

KEEP SOARING

SPRING 2013

THE FAMOUS MANAGER'S REPORT.
THE GRIPPING PRESIDENT'S REPORT
NEWS FROM ROUND THE STRIP
AND ROUND THE COUNTRY.



A GLIDE ANGLE OF 120:1?
IN-FLIGHT SERVICE ANYONE?
FLAMEPROOF SUITS?
PICTURES OF SOME NICE SORTS &
A CONFUSING EDITORIAL.



The signs so far are that it is going to be a cracker of a season. One of the hottest and driest winters on record has caused the place to heat up and start going off a month or two before usual. Are you ready for it?

It's difficult to know how to prepare properly and part of any plan is to work out well in advance, what is important to you, to make sure you are fully insured and talk to your architect. The bush fire season is on us.

There have been over 1000 fires already in New South Wales and the official bush fire season has not yet started. It's funny how so many of us live in beautiful areas but ones which are right in the middle of bush fire areas. But somehow, humans compartmentalise things and accept a degree of risk. To some extent, I believe this is because we are unable

to fully join the dots between cause and consequence. Some people, my wife for example, imagine all sorts of consequences to activities which I would do without turning a hair.

Harry Medicott has written a strong piece on safety in gliding which asks a lot of difficult questions. In fact, gliding is not noticeably more dangerous than a host of other sports such as scuba diving and mountain climbing and is many times safer than many other sports which are not considered extreme in any way.

But oddly, the risks in flying sailplanes are not better than in hang gliding and paragliding which are seen from our part of the sport as being far less regulated and far more risky. But they are not.

I remember a few years ago going back to where I first flew a hang glider at a big site... a 700' hill to

run off. I was flying again with a number of friends that I had flown with some 30 years earlier in the mid '70s and I thought... there's nothing better than flying with friends. As Steve Hedley put it "spending the afternoon chasing your mates around the sky".

But to be around long enough to fly with old friends, we all have to survive. At the beginning of the season, it is worth having a think about safety. How you can best manage the risks to yourself and to others. Maybe GP races with their crowded starts are not for you? Maybe the stress of pushing across country for some distant goal is not really what you signed up for? Maybe your eyesight is not so good any more and flying a two seater or even getting your eyes operated on (as I did recently) is the way to go.

Anyway, the word is, Fly Safe, Have Fun.



TICKLING THE IVORIES.

On another safety note, there was an interesting article in Gliding Australia about reducing undershoot risks.

To begin with, ask yourself these questions, three:

In normal flying, not during an AEF when someone's having a go at you...

How many times have you turned onto final and had moment's twinge of nerves that you were going to *undershoot*?

How many times have you turned onto final and had moment's twinge of nerves that you were going to *overshoot*?

How often have you missed your aiming point by more than say 50 metres?

If you are anything like me, you'd probably say that you have a very occasional twinge of doubt about undershooting but then close the airbrakes and get in easily, normally hitting the runway right where you expected, and easily within 50 metres.

I have never, ever been near an overshoot situation. Not once. In any case, the airbrakes on modern gliders, coupled with sideslipping or S turns should make overshooting an otherwise normal landing very difficult indeed.

So why do we always aim to hit the piano keys when there is often 500 to 1000 metres of strip in front of us? Is this some kind of piano key fixation? Even when the strip is dirt?

In this article it says "overshoot accidents, hitting an end obstacle on landing, is comparatively rare." The obvious exception to this is a failed straight ahead

landing after a launch failure which perhaps does not qualify as a real overshoot.

I'm off at the end of the week on another safari which promises two things... unfamiliar airstrips and landings in 20 knots or more of wind.

Landing on an unfamiliar strip is always a little more exciting in the underwear department but you fairly soon get used to it. Mostly the strips we use are long or very long and mostly the circuits are left hand which removes some of the thinking.

Some are busy with RPT pilots who are frequently young and impatient and view mixed operations as "them and us", but overall, the process of setting up a landing, provided you arrive with a decent amount of height, is fairly straightforward.

For some reason, we always get a lot of strong winds on safaris. Typically we will have 2-3 days of 20 knots plus. Hopefully, we can make an into-wind landing but not always because many strips are single or have an unserviceable cross strip. In my limited experience, wind strength is the biggest factor in pre-landing twinges followed by landing at airstrips where the surrounding terrain is in some way hilly.

We're lucky at Keepit in that the lake forms one of the best wind indicators possible. You can check the wind direction and estimate the strength from almost any direction and height, even when the wind socks are distant, tangled or in shadow.

What this means is that when we get to an unfamiliar strip with nobody on the ground to ask and little in the way of wind indicators on the ground, we may be more at the mercy of a strong wind.

Many of us have glide computers and can get a reasonable readout of the wind strength. We can also see the way we're blowing backwards in thermals by the snail-trail trace so we do have the tools to make a reasonable guess as to the wind strength.

There may be dams, smoke, trees and clouds as well but often there is very little concrete until we get low down and make that turn onto final and watch the way the world rises up in the canopy. And how it rises up!

I made myself a promise last year to try to touch down one third of the way down the strip when landing on unfamiliar strips. I did this not because I had made near miss undershoot landings, but because I realised that an obsession with landing close to the piano keys or the end of the strip was not worth the risk when there was so much strip in front.

I have seen and heard of too many accidents where pilots landed in a more difficult spot because it was more convenient to the car than to land a little longer or out into the field.

The skill is to touch down where you say you will touch down, not to touch down right on the start of a long strip... the risks are too great.

UP AT T'CLUB.

Well, there's a whole lot going on up at the club. The place has looked like a metropolitan building site for much of the winter with cranes looming over the skyline, piles of earth and building materials all over the place, workers leaning on their shovels etc.

The new maintenance hangar was finished just in time to miss maintenance week and in time for the

freeloaders from Jonkers to make good use of it to fit jet sustainers in a handful of gliders. For a few days, the quadrangle rang to the sound of (precision) hammers as they went about their work.

Another 4-glider hangar is going up and if it is not entirely full, it is close to being so, with a number of members waiting to install their gliders.

What does this mean? Well for a start, it means that we are doing quite well. Since I became a member, back in 2007, we have added 16 hangar spaces for new gliders as well as the maintenance hangar. Membership is well up, there's always activity on the strip and the club is a great place to be.

Mostly though, it does mean that a few people, perhaps a very few, have had the vision and drive to push these developments through and the amount of work put in by some people, often behind the scenes is amazing.

Next time you are up at the club, have a look in the maintenance hangar and you should see a sign naming the members who put up the money to make it possible. Without this generosity we would not be able to move forward and the club is most grateful to everyone who helps out in this way.

Often these donations are loans and get paid back quickly, but someone had to run around twisting arms to make it happen. Members probably had to talk possibly reluctant partners into parting with the money... Not an easy task... so thanks to you all!

Maintenance week has come and gone with a good gang of people turning up to fettle gliders. Maintenance week can be a rewarding few days if the gliders go back together with no nuts, bolts and

washers lying on the floor! It's always good to leave knowing the gliders are in better condition than before you arrived.

At the moment, the fleet, with the exception of the Junior, is quite new and low hours. This means that most maintenance tasks are not too difficult. That being said, it is staggering to see that the nose releases on two seaters, something which has to be taken out almost every year on a two seater, takes almost a day to remove and replace. You have to think that there must be an easier way, especially for training gliders built for many launches a week! I guess it is just demographics in the end. Germany has a huge population of glider pilots... more than France, Italy, the UK and Australia all put together... and they can take their gliders back to the factory and the factory can charge appropriately. Hmmm.

Putting another issue of Keep Soaring to bed is a great feeling... I can get on with my other life for a month or two before it starts again. Thanks to all the people who have contributed to Keep Soaring and to make it an interesting and relevant read as well as a record of club activity.

And to those of you who may have been too busy to get around to writing your reports, I understand, I really do, but then you have only yourselves to blame because someone makes up your report!

Fly safe, Have fun!

The Editor... until the pheasant plucker comes along.

PRESIDENTS MESSAGE

By Email:

I'm sorry digger, I'm not going to manage much of a Presidential Address for this issue.

You might remember that the memsahib and I were off to another damn hot country...

Well I saw some delicious looking khiri kebab in gomutra at some bloody street stall... the locals did seem surprised we stopped for a quick gnosh but my memory is not what it used to be. I'd forgotten that gomutra is cow's urine, damn sacred stuff here, and not coconut milk at all. Had to eat the stuff out of politeness... play the white man etc.

Well, to cut a long story, I've spent the best part of two weeks jumping between the dunny and the bidet with nothing much to recommend sitting on either.

I staggered out for a few hours yesterday wearing a kid's nappy which Lindy borrowed but the

results were less than happy for either of us... Still, gave the locals something to snigger about. Lindy moved into another room, can't blame her, and looks in once or twice a day.

The locals, god bless them, are looking after her nicely and she spends the day flitting between the pool side where she's waited on hand and foot by the pool boys, to her air-conditioned room, just along the passage.

Anyway, all things must pass sooner or later... and to think that they used to call me the man of the iron belly when we were stationed in Delhi.

Can you remind members about the grouse state of the nation at the club?

Mention the heaps of buildings... more buildings in the last 5 years than most clubs manage in 50... new maintenance hangar, new member's gliders etc. etc. Probably money in the bank still.

We sold the Jantar... nobody was using the thing... 5 hours in six months or something. I guess that will go down as well in some quarters as a gumutru soaked mirchee bhajee but we're looking at getting a couple of nice young things for the low hours pilots. If this goes on much longer, I'll look into one of those rubber suits like Ian Downes' so I can struggle through check-in at the airport. Might come in useful on those long cross countries.

I hope to be back on deck and back in Oz for the AGM and the Tuggies Ball.

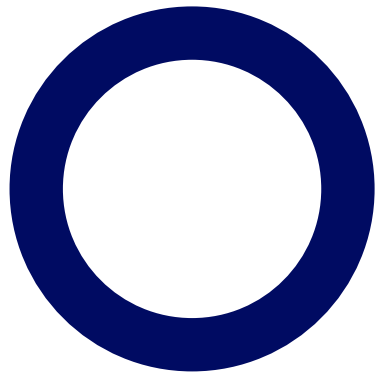
Can you wrangle this up into some sort of newsy thing for the newsletter? It's important to keep the members fully informed.

Thanks... I know I can rely on you to relay the right sentiments!

Yours from Sri-Lanka.

Never again!!

Chris Bowman



You know...for gliders...

Tom Gilbert
T & J Sailplane Services
Temora NSW

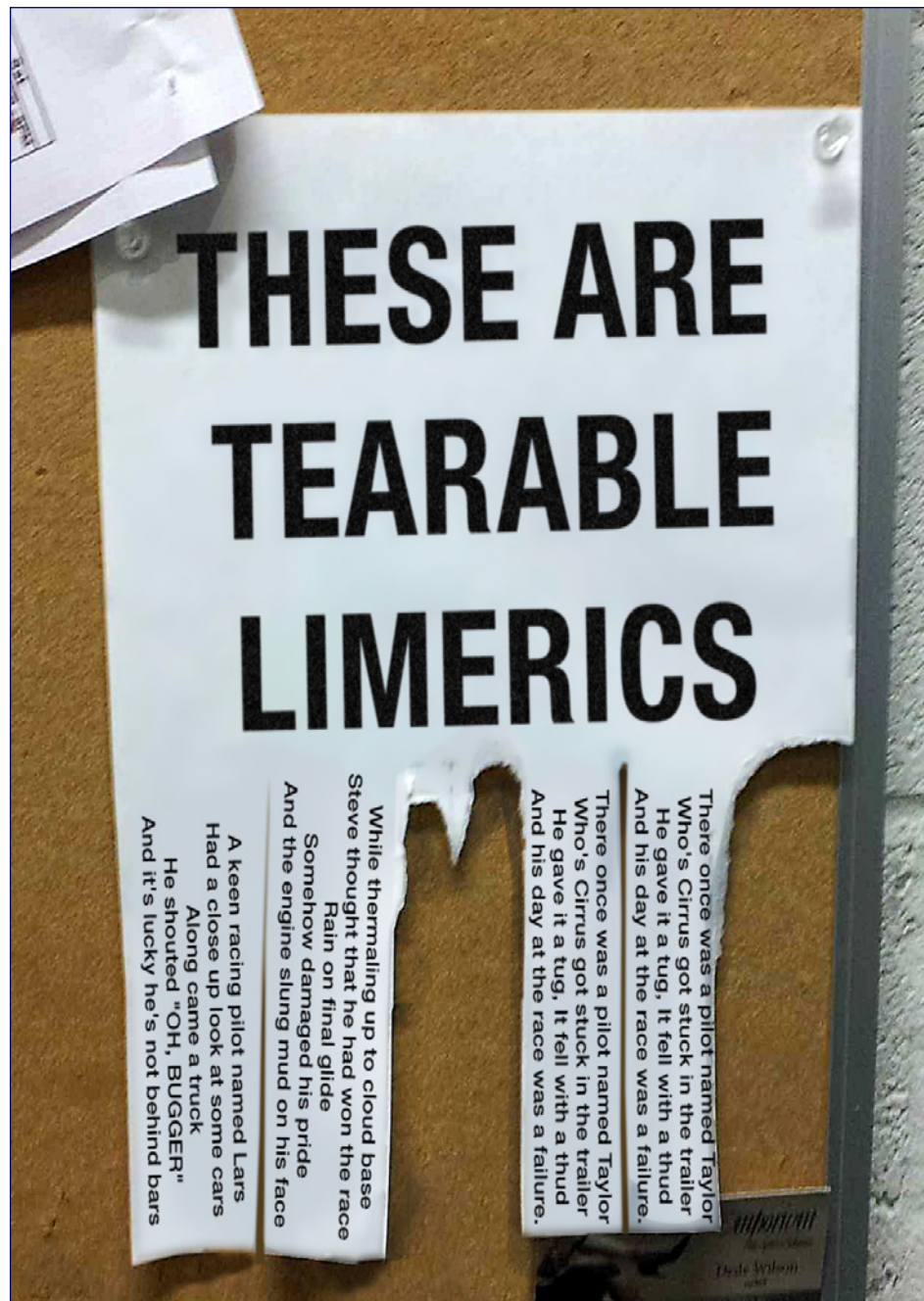
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Geoff Sim



Another., fairly inflammatory contribution by our overseas firefighter Jim "at least I did not write them" Staniforth. He snapped this in the basement of the Orange Bowl Convention Centre in Orlando, Florida. Funny how these stories get about eh?



GLOSSY!

The 2013 Lake Keepit Safari is about to kick off and the theme this year is *Luxury*.

This year's edition leaves as usual, the day after the Tuggies Ball. The reason for this is lost in time. It could be because, like events like the Sydney to Hobart, it is considered best that competitors start with a hangover.

It could be that later in the year, the air coming down from Queensland is stale, used air and that it is best to start inland before the Queenslanders have used too many of the year's thermals. (Geoff Sims taught me this theory and I hope I remember it correctly.)

It could be that the footy is over and there's nothing to do with the weekend. It could be just because it's convenient.

This year as in the last two years, the Safari is a self launcher only event, mainly because of the lack of a tug. There are four gliders (ASH25Mi, Arcus, ASH 26R and DG-808C). 8 Pilots (Geoff Sim and Ian Barraclough, Harry and Wendly Medicott, Jenny Ganderton and/or Al Giles and John Clark.

On the ground is Geraldine. Frequently, Lynne Thompson comes on Safaris but this year it is just Geraldine who has been ground crew ever since she gave permission for her husband to buy a self launcher.

Geraldine does the bookings for accommodation, catering when required, towing to the take off, documenting Safaris with photographs and the annual Safari book, all without a word of complaint. Or that's the official story.

Anyway, this Safari is meant to be the payback and it's called Geraldine and Lynne's Luxury Outback Station

Safari. Take away Lynne and you have the GLOSS Safari. Lets hope it lives up to (her) expectations?

The plan this year is for more modest driving distances and shorter than usual gliding tasks, combined with visiting interesting places unfamiliar to many of us and to stay at some country properties rather than do a relentless A to B each day to get somewhere like Lake Eyre or Burketown. If the weather cooperates, we can always throw in a triangle to get something for the OLC!

The route is Walgett, Bourke, Tibooburra, Innaminka, Tibooburra, Bindara Station, Lake Mungo, Fowler's Gap Arid Zone Research Station, Trilby Station, Nygan and home. That's nine stops but we intend to stay in Bindara two nights and do some sight-seeing on the way as well. Planning something like this Safari is difficult because beds are difficult to find once you get so far off the beaten track...

This is what El Jéfé, Ian Barraclough has to say on the subject: Once we leave Bourke we will be in a Designated Remote Area until we are a third of the way from Tibooburra towards Broken Hill. The requirement is: "to carry in the aircraft survival gear for sustaining life in the area".

Some of the terrain will be un-landable. If cutting corners, I strongly suggest you stay in touch with the roads and our cars on them.

Listen particularly for RPT and other aircraft approaching and departing your airport. Assume the Airport Manager will be watching ... do the things he and other pilots are expecting to see.

We will be passing near Broken Hill on two occasions. Broken Hill does not have a Control Zone

nor a tower. It does have RPT traffic with and we will have the timetables.”

Actually, Broken Hill has some fairly unwelcoming RPT traffic who neither understand or take kindly to the notion of a glider landing at their airport!

REMOTE AREA COMMUNICATIONS.

We tend to take things like mobile phones and internet for granted these days and it can come as a bit of a surprise that decent phone coverage disappears fairly soon once you get beyond the agricultural belt. Although safari cars have had air-band radio with a semi-portable external antenna, these have not worked terrifically well and communication between cars and planes has been patchy.

In previous Safaris, actual problems have been more on the ground than in the air...problems with blown tyres, kangaroo culls and breakdowns. Many modern 4WDs have tyres which are either inadequate... run flat or space-saver tyres are not a great option for the bush... or too heavy for most people to change. Add to that the inadequate jacks fitted to these cars and you have a recipe for disaster in remote areas.

So we're going to hire a satellite phone for emergencies. Probably, like me, you are thinking that this is going to be outrageously expensive, but like me, you'd be wrong. The cost of renting a satellite phone for a couple of weeks is around \$200. The phones can be delivered overnight and there's a range of types and providers available.

Since the phone has to be able to "see" a satellite when communicating, it pays to look at the satellite coverage of the service provider. The satellites are often

geostationary, the coverage is by no means global and if there's not one over where you are, then the phone ain't going to work. Oddly, this ends up with some phones having negative reviews on the net because they don't work in North America or the Arctic.

In fact, buying a satellite phone is not as bad as you might expect... they start at about the same as a "smart phone"... around \$800. Call rates vary but appear to be under \$2 per minute. Fine in an emergency.

If you were doing a lot of remote area flying, buying might be a good option but the technology is changing so renting is the best option.

One provider Thuraya, who covers mainly Europe, Asia and Australia, has come up with a neat device called an iPhone Satsleeve. You just plug in your iPhone and it converts to a satellite phone. The Satsleeve will even make an emergency call by itself to a pre-programmed number.

Using it is apparently only a little more complicated than using your iPhone. Oddly, the version available right now is only compatible with the iPhone 4 and not with the 5 which has been out a full year now.

More on this after the Safari...



NEW ARRIVALS

Allan Barnes and Dave Holbrook have bought a Bed and Breakfast at Manilla and the last space in our new hangar. Allan will be flying from Keepit regularly from now on. I am sure you will make them both welcome at the Club.

As most of you will know Allan is a member of the Australian Gliding Team and has done well in recent World Championships. He also very nearly cracked a 1,000kms flight from Keepit last year. The opportunity should be there to prevail on him to join our coaching team.

During the last Keepit Fast, Allan could be heard over the radio, talking another pilot around the course. Listening in was very enlightening!

They have bought Ambleside Bed and Breakfast, 52 Rushes Creek Road, Manilla and Allan says he will welcome booking from members whenever there is overflow in the Club. He says it will help pay for his flying costs!



ALLAN BARNES...

by Himself!

By way of a short background story - I was born in NZ and moved to Australia in 1983 where I took up hang-gliding. I returned to NZ in 1986 for 3 years, becoming competitive, then moved to the UK in 1989 where I met Dave who was also into HG.

We both lived in the UK until 2003, both doing programming and database work for the UK government. I was extremely competitive in the UK and European HG scene, usually doing at least 6-10 comps per year all over Europe and the USA, including several World Championships.

We both flew paragliders as well, although Dave more so than me. In 1997 I had a life-changing accident in the French Alps when my glider tumbled and broke up in a violent seabreeze convergence.

I parachuted into power lines, and fell out onto a busy highway, breaking my femur. However I continued flying HG and the following year won the UK, Australian and NZ Nationals as well as competing in the World Championships in Monte Cuccu, Italy.

After several operations and over a year on crutches, I decided in 2002 to cease competitive HG and took up gliding in 2002, doing my initial training at the Long Mynd in Shropshire, England.

In 2003 Dave and I moved to Mt Beauty in Victoria, and in 2004 I competed in the World Club Class Championships, Norway, placing 14th with less than 50 hours solo. In 2005 we moved to Brisbane.

I took up a job as a database designer for Department of Communities, and Dave took a job driving buses for Brisbane Council.

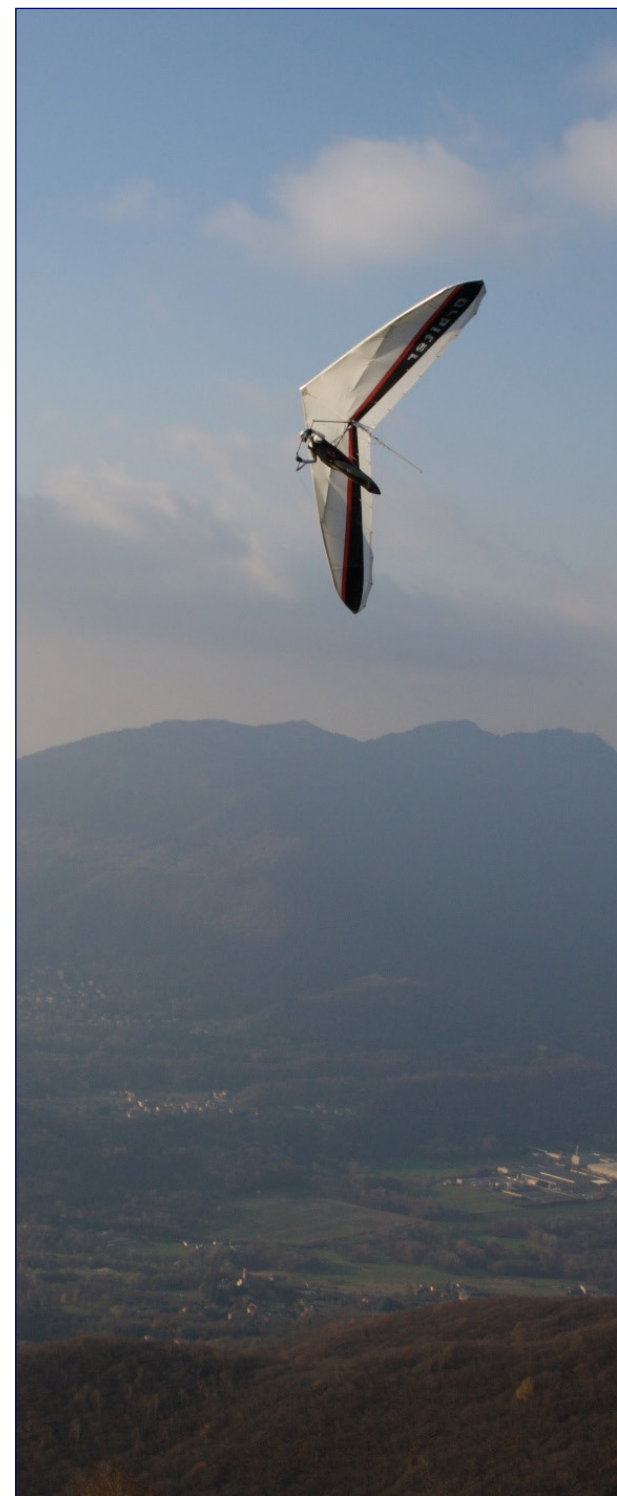
We joined the Darling Downs Soaring Club where we've enjoyed hundreds of XC flights. In 2012 I bought an LS8-18 for the Argentina Worlds and we spent 5 months touring the USA in an RV, towing the glider and going from comp to comp. It was a fabulous trip and the LS8 is now based at Lake Keepit.

I've just completed my 1000km triangle, have had 3 Australian Championship wins so far, and my best Worlds result was this year in Argentina where I placed 6th.

We've both always loved the Lake Keepit area, and when the possibility of an income-earning property arose at the same time as I was made redundant from my IT job in Brisbane, it seemed sensible to take the plunge and make the move to running a B&B a few minutes from both one of the World's best paragliding and one of the world's best gliding venues!

Ambleside B&B has 3 self-contained units away from the house, plus 3 in-house rooms available for rent. The grounds include a swimming pool and river frontage to the Namoi river, and we are only one or two km from the centre of Manilla.

We also have a web presence on airbnb at <https://www.airbnb.com/rooms/1557918> or just search airbnb for Manilla, NSW.



The Ambleside B&B accommodation comprises:

All prices below include continental breakfast. These prices have all been discounted 20% for glider, hang-glider and paraglider pilots. Regular public prices in brackets.

One self-contained luxury two-bedroom apartment with queen-size bed, two single beds, TV, two bathrooms, full kitchen, air conditioning etc. for \$144 (\$180) per night or \$120 (\$150) per night for 6 nights or more

Two self-contained luxury 1-bedroom apartments with double bed, TV, ensuite, air conditioning etc. for \$96 (\$120) per night or \$80 (\$100) per night for 6 nights or more

a family room with one double and one single bed, en suite, air conditioning etc. for \$96 (\$120) per night or \$80 (\$100) per night for 6 nights or more

a room with one single bed only, air conditioning, for \$56 (\$70) per night or \$48 (\$60) per night for 6 nights or more

a shared room with 4 bunk beds, air conditioning, \$32 (\$40) per night per person or \$28 (\$35) per night for 6 nights or more.

To book these prices please quote GLIDING when calling.

The rooms are also available longer-stay, without breakfasts, at a significant discount. Please enquire for details. Phone: 0455 268 802



IAN'S IPAD
MY IPAD

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

110% □

Hello Mates and matesses,

I'm BACK!!!

As youse all know, Jenny was looking after the shop while I was looking after my gasket problem... and nice too. It's a pleasure to be able to sit in an easy chair watching someone else do all the work! A lot of you who are not up here all the time won't recognise me. I'm the skinny guy who looks like he needs a tinny and a decent feed. The trouble and strife joy had me half starved and eating some green seaweed which looked like alien snot... and tasted like it too! (Don't tell her I said that).



The tug had a flat tyre over the weekend and someone took this snap of a whole lot of bludgers looking on while yours truly does the hard work... tell the truth, I could hardly remember how to replace a tyre! Anyway, look at that arse on the guy bending over (me)... not a sign of crack!

Since I have only been back in the saddle a few weeks, there's not much to say about what's been going on over the winter. The new season is kicking off nicely with a lot of activity.

367
94
402

There's been a whole lot of kaffirs garpies bloggers nice guys from South Africa fitting jets in the JS1 gliders that Todd has been flogging. You can't understand a word they're saying but they seem to get on with the job OK.... with a bit of help from our Scott and Dennis!

The whole place has been looking like a building site for months with sheds going up all over the place.



There's another huge hangar going up right across the track where the editor used to drive to his shed! The bastard gets lost every day.

The builders turn up from time to time and throw a few sheets over the frame to make it look as if they're working but at least they got the roof on in time for the Jonkers guys to make a mess on the nice clean floor with their diesel.



I always look forward to AFR time. It gives me a chance to recognise the favours that people have done to me over the last year.

In particular, giving the editor of this newsletter his AFR is a deep joy and it quite makes my year.

My only regret is this year is that I did not give the bastard a full 24 hours to sweat on it and had to take him up on my first day back. Oh, and I let slip the word "revenge" during the briefing.

There's so much fun to be had with an AFR. Low altitude ping-offs, spinning longer than is technically necessary, repeating manoeuvres to make the sucker think he's got it wrong.... Sometimes, you've got to be cruel to be kind haven't you?

I do agree with him that rolling on the point is a useless exercise but nobody does it worse than him!

Talking of pommy bastards, any minute now, some Pommie shield boat person called Val is taking over my job and I'm being moved to a more executive role in keeping with my advanced capabilities.





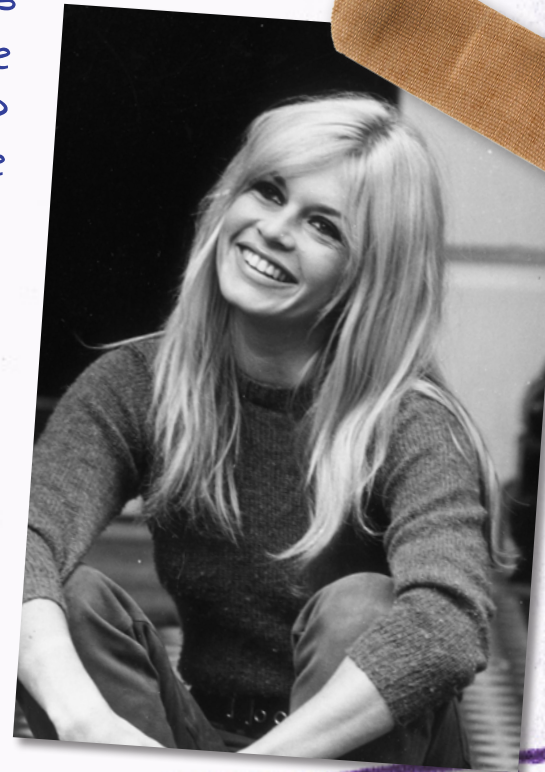
At the moment, she's having some problem with her temporary rejection protection visa being revoked at the border or some such nonsense so you've got me for a bit longer. I have not got a snap of Val so here's a shot of another pommie shiels who probably looks the same. I bet she could give a you a damn good AFR" (That's what pommie blokes like isn't it?)

Our last tuggie Fauna has got a proper job, and we're getting a French bird (wazo in french) to take over the tuggies roll... The French and English have always got on well together.... right?

Wendy has seen her in France and says she's a nice sort but does not speak a word of English or Aussie.

No pic of here either so here's a snap of a nice French sort I remember from when I was young'

See youse all up there'



HIGH PERFORMANCE ANXIETY



I'm sure we've all been there... a difficult week, lots of pressure, maybe a long drive to the club, a blue day, hot on the ground and even hotter in the cockpit... and you start feeling just a little sleepy... nothing a five minute lie-down would not fix.

No? What about this scenario. Start with the same busy week and the long drive up. You get airborne and there's a big gaggle under the single nice CU. The flarm is going off like a fish-wife and you start to feel just a little hot and uncomfortable.

Tired? Airsick? Or maybe just caffeine withdrawal.

Caffeine is the west's favourite drug. Most of us are users, several times a day. And most of us don't recognise the symptoms. Caffeine addiction is very real and so are the side effects of withdrawal. Headache,

dizziness, nausea, incontinence, bed wetting, dysphoria and that negative feeling that you just can't cut it and an outlanding is going to be a feature of the day.

Most of us would drink less coffee at the gliding club than when at work or home, mainly because we are too busy to bother. We get airborne and suddenly our bodies are crying out for a cut of coffee.

The good news is that you can deal with this situation very easily. First, you can give up coffee. I know people who have done this for several years. Later, walking through some piazza in Italy, they were assailed by the aroma of freshly ground coffee on the warm air and... moments later, they were sitting in a café, tears running down their face, regretting all those wasted years. Giving up is not a great option.

The really good news is that the best fix for caffeine withdrawal is *a cup of coffee!* So why not learn to make it in-flight.

In-flight preparation and service of coffee.

Well and long gone are the days when a chap or chappelle in a glider could light up a cig and open a brown paper bag full of sandwiches and pull out a thermos of instant coffee in a quiet moment. Yes, that's the way it was...

"The French coast looked surprisingly close but took a long time to approach at our cruising speed of about 50 mph. There was nothing to do but to sit and wait, so we had a cigarette and some sandwiches, noted the times and indulged in a little photography" (Lorne Welch and Frank Irving cross the channel in 1950.)

No more cigs and instant coffee. The least one could expect these days is a short black or perhaps a restretto. Fortunately, just after this channel crossing, Italian companies began making in-glider coffee makers and they are just the business for performance conscious pilots looking for that edge, or elderly ones wanting to stay alert.

The machine illustrated is a 12 volt Velox coffee maker and comes in a handy kit complete with water and coffee containers, a cup and the coffee machine. All you do is provide some ground coffee, a spoon and the electricity.

Dedicated followers of this style of in-flight service will make sure that they either have high-output solar cells, or a reserve battery to power the coffee machine. Well insulated trousers are a help because the metal casing of the machine does get hot!



Coffee is best made while climbing. Best of all, after a low save when the climb is still slow but has stabilised and there's nobody around that low to bother you. And after all, you deserve a reward at this stage! Making coffee in a fast and bumpy inter-thermal glide is not recommended.

Preparation is easy. Make sure you are in clear air... a quick HASSL check is perfect before you begin... and then...

Fill the body of the coffee machine with fresh water and put the coffee basket over the central spigot. Spoon a few heaps of ground coffee into the basket and press the mesh top cover firmly in place to slightly compress the coffee. Screw the spout down onto the central spigot, wedge the machine somewhere secure and connect up the power.

The Velox does not worry about polarity; the clever Italians dispensed with a proper plug and just use simple ferrules on the end of the twin core cable... so

you can't connect it up wrong. Make sure the cup is in place under the spout, sit back and fly the glider and wait for the brew.

In a few minutes fresh hot aromatic coffee will gush steaming from the spout into the tiny cup, ready for you to enjoy!

It is true that under some circumstances, particularly at altitude, the cockpit can become quite steamy and visibility reduced to a few inches. In that case, don't fret! Use the clear view panel and wait until the condensation has subsided.

You should also be careful not to get too much coffee sprayed on your instruments as it gushes out. Gliders with the traditional public lavatory style speckled paint are best here because you just don't notice the mess.

Like many things, it is a good idea to practice before you make coffee at height. A long journey in

a car or even a motorcycle combination is ideal for this, preferable one that steers itself in a fairly straight line. You may find that by the time you have filled the basket with coffee, that you are sufficiently awake and alert that you don't need a coffee, but persist if you want to gain the necessary barista skills!

It has to be said that the quality of the coffee may leave purists aghast. It is hot, very strong and often poisonously bitter. But isn't this why we drink coffee?



Like our Mr. Gruff. Mr. Gruff is a sad Atheist goat who only finds solace in coffee. He's become as bitter as his favorite drink. If only he knew Jesus! (For more on that subject see www.objectiveministries.com)

Finally, why just stop at a coffee? It was George Moffat who said "Any gliding club with a good bar will do well"... So if you've had a hard night at the club, there's nothing like a carajillo or coretto to set you right.

A carajillo is a short black or café solo with a dash of rum, brandy or whisky. It's a magic mix of coffee and liquor with one pulling your mood in each direction and the result is an enormous feeling of well-being and that you can tackle the worst of challenging days.

MOVE OVER CLOSER

PETER KRYGGER



I am in France, the country famous for romance, and the person with me says with a French accent "Move over closer". What is a hot blooded Aussie male supposed to do? So I move over closer.....

But before my wife gets upset let me set the scene.

It is July 2013 and I am in a Duo Discus about 7km from Sisteron airport in the Durance Valley region of southern France. I have just released from the aerotow and we are skimming along the rock face of Montagne de Gache on my first flight in the French Alps.

This is also my first training flight learning ridge and mountain soaring techniques. We are about 3 wingspans from the steeply sloping rock face indicating 120kph (60kts) and my instructor Remy has just told me to "move in closer" to the rock face.

So I move in closer to around 1-2 wingspans from the rock face flashing past - and then suddenly the lift kicks in! With the vario showing 5m/s (10kts) we are in a constant and sometimes turbulent climb.

The lift is being generated by the 25kt northerly wind striking the face of the long east-west ridge and having nowhere to go except up the face of the ridge.

I had done a lot of pre-reading for my course and had been given a comprehensive briefing before the flight about the theory, procedures, techniques, and dangers associated with mountain soaring, and so far it seems to be going according to plan.

At the end of the ridge line I make a steeply banked 180 degree turn and pass back along the same ridge at about the same distance from the rocks, but we are

much higher this time. The ridge top is still climbing higher away from us as we proceed along the slope and it looks like we will need to do a few more passes before we get to the top.

But the second surprise then kicks in and with our consistent lift we start to out-climb the ascending ridge line. As we pass the level of the ridge top my instructor tells me to move over again and fly along the top of the ridge line to maximize the lift.

Fine, but the ridge line ahead is still climbing higher and is clearly well above our current height. OK I think to myself, I will fly along the ridge top and simply turn away back to the upwind slope when we get too low above the ridge.

But to my surprise the strong lift continues and we continue to out-climb the entire ascending ridge line which passes close beneath us until we get to its end and pass over the 1400m summit. Very impressive!

I do another steep 180 degree turn and fly back along the same ridge but this time we are well above it. Amazing! About halfway along the ridge and now well above the descending ridge line ahead, and still with a solid 4 m/s lift indicated, the instructor suggests this lift may have a thermal component due to the sun warming that side of the ridge line, so we start to circle. Now I am in more familiar territory of thermal centering.

After gaining 1,000m since our aerotow release we finally depart for the next mountain ridge and the continuation of my first mountain soaring training flight. Very impressive, very exciting, and a very interesting start to Day 1 of my training course at Sisteron.

Mind you, the day had not started out very promising. Thunderstorms and heavy rain overnight when a cold front passed through had given us a loud early morning wake up call, and there was still significant cloud around in the morning which seemed to indicate that conditions would not suit gliding.

However the weather cleared up by early afternoon and the wind remained steady from the north at around 25kts.

On the previous day those who flew had been treated to some excellent gliding conditions with the cumulus clouds lining up in obvious thermal streets and the lenticular clouds in front of the cold front indicating wave activity.



A number of gliders from Sisteron had caught the wave and some had climbed to 5,900m or FL195 which is the highest permitted by gliders in the Alps. Unfortunately I was not among them.

The Sisteron Aeroclub was not the first choice for my mountain soaring training. I had tried to book into the well-known CNVV located at nearby St Auban but they were fully booked as late July is the middle of the peak summer gliding season. So John Clark had kindly suggested I try Sisteron where he had flown before. Thanks John!

Sisteron-Theze airport (elevation 540m) has a smaller gliding club than the CNVV but is closer to the

Alps. It caters well for the international visitor and is probably best described as an expat gliding club with pilots coming there from a wide range of countries. Foreign pilots greatly outnumber the local pilots and the club has over 500 members of whom only 10 are French.

They have 11 club gliders catering from basic ab initio trainers to advanced soaring high performance single and twin seaters including the Duo Discus, LS6, and LS8. They have 2 tow aircraft and a winch (which never seems to get used).

Most pilots bring their own gliders and the place is full of trailers. A caravan and camping park is located



right behind the briefing office with some nice self-contained cabins where I stayed. A restaurant and bar adjoins the main briefing and admin building and the Pegasus clubhouse (which serves free beers every Wednesday evening!) is close by.

To fly solo I needed a French Gliding License which is issued based on the validation of my Australian GFA Glider Pilots Certificate and a Check ride. I had previously sent over copies of my documents and the Sisteron club arranged everything with the French authorities. They also provided temporary insurance and club membership.

The French license validation remains current forever subject to the validity of your medical and is re-issued automatically when your next medical is

sent to them. In the meantime I needed to fly with an instructor until he (and I) was happy that I knew enough about the techniques and dangers of mountain soaring to be safe flying solo. I was in no rush to solo - I was here to learn.

A few things are done differently in France. In the aircraft everything is metric including ASI, VSI, vario, and altimeter; aerotows use the high-tow technique; lots of gliders are around everywhere often at the same heights as you, so a constant lookout is essential and the mandatory FLARM is constantly triggering; for training purposes the vario audio is turned down so you can focus on "feeling" what your glider is doing; and of course everyone has an odd habit of wanting to talk in French. But the people at Sisteron are very

friendly and helpful and all spoke adequate English.

As part of the preparation you are expected to obtain and review the gliding map of the Alps called the "Carte Vol à Voile", and a booklet called the "Guide des aires de sécurité dans les Alpes" containing descriptions of the approved airfields and glider outlanding zones in the Alps region.

These outlanding areas can be tricky. Some can be closed in certain weather conditions; others have an elevation that is too high to allow an aerotow retrieve and can result in a 2-day mountain drive with a trailer just to get to the landing area! I spent some evenings and all early mornings poring over the map learning the names and locations of the various peaks and landing areas.

A well-programmed gliding computer or GPS with a moving topographical map is very useful so long as it does not distract you from keeping a good lookout during the flights.

The 10am weather briefing each day was comprehensive and well attended by around 20-30 pilots. This is a good time to meet others, exchange plans for the day, and compare gliding war stories. These can be followed up in the bar later that evening. I met a German dentist with his beautiful Ventus 2cxM who has been coming to Sisteron for 8 years.

He averaged about 6 hours flying each day on this trip including one big day when he flew to both Mont Blanc in the north and the Mediterranean in the south all in the same 7:30 hours flight. Another German and his wife with their DG1000 have been coming here for 30 years, and everyone said she flies much better than him!



A Swiss pilot had an immaculate LS6 W18 that he has owned for 19 years since new and came complete with fox hair on the top front air vent outlet "to cut down the cockpit air noise".

The manager of the Cambridge Gliding Club in the UK was there and plans to bring his ASW20 with him next time. A Belgian pilot with his Twin Astir has been coming here since 1979. The FAI Gliding Grand Prix Finale is being held in Sisteron in May 2014 which speaks volumes for the quality of soaring available.

Day 2 of my training dawned to a fine day with a strong north to northwesterly wind that promised good ridge soaring with the possibility of thermals developing during the warm day. My instructor planned a 350km flight that would take us through the main mountain ridges in the Southern Alps with mountain peaks not exceeding 3000m. This would give me exposure to the different terrain conditions in this area and the soaring techniques required. The mountains higher than 3000m are left to the more experienced glider pilots.

We released from the aerotow early when detecting an unexpected but strong thermal and then used the height gained to move into the higher mountains. We practiced the "figure 8" circling on the lower slopes to gain more height and then moved to conventional thermal circling once well above the ridge line.

After some work we were comfortably at 2,000m. We then headed across the valley further east to the large slope of Cheval Blanc and spent some time regaining our height and working that large rocky slope to finally reach 2500m. The wind was starting to drop off and the rain from the previous day was putting a dampener on thermals.

So when we finally got the top of the 2100m mountain we were in a narrow band of height that all other gliders were using to climb higher and fly along the north-south routes. Gliders were everywhere and the FLARM was constantly lit up. Two pairs of eyes were a real benefit.

To avoid the traffic jam we decided to first head south to Puimisson following the mountain ridges

overlooking the La Bleone river valley with some lovely scenery en route leading to the lake of Lac de St Criox.

Having reviewed the possible outlanding airfields in that area we turned around and took the same route along the ridges back north but then carried on further to the Montagne La Blanche and the so called "Parcour de Combattants", also known as the "glider highway". This is a long light-coloured rocky mountain ridge running roughly northwest-southeast that consistently provides lift in a variety of wind conditions.

It was living up to its name today with many gliders traversing this route. It was not unusual to be circling not far above the ridge line with 4-6 other gliders in the same lift or to see 8-10 gliders in our immediate area all seemingly hell-bent on being at our level. We were continually advising each other "opposite glider at 12 o'clock same level", "4 gliders circling at 2 o'clock same level". Of course it is the glider you don't see that really worries you.

We headed further north to the beautiful lake



of Lac de Serre Ponçon which marks the start of the higher Alps leading further north. Everyone in the Alps area is required to monitor 122.65 MHz and give a position, height, and departure airport report every 30 mins - so just in case you have a problem they know roughly where to start looking for you. This is also the air-to-air chat frequency but most of this was lost on me as it was almost exclusively in French.

My instructor advised that reports were coming in that the lift further north in the Briançon area was becoming difficult with the wind decreasing and mainly ragged thermals. Just north of Briançon marks the start of the serious Alps area with peaks above 3000m leading ultimately to Mont Blanc at 4,810m.

So we opted on the side of discretion and headed south again, yes back along the busy Parcour, past the picturesque town of Digne Les Bains snuggled between the mountains, and down towards Puimoisson which gave me plenty of practice of mountain soaring techniques.

It was now becoming difficult to get any higher than 2000m so we headed back north along the mountain ridges but this time a bit further west

overlooking the lovely Durance river valley towards St Auban and Sisteron. With 55km to run to Sisteron and 1,800m showing on the altimeter, Remy gave me his next challenge. I was to use the lessons he had been teaching me all day to choose a route that followed the mountain ridges so we could (if possible) conduct a final glide from our present position into Sisteron, i.e. without circling on the way back.

By my calculations (using the recommended conservative planning glide ratio of 25:1) we were about 1,200m below the final glide profile, so a final glide seemed very optimistic especially into a headwind.



So my job was to figure out which ridges would be using the northwest wind, which slopes had been heated by the sun all day and might be producing ridge thermals, and therefore which energy route to take back to Sisteron. We would need to pick up lift along the way to get us back onto the final glide profile.

So I looked at the terrain ahead, consulted my map, made a plan, and with fingers crossed I pointed the Duo Discus in the direction I had chosen. We followed mountain ridge lines that seemed suitable, sometimes

only just above the ridges, sometimes below the higher ridges but very close in to the slopes to pick up the wind and thermal lift, but never circling.

We saw the whites of the eyes of two mountain hikers on a ridge waving to us when we passed over their heads at about 30m. At times I was not sure if we would make the constant final glide or would have to stop and circle somewhere to top up our height. But with some good inputs from my instructor the plan worked and we arrived at the Sisteron circuit area descent fix having lost only 600m in the 55km final glide.

A very satisfying end to a very enjoyable day. Lovely scenery, rugged mountains, challenging flying, but a very worthwhile 4:15 hours flying and 300km.

Day 3 and Remy unexpectedly told me this would be the Check ride for my French Gliding Licence. I was to conduct roughly the same route as yesterday while he supposedly relaxed and looked at the scenery.

The wind was calm and there would be very little ridge lift around, so it would have to be mainly ridge thermals today. I opted for a late takeoff hoping the sun would have done its job on the rocks.



But the day was not an easy one and I doubt Remy relaxed as much as he had hoped. Height was difficult to get and I finally opted to cut short part of the route when I started to struggle to get to the heights I needed to cross the wider valleys or clear the higher ridge lines.

Mountain ridge thermalling is interesting because despite your high altimeter reading, your actual height above the ridges is very low, sometimes less than 100m. This low height makes any thermals you find very narrow because these thermals begin their life quite small on the heated rocks and rough surfaces of the ridges and slopes and expand as they rise.

So at low heights above the ridge you need to conduct very tight turns to stay in these narrow thermals with typically close to 60 degrees of bank. This was often accompanied by Remy calling "Ruuddar, Ruuddar" with his strong French accent to remind me to watch the yaw string.

Speed control is vital being so close to the ridges and you need to carry additional speed margins in case of sudden sink or turbulence. Exciting, and not for the faint-hearted!

With some helpful hints along the way from my instructor I completed 180km of sometimes difficult gliding in 2:25 hours, and managed to get us back to Sisteron.

To my delight my Check ride paperwork was signed, I was given a temporary French Gliding License until the official License validation is sent to me, and I was given permission to launch out on my own in one of the Club's LS6 to practice what I had been taught.

For the next 3 days of solo flying I had to plan to



stay within gliding distance of one of the airfields in the Alps area and not plan a flight based on possibly using one of the outlanding zones. That suited me until I had more experience of the area and this style of soaring.

The wind dropped off almost completely during these days as a large high pressure system had settled seemingly right over the top of Sisteron. Nevertheless most of the mountain ridges were still working as the hot summer days allowed ridge thermals to form.

My flights averaged around 3 hours and I flew from mountain to mountain and ridge to ridge practicing

what I had been taught. I learned from some mistakes, including once inadvertently drifting onto the leeward side of a ridge while circling tightly and experiencing the dreaded heavy sink that results.

During one flight I found myself lower than planned and was down to circuit height for a nearby diversion airfield, but was pleased with myself when I managed to find lift on the slopes of a nearby low mountain and used the techniques I had been taught to struggle back up to a sensible height that enabled me to move to another higher mountain and continue my flight.

I learned a lot about the mountains, and about my own limits. I also learned that I have a lot more learning to do!

Could my training at Sisteron have been improved? I was taught and practiced the key basics needed to keep safe while mountain soaring, and how to find and use the lift produced by these mountains.

Downloading of flight data at the end of the flights for analysis and feedback with the instructor was not done as part of the training, and uploading of data to the OLC was not available.

Flight data loggers were not used, although the FLARM data download was an option if really needed. During the dual instruction sessions very good in-flight instruction was provided.

But for my solo flights I felt more oversight by the instructors of my planned flights and objectives, and post-flight download and analysis of the flight data would have provided me with improved training feedback on my performance and highlighted areas in which I needed to improve.

I also feel that lead-and-follow training by solo training pilots (such as me) with an instructor in another glider flying dual with another student would have real benefits for everyone in this style of soaring.

CNVV may provide a more rigorous and performance-based training environment and maybe I will still try them one day.

But if the desire is to come to a relaxed informal and picturesque place in the French Alps that makes you feel welcome, caters for foreign visiting pilots,

and helps them have fun gliding amongst some of the world's most spectacular and challenging scenery, then Sisteron is hard to beat.

The 6 days of soaring I experienced there was an important learning step for me that will help my overall soaring experience and cross country competency no matter where I glide.

Will I come back? Undoubtedly! It is truly exciting stimulating flying. An area like the French Alps requires

more than just knowledge of the correct gliding techniques; it requires knowledge of local geography and terrain effects and local weather conditions.

So coming back to this part of the Alps from time to time will help me gain more of this important local knowledge. Who knows, perhaps one day I will depart from Sisteron to soar in wave at 5,900m over Mont Blanc!



IMPROVING SAFETY IN GLIDING OR WHERE'S MY FLAMEPROOF SUIT?

If you had to choose the safest country in which to fly gliders, would you choose Australia? Compared with Europe, we have empty skies, no cloud flying, generally better conditions with higher cloud bases, virtually no ridge or mountain flying with their associated high risk and accident levels and most of our flying is done over ultra safe areas for outlandings. You would be wrong.

The statistics for the ten year period ending 2012 show that Australia's total fatality rate per 1,000 pilots is 8.4 where as the rest of the worlds is 4.6, Even the rate for Germany, Austria and France who fly in the European Alps, notorious for a significant number of fatalities each year is 4.04 per 1,000 pilots on a cumulative ten year basis.

It is certain someone will come up with a reason why our figures are so high but the facts speak for themselves and are not a credit as to how we manage our sport.

What are we doing wrong?

I analysed the figures over concerns we are returning to similar conditions in multi class which over the 5 year period from 1997 to 2002. resulted in the deaths of two pilots, three parachuting safely and the destruction of 4 gliders and damage to not less than 4 others. Pilots who flew in multi class during this period

had a one in ten chance of being involved in a mid air. Numbers of pilots competing dropped to low levels.

I was the originator and coordinator of the National Competition Pilots Safety Committee which analysed the accidents and sought means to prevent them. The changes to procedures which were instigated at about this time, at least partly as a result of the Committee's work included:-

Members of the Committee wrote notes about a specific safety issue which were collated and circulated to pilots flying in a competition.

There was a mandatory safety briefing at each competition.

Gagging, particularly a problem on blue days, was minimised by introducing allocated start points.

Assigned area tasks were introduced, of value particularly when gliding conditions were doubtful, minimised outlandings and also reduced gagging

Recommendations were made to task setters to avoid out and return situations and to have an angle of not less than 30degrees between task legs. Also important to avoid tasks which resulted in more than one class returning to the finish on a similar track over a substantial distance.

I well remember task setting which resulted on a couple of occasions most of the fleet, over 20 gliders, flying in weak blue conditions, flying back to the airfield in a huge gaggle over a long distance. In a competition at Narromine 26 gliders landed within a few minutes of each other on a weak blue day. A recipe for disaster.

As far as I am aware there has not been a single mid air collision in multi class in the ten years since these measures were introduced. Flarm devices were

introduced in this period. They are a very useful anti collision tool but not of much use in gaggles where most accidents had previously occurred.

We now seem to be returning to procedures similar to those which were used during the period of frightful accidents. We are now using a start line, a certain method on a weak blue day of guaranteeing that many pilots will fly the task together in a large gaggle.

I well remember seeing a glider explode in a shower of fibreglass. The start arrangements were such that all of open class would start together and gaggle their way around a task on a weak blue day. One pilot was killed, another parachuted to safety, just.

Of the remaining pilots a number gave up competition flying and who could blame them? One has only recently returned to flying competitions now that we have Flarms, NOAH pilot evacuation systems and arrangements which minimise gagging.

There is also a push to only use AATs on difficult days and use fixed turn points wherever possible. Have we forgotten the lessons painfully learnt? The rationale behind reverting to earlier conditions is that they are similar to what is used in international competitions.

Also some pilots say they like to "race" rather than have to work out the best part of the sky to use, perhaps by themselves. We now have Grand Prix type racing for those who prefer this type of flying. A reason for using start lines in international competitions is that pair flying is allowed.

In Europe a blue day is usually unflyable whereas here we often use them. It is the preponderance of blue days in Australia which should dictate procedures that reduce the concomitant gagging.

Having said all this, what can we do in Australia to reduce our accident rate?

Firstly, I believe that no one goes out of their way to have an accident and we all believe our personal performance in relation to safety is good. Our airworthiness standards are excellent and airworthiness related accidents are virtually unheard of in gliders manufactured in the last 30 years or so. Accident rates can be reduced and safety enhanced without taking away the fun in flying gliders.

One matter lacking in Australia is a lack of communication concerning safety matters. The information path starts at the GFA, then RTOs, CFIs, instructors and finally pilots. As a pilot, how often have you heard from your club of any GFA advice relating to safety?

Our national magazine, Gliding Australia goes to every pilot. How often have you read an article which might increase your knowledge of safety related matters? Regular desensitised reports of accidents, what caused them and how you might avoid them? Virtually never. Plenty of nice photographs, competition related articles, but anything to improve your piloting and safety skills... hardly ever.

Our magazine should be a conduit for passing on useful flying skills. I suggested to the GFA that it should have a database of all instructors and coaches and use it to pass on GFA decisions and advice. Nothing happened.

Another concern is that it appears, without having actual statistics to back it up, that accidents with an instructor as pilot in command occur far more frequently than they should. Not sure why it is so.

Gliders with a highly experienced pilot/instructor in command should have an almost perfect safety record.

I certainly am not aware of a high accident rate with GA instructors. It has been said, "you can't make an omelette without breaking eggs". This is not acceptable as an excuse. An instructor should always ensure that the flight is ultra safe, even if this means taking control on occasions when it was not needed. If this surmise concerning instructor related accidents is correct, then the causes and instructor training need consideration.

A major problem, not exclusive to the gliding movement, is the reluctance and downright opposition to listen and act upon new ideas. It is as if accepting an idea different to previous held beliefs was a sign of weakness. It, of course, is not, and it takes a strong personality to embrace changes. I could give many examples.

Some years ago the British Gliding Association was very concerned at the number of winch launch accidents. They did a survey from their comprehensive records going back to 1976 of all accidents, what caused them and how they could either be avoided or safely handled once they occurred. They promulgated brochures entitled "Safe Winch Launching" which went to all clubs and pilots. It was shown on their web site together with an interactive quiz and computer simulations of accidents.

The result was a reduction of accidents to 25% of the long term average. Serious injury or fatalities that had been running at 3 or 4 per year went down to one. As the Brits do between 250,000 and 300,000 winch launches per year these results are surely significant and beyond statistical quirks.

A recent analysis showed them that one cause of accidents had not reduced as it should and often involved experienced pilots.

This was a wing tip catching the ground after the launch had commenced with a resulting ground-loop or cartwheel. Andy Holmes, their winch launching guru wrote a two page article for a recent edition of their gliding magazine, "Sailplane and Gliding" in which he pointed out the risks involved and avoidance procedures in the very early part of a winch launch. This is how it should be.

Getting their hard won and successful results accepted and becoming part of our training is another matter. One would expect that the GFA would take the BGA proven recommendations and incorporate them in our training. It hasn't happened. If a winch launch pilot was quizzed on the BGA proven findings as to how to prevent an adverse situation occurring and how to correct one if it did happen, expect an abysmal lack of knowledge.

Take their recommendation that a hand should be firmly on the release, certainly until speed and good aileron control had been established in order to instantly release if matters went pear shaped such as a wing tip touching or about to touch the ground.

They say just touching or having a hand near the release is not good enough. Time is critical and it can take a strong pull to release a glider that is starting to lose directional control. Pretty straightforward but I couldn't get instructors in my own club to embrace the principle. In two recent accidents at the commencement of an aerotow, both serious and in one the aircraft was almost written off, have occurred

In each case the pilots did not have their hand firmly on the release. Having a hand firmly on the release is not a large impediment and if it only saves an accident every 20,000 launches, well worthwhile.

My Ventus 2 has the release behind the control column. It could not be reached if left aileron was applied. An extension allows the release to be comfortably held, certainly until the speed has built up and it is time to change the flap setting. It is small items such as this which add to our safety and unless pilots know about them can suffer the consequences.

A practice I employed when instructing or conducting air experience flights was to tell the front seat passenger or trainee that the safety of the flight depended on him carefully looking out to the front and to about 20 degrees each side as my view was obstructed by him. Getting would be pilots to carefully lookout from day one is a good start. Am sure most instructors do likewise but perhaps a worthwhile suggestion.

Flarms are an item that need consideration. They have been enthusiastically embraced in Europe where something like 13,000 have been installed. They are certainly not a panacea and not of much use in busy gaggles but they certainly help overall. The human eye is very limited in that it only has a clear field of vision of about 15 degrees.

Our peripheral vision is not of the help it could be in that an aircraft on a collision course does not move relative to our glider and it is movement which our peripheral vision identifies. My club has a mandatory requirement the gliders flying from our airfield are fitted with Flarms.

There have been two midairs in Australia in recent months. For Flarms to be effective both gliders need to have them fitted and working. It seems that this may not have been the case. Would Flarms have prevented either of these accidents?

We don't know but a fair chance they may have. There is a good case for making the carriage of Flarms mandatory in Australia and subject to a periodic practical function test. Just preventing one accident could well cover the cost of doing so.

A student applying for an RAA license is given a comprehensive written questionnaire embracing many aspects of flying light aircraft and he is expected to have a good knowledge of overall safety and flying principles.

There is no doubt that in an emergency a pilot will rely on what he has been taught and this extends to procedures which he has not actually practiced but read about. When an emergency happens it is highly unlikely the pilot will conjure up the correct response without prior knowledge.

An example. An early pilot caught in turbulence and flying reasonably fast extended the dive brakes and broke the canopy with his head. Even without a practical demonstration, if he had been told to reduce speed, tighten his seatbelts and hold the brake handle very firmly and open them gradually, it is highly unlikely this accident would have occurred.

Another example. Correct procedures if likely to run into a fence. Yes, we teach stick forward, wing down, preferably turn into wind and initiate the turn about 50 metres before the fence if likely to hit it, but how many are taught that if flying a glider with a nose

wheel such as Grob 103 or Puchatek that pushing the stick forward will probably prevent the glider turning? It has happened. Quite apart from normal procedures and requirements there must be many similar instances where some knowledge of what to do can be a lifesaver.

The only way we can be certain that all these scenarios are covered is by giving the trainee a written, open book type test. Again, this suggestion was made to the GFA without a response.

I was involved in a mid air collision some years ago and the last thing I want to do is talk about it. However, there are some valuable lessons to be learnt so here are the details. As far as I knew was flying by myself in a national competition in a Discus 2 with a moderately high wing loading. In lift initiated a steep turn to the left. About half way around the turn saw a glider on my extreme right, about 100 metres away, which appeared to be on a collision course.

I well remember my thoughts... what can I do... don't think he has seen me... probably best to just continue and hope he does something or passes behind me...

I did not see the actual collision as the other glider hit me from behind and based on damage to my glider and a piece of the other gliders wing tip which remained with my glider, hit the higher right hand wing on the trailing edge about half way along the wing. I tested control response but about after 5 seconds my glider entered a very steep fast rotating spiral.

The data logger which continued to work, indicated a descent rate of 100 feet per second. Exited the glider with great difficulty and was tumbling as in a washing

machine. My thought was to stabilise my fall as had been taught by spreading my arms and legs.

Quickly realised that I would hit the ground before stabilising and after several attempts, made difficult as I was tumbling and the parachute was moving on my back. Finally pulled the rip cord and the parachute opened a few seconds before I hit the ground very heavily on my side. Fortunately it was a ploughed paddock.

So what are the lessons to be learned? I wondered for some time what, if any, evasive action could have been taken. It was only after research associated with the National Competition Pilots Safety Committee that an answer appeared. I could have rolled the glider level in the time available and presented a smaller target. The other glider would have missed me.

Similar principles apply in other dangerous situations. We are taught that when two aircraft are approaching each other that each must alter course to the right. This is OK when the two aircraft are still some distance apart but when an accident appears imminent separation can be achieved far more quickly by changing altitude.

If gliders bank to achieve separation, they lose sight of each other, present a large target and the manoeuvre takes far longer to take effect than say, diving. Commercial airliners use the principle of quickly changing altitude. Not every situation is the same but good to have an appreciation of what can be done.

Likewise leaving a rapidly descending aircraft. Stabilising might work when exiting an aircraft flying level but not when the aircraft is heading towards mother earth rapidly. Best to get a hand on the D ring

as you are exiting the glider. You may wish to delay using it to clear the aircraft but if close to the ground your best chance is to use it promptly.

The survival rate of pilots involved in a mid air and uninjured is 50% at 3,000 feet. If you are older or less fit the odds are even worse. A NOAH system is said to allow survival as low as 1,000 feet. They are pretty expensive but there are more economical alternatives.

Paul Mander made Whoopsie cushions which are effective at a cost of about \$1,000, are not a fixed part of the glider and do not require engineering orders. An American pilot made a device using a large inner tube, a pressure bottle and a tap.

Ask yourself the question. What would you be prepared to pay as you struggled to exit a glider? We correctly make a parachute costing \$2,500 mandatory in some circumstances. Maybe all aircraft flying in competitions should have air bags fitted which double a pilots chance of successfully exiting a glider

The next consideration is lookout. My research showed that in every case where information was available. At least one pilot would have had a clear view of the other glider immediately before the collision. In my case the other pilot in a statutory declaration said he only saw me in the instant before the collision.

The conclusion I have reached is that a pilot should not look away from the view to his front for more than 5 seconds. Have flown two seaters with experienced pilots in the front seat and observed that many look away, perhaps at a cloud structure, for more than 5 seconds.

This is a personal thought and not intended to set standards or give advice to other pilots. The upshot

of my accident was not very happy. The data logger traces clearly showed that the other glider had been following a parallel path about 300 metres behind me, slightly to one side and at about the same altitude.

CASA and GFA regulations both clearly state that the following aircraft has the responsibility to provide clearance and that this responsibility continues irrespective of any change of direction by the leading aircraft A GFA official told other pilots that I was responsible for the collision.

Even worse, ten years after the accident, pilots whom I respect have said that they were told that I had sued the GFA which had paid a large settlement, resulting in the GFA raising fees.

Not true. I have on file a letter to the glider pilot/ lawyer advising me that, even though I was considering taking legal action against the other pilot, under no circumstances was any action to be taken against the GFA or any of its officers. I guess we should be very careful before apportioning responsibility to others without knowing all the facts.

This article has been written with some reluctance. I have the greatest respect for the many individuals, mainly volunteers, who make our sport possible. Unfortunately, what you don't know can hurt you. Perhaps what has been written will encourage discussion and progress in making gliding safer than it is,

Harry Medicott

A GLIDE ANGLE OF 120:1? ... OR MORE?

DAVE SHORTER



Futuristic thinking?

Perhaps an ASG50 or JS45 in the year 2050?

No, this is happening today....AND....it's also quite possible in Bob Dircks' 50 year old Libelle.

How? Streeting.

One of the common weather features at Lake Keepit is a line of clouds which build to the East of the field, running from Manilla, NW along the Bora hills and up towards Mount Kaputar. I'm not sure why these clouds form so consistently in this alignment, but they do.

Maybe some type of convergence... an air mass coming from the east hitting the air sitting over the Keepit plain, or maybe an orographic effect of air flowing off the mountains and hitting the ridge of

the Bora hills. Many times when the sky is blue and featureless at Keepit, these clouds beckon alluringly from the East ... can we reach them, and is it worth the effort?

You betcha it is!

It can be bit of a stretch getting to Manilla, particularly when it's blue in between with weak convection to 3-4,000 ft. Tip-toe carefully... there'll be something to climb in on the way, (and there's always a good safe field at Manilla if you don't). But it's worth it when you get there and can contact the clouds.

Your next objective will be to get a climb under the street... sometimes this is possible over the flats at Manilla, otherwise you need to head into the valley to the north or onto the hills. With a bit of luck you'll find a big black bottomed cloud with 6-8 knots which

can take you another 2-3000 ft higher than you were getting at Keepit... up to 6-8000 ft. Feels much more comfortable. And then the fun starts.

I don't think there can be better fun than flying under a long powerful street of convergent clouds. So how do you do it?

Let's look at the conditions we experienced during the mini grand prix long weekend early September this year.

On the Monday the 9th Jacques was rubbing his hands with glee over the weather forecast, predicting a change from the blue days we'd had, ... instability, convection, and streeting. The task set by Steve was Keepit, Manilla, Edgeroi and home.

Sure enough, at about 11am the clouds started forming from Manilla running north over the Bora hills.

Pre-start, in blue conditions, convection was barely 4000 ft AGL and many gliders crossed the start line below this. Just couldn't get up. A careful glide towards Manilla, and a bit of weak lift on the way was taken to maintain safe height... back to 5000 ft QNH and turn Manilla. A bunch of gliders joined the clouds a bit to the north and the best part of this generated around 8 kts climb up to 8200 ft.

Interesting... there were quite a few centres of lift here. Some gliders were climbing in weaker sections of lift. It's worth searching a little to get under the best

cloud, and when there are other gliders in the vicinity its easy to see if someone else is out-climbing you... no good hanging in 4 -5 knots if there's 8 knots plus nearby.

Gliders in good lift are normally banked tight and screwing up fast. Watch out and you may be able to improve your climb. I shifted to another core here to join another glider, to maximise my climb and we left some of the others behind.

It's tempting in a powerful thermal to take it all the way up to cloud base, but this is wasteful if there's streeting ahead. Leave at least 500 ft below... as you leave the cloud, you'll probably continue in lift for

some time and it's a waste if you have to accelerate to avoid being sucked into the cloud. Also, having space above gives you a much better view of the clouds ahead. You can see their shape, and work out the way they are aligned up ahead.

From here, I flew without turning for another 57 km along the street, losing just 1480 ft. That's a glide angle of 126:1 .

So, we don't have to wait for the ASG50 or the JS45 to materialise in 2050. A glide angle of 120:1 (and much more) is a fact of normal flying today when you fly under a series of linked clouds.

"But", I hear you say, "you were in a JS1 with a glide angle of 53:1. How can a Libelle achieve this?"

If the street is solid, it's just a matter of the speed you fly. Ideally you should fly slow enough so that you lose no height, and you can then fly without turning.

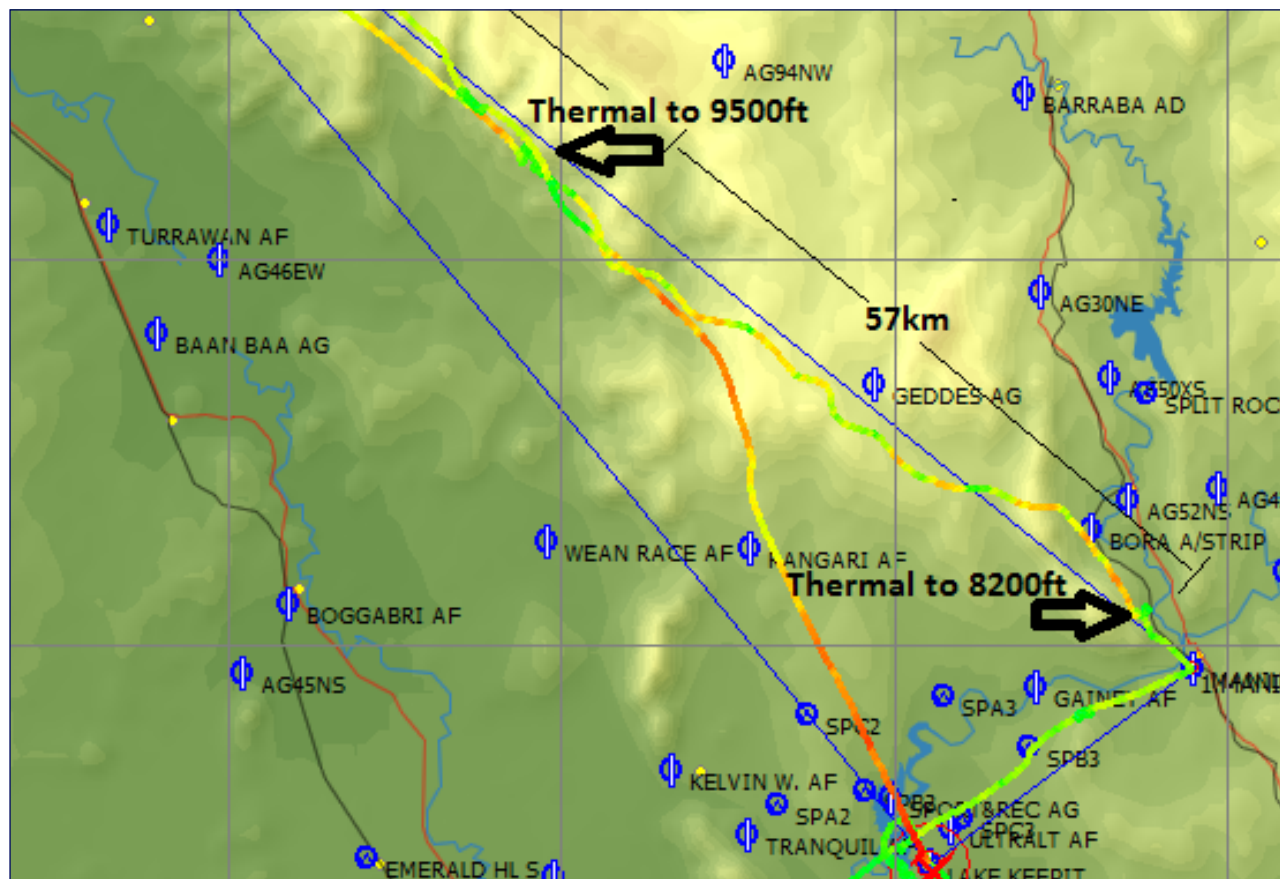
Turning is very wasteful and normally you achieve best speeds by going a bit more carefully and avoiding turns. I was cruising at around 80-90 knots and slowing down to 70 in lift.

A Libelle cruising at 60-70 and slowing down to 45-50 in lift would probably achieve similar results. Won't be as fast but should still be able to maintain the same height and achieve the same glide angle.

(At a Qld comp a few years ago Shane McCaffery in a Std Libelle achieved an average task speed in excess of 125 kph. There was some pretty good streeting that day.)

These are some of the things I try to achieve when I'm flying streets and convergence lines :

Lookout for other gliders... up high close to



cloudbase gliders are hard to see. If you're having a good run under the street, chances are there'll be others doing the same. It's very easy to concentrate on the clouds and forget that other gliders may be heading for the same spot you are ... or returning head on.

Try to avoid turning. Fly forward as a much as you can. Slightly slower may pay off.

Move sideways to where you sense things are working... don't be afraid to deviate to fly through the best areas of lift.

Ease back as you fly into an area where you expect lift... going slower as you enter lift will maximise your height gain. Sudden pull-ups when you encounter strong lift are very inefficient.

Lookout for other gliders.

Fly under the blackest bottomed clouds.

Look for cumulus shaped clouds embedded within the big black numbers. Often there will be two or three separate cumulus clouds massed together. You may also be able to distinguish the best areas of lift from the where the best cauliflower tops are poking out of the cloud mass.

Align your approach to each cloud with the wind.

Lookout for other gliders.

Look a long way ahead and try and pick a path under as many clouds in sequence as possible. Sometimes staying off to one side to follow a sequence of weak looking clouds may be better than that big tempting one with nothing beyond. If it fails, you're stuffed with nowhere to follow.

Don't fixate on gliders ahead. Look at the clouds and make your own choices of where to fly. You'll never overtake him while you're following. If he flies into a hole you don't want to be there. And if you're fixated on that glider you won't see the others that may be nearby.

Try and remember where you found lift under previous clouds. Often, the best lift will be along the windward or sunny edge of each cloud where newly forming clouds are, in which case you run along the edges instead of the black centres.

If there are distinct height differences in the cloudbase, fly under the clouds with the higher bases... probably a convergence of moister air with drier warmer air which rises higher.

Lookout for other gliders.

If there are parallel streets offline from your course, it will probably still pay to run 30D offline to stay under the street. Try and find "stepping stones" between the streets when you cross to the next street.

If you're coming to the end of a street, stop to regain height in a thermal before you get to the last cloud... the last cloud may not work.

The importance of this last point was very significant on the grand prix day. The street of convergence ended about 15km short of Mount Kaputar. There were a few scattered clouds towards the end of the street, and beyond ... blue, and haze. No clouds ahead to the north or west where we were going. I didn't particularly like the look of the sky ahead... looked dead... and some of the last clouds in the street looked a bit scraggy.



I stopped a couple of kilometres before the end of the street and took a slightly weaker climb... initially 3 kts which improved to 6-7 kts. But I took this as high as possible, even when the climb rate was tapering off towards the top to ensure maximum height, topping out at 9500 ft. Then flew under the last couple of clouds, which weren't working, before heading off into the blue and haze.

Interesting to note what a small proportion of the flight time was in this convergence street. But it was the most exciting and memorable part of this flight. Colour is airspeed... green 70-80 kts, up to orange around 110 kts.

From there to Edgeroi, 54 km, I found nothing... straight glide, downhill all the way turning Edgeroi at 3800 ft. If I'd left the climb to the last cloud, which wasn't working I'd have started that glide to Edgeroi at 6000 ft and wouldn't have got there without finding something on the way.

Incidentally, coming home from Edgeroi was a bit nail biting, as the thermals across the plains were pretty weak, and it wasn't until we reached the hills around Kaputar than we were able to regain comfortable height again. The convergence was still sitting over the hills about 20 km further south and when that was finally encountered again the home run was a breeze... flying straight ahead through 10 kts of lift because you already have final glide. What a waste!

Have fun and keep an eye out for the Manilla convergence. You'll enjoy it.

