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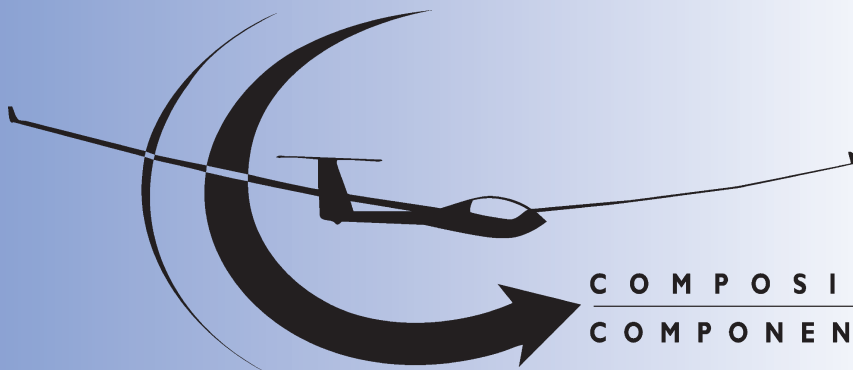
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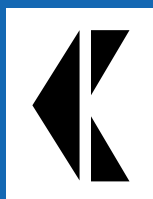
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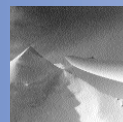
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1999 Australian Paragliding Open

GODFREY WENNESS AND FELIX BURKHARD

Once again the Australian Paragliding Open returned to Manilla, one of the world's best paragliding sites. This area is known for its great cross-country flying – with a claim for the FAI Open Distance world record (335km) and numerous 200km+ flights flown here by competition organiser/director Godfrey Wenness. The four launch sites at Mt Borah have been greatly expanded and now allow multiple parallel launches for fields of up to 150 pilots! Due to the New Zealand Nationals being held the week before the Australian competition, many pilots were already present. Nevertheless the organisers were surprised to see another 60 pilots entering the competition. This is the biggest Australian Paragliding Open competition ever held. A total of 119 pilots (18 females) with 72 Australians (10 females) from a total of 13 countries registered at the competition headquarters in the Manilla Town Hall.

Mt Borah eastern launch. Photo: Godfrey Wenness

New for this year was the use of GPS verification for startgate times and turnpoints. Only 11 pilots did not have GPSs and had to use the old system of taking photos. After some minor rule amendments to allow for the multiple launch availability at Mt Borah, the final GPS startgate system adopted proved an excellent way to get over 100 pilots on course while reducing the risk of overcrowding in the first thermal. Basically the task could be started from any launch and the pilot's time was taken from the first startgate open time. The four or five 20-30 minute gates (lines) themselves were on top of the hill and pilots could elect to continue on course with the 'automatic' first gate time or fly into sector and GPS mark (or photo) a fresh gate time. This also allowed for fresh times in the event of pilots bombing out and re-flying.

Day 1 (Round 1) – 61km elapsed time race to goal: Mt Borah – Baan Baa



Light easterly winds with a hint of south in the middle levels prompted a shorter technical task to the west of Mt Borah. Early launchers from the easterly take-off area were favoured by better conditions than those who launched later from the west side. Cloud-

base was over 3,000m and some pilots reported an 'easy cruise' to goal while others battled for extended periods below the inversion at 1,500m.

Fastest was Australian Fred Gungl in 2 hours 20 minutes followed by Bob Smith (AUS) in 2 hours 37 minutes. A total of 18 pilots made goal, however, a huge 52 pilots bombed out on this day, reducing its scoring value significantly.

Day 2 – 90km elapsed time race to goal: Mt Borah – Bingara

The task was eventually cancelled due to overdevelopment and light rain showers on course at the 50km mark, while over 100 pilots were well on the way.

Day 3

The day was overcast with thunderstorms in the afternoon. No task was set.

Day 4 (Round 2) – 73km elapsed time race to goal: Mt Borah – Caroda (NW of Upper Horton)

The unseasonal March weather made task setting extremely difficult with wind speeds and direction changing many times from the ground up to cloudbase (2,400m).

A medium distance task with a mid-level tailwind, multiple inversions and slow climbs sorted out the better pilots. The slower pilots were decked in the Horton valley at the end of the day by weakening conditions and high level cirrus bands. 11 pilots made goal with the fastest again Fred Gungl in 2 hours 28 minutes.

Day 5 (Round 3) – 83km elapsed time race to goal: Mt Borah – Mullaley (SW of Gunnedah)

Once again a difficult task to set, with the day being blue until just before the time the window opened. A NE breeze for most of the weather balloon flight from Mt Borah confirmed the official report, but Godfrey's local knowledge indicated that a low level southerly would develop beyond halfway along the course.

The inversions and difficult blue holes accounted for much of the field in the first one to two hours. After this time the southerly wind kicked in and made things very difficult. Some of the front group pilots stayed in close gaggles and managed to fly another 20 to 30km in crosswind conditions.

Best distance flown was 76.2km by Rodney Burgoyne (NZ). On this day, only 13 pilots bombed out within the 5km zone.

Day 6 (Round 4) – 47km elapsed time race to goal: Mt Borah – Halls Creek Exchange – MSS clubhouse

Light winds and early overdevelopment all around Mt Borah made the task setting difficult. The task committee decided on a short but difficult out and return task on an E to SE course from launch.

After the launch window opened, winds from the SW increased, making it difficult for competitors to get high and fly in the course direction. 26 pilots flew around the turnpoint, with most of them well north of the course line. The GPS track logs showed very interesting path lines, with the winner Ron McKenzie (AUS) flying more than 10km to the north of goal but eventually landing only 3km short of target. Fred Gungl with 42km and Simon Oliphant (GB) with 40km were closely behind. One pilot, veteran Gerry Gerus, would have made goal easily had it not been for the prescribed land-by time.

Overall the day did not score well with the GAP system, as very few pilots flew the required nominal distance of 40km.

Day 7 (Round 5) – 90km elapsed time race to goal: Mt Borah – Bingara

After last Sunday's excursion to Bingara was cancelled due to overdevelopment, the task setters decided that today chances looked better.

Soon after the launch window was opened, the sky was dotted with gliders. Although there was a good vertical spread, pilots in the 110 glider mega-gaggle found it hard to actually get to the 2,500m cloudbase and on course. Eventually gaggle after gaggle left the hill and by 2:00pm the launch was almost deserted – a first for this year's competition. Cloud development to the NW of Barraba caused shading and claimed many pilots in this area.

11 pilots made goal and a few more landed just short of target. Fastest pilot was Juraj Kleja (SLO) at an average speed of 34.5km/h (2 hours 36 minutes) followed by Enda Murphy (AUS) and Jochen Eisfeld (GER).

Overall Enda Murphy was leading, but with only 80 points separating him from Simon Oliphant and Fred Gungl, anything was still possible on the last day.

Day 8 (Round 6) – 57km elapsed time race to goal: Mt Borah – Bendemeer

The potential for overdevelopment was high according to the temperature and humidity trace. The visual observation of overdeveloped cumulus clouds to the north by midday confirmed this. A fast task with some light tailwind to Bendemeer and an early 'land-by' time was decided in order to (hopefully) achieve a valid last day.

Lift was not as consistent as expected and many pilots were caught out scratching down low in small bubbles. This slowed down the average speeds for many pilots and meant that they would not make it to goal before the prescribed land-by time. Luckily the course line did not overdevelop until all pilots had landed, allowing for a safe finish to the week.

Fastest pilot to goal was Enda Murphy in 2 hours 53 minutes followed by Rodney Burgoyne in 2 hours 59 minutes.



The winners from left to right: David Patak (Best Novice), Nigel Leigh (Best Intermediate & DHV2 glider), Heike Hamann (Best Female), Enda Murphy, Fred Gungl and Peter Bowyer.

Competition Summary and Prizes

Of the eight comp days, seven were flyable and six valid tasks were run. The usual fantastic March weather at Manilla that everyone had come to expect did not eventuate this year and conditions were very unseasonal despite many long (150-231km) flights just two weeks prior to the competition. Nevertheless the competition produced a fair and valid result and many pilots flew personal bests and made goal for the first time.

With 119 pilots entering the competition the new GPS startgate system worked well to avoid first thermal and startgate gaggle dramas.



Trans-Tasman team from left to right: Rhett Rockman, David Mills, Fred Gungl, Peter Bowyer, Andrew Kemp and Ron McKenzie.

Surprisingly, for a competition of this size, there were no accidents or injuries. The only notable incidents were two tree landings and a reserve deployment following a cravatte by a Japanese pilot flying a competition prototype wing. This was also the first Australian Paragliding Open where the top three places were achieved by Aussie pilots!

The presentation night returned to the rustic Old Mill, venue of the presentation night four years ago. Over 150 people enjoyed an excellent smorgasbord 'all-you-can-eat' meal, many sitting on hay bales and soaking up the unique Aussie bush shed atmosphere. The presentation ceremony went smoothly except for the 1st prize trophy: a \$400 Gold Manilla Eagle which tried to fly off its branch, resulting in two broken legs. After dessert, with the beer and wine being free all night long, the local rock band 'Orion' kept most on their feet dancing away until 2:00am. Many serious drinkers stayed on until 5.30am to finish the 5th keg of beer long after the band had left.

Results

1	Enda Murphy	AUS	ADVANCE Omega 4
2	Fred Gungl	AUS	NOVA Xenon
3	Peter Bowyer	AUS	NOVA X-Pert

Female

1	Heike Hamman	AUS	NOVA Vertex
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Intermediate

1	Nigel Leigh	NZ	NOVA Axon
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Novice

1	David Patak	AUS	EDEL Quantum
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DHV2 glider

1	Nigel Leigh	NZ	NOVA Axon
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Veteran Pilot

1	Gerry Gerus	AUS	Gradient Avax
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The 1999 Australian Paragliding Nationals could not have been as successful without the help of the following expert team: Felix Burkhard (scoring), Brian Shepherd (competition director), Christa Sommer (launch help), Amber Cocking (goal), Bob Smith (GPS down loads). The competition was organised and managed by Godfrey Wenness.

The competition organisation would like to gratefully acknowledge the support of the following: Manilla Shire Council, Vic'n Tom's Corner shop, Uncle Tobys, J&M Photographics, AGFA, Manilla Flowers and Gifts, Blue Pole Inn Restaurant, The Imperial Hotel, AMPOL (TransWest Distributors), Reg McCleod (Old Mill Country Social Club) and Manilla Paragliding. Special thanks to the Manilla SES for pilot transport and emergency standby.

The information contained in this article can be found at <http://gri.une.edu.au/mss/99auspg>

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FLY'S OMEGA 4/28

BOB SMITH

LONGEST XC BY AN INTERMEDIATE PILOT
FLEW 188KM FROM MT BORAH, MANILLA.

FLY'S SIGMA 4/29

SUZI SMITH

LONGEST XC BY A NOVICE PILOT
FLEW 113KM FROM MT BORAH, MANILLA.

FLY'S EPSILON 2/25



PARAGLIDERS AND KITES

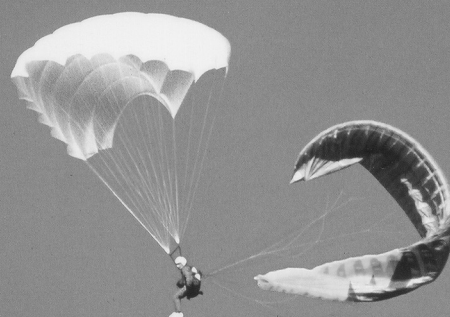
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Flatter than the Flatlands

Birchip '99

WARWICK DUNCAN

The Birchip Hang Gliding Competition

— for me it's a chance to put on a

four day party for my hang gliding

friends. To get out into the Mallee

autumn which is full of reds and

golds with mild days, mellow

thermals and sunny skies. A last get

together before the coming winter.

Day 1

Easter Friday dawned blue and clear with a low inversion. Few people climbed through 3,500ft on their way to the tiny town of Tempy, 74km to the NW. It was a day of endless circles in light lift but with little sink in between.

Ray was fastest at 2 hours 14 minutes. 12 others shared the goal beers.

Day 1 Results

- 1 Ray Cassar
- 2 Alan Beavis
- 3 Greg Holt
- 4 Brent Telford

Day 2

Ray looked sensational next morning in the winner's Superman T-shirt and cape. We drove out to the paddock under blue skies once again, but as the day progressed cu's began forming everywhere, eventually reaching a base of 6,300ft. Hopevale intersection was chosen 69km to the west. Hugh discovered, as he set up his glider, that he had left his glider's glass tip somewhere out near Sea Lake the day before. The drive to get it must have been a great motivator as he got back, flew to goal and won the day! 29 others (out of 50) celebrated at Hopevale, though Glen O'Grady was not one of them.

Glen had become a little disorientated and landed 35km south of goal! Still it was a great fly.

Day 2 Results

- 1 Hugh Satchel
- 2 Brent Telford
- 3 Alan Beavis
- 4 Wes Hill

Day 3

The instability of the day before deepened as a trough moved in from the NE, threatening to spoil the show. By the time we got out to the paddock the sky was overcast overhead and black out to the NE. Still, conditions were perfect for towing so a task was set to an intersection short of Warracknabeal, 60km away. Luckily the rain came in exceedingly slowly allowing us to get a couple of hours of towing in before it hit.

Only four pilots got out of the paddock in weak lift. Rohan flew an amazing 25km on a Moyes Fun, never getting above 1,500ft. Although of low validity, we did manage to get a round in. It also meant that everyone was back for the video night nice and early — this year on the big screen!

Day 3 Results

- 1 Rohan Holtkamp
- 2 Peter Greenhill
- 3 Warwick Duncan
- 4 Ben Kennedy

Day 4

Monday was a day of two parts. Initially the weather was still influenced by the trough with towering cumulus threatening to turn into thunderstorms.

After much deliberation I opened the window for the task to Lake Boga as the trough moved away to the east. A new airmass now pushed through under the influence of a front to the south, which brought with it nicely shaped cu's and a stiff SSW breeze. Unfortunately this made towing quite difficult for a while, although only half a dozen pilots were left in the paddock.

Once in the air quite rapid progress was made providing you could stay up. Luckily, altitudes of over 6,000ft were reached by some pilots, allowing a long glide through the shadowed areas to goal at a distance of 68km. Six pilots made it in.

Day 4 Results

- 1 Telford
- 2 Mark Pike
- 3 Paul Kelly
- 4 Mike Escourt

What can I say? Another great Easter with some superb flying. Lots of personal bests and heaps of people into goal for the first time ever. It was interesting to see Rohan flying a skyfloater this year. Although still very competitive, at least it was possible to keep up with him and learn a little. Maybe we should run handicap competitions with all the top pilots on skyfloaters!

Brent Telford continued his great form at this competition. After winning in '97 and coming second in '98, Brent is again triumphant, he and Paul Kelly coming in one and two for South Australia. Unfortunately it was not enough to take the Victoria/South Australia Challenge in what was a nail-biter. Congratulations also to Beavo for finally delivering the goods at this competition. Until next year!



Victoria – South Australia Challenge

Victoria	8,204
South Australia	8,026

Individual

1	Brent Telford	2,536
2	Paul Kelly	2,352
3	Alan Beavis	2,162
4	Andrew McKinnon	2,036
5	Ray Cassar	1,957
6	Warwick Duncan	1,922
7	Greg Holt	1,883
8	Mark Pike	1,854
9	Peter Greenhill	1,853
10	Hugh Satchel	1,849

Thanks to our sponsors: Danny Scott, Peter Greenhill and Oakley, Dynamic Flight, Airborne and Moyes. Thanks also to the Birchip Lions Club, CFA, Nicky Shalders, Ian Mc Clelland, Mick Hogan, all the pilots, drivers and the Easter bunny for making this a very special event.

Full details available at the Flatter than the Flatlands website: www.users.bigpond.com/warwick.duncan



Mid-Air Disease

BRUCE TAYLOR

As glider pilots in general, and competition pilots in particular, we face a dilemma. In the past couple of years the rate of mid-air collisions has increased dramatically. From my own perspective, in the last five national and international competitions I have flown, there have been no less than six collisions which have resulted in three fatalities. I believe that the difference between a touch and a serious collision is nothing at all, and I believe that if a collision is substantial enough to mean the glider is no longer airworthy, then the pilot has about a 50% chance of survival.

Two of the fatalities I mentioned were friends, and one of those was a very close friend, so I feel some kind of moral obligation to try to ensure that this doesn't happen again. As time goes on and I spend more hours in the air, I feel that the statistics are not really stacked in our favour.

The first observation is that *all* the pilots involved in these collisions were *very* experienced and talented, ranging from two world champions through to full time instructors, airline pilots and high time competition pilots. So we come to Rule No 1.

Rule No 1: A collision could happen to any one of us, at any time.

Before we can start to make inroads into correcting the situation it is very important to really accept this idea, each and every one of us. This in itself will make a difference in our attitude to flying which can only help.

There are two areas to cover in discussing collisions: Primary safety – avoiding the accident in the first place, and secondary safety – increasing your chances of survival after a collision. We'll begin with primary safety as it seems the most desirable arrangement – this is why I don't drive a Volvo...

Attitude

I'll start with something to stir the thoughts: Women are safer drivers than men. Statistics prove it, so don't argue! Why is that? To my way of thinking if you put a male driver in one car and a female driver in another and tell them to race, the male will (almost) always win. I'll stick my neck out and suggest that this is because men have better reflexes/co-ordination and better judgement of distance and speed. Maybe they have something else too – a willingness to travel closer to the limit. I'll bet that the one time the male car driver doesn't win will be because he crashes, not because he can't drive as fast as the woman!

Could I suggest that as we go higher up the competition ladder we come across bigger egos and a greater willingness to travel on the limit?

Women have a much higher respect for where the limits are, so will look more carefully and leave more room between themselves and the edge. Even at a base level, the very fact that we fly gliders says that we are adventurers and enjoy living life more fully than your average suburban "Norm". Keep this in mind each time you get airborne, be courteous and mindful that, particularly in company, the edge isn't too far away. We learn then for Rule No 2.

Rule No 2: Leave yourself and others a healthy margin for safety.

I have flown with some very aggressive pilots who will fly straight at you if you are where they want to be. I am not that brave – if it costs me 20 seconds to let them have their way then I can live with that, quite literally.

Training in Lookout

By now you should have read a copy of the talk that John Buchanan gave at the last Narromine Nationals after the accident there. For anyone of any level it was the best I've heard. Yes, it is all basic stuff, lookout and scanning techniques, but we are dealing with a basic problem here.

Of all the people I fly with either as an instructor or coach only about 10% have what I consider to be an adequate lookout, for both safety and performance. John was issuing his military training as an example of how this should be taught, and maybe there is room for improvement in the GFA instructor's syllabus. There are key points in a scanning sequence from straight ahead to full left, full right, straight up and back. Your eyes need time to focus at a distance, as they have to recognise what will appear as a stationary object if it is on a collision course. Before any change in direction you must clear that piece of air, which definitely includes pulling up and pushing over! The other thing to think of is all the information you miss out on if you are not looking outside which could help you to fly more efficiently. So the next rule is simple.

Rule No 3: Look outside! Look outside! Look outside!

If flying efficiently you almost never have to look at the panel. You have an audio vario so all that's needed is a couple of glances at the averager each climb to confirm any change you suspect, then during the glides one airspeed check about every minute is plenty. If you need more than that, I suggest your instruments need to be set up better or you need retraining.

Under the same subject comes instrument design. John also touched on the idea of having some kind of audio tone associated with the GPS. Others have suggested that the current GPS technology is in fact responsible for some of the collisions we have seen, with too much time needed to decipher the information on the screen. Surely any system that still relies on numbers to be read to determine a heading change should be filed away for bush walking or a rowing boat where collision avoidance is not so vital. Simple and large arrows are a must, and if technology finds a way to give the information without even looking at the instrument then so much the better.



In the old days of map reading we used to look at the chart and compass to line up a point on the horizon where we were headed. It meant long periods of flying with no head down time and just occasional glances at the point we had chosen to ensure we were travelling in roughly the right direction. Try to train yourself to use the GPS in the same way. You might even find that you are doing less “straight lining” and following a path of better energy.

Judgement of speed and position

While sitting on a motorway after the collision in Bayreuth last year, it came to me that maybe we are lulled into a false sense of security when surrounded by many objects travelling in the same direction. The German autobahns are an extreme example with usually three lanes each way and loads of traffic all travelling at way over our normal speed limits.

Sitting in amongst this for some time can have you quite relaxed about the speed you are doing, as the only thing you take notice of is any *relative* difference in the speed of the cars around you – someone approaching from behind or you catching up to a vehicle in front – that is until something goes wrong... Suddenly it becomes very obvious how quickly all the traffic is going! This is backed up by the odd sight of evidence of a huge catastrophe along the roadside!

When we are all thermalling in a large gaggle we could be doing the same thing. As all the nearby gliders look very serene and graceful wheeling around together, it is easy to forget that you are all doing well over 100km/h, and it only takes a very small difference in trajectory to give very high closing speeds. If you consider the possibility of a glider entering a gaggle from outside or, worse still, a collision when both gliders are cruising, then the resulting impact could easily be in the order of 300km/h or more.

At that sort of speed, if it is a wingtip or tailplane that gets hit, it is gone instantly. If the impact is in the area of the cockpit, given current construction methods, it is not likely that you will get much protection and your chances of survival will be minimal. Remember the next rule.

Rule No 4: With any impact, the closing speed will invariably be very high.

This is a scare tactics type of rule, and it may help you to take more notice of Rule No 2! I have seen the results of a couple of mid-airs, and the pieces are very small...

Dangerous practices

There are some flying practices that really should be covered by plain old good etiquette, but I see bad situations arise often enough where people need to be told a little more forcefully. Now everyone makes mistakes, and there have been plenty of times when I have missed seeing other gliders, and times when I have cut others off or just flown somewhere stupid, so I am not up on my soapbox preaching. Usually I have borne the brunt of the other pilot's anger and learned from it, but more on that later.

Certain relative situations are quite dangerous, and should be avoided at all costs. The worst one is a glider with another below and in front of it. Neither pilot can see the other and it only takes a pull-up from the bottom or a push-over from the top to bring them into contact. Usually this situation is under the control of, or caused by, the glider on top and can arise either in cruising flight (extremely dangerous due to the higher speeds) or in circling flight when a pilot tries to turn inside another. Sadly if a collision occurs between the two, the bottom pilot will suffer the most, and usually it is not his fault.

I vividly remember Eric Napoleon at the Pre-Worlds in France, grabbing another (well known) pilot by the throat at the end of a flight and threatening him very seriously for overtaking him on the ridge straight over the top of his glider. At cruising speeds the result of Eric unknowingly pulling up in a gust would have been unthinkable. These guys live in their gliders in one of the most densely flown areas in the world – it is no wonder that they get a little touchy about such stupidity. The only thing for sure was that the offending pilot knew exactly where he stood at the end of the confrontation!

Never, ever overtake another glider over the top – move out to the side and keep the other aircraft in full view for the whole exercise. Likewise never go underneath. If you stay out to the side then there is a good chance everyone can see each other. When thermalling it is always tempting to turn inside another who is not banking so steeply or climbing so well, but to do so you have to lose sight of them as you “show them your undercarriage doors”. Remember that from their point of view you have been sneaking up behind, so have been out of sight for a couple of turns at least, then the most convenient place to pull inside is when you hit the best part of the gust. This is just when they will want to do the same! Play this game cautiously.

Enter thermals with a plan. Get all your speed off before you arrive and *don't* fly under a circling glider at speed and pull up on the other side of the circle. You may feel like you are in control, but it is really scary for the people already there. Have you seen them? Will you get the arrival just right? You must lose sight of them as you go underneath and pull up – I hate it...

Fly smoothly and keep big pull-ups to a minimum. They waste energy and increase the risk of collision. Keeping the speed up and the momentum of the flight going is good for average speeds. Only slow down if you know you are going to climb.

Rule No 5: Learn to recognise potentially dangerous situations and avoid them with forward planning and good situational awareness.

Peer criticism

This is a tricky one. Nobody likes to confront one of his fellow pilots to tell him he is flying dangerously, but we need to start doing it! Too many times do we see less-than-safe practices from one particular pilot and keep turning a blind eye. Usually the situation is such that a less experienced pilot has been seen making the mistakes and is approached by a more experienced pilot, and there are no problems. I remember well the odd quiet word in the corner of the bar with a past National champion when I was just beginning. It was all very amicable and I hope that I have become a safer pilot because of it.

The problem arises when an experienced pilot is doing the dangerous flying. Often egos start to play a big part in proceedings and unfortunately the more aggressive pilot usually has difficulty accepting criticism. We are mainly talking about competition scenarios here, and the one thing that a comp pilot hates most is losing points. Is it possible to have a peer group penalty system for extreme cases? This was discussed at Bayreuth, since one obvious offender was perhaps the most experienced pilot there and quite unapproachable. We lose points for handing our data loggers in late, why not for trying to kill a fellow pilot?

Rule No 6: Let's be a little more forthcoming with constructive criticism about dangerous flying practices.

Background photo: Mandy Wilson



Tasking

I recently flew in the Club Class Nationals, which is all POST tasks. There were a few things that I missed about set tasks, and some other things that I enjoyed with POST. For one, I always felt *much safer* flying POST! Typically you would see about a dozen other gliders during the flight after the start (there were about 50 entries). Even with good streeting conditions, during a POST task the collision chances are much more closely related to the “big sky” theory: They are close to non-existent. A set task is like putting all the gliders into a restricted area of controlled airspace, then taking away the control.

Do not take this to mean that I am a complete POST task convert. There is a bigger picture than safety only, and we all need to all enjoy what we are doing. For a start I believe that someone who flies POST only will never learn to fly efficiently – they need to fly in amongst better pilots to watch how they do it, i.e. on set tasks. I am simply stating that I believe POST tasks are safer, and in the USA where they use this system a lot, the record seems to back that up.

Rule No 7: Keep an open mind about task possibilities and some new rules in regard to making our sport safer.

Some changes may appear detrimental to our level of enjoyment but may just keep more of us alive.

We really need to explore every possibility in avoiding collisions. Is it worthwhile trying some research with strobe lights placed on our gliders? Are there any advances in technology that may enable a cheap collision avoidance system to be carried on board? Most competition gliders already have a GPS. Is it such a big step to transmit this position and speed information to all others in the vicinity and come up with a warning of high closing speed? The glider 40 metres away with no closing speed should not be too difficult to remove from the equation. What other warnings can we come up with?

Rule No 8: If you have any ideas of how to improve the chances of seeing each other, throw them into the ring.

Secondary safety has recently become a big topic overseas, particularly after the last season in Europe which was full of tragedies. Most of the factories are now working on some form of recovery system to go into their next generation of gliders, and plans are to make these retrofittable to previous models. Try to get a copy of the Feb/March 1999 issue of the British “*Sailplane and Gliding*” magazine and read their article on glider and pilot recovery systems. Apart from the latest research on these advances it just may give you some thoughts on what trouble to expect if indeed you ever have to bail out.

In an older glider it may be almost impossible to remove the canopy in a high speed dive after a collision. Lack of familiarity with the jettison mechanism may lead to delays in getting out. It seems that this played a part in the fatality in Bayreuth last year. Identify the necessary knobs and levers on the ground and practice using them. Make sure you can find the “D”-ring for your ripcord in an unusual situation – maybe next time you have your ‘chute repacked you can put it on and pull the cord, just to see how much force is required. It may be more than you think.

The advantage of recovery systems over personal parachutes appears to be in the elapsed time from collision impact to safety. Glider recovery systems will take about six seconds, with personal ‘chutes running at 10 seconds absolute minimum, and more likely

20 to 30 seconds. Assuming an out of control dive after a collision this will often be too long for survival. Always get out of your glider on the ground with your ‘chute still on – it’s good practice!

Gerhard Waibel is also thinking of an automatically triggered device that will deploy a stabilising ‘chute if any significant part of the structure is damaged. This would enable the pilot to escape from a reasonably stable platform, and to reduce the rate of descent to give much greater time to do so. Manufacturers are taking more care with cockpit design in recent years to make them more crash resistant. Unfortunately these advances are not retrofittable, but will at least filter down into general use over time. If all pilots are demanding safer cockpits and recovery systems then they will become the norm much sooner.

Mid-air collisions are all pretty ugly, and we have had a couple of seasons of higher than normal numbers involved. You can see that my emphasis is towards avoiding to have them happen in the first place, and to a lesser extent of finding means to survive after the event. The only way to get on top of this problem is with a concerted effort from the entire gliding community, and a change in attitude toward the real dangers involved in our sport, especially at competition level.

Another good read is the speech of Bruno Gantenbrink reprinted as an article in AG March/April 1998. It deals with the completely nonsense saying that “*The most dangerous part of gliding is the trip to the glider field*”. Read it carefully and think about the consequences of everything you do while you are in the air, then let’s see whether we can all work together to keep this cancer from spreading. I, for one, don’t wish to have to deal with any more dead friends.



Final Rule: Everyone take care out there!

To Rise Again

*“Mit Flügeln, die ich mir errungen,
Werd’ ich entschweben”*
Gustav Mahler, 2nd Symphony

*Down from the clouds – late, lost and losing height.
No dancing, laughter silvered wings this flight.
Good pilots plan ahead and do not seek
To exhibit their skills. My plans proved weak.*

*My skills and knowledge – can I trust to wield?
Somewhere below I need a clear flat field!
No pylons, rocks, nor cattle to evade,
But near a farmhouse – human contact made
To ease my present plight. Which way the wind?
I circle, more height lost, but drift now pinned.*

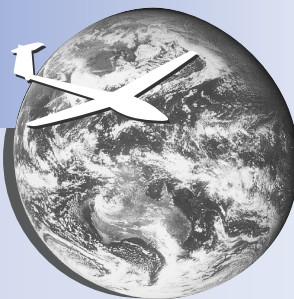
*Gaps through the trees, a gentle uphill slope.
And so plan circuit, downwind checks and hope.
Wheels down and locked, trim speed, turn base, lower flaps,
One final lookout, air-brakes, tighten straps.*

*Time slows, the world yaws past, my wheels near turf.
Left rudder now! wings straight! I touch the earth.
The glider bumps and, silent, comes to rest.
The brain accepts I have survived my test.
And Mahler’s words my mind has sung before:
“I’ve earned my wings and with them I shall soar.”*

James Vernon
(Cross-country flight, evening 14 April 1990)



In the Circuit



Local News

GFA Non National Trophies

The Wally Wood Trophy for greatest distance flown in the 1998 calendar year was awarded to Paul Mason for a flight of 868km in a Ventus VH-GFN, on 11 December 1998. Paul is a member of the Adelaide Soaring Club and flies out of Gawler.

Keith Willis was awarded the Bob Irvine Trophy for the greatest flight in the handicap section. Keith flew a FAI triangle of 513km in a PW5, VH-ZAW, also on 11 December 1998. Keith is a member of the Keith and Bordertown Club.

Barry Ashcroft passed away on 15 February after a long illness, he was only 63.

Barry had been a member of the gliding world for some years, re-learning how to fly at the Corowa club and then moving to the GCV at Benalla. Barry enjoyed getting back into the air after many years absence and soon his LS3 was seen at competitions and camps in many varied places. He enjoyed Horsham week and attended for a number of years till his illness grounded him. Barry also loved to fly in wave and was a regular attendee at Dadswell Bridge and Cooma were his position as a wine lover was put to good use during no fly days.

Barry was supported in his hobby by his wife Jacqui who is just as well known in the gliding circles as Barry's best supporter and sometimes organiser.

We at GCV extend our sympathy to her over this sad loss of such an intellectual, yet funny, man.

Four Blade Propellers

An application for a STC in the name of GFA for the fitment of Hoffman 4 bladed propellers to Pawnee 235, 260 and 235's upgraded to 250 has been made.

Purchase of Cu-Sonde

Executive has approved the purchase of a Cu-Sonde. Terry Cubley is to arrange for a person to take custody and arrange for its use at appropriate sites.

Narromine Aviation Museum

A request from the Director to GFA for support has resulted in a donation of \$1,000 to the museum for the establishment of the Roger Woods Memorial Gliding Display.

World Solar Gliding Challenge

Draft rules have been completed and will be distributed shortly for comment. Pilots who have lodged an expression of interest will be asked to confirm their entry by lodging an \$800 deposit by the end of April. Darcy Hogan is co-ordinator.

Relocation of GFA Sales Department

Diana and Bob Thomas have decided that the time has come for the Sales Department to be relocated to the Secretariat. It is 25 years since Bob agreed to help out Brian Symons for a "few weeks". In this time some 20,000 parcels have been processed at an approximate value of nearly one million dollars and returning a profit to the GFA Consolidated Revenue of something like \$90,000. For her contribution Diana has been made an Honorary Life Member of GFA. The only person to have that exalted status. Diana said that she never regarded the job as being demanding, rather she cherishes the many friends she has made here and overseas. To all these people she would like to say goodbye, wishes them awe inspiring thermals and safe flying.



Diana Thomas

Please remember to send your orders in future to the Secretariat GFA 130 Wirraway Road Essendon Airport VIC 3041. Ph: 03 9379 7411, fax: 03 9379 5519, email: adminofficer@gfa.org.au

Overseas News

In its second year, eleven teams of youngsters participated in the spot landing contest for the BWLV region.

Again Ka8 and ASK-13 gliders were used each team had four pilots and the contest flew off two rounds.

The event now is to be opened to all 12 of the region's clubs, so far only patronised by youngsters from eight Clubs.



This 'Samburo' motor glider (above) has been modified to two wheel configuration. The larger engine models, like similarly modified Motor Falkes are used as tow planes for sailplanes.

The German Aero Club has joined the Federal Environment protection programmes with a "Blue Flag" decoration extended to flying sites which meet the voluntary code involving emphasis is on "green" process for management of airfields.

First to achieve this standard use five gliding sites from three regions.



Performance Perspectives

GODFREY WENNESS

Part 1 – Cross-Country Flights

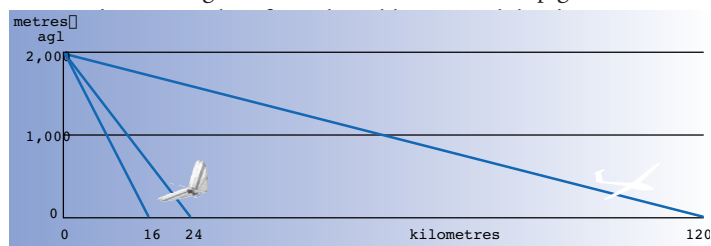
The potential amalgamation of the GFA and HGFA and the combined magazine has effectively given all of us the ability to gain insights into the other sides of soaring/ gliding flight. One of the more interesting aspects is the performance differences one reads and hears about.

Putting the performance figures into perspective provides some numbers for us to work with and gives us all the chance to see how we are flying compared to each other. The results from my initial simple L/D based calculations are very interesting indeed when comparing how we go on cross-country flights.

Starting from the steep end of the glide angle scale we have an average beginner paraglider, then a high performance paraglider which also equates roughly to the new 'Floater' style basic hang gliders. Next along there is a current high performance hang glider with kingpost (note that the new kingpost-less hang gliders generally have 10% better speed and glide performance). In the sailplanes there is an average club style aircraft and the top of the range Open class 'curvature of the earth glide angle' cross-country machine. I have used metric units to avoid complications (paragliders generally use metric as they originated in France and are certified in metric units; hang gliders often use imperial measurements, showing their early Aussie and USA heritage; and sailplanes use the more traditional general aviation units – feet for height, metres for distance and knots for speed).

	Speed range (km/h)	Min sink (m/s)	V-Best L/D (km/h)	Best L/D	New Price (approx.)
Beginner paraglider	22 – 45	1.2	36	7 : 1	\$ 4,000
High performance paraglider	22 – 50	1.0	38	8 : 1	\$ 4,500
Floater hang glider	22 – 70	1.0	38	8 : 1	\$ 4,500
High performance hang glider	30 – 85	0.9	45	12 : 1	\$ 5,500
Club sailplane	60 – 250	0.7	90	40 : 1	\$ 120,000
Open class sailplane	75 – 260	0.5	120	60 : 1	\$300,000

Some interesting basic L/D statistics about the top gliders in each



As far as cross-country flying goes, glide angle and speed are the two cardinal performance figures when it comes to making distance and staying aloft. These are the factors, apart from the all important decision making and pilot skill factor, that determine whether or not you will make it to the next thermal, with what height you will get there, how much height you need to gain to get to the next one and thus how quickly you will complete the sequence over again and so

forth. Things like staying above inversions, glide speed under lifting cloud streets, avoiding bad weather or over-shadowing and the like come into play here too.

Although L/D is clearly the most noticeable performance difference between our gliders, the minimum sink rate figures are also significant (e.g. 100% between a paraglider and sailplane 0.5:1.0m/s). Yet when combined with the speed flown at the minimum sink rate, turn radius and bank angle efficiency, most top pilots in the best gliders are achieving similar climb rates given that the thermal core is rising faster than the outer layers. This makes up for the min sink losses of the slower gliders. Naturally pilot skill is important too, but we are comparing the best pilots in each class here so we assume they are all respectively equal in thermalling ability in their own glider.

The above figures also lead to some interesting extrapolations when comparing something basic and simple like the thermalling cross-country world records in Open Distance and FAI triangles for the three types:

Current FAI Open Distance World records (Open class)

Paragliding	335km	(provisional, Godfrey Wenness, Australia, 16/11/98)
Hang gliding	495km	(Larry Tudor, USA, 1/7/94)
Sailplanes	1460km	(Hans Werner Grosse, Germany/France, 25/4/72)

Current FAI Triangle Distance World records (Open class)

Paragliding	181km	(Pierre Bouilloux, France, 19/4/97)
Hang gliding	205km	(Jo Bathmann, Germany, 17/6/96)
Sailplane	1400km	(Klaus Holighaus, South Africa, 7/1/93)

First we shall look at the L/D statistics for open distance. The paragliding and hang gliding ones compare roughly on L/D figures i.e. the hang gliding one is about 50% further than the paragliding one, but the sailplane one set 28(!) years ago doesn't come close. Put another way it makes for an eye opening comparison (for sailplane pilots): Paragliding and hang gliding world records would be the approximate equivalent of a 2,500km open distance flight in a sailplane! I think the most likely scenario is it that no-one is bothering to do open distance in sailplanes anymore due to the retrieve dramas – triangles and return flights being the preferred option. Trying to fly over 2,000km straight line is a pretty serious business and any such records need good planning and logistical support – which all unfortunately come at a cost. Attempting 400-500km in a paraglider or hang glider is less of a hassle in this respect, but I think that sailplanes have come a long way in the last 28 years and the time might be right for another shot at this record. I would love to see an article in AG/Skysailor about the potential (or lack thereof) for 2,000km+ sailplane cross-country flights in Australia – what's needed weather-wise, location, etc. or indeed if anyone is even thinking about it.

On the triangle side (favoured by sailplane pilots) we again see an interesting set of numbers, but this time between the paragliders and sailplanes. The ratio is mysteriously very similar – 1,400km:181km is 7.73 or very close to the 7.5 L/D ratio difference! In fact, in distance terms it's only 43km (the paragliding calculated equivalent is 1,357km)! In this case the hang gliders are dragging the chain.

So are there any other issues, apart from pure performance figures, relating to the cross-country ability of each type? The obvious one might be a weather related issue – some will instantly say that conditions change over time and distance so the difficulty factor

increases for those trying longer flights e.g. sailplanes. This is true, but I think only within the boundaries of each discipline and not in an absolute distance sense. Take the situation at the steep end of the glide angle scale – one example is that even minor wind changes in speed and direction (<10km/h or 5kt) can completely blow a potentially big paragliding or hang gliding cross-country flight. The effect of these wind changes on slow speed gliders is far larger proportionately than for faster ones – a 10km/h wind change is over 25% of your glide speed in a paraglider but only 8% for a sailplane which has a much broader speed range and flatter polar curve anyway. To put this into perspective for a similar effect on a sailplane, the wind change would need to be in the order of 30km/h (16kt). The likelihood of a 10km/h change is also

higher than a 30km/h one too, as they can be more easily seen in the forecasts and planned for, whilst the former can be resultant from unpredictable local and regional effects. Another example is the ability that better glide angles offer to fly around bad weather and thermally dead areas (not to mention tiger country).

From this I surmise that, logically, without putting numbers into the equation, the overall 'average km/h' figure for an cross-country and the likelihood of staying aloft on a given day, is proportionately higher for every L/D, sink rate and speed-increase improvement there is. That is, the probability to do a cross-country increases with glider performance (and pilot performance – but remember we are assuming equally gifted pilots here). Therefore sailplanes have a distinct advantage in cross-country flying. Of course we all already know this – sailplanes fly further, faster and for longer periods (being able to utilise the widely spaced thermals early and late in the day too). I eagerly await a number cruncher to reply with some figures on the probability advantage that performance increases give.

No matter what glider we choose to soar our great Aussie skies with, our motivation and desires are the same. The only things different are the performance levels of our machines and the distance to those far away horizons we fly to. I hope this article has got pilots thinking, opened up a few doors and paved the way for some shared gliding experiences between the big boys with their white toys and the little fellas floating around with cloth, cables and lines.

I recently heard a classic comment by one of our best glider pilots which makes a vivid finale for this article. Harry Medlicott (Lake Keepit Gliding Club) in conversation with me, concerning a 120 strong gaggle he saw from the air during our Paragliding Nationals at Manilla, said, *"You guys looked like little bits of confetti floating up to the clouds – it made for a great thermal marker"*. Wow, what great potential that was for a photo of a real 'live' thermal! Next year Harry!

Part 2 in this series will cover thermalling differences.



An Idea for a PG-HG-SP 3-way Cross-country League


GODFREY WENNESS

On the competitive side of the coin I think that a handicapped tri-discipline cross-country league would be interesting for next season to bind the sports together.

Using various factors we could attain a useable format and provide some real interdiscipline cross-country competition. Based purely on kilometres flown with various standard factors for open distance (1.0), declared goal (1.2), out and return (1.5) and FAI triangle (2.0). The weighting factors for the various classes might look something like this: OSP: 1.0, CSP: 1.5, HG: 5.0, PG: 7.5. There is the potential for more classes for dual seaters/tandems and other types with the factor being based loosely on L/D brackets etc (e.g. a 25:1 light sailplane or vintage would get a factor of approximately 2.5). Only your highest 5 scoring flights would count and there could be awards for different pilot proficiency levels too. Because the sailplane fraternity already has an excellent badge system in place, entering verified flights wouldn't be that difficult. For the paraglider and hang glider pilots it would need some work to get more pilots involved.


Food for thought?





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e-mail: timothyosborn@hotmail.com

Photography & Design: Edward Pictorial 01 4903 4427 Images Plus Courtesy G.W. Medlicott



Joint Magazine Feedback

► Congratulations on the quality of your first joint-publication. I am a GFA and HGFA member, and am still undecided about the amalgamation, but I am impressed with the result of merging the two magazines. A question about incident reports, though – this has been a strength of Skysailor. Are HGFA incidents not being published in the magazine anymore?

Also, I was hoping that GFA incidents may be published in the same way, in a combined magazine – are there any thoughts about this, currently?

David Collins

Thanks to David Collins for his letter re the new magazine. I definitely hope to continue to publish incident reports in AG/Skysailor – my reports may be a little smaller than in recent months – but they will be written twice as often.

Craig Worth, HGFA Operations Manager

David,

The idea of publishing GFA incidents is desirable in principle. At this stage we are seeking a suitably qualified person capable of and willing to do the job.

Editor Australian Gliding

► Thank you for doing a great job on the mag, Justin, it is packed full of good stories, information and funny bits.

Tascha McLellan (Tish the Flying Fish),
President Newcastle Hang Gliding Club

Controlled Airspace Violations

► A report is just to hand of an unidentified paraglider flying in Tamworth controlled airspace on 27/2/99. A full report of the incident appears in this month's Ops Report.

It must be noted that such actions make it very difficult for us to argue a case for greater airspace access or even just protect existing freedoms when pilots place other airspace users at risk like this. Another recent incursion in Canberra adds further fuel to this fire. Unless we are able to control ourselves, you can expect CASA to be far less considerate when approving competition clearances or other exemptions in the future. It is just not possible to justify such incursions into controlled airspace and circuit/approach areas near busy commuter and training airports. Claiming ignorance

places the whole sport at risk, as it tends to confirm old perceptions that we are irresponsible and out of control.

Local clubs and instructors have as much responsibility to advise visitors about airspace boundaries and rules as each individual pilot has to avoid them. In a worst case scenario, failure to warn pilots of a known and foreseeable risk may leave you legally just as liable as the pilot involved, and at best reflects badly on the club or instructor's ability to perform the duties and responsibilities associated with those approvals.

Craig Worth, HGFA Operations Manager

Tomas Suchanek Profile

► The profile on Tomas Suchanek was very good, however, the photograph of him "during this year's Australian hang gliding summer competition circuit" is actually an old photo from the days when he had the Flytec logo on the undersurface – quite a few years back. I'm also not too sure if he'd be pleased to have the photo of him holding the glider with the harness obviously un-hooked, not a very good example to lesser experienced pilots, as even Tomas, I imagine, finds it helpful to be hooked in when flying.

Genevieve Rebbechi

Microlight TIF Fees

► Regarding the current contentious issue of HGFA 'TIF' fees, I thought a few relevant points should be made here.

- (1) Apparently the previous system (Short-term memberships – STMs) was only abandoned by HGFA because hardly any instructors were using it (i.e. enrolling passengers as STMs). Under the previous system there were two options:
 - (i) For \$15 to HGFA, a 'TIF' passenger would receive 7 days 'training membership' and 3rd party insurance when under instruction. This was suited to tandem passengers on initial experience flights or 'having a go'. Returns were made to HGFA with up to 25 names on each TIF form. This form of membership was not renewable. Commercial 'joy-flights' have always been outlawed by CAO 95.8, so it all comes down to your definition of 'instruction'.
 - (ii) Short-term membership (STM) suitable for a whole course was available for \$45. This gave four months membership, 3rd party insurance, three Skysailors, 1st rating/ certificate and log book.

I don't recall many complaints about the old system – it seemed to be reasonably easy to operate (and there didn't seem to be schools going broke all over the country – or

HGFA budget problems, for that matter). I realise that the HGFA has recently suffered Government funding cuts, which inevitably means more of the dreaded 'user pays'.

- (2) In some ways, the new system is the HGFA's somewhat inevitable response – attempting to recoup the same funds from the same source, but by different means. HGFA has already compromised by reducing the new TIF fee from \$15 to \$10. Hence the debate is currently centred on the princely sum of \$10 per flight (i.e. 33% less than the old fee).
- (3) To be fair to the instructors, I don't see why they should have to pre-pay for their TIF fees in large blocks. There are also probably savings which could be made by instructors giving information packs direct to the students, so that fees paid to HGFA are not all eaten up in administration. \$10 does not go a long way.

Peter Bolton

Microlight Calendar Events

► I am writing about the events calendar in Skysailor. I am a member of MAG (Murrindindi Aviation Group Inc). Last year a fax was sent to the HGFA on two matters, the first was for the HGFA calendar. MAG has a fly-in coming up on May 1st and 2nd, This was published once with all the details, but for the past two Skysailors it has been omitted. Why? Is it so important to have PWC Slovenia in June instead of a local fly-in in May? I have had HGFA members ring me asking if the fly-in has been cancelled. Thank you for deleting yet another trike event from the HGFA! The second item is the club address list. Once again HGFA only published MAG's once. So the club seems to go nowhere as far as HGFA is concerned. All I can say is no wonder I am hearing that trike pilots are heading off to the AUF.

Peter McLean

Peter,

I notice that MAG has not as yet sought affiliation with the HGFA, and as such automatic, on-going and free promotion of the event through our magazine was perhaps overlooked. At this stage we do not know whether MAG contains any HGFA members, and as there has been no affiliation application this is why the club is not listed within the magazine. It is a legal liability matter. As a member I am sure you do not wish to be paying for insurance premiums just to see those premiums affected by claims for non-member activities. If the majority of MAG members are HGFA members then MAG is probably eligible to affiliate and hence give the committee and club insurance protection under the HGFA policy, as well as giving your

members greater access to HGFA services such as the magazine.

Ian Jarman, HGFA Executive Director

Class G Airspace

▶ I attended SA/NT's RAPAC meeting this month and raised the subject of CASA's proposal for mandatory radio in Class G terminal airspace. Armed with a copy of ASAC's recent 'Response to the Proposal (NPRM 'SOR9702RP')' (to CASA?), I voiced SAHGA's opposition to the proposal (which yielded the following verbal responses at the meeting). CASA's rep and commercial operators were present and said that:

- (1) Only licensed airfields would be affected. Unlicensed CTAFs such as Aldinga would not be affected.
- (2) For licensed airports with no scheduled services (e.g. Goolwa, Pt Pirie), flying closer than 15NM without a radio would be permitted, provided that we
 - (i) confirmed beforehand that no scheduled services had commenced there; and
 - (ii) if there were scheduled services, we had to make ourselves aware of the times/flight paths, etc, and do all the 'seeing and avoiding'!

These are quite important clarifications, but even with these, the proposal as it stands is still unacceptable to us in SAHGA, and the ASAC letter still stands. It was a thoroughly researched/prepared letter. There was no real justification for the CASA proposal except CASA apparently wanting to lead the world. If there had recently been, for instance, a severe increase in near-misses between commercial and recreational craft near CTAFs, then the proposal would have been more understandable.

Peter Bolton, Vice-president, SAHGA

Airshow Downunder

▶ It saddens me that I have to respond to Jeremy Torr's letter, in the April edition of AG/Skysailor, on his excursion to the Airshow Downunder. His article is so full of inaccuracies and hidden agenda that I don't know exactly where to start.

Firstly, I would like to pass on some facts: Those who attended the airshow will know that the HGFA's stand was not on the main strip and that passing trade was generally by those who were genuinely interested in what we had to offer. Jeremy's statement, *"There was also no information or representation whatsoever from any of the major local clubs or flying schools of any discipline"*, I found very amusing and offensive.

Over the three days we handed out 420 new HGFA brochures (which have the listing of all the national instructors) and we also gave out the Victorian listings, along with

specific school brochures and 300 back issues of Skysailor. The video player that you conveniently missed was up and running with all of the latest HGFA videos.

As far as the 'representation' goes, the VHPA was advised on the proceedings and over the three days instructors and pilots from each of the three disciplines were there. The stand had representation from the VHPA and the Western and Dynasoarers clubs. 70 colour posters were on display along with state of the art hang gliders (CSX and SXs). Thanks to Geoff Coombes for the CSX and to Tony Hughes and Rob Van der Klooster for the SXs. Rob Lithglow had an impressive and active display of paragliders, allowing spectators to witness sail inflations, which created a lot of interest. The paraglider that was threaded through the roof for display purposes was older, for obvious reasons.

I think you are right in saying that the HGFA is in fear of losing membership, however it's due to negative, whinging people like yourself who have nothing positive to contribute. You were involved with the organisation of the previous airshow and knew who was organising this one. If you really had wanted to become involved and put in some hard work, you knew the appropriate channels. By all accounts the HGFA's stand was much improved on the last airshow in '97 of which you had no complaints.

In closing I would like to thank the many people who were involved in the organisation of the event and for everyone who staffed the display (8am to 6pm) each day.

Peter Hannah, President
Dynasoarers Hang Gliding Club

Flying at Byron

▶ As soon as I moved to the north coast of NSW I went and scoped Cape Byron for possible launch sites. As a paraglider pilot with three years flying experience and a lot of it at some challenging coastal sites in NZ, I figured this would be a doodle. The cape is one of the few decent bits of cliff for miles around here. However, I was soon to discover that of the few paragliders launching here in recent years one or two have got tangled up in the greenery in front of launch. And despite local knowledge limiting the flying of paragliders at the cape, it happened again recently when a visiting pilot with reasonable experience (who didn't check in with the club or local flyers) lobbed off and ended up in the bushes.

It is my hope that one day, with the blessing of the Cape Byron Trust, we can establish a launch site that is paraglider friendly. Then, with appropriate monitoring, we can safely fly the cape without damaging pilots or the local fauna (the latter being a



VERY sensitive issue for the Cape Byron Trustees). In the meantime, the Byron Bay Hang Gliding Club strongly urges you to resist the temptation to attempt to fly the cape when passing through the Byron area.

We have some very fine paraglider-friendly sites around Byron Bay and welcome visiting pilots to the area.

So call 02 66804336 or drop us an email freely@mullum.com.au and we will happily let you know which sites are 'on' at the time of your visit.

James Samuel, Secretary,
Byron Bay Hang Gliding Club

Sub-editor required for AG/Skysailor

Position available for a new sub-editor to commence in June.

Person required to sub-edit all HGFA related material in AG/Skysailor. Applicants must have access to email, and possess strong organisation and literacy skills.

Applications should be forwarded to the HGFA office in writing.

For further inquiries please contact Ian Jarman by phone:

02 69472888;

or email:

hgfa@tpgi.com.au

Letters to the Editor

Club Class

► As a Club class pilot, I wish to express my support to all of the “traditional FAI class” (the “old class”?) pilots who have chosen to participate in Club class to date. It has been especially encouraging to see some of these pilots choosing to fly gliders that are within the performance bracket for the upcoming Club class World Championships. Club class, as the most affordable class currently available, provides the best opportunity for talented pilots to compete together, irrespective of their level of resources. Cross-pollination from the traditional, non-handicapped classes to Club class occurs in many other countries. This exchange should be encouraged in Australia also, as it will not only strengthen Club class, but the traditional classes as well.

I hope that the “traditional FAI class” pilots who have competed in Club class to date, return to future events accompanied by a larger number of their contemporaries. No one class has a monopoly on talent, and the more that pilots of all classes fly and compete together, the greater the benefit to all participants. Yours faithfully,

Bruce Campbell

► In the Jan/Feb 99 issue of AG, Ron Baker had some things to say that appear to question the present Club class handicaps. Ron made the point that a pilot he knew in a Std Cirrus had completed two 750km flights this season. By his reckoning, Ron would need to do 721km in his Club Libelle to equal this. Ron cites that the Std Cirrus on 1.00 as against the, Club Libelle on 1.04. In Ron's opinion, 721km in the Club Libelle is just not possible therefore the Club class handicaps must, by inference, be wrong. There are a few facts that need to be pointed out.

Firstly, I don't for a moment wish to belittle the efforts of anyone. A 750km in a Std Cirrus is quite a flight. Also Ron's flight of 500km in the Club Libelle is a great personal achievement. I would be surprised if Ron's Cirrus pilot friend left the water ballast out. If the glider was ballasted to the legal limit it could not operate under Club class handicaps. If we were to calculate a ballasted handicap (even though it is not permitted) we have to subtract 0.005 for every 10kg over 330kg. This is quite clear in the article “Club Class Handicaps” in the Sept/Oct issue of AG. Ron is not the only one to get confused about unballasted handicaps. Bruce Tuncks in his “Level Playing Field” article falls into the same trap.

Secondly, you do not have to look back too far in the Sports class results to see that Neil Fisher did extremely well in his Club Libelle over many years and in fact won at Mildura in, I think, 1992.

Thirdly, handicaps have been used as a whipping boy ever since they came into being. If you put 10 glider pilots in a room they will come up with 11 handicap systems! No-one is suggesting that the present system is perfect. What is interesting however, is the variety of types in the top 10 from Temora this year. I list them in order: Hornet, LS4, ASW19b, Std Libelle, Discus, Std Cirrus, LS1f, LS4, PIK20b, Std Libelle. Not a bad spread I would have thought.

Finally, this season has been exceptional. Records, 1,000km flights and personal best flights were (almost) commonplace. I am sure that if Ron had attempted his 600 (or even a 750) on some of the top days of this season, there would have been a good chance of success. It is a mistake to believe that such flights are not possible. By doing this you are beaten before you begin. I personally know a pilot who has flown two 500km flights in an Olympia. I would not dare tell him that it can't be done.

Tom Gilbert,

National Club Class Competition Convenor

GFA/HGFA Amalgamation Vote

► I have just examined the “Letters to the Editor” in April's AG/SS and also received direct feedback from pilots in all disciplines and must conclude that we face an uphill battle with not just acceptance of a combined magazine but also the whole amalgamation push itself. As a paraglider pilot, who has a keen interest in all forms of soaring, I must state that I am voting for the marriage. The new magazine serves as a great “getting to know you” forum which can only benefit the our sports as a whole.

We share the same air and do the same things (take-off, fly (soar/thermal), glide, land, have fun and socialise about the experience) albeit in machines with vastly different cost structures, performance levels and flyable horizons. The magazine itself will reach its own content equilibrium in time.

Any complaints about certain disciplines not being represented should be directed wholly back at the complainer – contributions are needed, simple as that!

After 10 years of flying paragliders it is only now that I am seeing some wider acceptance of these most basic (but hi-tech) machines amongst the ranks of the hang glider pilots. The glider pilots pose a similar challenge and I look forward to taking it on.

I am concerned though at the very elitist attitude of some of our fixed wing colleagues and hope that this is not carried through as a general consensus. I am saddened at this early courting stage, by one particularly myopic letter in the April issue which used such strong words as “great dis-service, mish-mash of articles, angry, and break away organisation”. To top it off I was offended by the comment indicating that they are the only “real glider pilots” flying “real gliders”. I thought that comment was out of line, uninformed and I sincerely hope it resulted from a heat of the moment and irrational train of thought.

The Japanese often have a simple philosophical way of looking at life. One of my Japanese pilot friends once said, just as I swerved to miss a bird on the road, “Oh, it's good that you missed – they are all pilots too!”

I think we can learn just as much from our feathered friends – the ultimate “real glider pilots” – as we can from each other.

Get High, Fly far.

Godfrey Wenness

CFI Manilla Paragliding, Manilla NSW

► Previously I have not had a lot to say about the merger of GFA and HGFA and their respective magazines. I can see many pros and cons, as can most open minded people. Most of these have been discussed at length and I don't need to go into them here. I do however, realise that both federations are shrinking, and public profile is as low as it can get. I commend anyone with the energy and creativity to attempt a solution and I think we owe it to them and ourselves to give this solution a go. You never know, it might just work.

I always thought that my friends were being very harsh when they stereotyped glider pilots as narrow minded, old fuddy duddies, but after reading Ron Bakers letter in the April issue, I am starting to think they were right. By the way Ron, I'm sure I could generate thousands of dollars of income for our clubs if I were to ever fly my hang glider naked! Would there be any interest, if you were to do the same?

I am also disappointed to read of Henry Levy's hesitation in the April issue. Being from the Hunter Valley, he should be aware of how many licensed glider pilots are also members of the Newcastle Hang Gliding Club. There are many. The crossover in our sports is large and could potentially be larger. I have been a thermal marker for many gliders and vice versa, and we often fly together. I also know of five hang glider pilots

who learnt to fly gliders at Tocumwal – all at least to solo level – and one, Christoph, flew an 800km non-FAI triangle in his second summer.

I think that glider pilots should beware of their unstable pedestals. I have flown my hang glider further than many glider pilots ever manage in 10 years, and Tomas is undermining their superiority with his comp results and 1,000km FAI triangle. Glider pilots should be recognising the value of shared information and talents, not mocking it.

On a more positive note, I was recently fortunate to be taken on a trial introductory flight by an instructor at Tocumwal Gliding Club. I can't remember his name – but thank you anyway! This man is a credit to his sport (and luckily there are more people like him, such as Ingo Renner and his wife). He knew I was a hang glider pilot and after release he let me soar for about half an hour. I was uncoordinated, being my first time in 3-axis, but the thermals were strong enough that I stayed up anyway. He also let me set up the landing approach. I really appreciated this opportunity and it has enthused me to use the winter to learn gliding.

I believe that shutting each other out will only be to each sports detriment, just as shutting out new ideas and narrowing our minds hinders us all in other aspects of our lives. We all want the same thing: Be free, fly high and far.

Tascha McLellan (Tish the Flying Fish)
President Newcastle Hang Gliding Club

► The postal vote for the proposed amalgamation between the HGFA and the GFA is fast approaching (June 1999). The requirement for the amalgamation to proceed is for a minimum of 75% of the return votes to be in favour to, both associations. If the amalgamation proceeds and the subsequent benefits and unity are not realised, then both sports will suffer the consequences for many years. Both organisations cannot afford to have fence sitters or lemmings who blindly follow the leaders, for a true and successful amalgamation to occur. Each and every member's vote must be counted as the future of our association and sports depend on it.

If you believe that the amalgamation between the GFA and the HGFA is the right action, that a satisfactory plan for this to occur is in place and that the structure of the resultant organisation is in the best interest of both sports then vote "Yes".

If you have any doubt or misgivings about the amalgamation, then vote "No". If when the postal vote is due you still have unanswered questions and concerns, vote

"No".

If you are satisfied with the existing separate organisations, then vote "No".

If you do not believe that amalgamation will promote and enhance our sports, vote "No".

If you believe airworthiness, operations and sporting aspects will be compromised by the amalgamation, then vote "No".

If you believe that you will be misrepresented at either club or state levels, then vote "No".

If the benefits of the amalgamation are unclear, then vote "No".

If you are not happy with the choice of partner in this marriage of convenience, then vote "No".

If you are unhappy with the political aspects of the amalgamation, vote "No".

If the details of the amalgamation presented so far raise more questions than answers, then vote "No".

If you believe one discipline will be subsidising the other, then vote "No".

If the amalgamation process appears to have been rushed through with little consultation with members, planning and detail, vote "No".

Whatever your views on the amalgamation of the HGFA and the GFA, remember, it is your sport, it is your vote – so use it.

Peter Page, Whyalla SA ✂



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The Genesis of the GFA

ALLAN ASH

When the sport of gliding got under way again in the closing years of World War II, it faced many difficulties. The sport had not come to a complete stop during the war. Whenever it was possible, though this wasn't often, members of the Gliding Club of Victoria, Waikerie Gliding Club and Sydney Soaring Club were able to get a few aircraft into the air.

The widely scattered members of the gliding fraternity were kept in touch with one another through regular newsletters written and distributed by Dick Duckworth, mostly at his own expense. Dick was at that time secretary of the GVC and secretary and total staff of the unofficial Australian Gliding Association.

During the war years also, small new gliding clubs were established in many parts of Australia with keen members spending whatever time they could get away from their war effort jobs slowly building or restoring gliders. So by 1944 there were quite a few enthusiasts connected with the sport, many of whom had pre-war gliding experience. As the pressure of the war effort gradually subsided, some of these new and restored aircraft began to fly and the possibility of a revival was seen.

During the next two years, as a result of the sacrificial work of a small number of dedicated men, and a few women, scattered throughout the continent, the sport of gliding began to get under way again.

The first problem faced was to obtain equipment – gliders, trailers, winches, tow cars, airfields, hangars, workshops. It was not easy, and often very difficult in the circumstances, but gradually everything came into being. The next problem was operational. The leaders of the gliding movement saw the urgent need for experienced instructors, reliable launching equipment and acceptable standards of training, airworthiness and flying.

A major obstacle was that the few hundred members of the gliding movement were spread thinly across the 3,000km width of the continent. The only means of communication was by letter from individual to individual. Yet, again because of the unselfish efforts of unpaid and unrewarded people, most of the objectives began to be achieved. By about 1948 the expansion of the gliding movement had begun to accelerate.

Then there arose reports (rumours, really) that the Department of Civil Aviation was planning to take over control of gliding. Since the end of the war the DCA had laid its hand upon the burgeoning airline industry, private flying and agricultural aviation. All of these industries were booming and were calling for facilities to be established to enable them to provide the public with needed aerial transport, training and agricultural services.

It must be admitted that all of these gained considerably from the guidance, organisation and co-ordination provided by the DCA. But sporting aviation (which at that time comprised only the gliding

movement) was seeking nothing from the Department, the Government or anybody else, apart from the freedom to enjoy their sport. The possibility of having gliding under the control of bureaucrats was viewed with abhorrence, even terror. Nobody knew exactly what the DCA had in mind for gliding, so it was understandable that the imaginations of the gliding fraternity ran wild with speculation.

For some five years the sport had done its own thing, operated when, where and how it wished and, like a butterfly emerging from its chrysalis, it had been strengthened by its struggles. Certainly, there had been a lot of learning, some mistakes, many unfortunate accidents and more than a couple of tragic deaths. Nevertheless a lot of progress had been made, and if gliding's leaders had not yet achieved all their goals, they at least knew what these goals were and, given a bit of time, they were confident they could achieve them. Unfortunately it seemed the DCA was not prepared to wait. It wanted everything fixed NOW! How it planned to achieve this was the unknown quantity that plagued the infant gliding movement.

Matters reached a crisis point in May 1949 when the DCA requested representatives of the gliding movement to attend a meeting with Department officials in Melbourne on 27 June that year. A flurry of urgent letters fluttered around Australia as leaders of the various clubs contacted one another to theorise and speculate about the purpose and outcome of the proposed meeting and consider what action, if any, the gliding movement could take to find out what was envisaged as the implementation of draconian and possibly fatal government regulations.

From the swarm of letters that flew from club to club during May and early June arose the plan for representatives of the gliding movement to hold their own meeting in Melbourne on the day before the proposed meeting with the DCA. The object of this meeting would be to plan ways to prevent the introduction of regulations (as yet unknown, but easily imagined) that would strangle the future development of the sport. 38 men and women from 11 clubs operating in all six states of Australia met quietly at the Hotel Federal in Melbourne on Sunday 26 June. The weather was clear and cold, and so was the determination of these representatives to oppose a bureaucratic takeover of their sport.

The chairman of the meeting was Gurth Kimber, a British career diplomat who was a member of the Canberra Gliding Club, and the meeting secretary was Mervyn Waghorn, a senior executive of De Havilland Australia and a member of the Sydney Soaring Club. Others attending were Martin Warner and Fred Hoinville (Sydney Soaring Club), Norm Hyde, Ken Davies and Dave Darbyshire (Gliding Club of Victoria), John Wallis, Doug Lyon, Ed Byrne, A. Bickerton, Len Travers and Esme Hilditch (Beaufort Gliding Club), John Iggulden, Bill Iggulden, Nance Iggulden, Viv Drough, Gordon MacDonald, Les Williams, Geoff Richardson, Grave Roberts, Ron Roberts and Ken Summons (Victorian Motorless Flight Group), Neil Hart and Mervyn Hall (Toowoomba Soaring Club), Alan Delaine, Brian Creer, John Hall, Ian Wyatt, Kevin Sedgman, John Wotherspoon and Ray Duke (Gliding and Soaring Club of South Australia), Howard D'Alton (Gliding and Soaring Club of Tasmania), Harold Luckily (Gliding Club of West Australia) and Jock Barratt (Waikerie Gliding Club).

The meeting first discussed the control by the DCA of flying and airworthiness and it was agreed that some control could be accepted. However, it was felt that the administration of any airworthiness requirements should, if possible, be in the hands of the gliding move-



Twin Astir ridge soaring at Black Springs, June 83.

Photo: Neil de Regt

ment itself. A sub-committee was established to make recommendations for the qualifications of ground engineers and for the introduction and standardisation of daily inspections. This sub-committee comprised Richardson, Warner, Hyde and Sedgman. The meeting unanimously opposed any form of pilot or instructor licensing but agreed to add an oral examination on the rules of the air to requirements for the C certificate. It was agreed that all existing gliders must be allowed to continue flying and that future designs would be carried out to ARB and other approved requirements.

The Australian Government had already allocated a small annual subsidy to the gliding movement, but the total amount had never been claimed each year because of the fragmentation of the sport and the difficulty of collecting vital information such as the number of members and airworthy aircraft in the various clubs, on which the allocation of the subsidy was based. The meeting in Melbourne reviewed the present situation and decided to recommend that available subsidy should be distributed on the basis of a set amount for each airworthy glider plus an amount for each gliding certificate gained during the year by a club member, the amount rising from £10 for an A certificate to £75 for a Gold C certificate. The meeting agreed to seek the assistance of the FCA in the provision of flying fields, rent-free hangarage and sympathetic consideration of the use by gliders of controlled airspace.

Undoubtedly, the most important decision of the meeting was agreement on the need to set up a national body to oversee the development and operation of gliding in Australia. It was agreed that this national body would take the form of a federation of existing and future state gliding associations. It was agreed that this national body should be called the Gliding Federation of Australia. Two representatives from each state were appointed to a provisional committee to draw up a constitution by the end of 1949. Those elected were Waghorn, Hoinville, Hyde, W. Iggulden, Hall, Hart, D'Alton, Priest, Sedgman, Barratt, Luckly and Higginson. Waghorn was appointed provisional president of the GFA and Hoinville provisional secretary.

Since Waghorn had to return to Sydney that evening, it was agreed that Gurth Kimber would act as president at the following morning's meeting with the DCA. Early the next morning, Monday 27 June, the gliding delegates went to Henty House in Collins Street, Melbourne, which was then the head office of the DCA. Representatives of the Department at the meeting were J.W. Stone, Supt. of Air Navigation (who chaired the meeting), C.E. Tuttleby, Examiner of Airmen and Airways Surveyor, M. Evans, Air Traffic Control, L. Morrison, Subsidies, and P. Langford, Airworthiness. The Department of the Navy was also represented in the form of Lt Cdr Kirke and Mr Kent.

The chairman opened the meeting by summarising its purpose and reviewing the role of the various national and international bodies who were charged with the responsibilities of controlling aviation in its various forms. He outlined also the responsibility of the Director

General of Civil Aviation towards the flying public and persons on the ground. Mr Stone pointed out that the DCA had no desire to interfere in gliding matters beyond ensuring safety generally. He added that the setting up of an efficient national body within the gliding movement would reduce the amount of control exercised by the Director General. This statement rather took the wind out of the sails of the gliding delegates. They had expected a strong battle to retain any say in the future of the sport, but here was the Department virtually telling them they could look after much of their own affairs, provided they did it satisfactorily! The gliding delegates began to feel rather ashamed of their former unworthy thoughts.

The announcement that a national body had been formed to represent the gliding movement changed the whole atmosphere of the meeting and all the delegates began what developed into quite a friendly discussion about the various matters that needed to be operatively towards establishing and running a safe and enjoyable gliding operation. Each of the representatives of the Department spoke on the matters under their control (pilot licensing, air traffic, airworthiness, subsidy) and consideration was given by both sets of delegates as to how best the needs of the Department could be met through the co-operation of the GFA, State associations and individual gliding clubs. Finally it was agreed that the Department should draw up a list of proposed regulations which would be submitted to the GFA for comment.

Among these proposals were the following:

- Gliders should be kept clear of air routes. Where air routes are crossed, the crossing should be quick, in clear air and if possible at the 500ft level. Altimeters to be set at 29.92 generally, except Tasmania which should use the QNH value.
- The system of issuing FAI certificates should remain. An oral examination on rules of the air to be added to the requirements of the C certificate.
- Aircraft currently operating will be granted a Certificate of Type Approval. New designs to comply with approved standards. Modifications and repairs to major parts to be approved by authorised GFA officials. Mods and repairs to minor parts may be approved by a maintenance engineer certified for C of A overhauls. All gliders to have a C of A issued by the GFA and renewed annually.
- DCA to register gliders and issue normal C of R. Transfer of glider ownership to be notified to DCA.
- Gliders to be given pre-flight and daily inspection plus an annual inspection.
- Gliders and gliding fields to be kept well away from main aerodromes and air routes.

When the meeting closed in the late afternoon, all the delegates were satisfied that it had been an important step towards a harmonious relationship between the gliding movement and the civil aviation authorities. Commenting on the meeting shortly afterwards, Bill Iggulden wrote, *"We cannot help realising how fortunate we are in having a DCA which, far from wishing to strangle the game, seemingly hopes to help develop and increase its potentialities. The fact that the gliding movement was welded into an obviously united front played a decisive part in achieving what seems to be a good, workable system of regulations."*

A sport which develops so many fine characteristics – ingenuity, courage, sensitivity, fitness of mind and body – is surely one which only the most ardantly introverted officialdom would seek to curb.

Because nowadays the trend seems to be away from individualism towards a centralisation of activities in all spheres, it is a good thing that we, who are, by the very nature of our sport, the most obstinately rugged of freethinking individuals, should have formed such a body as the Gliding Federation of Australia. Long may it live!"



The Croatian Survivor

DAVOR JARDAS (Reprinted from Cross Country Magazine)



Saturday, 26 July 1997. I had a feeling I shouldn't fly that day. My friend Matko and I woke up at six o'clock, packed the stuff in a rush, took a shower and headed for Buzet, the site for the competition. The weather didn't look good. We drove through showers, and the car thermometer gave an outside temperature of 16°C, very low for the time of year.

This was the first official Croatian paragliding competition. The crew was already there when we pulled up: Boris, Kruno, Karlo, Danko, Bozo, Radovan, Srečko, Leo, Zlatibor, Joza and Sandi. We hardly get together, so we had a cup of coffee and a natter. I was on the organisation committee. We all agreed to move to launch, sometime before noon. I followed Karlo by car as we were approaching Raspadalica launch.

This was my first time there. The place faces south, 560m asl, wide enough to allow for four wings in parallel, but relatively short and steep with a railway line just 100m below. It was hot, about 27°C, and 2/8 of the sky was covered by nice cumulus. We agreed on the task and held a pilot briefing.

Air start was supposed to be at 14:30 and the marker had to be mounted on a meadow below the railway. The first turnpoint was at the Crnica church, west from the start, then the church St Thomas in the east, then the big crossing south in Buzet, and back again to Crnica church. The goal field was just NW of Buzet. I moved a little away from the crowd to concentrate and relax, imagining an ideal take-off and great flight conditions. If I had been alone, I surely would not have flown that day. It's hard to explain, but some intuitive alarm within myself had turned on. Nevertheless, I was the president of the biggest and most active Croatian club and my ego would have fallen apart if I had refused to fly with no reason.

Leo was first off, then Danko. I dressed myself in shorts, a fresh T-shirt, a white cotton shirt and a thin windstopper jacket. I mounted my Aircotec Top Navigator on my left leg, adjusted and checked the handheld radio frequency. I also checked my reserve. Just in case I might need it. I launched at 14:05 straight into a good one. After the first climb, I read my Top Navigator's wind information: WSW, 16km/h. We were flying along the ridge, with some thermals apart from the wind. Although it was hot, I took my gloves from the side pocket and put them on. We surfed the ridge until 14:25, five minutes before the supposed starting marker. To the east we could see the beautiful mountain of Ucka, near which lay a big cu-nimb, pouring rain. That shouldn't bother us, I thought, as it was over 20km away and downwind.

Ten minutes before the air start, I gained some decent altitude. Nice, constant thermals, from 0.5 to 3m/s. At 14:25, Danko, my instructor, had a radio briefing with the ground support crew, and after a short conversation the decision was made to cancel the task. The reason was the overdevelopment that was observed a few kilometres north of our position, over Mt Zbevnica (1,014m). A radio message followed: "*The competition is cancelled, please aim towards landing.*" It sounded calm – no rush, no panic – so I took my time and headed off to the south towards the sun and white puffy clouds, unconcerned about the black monster that was looming from the north. A big mistake.

Leo was about 150m SW and 50m above me. I noticed Danko and Karlo to the west and above, maintaining big ears. Others were somewhere behind, to the north and NE directions. I was at 1,300m and decided for my first B-stall at 14:30. I was descending at 7m/s until I reached 1,000 m. Then the B-stall deformed into a rosette, as with a frontal, tips forward. I didn't like it, it looked scary. So I released the B-stall, re-inflated and stabilised the wing and then repeated the B-stall again. After a few minutes I looked at my vario to notice to my amazement that I was ascending at 2m/s. I looked up to see Leo get sucked into the cloud, where the cloudbase had lowered to 1,300m. Before he entered, he took a picture of me. A couple of seconds later, holding the B-stall and ascending at 5m/s, I pierced the cloud's base and my world went white.

At this point I was perfectly calm. I was very close to the edge of the cloud and I had my Top Navigator with its GPS compass function. Aiming towards the south and getting out of the cloud shouldn't be a big deal, but I started to lose valuable time, pissing about with my compass and speed bar.

Navigating by compass alone is not easy. Because of the compass' delay I found myself steering south but actually going north. I couldn't believe my eyes. Then the vario needle went crazy. It was fluttering at 10m/s.

Without fear I pulled a full frontal collapse for the first time in my life, as the dark fiend's grip on me tightened. Yet even with the whole leading edge folded, my ascent rate remained unchanged. My mind spelled it out: Davor, you've entered a cumulonimbus! I'd read many accident reports before, but now couldn't remember a single one where the outcome was of survival. It got cold, very cold. Moisture condensed on my clothes, and then it started raining, and the water froze over my summer clothes.

The radio is sheer panic, calling out, "*Davor, where are you? Radovan, please reply...*" A desperate voice shouts advice, "*Davor, avoid throwing your reserve at all costs!*" It was ten minutes since I had entered this monster and my altitude was almost 2,600m.

I was in a strange state of mind: calm and relaxed. I didn't care about the radio panic nor advice which seemed irrelevant. Instead, my mind was fully occupied with a single thought: I had to warm up. I had to protect myself from the wind and rain and ice, wrap myself up in something or else I would freeze. I released the frontal collapse and decided to deploy my reserve so I could pull in my paraglider and wrap it around me for some shelter. As I released, the vario went crazy, peaking at 18m/s. I tugged my left A-riser; the lines went slack, and I entered a spiral. I wrenched at my reserve handle on my right side, lobbing it away into the dark gloom.

Then horror, pure fear: The reserve hung limp, undeployed at the end of its lines, and my main canopy was out of control, cravatted on the left side. I was still climbing at a horrendous speed, and so it took ages for the reserve to deploy. Seconds later I heard a muffled crack and saw it open and overtake my glider. Thank God! With a burst of adrenaline induced energy, I hauled in the main canopy arm over fist and wrapped its damp nylon around my shivering bare legs.

I radioed to say I was alive, at 4,500m, under reserve parachute and still going up at 10m/s. That was my last radio call. Boris told me later he was horrified with the unrelenting scream of the vario, contrasting with my voice, which was gentle. The radio yelled back, "*Where is Davor. Davor, call us back!*" My dear friends, I thought, I cannot call you now, because I need to preserve every particle of energy, which could make the difference between life and death.

I remembered an accident report about a twisted parachute during a longer descent. Looking up, my Czech Sky Systems 32m reserve was stable and tense. In a few seconds I had established a relationship of trust with it. Hailstones battered me, hitting from all directions, drumming on my helmet, harness and wing. The vario was wailing out an impossible tone, but I couldn't look at it in case the numbers would make me faint. I was now being thrashed in all possible directions.

Lightning flashes surrounded me, bursting the dull greyness to the left, right, below and above. Every few seconds a dimmed flash of light was closely followed by a thunderous explosion. How far away was that one? If hit by a bolt, I'd be fried in a second. Davor, chances that you will survive this are zero, pure zero, accept it as a fact. In my fetal position I desperately prayed to God to save my life. Would there be many people at the funeral? The easiest death would be to faint from hypoxia, then fall into my reserve and fall, smashing

The Croatian Survivor

hard into the ground. My father, who lives close by Rijeka, did he know that I was here, above him, his only son, and that these were my last moments?

Then something else crossed my mind: Davor, what kind of thoughts are these, you must not give up, you are still alive, have you done everything you can to protect yourself? A quick look at the vario told me that I was at 6,000m! At that altitude, I would either faint due to the lack of oxygen, or freeze. I consciously started to breathe faster, to hyperventilate, in order to avoid fainting without oxygen. The air started to get terribly cold. I was in shorts at nearly 20,000ft, with the wind blowing fiercely. I was freezing. No, I couldn't afford to feel cold! I remembered my friend Kalman. He had been caught in an avalanche in the Himalayas, at Pisang peak, and he had survived with an open leg fracture. He had had an enormous desire to live: he could not afford freezing, especially not giving up! Davor, I forbid you the luxury of feeling cold, you can't afford it now! How high will I go? For how long? Where am I? When and where will I fall from the cloud? I calmed down again. I thought, right, now it's all about those tiny little things that can mean the difference between life and death.

While you are still conscious and OK, what can you do for yourself? Are you well wrapped in the canopy? I freed my right hand to pull the canopy from my back, trying to wrap it around me as well, using my last molecules of energy. I felt weak. If I passed out, it was important not to suffocate. I shifted my head to hang down on my chest so I should be able to breathe even if I was unconscious. Then, it would be important that I didn't freeze, so I checked that the canopy was well wrapped and secured around me. I pretended to faint for a moment, letting my hands loose, and it seemed OK. Would the paraglider canopy entangle with the spare?

The cu-nimb tore me higher, to 6,500m, at a speed of 20m/s. The cold was unbearable. The worst of it was the icy wind blowing between my back and the harness, where I was not protected. My leg straps cut into my groin, sending stabs of pain through me, but it was nothing compared to everything else. The reserve was rotating and jerking all around me. I didn't know if it was above or below me. Frankly, I didn't care. Then I started to descend, from 3 to 17m/s, until I reached 3,300m, then I lifted up again, up to 5,500m, then down again. Suddenly I saw something: Earth. I couldn't believe my eyes. My hopes rose, maybe I would survive.

Earth, Mother Earth, it exists, it is here, I am looking at her, I am travelling towards her. A beautiful lake, forests, nature. Hail fell almost horizontally, melting, warming-up and transforming into big raindrops. My reserve was bucking and spinning out of control.

It was a whole new situation. I was now fully focused on the next trauma: landing. I tried to get rid of the main canopy wrapped around me, to release it partially so that it would lend some resistance to slow my descent, but I was too wrapped up. The scene worsened: I was flying towards powerlines and a burnt forest with sharp, naked branches pointing in all directions. Oh, no! After all I had been through, would I end up finished on powerlines or nailed to a spearlike branch? Davor, don't be unthankful for the miracle that allowed you to exit the cu-nimb without injuries! In my mind, I thought about landing and PLF-ing. I was really shifting over the ground, like I was driving on a highway. I stretched, trying to put my legs together, preparing to roll on landing. I passed a few metres above the powerlines and hit a tree with my airbag, which absorbed the smash. I stood on my feet, frozen, wet, scared, shocked, but still alive, completely uninjured! It

seemed impossible! I was shaking from the cold. It was raining cats and dogs. I had recorded the experience on my Top Nav, and saw that I'd travelled 21km from where I had entered the cloud.

I hiked out to the road, and stood in the middle, trying to stop cars with my thumb, but the cars just circled around me. Shaking, I continued to walk, thinking, Davor, you look like a forest goblin, completely soaked, with a rucksack on your head, covered in leaves and with a bunch of nylon in your hands. Who would be crazy enough to let you in their car? I relaxed. It was not a matter of life or death anymore. Soon I came across the village of Säusönjevica. Civilisation, people! I passed the nearby graveyard, approaching a new house. There were signs of life: a kid's bike, a car, tools and stuff around. I hauled my lazy body up the stairs to the first floor, rang the bell and knocked on the door. A man appeared. I couldn't stop my flood of emotion, *"Please excuse me, I was flying with my paraglider and got sucked into a storm cloud, I am cold and in shock, can I call my friends from here, please help me..."* Branko Rabar welcomed me into his home. A great man. I gave him the organisation's number. His wife wrapped me up in a blanket to get warm. I told them, *"It's a real miracle I am here talking to you..."* I took a shower and the warm water soaked away all the dirt, sweat, fear and shock.

We drank tea on the balcony, where the sun was shining, the sky was crystal blue and there was no trace of the thunder cloud which I had battled with all afternoon. By 4:00pm, only an hour and a half since I had entered the cu-nimb, a totally new day had begun.

The Others

My instructor Danko went through a couple of negative spins resolved by a full-stall, after which he landed on a meadow. Karlo entered a negative near the ground, threw his reserve at about 30m, and it barely opened. He landed uninjured as his canopy hit the power distribution pylon and ripped, taking his weight. Srecko pulled all the risers on one side, a new manoeuvre in paragliding. The wing entered a steep spiral which he held for about 20 minutes, keeping just below cloudbase. He could not feel his arms for days later. Radovan pulled Big Ears, leaving only a few cells open. He still went up at 10m/s, but was eventually spat out by the cu-nimb. Seriously disorientated, he couldn't recover his glider in time and hit the ground hard, suffering serious bruising and a twisted ankle, but incredibly nothing worse.

Kruno did a full stall, but when he released his glider it surged and cravatted, so he threw his reserve. He was spared by the thunder cloud, but couldn't pull in his main canopy, and he hit the ground hard, crushing his vertebrae, but with no severe consequences. Leo was given the same horrific treatment by the thunder cloud as I. He didn't throw his reserve (he was dressed in a skiing jacket), but maintained a full frontal deflation by inserting his legs in his A-risers and pulling down. He was thrashed into a forest near Ucka.

Altogether, seven candles could have burned, but all of us survived. During the evening, we settled in at the private pension, and I invited everyone for dinner to celebrate our new life. We went to a restaurant with a symbolic name: Fortuna. After dinner I went to bed. I thanked God for saving my life and fell asleep, completely exhausted.

The Croatian Survivor was first published in Cross Country Magazine. Readers interested in subscribing should visit the online magazine site at www.xcmag.com

Follow the Links

A Report on Recent CIVL Happenings

MICHAEL ZUPANC (HGFA board member, competitions committee member and vice president of CIVL)

The international hang gliding competition scene is getting more varied and involved. The World Hang Gliding Series has recently gained an agreement to get TV coverage for all events in the next year, and the first Speed Gliding World Championships will be held in Greece in 2000. Another new category of World Championship is 'paragliding accuracy' (tow launch, then spot land). This has been a popular sport in a handful of countries for a long time, and Great Britain will be hosting the first World Championships in this discipline in 2000, with the Pre-Worlds being run as an open event from 25 to 30 August 1999.

The Pre-World Speed Gliding event will also be an open competition on a first come first served basis, with a maximum of 100 pilots participating. There will be a cross-country competition as well as speed gliding (with a maximum number of 70 pilots in speed gliding). Greece is also the site for the Women's Worlds, with the Women's Pre-Worlds running from 18 to 27 June, with no limit on entry numbers. As well as this, the Hang Gliding World Championships in Monte Cucco should be having a Class 2 competition, so if anyone is interested in competing at any of these events, give me or the HGFA office a call to sort something out.

The Hang Gliding Pre-Europeans in Innsbruck (combined with the Alpen Open) will be held from 11 to 18 of July. There will be a maximum number of 180 competitors in the event and the entry fee is 2,500 SCH. The entry deadline is 30 April 99 for this event.

The Pre-Pan American Hang Gliding Competition will be held at Dinosaur, Colorado, from 21 to 28 August 1999. This meet is being run by G.W. Meadows.

The category 1 competitions scheduled for 1999 are:

Paragliding World Championships	Austria	www.salzburg.co.at/paraglidewm99
Hang Gliding World Championships	Italy	www.fivl.it/

The category 1 competitions scheduled in 2000 are:

Hang Gliding European Titles	Austria	www.hanggliding.at
Paragliding Europeans	Germany	
Hang Gliding Women's Worlds	Greece	www.hang-gliding.gr
Speed Gliding World Championship	Greece	www.hang-gliding.gr
Pan Am Continental Championships	USA	www.justfly.com
Paragliding Accuracy World Championships	Great Britain	

A full calendar of major international hang gliding and paragliding events can be found at: www.fai.org/hang_gliding/competitions/comp_schedule.asp

There were some preliminary bids for category 1 competitions in the year 2002, including: the Women's Hang Gliding Worlds at Chelan; the Paragliding Europeans in Italy; and the Open Hang Gliding World meet in the USA.

Some concerns have been raised regarding the skill level of some pilots competing in category 1 competitions. The standard minimum pilot proficiency level for entry to category 1 competitions will be increased from the very basic level that it is now to something that is realistic. The exact form for this is not quite certain, but it will be

along the lines of a minimum CIVL ranking, and it should be in force next year.

The maximum number of pilots at PWC competitions will be reduced from 150 to 110. The entry fees are proposed to go up and the lunch packs will be deleted in order to balance the organiser's budget. The PWC organisers are also making some significant changes to their rules in order to improve safety, and there has been considerable work done with regard to design standards for competition canopies. CIVL is looking to formalise these rules into section 7.

A proposal regarding hang glider design standards has been rejected by CIVL because what was proposed would be very hard for a competition director to scrutinise and, as such, the proposal was considered largely unworkable. However, it is expected that a more workable version of the proposal will be up for discussion next year. The aim of design standards is to increase safety, however, a lot of the points raised in the last paper did not reflect current safety problems. Nevertheless, some of the points certainly had merit and these concepts will most likely gain acceptance in the near future.

The PWC organisers have been reviewing their scoring system philosophy, and they have now embarked on a trial of the GAP system. The GAP formulas and the RACE program continue to be the subject of confusion for a lot of people. I have rewritten the GAP explanation document (published at: www.ozemail.com.au/~zupy/gap/gap98.html) in a way that hopefully might better explain how the processes behind GAP work.

The GPS scoring concept has been well received and there is considerable interest in other countries using it. I am writing a web page to serve as a user guide and philosophical statement.

The CIVL world pilot ranking system has had some teething problems. A bug was identified in the program, and what competitions contribute towards a pilot's score will now be displayed with the score.

What used to be the Forbes World Championships web page has now been modified to have the new GAP explanation document, the Australian class 1 National Ladder and hang gliding comp results, as well as a variety of other links dealing with both hang gliding and paragliding competitions. The addresses of some of my older pages have changed, but they are all accessible through the following site: www.ozemail.com.au/~zupy/index.html



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A Kiwi Elevator Ride

LARRY SPRINGFORD, SOSA

Alan Yeomans takes off in a Nimbus at Mt Cook.

Photos: Paul Mathews

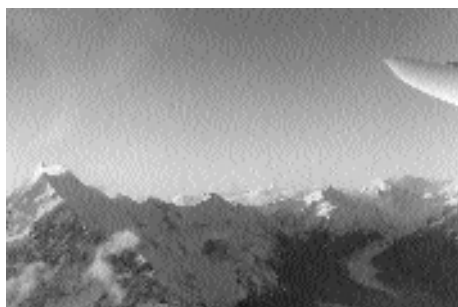
We left New Zealand on 30 December and are now in Perth, Australia. The weather there wasn't "Omarama classic" but I did fly for ten days out of the fourteen that I had an LS-4 booked. I encountered wave on four or five days. On all but two days I hadn't bothered to take the oxygen mask along, and on two of them I had to limit my height. Even when there were "just" thermals, you could frequently get up to 11,000ft, but not every day. Early on, I was happy to feel out the local area. You only land at airstrips there for the most part. The "paddocks" are hazardous to the health of the glider if not the pilot. Consequently, it was essential to know where the airstrips were and to be able to see them. From my experience in Omarama after the Worlds in '95, I knew they were hard to see, but after a few days, I was able to pick them out this time. After a while, I felt that I was ready to head off a bit, but the cloudbases came down to 8,000ft and I was too timid to head off. Field elevation is 1,400 and mountain tops vary from 5-6,000ft near the airfield to 8-9,000ft when you move 20 kilometres away.

Doug Hamilton of Alpine Soaring (the local FBO), was my "minder", and led me around a couple of days. I followed Justin Wills around on another day, so I got some great trips in, even if they were only 200km out and return. Both my trips with Doug were on light wind days, so there was no ridge or wave lift, just thermals. On the day I went with Justin, the wind was blowing so I learned a fair bit from him on locations of various waves and got some practice "rock polishing" to get on top of the mountains. Justin led me over to Mount Cook which is over 12,000ft high and we ridge soared the west face of it to 14,000 before coming home.

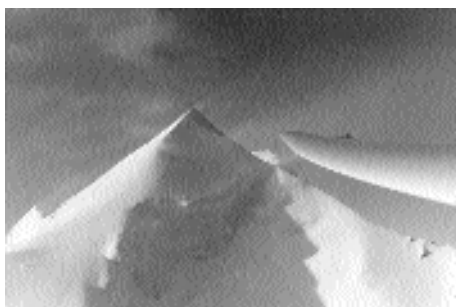
The day I got my Diamond climb was not a great wave day. The locals there consider 8 to 10kt in wave lift to be fairly normal. Not for me! On the previous day when I had flown with Justin, we

had difficulty getting away since the lift below the mountain tops was tough to find and work. In fact, Justin had to go back for a reflight, which made for a late start, but was good for my ego since I was up there waiting for him. Therefore on my Diamond climb flight the next day, I didn't notch the barograph (GPS actually) after release and had to take a subsequent notch. There was in fact some doubt in my mind, and those of the locals too, as to whether a climb above 15,000ft was going to be possible that day. I flew thermals for a while, heading off to the southwest with a view to attempting to get over to Lake Hawea, but when I ran into showers and saw a blue hole ahead I came north to the Diadem Range. Cloudbase was about 8,000 which was only giving me about 1,000ft above the tops where I had been flying. I pushed forward of the Diadems into what looked like a wave window and sure enough it was. Cloud coverage was at least 8/10 in this area and when I reported climbing in wave to glider base at Omarama, Doug warned me to keep an eye out for the window closing. That thought was already in my mind, let me assure you, but I appreciated the safety concern that was shown through this and various other hints I got from him. I climbed that wave up to 13,500 starting with lift at about 6-8 knots but which fizzled out to 1-2kt as I went up. Once I was above cloudbase of around 10,000, I could see lots of open holes in the Omarama basin downwind of me, so the concern about the wave window closing dissipated.

As with most waves, once I was on top, it was much easier to see where the other waves were located. I tried a couple of locations at the north end of Lake Ohau where Justin got our first wave climb on the previous day, but the top of the lift was still around 13,500. Next, I headed to another location that Justin had identified to me at the south end of Lake Pukaki. This one was much stronger, giving me 4-6kt at first but again dying off as I approached 18,000. It looked



Looking north along Mt Cook range to the Tasman glacier.



Southern aspect of Mt Cook with snow flurries blowing over the peak.



On top of the roll cloud at 9,000ft amsl. Mt Cook stands alone in the background.

at this point that I was going to be short of Diamond climb. Then I encountered some turbulence which, in my limited wave experience, was abnormal. I searched in the area and to my surprise (and pleasure), I found some 6-8kt lift. This was not consistent, but I crabbed back and forth in it, finding patches of lift in several different locations and eventually topping out at about 23,000.

Being only about 85km from Omarama, I thought I would fly over to Mt Cook, even though I couldn't see it below the cloud. Along the way I was going down at 8-10kt, but I wasn't concerned because I had lots of height. Eventually, by the time I overflew Mt Cook airfield (about 100km from Omarama) I decided that lots of height or not, at the rate I was coming down I would be shot down if I persisted much further, so I headed back towards Omarama, still sinking at 8-10kt. I had flown well past the location where I had previously climbed the wave before my rate of sink came down to an acceptable level. From here it was just an easy Vne final glide home, in fact arriving back with 2-3,000ft in hand.

Later, on discussing with locals the turbulence I had encountered at 18,000, I learned that it was likely a case of a lower and upper level waves existing with different frequencies in different air masses. The thought was that I had transitioned from the secondary in the lower level to the primary in the upper – a new concept to me.

By the way, talking about the wave strength here, Theo Newfield (brother of Steve Newfield in our club) told me about a wave location southeast of Omarama called the "Tauri Pit". He said the first time he encountered it he entered a 9,000, did a 180 degree turn and found himself at 20,000. He couldn't believe it so he pulled the spoilers to do it again! His theory is that the bend in the mountains upwind cause a convergence of two waves. People talk about lift from 2,500-3,000ft/min.

Prior to this trip we had anticipated that we would not be coming back down here to New Zealand or Australia again, but after enjoying such great flying, I'm now trying to figure out how to do it again.



Launching at Omarama against the backdrop of a 5,000ft mountain ridge.



My First Completed 1,000km Task

WERNER BENNERT

Pilot: Werner Bennert
of SFC Schwäbisch Hall, Germany

Date: Tuesday, 26 January 1999, Australia Day

Glider: Nimbus 3t, VH-ZBV, 25.5m, 160l ballast

Start: Benalla, Victoria

Declared way point: Narromine airfield, New South Wales

I arrived on 6 January at Benalla for my first visit in Victoria. I enjoyed about 70 hours of soaring up until 26 January. One week before, we had had two days with recent rainfalls and good soaring conditions. Tasks over 830km were completed with Gary Brasher flying his Nimbus on Sunday and me on Monday.

The weather forecast for Tuesday announced severe thunderstorms at a line in front of a high level trough for Victoria and southern parts of NSW. The temperature reached 34°C during the day and the dewpoint was 18°C at 9am. After my flight on Monday, I concluded that conditions north and east of "The Rock" would be excellent. Plus, I also heard that another pilot was close to completing a 1,100km triangle from Narromine.

I took my decision for the out and return task whilst on the airfield, declaring it in the SAR book and in the GPS data logger and launching early at 10:33 with a light westerly breeze which had started 5 minutes before. During my aerotow, I got a message from Doug Robinson in the IS-28 that there was about 3kt lift in the circuit. I had another 2kt lift close to the strip back to 3,200ft. The Chesney ranges produced lifts of 1-3kt reaching 3,000ft. I hung around for some minutes and then, about 20km out, achieved a 5kt average climb rate. It took me more than one and a half hours to find the first lift stronger than the initial 5kt.

Until 12:40pm, northeast of Rand, still no Cu and no lift above 5,600ft. Carefully, following a convergence line of 50km length crossing the Murrumbidgee, I was lucky to reach the cloud covered area 10km west of the river at 2,800ft msl. My average speed sank to 74km/h when I reached cloudbase at 7,500ft.

The sky further north was covered with 6/8 of splendid Cu. I found no cloud streets at all, but with this vast number of clouds, it was simple to fly directly northwards with lift at close range. Until Narromine my average speed between two climbs reached 160-190km/h and the thermal average exceeded 10kt several times. While passing West Wyalong, I managed to cover a distance of 50km in less than 20 minutes, gaining some height!

The conditions changed around 4pm on the way back. 40km south of Narromine, I was confronted with areas of overcast cirrus cloud caused by a huge overdevelopment cell close to Mt Leadly. Until crossing the Lachlan river, the gaps between the (flat) clouds increased to 20-35km each. Southwest of Forbes one singular overdeveloping Cu raised me from 6,000 to 10,300ft with 7kt.

I now proceeded, again pushing to +110kt, but the average climb rates dropped below 4, later 3kt for the next 200km. My first initial choice was to either continue along the leg, or deviate 20 degrees to the west. The latter choice worked well until passing Leeton. Here the area was covered 2/8 of grey and small Cu turned more westerly.

The option was one mid-size Cb 60km to the south, probably close to Lockhart. It was too far away to recognise for certain whether it was raining there or not.

For the remaining 230km, I had still two and a half hours of daylight left. I headed for the Cb and found calm lift of 7kt to 8,700ft. I was surprised to spot no showers at all, but a

line of weak lift along the edge of the surrounding stratus Cu clouds, which allowed me to proceed another

30km southwest without any turns, climbing 400ft and reaching the top (!) of some tiny clouds. My final glide started northeast of Lake Urana and lasted exactly 1 hour. The Borgelt indicated

1,600ft below glide path for Benalla at first, not dropping to 2,700ft below glide path until the paddock southeast of Yarrawonga.

The only shower I saw for the whole day, covered Corowa after 8pm. Yet the alto stratus clouds were a clear sign for considerable showers and probably thunderstorms south of the Murrumbidgee about 3 hours previous. Due to the lateness of the day, my radio calls went unanswered so I estimated the overall length of my flight to

be 998km when I crossed the Murray below 1,000ft agl. At this point it was clear, I would have no chance to start the turbo engine. I landed straight in a 500 by 700 metre sized paddock at 20:33.

The farmhouse was only 400 metres away and the lights inside switched on, just as I entered the gate. Later, I heard of a 2 hour power failure and a microburst that had brought down an old sheep stable and several trees around the area.

The evening was quiet, the bed in the farmhouse was big enough for my 6 foot 9 inches and next morning I enjoyed a typical Australian breakfast. The aerotow retrieve and my last flight in the Nimbus for this season concluded with a high speed approach at Benalla. The official distance of my flight was 1,002.67km and then another 16,304.34km two days later for my travel back into the German winter!

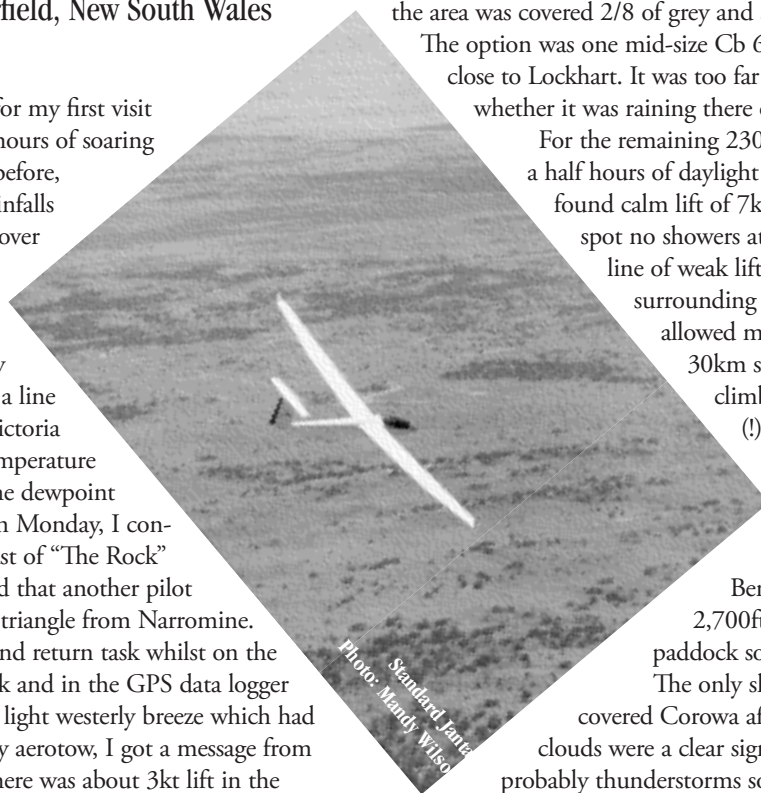


Photo: Standard Jante
Mandy Wilson



Safety Comment

Age Dramatically Reduces the Strength of your Back

A recent accident in Edmonton in which the two pilots suffered back injuries, and a recent article on the safety cockpit reminds us all to look to our seating.

As we age, the ability of the spine to successfully absorb the shocks of a heavy landing is dramatically reduced. From the 20-39 year age group to the 60-79 age group, the injury-free force on the spine reduces from 7.14 kiloNewtons (1605lb) to 3.01kN (677lb). If we estimate the weight supported by the spine to be about 100lb, then the deceleration required to damage the spine becomes 16g for the younger group and only 6.8g for the older pilots. This is not difficult to reach! Food for thought, eh?

Anyone who has ridden on a snowmobile can attest to the discomfort of repeated bumps. In a glider the hard ride of unsprung wheels and the vertical posture of the pilot(s) can be damaging, and the more we fly the more the damage accumulates. The article highlights the value of using energy-absorbing seat cushions. Many of us can recall a heavy

landing and the pain suffered by the pilot. We can also remember the long-term effects of many instructional landings on hard runways! These injuries can be reduced or avoided by using better cushioning materials.

Confor energy-absorbing foam is readily available in Canada, and all clubs and private owners are urged to obtain this material for the club two-seaters and their own sailplanes. A one inch thickness is the minimum to give protection. This material is very comfortable, and on long flights is surprisingly supportive because it spreads the pilot's weight effectively over a larger area than a standard compressible soft foam cushion (I can say this as we have Confor foam in the syndicate Puchacz!). In fact "standard" cushions amplify the shock of a landing by compressing readily, resulting in the pilot being hit hard by the rebounding glider. Such cushions should be banned from club and private gliders... so why not embark on a hunt for them now? Cushions of energy-absorbing foam are cheap compared to injuries, hence they are well worth the cost.

It has long been established that maintaining the proper curvature of the spine is vitally important if we wish to avoid back problems while we sit. A second and very effective way to reduce back injuries is to support the spine more effectively. A lumbar support pad made of stiff energy-absorbing foam should be about 25mm thick (1 inch) and 100mm (4 inches) high. The width should extend across the back. Placed between the back and the parachute or rear cushion, or when instructing, kept in place under the shirt, it will help maintain the correct curvature of the spine. Sewn into a simple bag, it can be held in place with Velcro.

In 1993 we thought the correct curvature of the spine with such a pad increased the strength of the spine by 60%. I see from the latest article that this is now 80% – well worth the effort! For best effect a pilot should avoid leaning forward when landing.

Insist on proper back support to avoid avoidable injuries!



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1999 NSW Hang Gliding State Titles

TIM CUMMINGS

After the spectacular stories of last year's flying, our expectations were shattered by a very difficult week's flying. Everyday was characterised by strong inversions and very short launch windows, with only one or two tickets away from the hill. Suddenly we had to work to not bomb out. Barraba was now a respectable fly and not just a glide from our first thermal. Still, the better pilots showed us all what was possible by consistently getting away. The paragliders also taught us some lessons by launching early each day and managing to get away.

We were all impressed by the major improvements Godfrey Wenness has made to Mt Borah. Most launches now have a secondary parallel launch, enabling two simultaneous launches. The top of Mt Borah is quite suitable for top landings now.

56 pilots entered this year, making it one of the most popular Manilla hang gliding comps ever. Conrad Loten won the event for the second year in a row with Glen Macleod coming in second. Jon Durand Snr was the third placed 'hangie' at the meet, though he was pipped in the overall placings by Godfrey Wenness flying his Omega 4 paraglider. Jon Durand Jnr took out B Grade in this, his last competition as a B Grade pilot. His record of having never landed in a Mt Borah bomb-out paddock still stands even after this week. Jason Turner was second B Grade in his Fun, and Geoffrey Bennett third.

26 Australian Gliding • Skysailor

Sunday 21 March: Straight Line to Bendemeer

Up high, there were plenty of rain clouds all drifting from the west. It looked like a no go day. Len Paton didn't even set up. At launch the wind was coming from the NE. Godfrey made the prediction, *"It usually swings around to the west. We have only used this launch five times this year, but today, I've got no idea!"*. Thanks Godfrey.

Big Jon had set up so he decided to launch early and bomb out so that he could set up on the western side. He launched and after getting very low, climbed out to cloudbase. The race was on. Gliders started launching, many bombed out, the wind switched in all directions, less experienced pilots spent much time preparing to launch, more experienced pilots opted for the shorter queue on Godfrey's parallel (but challenging) second NE launch. I waited till sunset on the west launch for the wind to swing west. The rain came, hitting the east side of Mt Borah and closing Godfrey's road. All the vehicles were on the hill. Many had to leave their gliders on the hill and walk down back to Manilla. 40 pilots didn't get past the bomb-out.

Those that did get up faced challenging conditions. Dave Redman followed his GPS 1km off the course line, as Godfrey had given us the wrong co-ordinates to his own house. Against all odds, Phil Schroder, Glen Macleod and Bob Smith (in a paraglider) made goal, with Phil Schroder winning. Pity all the retrieve vehicles were at the top of Mt Borah and the goal official didn't have roof racks. It was a late night for those at goal.

Monday 22 March: Rain Stopped Play

Tamworth became heavily populated with bored pilots.

Tuesday 23 March: Straight Line to Kiandool (10km west of Narrabri)

This was 'the day' of the comp. The launch window was long and from the east launch. CMac re-flew three times and on his final flight made it halfway to goal. On Neva's second flight, she lost a tip batten during launch. The tip batten is fairly important on a Shark, so with a landing approach consisting entirely of right hand turns, Neva landed back on top of Mt Borah, hacksawed a piece of spare aluminium batten tube to the right length, launched again and flew halfway to goal! The day was worth 1,000 points,

although there were still 26 pilots in the bomb-out. Once again, two hang gliders (Conrad Loten and Jon Durand Snr) and a paraglider (Godfrey Wenness) made goal. Conrad won the day.

One lucky pilot saw a Saab 36 seater commercial aircraft at close range approaching Narrabri airport to land. Apparently, it is legal to fly within 8km of Narrabri airport as long as you are above 3,000ft agl. Below 3,000ft it is recommended you carry a VHF radio if you are in a light aircraft and in a hang glider you are required to carry a VHF radio.

Wednesday 24 March: Turnpoint at Boggabri, Goal at Baan Baa

Once again we launched from the east launch, taking full advantage of Godfrey's two parallel launches. Unfortunately the day was really stable, and only one thermal in front of launch went high enough to allow pilots to get away from Mt Borah. It was a particularly good thermal, although a long way out in front, and the 14 pilots entering the thermal at less than 500ft agl took it to 6,000ft and were able to get away. Once up there was plenty of light lift for the patient among us, with 50ft/min up considered worth calling.

Conrad Loten and Len Paton worked well together to make it all the way to goal. However, by the time they got there at 6:30pm, the goal official had packed up and gone home. Fortunately, they both carried GPSs, and the GPS Verification System used at this competition was able to calculate the times they crossed the finish line. Conrad had passed the startgate 54 seconds before Len and crossed the goal line 50 seconds earlier than Len, meaning he was slower by four seconds. However, the 'early bird' departure and arrival points made Conrad the day winner.

Craig and Matt Worth were a formidable duo flying as a team and both made the turnpoint. Dave Redman had put the co-ordinates of the Boggabri goal paddock instead of the Boggabri turnpoint into his GPS. When he got to the paddock he couldn't see any silos, so he flew to the set of steel silos he could see a couple of kilometres on the other side of town. In the process his GPS track log showed he flew within 5 metres of the (correct) concrete silo sector off to his left. If only he had mounted his GPS on his left wing tip his track log would have gone

into the sector and he would have been given the turnpoint. Bad luck Redfella.

However, Turkey of the Day award goes to Tony Oniper, who was at the top of the one launch thermal that happened for the day, realised his VG cord was tangled, wound down to top land on Mt Borah, untangled the VG, launched again and bombed out. A total of 44 pilots bombed.

Thursday 25 March: Straight Line to Bingara

Today was the day of the paragliders. Rhett Rockman was showing everyone there was lift around, flying for an hour before the task was set. When the task was finally set, he top landed and launched again, then flew 59km of the task. Godfrey Wenness, Tony Oniper and I launched about half an hour later, then no-one launched for about an hour. Deciding not to wait, we headed down the course line, with Rhett about 15km in front. Tony and I struggled in the light lift and eventually landed just outside the 10km bomb out zone. Godfrey persevered in a very light thermal where I had landed, and three quarters of an hour later was still circling above the same paddock. I guess that's the advantage of having a harness resembling a lounge chair: You can take your time in thermals. Godfrey went on to fly 37km of the course. The nearest hang gliders – Mike Jackson (in a demo Aeros Stealth) and Jon Durand Jnr – only flew 33km of the course. 43 pilots bombed out.

Friday 26 March: Straight Line to Bingara

Billo insisted that we had to keep doing it until we got it right. The only problem was that when there's a strong inversion at 5,000ft asl, and ground level climbs to 2,800ft asl, it's not easy to find the next thermal. Godfrey and Rhett launched early again, but the thermals proved too small for even two paragliders and Rhett, in his enthusiasm, pushed Godfrey out of a thermal 19km down the course line. Rhett managed to fly to just past Barraba.

The day was getting late, but the hang gliders had a speed advantage over the paragliders. Conrad and Redfella patiently thermalled during the peak time of the day across the high country between Manilla and Bingara, where the thermals were only reaching 1,500ft agl. Redfella eventually landed close to the peak of the high country, yelling something like, "No more circles!", while the infinitely patient Conrad Loten showed us that goal was possible on this impossible day. 43 pilots bombed out.

Saturday 27 March: Straight Line to Curlew

The predicted change wasn't going to make it, and conditions were even more stable. We used the NE launch. Tony Oniper set up his glider early, but everyone else left their gliders on the car believing the west launch would come on later. Little Jon 'I've-never-bombed-out-here' Durand offered to fly Tony's Shark over to the west launch. To everyone's surprise he soared above the ridge for half an hour and landed on the west launch. It was at that point we decided the NE launch was the one and the hapless Tony Oniper had to cart his glider back from the west launch.

Once the task was set, all the early flights were sled rides to the bomb-out without so much as a bump. Jon Durand Snr was one of the first comp pilots to launch and was rewarded with a thermal just out of the bomb-out paddock. None of the 10 pilots underneath him were able to get out with it. He took it to 6,000ft and then flew over the back. He got his next thermal at 500ft agl. A couple more thermals were working today and goal looked possible. Big Jon's instruments even told him he was on final glide, but then that southwesterly change came through and everyone decked it. The Queenslanders won the day, with Mike Jackson first, Glen Macleod second, and Jon Durand Snr third. 42 pilots bombed out.

Despite the weather conditions, we all had a great time. Billo should be congratulated for single handedly running the show again and the local paragliding community thanked for their support. The area would make a great location for next year's Hang Gliding Nationals!

Results

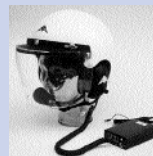
1 Conrad Loten	NZ	Moyes CSX5	2,755
2 Glen Mcleod	QLD	SX4	2,368
3 Godfrey Wenness	NSW	Advance Omega 4	2,265
4 Jon Durand Snr	NSW	Moyes SX4	2,194
5 Len Paton	NSW	La Mouette Topless	2,080
6 Mike Jackson	QLD	Aeros Stealth	2,058
7 Dave Redman	QLD	Moyes Xtralite	2,016
8 Phil Schroder	VIC	Moyes CSX5	1,949
9 Gary Davies	QLD	Airborne Shark	1,885
10 Bob Smith	NSW	Advance Sigma 4	1,839

B Grade

1 Jon Durand Jnr	QLD	Moyes SX4	1,806
2 Jason Turner	NSW	Airborne Fun 190	1,788
3 Geoff Bennett	NSW	Airborne Blade	1,664

The organisers would like to thank Moyes Delta Gliders (particularly Vicki), Airborne Windsports and Wingtech for their unfailing help with sponsorship every year. Also, Manilla Shire Council who provided shirts for us to print and the business houses of Manilla who sponsored trophies and not in the least, Tim Cummings for provision of and driving a Mac computer with the GPS timing software.

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If paying your membership renewal by fax, please write over the address label in black pen, as when received at the HGFA office, the label details do not print, leaving your name and address details blank. (The label and the print on the label are very faint.)

If you have paid your renewal by fax recently and have not yet received your new membership card, please contact the HGFA office, your details may have been unreadable.

Margaret Steinhardt

NEWSFLASH:

The truth about paragliding

Paragliding is not very popular in Europe. At one time it seemed poised to take off and become a popular trend-sport for the affluent masses of the world's wealthiest continent, but ever since the introduction of hang gliders, the number of paragliders in Europe has been dwindling.

It seems that paragliders just can't compete with the ease, convenience, and higher performance of modern flexwings. While a paraglider pilot is wrestling with his equipment, laying out the canopy and untangling lines, the hang glider pilot can just stuff in his battens, tension his wing and go. A hang glider is easier to launch — none of this worry about reverse launch technique or getting blown back. In the air, the performance difference is substantial. Finally, modern hang gliders are much easier to land. While the paraglider pilot has to concentrate on his approach, plan ahead and pull his brakes at precisely the right time (some modern paragliders have flare windows as narrow as 15 minutes!) the hang glider pilot just slams in, picks up the pieces and heads down to the shop to buy new downtubes and maybe a leading edge or two.

Even storage is easier with a hang glider. While paraglider pilots must struggle to find a place in their closet to store their gear and are unable to get up the hill without a ski lift, the hang glider pilot merely slides his wing out of his garage, loads it on his truck (gas is cheap in Europe) and heads up to the mountains on the wide freeways for which Europe is famous.

For these reasons, many people feel that paragliding in Europe is a dying sport and soon all you'll see will be... uh hmm, wait a second, did I get a few things backwards?

Paul Gazis

1998/99 SA State Competition

The top ten placed pilots in the SA State Competition are as follows.

Results

- 1 Steve Blenkinsop
- 2 Brent Telford
- 3 George Kambas
- 4 Anthony Cross
- 6 Garry Fimeri
- 7 Scott Robinson
- 8 Andy Watson
- 9 Steve Papai
- 10 Colin Hansen

1999 Bureau of Meteorology Night

A Weather Information Seminar

Presented by the Blue Mountains Hang Gliding Club and the Bureau of Meteorology

This weather information presentation and Bureau tour will be conducted by Geoff Smith, Manager of Aviation and Defense for the NSW and ACT regions.

The presentation will be tailor-made to be of specific interest to soaring pilots. Topics to be covered will include thermal development and behavior, trigger temperatures, lapse rates, inland sea breezes, convergence, cloud types, lift indicators, thunderstorms, microbursts, etc. Also included in the presentation will be guided examples of obtaining weather information through the internet, and (hopefully) a computer thermal simulation.

Following the presentation will be a guided tour of the Bureau. Find out what happens, where and how it happens.

Where:

Bureau of Meteorology,
300 Elizabeth Street, Sydney

When:

Friday 18 June at 6:45pm

Both the talk and tour are free of charge (tea and coffee also provided). At the conclusion of the tour we will be having dinner and drinks at a nearby restaurant.

For security reasons a list of attendees must be supplied by Monday 14 June. Call Richard Lockhart before this date on 0418 130 354.

Richard Lockhart

Wrong Water Landing Night

A bizarre software anomaly caused an outdated and incorrect "Water Landing Night" notice to be printed in last month's Skysailor issue. To clear things up for our readers:

The Water Landing Night was not held in March, it is to be held later this year. The event we were intending to advertise is, in fact, the Bureau of Meteorology Night on 18 June. I'd like to draw readers' attention to the correct notice below, giving details of this night. I hope pilots take advantage of this great opportunity to explore Sydney's Bureau of Meteorology.

Richard Lockhart

Airfoil Closing Down Sale

Airfoil Sails Pty Ltd would like to announce to any interested parties that Airfoil Sails has, for an undisclosed amount, agreed to finally call it quits and move onto other pursuits. Airfoil Sails has 20 stock sails, some equipment and sail cloth for sale.

If anyone is interested, please contact David Pendleton at Umina Beach Newsagency on 02 43411997.

Canungra Hang Gliding Club News

A disappointing month for flying in the region with a series of rain depressions keeping pilots grounded or (at best) restricting flying to the east of the Great Divide. Jon Snr and Jon Jnr Durand did manage to fly their hang gliders out to Lake Moogerah from Beechmont (65km) and Matt Cooper made Rathdowney (35km) from the same launch in a paraglider; but most people have been struggling to get away in the unseasonably damp conditions. Pretty miserable for the peak of the season and for all the visiting pilots from around Australia and Europe who are in town to sample some of the excellent XC conditions we normally enjoy at this time of year. Presumably conditions will improve as soon as they all head off home!

As I write, 26 of the country's female pilots are gathered in Canungra for this year's Women's Flying Skills Improvement Clinic. Organised by Barb Utech and Peta Roberts, the clinic will draw on the experience of the likes of Drew Cooper, Heike Hamman, Phil Pritchard and Phil Hystek

to develop the confidence of our lady hang glider and paraglider pilots to more extended XC and competition skills. More on this important initiative next month.

A disappointing performance from the club's paraglider pilots at this year's Paragliding Nationals at Manilla. Whilst our pilots have made a steady improvement in rankings over the previous couple of years, this year they

struggled. Whether this is the result of the unusually damp conditions experienced locally in the lead up to the Nationals or the relative improvement in pilots from other areas I don't know, but Canungra pilots certainly didn't make the impression they had previously. However, the sea of mediocrity was punctuated by the performances of Chris Frost and Fran Ning who were our top placed male and female pilots respectively.

Queensland Hang Gliding and Paragliding Association president, Peter Beard, brought an interesting statistic to my attention recently. According to his analysis of the HGFA records, 44% of HGFA members in the SE Queensland area are not members of a local club. With three clubs covering most of the population centres in the region there is clearly some concern that these pilots are enjoying access to various club sites, but are missing out on the benefits of club membership. Encouraging some of this fairly large group of pilots to join at least one of the local clubs would lead to significantly enhanced growth in club memberships.

At last month's club meeting the expenditure for the public toilet on the Tamborine Mountain launch was approved. A big thanks to Andrew Kennedy for the design and costing. Providing the local council approve of the design then the construction of this 'room with a view' will begin immediately and should provide relief for pilots and spectators alike. Hopefully, in the next few weeks the rain will stop, the Canungra valley will dry out, cloudbases will rise and the producers of

FAI News

FAI announces Round-the-World Balloon Race

Following the pioneering round-the-world flight of Bertrand Piccard and Brian Jones in the Breitling Orbiter 3 balloon, the FAI has confirmed that it is planning to organise a round-the-world balloon race, probably in 2002 in the northern hemisphere. The race will start at a given place on the same day, and as close as possible at the same time. Rules are being drawn up by experts of the FAI's International Ballooning Commission, but in essence the winner will be the first balloon to circumnavigate the globe and cross the meridian of the launch site.

The FAI has teamed up with the international PR consultancy Fleishman-Hillard to develop plans for the event which will probably take place every four years. A magnificent trophy and a substantial cash prize is planned for the winner. The FAI's advisory committee includes Don Cameron, constructor of the triumphant Breitling Orbiter 3 balloon and Alan Noble, the operations director of the team that

supported Piccard and Jones during their global circumnavigation. The next planning meeting is scheduled for Friday 9 April in London, after which further details will be announced.

The great balloon race could become for ballooning what the Whitbread is for boating. It will certainly be a magnificent spectacle. For further information contact: Fédération Aéronautique Internationale, Avenue Mon Repos 24, CH-1005 Lausanne, Switzerland. Ph: +41 21 3451070, fax: +41 21 3451077, email: press@fai.org Website: www.fai.org

New FAI Record

The FAI has ratified the following Class O record:

Paragliders

Category: General

Type of record: Straight Distance

Place: Hobbs, NM (USA)

Performance: 289.63km

Pilot: Will Gadd (USA)

Paraglider: Firebird Cult

Date: 30/5/98

Previous record: 283.9km (Alex François Louw (South Africa), 31/12/92)



'Baywatch' will decide to make the next series in Canungra. Then I'll really have something worthwhile to write about.

Mark Plenderleith



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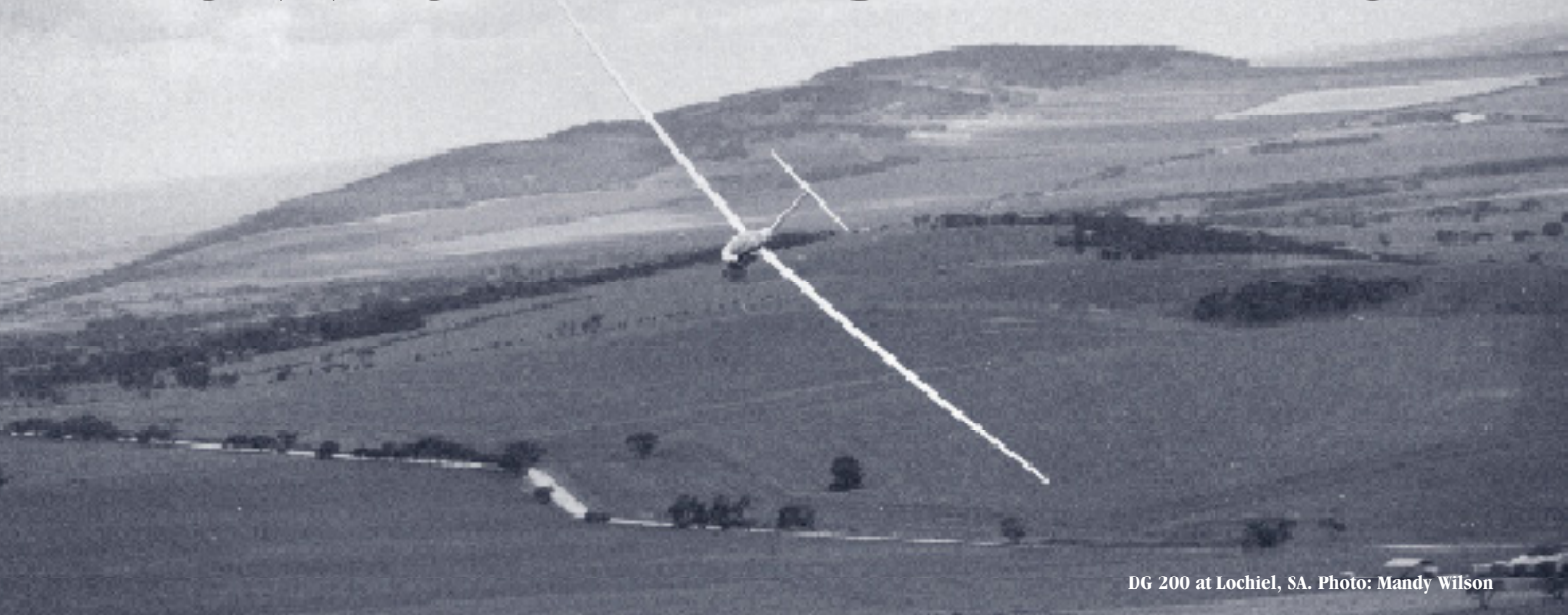
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NSW STATE CHAMPION



DG 200 at Lochiel, SA. Photo: Mandy Wilson

BRUCE TAYLOR

I don't believe it! Usually in the gliding world we suffer the "should have been here last week" syndrome, but the last two comps I've been too have been exactly the opposite. In Temora at the Club Class Nationals we had booming weather for two weeks then drove home in pouring rain, and now at the just completed NSW comps we managed a great week's flying sandwiched in between long periods of totally unflyable weather. The gods are with us this year and we have been blessed with some stunning conditions.

How does 400km at 159km/h sound? As our French visitor, Christophe Ruch, would say, "*We were smokin'.*" He had the pleasure of witnessing this event first hand from the back seat of Brad Edwards' ASH 25. Whatever Brad's talents, this sort of speed still calls for a pretty good day, and we had plenty of it at Gulgong. They even called one day off, so a few hardy souls took a run out to Narromine and back at about 132km/h – obviously not good enough to call a comp day!

So how did it all happen? As is often the case when the Nationals are held early in the season and the State Championships are pushed to the end, the numbers were a little down on normal. Standard class was OK with 13 aircraft, but 15 metre could only muster two full time entries, with Paul Matthews flying a couple of days at the end of the week to make three. These pilots had to fly handicapped into the Open class, to make up a total of eight big birds. Due to the low numbers we decided to task all gliders in together – tricky when the

range goes from Libelle to ASH 25/Nimbus 3D, but I think it worked reasonably well.

Sunday dawned clear and sunny with promise of good soaring from met man Harry 'I'll-never-do-this-again' Medlicott. Harry has (unfortunately for him) worked himself into the position of being irreplaceable, such is his knowledge and feel for our weather. The "Cu-sonde" and Harry are inextricably linked, and have now provided the met for many, many comps in eastern Australia, but back to Sunday...

The tasks were set by Henk Meertens and Harry, as the other task setter, Bruce Taylor, was still in bed. They came up with about 310km to Curban, Ballymore, Wellington and home. I say "about" as we were using the now accepted multiple start system which results in quite a variation in task length. An earlier decision to go to Tooraweenah was changed with some concern about overdevelopment in the Warrumbungle mountains.

Speeds were well up in the 130's, with Andrew Georgeson throwing out a challenge in Standard class in his new LS8, and Hank Kauffmann winning Open class. In the hotly contested Club classes, Mitch Turner won Standard and Geoff Sim the Open class. The only real problem today was a large blue area south of Gulgandra which slowed the unwary. We spent most of the day using climbs up to 9,000ft, with a good one going to 10,500ft near Wellington for the glide home. All heights are quoted above sea level – Gulgong is around 1,500ft and the north and western areas are about 1,000ft amsl.

Monday was the best day, with some tussles going on between task setters and weather man about the length of the trip. In hindsight it was underset, but hindsight is easy! The trip was to Coonamble, Gulgandra and home, and after a slightly slow start the day boomed. The leg north was very fast, and a number of different tracks seemed to yield similar results. After Coonamble though, was where the stories began to unfold. Those who climbed high before the long run over some storm affected green areas to Gulgandra had an easy ride, and those who didn't... well, they had some struggles. Gulgandra to home was fast again, with a few solid ten knotters to help out.

The most noticeable aspect of the day was the lack of heavy sink. Often in Australia we have huge thermals interspersed with huge sink, but this day was different. It seemed much easier to get good runs, which meant that you could be more selective about which climbs you

SHIPS 1998 – GULGONG

used. Heights were up around 11,000ft or better, and there were 8 to 10kt thermals all over the place. As mentioned earlier, Brad Edwards whistled around at 159km/h to win Open class, and Bruce Taylor did 149km/h to take first in the Standard class. The Club winners were Phil Jones in Standard and Ian Barraclough in Open (look out for that ASH!) A day to remember!

Tuesday began dull and overcast, with some showers around the horizon. The day was canned, perhaps a touch early (again in hindsight!) but the “other” task setter was still late out of bed, so he shouldn’t complain... Some of us sat around discussing the merits of gliding versus working, when we noticed after lunch that it was now quite clear and the cu’s were popping. A quick load of water and we were off for a fun trip to Narromine and back, working good streets in a strong west-southwesterly airflow. The flight also provided some opportunity to compare Miles Gore-Brown’s Discus 2 with the LS8. And the winner is... (drum roll): We couldn’t tell.

Wednesday brought the beginning of a couple of days of blue. The task was north to Tambar Springs, southwest to Ballimore and back for 300km. As we worked our way up to Tambar Springs we could see the nice conditions of yesterday afternoon further north, and some squeaks from Lake Keepit suggested that they were having good fun under some fat clouds. Some of us just touched the first cu’s at the turnpoint, before heading south again. It wasn’t a bad day really – it, was just that we could see someone else was having a better one! Heights were up to 9,000ft, once more Brad Edwards did the job in Open class at 122km/h and Miles Gore-Brown took Standard at 114km/h. Armin Kruger wound up his LS4 to wallop Mitch Turner by 0.9 of a point in the Standard Club class, and Geoff Sim took Open Club again.

Thursday – blue, blue, blue with more south in the wind and heights down generally to 7,000ft. We went NW to Merrygoen, SW to Geurie, NW to Coboora and home for about 230km. This distance turned out to be a touch too long for some, as the day died a little early while they were still out on track. It was a tougher day and many had trouble avoiding low points. Hank Kauffmann took Open class by a whisker at 98km/h and Bruce Taylor Standard at 91km/h. (This was only after an interesting drive up to Coboora, equipped with a GPS to try to convince the verifier that Coboora was in fact not where it was supposed to be! The vehicle became lost about four times, despite the GPS, and despite the map reading being done by a former world champion!) Phil Jones took Standard club and Colin Turner, having a pleasant break from official positions had a win in the Open Club class in his “little” ASW 20B.

Friday and the weather started to come good again, some cu’s appearing – more to the east and thinner wisps to the west. The task was to Wellington, Binnaway and back for 250km. The fast guys left early and used better cumulus before the day dried off a little. Andrew Georgeson left first and was tied down and half drunk before the rest of the field turned up! Andrew is working hard at improving his skills and tries to fly the task alone, an admirable trait. Those who spend their time using others will never learn to lead from the front. One other pilot who seems to have achieved this aim also went well on this day – Brad won Open class again! Heights were up to 8,000ft but a lot of the time this was difficult to reach and 6,000 was tops. So too the climbs, with most of us using about 6kt, and Georgo finding 8 to 10. In the Club classes, Mitch Turner was the top of Standard and a speeding Ian Barraclough won Open.

To the final day, Saturday, and once again we were smokin’! The task setters and Harry were head to head about what was possible. We wanted to send them to Queensland, while Harry quietly pointed out that there was an amount of cirrus pouring over the hill, there was a question about the rate of heating and it was indeed the final night and we needed someone home to drink all the beer! So we set three tasks... in the best tradition of committees we couldn’t make up our minds.

At launch time the crunch came, we backed off a touch and settled on southwest to Wellington, northwest to Armatree, then home for around 335km. As it turned out, the cirrus made a couple of patches slightly slow and the length was pretty right. Today the timing of the start was critical – some early leavers had to work rubbish it cooked up, the mid-fielders had the best of it and Mitch Turner started just before sunset and still made it around!

Climbs were around 8kt to 8,000ft with late afternoon heights to 9,000ft. Once again Brad Edwards smoked around at 132km/h. A close finish in the Standard class saw Miles Gore-Brown and Bruce Taylor with the same elapsed time, but Bruce had chosen a start point a little further away and took the day. Club class results were (yipes, a girl!) Kerrie Claffey in Standard and Colin Turner in Open again. Everyone was home with a grin on their face and it was a fitting end to a week of fast flying. There was a rumour that a low flying LS8 scared the daylight out of a TV cameraman at the finish Line, but he did leave himself in a very obvious location!

The final night was a huge success, with Don Wylie doing the fastest presentation of trophies we have ever witnessed. Peter the Cook provided a huge feast, as he had done all week, and even took out the raffle and went home with a solar powered shower. As for the trophies, Hank Kauffmann went home with the Open class award for a fine effort in consistency in his Ventus 2C. The highest speed of the competition went to Brad Edwards, and a quick look at the previous winners suggests that it may be many years before anyone else comes within a bulls roar of 159km/h!

Open Club class was eventually taken out by Ian Barraclough, though on the night it was given to Colin Turner by mistake! However, Colin took home a Gulgong trophy for being the top of the “real” 15 metre class. Bruce Taylor won the Standard class, and also the highest Standard class speed at 149km/h. Winner of Standard Club class was Phil Jones with an impressive average of 978 points – there’s life in the old Jantar yet!

Thanks must go again to the Gulgong members, who always put on a wonderful show, with great hospitality, good food, an interesting site to fly from and for this year some stunning weather. By interesting site I mean that generally in Australia we bore along over completely flat, featureless terrain with little change in the weather over the whole task area. This can be good fun, but generally breeds poor flying strategies for more difficult conditions. Gulgong makes the pilot think a bit more, as it has some maritime influence from the east, and the terrain does not provide “shut your eyes and lower the undercarriages” type of outlanding possibilities. It is far more interesting to fly there and is a good learning experience.

All in all a really enjoyable week of flying and fun. There was a training session going on at the same time under the guidance of Ken McCracken, in lieu of the more formal Teams Challenge event. I think that these pilots had a nice time too, with some good personal achievements taking place. Gulgong is a great site. Don’t miss the next time!





Cross-country Coaching at Gulgong

RAY ASH



Attendees from left to right: John Fleming, Philip Endicott, Ken McCracken, Jenny Ganderton, David Shaw and Graham Holland.

A cross-country coaching course was held during the period of the NSW State Gliding Championships held at Gulgong from 20 February. The intention had been for a Teams Challenge to take place during the week preceding the championships but for various reasons this did not happen. To prevent disappointment for some of those who had wished to be involved, Ken McCracken from the Southern Cross Gliding Club offered to do some cross-country coaching during comps week.

The course consisted of morning lectures followed by practical task flying. The in-air coaching was somewhat limited by the constraints of operating around the competitions but it was reasonably successful. Those undertaking instruction were, John Fleming from Gulgong flying his K13, David Shaw and Jenny Ganderton from Forbes flying a Blanik and Mosquito respectively, Philip Endicott from Southern Cross in a Pilatus and Graham Holland from the Central Coast in a Scheibe SF27M.

Flying experience varied from David Shaw with only 20 hours gliding time (although an experienced power pilot and Tuggie) to Jenny Ganderton, a world record holding hang glider pilot with over 1,000 hours. The week produced excellent soaring conditions but was somewhat marred by strong winds. This had little effect on the competition aircraft but made it more difficult for the lower performance machines. Tasks set were in the order of about 100km out and returns with only one unplanned for outlanding in the Blanik by David Shaw with Ken McCracken in the back seat after covering about 70km. Some personal goals were achieved with John Fleming obtaining his outlanding endorsement and David Shaw his Silver C Duration and Distance, the latter with a flight of 62km to Merrygoen.

Jenny Ganderton flew the competition task successfully on one day covering some 400km and on another day was attempting a similar flight but on rounding the first turnpoint heard David calling in to report an imminent outlanding at Merrygoen. Being part of his retrieve crew she dutifully returned to Gulgong to organise it. Philip and Graham flew on most days in their respective aircraft achieving a number of short cross-country exercises. I had loosely attached myself to the group as a matter of interest, helping where I could and on one occasion flew in the back seat of the K13 while John Fleming completed an out and return flight to Dunedoo covering some 70km.

Even if limited by the competition priorities everyone enjoyed themselves and voted it a very worthwhile exercise.



The first

ALLAN ASH

During the 19th century many people in many places were experimenting in an attempt to achieve flight and not all of these people or their efforts have been recorded in history books. As a result, it is difficult to be sure who built the first really successful glider and who made the first sustained manned gliding flights

Some of the craft were designed by crackpots, some by competent engineers and scientists. Some of the craft never got off the ground. Others made brief but successful flights but they were unmanned.

In England, Sir George Cayley (1773-1857) built experimental balloons, ornithopters and gliders, all of which flew in the first half of the 19th century but were all unmanned except for one brief glider flight. The exception carried a man but he could hardly be described as a pilot. This fortunate individual was Cayley's coachman, who was ordered by his master to take the flight.

Sometime during 1853, the glider, with a wing area of 300 square feet, is reputed to have flown a distance of 270 metres (780 feet) at a height of several feet above the ground. The flight lasted about 20 seconds and was virtually without the control of its terrified occupant. It was more of a trajectory than a flight. It is reported that, immediately upon landing safely the coachman resigned from Cayley's service.

In 1848, John Stringfellow in England carried out a number of successful flights with an unmanned glider and four decades later, in Australia, Lawrence Hargrave built and flew several successful unmanned ornithopters powered by an engine of his own design. His experiments during the 1890s with a series of boxkites proved the value of cambered aerofoils and dihedral in improving the lift and stability of aerial machines.

The 1890s was the decade when real progress was made. Men like Otto Lilienthal in Germany, Percy Pilcher in England and then Octave Chanute in the USA made successful manned gliding flights. Their experiments and the knowledge they gained were utilised by the enterprising Wright brothers in the USA who built their first glider in 1900.

But there were other experimenters whose work remained unknown and unrecognised during the latter half of the 19th century. One of these was a South African named Goodman Household, who built and successfully flew a glider of his own design during 1875, thus laying claim to be the first to have made successful sustained manned flights in a heavier-than-air machine.

Goodman was born in England and migrated to South Africa with his parents in 1864, when he was 18 years old. The family settled in Karkloof, in the province of Natal, and became successful farmers. Goodman became a skilled self-taught engineer and invented a number of machines and gadgets for the local farming community.

successful glider



Photo: Mandy Wilson

About 1870, he conceived the idea of building a flying machine large enough to carry a passenger, by arranging the span and area of the wing to suit the estimated weight to be carried. To gain an understanding of the necessary wing loading he studied many different birds, measuring their weight and comparing it with their span and wing area.

His friends considered him mad and mocked his efforts, this led to secret experimenting of which no record was kept. His first flying machine was unsuccessful because the wing area was not sufficient to lift its load. There is no record of its dimensions but the wings were covered with strong oiled paper or silk. A seat was provided by hanging a square of wood under the wings by four rigid bamboo stays. Ascent and descent were to be obtained by tilting the seat backwards and forwards.

After its failure to fly, opposition from family and friends increased, but Goodman was undaunted and, in 1874, set about designing an even bigger craft. Special steel tubes for the stays were bought in England and denser woven fabric was imported from Switzerland. The only control system was a steering device (details unknown).

Only one person was prepared to help Goodman, his brother Archer, who had gradually become enthusiastic about the project. Together one night in 1875 they took the finished craft to the top of a mountain behind their house, which overlooked a valley.

With Goodman on the seat, Archer push-started the glider down the slope. Instead of just sliding down the hill, as Archer expected, he was amazed to see that it gradually left the ground, gained height, passed over the farmhouse and cleared the tops of trees that were later measured as being more than 160ft (50m) high. The maximum altitude gained on the flight was probably about 200ft. To be alone in space, at this altitude and at night, was a terrifying experience for Goodman. Suddenly, his nerve failed him. He tilted the seat forward and the glider began a steep descent, to land safely in an open field.

A short time later, Goodman was ready for another attempt at flight. Again he chose to make the flight in the secrecy of night. For this attempt, Goodman chose a steeper slope and took along several native farm workers to assist in the "launch". But when the time came to push the glider off, the natives refused to do it, afraid to risk punishment for pushing the young "baas" down the slope to what they were sure would be certain death.

Household was more confident of success by now and finally persuaded the native boys to push the glider over the edge of the slope. Soon the pilot found himself some 1,000ft above the valley floor. It was a thrilling, anxious moment, but again the glider proved efficient.

Goodman had undoubtedly discovered the secret of balancing the glider in flight and he continued to fly across the valley. When the glider reached the ascending far side of the valley, he tried to land by extending his legs. The attempt was not successful and the glider began to slide backwards down the hill. A farm dam was directly in his path and if it had not been that a tree caught the edge of the machine, Goodman would probably have drowned. Fortunately, he was able to extricate himself from the damaged glider and climb out of the water unharmed.

Household was ecstatic about his success, but his mother was terrified that he would kill himself if he continued his experiments, so she made him promise to abandon plans for future flights.

For many years, the glider was stored in the old farmhouse at Karkloof but about 1925 the new owners of the farm found what appeared to be a pile of old timber and burned it as rubbish.

Goodman Household lived until 13 March 1906 when, at the age of 60, he died of fever in Grey's Hospital, Pietermaritzburg. It must have been of great satisfaction to him to know that later experimenters proved most of the theories he had propounded some 25 years earlier, but he must have been somewhat bitter to realise that the distinction of solving the problem of flight was given to others

Weightshift

Student's Guide to

TONY DENNIS

We all know what it's like flying in our microlight trikes (or powered hang gliders) when the air is smooth as silk, and the puffy clouds stay just where they are in the sky. Driving our 'personal aircraft' is a series of smooth movements right and left, up and down. As a student pilot these are great times to develop flying skills, but as pilots venture further afield and over greater distances, some days we get caught up in air which is not smooth, rather what we would call rough.

Unfortunately, unlike being in a boat with water, we cannot see the air. The better we can understand the nature of the air and the machine we are flying, the better we will know how to compensate for this unseen thing and enjoy piloting our aircraft through it. Following are some of my thoughts on flying microlights in conditions where there is some turbulence in the air. It comes back to good old understanding of 'air-man-ship'.

"Air"

Let's have a look at what makes turbulence in the air. If we break turbulence up into three basic types, we can better understand how it may affect the ship. The first type is the simplest – I refer to it as 'mechanical turbulence'. This type of turbulence you will find when flying on the lee side of a mountain or hill or behind a line of trees when you are landing. I guess you could even bunch wake turbulence from another aircraft in with mechanical turbulence. Mechanical turbulence is wind speed related. The strength of the

wind as it passes over a surface or past an obstacle will determine the severity of that turbulence. What we feel in a microlight is constant soft rocking from side to side, usually affecting roll more than pitch and, given a couple of seconds, one bump will usually cancel out another.

The second type is thermal turbulence, caused by heat or the instability of the air. Again, the amount of turbulence is largely due to the amount of energy that can be put into the air. What we feel is a slight lifting and sinking feeling in our microlight, with more pitch effect than roll, and if we do get a wing lift or drop, the force on the wing seems to last a couple of seconds.

The third type is wind shear. This turbulence is caused by two air masses moving at different speeds or directions to each other. We can get any or all of the combinations of the above forms of turbulence mixed up in the atmosphere.

"Man"

Let's look at the 'man'. For some students it's a case of 'white-knuckle fever!' Then there's the story about one of my students who grabbed onto the front pole with both hands, letting go of the control frame in some moderate thermal turbulence. While instructing him from the rear I made him fly around with his hands in his lap watching the control wobble in and out, and left and right, just to prove the fact that we were not going to tip over and the microlight could manage itself.

Picture yourself in a boat in this year's Sydney to Hobart race. I'm sure the saying 'hang on for grim death' never had more meaning than to the crews of those yachts. The fact of the matter is when it gets rough we all want to hang on tighter. Sometimes it helps, but most of the time it just makes us tired. Let's look at the 'ship' for a moment. Our average microlight wing would weigh around 50kg. So, our pod with two people and fuel would make up the other 350kg. The moving wing is not that hard to slow down, but in reality the pod weighing nearly 350kg takes a lot of effort to slow down if it is rocking. Imagine your pod suspended while holding on with your hands to a fixed control bar while someone tried to swing the pod backwards and forwards, left and right. If you continued trying to stop yourself and the pod

Three Airborne Edge X trikes being re-fuelled, ready to go, at Benalla.

Photo: Tony Dennis



Microlights:

'Not-So-Smooth' Air



Karen Weiner at Benalla airport, March 99. A light 55kg she always flies with ballast in 'Judy's Kites' saddle bags – this keeps her flight smoother. Photo: Tony Dennis

from swinging by holding on firmly to the bar, it would not take very long for you to get very tired. Likewise in a microlight, it's a lot of hard work if you're holding on to the bar too tight trying to stop the movement. Really, this is not necessary.

Remember: Fly the wing not the pod, especially if there's some turbulence. The pod is after all just a pendulum swinging under the wing. If the wing is out of line you may need to correct it, but if the pod is wobbling around, try to forget it. If we grip too tight we transfer the movement of the wing onto the pod:

1. **making the pod move more, and**
2. **making our arms and bodies be energy transfer points from the wing to the pod.**

The question arises of how to relax in your microlight. One of my students came up to me recently and said: *'I've got 20 hours now, I enjoy the flying, but I wish I could relax more when there's turbulence.'* I think the best way to reply to that is to wait until you've got 50 hours. It just takes time to be familiar with the turbulence, and perhaps it's a good idea (if you have the opportunity) to fly as a passenger again with an experienced pilot to see how they handle the aircraft. Or go for a fly again with your instructor, so he or she can demonstrate some techniques for the rough air. Just like learning to drive your car: you can learn to drive on a dark, rainy night and that skill becomes second nature. It's the same when learning to fly. Another technique that my students get reminded of all the time is to 'play the piano'. What I mean by that is relax your grip, and keep your fingers nimble.

The next consideration is how to vary our technique for the three different types of turbulence. Firstly, let's look at wake turbulence from another aircraft taking off or landing. This turbulence is the easiest to avoid. All we need to do is give ourselves some time behind another aircraft and anticipate where the other aircraft's turbulence will drift. Turbulence from a fixed object like a mountain or a line of trees also

requires that we anticipate where that turbulence may be and fly accordingly. It is mainly velocity related, so if the wind has picked up when you're flying just take that into account and know the turbulence will be there.

Don't fly faster and faster in turbulence. Because we tend to hang on tighter and tighter, and thus pull the control bar in, we tend to fly faster in turbulence than we need to. Only 3-4 knots above trim speed is required when cruising in turbulence. Keep your turns shallow which will minimise any exaggeration from a wing drop or the effects of a thermal. In thermal turbulence use your pitch, then, if required, a power setting change to compensate for the wing pitching up and down.

Take some time to talk to hang glider pilots about picking wind direction when landing. They are the most experienced at flying and landing in thermal conditions as they often fly when there are thermals and don't have the luxury of wheels to land on. Picking wind direction on the ground from smoke, dams, etc, makes it so much more predictable to land in thermal conditions.

When flying in wind shear, the easiest way to counteract its effects is to change altitude. It is usually only a small, vertical band of turbulence and often can be travelled through quickly and easily.

"Ship"

Let's look, finally, at the 'ship'. Weightshift microlights (trikes) do not have a history of being flipped upside down in turbulence. Just by virtue of their design – and the fact that the pod is around six times heavier than the wing – a microlight will right itself even in severe turbulence. The controls will not be instantly knocked out of your hands. Often the pod may rock around a lot more than the wing, as will be seen when looking from the ground. Fly the wing, not the pod. Passengers don't experience the turbulence the same as the pilot, as they are not hanging onto the control bar (which is a good point for not hanging on too tight).

Pilots have different tolerance to air that has some turbulence. Just remember that we are, after all, flying for fun! At the end of the day it is only experience that will help you acclimatise to the different conditions of the air and, most importantly, understand what makes the air do what it does. For students, flying in air which is not 'smooth as silk' does take some time to get used to.

Remember a few basic points:

1. **Relax your grip on the control bar (the pod may be swinging, but the wing's OK);**
2. **Fly the wing, not the pod;**
3. **Anticipate where there is likely to be some turbulence in the air;**
4. **'Play the piano' (relax your grip, keep your fingers nimble);**
5. **Keep your turns shallow for comfort.**

I hope these thoughts help students learning to fly microlights. Enjoy your flying!

Tony Dennis has been teaching people to fly trikes since 1991, and is currently Chief Flying Instructor at The Right Altitude Microlights.

HGFA Operation



**Oops...!
Apologies
to micro-
light pilots
trying to
decipher
my report
on the
microlight**

survey in last month's AG/Skysailor. Somewhere between my desk and the printer the software conversion of the degrees symbol came out as an 'E'. Where the article showed a number followed by 'EC' it should have been a degrees symbol (°), then the 'C' for centigrade.

CTA Infringement

A report is just to hand of a paraglider flying in Tamworth Controlled Airspace. The incident occurred at 1320 hours on 27/2/99. The paraglider was spotted by air traffic controllers at approximately 3,000ft adjacent to the track of the Instrument Letdown System (ILS), 15km east of the main runway. Two aircraft were using the ILS to train pilots in instrument approaches. On sighting the paraglider, air traffic controllers alerted the pilots of the aircraft on the ILS and required that they cease training.

As the air traffic controllers watched, the paraglider climbed to an estimated height of eight thousand feet and disappeared into cloud. The pilot of the glider has not yet been identified. Due to the seriousness of this infringement I ask that anyone able to identify the pilot contact me at the HGFA Operations Office (02 65592713) to allow appropriate action to be taken.

Pilot Currency

The Safety and Operations Committee met recently and, amongst other items, addressed the increasing trend of newly accredited

pilots having accidents several months after being trained. What often happens is a pilot gains a pilot certificate with an instructor, then does not fly for some time (often many months). The pilot then buys an aircraft and attempts to fly it – with painful results. Similarly, there have been several recent instances of experienced pilots being injured after a long lay-off. There are already currency requirements for pilots with a passenger carrying endorsement (and in fact for most other forms of aviation). The committee decided that currency requirements should be introduced for all HGFA pilots – whether newly accredited or not. CASA approval will therefore be sought to introduce Operations Manual amendments to require that where a pilot has not conducted three flights in the preceding 90 day period, he or she will be required to undergo a check flight with either an instructor or Senior Safety Officer.

Coastal vs Inland Flying

The Safety and Operations Committee also discussed a suggestion that there should be a specific endorsement to enable pilots to fly on coastal sites and to operate inland. This has been suggested in the past, given that it is not uncommon for pilots to have problems when first operating on the coast or inland. The Committee decided not to introduce another endorsement; though it was agreed that it is imperative that new pilots gain instruction in the specific requirements for soaring a coastal site (such as: the dangers that can be encountered when flying in a strong coastal breeze; the intricacies of landing on confined beaches; the need to avoid landing in the ocean; etc). It is also necessary for coastal pilots to seek specific instruction prior to flying inland. Similarly, prior to flying inland a pilot must gain experience in light/nil wind launches and landings, and flying in turbulent air. It was decided to remind instructors of these requirements, and to ask they ensure that:

- (1) students are provided with a theoretical understanding of these differences; and
- (2) students are advised to seek specific instruction prior to first attempting to fly in a new environment.

Night Flying

I received a complaint recently via CASA from the NSW police regarding a pilot flying at night. On investigating the complaint it was found that the pilot concerned had in fact landed prior to the end of civil twilight and was therefore not in breach of CAO 95.8. However, the reporting policeman stated that on other occasions he had seen pilots flying well after dark. I therefore must remind all pilots that HGFA aircraft cannot be flown at night (after the end of civil twilight). Exact times for the end of civil twilight will vary with the season and latitude (in mid summer in NSW it is about 8:30 pm; in winter it is about 5:30 pm). Pilots seeking times for the end of civil twilight at their specific latitude should refer to the AIP General Section 2.7.

Accident Reports

No 1

<i>Pilot:</i>	Restricted hang glider pilot
<i>Experience:</i>	12 hours (all inland)
<i>Glider:</i>	Novice hang glider
<i>Aircraft damage:</i>	Complete write-off
<i>Weather:</i>	12 knot breeze
<i>Location:</i>	Beach landing

Description:

After soaring the coastal site for one and a half hours the pilot set up to land on the narrow beach. The set-up was a little too high and rather than land further up the beach, he turned out over the water, then back toward the beach. As he turned near the edge of the water to land he stalled the glider and landed a little hard, though still on his feet on the edge of the water in shin deep water. As he turned and attempted to carry the glider out of the surf a wave washed over the wing tip. The first wave receded and dragged him into the water, the second wave dragged him in waist deep, the third up to his neck, with his head bobbing under the water. At this point a few men arrived and managed to keep his head above water as the next wave hit; a knife was used to cut the harness shoulder straps and release him from the swirling wrecked glider.

Manager's Report

Comments:

The waves on the day were broken white water about a foot (30cm) high. Despite the reasonably small surf the men were unable to lift the glider from the water. Without external assistance the pilot could well have drowned; without a knife at hand it would have been most difficult to get the pilot out of the harness. The broken wing was removed from the water by lifting the seaward wing as the waves hit, and raising the inner wing as the waves receded, thus using the power of the waves to assist to get it out of the surf. The airframe and wing were totally destroyed. This accident occurred despite the pilot being part of a group being introduced to coastal flying by an instructor. The lessons: do not ever land in the surf (even small waves); and carry a knife that you can quickly access.

No. 2

This report from South America carries a message:

Pilot: Novice paraglider pilot
Experience: 1 year – hours unknown
Aircraft: Beginner paraglider
Harness: Back and side protection, no airbag
Pilot Injury: Badly broken leg.
Weather: 10 kt wind, moderate thermal turbulence
Location: Top landing

Pilot's Description:

After one aborted launch, because wind cycles were sometimes over 20 km/hr, finally I launched. Thermal strengths were moderate and increased my altitude to over 2,000ft AGL, enough to fly safely. Other pilots took off after watching me fly, my instructor (my friend) was one of those pilots. I flew about 40 minutes (it was about 12 noon) and a strong thermal got me a little nervous so I

decided to top land. I lost altitude with big ears, but got to the mountain near rotor wind. My wing collapsed. I tried to compensate but fell about six metres and broke my leg.

Pilot's Analysis:

I've been about a year flying. My wing is a 'teddy bear' (very safe), but I had been three months without flying, then suddenly I went to fly in strong conditions. I received inadequate instruction before taking off, as it was really windy. I tried to land at the back of the mountain and the wind made me fly back into the rotor. Actually I can't walk, and I am very afraid to fly again. The lesson? Take your time after a long time without flying, it is better to fly in the late afternoon with no thermal conditions, and of course avoid rotor wind

Fly safely,
Craig Worth



SPORTSINSTRUMENTS
ALTIMETERTECHNOLOGY

The ALTA Sports Altimeter is as accurate as one of the latest variors, while our software engineers have made it intuitive and simple to operate. With it's case of Titanium, it is the most advanced and durable alti-watch ever to be sold in the world. Developed in Switzerland, it is capable of measuring minute barometric pressure changes.

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High Tea

MAX RILEY (From "Take Up Slack")

Having completed my Silver C badge qualifications with a duration flight of just over six hours at Camden, my sights were then set on the Gold badge qualifications.

At that time, possibly the most difficult of these was the height qualification. This involved a flight which included a height gain of at least three kilometres. The distance qualification had been achieved at Narromine during the previous National Gliding Championships by making an out and return flight of 300km in the long-wing Kookaburra.

Flights in lee wave conditions were largely a matter of luck then. There was no site where such flights could be made in an organised fashion, at least not in Australia. Several sites were known to exist in New Zealand, but at the time the following flight was made, I had not yet set out to explore the possibility of visiting those locations.

After discussing the situation with Jan Coolhaas, he suggested that the best way of attacking the problem was to wait for a relatively good day at Bathurst and then set off for Forbes. Having reached the relative safety of the gliding club operations at that site, I should descend to as low an altitude as possible and select a strong thermal which, hopefully, would allow the required height gain of three kilometres to be made.

Werner and his wife Greta and small daughter Sonia met me at Bathurst and we eventually managed to assemble the Foka 3 and get it to the launch point.

I should explain here for anyone who is not familiar with the Foka 3 glider that this machine has a very narrow low fuselage. In flight the pilot has to take up a full reclining position. Before I flew the machine a few months earlier, Werner had warned me that the only thing the pilot could see on take-off was the compass, flanked on either side by the tips of his shoes. Subsequently I thought of that every time I entered the cockpit. I certainly did so on that occasion.

Fortunately, the first climb turned out to be a reasonably rapid one – for a Tiger Moth tow that is. The first landmark on track was the high ground capped by Mt Canobolas. In fact this is the highest point in that part of NSW, known as the Central Tablelands. I had hoped conditions would improve as I neared the high ground. In fact, conditions seemed to take a rapid turn for the worse.

I felt reasonably confident that a suitable strip would be found when required. To my surprise, however, near Borenore I found not just a crop-dusting strip, but a beautifully prepared runway. Unfortunately, it had a barbed wire fence across the middle of it! Or at least there was a fence alignment crossing the middle. It occurred to me that perhaps the fence DID go across the runway, being a temporary one which was removed when the strip was required for the benefit of visiting aviators. I elected to land in an adjacent paddock. It had a steep slope. A few weeks earlier I had seen a Cessna 180 land on such a paddock and had realised that it required a very pronounced round-out technique. The nose of the aircraft had to be rotated much more than usual to achieve the correct landing attitude. In a glider this means that you have to approach with a higher than normal airspeed to enable this to be done. Failing to adopt this precaution would mean the glider would be stalled from a considerable height.

Well it all turned out satisfactorily. The Foka has VERY powerful dive brakes. The nose of the Foka was pointed just inside the treeline which marked the low end of the paddock and full dive brakes were used to maintain the steep approach necessary. At the appropriate time, the brakes were closed and the nose was raised to enable the Foka to fly up the slope. This worked out well and no difficulty was experienced in bringing the glider to rest before the end of the paddock was reached.

It is amazing how quiet things seem to be when that point is reached. Sometimes, I think, you can hear your own heart beating after the wing drops and all movement stops.

On this occasion I had hardly released the canopy locks and started to slide the long canopy forward when the Foka was surrounded by quite a large collection of children. Perhaps it was the first time they had seen a glider at such close range.

"Why didn't you land on the airstrip" they chorused. I was still trying to disengage my feet from the rudder pedals and the instrument console. Having achieved this, I was able to explain that conditions had deteriorated and that I had decided to land whilst it was possible to do so safely. Also that I was worried about the possibility of wires across the strip.

I have landed out many times during the course of the last 35 years and have been the recipient of much hospitality by country people. I would have to say, however, that in spite of all that hospitality, few such landings have preceded the events which were to follow.

Included in the stake-down equipment of the Foka was an item known as a tree flag. This very valuable, although inexpensive, item is designed to be attached to a tree or fence adjacent to the point at which the glider has landed. It contains a pocket in which is kept a notebook and pencil. It is used to indicate to the arriving ground crew where the glider and pilot can be located. On this occasion, one child was dispatched to take the tree flag down to the road and was instructed to tie it to the fence so that the large registration letters fixed to the flag could be seen when Werner and his family arrived. Due to the speed at which events unfolded, the child had hardly arrived at the appointed place before my car arrived towing the Foka trailer.

Farming families have many obligations and can probably do without the arrival of unannounced visitors. For this reason, I usually try to make as rapid a departure as possible from the scene of an unscheduled landing. Subsequently I realised that the lady who had left the scene of the de-rig to call her husband, had just whipped the cream for the sponge cake which was sitting on a cake cooler. Soon after we arrived at the homestead we were seated. The sponge cake was produced, topped with freshly picked strawberries sitting on a base of whipped cream. However this was the second course! Before the sponge cake was divided we were invited to help ourselves to scones with strawberry jam and whipped cream.

It suddenly occurred to me that I had not eaten since breakfast time, nor had I been airborne long enough to think about eating the apples and Vegemite sandwiches which had been loaded into the top luggage compartment of the Foka.

We tried to exercise reasonable restraint, but it really is difficult when you are faced with such temptation. A couple of years later I was reminded of this on hearing a remark from a famous New Zealand pilot. "I never suffer from temptation," he said, "I always give in immediately!" In retrospect, I would like to think that we gave in gracefully.

The poet William Wordsworth, in "Golden Daffodils", speaks of the 'inner eye' which brings to mind 'a host of golden daffodils.' When I sit 'in vacant and in pensive mood' as he describes it, I think not of a field of yellow flowers, but of the slopes of Mt Canobolas and Devonshire Tea with a hospitable farming family.



Electronic Debates

EMILIS PRELGAUSKAS

Australia is fortunately well served in some ways with communication options. One of these for glider pilots is an electronic mailing list at: aus-soaring@internode.com.au

The mailing list serves as an open discussion line for glider pilots on items of common or general interest. Sometimes these are enquiries about contact or technical details, sometimes a bit of humour, or partisan and potentially heated debate. It must be noted, however, that the mailing list makes no claim to be representative.

About one in 20 glider pilots have access to the list, and these are unevenly distributed. Some clubs have no pilots with access, other clubs have high connection rates. For these, some clubs then have their own separate internal mailing lists. In my home club all members are connected, and we use such a private mail list to arrange our flying in advance, and postmortem flying days electronically.

"aus-soaring" is the Australia wide, visible electronic chat medium of glider pilots. It offers a medium for rapid exchange of views (sometimes 'considered', sometimes 'from the lip'). It allows people physically remote from one another to contemplate sometimes esoteric subject matters. Comment input is uneven, with the majority connected to the list simply listening in. Comment given on any topic, however, is usually forthright, intended to describe a point of view honestly. The effect is not intended to achieve consensus, rather that diverse opinion has an unfettered forum within which to be expressed. Inevitably, some heat is generated on some subjects, with my private admission that I, as a matter of policy, take a stance on each topic, intended to get diverse views stated. As a result, from time to time, individuals parentage or sanity are called into question; I would hope as an immediate reaction rather than as permanent rancour. Lapses of netiquette occur, with responses repeating previous postings in full or going on at length or attaching large files, down to simply leaving the 'Caps Lock' key on.

From several years of comment on the list, my view of gliding in Australia is that it brings together a diverse lot of people. Individualists certainly. All interested in the sport they are enthusiasts about and with

diverse views about what that should mean in the ways we might go flying, look after ourselves, relate to the rest of aviation and society, and draw in new participants. Inevitably most discussions draw parallels to traditional gliding clubs. These are what the sport has been built around, the predominant gathering place for most of the sport's history, and the most frequent physical and social expression of the sport.

Traditional gliding clubs set the operating, infrastructure and charges frameworks which we are used to. Individual reactions to these parameters vary. From those who like the camaraderie of the club scene, to those who find a 'total immersion' approach out of step with other demands on their lives. Those who accept the 'control' aspects of traditional arrangements, to those who desire 'self regulation' for the competent independent operator. Some see commercialisation as the way to remove the obstacles to joining into gliding for the busy person-in-the-street. Cost expectations vary from those who value the in-kind contributions of club members, through those who would have clubs charging all participant types the same, on to the 'user pays' advocates who almost suggest punitive costs on those who aren't totally immersed in their club. Views vary as to whether these diverse expressions of 'gliding' can work together within one club structure or are to be found separately in a range of independent clubs.

The interesting thing is that such discussion is going on amongst individual glider pilots. It is to be hoped that similar discussions are going on in club committees. Amongst the few clubs I have an insight into, each is approaching the future differently. Some see a traditional training operation as underpinning the club on-field operation. At the other extreme, my home club, by unanimous accord of its members, chose to base its on-field operation on its independent operators, charging a surcharge to TIFs, flying training and club flying. Others again are 'outsourcing' aspects of their club, like glider airworthiness. Such spreading out in goals and methods suggests that gliding, the sport, always a diverse group, could be becoming more complex for equitable servicing by its administrative hierarchy.



New FAI Badges & Certificates

Summary for March 1999

A Certificates

COLE Michael 10244 Central Coast
HOFFMAN Glen Laurence 10250 RANGA

B Certificate

STEVENS Peter George 10154 Southern Downs

C Certificate

MCDONALD Bradley Keith 10109 NSW air tc
TOTH Joseph 10251 Southern Cross
MACREADY Hugh Lachlan 10163 NSW air tc
TROTTER Lloyd Alfred 9895 Beverley

A B C Certificate

RUDGLEY Bjorn 10240 NSW air tc
HARIGAE Nobuo 10241 Waikerie
UCHIDA Michi 10242 Waikerie
UCHIDA Rie 10243 Waikerie
PERROTT Peter Ian 10245 Beverley
DIXON Jon 10246 Beverley
JACOBS Mark John 10247 Waikerie

A B C Certificate continued

Welham Michael John 10248 Southern Riverina
HUDSON Allen Wayne 10249 Beverley

Silver C

UCHIDA Rie 4229 Waikerie
RAISBECK Merc Francis 4230 Geelong

Gold C

VINALL Craig Laurence 1495 Waikerie
ILETT JOHN Vincent 1496 VFMG
MARSHALL John 1497 Millicent

Diamond Goal

MarSHALL John Millicent

Diamond Distance

VINALL Craig Laurence Waikerie

600km Distance

ANGLIM Mathew John 68 Southern Downs

750km Distance

Gore-Brown Miles 78 Southern Cross

Claims for all badges and certificates to:

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Beryl Hartley
106 Meryula Street
Narromine NSW 2821

Ph: 02 6889 2733 (w), 02 6889 1250 (h)

Fax: 02 6889 2933

Email: hartley@avionics.com.au

Decentralised Competition entries to:

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Bond Trophy

EMILIS PRELGAUSKAS

Within the March '99 magazine report about the SA gliding contest, the Bond 'Encouragement' trophy is listed as going to glider Tango Juliet. There is a smile at a number of levels in that hand over. It proves once again that contest directors haven't completely lost their sense of humour. In this particular case, it was also a neat role reversal for the two of us since Graham Parker's student pilot days. Further it generated raised eyebrows amongst the audience for an old glider and pilot to be handed the contest's encouragement award.

I was happy to receive the trophy in the spirit in which it was intended. Tango Juliet came to the contest with a reputation for being uncompetitive. Originally, built as a Boomerang, TJ has been around as long as I have. It was rebuilt as a Super Arrow early in its life, part of the, Yellow/Green/Red fleet of first solo ships at Benalla. Then it went to Western Australia. The current syndicate received it from the Adelaide University club in SA.

At some time, the fin was glued back on crooked. The aircraft doesn't fly straight. It also still had its original towhook. On winch launch it achieves mediocre heights. Used as a first solo ship, it developed the reputation of poor performance in the eyes of the low hour pilots. As a result the aircraft became less and less used (other first solo ships being preferred), receiving less TLC, finally left in its trailer.

TJ went to the contest in much that state. We hadn't fiddled with the instruments, so the panel has numerous empty holes and just a rate of climb (with an airswitch – interesting to wait for the system to 'pump' up while thermalling in a problematic core). I ended up flying the whole contest in the 20kt setting. So while between the sailplane and pilot we may have 70 years experience, it can't be said we were contest ready.

Some initial effort had been made. The towhook was moved 2 bulkheads aft so that it achieves decent height winch launches. It also moves the cut out further aft out of the fuselage forward laminar area (there is such a thing on that era of sailplane?). Syndicate discussions revolve around the have or delete the yaw string for the same reason (yea, right!). More relevant were wing profiling, and control seals (which in part overcame the turn tendency, in level flight). It is an interesting exercise to make seals which span the large gap on the deflected ailerons in that era of sailplane (with thanks to Chris Kiehn).

The encouragement, I believe, was given for a contest day flight where others elected to return to Renmark aerodrome early ahead of a thunderstorm, while we elected to stay out on course. The hope was to continue to the 100km/h+ already achieved to that point over the longer course and return to the aerodrome after the storm passed.

It didn't quite pan out. We hit hail on final glide at cloudbase, and a 60km detour around the weather, landing out on the southern side of the Murray in line with runway threshold 36 visible over the other side of the forbidding unlandable landform ahead and out of glide range.

The feeling in the cockpit was one of elation nevertheless. We had done 530km in 5 hours, not all mileage claimable because of the diversions not being to tumpoints. The following day we flew over 100km/h again, but I must learn to recognise towns, again mileage not claimable, this time by pilot stupidity.

The following week I flew two days at over 100km/h in a shared Boomerang at the Nationals, and then again at those sorts of speeds in TJ at a local regatta. Which wrecks a proud 30 year tradition of never completing a contest task in the triple digits.



HGFA Events

Australia

Bright Autumn Festival Fly-in

7-8 May 1999

Bright Alpine Fly-in

27-28 May 1999

Porepunkah, VIC. Both events are held at the Porepunkah airfield (36° 43.2min S, 46° 53.3min E), 4 Nm ENE of Mt Buffalo. Enjoy our friendly fly-ins & experience the colours & calm autumn air. Contact: Greg or Rosemary Withers (Bright Microlight Centre), ph: 03 57501555, Don Walpole, ph: 03 57535250 or Coach House, ph: 1800 813992.

National Microlight Gathering

5-6 June 1999

Wangaratta Aerodrome, VIC. The largest microlight gathering in the southern hemisphere with over 60 trikes attending last year, and a good time to see trikes and meet instructors and pilots. Saturday night dinner available for \$15pp, with guest speakers. For dinner reservations or further information please contact the Southern Trike Club on 03 97511480. All are welcome.

Murray Triking Safari

7-14 June 1999

Wangaratta to Strathalbyn and return. For further details contact Tony Dennis on 0418 574068.

Manilla Mug Revival

2-4 October 1999

(NSW labour day weekend)

Competing for the Manilla mug trophy. Entry open to all pilots of any footlaunch aircraft. Entry fee of \$20 includes dinner. Register at the Imperial Hotel, Manilla, on the Friday night/ Saturday morning. For further information call Billo on 02 49213804.

Inaugural East Coast

Sport Aviation Fly-in

2-4 October 1999

Maitland, NSW. Hosted by the Royal Newcastle Aero Club and the Windsock Flying Club. All types of sport aviation are invited to attend, provided (1) the aircraft is registered with an official aviation body; (2) the pilot is licensed; and (3) a VHF radio is carried. The Hunter Valley has some very scenic flying areas, and many local attractions for the visitor. A number of tents will be available to pilots for a nominal charge, with

showers, toilets and catering on site. A number of seminars and forums on aircraft building, engine maintenance etc, will be held free of charge. If possible, could clubs advise of any volunteers available to help with catering, camping, etc. For further details, contact Dave Caban (Pres) on 02 49682843 or John Robson (Sec) 02 49459792.

1999 Canungra Classic

23-30 October

Canungra, QLD. Entry fee \$100 plus \$35 site fee. Registration and 'Calcutta' on 22 Oct, 7pm. Paragliders & floaters welcome. GPS mandatory (Garmin or Aircotec). Camera back-ups can be used every day except last day. Prizes awarded for grades A, B, C, Ladies and Paragliding. Int rating required. Closing date for entry: 31 Aug. Late entry fee: \$30. For more info visit the website: <http://tinny.eis.net.au/~tim/classic99/index.html> Contact: Phil Pritchard ph 0418 761193, Glen McCleod 0755 435716, email: tim@eis.net.au. Send entry to: Canungra Classic, PO Box 116, Canungra QLD 4275.

Overseas

PWC Slovenia

8-13 June 1999

Kobarid, Slovenia. Registration deadline: 8 May 1999. Contact: mandy@pwca.org

British Nationals, Monte Cucco, Italy

2-9 July 1999

40 places for guest pilots from other nations. Min pilot experience: International SAFEPRO 4 standard or participation in own nation's Nationals. All pilots must have personal liability insurance which will cover hang gliding accidents. Entry fee of £80 sterling (or equivalent in Italian lire) includes a T-shirt, primary films and retrieve co-ordination service (not retrieve vehicles). For further details visit: www.theleague.force9.co.uk Contact: HGMeethead@aol.com

World Paragliding Championships

3-18 July 1999

To be held in Bramberg, Austria. Contact HGFA office on 02 6947 2888.

World Hang Gliding Championships

26 July-8 August 1999

To be staged in Monte Cucco, Italy. Contact HGFA office on 02 6947 2888.

Jackson Hole Paragliding Extravaganza

7-14 August 1999

Teton Village, Wyoming, at the Jackson Hole Ski Area. This is a USHGA sanctioned event. There will be multiple events and classes. However, the site requires a P3 rating and there is absolutely no tandem flying allowed. Entry fee \$200 before 4 July 4; \$250 after 4 July. The Jackson Hole Paragliding Air Games will be run at the same time, but

will not attract USHGA points Entry fee \$100 before 4 July 4, \$150 after 4 July. All competitors pre-registered before 4 July have a chance to win a brand new Ball Graphics Comp Vario. Bring the entire family and visit Yellowstone and Grand Teton National Parks while flying at one of the premier flying sites in the US. Just remember to make your reservations early. For additional information contact: Critter Mountain Wear, Richard Kocurek, PO Box 975, Crested Butte, CO 81224-0975, USA, Ph +970 349 9326, email: critter@crestedbutte.net

WHGS NZ Speed Gliding World Cup

18-25 September

The 18th is the only official practice day, the rest set aside for competition days. For more information contact Geoff Dossetor (comp organiser), email: antigravity@xtra.co.nz

Nordic Cup 1999

25-30 June 1999

This year's Nordic Cup will be held in Kössen, Austria. It will be a modern paragliding comp, recognised by FAI/CIVL as a category 2 event and also counted in the World Ranking list. The event is open to all international pilots holding an FAI sporting licence. Unfortunately, numbers are limited, so we ask competition pilots to register as soon as possible. Further details available on: www.opk.no/kk/nordic-99_e.htm Contact: Sepp Himmerger j.himmerger@tirol.com

Women's Hang Gliding Worlds

18-30 June 2000

To be held in Greece. Contact HGFA office on 02 6947 2888.

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Mobile: 018 815094,

Email: skyfloat@terra.net.au

Website: www.terra.net.au/~skyfloa

CLASSIFIEDS

Classified Rates

The magazine now has a policy of charging for classified advertisements. The rate is \$15 for up to 8 lines (40 characters per line); with longer ads charged at \$4 per extra line. All classifieds **MUST** be paid for at the time the ad is placed. Please direct ads, together with payment, to the HGFA office (credit card payment may be made by phone).

Classified Deadlines

The deadline for classifieds is the first day of the month prior to publication.

Hang gliders and Equipment

New South Wales

SX 149 adv, blue & white US, glider is in VGC, no turns, must sell this month as going O/S, \$2,800. Ph: 02 93802423.

Combat II 152 adv, great 1st h/p glider for upcoming int. pilot, new 'px' LE by Moyes sailmaker Dec '98, pink/purple US, \$1,250. Ph: Martyn 02 94988849 (h), 02 99559211 (w).

CSX5 adv, \$4,500. Explorer motor harness, 25 hrs of use, \$4,500. Moyes Contour harness, 2 hrs brand new, \$600. Omega chute, \$700. Payout winch, \$800. Ph: Mick 02 48789403.

Blitz 155 adv, wheels, lots of spares, \$600. Email: meyereti@hotmail.com

Queensland

Moyes XS 2, fluoro yellow & green, no flutters, batten profile, Moyes Xact harness, suit 5'4"-5'10", slider, chute, helmet, Sjöström vario, as new airspeed indicator, brand new glider bag, \$980 the lot. Ph: 07 54843536.

Victoria

Moyes XT 165, int, less than 5 hrs old, fluoro yellow scrim LE with blue panelling, Flex harness, parachute, full-face helmet, wheels, speed bar, \$3,100. Will sell glider separately. Ph: 0408 576198, 03 95761339 (h).

Sting XC 166 int, white TS, aqua & fluoro yellow US, speed bar & wheels, EC, \$2,000. Harness, Danny Scott Twister, suit pilot 6'-6'2", EC, \$600. Ph: David 03 96475805 (w), 03 95839105 (h).

Aero 145 nov, pink LE with blue & white US, low hrs, VGC. Harness and other extras available. Phone Matthew 08 93453027.

Paragliders

Please note: All paragliders offered for sale must state their DHV or Acpul certification standard, otherwise they will be labelled with 'No Certification Information Supplied (NCIS)'.

New South Wales

Paratech P50 27m² Acpul standard, intermediate to performance glider. 80-104kg, GC, no tears, fabric still bright & reasonably crisp, purple with white US, suit int pilot looking for a sporty & responsive glider, c/w large backpack, \$1,200. Ph: Tony 02 93265865 or email: tonygrudz@ozemail.com.au

Trikes

Please note: All trikes offered for sale must state their registration number, otherwise they cannot be accepted for publication.

New South Wales

Airborne Edge Executive 582, electric start, trailer, many extras & options, 250 genuine hrs, nice colours, EC, price negotiable to sell. Ph: 02 94988900 (24 hrs), 014 418295 (leave message).

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Wanted

Xtralite 164 or **SX6** in GC, power rib (pref). Ph: Clint 0415 181042, 0747 747650.

Free Flying Magazines

Cross Country Magazine subscriptions hang, para and micro flying videos. Contact Carol Binder 0417 311360.

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HGFA Addresses



All correspondence, including changes of address, membership renewals, short term memberships, rating forms and other administrative matters should be sent to:

Hang Gliding Federation of Australia

Executive Director: Ian Jarman
Administration: Margaret Steinhart
PO Box 558, Tumut NSW 2720,
ph: 02 69472888, fax: 02 69474328,
email: hgfa@tpgi.com.au

President: Rohan Grant

188 Bathurst St, Hobart TAS 7000,
ph: 03 62311112 (h), 0419 344011.

Treasurer: Robert Woodward

PO Box 6260, Adelaide SA 5000, ph: 08 8232
5405 (w), 08 82977532 (h), fax: 08 82237345,
email: benchpos@dove.net.au

Secretary: Tim Cummings

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55435093 (h), 0418 778422, fax: 07
55434493, email: tim@eis.net.au

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08 94741202, email: keith.lush@hds.com.au

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RMB 236B Western Hwy, Trawalla
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email: dynamic@netconnect.com.au

Michael Zupanc (CIVL Delegate)

6 Sibyl Street, Southport QLD 4215, ph:
07 55325895 (h), 0408 662328; email: zupy@
ozemail.com.au

Peta Roberts

PO Box 256, Helensburgh NSW 2508, ph/fax: 02
42943941, 0412 009952, email: epicon@
ozemail.com.au

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57501174, email: eagle@netc.com.au

Michael Eggleton

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02 99754114.

Operations Manager: Craig Worth

(Safety & Operations Committee, Pilot
Development & Training Committee)

PO Box 71, Hallidays Point NSW 2430, Ph/fax:
02 65592713, 0418 657419, email: hgfaops@
midcoast.com.au

Microlight Public Relations: Paul Haines

Ph/fax: 02 42941031.

For information about site ratings, sites and
other local matters, contact the appropriate
state associations region or club.

States & Regions

North Queensland HG Association

12 Van Eldik Ave, Andergrove QLD 4740; Pres:
Graeme Beplate 07 49552913, fax: 07
49555122, email: sitework@mackay.net.au;

Sec: Ron Huxhagen 07 49552913.

New South Wales HG Association

Sec: Steve Hocking, 19 Gladswood Gdns,
Double Bay NSW 2028, ph/fax: 02 93274025,
email: nswhga@s054.aone.net.au

Victorian HG & PG Association

PO Box 400, Prahran VIC 3181; Pres: Phillip
Campbell 03 53343034; Sec: Andrew
McKinnon 03 95631162; SSO: Rob Van Der
Klooster 03 52223019.

ACT HG & PG Association

PO Box 3496, Manuka ACT 2603; Pres: Michael
Porter 0415 920444; Sec: John Wilson 0419
600636; Trs: Craig Hopkins 02 62862488 (h),
SSO: Peter Dall. Meetings: 1st Tue/month
7:30pm, "Sky Lounge" Yamba Sports Club,
Phillip.

Tasmanian HG Association

PO Box 163, South Hobart TAS 7004;
Pres: Brett Tooker 03 62316367; Sec/Trs: Hugh
Glenn; State Co-ord: Mick Calvert.

South Australian HG Association

1 Sturt St, Adelaide SA 5000; ph: 08 84101391,
fax: 08 82117115. Pres: Stuart McClure 08
82973452; Sec: Mark Tyminski 08 83766117;
Trs: Gary Stockton 08 82702910.

HG Association of Western Australia

PO Box 82, South Perth WA 6151; Admin:
Graeme Wishart 08 94449505; PG Rep: Julian
McPherson 08 93881584 & David Humphrey
0418 954176; HG Rep: Michael Derry 08
92840750 (h) & Keith Lush 08 93673479 (h),
08 93679066 (w); Trike Rep: Graham McDonald
08 93649226 (h), 0418 910841; Trs: Phil
Wainwright 08 92424483.

Clubs

NEW SOUTH WALES

Blue Mountains Hang Gliding Club Inc

Pres: Richard Lockhart 0418 130354, email:
flyhawk@kdbnet.net.au; Sec: Alan Bond 02
98995351, 9 Finchley Pl, Glenhaven
NSW 2353; Trs: Dolores Sempredoni, SSO:
David Middleton 02 96236961; Newsletter:
Glen Tomlinson, ph: 02 95468028, email: glen_
tomlinson@orix.com.au Meetings: Last Tue/
month 7:30pm, Sportsman Hotel, Kildare Rd,
Blacktown.

Byron Bay Hang Gliding Club Inc

Pres: Bill Bailey 02 66853626, bill@omcs.com.
au; Vice-Pres: Andrew Polidano 02 66843510
andrew@byron-bay.com; Sec: James Samuel
02 66804336, freely@mullum.com.au; Trs:
Shirley Lake 02 66858147, lois@linknet.com.
au; SSO: Chris Rollins (HG) 02 6689 7217, Brett
(PG) 02 66876907. Meetings: 1st Wed/month
7pm, Bangalow Bowling Club.

Illawarra Hang Gliding Club Inc

Pres: Mark Ryan 0412 424 760; Sec: Tim
Causser 02 4294 8110, email: timcau@
ozemail.com.au; SSO: James Nathaniel
02 4681 0641.

Kosciusko Alpine Paragliding Club

Pres: Roger Lilford 06 2815404 (h); Sec: Lisa
Ryrie 06 2359120, 06 2359060; SSO: Heinz
Gloor 02 64576019 (w), 02 64567171 (h).

Manilla SkySailors Club Inc

http://gri.une.edu.au/mss
Pres: Brian Shepherd 02 67852182;

Sec/Trs: Felix Burkhard 02 67751050, mailto://
felixb@xyon.com.au; SSO (HG): Patrick Lenders
02 67783484; SSO (PG): Godfrey Wenness 02
67856545.

Mid North Coast Hang Gliding Association

Pres: Lee Scott 02 65565265; SSO: Dale Davis
02 65597716.

Newcastle Hang Gliding Club

Pres: Tascha McLellan 02 49278867 (h), 1800
653935 (w), email: tascha.conrad@hunterlink.
net.au; V-Pres: Jason Turner 02 49408665 (h),
015 636384; Sec: Karl Kindl 02 49677711;
Trs: Tony O'Connor 02 49529146, SSO: Coastal
- Jason Turner 02 49408665 (h),
015 636384, Inland - Al Giles 02 49430674,

John O'Donoghue 02 49549084. Meetings:
Last Wed/month, Souths Leagues Club.

Northern Beaches Hang Gliding Club Inc

Pres: John Clark 02 99972842 (h); Sec: Mike
Warner 02 94521217 (h), 02 95573188 (w);
SSO: Mike Eggleton 02 94517127, Park 02
94502674, Glenn Salmon 02 99180091.

Stanwell Park Hang Gliding Club

Pres: Rob de Groot 02 42942173, fax 02
42943788, rdegroot@ozemail.com.au; Trs:
Karen Lederer 02 42942273, 0411 362273.

Sydney Hang Gliding Club

Pres: Dick Heffer 02 93872613; Sec: John
Trude 02 98873371; Trs: Greg Wilkinson
02 98184704. Meetings: 2nd Mon/month,
Moyes Factory Loft.

Sydney Paragliding Club

Pres: Rob Fakes 02 42942273 (h); Sec: Duncan
Cross, 48 Cormiston Ave, Concord NSW 2137, 02
97435128; Trs: Dave Worthington 02 9665
1465; SSO: Mark Mitsos 02 42949065.
Meetings: 1st Mon/month, St George Leagues
Club, Kogarah.

University of NSW Hang Gliding Club

Pres: Daniel Faber 02 93150727, email:
dfaber@kensocoll.unsw.edu.au; Sec: Jon
Ingles 02 93150571, email: jingles@kensocoll.
unsw.edu.au; www page: www.vision.net.au/
~gbeng/Hang_Gliding.html

QUEENSLAND

Cairns Hang Gliding Club

Pres: Brod Osborne 07 40534686 (h), 07 4051
5555 (w); Vice-Pres: Ian Graham 07 40954466;
Sec: Lance Keough 07 40912117, 31 Holm
Street, Atherton QLD 4883; Trs: Kasanda
Brease 07 40532586 (h), 07 40512438 (w).

Canungra Hang Gliding Club Inc

Pres: Shauna Purser 07 66793404,
shaunapurser@yahoo.com; Vice-Pres: Andrew
Horchner 07 38707709,
0412 807516, afactor@gil.com.au; Sec:
Richard Glasscock 07 55435057, 015 120874,
richardg@qldnet.com.au, PO Box 41 Canungra
4275; Trs: Fran Ning 07 55773260, ning@
ausinfo.com.au; SSO: Glen McLeod (HG) 07
55435716, John Botting (PG) 07 33002049,
bottings@bigpond.com

Capricorn Skyriders Club Inc

Pres: Brian Hampson 079 226527;
Sec: Geoff Craig 079 923137;
Brian Smith 079 287958.

Conondale XC Flyers Club Inc

13 Cottman St, Buderim QLD 4556;
Pres: Bruce Crerar 07 54451897; Vice-
Pres: Shane Gingell 07 32851668; Sec:
Mark Savage 07 54416423; Trs: Annie Crerar
07 54451897; SSO: John Blain

07 54948779; Visiting pilot contact:

Graham Sutherland 07 54935882.

Gladstone Hang Gliding Club Inc.

16 Far St, Gladstone QLD 4680; Pres: Colan
McGree 0413 941134; Sec/Trs: Natasha
Atkinson 07 49726840; PR: Brian Duffy 07
49922676; SSO: Geoff Craig 07 49923137, Paul
Barry 07 49922865, prbarry@tpgi.com.au

Sunshine Coast Hang Gliding Club

53 Yungar St, Coolool QLD 4573; Pres: Geoff
Pettigrove 018 061595; Vice-Pres: Mal Price
0412 07450883; Sec/Trs: Cathy Edmunds 07
54463037; SSO: Dave Cookman 07 54498573.

Townsville Hang Gliding Association Inc

Pres: Gary Rogers 077 538565 (w),
077 79264511 (h); Vice-Pres: Peter Scarfe 077
721766 (w), 077 212666 (h); Sec/Trs: Brad
Cooper 077 792853 (h), fax 077 815230;
SSO: Graeme Etherton 077 724467.

Whitsundays Hang Gliding Club

Pres: David Nash 07 49531817; Sec: Ron
Huxhagen 07 49552913, Fax: 07 49555122,
email: sitework@mackay.net.au

VICTORIA

Dynasoarers Hang Gliding Club

Pres: Peter Hannah 03 52632335; Sec:
John Norton; Trs: Rod Trevor 03 52811209;
SSO: Ted Remeika 015 841107;

Rob van der Klooster 03 52223019, hrt@
deakin.edu.au; PR: Warwick Spratt
03 52531096. Meetings: 1st Fri/month,
Bay View Hotel, 2 Mercer St, Geelong.

Eastern Hang Gliding Club

Pres: Geoff Tozer 03 97583250 (h); Sec:
Andrew Medew 03 98227861, 16/25-29
Brougham St. Box Hill VIC 3128; SSO:
Harry Summons 03 59646055 (h), Lance
Sheppard 03 59623570 (h), M/ship: Mark
Jeffree 03 59689015 (h). Meetings: 3rd Wed/
mth, Montrose Town Centre Meeting Room,
Cnr Swansea Rd & Mt Dandenong Tourist Rd,
Montrose.

North East Victoria Hang Gliding Club Inc

Pres: Jeanette McLaren 03 57544910;
Trs: Bill Graham 03 57501828; SSO: Geoff
White 03 57501244. Meetings: 1st Thu/ month
7.30pm, Pinewood Hotel, Bright.
www.home.aone.net.au/gilbert/nevhc.htm

Sky High Paragliding Club

Pres: Adam Nienkemper 03 94811122 (w), 03
93057442 (h); Vice-Pres: Phil Savory
03 959772537 (h); Sec: Jeremy Torr
03 97702775 (h), 03 97705770 (w).
Meetings: 1st Wed/month 8pm, Retreat Hotel,
226 Nicholson St, Abbotsford.

Southern Club

Contact: John Reynoldson 03 95970527.
Meetings: 1st Tue/month, Middle Park Hotel,
Canterbury Rd.

Southern Cross Paragliding Inc

Pres: Gary Clarkson 0419 319948; Vice-
Pres: Alister Johnson 0418 323692; Sec:
Nicole Matthews 03 57501884, 018 450626,
email: nicolematthews@hotmail.com Meetings:
Last Wed/month.

Southern Trike Club

Pres: Mark Howard 03 97511480, 0418
533731, fax: 03 97511584; Vice-Pres: Dave
Wentworth; Sec: Ben De Jong; Trs: John Amor.
Meetings: 2nd Tue/month 8pm, Jakes
Nightclub, 23 Church St, Brighton.

Western Victorian Hang Gliding Club

Pres: Phillip Campbell 03 53343034; Vice-Pres:
Andrew Hume 03 93760907; Trs: Sandra
Holtkamp 03 53492845; Sec: Rachelle
Guy 03 98092974; SSO: Rohan Holtkamp
03 53492845. Meetings: Last Sat/month,
The Golden Age Hotel Beaufort.

WESTERN AUSTRALIA

Avon Valley Hang Gliding Club

Pres: David Drabble, 08 93071816, wescoast
@iinet.net.au; Vice-Pres: Rob Stevenson 08
92211338; Sec: Stephen Hoeffs 08 95275782;
Trs: Michael Derry 08 92840750.

Cloudbase Paragliding Club Inc

Pres: David Humphry 08 95745440; Sec:
Julian McPherson 08 92279266. Meetings: last
Wed/mth, 8pm at the Sportsman Association,
access off Woodsome St, Mt Lawley.

Geralton & Midwest Hang Gliding Club

Pres: Des Hill 08 99216219; 231 Third Street,
Geraldton WA 6530.

South West Microlight Club

Pres: Brian Watts 0412 552363; Vice-Pres:
Don Wilson 08 97641007; Sec: Paul Coffey 08
97251161; CF: Brendan Watts 0408 949004.

WA Hill Flyers Club

Contact: Rick Williams 08 92943962 (h),
015 057961.

Western Soarers Hang Gliding Club

Pres: Sam Blight 08 93363738; Trs: Nav
Brennan 08 93397991; Comp coordinators:
Gordon Marshall 08 94519969, Nav Brennan.

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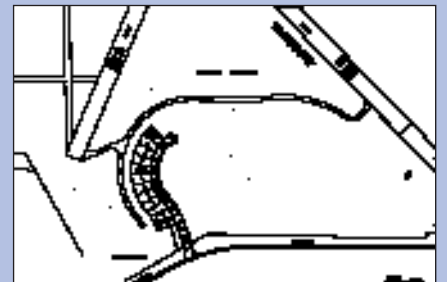
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Narromine has outstanding flying conditions and the large airfield is adjacent to the town.

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or telephone 0268 891322 or fax 0268 892579.