though, in order to keep a good tight circle over Westminster, Pollock had to open the throttle and make a lot more noise.

The roar of his Rolls-Royce jet at almost rooftop level 'was perhaps what was really necessary at this juncture to wake up our MPs and remind other august figures, sitting chair-bound at their ministerial desks below, that we still had a fighting Air Force, one small unit of which was celebrating its anniversary, despite the dead hand of government policy and the sickening cut-backs of previous years'. Three times he circled low, the noise interrupting a debate in the House of Commons.

Then he levelled out over the Thames and dipped his wings past the RAF Memorial on the Embankment. Satisfied that he had made his point, Pollock glanced at the fuel gauge and decided to carry on eastwards along the river to Essex and then turn north to West Raynham. But as he crossed London Bridge, travelling at about 330 knots now the need for stealth was over, Tower Bridge suddenly loomed ahead through his windscreen.

'Until this very instant I'd had absolutely no idea that, of course, Tower Bridge would be there. It was easy enough to fly over it, but the idea of flying through the spans suddenly struck me. I had just seconds to grapple with the seductive proposition which few ground attack pilots of any nationality could have resisted. Years of fast low-level strike flying made the decision simple.'

What else could any RAF pilot officially rated as 'Exceptional' be expected to do, flying a Hawker Hunter illegally low over central London on a sparkling morning in April?

He had already burnt his boats: his career was almost certainly in tatters. He was thirty-two years old and the father of four, with the responsibilities of a breadwinning family man - but what the hell. There are moments when you just have to go for broke.

'There was considerable road traffic I could now see, including a red double-decker bus slowly lumbering across the famous double-basculed bridge from north to south.' Calculating his clearances with split-second accuracy, Al Pollock took his camouflaged Hunter through the bridge above the traffic in a blast of motion and sound that beat back from the iron girders and startled the living daylights out of a good few people.

By the time they realised what they had seen, Pollock's Hunter was a dwindling speck passing Rotherhithe in a shimmering blur of exhaust. He was not the first pilot to have flown through the bridge, but he was the first ever to do so in a jet aircraft.

On the way home Al Pollock beat up RAF stations Wattisham, Lakenheath and Marhani. Finally, with less than 400 pounds of fuel left, he carried out 'a rather hurried, inadequate, inverted run over the squadron hangars at RAF West Raynham before breaking downwind, punching down the gear and landing, with the brake parachute bobbing about contentedly behind…'

Within the hour all hell had broken loose. Pollock was formally placed under arrest on his station. Media reaction was split between two camps. 'Hunter Ace - Hero or Hooligan?' one newspaper asked, plainly unwilling to commit itself.

There was a good deal of support from members of the public, like the lady who wrote to the Daily Express saying, 'Please don't condemn or punish the dare-devil pilot who swept across London. It did me and a lot of other people a world of good. I shall always remember a feeling of pride as I thought of that chap in control of so much power and it revived memories of those wonderful fellows, who during the war fought for our survival.'

A central figure of Empire of the Clouds is Bill Waterton, the Candian ex-RAF test pilot for Glouster who test-flew the Meteor and Javelin. Waterton appeared to be a brilliant but cranky test pilot and his criticisms of the British industry in the'50s rang all the more true in the '70s when the industry could not have produced a fighter plane by itself.

Waterton left Glosters under a cloud and joined the Daily Express as their aviation correspondent. During this period he wrote a book called "The Quick and the Dead" which blew the whistle on the British aircraft industry, it's failings and bad practices which had caused Waterton such a lot of bother at Glosters.

The Quick and the Dead is long out of print but it's an excellent read and like so many good books, can be got fairly easily through one of the internet booksellers.

As Empire of the Clouds points out, the world was a different place back then. When the Meteor was the fastest jet in the world (a record it did not hold for long) Waterton flew around the world demonstrating the aircraft to prospective buyers.

The French were as silly about flying then as they are now… probably more so. So it was that Bill Waterton was invited by one of the French governments to beat up Paris in the Meteor.

On January 15, 1947, 1 flew on a reconnaissance. familiarizing myself with the centre of Paris from the air. I was thrilled at the opportunity, for it is not every day that one has a chance to "beat-up" a capital city the size of Paris.

But the spectacle would not be without its sobering dangers. All air displays have their attendant risks, yet here I would be performing acrobatics around and among tall buildings, flagpoles and overhead wires. I proposed to fly along the Champs Elysees at a height of only fifty feet between the walls of the buildings. The slightest error there could mean the slaughter of spectators as the Meteor fell among them. Timing and precision were essential, for my approach to the Champs Elysees would not be across wide, Open fields, but a downwards sweep from over the Arc de Triomph. At over 600 miles an hour such flying did not allow for even an infinitesimal margin of error.

Later in the morning the 'plane was checked and refuelled for the display, scheduled for noon. The press and radio had really gone to town, and were full of La Grande Manifestation, and Le Meteor, L'Avion Plus Vite Du Monde.

Paris, it appeared, was seized by that crazy fever for lunatic spectacle peculiar to the French, and the streets would consequently be packed with intrepid Parisians anxious to be scared out of their wits. It was very flattering, but a heavy responsibility.

After a final check, 1 climbed into the aircraft at Toussis at 11.50 and prepared to take-off. As I opened up the engines for take-off a terrific explosion shook the 'plane, and a great sheet of flame shot from the entry to the port nacelle.

My heart quite literally missed a beat. I frowned and swore-then recollected that I had heard of these explosions in Meteor nacelles. They were generally believed to be due to mechanics leaving off oil tank covers, or to the vapour from tiny oil or fuel leaks in the nacelle. This vapour, combining with air, made an explosive mixture which could result in a giant backfire sufficiently violent to blow panels off the engine compartment.

Supposing, however, that there was a different cause? What if something was radically wrong? Perhaps there was damage that would not show itself until I was over the dense crowds in the Champs Elysees.

My predicament was a nasty one. Common sense told me that I should return to the hangar and cancel the show. Yet I was desperately anxious not to disappoint the French. The whole city was waiting for me to come screaming over the roof-tops, and I hated the thought of letting them down. Further: to call off the show would reflect unfavourably on both British aviation and Gloster prestige.

Weighing heavily on the other side of the balance, however, was that fear of turning the Champs Elysees into a slaughterhouse. At my take-off position at the end of the runway where the bang had occurred I set the brakes, left engines running and got out for an inspection.

As I climbed from the cockpit I wished to heaven that the decision was someone else's. I looked carefully at the out side of the 'plane. As far as I could judge, the engine was undamaged. I turned the problem over in my mind- and decided to go through with the display. I confirmed that all was well in flight before starting the display.

I roared in from Versailles at high speed. From then on things happened very quickly. I dived over the Arc de Triomphe and down the Champs Elysees at tree-top level between the canyon walls of the buildings.

At well over 6oo m.p.h. the stately avenue is not very long, and it was necessary to pull upwards by the Place de la Concorde to avoid hitting that stone toothpick, L'Obelisk. Up… up… up at full throttle from 50 feet to more than two miles. I slowed in the upwards rocket to 150 m.p.h. as seconds later I was upside down on top of a loop.

I repeated the low runs in each direction, fast and slow, right way up and upside down, only 50 feet above the Champs Elysee pavements. Acrobatics filled the gaps between the runs-upward rolls, inverted climbs and aileron turns. The row must have been frightful as the Meteor scorched and shrieked over the city and between the buildings. For blurred split-seconds I glimpsed the halted traffic and upturned faces. The noise would certainly be shaking them up. It was bad enough in the open.

Other parts of the centre of Paris came in for attention, among them one which nearly brought us down: the Eiffel Tower. It was a strange and wonderful experience to fly round the great structure looking up at the people on the galleries who were waving to me. But with an icy stab of fear I suddenly saw the sloping, almost invisible steel cables which guy the great tower. In dropping my height to fly around the tower, I had missed one by no more than twelve feet. A bit closer and the steel rope would have sheared off a wing as easily as a hot knife slices butter.

I left the tower in a hurry, sweating freely. 1 flew upside down from west to east along the Champs Elysees, and made an inverted climb over La Concorde. I dived in at speed from the east, and disappeared from view in a series of climbing rolls into the western sky. The show was over.

The French were delighted, and I had enjoyed a unique and exhilarating experience. Had the performance been given over London, I would probably have been locked in the deepest dungeon of the Tower for life.

LETTERS TO THE EDITOR

Sheep, Goats, and Water Ballast

John Clark, with his usual sharp wit, described the recent Lake Keepit Regatta in the April 2011 "Soaring australia" (p. 30-32) in an article "Separating The Sheep From The Goats".

In it he summarised a talk I gave on the effect of water ballast on performance. Unfortunately, he left out the punch line (perhaps I muffed it somehow). This gave the impression that I do not recommend carrying water ballast, when in fact I do. The advantage is simply not what people think it is.

My talk was a brief version of an article I wrote in the distant past: "The Use of Water Ballast", Australian Gliding, September 1982, p.16-22. I am sure that my argument was correct then, and is still correct. Wing loadings are all heavier now, so someone should update the calculations and graphs leading to the conclusions of my article.

To quote John Clark's article (with the points numbered):

"Garry Speight gives a challenging talk on why increasing your wing loading with water ballast

(1) will give you a lower rate of climb

(2) will give you more trouble in narrow thermals and

(3) won't make your speed on the glides any faster.

As usual with Garry's talks, it provoked some amusing arguments and more than a little scratching of heads."

These three points were supposed to lead to the conclusion:

(4) will stop you from getting too low.

The argument is this:

The advantage of a high wing loading is not directly related to all points on the polar (including best glide) moving to the right. It is related to the fact that a loaded glider sinks less at all the high speeds used for cruising, although it sinks more at all the slow speeds used for climbing.

When thermalling with ballast, the rate of climb is reduced for two separate reasons: the glider sinks more at each speed, and the minimum circling speed is higher, forcing a bigger circle which may be outside the thermal core. The best reason to dump ballast is finding that the glider cannot fly within the core.

The best speed for cruising depends directly on the rate of climb. Pilots carrying ballast will fly at much the same speed as those not carrying ballast. If they experienced the same rate of climb, their better polar would justify a higher speed, but they don't; they experience a much lower rate of climb.

Given that ballasted and unballasted gliders should cruise at much the same speed, it is clear that the heavier glider's lower sink rate in cruise is its only advantage.

It is a very great advantage, bringing strong thermals within range, avoiding scratching at low altitude, and making outlanding less likely.

Garry Speight

Dear Garry,

John Clark and his so-called "witty" articles have given us more trouble that they're worth. The man is a thickie and was probably day dreaming during your talk…he's utterly persona non grata in the offices of Keep Soaring and I gather at his own home as well.

All that being said, there's a good chance that the sub editors at Soaring Australia just cut the conclusion to make the article fit… you know what subbies are and you can't get much in the way of good help these days. We're well rid of Soaring Australia!

Hopefully, you'll take some comfort in that we have reprinted in full your original article on water ballast and readers who pay attention can make up their own minds.

Mount Kaputar Wave Camp

The Mount Kaputar Wave Camp was held from May 16th-23rd 1982 at John Tuffrey's property "Waroona" in the lee of the Nandewar Ranges, 75 miles north-west of Tamworth in northern New South Wales.

There is no host club in this area and the camp is made possible due to the generosity and hard work of the property owners the Tuffrey family and the fanatical enthusiasm of Ian McPhee. Also, Eric Lucas seems to take great pride in having their 235 Pawnee on the line at an early hour.

The camp was strongly supported by the Lake Keepit Soaring Club with their Bergfalke 3, Blanik, Libelle and Astir. Bob and Mary Wilson brought the Concordia Club's Astir. Malcolm Braebrook, Ron Cameron and others came from Warilda with the Hornet and Pilatus. Others were Terry Harris from Moree, Geoff Sim from Nowra, Lloyd Hodges, Brad Edwards (LS3) and Wayne Yeoman (Pik) from Armidale, Peter King (Pik) from Gosford, Glen Smith (1S28M Motor Glider) and Shane McCaffrey (LS4) from Jondaryan and Ian Aspland (Cirrus) from Kingaroy.

The first few days of the week were very calm and although the conditions were not conducive to ridge or wave soaring, the thermals were quite good, 4 knots up to 6,000 ft cloud base. A few of us were able to fly 150 km cross country tasks on Tuesday and Wednesday.

Thursday afternoon: a cold front went through well to the south of us and the wind freshened enough from the west to allow some hit and miss ridge soaring.

Friday morning dawned clear and still. There was a thick layer of frost on the cars and at this point even my optimism started to wane. However when Ian McPhee returned from the telephone waving a small piece of paper with a met report of winds of 20 to 50 knots from 270° aloft, the camp livened up fairly smartly.

At approximately 9 a m, Brad Edwards was first off in his LS3 followed by myself in the Cirrus. The combination Cirrus and Pawnee was barely a mile upwind of the airstrip when rate of climb went to 1,000 fpm and stayed there for the next mile where I could no longer resist the temptation to release. By the time I got off tow the altimeter was indicating 2,500 ft.

When exploring a new wave it is difficult to describe the suspense as one pulls back the speed to 40 knots and sweats on the vario to see what that dead smooth morning air has to offer. I was thrilled to find I was going up at a steady 2 knots.

Below, I could see Brad Edwards circling and just managing to claw his way into the wave at 1800 ft. Apparently Brad had towed a little too far to the north and failed to contact immediately off tow. Wayne Yeomans and Ian McPhee didn't waste time in joining us.

The four aircraft climbed steadily together exploring for the extremities of this, the primary wave, as we went. Above 7,000' we moved further to the south where the lift increased to 300 fpm.

I called Brisbane Control on 128.0 MHz and obtained clearance to operate up to FL220 but we found the lift topped out at just under 18,000 ft AMSL.

The sky in this area remained completely clear all day except that around 4 pm wispy cloud appeared in the area at strongest lift at about the 7,000' level. We found the lift just ahead of the cloud to be in the order of 500 fpm.

Ian McPhee and I could not resist the temptation to accompany Wayne Yeomans back up to 16,000' for his Gold height gain. Around this time the Blanik and Bergfalk were seen cruising around at 10,000'.

Quite a number of people were able to sample the wave this day, however there were a few disappointed pilots whose turn came in the middle of the day when the wave was more difficult to contact. I eventually landed after 7 hours in the air, with very cold toes and feeling very satisfied with the day's results.

After dark someone noticed that waves which had been invisible all day were now clearly marked with lenticular clouds back as far as wave No 5.

Typically, we rose the next morning with high expectations only to find the whole thing had vanished. I believe the wind was just strong enough on the Saturday afternoon to allow about eight aircraft to crowd on to a small ridge just west of the strip where they remained until dark.

In summing up the camp I would make these comments.

1. The site certainly has a lot going for it. As previously stated, it is situated right in the lee of the 4,000' Nandewah Ranges and it is possible to aerotow right into the primary wave at 2,000 ft only two miles upwind of the field.

John Tuffrey's strip is situated in the centre of a wide, flat-bottomed, treeless valley three miles wide by ten miles long with some cultivated fields and several private airstrips.

2. Ridge soaring. If the conditions are not suitable for wave, there is an excellent 1,000' high ridge for the south-east winds almost in the circuit area. Over on the east end of the valley is another 1,000' high ridge suitable for north-west winds and it's possible to leave level with the top of the ridge and glide the three miles back to the strip.

There is a small isolated ridge which rises abruptly from the valley floor, and is situated almost exactly under the primary wave.

When more experience is gained in the area it may be possible to climb away from 600' and contact the primary wave, thus achieving extremely good height gains.

3. Thermals. Being the most inland wave site so far exploited in Australia (almost as far inland as Narromine) the thermals provide an excellent back-up whilst waiting for wave, even in winter. Unlike some wave sites the surrounding terrain is quite suitable for cross countries.

4. Host. The gliding people in this area are very fortunate to have the Tuffrey family living in the location. John and his wife Lori can't do enough for us. When we arrived, a strip had been mowed and drums of fuel placed on the site ready for the tug.

We have the use of the shearer's quarters, complete with a supply of firewood for the boiler for hot showers and John pumps water daily from a well into the tank. On this last occasion I even noticed some parts had been freshly painted.

Ian Aspland. (1982)

Ian Aspland and Ian McPhee filling the oxygen bottles with a car pump. Nice to see that some things don't change. Macca is probably the one on the right… or the left.

This certainly sounds like a good area to start a gliding club! Thermals, ridge and wave all in the one area.

It's funny how things change. The emphasis now at Keepit is in the opposite order to those presented in this piece.

Perhaps one of the old fellas who was there at the start of Lake Keepit Soaring Club could put pen to paper, electronically speaking, and give the rest of us some history.

Full Negative

MAY JUNE

Sailplane design is a wonderful field to be involved in. Unlike most other fields of design and engineering where there's always room for improvement and new ideas, the design of all sailplanes is almost perfect… all the time.

Being a sailplane designer means you have to say you're sorry… or so you'd might believe if you read reviews and flight tests of modern sailplanes.

If the reviewers had to give the gliders they test a score, they'd all rate 4.5 out of 5… including the PW5.

What's wrong with telling the truth? Maybe the factory would never ask you back again but you might get the respect of your mates back at the club!

When Top Gear first came out, it was refreshing to hear them take the piss out of lazy designers, manufacturers and engineers. Top Gear has totally killed the sales of some cars they didn't like. You may feel sorry for the manufacturer but cars like the convertible PT Cruiser deserved all they got from Top Gear.

In fact, there's been a tradition of this in some English motorcycle magazines going back decades. I still remember some of Bike magazine's better comments…

"Fear and the XT 650 go hand in hand. Never has such a powerful motor been mated with such awful brakes and such a bad frame."

"Riding this Harley is like riding a Triumph Bonneville… with another Bonneville strapped to the tank. The slower I rode, the better the Harley got. I'm still trying to work that one out."

So why don't glider reviewers come up with something more than saying that each glider is the "nicest glider I've ever flown"?

Keep Soaring decided to spend a considerable amount of its annual budget on sending an ace reporter over to Europe to test fly a glider. Of course the factory will have to remain anonymous or we won't get asked back again, but you'll recognise it for sure.

To begin, we needed a title for our glider review section. Taking Top Gear as an example, it was decided that the closest thing to top gear and flat out in a modern flapped glider would be "Full Negative".

Don't be too worried about negative connotations here… anyone who has done business with several European races will know that they're not backward with criticism. What they regard as an honest and straightforward opinion, often appears, to English speakers, as being downright rude.

So we decided that Full Negative was OK and we'd give as good as we got.

From Australia, we have the Prospective Owner of a New Glider and from Europe the Glider Manufacturing Business Head.

As you read this, you'll need to use a fairly heavy European accent for half the conversation.

Prospective Owner of a New Glider: So this is the shiny new ship?

Glider Manufacturing Business Head: Schipp? No it is a sailplane.

PONG: Sailplane. Of course. It looks kind of familiar…

GMBH: Well, there are some new parts. The inboard section of the wing is from our very successful AX-15 18 metre glider with the new foils.

PONG: I read that the fuselage is the one of the old AX-12.

GMBH: Yes, it is a well proven design and we did not feel we could improve it.

PONG: So no cockpit changes or improvements for the pilot in 25 years?

GMBH: Pilots seemed happy with the way the fuselage is.

PONG: And the outboard wing is also off the AX-12 with the old foil section?

GMBH: Yes, but you must understand that the cost of making new moulds…

PONG: I would have thought that by the time the mould was amortised over hundreds of gliders made in 20 years or more…

GMBH: Ah, you know little about the economics of making sailplanes…

PONG: What sort of LD are you getting with this new one?

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GMBH: In 21 metre configuration…

PONG: No, the 18 metre span version is the one I am interested in.

GMBH: We don't give estimates any more…

PONG: You must have tested it…

GMBH: You would get probably 51.5.

PONG. Pretty much the same as the old glider?

GMBH: No, it is much better. I think we hoped the old glider was better than 50 so we put this in the manual but when we tested it… Would you like to sit in it and try the controls?

PONG: It looks tight.

GMBH: You are a big man.

PONG: I'm just average for any country that plays rugby.

GMBH: Rugby?

PONG: Let is pass. You know the average Dutch man is 1.88 metres…

GMBH: I don't think the Dutch fly gliders… at least not the big ones. They would not fit in the cockpits… anyway the frontal area would be too big to do well in competition. As Lillienthal said, sacrifices must be made!

PONG: The cockpit feels smaller than I remember it.

GMBH: It's the new safety cockpit. It has a ring of carbon to stop the cockpit folding in a crash. We can remove this if you need more space.

PONG: What sort of impact has it been tested to?

GMBH: We have no real crash data. It is very expensive to crash test sailplanes but a pilot who crashed in this type of cockpit did survive last year with only a short stay in hospital.

PONG. You know that a Formula 1 drivers have survived more than 36 G crashes?

GMBH. Yes, but these cars cost a lot of money.

PONG: The Aston Martin has a passenger cell which exceeds F1 specifications and they cost the same as many gliders.

GMBH: Safety does not sell gliders… Pilots don't ask for safety do they?

PONG: I guess it is too late to ask a lot of them. What about water?

GMBH: With your weight… I think you could still carry more than 150 litres of water ballast.

PONG: No… drinking water. Where is the space for drinking water. I fly in a hot country and need to carry at least 4 litres of water.

GMBH: Hmmm… Pilots don't want the extra weight of water containers… Maybe you can put it where the oxygen cylinder goes.

But you want a self launcher? Let me show you the engine controls. One control does it all… pull this lever… press the starter…

PONG: What about fire prevention? In my club, we've had SLG engines catch fire.

GMBH: See this LED…

PONG: A red LED? I doubt I would see that in sunlight! No buzzer? What about an extinguisher system.

GMBH: *Our* engines don't catch fire. An extinguisher is extra weight. Pilots don't want extra weight.

PONG: But I can carry 150 litres of extra water?

GMBH: Maybe you can put something where the oxygen cylinder goes.

PONG: Are you making a jet version?

GMBH: Yes we released both a jet version and an electric at last year's Friedrichshafen.

PONG: What do you estimate the battery life will be?

GMBH: It is too early to be making claims about battery life. Time will tell. But the gliders are selling well, as are the jet versions.

PONG: It is a bit of a risk spending all that money on a barely tested power plant fitted to a glider which might last 40 years isn't it?

GMBH: Not really. We have a 12 month or 10 hour power plant warranty so we are covered.

PONG: And the customer?… Is there a way to lock the undercarriage? I have heard of undercarriage collapsing in the old aircraft.

GMBH: I have not heard of this.

PONG: Yes and in the two-seater, both pilots have to pull on the undercarriage lever at the same time… and the one in the rear seat will always lose some skin.

If you are one up, you have to bunt the aircraft over a couple of times until you get the undercarriage down.

GMBH: I have never heard of these problems. If you don't like our gliders then maybe you should not own one.

PONG: It was only a question.

GMBH: Anyway, it's possible that the electric version will fix it.

PONG: Burying the engine inside the fuselage must make it more difficult to service.

GMBH: It's for the Swiss. The cows don't like the engine noise. Hiding the engine and exhaust in the fuselage makes things quieter. We also run a larger prop more slowly.

PONG: And this makes more vibration?… I notice that the drive belt twists when the prop is lowered. That's not so good.

GMBH: We don't have belt breaks.

PONG: Do you read the comments on the owner's group chats?

GMBH: I don't have much time for the internet.

PONG: Did you read that article in Sailplane and Gliding about gelcoat? They said that Schwabbelack was the only one which didn't really crack. Do you use Schwabbelack?

GMBH: Most customers go for two-pack polyurethane now. There's not much call for gelcoat.

PONG: But two pack is another 2,500 Euro isn't it?

GMBH: 2,500 Euro for a single seater. But two pack lasts better. Anyway, most customers like to have their glider refinished after they have owned it for a few years.

PONG: To remove the spar bumps? They like to do this do they?… What about a colour scheme? I can use colours?

GMBH: The horizontal surfaces have to be white but you can have a little colour on the fin and winglets.

PONG: Have you seen that Sparrowhawk? It uses high temperature pre-preg resin and you can have any colour you want. Even hang gliders are made from pre-preg these days.

GMBH: Ah, but we have been building gliders for 80 years…

PONG: And still the undercarriages collapse…

GMBH: Sorry?

PONG: The Kiwis know a thing or two about pre-preg. You better keep an eye out for them starting to make their own sailplanes. You can't trust a Kiwi to know his place. And what about the South Africans. They're doing very well.

GMBH: It's only because they have good people flying for them.

PONG: So do you! But the South African gliders seem to be winning everything at the moment.

GMBH: Yarpies. They have been looking over our shoulders.

PONG: But isn't that the way we move ahead? As Newton said, "If I have seen further, it is by standing on the shoulders of giants."

GMBH: Newton? I don't know Newton. Is he a designer? Or one of your pilots? A Kiwi?

PONG: Do you know the story of the British motorcycle industry? The largest motorcycle industry in the world.

GMBH: But the Britisch no longer make motorcycles?

PONG: Exactly. Tell me, if I order one today, when can I expect delivery?

GMBH: Open your wallet and say after me… "Help yourself".

Thanks to Spike Milligan for that last line.

It's a strange state of affairs but the internet chat groups for self launching gliders are not open the members of the general public.

To join, you need to be an owner of an SLG and use the serial number of the engine as proof of ownership. Only then are you allowed into the inner sanctum of SLG owners and probably what you find there is not always what you expected when you bought into the glorious company of SLG owners.

Apart from the word "grenade", this is a verbatim quote from one of the convenors of such a newsgroup.

"Welcome to the Grenade Users Group… and a whole new world of pain. I'm sure you will find it incredibly helpful.

This is especially so since you are remote from the factory and most of the fleet.

Frankly, many of the chronic problems have been fixed on the latest serial numbers, but still, as an owner you will find a great deal of value on the archives of our web site."

If you owned or rode a British motorcycle from the late '60s, you might have found that compared with most of the contemporary Japanese motorbikes, that they were not all bad. Certainly, a British bike from that era would compare very favourably with the Harley Davidson of today. At least British bikes went round corners and stopped… and yet the industry fell apart within a few short years.

One reason for this was that the industry missed the fact that motorbikes were no longer transport for the working man, they were now just toys. Exactly like sailplanes are today.

The people who are buying sailplanes today are not the same as buyers were 20 or 40 years ago… in fact, often they are the same people, but in most cases they're older, heavier and perhaps want more than just performance at any cost.

Reading writers like George Moffat, even though he and his fellow flyers may have been extreme cases, pilots of the era were prepared to spend a lot of their free time sanding, filling and even sawing bits of their gliders to get the last bit of performance.

My guess is that now, most would sacrifice a few points in performance for a little more cockpit space, a place to put their sandwiches and drinking water and a sustainer which was guaranteed to start when required.

Has the traditional sailplane industry responded to this challenge? Has it responded in the same way that the German car industry has responded? Put this another way. Is your German car of 2010 a markedly better car than the offerings of 1980? I'm sure the answer is a resounding yes. Even though the differences may be measured in the safety equipment or the number of cupholders rather than the performance of the car itself.

But the sailplane of the mid 1980s is remarkably similar to the sailplane of today. In fact, most of todays good selling sailplanes were being designed right then… and little has materially changed.

You may say, does anything need to change? It's true that most modern European sailplanes are delightful to fly but there's room for improvement in almost all other areas.

For example…

Should undercarriages still collapse? Even in the latest gliders, they still do. Sometimes they are difficult to raise, or difficult to lower or require excessive strength. Perhaps they require changing hands on the stick. It's often hard to know whether the undercarriage is firmly up or down or even what direction to move the lever.

Should the engines on sustainers or self launchers be still as much a cause for nerves as the motors of 25 years ago? With most modern cars and motorbikes, engine failures are almost unknown. The same cannot be said for sailplanes.

Should resin shrink and crack and lose strength over 50º? There are hundreds of products built from epoxy resin these days and they don't have the problems that sailplanes have… and they probably cost a lot less.

Should it be necessary to spend 2 hours removing or replacing a Tost release from a glider because the designer was too lazy to move a fastener 10mm to allow better spanner access? In most factories, this kind of problem would be designed out before the product got into series production but even with gliders having serial numbers in the hundreds, this laziness is very apparent.

Perhaps the problem lies with certification? If a bolt position is moved, or if the resin changed or the undercarriage redesigned, will the glider require expensive recertification? Perhaps that's why most of the real development in sailplanes is not coming from the traditional glider manufacturers but from the makers of ultralight gliders.

What does the pilot or glider owner actually gain from certification? On the face of it, very little. The accident rate does not appear to be statistically different. Perhaps there are places one cannot fly in an uncertified aircraft. Perhaps in certain countries, the glider would have to carry a ballistic parachute like an ultralight… the weight problem again.

We're living in interesting times. Who would have thought a few years ago, that the British would no longer own their own car industry, that the Germans would no longer be making cameras, or that the South Africans could produce a competition winning sailplane.

I bought the Penguin paperback The Lucky Country a few months ago. In it there is the statement "Australia is self sufficient in consumer durables… cars, TVs, fridges, washing machines…"

What went wrong? We don't manufacture *anything* these days. Maybe nothing did go wrong and that Australia is better off forgetting about being the clever country and should concentrate on being a mine. It doesn't take much smarts to wield a shovel. People have been doing as much for thousands of years.

But if I was a European sailplane designer, I would be taking a long hard look at what I was selling.

Here today, gone tomorrow. It's too easy.

Separating the Sheep From the Goats

In the foreword of George Moffat's book Winning 2, Michael "Platypus" Bird writes, "Nothing is more stimulating to soaring performance than to have a bunch of friends set a task and race each other around it. And in the evening, or on the wet days, you sit and analyse, preferably as a group, what you did right and what you did wrong." Apart from the "wet days" bit, that neatly encapsulates the spirit of the Lake Keepit Soaring Club's annual Regatta.

Although the Regatta is advertised as an introduction to competition and AAT flying, many of the participants have no real interest in competition at a higher level… but all want to see an improvement in their cross country gliding performance.

The format of the Regatta is simple. Each morning there's a talk on some soaring topic, followed by a detailed weather briefing.

The weather for the first two days is only OK so some fairly easy tasks are set, lasting no longer than two hours with some big radius zones around turn points to allow for all levels of expertise and to help make sure gliders don't land out. As usual, it is these light days which separate the sheep from the goats, which is a perfect start for a regatta where there are a few goats and lots of sheep.

This year, several sheep, me included, are delusional enough to think their performance has improved enough since the last Regatta that they don't want to do a lead and follow but want to go it alone, saying "No Goat, no Master."

The downside of this is that the hysterical radio chat of last year is missing. Someone said today, "Is anyone out there? This is the opposite of my club where you can hardly get a word in edgeways. Here, the radio is often so dead that you think you're on the wrong channel."

There are a good number of two seaters at the Regatta… Three Grob 103s, two ASH 25s and a Nimbus and the back seat pilot regularly changes giving pilots a good opportunity to see how an expert does it.

In fact, the top four or five entrants were experts… Paul Mander, Harry Medlicott, Dave Shorter, Steve Hedley… and this makes picking the sheep from the goats fairly easy when the results are read out each morning.

The club is full with members and visiting pilots. There are three visitors from the Alice Springs Gliding Club who had to be warned off landing on local roads. Garry Ransby is here again from Kingaroy. Ian McPhee and Brian Marshall have come in from Byron Bay and there are at least two visiting Kiwis as well as the many resident ones.

The Kiwis are blown away by the quality of the flying… the mix of flatlands, ranges and hills make tasks very interesting.

On the first day, Paul Mander gives the obligatory safety talk… or rather a talk on safe flying in company. Before briefing on the second day, Dave Shorter gives a talk on AAT flying specially for the visitors… since all LKSC club members know the talk by heart having read Dave's excellent piece on AAT flying in Keep Soaring.

Gary Speight gives a challenging talk on why increasing your wing loading with water ballast will give you a lower rate of climb, give you more trouble in narrow thermals, and won't make your speed on the glides any faster. As usual with Gary's talks, it provoked some amusing arguments and more than a little scratching of heads if you did not get the message (see letters to the editor!)

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Perhaps the most interesting talk was one by Harry Medlicott on Block Speeds. For a number of pilots, this was a eureka moment and resulted in an immediate 15% increase in cross country speed for several of the sheep. Not all completely understood all aspects of the talk though… One dim-witted sheep thought that the formula for optimal speed/wing loading which Harry scribbled on the white board was a formula for exploding custard.

The first day was a struggle because there was only one thermal, and that was on the edge of controlled airspace near Tamworth. Everyone seemed to be crowding into this thermal to get enough height to start and for many, that was the last real thermal they got.

Paul Mander won the day by having a bigger glider than anyone else, and probably bigger cojones since according to Sam Bowman, his immediate post-solo passenger, they went from Kelvin to Manilla ridge soaring "about 50' above the trees", except when passing Mt. Borah when they were 400' below the trees. Fortunately Sam had a video to prove it.

Me, I have a very sheepish fly where after getting low near Gunnedah and still having final glide back to Keepit, I decide to return to the strip. I would point out that low is in the eyes of the beholder and looking along the course and seeing no obvious sign of lift (which I was brave enough to use,) cowardice seems the best option.

However, flying back to Keepit, I blunder into the thermal du jour again which gives me enough height to complete the rest of the task with only one small top-up. Not very brave though.

If you look at the regatta results, you'll see that goats head the list each day with just a scattering of sheep following. Many of the goats have zillions of hours and also have huge, enormous gliders, powerful self launchers or sustainers and don't (anymore) experience the real misery of thermalling at 800' in zero lift. It's expected that at the end of the week, that some bolshie sheep will mutiny and ask for pilot handicapping instead of glider handicapping.

The weather during the regatta continues to improve and Friday was a perfect sparkling clear day with the sky dotted with CUs everywhere and almost everyone had a great time. One of those days when being at cloud base seems at once the most natural and wonderful experience in the world.

What this means is that some of us sheep had flights with 10-11 knot climbs and others (mainly goats) had long anus-clentching adventures crossing the ranges near Kaputar.

Me, I followed Harry Ms instructions and got 111 kph for my flight… shame I am using a start point list which expired several years ago.

Although the goats continue to lead the scoring by a considerable margin over the sheep, Jacques Graells, who is doing the scoring, discovered that he'd used the wrong handicap on Dave Shorter's glider which resulted in some small adjustments which favoured the sheep end of the comp.

SOME REGATTA HIGHLIGHTS:

Burning stubble in some fields to the west of the Kelvins have given some great climbs, albeit under IFR conditions. On one day, the rhumb line would have taken gliders over the edge of the Pillaga scrub and although the fires could be seen, aiming for them seemed… well almost too obvious… almost like cheating.

And the cries on the radio from people in 8 knot thermals in the smoke were just what people scratching at 3000' over the Pillaga wanted to hear. It was mainly Macca who was to blame here.

On the same day, some (Macca again) broadcast their heights over Kaputar. While some could do no better than 6,000' and most of the time settled for 4-5,000' all day, others (mainly Macca) were getting 8 and even 9,000'.

The success of this smoke flying leads to talk later in the week that flying with a box of matches and an ballasted oily rag might be a good option.

You know that song, I heard the Screaming Jets? Well, I understand that we had a world first at Keepit when Paul Mander self-launched his experimental ASH 25 under jet power, both one and two up.

From a distance during this take-off roll, the noise was not excessive, but as mentioned later, the jets could sound very loud depending on where the aircraft was and where you were standing. This day it sounded like a large amount of air escaping from somewhere… a rushing mighty wind if you like, rather than the lawn mower sound of a conventional self launcher.

Paul is to be commended for his work on this revolutionary glider. There's still a way to go. The climb rate currently is a little nervous… not in the same league as most two-stroke self launcher and the fuel consumption is many times higher. But the rig is light, small and very simple in construction compared with most IC engines and therefore more fuel can be carried. The high cruising speed could make this a great option for a sustainer

Christian Linnet, who took a sickie and flew at the end of the week, has a new disciple in Chris Bowman. Chris B has lands out on many days in the regatta and said that before the comp, he was nervous about outlanding… but not any more. This could become a comp within a comp if Christian picks up the challenge.

Dave Shorter, as most people know, is just on the good side of very competitive. Perhaps the untuituve Kiwis know this and with typical Kiwi ungenuity, they bait him whenever possible in the club Grob 103 by tearing off early and very fast from every thermal shared with Dave to the point where he wonders if there's a bucket tied to his glider, the Kiwis are so hard to catch (the bucket works well in boat races!)

Jay Anderson flew up to Keepit for the Thursday task… presumably he also chucked a sickie because throughout the first leg, he is on the radio saying "Hey, this is a lot better than working!" Then the radio goes silent for a looooong time.

The peleton is moving towards Mount Kaputar and hang gliders suddenly appear all around us. They've come from a comp at Mount Borah and get stuck into a few of our gaggles. Because they're normally climbing faster than us, the sailplanes bale out of the thermal. Later, a few land out at Keepit.

One of them is Grant Heaney who says "Don't worry about the hangies who are way out over the plain because they're the gun pilots. They don't mind at all mixing it with sailplanes." Grant is a goat sort of hang glider pilot. He did a 750 km IFA triangle in his Cirrus 75 and 1,000 km in a Nimbus 3 on his first attempt.

An Espanish hang glider pilot comes to the club and cooks for two days. On the first day he makes a huge paella and on the second day, gnocci. It all goes down very well and there is a steady queue for thirds until it was all eaten.

Paul Mander, in cahoots with all the other big wing chaps and Macca, decides to do a JATO or CAJTO… It turns out that the ASH 25E was certified or whatever it's called, for a car-assisted sustainer take off. So they connect the jet-powered ASH with a bit of string to a 4WD and tow it off down the strip with the jet running (and our somewhat nervous-looking Espanish chef in the back seat.) In fact the best bit is a low-pass done when the glider returns over the take-off area where the ASH sounds much like a mighty Vulcan bomber.

Each day, as the first gliders come into the circuit to land, club manager Ian Downes announces that "All pilot's cars have been brought up to the club area and are washed, polished and waiting." It's a free valet service that lesser clubs can only dream of, even if the washing is not immediately noticeable.

As usual there is a croquet night and dinner at the Dircks' house. The croquet can best be described as interesting. The home team of Geoff Sim and Bob play local rules where the Dircks' feral dogs eat the other team's balls and the visiting team loses by a narrow margin.

Instructional talks there are a few. However, considering the difference in performance between sheep and goats, there must be some question whether the head goats are telling the sheep the full story… Anyway…

The exposure in this picture has been certified correct by the FAI. He (TC) sent us out in this! Sunglasses not required.

Paul Mander gives an interesting talk on flying strategies in windy conditions. During the first few days in the week, a southerly which at times is up to 15 knots, creates challenging conditions which Paul explains in some detail… but only after the wind has died and Paul has won all the windy days!

Harry Medlicott's talk on block speeds lasts barely 10 minutes and the questions last almost an hour until shut down by the school bully Tim Carr who has learned enough about block speeds to give him a first place on the final day.

I get my revenge on Macca by calling him up and announcing that I am in an 11 knot thermal and have the pictures to prove it! Probably, if I had not been holding the camera in my right hand and flying with my left, I could have done a 12.

The final day was pretty special. There was a thick high overcast with towering mountains of clouds below which often went so high that they seemed connected with the upper levels forming great vertical canyons in the sky. You could be at cloud a 7,500' base and when leaving the cloud, discover that there were gliders 1,500' or more above you. Some people were rocketing up in 9 knots to 9,000' (Tim Carr) while others (Ray Tilley and me) were struggling to get work a 2 knot climb to 6,000'. The flight of the day was obviously that of Bob Dircks who decided that this was the day to get a Silver C 50k flight… and landed out at 30k.

The Regatta is a comp for the rest of us… those of us sheep who want to fly well, but don't have the skill or time or inclination to be a real goat. The Regatta helps most of us sheep to be the best we can be.

In the end, Garry Ransby from Kingaroy is a deserving winner. It's Garry's second year and he has promised to be back next year with some friends for the next regatta… the last week in February 2012.

For those of you addicted to results, you can see them here:

http://www.soaringspot.com/lkr2011/results/club/daily/

Brad Edwards. Todd Clark and Bruce Taylor and the JS-1 Revelation at the 2011 Australian Qualifying Grand Prix

Coming Events at LKSC

For detailed and up-to-date information on club events such as 4 Day Cross Country Weekends, State and National Competitions, the AGM, Christmas in June (or July), the Annual LKSC Dinner and Dance, the Safari and the Morning Glory trip, please have a look at the club web site…

www.keepitsoaring.com

Down on the left hand side, you'll see a list of all the current club events.

Click on the calendar to see weekly, monthly or year views.

You'll also find the current tug pilot and instructor roster in this area.

Tug Pilot & Instructor Contact Details 2010

Name	Home	Work	Mobile
Jay Anderson	02 9571 9592	02 9221 4938	0418 676 696
Phil Anderton	02 6785 2764		0427 493 107
Ian Barraclough	02 9948 7866		0428 410 010
Andrew Brumby			0404 043 386
Tim Carr	02 9801 7979		0414 405 544
Rob de Jarlais	02 4677 1926		
Tony Esler	07 3350 5858	07 3881 2615	0412 770 526
Ken Flower	02 6761 3816		0406 716 574
Bill Gleeson			0408 443 009
Vic Hatfield	02 6765 7050	02 6766 9655	
John Hoye	02 6767 1033		0427 505 233
Matthew Minter	02 6785 7399	02 6742 3998	0427 455 119
Geoff Neely	02 6785 2405		0419 563 233
Peter Sheils	02 6762 1377		
Greg Smith			
Nick Singer	02 4365 5485		02 4384 2101
Garry Speight	02 6785 1880		
Dennis Stacey	02 6584 3747		0407 006 292
Gerhard Stuck	02 9982 5248		0428 300 370
Charlie Szpitalak	02 6777 2154	02 6777 2040	
Dave Turner	02 9489 0841	02 9620 0893	0425 269 210
Darian Thom			0407 269 210

Keep Soaring is the official organ of Lake Keepit Soaring Club Inc.
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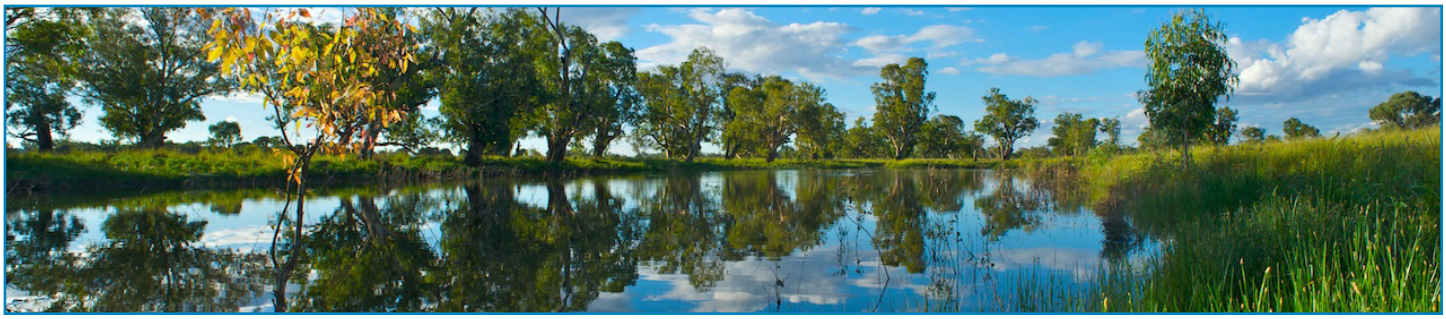
Phone: 02 6769 7514 Fax: 02 6769 7640 Email: enquiries@keepitsoaring.com Internet: www.keepitsoaring.com



LAKE KEEPIT SOARING CLUB INC

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Vice President	Ron Cameron	02 6721 0081	rfcameron@bigpond.com
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	Allan Buttenshaw	0412 217 557	allbutts@bigpond.com
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Airworthiness Officer	John Trezise	02 9858 5950	trezco@ozemail.com.au
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Membership Secretary	Dave Shorter	02 9896 4961	membership@keepitsoaring.com
Webmaster	John Clark	02 9997 2842	webmaster@keepitsoaring.com
Bookings Manager	Chris Bowman	0414 569 965	bookings@keepitsoaring.com

Chat Group & Car Pooling: There is a Yahoo chat and message group (not officially sanctioned by the Club) for Club members.

To join, either visit the chat group web page at

http://groups.yahoo.com/group/lksc

or email

pjanderton@optusnet.com.au

with your email details and he will fix it.

For member's contact details, see the Member's Downloads pages on the club web site