



Soaring AUSTRALIA

August 2002



**Para
Peru 2002**



**Flying and Feasting
in Florida**



**Songs and Solos
in the Air**



**Year of the Outback
Grand Prix**

August 2002

- 1 Songs and Solos in the Air
- 2 Doctor, Do I Need a Tailplane?
- 6 'Halfway to Heaven' – the Morning Glory
- 8 The Travelling Expert
- 9 GFA Annual Trophies Awarded
- 10 Flying and Feasting in Florida
- 12 The Greater Angkor Project
- 13 The Atos-Stratos
- 14 Australian Team Prepares for Club Class Worlds
- 15 CASA Recreational License Update
- 17 Victorian Soaring Association vs South Eastern Regional Committee
- 18 Letters to the Editors
- 19 Soaring Calendar
- 20 Lift – Making The Best Of It
- 23 Australian Gliding Museum Update
- 24 Para Peru – Part 1
- 28 YOTO Grand Prix
- 29 GFA Badges & Certificates & Flight Declarations
- 30 HGFA News
- 33 HGFA General Manager's Report
- 34 GFA Development Officer's Report & 2002 FAI Report
- 36 CASA Airworthiness Directive Around the Clubs Uncle Foundation 2002-2003
- 37 GFA Notice of AGM/ACM & Proxy Form
- 38 Manilla Paragliding Open 2002
- 41 Flight Review: Pro Design "Effect"
- 41 Get Up There
- 42 Feedback Forum
- 44 Trike Fuel Transfer System – Handy Hints
- 45 Classifieds

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Amendment to July 2002 issue:

The cover photo: "Flying at Toodyay" was in fact taken by Jamie Oorchot, not Steve Duncan. Our apologies to the photographer.

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SONGS AND SOLOS IN THE AIR



That's me, stepping onto the stage just before the curtain opens. The cocktail of inner emotions is a once in a lifetime experience
Photos: Courtesy Rodney Lynn

Rodney Lynn

REFLECTIONS OF A MICROLIGHT STUDENT
PILOT, UNDER THE "SPOTLIGHTS" AT MIDCOAST
MICROLIGHTS, PORT MACQUARIE, NSW.

You settle in through the verses. Each one is imprinted in your mind. The variations and crescendos just come naturally. You have learned your stuff. You love to sing. *(The circuit legs are easy. You watch for your angles. You maintain the parallel with the runway. You love to fly.)*

The finale is coming up. Remember your presentation. Make it memorable. *(Set up for final leg. Remember your approach. It must be straight. Keep it that way.)*

It is finale. The orchestra is pushing up the volume. Lift your voice. Keep it there. Hold that last note. Do not let it go. Hold... Hold... Hold... You have got it! *(The approach to landing has begun. Pull on speed at about 300ft, it is a Streak wing. Hold the pressure to the ground. Release just a little. Hold... Hold... Hold... Touchdown. Lock it on. You have done it!)*

Encore! Encore! We want more. More. More. More. *(Well done. Well done. Go around again. You are solo.)*

You give them two more verses. They love it. *(You take your beautiful wing into the sky again for two more circuits. You are on a high.)*

The curtain closes and the spotlight goes off. Friends rush you from the sidelines. Congratulations. You have sung solo. *(You land the aircraft. Turn off the engine. Your instructor is thrilled. Congratulations. You have flown solo.)*

The afterglow of songs and solos is amazing. You feel like your body is smiling all over. This great big smile is building up from inside you. It beams out your face. Your face muscles ache. But it is a wonderful ache. You have done your first solo.

I did my first solo today. It was like a song in the air...
What a melody!



I did my first solo today! Do you remember yours?
It was the curtain call of my life.
Stepping onto the stage alone for the first time
is an unforgettable experience.

Off stage, there are the assuring words of your instructor telling you that he has absolute confidence in your ability to do the task ahead. Inside your head, there is a cocktail of exhilaration, nervousness, and self doubt. You want to do it. You think you can do it. You wonder if you will do it.

You step out onto the stage. *(Taxi to the end of the runway.)*

Check your outfit is completely in place, and all buttoned up. *(This is the most important pre-flight check you have ever done.)*

Glance off-stage at the prompters. *(Your instructor is standing by, with a hand held radio to keep in contact, and give any prompts necessary.)*

Give the nod for the curtain to open. *(Touch the push-to-talk button and announce: "I'm going.")*

The curtain opens and your vision is engulfed by the crowds. You step forward into the spotlight. *(The throttle is pressed fully open and you begin to rocket down the runway.)*

The orchestra strikes up its introductory bars before the melody begins. *(The aircraft gathers speed and you hear the familiar sounds of a Rotax motor giving its best, as the propeller cuts through the air.)*

The song begins, and you have chorused the first line before you know it. *(The aircraft lifts off the ground, and the climb to heaven has begun.)*

You know this song like an old friend. You have spent much time together, getting every note just right, but it is a little different performing in front of this audience. Your nerves are on edge. Just hold the melody, your practice will keep you on key. *(Remember everything your instructor has told you. He has become your friend. Keep the aircraft straight. Hold on some bar pressure to at least 200ft. Climb to the correct height. Perform the circuit pattern, just as you have done so many times before.)*

Ah! The second verse. You are going well. You settle to the harmony. Your voice is under control. You can now perform. The audience appreciates the resonance of your voicebox. This is singing! *(The upwind leg is complete. You have turned onto crosswind. The wing is in control. The engine is humming. Your instructor echoes through your headphones "Well done." Your whole body wants to explode with emotion. This is flying!)*



Midcoast Microlights CFI, Mark White, gives Bald Eagle his solo certificate (I did not miss a note, despite initial stage fright.)

Doctor, Do I Need a Tailplane?

John Vernon (Article reprinted courtesy of 'Skywings')



Steve Cook on a tailplane-equipped La Mouette Topless
Photo: John Vernon

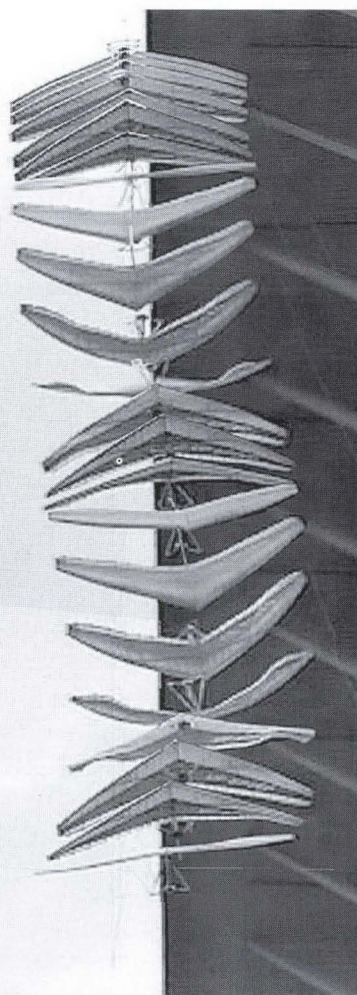
JOHN VERNON INVESTIGATES A CURE FOR HANG GLIDER TUMBLING...

“ *I was flying straight and level when it felt as if I had been kicked hard from behind. The glider went into a vertical dive then suddenly the bar was ripped out of my hands. I hit the keel, which broke... I got the parachute out fast.* **”**

This was Ron Richardson's description of his tumble at St André in August 2000. Result: a badly damaged glider but no damage to Ron. A similar series of events happened to Allan Barnes in 1997. Result: a written-off glider and a badly damaged pilot. I could continue: Gary Wirdnam, Christoff Kratzner (flying a Class 2), Gordon Rigg, etc, etc.

In some of these cases the glider may have been set up for competition (ie, the owners may have deliberately reduced their stability) but, to quote Dennis Pagen in 'Performance Flying', *"Any glider will tumble given the right type of ugly air, no matter how stable it is."* In almost every case a tumble results in serious, very costly damage to the glider and sometimes to the pilot.

Montage of a DHV drop test, from a steep nose-up angle, of a glider without a tailplane that meets pitch requirements by factor of two. It goes over... and over...
Photo: Martin Jursa



THE PROBLEM

The people mentioned above are not just any pilots; they are very experienced, skillful, strong and know all about the 'safety position', but in each case could do nothing when it happened – when *"the bar was ripped from my hands."* The all-important factor is keeping hold of the base bar, yet these pilots couldn't do so. Why?

Martin Jursa, former head of the DHV's Technical Department in Germany, advises that the bar-ripped-from-my-hands scenario only arises after the glider has become aerodynamically unstable, when the pitching moment has become too high for the pilot to keep a grip on the bar. Reports indicate that this occurs very rapidly, in tenths of a second as the glider starts to rotate, and it catches out even the highest calibre pilots (in the composite photograph each frame represents a time increment of 0.2 sec).

WHY A TAILPLANE?

Martin supervised a DHV research project on the tumble phenomenon. Various gliders (with simulated pilots) were dropped from a bridge, with zero airspeed and various nose-up initial positions. Some of the gliders were kingposted types, some were topless designs and some were fitted with tailplanes. From the practical evidence of the drop tests and



exhaustive mathematical calculations from the difference in paths taken by the tailplaned and tailplane-less gliders, Martin concluded that:

1. *The low centre of gravity (CG) of a hang glider and pilot is the reason why gliders are able to tumble.*
2. *Pulling in the bar properly is the best way of avoiding tucks and tumbles (the so-called 'safety position').*
3. *Adding a tailplane is a very efficient way of avoiding tumbles. Its essential effect is an increase in pitch damping, which reduces rotation speed and gives the glider time to acquire airspeed and build up a restoring pitch moment for recovery. It's much better than increasing pitch stability.*

Pitch damping affects how rapidly the rate of rotation will increase when a glider is provoked into a tucking situation. The degree of pitch damping is expressed as a coefficient, its value depending mainly on wing sweep. Martin's calculations showed that this coefficient is nearly doubled when a tailplane is fitted.

The tailplane therefore acts as a damper which reduces the rate at which the nose-down rotation builds up and thus allows the glider to gain straight-line speed rather than angular velocity. In addition, if set to create 'negative lift' at the rear of the keel when the glider has adequate airspeed, it contributes significantly to the build-up of positive pitch forces. Combined, these forces reduce the angular velocity of the glider as it pitches down, giving the pilot a better chance of retaining his grip on the bar, and the glider a much greater chance of returning to stable flight.

Conventional hang glider pitch stability systems provide the required positive pitching moment through sprogs, tip rods and luff lines. These provide invaluable restorative forces when speed has built up, but don't increase the glider's pitch damping coefficient sufficiently to enable the pilot to keep hold of the base bar to allow the dive that leads to recovery.

The critical factor is that if the pilot is not holding the base bar the glider will most likely tumble; if he manages to keep holding it positioned around neutral it will probably tumble; if he manages to keep hold with the bar pulled in – the 'safety position' – it probably won't tumble. But it is absolutely essential to slow down the rotation that leads to the bar being ripped from the pilot's hands which inevitably leads to a tumble, and that's what a tailplane does.

Having checked all the available sources of data, I can find no evidence of a modern

tailplane-equipped hang glider that has tumbled, tumbled and suffered structural failure, leaving the pilot to deploy an emergency parachute. The DHV film of the drop tests is also in the possession of BHPA Technical Manager, Mark Dale, who agrees that tailplanes can improve the resistance of hang gliders to tucking and tumbling.

WHY DON'T WE USE THEM?

If tailplanes are such a good idea, why haven't they been taken up by designers as added safety features for our aircraft?

Martin Jursa: *"Pilots felt very safe when flying with a tailplane but, probably due to the large range of angle of attack (AoA) in which a hang glider is operated, competition pilots came to the conclusion that performance was affected, and that's why they stopped using them."*

I guess as competition pilots stopped using the tailplane, less was seen in the press and so interest was lost. We must also take into account cost, complication, transport and weight.

PERFORMANCE

In competition, with pilots flying side-by-side from thermal to thermal, performance is about who loses the most height on the glides – assuming that the pilots are flying through similar air with similar abilities, gliders, etc. For cross-country pilots performance is about how far or not they fly; for club pilots on a ridge it's about who was 'top of the stack'.

I've flown with a tailplane for nearly two years now, in conditions varying from the small, punchy thermals of an English spring to large early-autumn smoothies, and from strong, lee-side and convergence conditions in South Africa to Monte Cucco in all its variations. All the time I can say that I felt very safe, just like Martin Jursa said. When the going was rough and the tailplane was thumping against the keel stop it was very confidence-inspiring and this helped my flying – and my performance.

Thumping against the keel stop? Let me explain: Gérard Thevenot of La Mouette arranged the tailplane so it's pivoted above the keel at its leading edge. It rests on a stop, also mounted on the keel, so that at rest it takes up a slight negative or downward angle to the line of the keel. At speeds of up to say 40-45mph the tailplane 'floats' at an angle of attack sufficient to create enough lift to support its own weight, thus imparting a negligible downward load to the keel. If the glider suddenly adopts a very low angle of attack the tailplane hits the keel stop, and due to its negative angle relative to the keel (which represents approximately the chord line of the

main wing) generates negative lift and creates a very powerful pitch-up righting force.

Now consider a glider and pilot of 120kg all-up weight, flying at 38mph with a glide of 14:1. If the glider is fitted with a properly designed and mounted tailplane (ie, a thin-section, low-drag aerofoil), calculations based on published aerofoil data indicate that, because the tailplane is 'floating' and only creating enough lift to support its own weight, after a 10km glide the height difference between this glider and one without a tailplane will be about three metres (10ft). That's about 0.06 of a glide point. In fact, the height-loss difference between a tailplane-equipped glider and one without remains constant whatever the glide ratio.

Glide ratio deterioration with tailplane: Nominal glide ratio

	12:1	14:1	18:1	20:1
25mph	11.97	13.96	17.93	19.92
30mph	11.97	13.96	17.93	19.91
35mph	11.96	13.95	17.92	19.90
36mph	11.96	13.95	17.91	19.89
38mph	11.96	13.94	17.90	19.88
40mph	11.95	13.93	17.89	19.86

Increased height loss (m) due to tailplane after 10km glide: Nominal glide ratio

	12:1	14:1	18:1	20:1
25mph	2.127	2.127	2.127	2.127
30mph	2.297	2.297	2.297	2.297
35mph	2.605	2.605	2.605	2.605
36mph	2.756	2.756	2.756	2.756
38mph	3.071	3.071	3.071	3.071
40mph	3.403	3.403	3.403	3.403

Gérard Thevenot and Steve Cook (British Champion 1999 – with tailplane) had already borne these figures out in practice. They flew side-by-side on otherwise identical topless gliders, with and without tailplanes, in still evening air at the range of glide speeds shown in the above tables. They swapped gliders and repeated the tests several times. They concluded that there was no measurable difference in glide performance. In other words, the effect of a floating tailplane (correctly designed, etc.) on glide performance is absolutely negligible at normal inter-thermal speeds.

THE HASSLE FACTOR

A tailplane is, undoubtedly, another piece of kit to cart around. However mine fits (in two halves) inside my backplate-type harness bag quite easily, and this also protects it from damage. It only weighs 500g, so the weight isn't significant in terms of carrying it around. It assembles to the keel in seconds – the only real rigging issue is making sure one doesn't



Steve Cook on tailplane-equipped Top Secret

Photo: Tony Lucchesi

kick or step on it when walking round the glider and chatting away to someone!

However, having rigged the glider we've still got to ground handle it before we get airborne, so what about the static balance of the glider?

With a glider on your shoulders in nil wind, you use your hands around the front of the uprights to balance the wing. The pivot point is your shoulders and your hands lever the glider into the correct attitude by exerting a force on the leading edge of the uprights. The distance between shoulder and hands is about 0.5m. Now put a tailplane

on the keel as far rearward as possible. The moment arm from the pilot's shoulders to the tailplane is about 2m, so if the tailplane weighs 1kg the pilot must exert an extra rearward force of 2kg on each upright to achieve balance. This is uncomfortable but manageable; a 500g tailplane reduces the force required to 1kg per upright, which is much easier to handle. In any breeze things improve as soon as the glider is turned into wind. At about 10mph the 500g tailplane will be completely floating and at around 14mph so will the 1kg one.

Turning into wind from a keel-down parked position can be a bit trickier because the wind is also blowing onto the face of the tailplane, creating even more force to be overcome on the uprights. However the tailplane is right next to the ground where the windspeed is lowest, and I've found it easy to rotate the glider into wind on an A-frame corner.

So, the effect on ground handling in nil/light wind is negative, but greatly alleviated by using a tailplane that's as light as possible. In any wind the problem disappears once facing into wind.

COST

A tailplane costs less than a tenth of the price of a new topless glider. So for a relatively small price, the tailplane potentially saves huge repair and replacement costs – not to mention hospital bills, loss of earnings and funeral expenses!

NOTHING NEW UNDER THE SUN?

The idea of a tailplane on a hang glider isn't new. The Gulp, designed by Miles Handley and successfully flown by Johnny Carr in 1976, was fitted with an adjustable non-floating one – and the Tweetie before that. In those days thermal flying was practically unheard of, but nowadays we seek out and fly in strong conditions when we are most at risk from tucking and tumbling, and experience these conditions with a wide range of flying ability and experience.

Dr Bill Brooks, designer at Solar Wings, explains the forces at work when a glider tumbles

The tendency to tumble or not depends upon the forces driving the motion:

- The speed of the initial rotational 'kick' given by a gust, whip-stall or tail-slide.
- The moment of inertia in pitch.

And those opposing the motion:

- The positive pitch moment generated by the wing as it picks up airspeed in the dive, tending to raise the nose.
- The pitch damping available to kill the nose-down rotation.

To obtain recovery, the nose-down rotation must be stopped before significant negative load is applied. A hang glider is about as controllable as a paraglider under negative loading!

In a steady dive at zero angle of attack, the wing generates a positive pitching tendency, which tends to raise the nose as long as there's forward airspeed. This tendency

can be measured by ground-based test rigs.

If the glider is rotating in pitch, end-over-end at zero airspeed, there is also a damping moment generated which increases with the speed of rotation squared (assuming a rigid structure). The damping is dependent on the area times the distance away from the rotation axis.

If the nose-down rotation is very fast and airspeed is low, the glider can rotate into negative loading before any static positive pitching moment can build up.

A number of design factors can influence the effectiveness of both the positive pitching moment and pitch damping:

- With a tail-less glider controlled by weight-shift in pitch, the pitch damping available is small compared to the pitch inertia.
- In the search for more performance, sweep has been reduced and aspect ratio been increased

– both tending to reduce pitch damping.

- Performance also increases as the positive pitching tendency is reduced by reducing washout.
- The structural stiffness of topless hang gliders under negative loading may reduce both positive pitch tendency and pitch damping.
- If pitch inertia is reduced by moving the pilot closer to the wing, roll and pitch forces will rise and become unacceptable.
- Pitch damping can be increased by increasing the sweep, increasing the tip chord and increasing structure stiffness so the tip area is better supported.

So, if your glider is likely to tumble, adding a tailplane is one effective solution to providing strong pitch damping and increasing the positive pitching moment. Otherwise, you could increase the washout, increase structure stiffness, increase sweep, increase tip chord...



.....

Steve Elkins, designer at Avian Hang Gliders, offers some background on glider stability

There are many more aircraft flying with rear stabilisers (tailplanes) than either tail-less or canard (stabiliser-first) craft. Hang gliders are probably the most numerous and successful of the tail-less type.

In recent years there have been four hang glider tumbles involving British League pilots (there are 45 pilots in the League). Each accident has its own special circumstances, but nevertheless these statistics do not look good. I think it is extremely unlikely that any of the gliders involved in these accidents would pass the BHPA pitch test, although most were damaged so badly that testing is not an option.

In my 12 years of being involved with the pitch testing of hang gliders, neither I nor anyone else involved in UK pitch testing has ever seen, or heard, of a hang glider with suspect pitch stability (ie, one that has tumbled or otherwise given rise to stability concerns) that has

subsequently passed the pitch test.

I agree that there is turbulence out there that can tip even the safest glider upside-down or tumble it – even large transport aircraft have been lost. However, there's a great deal of evidence to suggest that a glider that passes the BHPA pitch test (and remains within that specification – battens can change shape, luff-line heights and washout rod angles can alter; all require careful checking) is very much safer than one that fails.

The correctly-adjusted tailplane is obviously a very effective way of providing a good pitch response. It also provides a very useful increase in pitch damping. If you are flying a glider with marginal stability a correctly adjusted tailplane will probably improve things a great deal. However, if you are flying a glider with a C of A that is within specifications, there's no evidence that you need to rush out and fit a tailplane.

CONCLUSION

A floating tailplane will almost certainly prevent a glider from tucking (nothing is absolutely guaranteed!) and can thus be seen as a positive passive-safety device for today's flying. You wouldn't fly without an emergency

parachute, would you? I hope I've also shown that if correctly designed, as in La Mouette's case where it's integrated into the design of their topless glider, a tailplane has an absolutely negligible adverse effect on



Testing a tailplane made by the author on the BHPA test rig at 70mph
Photo: La Mouette


glide performance – and a really positive effect on the performance of the pilot.

A FINAL WORD OF CAUTION

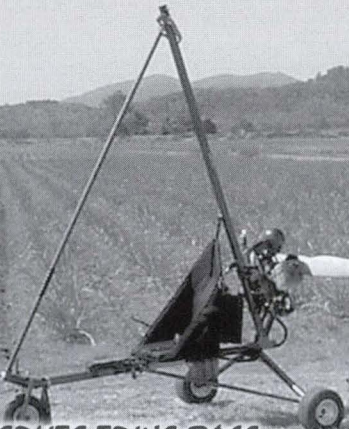
A word of caution about designing tailplanes. Besides the aerodynamics, this also involves checking that a glider's keel is sufficiently strong to cope with the loads that a tailplane might put on it during a rapid pitch change event and, additionally, setting up the keel stop height. These are all matters for engineers and glider designers and would require approval of the certifying authority. This article is not an invitation to all pilots to have a go!



Thanks to the following people for their help and contributions: Dr. Martin Jursa, Mark Dale, Ron Richardson, Tony Lucchesi, Gérard Thevenot and the DHV. Calculations in the text are my own from data in 'The Theory of Wing Sections' (Abbott & Von Doenhoff).

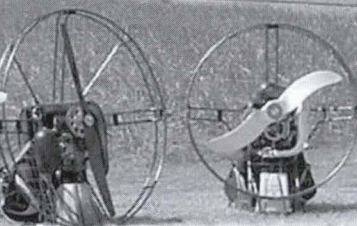


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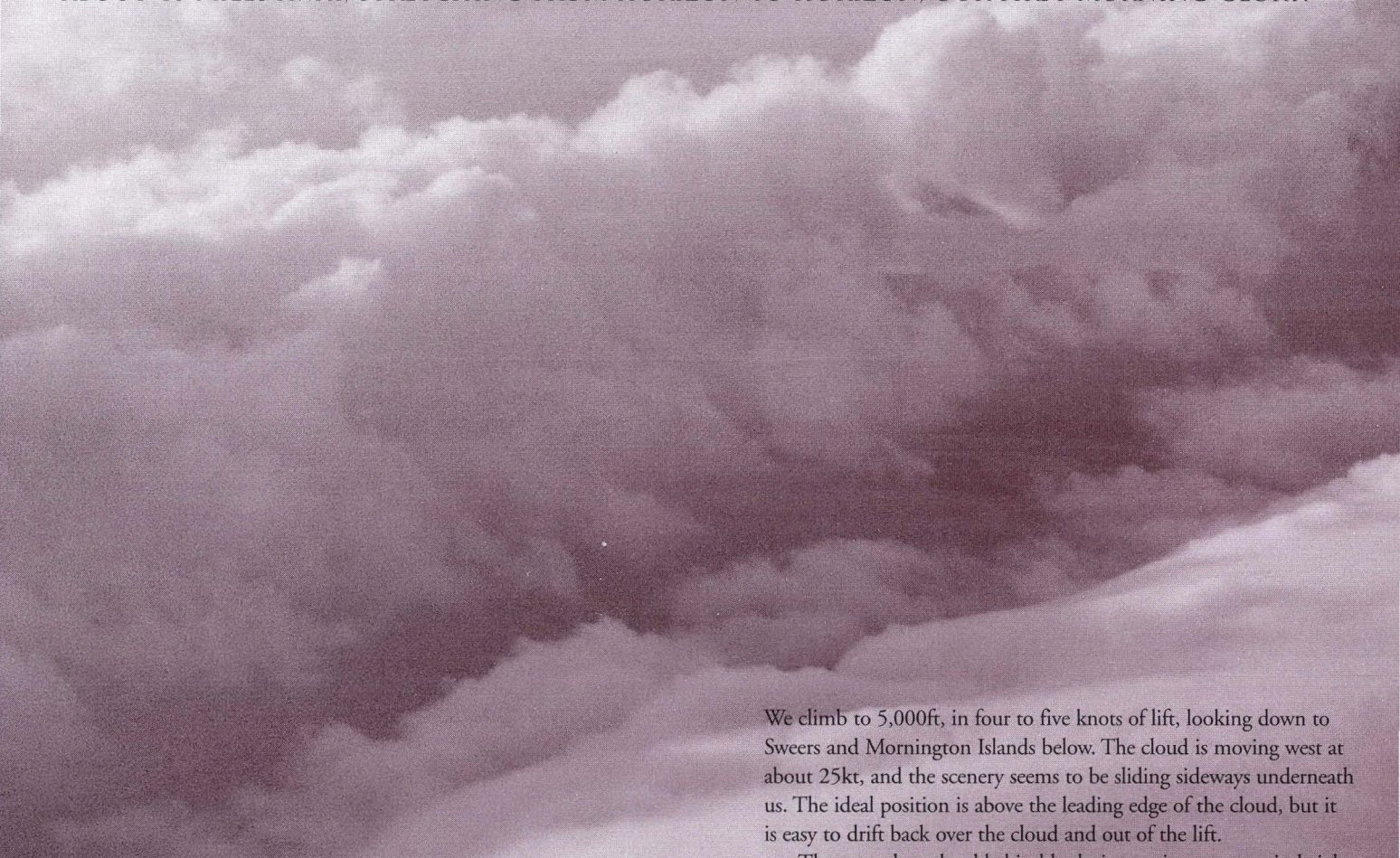
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'HALFWAY TO HEAVEN' – THE MORNING GLORY

Richard Macfarlane

WE FEEL EXCITED AS WE ACCELERATE DOWN THE RUNWAY AT BURKETOWN. IT'S HALF AN HOUR BEFORE SUNRISE AND THE INSTRUMENTS ARE JUST VISIBLE IN THE FAINT LIGHT OF DAWN. WE TURN AFTER TAKE OFF, AND THE DEEP RED GLOW TO THE EAST IS REFLECTED IN THE MAZE OF WINDING RIVERS AS WE HEAD OUT TO SEA OVER THE MUDFLATS. WITH A THRILL WE SEE THE OUTLINE OF A LONG CLOUD ABOUT 40 MILES AWAY, STRETCHING FROM HORIZON TO HORIZON, OUR FIRST MORNING GLORY!



We turn over the face of the cloud and shut down the engine. This is what we have dreamed about for years, a thrilling reward after our long flight over the vast Australian continent from Perth. The Glory cloud is a white rolling tube, stretching over the horizon, maybe for hundreds of miles. A dark line is visible on the sea underneath. There are three more roll clouds behind the primary, but the bands in the high cirrus overhead indicate many more wave patterns following. We are a part of the sunrise, surrounded by the reds, peach and gold of the advancing dawn. The sun appears as a deep red semi-circle, then climbs slowly into the glowing sky, the golden rays reflected in the smoke-hazed air.

The Ximango is in her element, soaring effortlessly in the ever-rising air, the shimmering sea and occasional islands seems part of a different world. Burketown is a long way from anywhere, and the Rotax-powered Ximango is a great way to get there, but how wonderful to feather the prop and achieve the same cruising speeds.

We climb to 5,000ft, in four to five knots of lift, looking down to Sweers and Mornington Islands below. The cloud is moving west at about 25kt, and the scenery seems to be sliding sideways underneath us. The ideal position is above the leading edge of the cloud, but it is easy to drift back over the cloud and out of the lift.

The secondary cloud behind looks interesting, so we gain height and turn back, finding surprisingly little sink before the smooth lift of the next cloud. The primary wave looks incredible from behind, the low sun now in the right direction. Some of the cloud is absolutely smooth, looking like a vast curved snowfield and solid enough to land on. Further on we see remarkable shapes of cloud bursting from inside the smooth surface, and in another area the whole cloud looked like piles of whipped cream. We cruise up and down, spellbound by the view, the Ximango having to fly herself on occasions while the crew juggle cameras.

We speed up and lose height, getting closer to the cloud, doing 110kt in eight to 10kt of lift – what a way to travel! Mostly it is pretty smooth, but the occasional bump reminds us of the massive energy beneath us. We are describing a series of giant zig-zags, miles out to sea, then back over the coast and inland. We are not trying to set any records, but you could achieve long distances by keeping close to the cloud at high speed.

NING GLORY



Morning Glory – The clouds seem to go forever



Four Morning Glory clouds – all with good lift

Photos: Richard Macfarlane


Geoff Pratt is also with us in his homebuilt Monerai, he is very experienced in the Glory and a wealth of information. We keep in touch by radio, sometimes flying in close formation with cameras clicking, other times crossing at high speed. Geoff gave us the best advice to find the Glory – *“Just take off every day before dawn – you’ll find it when it’s there!”*

After about three hours, the Glory starts to break up; maybe the convection is disturbing the previously smooth layers in the air. Over the land, the cloud of the primary starts to dissolve, we get a final surge of lift before it dissipates, so we drop back to the next one which provides strong lift for another 10 to 15 minutes. By the time

all the clouds have dissolved, we are on the seventh cloud back, and our thoughts turn to breakfast back at Escott Lodge. We end up 80 miles to the west of Burketown, and motoring home find alternate bands of gentle lift and sink as the great wave pattern lingers on.

This was just one of the five magnificent days of Morning Glory flying in our 12-day stay, and each day held its own fascination. Another day, the cloud arrived early and loomed dark and menacing behind us as Clare and I hurried to take off. That day, part of the cloud formed a gigantic sloping wedge right up to the upper cloud at 10,000ft, we climbed to 7,500ft as the cloud broke up with the early sunrise bursting through the holes. Another day, with John Chesbrough, the cloud was quite low and was sweeping up the ground mist like a giant vacuum cleaner.

Clare and I flew ZAN from Perth, via Ayers Rock and Alice Springs, while John and Melva Kenny drove the Landcruiser across 1,600km of corrugations to join us. They then flew the Ximango home, while we enjoyed a relaxing drive home via Katherine and the Gibb River Road. John and Marguerite Chesbrough also joined us in their Mooney.

Whilst not having the opportunity to return to the Morning Glory, I have spent many happy hours reliving our experiences while editing the video we took while on the cloud. For those able to see it, I hope that “Halfway to Heaven” gives a feeling of the majesty and beauty of one of the world’s most extraordinary cloud formations. 



View of the primary cloud from behind – whilst on the secondary
August 2002

THE TRAVELLING EXPERT



Allan Ash

From my 60 years or more of involvement in the sport of soaring, I can attest to the accuracy of both these statements.

I have had the pleasure and privilege of visiting and flying from gliding clubs in all Australian States and Territories except Tasmania. I've also flown sailplanes in Britain, Holland, Germany and India, so I can claim that my experience is broad even if it isn't very deep.

In the early post-WW2 years I found that when I visited some of the new clubs that were being formed, I was taken (or should I say mistaken) for an expert on all aspects of the sport. My 22 years as editor of *Australian Gliding* gave many people the idea that I was knowledgeable in many technical matters of which I had at best only a hazy understanding.

Rather than inflating my ego, such assumptions left me quite nervous. In providing what information I could, my uppermost thought was always *"I hope I'm right in what I'm telling them"* and *"I hope I'm not leading them astray."*

It seemed also to be widely believed that, because I had been in the sport for a few years, that I was therefore an experienced pilot. The truth was that my editorship of *Australian Gliding* kept me so occupied that I had little time to fly. I believe other editors of the magazine found the same limitation.

In visiting various clubs I was sometimes given an appropriate check flight, which pleased me because I was often out of regular practice. But some clubs put me straight into a solo aircraft, often because the club had no two-seater, and this usually left me nervous and apprehensive. I guess other pilots have had the same experience.

Towards the end of 1948, my youthful spirit led me to go to Britain for 15 months where I lived with relatives just outside

IT IS SAID THAT TRAVEL BROADENS THE EXPERIENCE.

IT IS ALSO SAID THAT AN EXPERT IS ANYONE WHO IS MORE THAN A HUNDRED KILOMETRES FROM HIS HOME BASE.

London. Throughout 1949 I was a member of the London Gliding Club at Dunstable in Bedfordshire.

When I joined the club in January my flying experience totalled 73 launches, mostly in primary gliders, for some two hours of flying time. I was given a couple of long straight launches in the Dagling Primary trainer, followed by a brief circuit in the same machine, then allowed to fly the Kirby Cadet, in which I gained my C Certificate a few weeks later.

In July that year I visited Camphill, the site of the Derbyshire and Lancashire Gliding Club, for a week's holiday. I presented my log book to the CFI, G.O. Smith, and mentioned casually that at Dunstable I was flying the Grunau Baby and had made soaring flights in both slope lift and thermals.

The CFI did not look impressed but took me for a half-hour check flight in the Slingsby T21. As well as checking my flying skills he took the opportunity to point out local features, including likely thermal sources.

I was glad to be so well checked out and briefed but felt a little let down when I was allocated the Kirby Tutor to fly for the week. But I accepted it and, indeed, enjoyed an interesting time flying the Tutor in slope lift and thermals and even a couple of brief encounters with weak wave. My experience was certainly broadened.

By contrast, a little later in the year I visited a club in Holland and, after meeting the members, I was put without ceremony into a Grunau Baby and winched off. During the day I had two winch launches in the Grunau, two aerotows in a Kranich and half an hour of local flying in a Piper J3 Cub. More interesting experiences. Incidentally, the club's winch was powered by a Rolls Royce Merlin engine salvaged from a derelict British tank that had been abandoned on the airfield during the war.

Over the years, I have visited many gliding clubs and found that some provided a check flight while others took a chance by sending me off in a solo machine. Personally, I'm always glad to have a check flight, both to ensure the club officials are happy about

my flying ability and to have local features pointed out. I don't think a club should assume that any visiting pilot is competent to fly solo without a check flight, no matter what his reputation.

In the past, some very fine sailplanes have been damaged or wrecked by visiting so-called experts who were sent solo without a proper check. Even an experienced pilot can be fazed by an unfamiliar sailplane, flying site, launching method or soaring conditions. Nobody who is asked to take a check flight should look on it as questioning his ability. If one is truly expert, the instructor or check pilot will recognise this within a few minutes. If one is not an expert, this also will be quickly recognised and will probably save the visiting pilot from an embarrassing experience later on. There is no room in a sailplane for an inflated ego.

This brings to mind an episode I witnessed at Dunstable during my time there. First, I must mention that at that time, 1949, British clubs were gradually changing from solo training on Primary gliders to dual instruction in two-seaters.

At Dunstable they were still using Dagling primary gliders with trainees then advancing over several months through the Kirby Cadet and Tutor to the Grunau Baby before moving on to the top-line Olympia after accumulating some 30 or 40 hours of flying.

In contrast, the Surrey Gliding Club at Redhill, under the forward-thinking leadership of Lorne Welsh, had switched to dual instruction in the Slingsby T21 and then straight onto the Olympia. The boffins at the London Club were rather cautious about accepting such rapid advancement onto higher performance aircraft and were wary of claims that pilots from the Surrey club were competent and safe to fly. As it turned out, history shows that the Surrey club turned out some of Britain's top pilots.

One sunny weekend, a pilot from the Surrey club, which had a flat site, came to Dunstable with the plan, as he put it, to extend his experience with a bit of slope soaring. This young man expressed a somewhat haughty and superior attitude towards what he seemed to feel was a backward



club still using Primary gliders. Such an attitude did not immediately endear him to the instructors at Dunstable.

The young Surrey pilot let it be known that he had for some time been flying Olympias and had accumulated an impressive total of hours of soaring in thermals. He thought a spot of slope soaring would be an amusing new experience.

His ego suffered a bit of a blow when the CFI, Hugh Wheatcroft, offered him a Tutor to fly. The Tutor was a docile, safe and rugged aircraft but its performance was modest and the expert from Surrey made it clear that it was almost beneath his dignity to fly one.

I don't know why he wasn't given a dual check, but he was strapped into the Tutor and connected to the winch. The ridge at Dunstable isn't much more than 200ft high at best, but it usually produced good smooth lift in a westerly wind. On this day the wind was on the hill but it varied somewhat in strength between zero and about 10kt. In most instances, any launch above 250ft would be sufficient to allow a pilot to connect with the slope lift.

The Surrey expert took off and released at about 250ft turned towards the ridge and flew straight towards it. It was unfortunate that the wind chose that moment to cease blowing.

On the ground, we Dunstable pilots watched in growing alarm as the Tutor continued straight for the ridge, gradually losing height. We all thought that, at any moment, the pilot would turn in and land. But he didn't!

Relentlessly, the Tutor continued straight towards the ridge, now down to about 200ft. The flight continued until, with a resounding crash, the nose struck the hillside a few metres below the crest. Half a dozen club members began running up the hillside to where the wrecked Tutor lay. By this time the pilot had extricated himself from the cockpit and was waving his arms to indicate that he was unhurt. It was in the minds of the climbing club members that he was not going to remain in that condition for long!

Later when the pilot and the noseless Tutor had been returned to the hangar, the pilot was asked why he had continued the flight into the hill when there was no lift.

With rather a perplexed expression, the Surrey expert explained that he had read about the technique of slope soaring and had learned that, as the sailplane approached the ridge, it would be carried aloft by the slope lift existing in front of the hill. He had continued the flight, he explained, while waiting for the lift to materialise. His expression suggested that he had been unfairly treated when the expected lift had failed to do its job.

Which proves the point that theories only work when all the conditions are met. So my conclusion is, don't trust anybody! Beware of experts and check – check – check!



GFA Annual Trophies Awarded

Fred Foord

THE TROPHIES OFFICER HAS ANNOUNCED THE WINNERS OF THE THREE ANNUAL FLYING TROPHIES MENTIONED LAST MONTH. THESE ARE FOR BEST FLIGHTS MADE OTHER THAN DURING THE NATIONAL CHAMPIONSHIPS DURING THE PERIOD OF 16 MONTHS, 1 JANUARY 2001 TO 30 APRIL 2002.

THE MARTIN WARNER TROPHY,

for the greatest height gain, was won by Dr Rick Agnew of the Canberra Gliding Club. During a flight in a Standard Jantar from (and back to) Bunyan Airfield on 6 September 2001, which lasted six hours 40 minutes, Rick climbed to an altitude of 29,741ft. The actual gain of height was 22,581ft from his low point of 7,160ft. Rick, who is probably Australia's most experienced high altitude soaring pilot, has been an RAAF pilot in the past, and of course he used oxygen equipment.

THE WALLY WOOD TROPHY,

for the greatest distance covered in one continuous flight, was won by Andrew Repton of the Gliding Club of Western Australia. Andrew completed a triangular course from Cunderdin, turning at Perenjori, and at Dalwallinu and arriving back at Cunderdin, a total distance of 1,033.8km in a flight lasting 10 hours and nine minutes. The date was 16 December 2001 and the sailplane a Dirks-Glaser 200 with a wingspan of 17m.

THE BOB IRVINE TROPHY,

for the highest points score for a distance flight, after the application of the handicap factor relating to the sailplane type, was won by Michael O'Brien flying in an Lemke-Schneider LS1f from Warwick, Queensland on 27 January 2001. The actual distance covered was 753.43km, but in a sailplane of only moderate performance with a handicap factor of 1.1 the points gained were boosted to 828.773. Michael flew from Warwick to Drillham to Clifton Silo to Jimbour Silo and outlanded on his final leg towards Warwick.

Andrew Repton's flight would have yielded more points than Michael's, but a pilot is not eligible to win both of the above trophies for the same flight.

The next international event of interest will be the second World Gliding Championships Club Class to be held at München, Germany, in August. Of particular interest to the RAeS will be the side-contest for the "RaeS Shield" for the highest speed attained by an Australian pilot during the championships. The inaugural winner was Tom Gilbert from Camden, NSW, during the 1st such contest held at Gawler, South Australia in January 2001.

The next Multi-Class World Championships were due to be held in Italy next year, but it was announced recently by the International Gliding Commission that the event is to be transferred to Poland, dates and venue yet to be decided.

Australia will be fielding teams at both of the above World Championships.



Flying and Feasting in Florida

Tish the Flying Fish

I RECENTLY RETURNED FROM FLORIDA WHERE I SPENT A MONTH FLYING XC AND COMPETING WITH ADAM PARER AND ROHAN HOLTKAMP. THE WHOLE SCENE IS SO DIFFERENT TO OUR FLATLANDS I THOUGHT I'D SHARE MY EXPERIENCES WITH YOU.



Tish the Flying Fish

I went to stay with Bo and Paris (when they were hanging out in Newcastle they convinced me I would have heaps of fun and good flying in Florida where they work at Quest Air). The airline lost my glider for two weeks (?) so for the first 10 days I borrowed demos.

I practised thermalling as more and more of our friends arrived in preparation for the US Nationals, which were to be at Wallaby Ranch 30km south of Quest. This was my fourth US Nationals in seven years, so I knew most of the pilots there. Just like Oz comps it is very social and always a chance for old friends to catch up.

The night before the comp we all set up camp at Wallaby. Half the pilots camp among the trees around the edge of the runways, and half stay in RV's or hooches (cabins), but basically everyone of the hundred or so pilots were set up at the Ranch.

There was a big marquee for briefings and meals. The most amazing thing about Wallaby is the kitchen. Run by a full-time chef (plus many volunteers) the kitchen fed over one hundred people a lovely brunch and dinner every day for the whole comp.

We would wake at dawn and get a hot coffee straight from the pot. One morning Curt (Crackie) and I even managed a jacuzzi at dawn, watching the sunrise and hot air balloons.

THERE WAS FREE BEER 24 HOURS A DAY! (Did that grab your attention?) They even had 'Judy Food', which is vegetarian for those of us who are fussy eaters and usually starve at Aussie hang gliding comps.

Wallaby is a small (but constantly expanding) clearing in pine forests that is affectionately known as 'The Country Club'. There is a long tie down cable that keeps all the gliders safe, since they are rarely packed up. There are always demo gliders available for rent.

Florida is tropical, so there is a lot of moisture in the air. Almost the whole month brought cumulus clouds and some thunderstorms. The conditions were very reliable, so that even though cloudbase was only 2,500ft asl (1,000ft agl) at launch time on the first few days, there were still plenty of thermals and pure racing conditions. The cloudbase would rise throughout the day to 4,000 to 4,500ft asl.

The terrain is very flat, with lots of trees, but also plenty of landings. It is very pretty; green with many small lakes and forests, but in many places has been stripped to make way for housing estates for all the migrating retirees. The most striking thing I noticed was that

Bob Bailey leads the Dragonfly fly-by



Photos: Courtesy Tish

every house was grey and every roof was grey.

Unfortunately at Wallaby we lost a few comp days to overdevelopment and only had four valid rounds, but the joy of the place is that there is a pool, trampoline, beer tent, live music, swing seats strung under the trees in the shade, and static A-frames so that everyone can check out their new harnesses in the shade. So there's plenty to do when not flying.

The best thing about Florida is that almost all the tasks are triangles or out and returns, so that we always landed back at home at the end of the day. No glider pack up or rig the next day, even our harnesses could just be left lying around.

So we had long spring evenings to swim, drink beer and hang out together. The owner of Wallaby provided a great fireworks display after the prize giving.

After Wallaby we flew up to Quest and sent our gear with the driver. We started the next day in the Flytec Open, which had nearly all the same pilots as Wallaby, including many of the top 20 in the world.

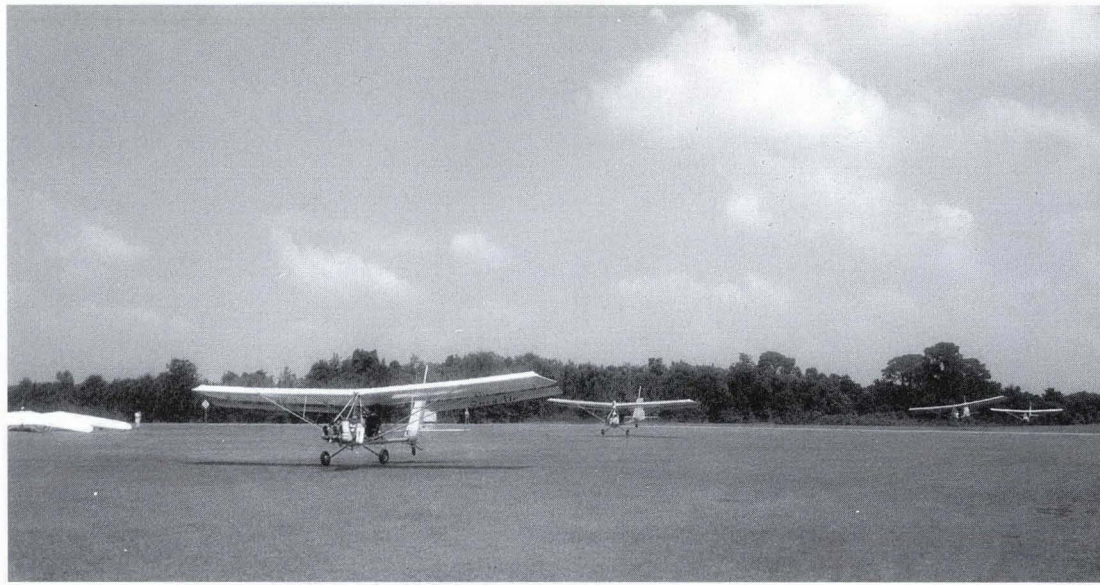
The cloudbases had risen and were about 4,000ft at launch and 6,000ft late in the day.

Quest Air is set up much the same as Wallaby, but is a little more open with less forest directly around the perimeter. It has a cute lake with kayaks, trampoline, tree ropes and a pontoon in the middle. There is also a part time pet alligator that doesn't eat people (honest)... maybe just the odd dog (of which there are plenty lying in the shade of the hangars). So some of us swam in the lake each day, which was clear and warm, while the chickens stayed in the pool/jacuzzi.

Quest also has a clubhouse/kitchen and they hired caterers who fed one hundred and fifty people for the whole comp. Again the food was magnificent, with vegetarian options. Again there was free beer 24 hours a day.

I was lucky to be staying in Bo's trailer so we could all hide in the airconditioning until launch as it was very hot and muggy out. I interspersed this hiding out with bouts of energy where I ran around in a trench coat with a large machine gun water pistol impersonating Keanua Reeves (inspired by Bomber and supplied by my friend George). I think I managed to wet every single person at Quest (so the 'Real Points' go to Tish). There was plenty of protest, but I think they loved it really... REALLY!

Again the tasks were around 140km and returned to Quest, so we never had to pack up. The weather cranked up and we got seven full rounds out of seven, which made for a very valid comp.

**Wallaby Ranch****Top: Dragonflies galore!**

The towing at both comps was impressive. Fifteen Dragonflies and three or four trikes (plus many volunteer ground crew) enabled the hundred-and-twenty-odd pilots to be airborne in 30 minutes. Bo and I always launched as soon as the window opened, so got to relax in the cool at cloudbase waiting for the start.

Three times in the month the Dragonflies did some formation flying and fly-by's that must have made Bill Moyes moved to see.

Just before the comps there was a space shuttle launch from Cape Canaveral, 40km away. Whilst we were waiting for the start to open one day, we heard a double sonic boom (and our GPS's went haywire) as it re-entered the atmosphere. The whole of Florida must have heard the noise it was so loud.

It is striking that in a month of flying in Florida, I almost never left the flight parks, except by air. I only visited the supermarket a couple of times and never saw any of the Florida sites. No Seaworld, no Disneyworld, no Rainbow Springs. But, oh well, they'll have to wait until next time.

I understand now why Gerolf told me not to comment on the performance of my Litespeed 3 until I got a good harness. With my new Moyes Matrix and a little ballast I was suddenly keeping up with the big gliders, so it was extra fun to fly against the boys.

For comp results check out the Oz Report, Flytec/Quest or Wallaby Ranch web sites.



THE GREATER ANGKOR PROJECT

Introduction by Ian Brookes (Project Coordinator)



Banteay Srei

The Greater Angkor Project, a joint project of APSARA and the EFEO and the University of Sydney is led and directed for the university by Associate Professor Roland J. Fletcher, Department of Archaeology, University of Sydney. The project is a high technology investigation and study of the settlement pattern of the great city of Angkor during the 9th to 15th centuries. The study aims, inter alia, to investigate the true extent of this greatest of all low-density, pre-industrial cities, and how it was able to support a population approaching three quarters of a million people

when cities such as London or Paris were, at that time, only able to support populations of less than 10% of that at Angkor. The study also seeks to establish the true causes of the demise of this once great city-temple complex.

The study has been under way now for just over four years. However, due to the recent history of Cambodia much of the area to be studied in this project is not suited to conventional land exploration due to the presence of land mines and very large quantities of un-exploded ordnance in the northern region of the once great city. To overcome this problem, the ICC/-UNESCO meeting of December 2001 authorised the use of an Australian AirBorne Edge X Trike for archaeological survey and imaging work in the areas of interest to the project.

A sponsor, Donald J. Cooney, President of Concept Aviation, Tennessee USA, stepped forward and provided the project with the use of the Australian Airborne Edge X Trike for the project years 2002 to 2005. The excerpt from the Phnom Penh Post that follows is an account of the lodgement phase of this ongoing project.

Newspaper article by Patrick Falby and reprinted courtesy Patrick and the 'Phnom Penh Post'. Credits also to Donald Cooney, Eddie Smith, David Hobson and the archaeological Computing Lab, University of Sydney for various photos and information



Looking out over the Tonle Sap



The West Mebon



River housing

Ultralite proves ultra-helpful at Angkor

BY PATRICK FALBY

Even at the height of his power Jayavarman VII did not have a view of Angkor like this. Swooping around Borei Lake, people look up and wave at a tiny 50 hp plane carrying out low altitude surveying, a camera fixed to its wing.

"You get into the environment," says Donald Cooney, pilot of the 185 kilogram, two-seater ultralite. "It's like being on the waves of the ocean when you're bodysurfing."

The ultralite plane survey is part of the Greater Angkor Project, carrying out archaeological research between the Apsara Authority, France's Ecole Française d'Extrême-Orient (EFEO), and the University of Sydney.

The Greater Angkor Project aims to study the relationship between the extent of the urban complex of Angkor and the demise of the city, mixing archaeology and earth sciences. The trike, a plane with a hang-glider wing and three-wheeled base, may make the job easier.

"As far as we know, no one has used ultralites for academic work such as this in such a serious ongoing way," says survey coordinator Ian Brookes.

NASA radar imaging conducted in September 2000 shows the ancient city of Angkor spanned 1,000 square kilometers, much larger than expected. Banteay Srei is now thought to be



PATRICK FALBY

An aerial view of an island in Barai Lake, near Angkor Wat shows a small temple ruin along with a latter-day house (foreground).

at its northern edge instead of a separate settlement.

As people moved to the slopes of the Kulen ranges, the theory goes, they cleared forests for agriculture, causing soil erosion. The resulting sediment from flooding could have damaged the canal network and affected fish reproduction.

"What is critically important is that the same process of ecological deterioration may be starting again," says Professor Roland Fletcher, director of the Greater Angkor Project. "The past may therefore be a crucial clue to the future."

The ultralite survey will provide low altitude "ground truthing" on the data provided by NASA. Checking on features such as vegetation types and canals from the ground is time consuming and often dangerous.

"Anti-personnel mines are a potential threat and make fieldwork on the ground problematic, especially in the northern half of Angkor," says Fletcher. "Low altitude aerial survey is a dream come true as it solves all those problems."

The idea to use an ultralite air-plane developed last year when

Cooney was on vacation in Siem Reap with his partner, Alexandra Rosen, now the survey's administrator. Sitting next to Brookes in a restaurant, Rosen overheard him talking about his involvement in the Greater Angkor Project.

Rosen and Cooney, who has been flying trikes for 20 years, manufactures them and competes in international competitions, offered to supply a plane. It then took a year to organize and get approval for the project before the first flight April 5.

"All said and done, it's been a very, very fast project development and implementation," says Brookes.

Due to the difficulty of field investigation, there is a tradition of using flight in the interest of Angkorian archaeology. It started long before the space shuttle provided images in 1994.

"They've been doing remote sensing in Cambodia since 1929," says EFEO's Christophe Pottier. "It's very efficient."

Through remote sensing, the number of known temple remains increased from 250 to 550 in 1998. Pottier proved that people living in housemounds were scattered across the southern half of the city.

"The north area is next, but it's very slow work," he says.

Pottier is cautiously optimistic about the ultralite survey, saying its results have yet to be examined. He concedes, however, that low flying "can find detailed con-

figurations" which make it "much easier to understand the organization of sites".

Without analyzing the data, members of the survey say many features are evident with the unique view of the country. They also note the high amount of garbage around Banteay Srei, and say air pollution affects photography and visibility.

The members of the survey also created a stir in the community, especially at the rice paddy they use as a landing strip for re-supplying. Villagers have now become more accustomed to the sight of the low flying plane. A woman in a boat once threw a fish at them as they passed by.

"It didn't hit us," says Cooney. "She was laughing."

At the end of April, the plane and equipment were stored away in a shipping container for the wet season. Flights will likely resume in October, and the project is scheduled to run to 2005.

"This season was a test to ensure that we could fly the plane safely and obtain results," says Fletcher.

In the future, he hopes to mount two more cameras on to the plane to achieve a three dimensional view. He also hopes to get a comprehensive view of the region's temples and do a study of the coastal bars and swamps down the east coast of the Tonle Sap.

The Atos-Stratos

– The New Icaro Rigid Wing

DEVELOPED BY CHRISTIAN CIECH ON THE ATOS
FRAME WITH THE SUPERVISION OF MANFRED
RUHMER AND THE COLLABORATION OF
FELIX RUHLE.

Gianni Hotz:

THE STORY

The story begins in 1998 when we built a rigid wing prototype in cooperation with a French engineer, calling it 'Lumina'. The Lumina looked great, and was ready to fly. Then Felix approached us with the Atos. It was immediately evident that the Atos was a superior design, so we formed an agreement with Felix – A.I.R., by which Icaro would make keels and sails for the Atos (we have made 550 so far) and obtain the option to sell the Atos in certain markets. In October of 2000, we reviewed our agreement with Felix; Icaro then took over the worldwide production and distribution of the Atos from our home base in Sangiano. Felix worked exclusively on development of the design. Shortly thereafter, Felix smashed his knee and suffered numerous health problems.

While Felix was on the mend, he came to feel that he had given away his "baby," and, like any loyal dad, wanted to bring the baby home. (Can we say, longed for reunification? Too political?) Felix then resumed the Atos' production in Germany. By this time, we had constructed over 100 Atos gliders, including that flown by Italian champion Christian Ciech, taking second at the World Championships/WAG in Spain last year.

It was senseless to make the Atos in two neighbouring nations, so we decided to make an Icaro version. Christian had just finished his academic studies in aeronautical engineering, and was both available and an ideal fit for the task of leading our rigid wing project. We engaged him immediately, and

entrusted him with developing the Stratos in collaboration with Manfred and Felix.

Considering the competence and experience gained by Felix in his development of the tremendously successful Atos, and that glider's undeniable quality, radical modifications to the design seemed unnecessary, and possibly unwise. We chose to make some simple but significant alterations, while leaving the main structural components, the carbon parts, the keel and the A-frame, unchanged.

Christian Ciech:

DIFFERENCES

The most significant departure concerns the outer wing of the Stratos. Aside from a new fibre tip lever, now enclosed in the sail (similar to that on the Laminar, but more streamlined when closed), our wing's taper is less pronounced than that of the Atos-C. Performance advantages are gained both due to the new shape and an increased wing span (13.25m or 43.5ft). The airfoil of this added spanwise section is attached by means of a carbon shell, similar to those used by pilots as a mylar insert replacement.

We have modified the flaps as well. To streamline the root, we closed the centre split and employ a single cord to operate the flaps, dispensing with a central pulley. The system requires less effort to operate, and solves the problem of variable response throughout the range of deployment.

We have made some adjustments to the sail, modifying the cut to smooth the upper surface and decrease drag from the seams. As with the MRX series of flex wings, we have added a new, beautifully streamlined nosecone.



Those features of the Atos that give it strength and performance have been retained, while aerodynamic details have been improved to give the new Stratos a competitive edge. About a year ago when I first began flying rigid wings, I was amazed by the ground effect glides they achieved: 200, 300, and even 400m glides within one metre of the ground. The glide gained in ground effect suggested great performance improvement through reducing induced drag in the outer wing area, similar to what occurs in ground effect. This prompted the outboard tip development. The Stratos really glides.



THE NAME STRATOS

We then had to name our new rigid wing. Astron and Stratos were the finalists, and our clients overwhelmingly chose Stratos. Both finalists incorporate the "Atos" within, and it is only fitting that this should be.

Icaro is now taking orders for the new Stratos! <staff@icaro2000.com>.



Australian Team Prepares for Club Class Worlds

Colin Turner, Team Manager

PREPARATIONS ARE NOW WELL ADVANCED FOR THE AUSTRALIAN TEAM COMPETING IN THE 2ND CLUB CLASS WORLD GLIDING CHAMPIONSHIPS BEING HELD IN MUSBACH, GERMANY IN AUGUST.

The site for the championships is the home airfield of the Fliegergruppe Freudenstadt which is located in the northern Black Forest region of Germany. Sixty-six entries have been received from 24 countries including three from Australia.

Our pilots will fly aircraft similar to those regularly flown here. Tom Gilbert has a Standard Libelle with registration Hotel Alpha India, Tobi Geiger a LS1c, Victor Sierra and Rolf Buelter a LS1f, Eight Whisky. Colin Turner is the Team Captain, the title given the team manager in the rules for the championships.

The team will arrive in Musbach on Sunday, August 4th to take maximum benefit from the following five practice days. The Opening Ceremony is on Saturday, August 10th and the first competition day is on Sunday, August 11th. The Closing Ceremony is on Saturday, August 24th.

Since two of the team members live near Melbourne and two near Sydney a final team meeting was held in Wagga Wagga over the weekend of June 22nd/23rd (see photo). After a detailed review of travel itineraries, registration documentation, technical requirements, equipment and the rules the team was given a thorough briefing on the task area by Tobi Geiger. Before moving to Australia a few years ago Tobi flew with a club located within 50km of the contest site. Tobi's local knowledge will be invaluable in planning tactics when the task is set each day.

Because of the number of entries the field has been split into two groups which will fly different tasks each day. A rather complex for-



The Australian team for the Club Class Worlds in Germany. From left, Tom Gilbert, Tobi Geiger, Rolf Buelter and Colin Turner. Photo taken under a Meteor displayed in Wagga Wagga.

mula to switch pilots between the groups has been developed. Tim Shirley, the guru of our local competition rules, has prepared a detailed analysis of the formula for our guidance.

The social program for the Championships is also looking interesting. Gerhard Waibel from Schleicher will give a talk and Klaus Ohlmann will show slides of his wave flights in South America. There is to be a small airshow and an "Online Contest" presentation. The generosity of Paul Thompson will allow us to host an Australian Beef and Lamb Barbecue on one of the "Nation's Evenings". We also plan to show videos on the Morning Glory, one a documentary by Rob Thompson and the other is a new production by Richard Macfarlane "Halfway to Heaven" now available through GFA Sales.

We will attempt to get regular progress reports back to Australia during the Championships. Nick Gilbert the GFA webmaster will post the reports on the GFA web site. To access them go to [www.gfa.org.au] and click on "Competitions". The reports will be posted under the "World Gliding Championships" heading.



CASA Recreational License – Update

Bob Hall

In view of the recent discussion regarding the proposed CASA recreational licence, the following additional information regarding the current position is important.

1. *The GFA has long had a policy to reject a CASA licence and the reasons for this have been put previously. This policy is the result of wide discussion over the years and is part of the GFA business plan and this strategy was endorsed by Council at each of the last three Annual Council Meetings.*
2. *This does not mean that the GFA should not reconsider this policy – but it does mean that those who have been negotiating on behalf of the GFA have been following endorsed GFA policy in this matter.*
3. *Further, those involved in any change in this policy need to be fully informed of the potential consequences of such a change and this means the detail of the current proposals by CASA. I have summarised some of the matters involved at this time below.*

BACKGROUND TO THESE NEGOTIATIONS

Before looking at the specific detail of this particular case it is important for all to understand that, in all such matters, the GFA position has never been to simply reject any proposal made by the relevant regulating department – whether this be CASA or Air Services – simply because we don't agree with it or don't like it. We examine every proposal in detail, on its merits, to determine whether the proposal should be agreed as is, or altered or rejected. We do this not only because it is sensible to examine any proposal on its merits – but because, if we are forced to argue for modification of, or to reject, a proposal, the best (only successful) strategy is to be able to give clear logical reasons for the position we have taken. This approach has served us well in negotiations on airspace and other matters.

Experience has shown that it is essential to depend ONLY on what is available in writing – and even then to be prepared for this to be altered without notice. The detail of the proposal must be carefully examined to ensure that there are no hidden or unintended consequences which would be unacceptable to gliding or sport aviation in general. This is not a matter of 'reds under the beds' but is based on real experience gained by myself and many others over the years.

Each proposal is examined to see whether what is being proposed is:

- a) *practical,*
- b) *will actually achieve a better outcome and*
- c) *whether any restriction of our freedoms can be justified by the risk addressed by the proposed change.*

Any argument put forward regarding any proposal is based wholly on such objective matters and never simply on an ideological basis.

Once this is done we can develop a case which can be argued in any forum and be taken seriously. It is by sticking carefully to a well-researched position and a logical set of arguments that we have been able to establish our position in the aviation industry as a legitimate and responsible part of the industry who must be listened to.

This is being done at this time with regard to the proposed recreational licence and all other matters involved in the proposed new CASRs.

The current debate regarding the pros and cons of a CASA licence is very useful and is welcomed as one of the means of defining what the members want – but what is needed is not a simple vote as to whether we want a licence or not, because it is clear that we, the GFA, are not in a position to determine the final outcome – it has to be negotiated with CASA. What we need are clear outcomes which are desirable or undesirable or even unacceptable – which can be the basis of these negotiations.

That is – as I understand it at this time – there are few who would like to see us losing control over our standards and training or who would accept significant additional bureaucracy but some would like international recognition of our pilot certification system and we want that certificate to be taken seriously by all.

Any other input would be welcome.

THE SPECIFICS OF THE CURRENT PROPOSALS

1. *I have a set of documents which is literally a foot high which must be read and understood in detail if you are to be sure you have understood the full consequences of these proposals. These include the NPRM or discussion documents on Parts 103, 115, 149, 61, 121B, 141, 142, 119, 136, 66, 147, 145 and 91 at least.*

Those negotiating on your behalf have had to study these and ongoing documentation of the process of development of these regulations over the past five years. Some of the more obvious and serious of the features of the current written proposals are summarised below. These may or may not be the intended final outcome and they may or may not agree with verbal assurance given by individual CASA officers – but they are clearly the, or an, obvious interpretation of what is written in this documentation – and I have learned that you cannot rely on anything which is not explicitly written into the documentation. Once these documents go forward they will be come the Law of the Land and it will be no good saying “but ‘so and so’ said...”

2. *The proposal suggests that the recreational licence would be non-mandatory. However, one paragraph in the body of the documents on Part 61 says that the CASA licence would not be compulsory for solo flight. The clear inference being that it would be compulsory for all dual flight – either mutual, passenger or training (?).*
3. *CASA says that the sport aviation organisation ‘may issue’ the recreational licence based on Part 61. CASA has already asked for details of all ratings issued by all the sport aviation organisations AND the “competency based standards” attached to each rating so these can be written into CASR Part 61 or the associated CASA MOS (Manual of Standards). It is a clearly stated policy that these must be “competency based standards” – and hence cannot simply be a list of “qualifications” issued by the GFA under its control (eg a Silver ‘C’ plus, etc). The documents make clear that, changes to these standards will then become “subject to consultation”. That is ‘CASA speak’ for – CASA will make the changes and we will be consulted – but we will have no authority to decide the final outcome (i.e. as now, CASA is required to consult but need not take any notice of our views.) As it stands now the result will be that our training standards will become CASA's and this will mean a total loss of control by the GFA over these standards.*
4. *Part 141 requires a training organisation issuing a CASA licence to be authorised by CASA under Part 141. In the documentation to date, we would have no exemption from this requirement. Part 141 is a very prescriptive and draconian document designed for GA training schools. These requirements make the current requirements for an AOC for training schools look simple. Just to pick a few of the more obvious requirements:*
 - a) *All training organisations would be required to have one or two full-time key personnel – either a full time CEO and full time CFI or a full-time combined CEO/CFI depending, amongst other things, on the number of instructors in the organisation. Most clubs would need both.*
 - b) *All instructor ratings would be issued by CASA and would involve specific training defined by CASA.*

- c) The CFI, depending on the size of the organisation, would have to have a minimum of 500 or 1,000 hour instructing experience and would have to be present at the site at all times that training is taking place.
 - d) Strictly, training can take place in the absence of the CFI but it must then be strictly according to a documented, detailed syllabus and prescriptive order, independent of weather or individual student pilot ability or progress – that is, effectively, not at all. Even in the presence of the CFI any and all deviations from this strict documented specified sequence must be explicitly approved by the CFI.
 - e) The CFI must make him/herself available for a flight check by a CASA officer as and when required by CASA.
 - f) Substantial CASA approved documentation would be required, much of which would be additional to that which we currently use – little of which would add anything to the effectiveness of training and none of which is not covered by our current procedures.
5. After all this, the proposed CASA recreational licence is NOT an ICAO licence and hence is still not guaranteed international acceptance. The only licence guaranteed international acceptance is a private pilot licence with a gliding endorsement. The GFA would never be able to issue such a licence. Under these proposals a GA flying training school could be approved by CASA – with NO involvement with the GFA – to issue a gliding endorsement

to a CASA PPL giving that pilot a gliding authority which could be seen, at least internationally, as superior to the GFA certificate or GFA issued recreational licence.

6. Flying training is defined as aerial work. Aerial work is covered by Part 136. Part 136 appears to apply (?) to all sport aviation aerial work ops. not covered by Part 115 (Commercial glider and ballooning Ops.). At this time pilot training in gliders may come under Part 103 and not Part 115. If training remains under Part 103 then our training may require certification under Part 136 as well as Part 141 – with further prescriptive requirements. We have not yet seen Part 115 so we do not know what impositions this may introduce.
7. Aircraft maintenance for Part 141 and Part 136 organisations is also subject to additional requirements imposed by CASA.

And so the list goes on!!! These are just a few of the more serious consequences of what seems a simple proposal. None of these outcomes have been highlighted by CASA to any of the sport aviation organisations or those involved in day to day negotiations with CASA. These can only be determined by a detailed examination of the documents involved.

So what is the next step? The next step is to clarify this situation with CASA and either get in writing a set of proposals which are acceptable or we will then have the background work done for a further approach to the Minister's office and this will need to be seriously considered.



Victorian Soaring Association Inc.

2002 Basic Airworthiness Course at Corowa Aerodrome

From

13 October to 19 October 2002 Inclusive

Applications or enquires are welcome from all GFA members and should be made or forwarded before 5th September 2000 to:

Edwin Grech Cumbo

12 Culgoa Court

Keilor Victoria 3036

Ph: 03 9336 2305 or

Mobile: 0419 542 761 before 10 pm.

Email: egrechc@melbpc.org.au

Or

Eugene Blunt

567 Noorla Place

Lavington NSW 2641

Phone: (02) 6025 4436 before 9 pm.

Email: deird@optusnet.com.au

Course Fees

\$250.00 Make cheques payable to the Victorian Soaring Association Inc. The fee covers course notes, materials used during the course and a meal proportion

Accommodation

Contact: Eugene Blunt (02) 6025 4436

Venue

Australian Soaring Centre, Corowa Aerodrome, Redlands Road Corowa

Meals

All meals will be subsidised by the VSA.

Briefing Notes, etc

The fees include the course notes and a CD containing all the course lectures in PowerPoint, etc.

Victorian Soaring Association vs South Eastern Regional Committee

Vivienne Drew, GFA State Vice President Victorian Soaring Association

AN EXTRAORDINARY GENERAL MEETING OF THE VICTORIAN SOARING ASSOCIATION CLUB PRESIDENTS ON 16 JUNE 2002 WAS HELD TO CONSIDER IN DETAIL THE FUTURE VIABILITY OF THE VICTORIAN SOARING ASSOCIATION WHICH RESULTED IN MOTIONS BEING PRESENTED TO THE GFA COUNCIL IN THE FIRST ROUND PAPERS TO DISSOLVE THE VICTORIAN SOARING ASSOCIATION AND FORM A GFA REGIONAL COMMITTEE NAMED THE SOUTH EASTERN REGIONAL COMMITTEE. THE BACKGROUND TO THIS IS AS FOLLOWS.

The Victorian Soaring Association (VSA) has failed to meet its statutory and constitutional obligations in regard to minimum number of meetings for the last two years despite numerous attempts and concerted efforts to change this. Further it finds itself without core officers and cannot function. A previous attempt to remedy this in November last year at an EGM (called by the member clubs) also failed to attract a quorum and ratify the business. That meeting and an ordinary meeting was conducted however, as though there was a quorum in the hope that some later meeting, which did meet the necessary criteria, could agree to ratify that business, which would at least leave the VSA with the necessary political officers (councillors) to represent itself at the September GFA Council Meeting. The motions were passed at the above referred to Presidents' Meeting, leaving the VSA with a Vice President, and two councillors and State Vice President, still short of a Secretary, President, Treasurer.

Calls were made to either fill these positions and fulfil the legal requirements or wind up the VSA, or find some other compromise which would satisfy the member clubs' basic needs, whilst avoiding the administrative impost which has brought about the present situation.

Far ranging discussion on what the members clubs needed, what GFA needed, and the inter-relationship with clubs and Regional Technical Officers (RTOs) revealed that the needs could be met in another way. This essentially saw the state association being wound up, its assets and liabilities being transferred to a GFA Regional committee with a modified structure, and that the needs of the member clubs be fulfilled

through this committee. In this way it avoided mandatory reporting to the Associations authority and avoided constitutional compromises.

The essential elements are as follows:

- *Victorian Soaring Association wind up as an Incorporated Association and transfer all assets to GFA.*
- *The transfer be exclusively to become a GFA regional committee responsible for its member clubs, ensuring all assets be quarantined for the region's purpose only.*
- *That the structure be three RTOs plus the regional councillors, development officer and facilitator(s)*
- *That it conduct the business of the region by email and phone and only meet once a year where all the region's club presidents are invited to elect a new committee, set the next year's policies, commit to the financial arrangements for that year and any other special business.*
- *That the committee's finances be managed and controlled by the GFA Treasurer along regional committee guidelines.*
- *That council may not alter these basic parameters without agreement from the region at an AGM or EGM of that region.*

The alternative to a Regional Committee is for the VSA to wind itself up leaving the GFA without a quorum, which requires all regions to have a representative at council. This could be overcome by council appointing someone from the region, but this is hardly democratic or representative and leaves the problem of adequately servicing the needs of clubs and therefore members in that region by way of administration, airworthiness, operations, sport and development.

Minutes of the Meeting will be distributed to clubs and an Annual General Meeting

of the VSA which has been called for Sunday, 27 October 2002 at Bacchus Marsh Clubhouse.

Please vote and please vote Yes/Yes for retention of the good system we have had since the start of the GFA with a number of improved efficiencies.



GLIDING FEDERATION OF AUSTRALIA

Airworthiness Inspection

FORM 2 NOTICE

- ☐ A Form 2 inspection is due
Cheque for \$137* is enclosed
- ☐ A 20, 30 yearly, etc is due
Cheque for \$302* is enclosed
with copy of aircraft log book
- ☐ An initial C of A inspection
and initial registration is due
Cheque for \$511* is enclosed
(tick appropriate box)
on the following aircraft:

TYPE.....

VH

Please forward relevant airworthiness documents to:

.....

.....

..... Postcode

* prices include GST

Forward to:

GFA Secretariat, 130 Wirraway Road,
Essendon Airport VIC 3041

Letters to the Editors



What's in a Name

I'm surprised by the attitude of the GFA against the CASA license proposal. This is particularly so as the Gliding community (and consequently GFA) struggles to get new members and has trouble keeping them.

One of the advantages of the CASA proposal is that it will use the word "licence" on one of our qualifications. This is important as it helps to attract people into the sport and helps to keep them in the sport. This is particularly true where we lose large numbers of people after going solo.

Without the licence the solo becomes the main goal. Wording such as C Certificate, Silver C, etc., mean nothing to the man in the street and consequently doesn't provide a sufficiently appealing goal to make the large investment and time and money worthwhile. Gaining some sort of glider pilot licence is a far more appealing and desirable goal. By the time they reach this goal they should be doing cross-country and hopefully getting the bug for competition.

The lack of licence in our sport provides a bad impression to the outside world. It indicates a lack of professionalism. Just how much so was indicated recently by the following experience.

I mentioned in passing to a friend/acquaintance (table tennis opponent) that I did gliding. He was very interested but did not know what gliding was (as opposed to hang gliding, etc). It turned out that he and his brother had wanted to do some hang gliding but his brother's wife had put her foot down as she considered it too dangerous. Proper planes would have been okay, but not hang gliders. As I recently regained passenger and back seat ratings following a long absence from gliding I was keen to take them up. My club could do with some extra members and they were keen to do some aviation.

I explained that these were proper planes and flew the same way as planes, etc. All was going well until he asked if I had a licence. Explaining that the sport did not have licences changed the whole thing. No longer was there an impression that we were proper pilots or that we flew proper planes.

The same is also seen in the international gliding community. In some countries Australian pilots are unable to get their qualifications recognised simply because the work licence does not appear in their qualifications.

The gliding community and the GFA will have a major problem if CASA goes ahead with the proposal with other aviation sports but leaves gliding out. As the other sports

will have a common licence (just different endorsements as they go from on to the other) there will be an appearance that gliding experience does not count. In fact this may be more than just appearance.

Combine this with the fact that the other sports will have licences that are recognised by the International Civil Aviation Organisation (ICAO) and gliding will not be very appealing.

Ken Dawber



Changing Names

The change of the magazine's name was not a surprise as it has been obvious for some time that the previous combined name no longer fitted comfortably with the current expanded coverage that the magazine gives to the total scope of our sport.

But at the same time I felt a twinge of regret that the old name of Australian Gliding has passed its use-by date. I was involved with the founding of Australian Gliding in December 1951 when it appeared as an eight-page duplicated newsletter. As its editor for a total of 22 years I saw it grow gradually into a well-presented, professional-looking, profitable magazine of 52 pages with an international readership.

Then in recent years it has been incorporated with another fine magazine *Skysailor*, and the combined title became rather cumbersome. It had to have a better title.

Because of my long association with the magazine I have come to think of it as "my baby" and have had rather a paternal affection for it. My feelings now may be likened perhaps to a fond father whose only child has now reached maturity and has moved away from home to marry and establish a new family. Sappy? Perhaps, but that's how I feel.

Like the fond father, I have come to accept that things cannot remain forever as they were. The world has changed since 1951. The sport of soaring has changed and has developed in ways we older pilots never imagined. It is good to see that the magazine has changed also to keep pace with all these developments. I fully approve.

It is good also to see that the Gliding Federation of Australia leadership and operations have kept pace with the changing times and the growth of the sport of soaring. It is essential that this be done.

The editorial coverage of the combined magazines, to include the flying of sailplanes, hang gliders, paragliders and microlights, has broadened my own interests and understanding of the great strides that have been made in the technical, operational and performance aspects of our sport. I read every article in every

issue and am often astounded at the (to me) amazing performances achieved by pilots of hang gliders and paragliders.

I am no longer actively engaged in flying but I delight to read of the adventures of others. I trust that the combined efforts of all participants will continue to advance the sport of soaring in its many modes.

Allan Ash



Congratulations to HGFA

No one likes paying bills at this time of year, but I think a word or two of thanks is due to Craig Worth for his successful efforts in preventing an increase in the HGFA insurance premium this year.

Many other "dangerous" activities (eg, darts, marching in parades, etc.) have suffered huge increases recently. A similar increase could have had devastating effects on our sport.

Peter Bolton



Gliding Scoring Systems

Dear Gliding Friends,
Please allow me to make a small contribution to a debate that is not really my business, but is close to my heart.

Your discussion on gaggles and scoring, etc., is very interesting, to a small handful of academically-inclined competitive pilots. But as long as gliding scoring systems are not properly understood by the majority of soaring pilots, let alone by the general public, there is no chance of competition gliding becoming a spectator/TV sport.

Does this matter? Yes, because unless gliding does become a spectator sport, there will never be a popular constituency of any significant size to defend it against the ever-increasing pressure from airspace regulators, commercial airlines, green activists, anti-noise campaigners, politicians and other assorted ogres who would either close us down completely or else confine our activities to special reserves of very limited dimensions, during restricted hours. So without popular support, our sport is destined to continue its worldwide decline, the evidence for which has been around for a long time now.

Is it possible for gliding to become a popular TV sport? Well, it seems to have been possible for darts, ocean-racing, snooker, even fencing to some extent (most popular TV event at Sydney Olympics in France), and many others, so I see no reason whatever to assume that it is impossible for gliding, if properly packaged. Kite-surfing has seen explosive growth in the last three years [www.kitesource.com]. It is to sports like this that young people will go unless

Soaring Calendar

gliding succeeds in refreshing its image.

The problem is of course that the rules in the Sporting Code (and I am not talking only about gliding here) are made by (ex-) contest pilots who have been very successful using the current system. Naturally, they therefore have a tendency to consider this system to be fair and appropriate. So they have no real incentive to think radically. This is not a criticism – merely a recognition of human nature.

So what are the essential features of a fair, transparent and comprehensible scoring system?

1. Objectivity

This means no subjective assessment of, for example, glider performance, so handicapped factors are out.

2. Face validity

This means that things must be the way they seem to the untrained eye.

So, for example, if a pilot crosses a finish line 10 minutes before everyone else, it is reasonable to assume that he has won.

3. Individual autonomy

This means that each competitor must be scored exclusively and fully on the basis of his own performance, whatever the factors might have been that enabled him to achieve this performance. It should not be possible for a person's score to be affected by what other competitors do, or fail to do. (Such a possibility invites cheating.) I have not been able to find any other example in another sport of what happens in gliding/hang gliding with 'day factors.'

Please note that this implies the sacrifice of a sacred cow: if you accept the above principles, you can no longer attach such high importance to the systematic elimination of the luck factor. It is this that has been the guiding principle of scoring system design in gliding for generations. But look at the Olympic downhill skiing race: Four years of preparation and then there is just one run, and it's all over in two minutes. There must be an enormous luck factor involved. But that does not diminish the status of the Olympic Champion, far from it.

Once you have abandoned the slavish adherence to 'elimination of luck' as the be-all and end-all, you have also solved another major problem faced by gliding – the length of contests. Who ever heard of a contest, in which all contestants remain involved all the way through, that lasts two weeks? Even cricket test matches only last five days!

I've rambled on enough, and offer this only in the hope that it may stimulate some more radical thinking.

Max Bishop, Secretary General FAI



August 2002

AUSTRALIA



WA Hill Flyers GERALTON Fly-in – 24-31 August 2002

Free event – great flying at GERALTON at the local GERALTON sites and along the beautiful Chapman Valley. Local accommodation available at caravan park at the entrance to Chapman Valley (discounts for club members). More details on the hot line (08 9487 3258) and <wshgc@listbot.com> and <skysailing@yahoo.com>, or contact Dave, Rick or Mark at the Hill Flyers Club, <hillflyers@hotmail.com>.



QLD Teams Challenge 22-27 September 2002

Practice day: 21 September. Venue: Kingaroy Soaring Club. Contact: Lisa Turner ph: 07 3876 7958 or email <lb.turner@student.qut.edu.au>.



QLD State Competition 2002 28 September – 6 October 2002

Venue: D.D.S.C. Jondaryan. Practice day: Saturday 28 September, comp days: 29 September to 5 October. Final dinner: Saturday 5 October. Ph: Libby Matuszczak 07 4634 4879 (h), or email <libbymat@optusnet.com.au>. Entry form on our web site: [www.ddsc.org.au].



St Bernards Canungra Classic 2002

28 September – 5 October 2002

Venue: Canungra, QLD. Registration: Friday 27th. Entry fee: \$120 (\$150 if paid after 31 August) + \$40 site fees. GPS mandatory. Intermediate with inland experience. Cheques/money order to Rod Stead, 9 Griffith St, North Tamborine QLD 4272. This year you can pay by Visa/EFTPOS; ring Vicki at St Bernards, they are kindly letting us use their payment facilities. Entry inquiries to Rod on 0428 132215, 07 5545 0969 or <canungrahg@mac.com>. Register at [www.triptera.com.au/canungra] and follow the links. Last year's great accommodation and meal deals available; call Vicki on 07 5545 1177 to book and obtain prices or visit their web site at [www.stbernardshotel.com.au].



Narromine Aviation Expo and Air Show 2002

4, 5 & 7 October 2002

Year of the Outback Event & Glider Grand Prix. All welcome. Total prize money \$1,500. Contact Terry Cubley for more information, ph: 03 5360 8275 or email <cubtv@netconnect.com.au>.



Canungra Cup PG 2002 12-19 October 2002

Canungra, Qld. This event is AAA sanctioned by HGFA, CIVL Cat. 2 status and the first sanctioned PG event of the Australian season. Entry fee: \$150 (if received before 6 September, \$30 late fee thereafter) incl. maps, competition T-shirt, presentation dinner, site fees for the duration of the event and the chance to win up to 450 national ladder points each day. Organised retrieve system (\$160 for the eight days of the event) on offer – to reserve a place notification must be made on the registration form and payment received before 6 September. For more information about the competition or Canungra, visit the web site [http://home.iprimus.com.au/plenderleithm/canungracup/], email us at <canungracup@hotmail.com> or phone Karen Sexton on 0410 433 711 or Robert Wilton on 0418 732325.



Aerotow HG Competition 16-20 November 2002

Gulgong Gliding Strip, NSW. The Newcastle HG Club is running an aerotow comp. Practice day: Friday 15th. Costs are being worked out. Application for B grade sanction for a five day comp. Scoring will be Race and

GPS verify. Tugs provided; pilots pay per tow cost. Strip fees included in entry fee. Camping fees extra (you can camp on the airstrip, self-contained, but a bit rugged). We are looking for 30 competitors, capped to 50 max. Ph: Billo 0412 423133, <william.olive@telstra.com>.



2002 Outback Shootout 16-30 November 2002

Tucumwal Aerodrome, NSW. International gliding competition for Open Class gliders. Contest director: Eddie Madden (CFI). The competition will run over a period of 15 days. 1st practice day: 16 November. Official practice days: 17-18 November. Competitors must fly on one of the official practice days. The contest starts on 19 November and ends on 30 November (12 days). Competitors must have previous contest experience at Nationals level. Single and two-seaters can enter. The competition is open for pure gliders, sustainer equipped gliders and self launching gliders. The number of entries may be restricted depending on registrations received. Scoring will be based on data provided by approved dataloggers. Entry for non-logger equipped gliders is not possible. Wearing a parachute whilst in flight is compulsory for competitors. [www.sportavia.com] Sportavia Soaring Centre, PO Box 78, Tucumwal NSW 2714. Ph: 03 5874 2063, fax: 03 5874 2705, email: <info@sportavia.com.au>.



Narromine Cup

23-30 November 2002

Orana Soaring Club. All welcome. Decentralised scoring. Best three flight performances. Contact Beryl Hartley for more information, ph: 02 6889 2733 or email <hartley@avionics.com.au>.



Corryong Cup 2003 (The 20th Anniversary!)

12-18 January 2003

Corryong, VIC. Celebrate 20 years of Victoria's best flying with the biggest and best Corryong Cup yet! What better way to party than with 10,000ft days and PBs by the dozen! Share this Anniversary event with the friendliest pilots from VIC, NSW, QLD and beyond. Registration/practice day: Saturday 11th, comp start Sunday 12th. Come to the best FUN comp of the year. Mt Elliot, Corryong is one of the most reliable and spectacular flying sites in the Eastern highlands. It's a hill launch set at the base of the Australian Alps on the VIC/NSW border. Tasks are generally 50-100km with up to four turnpoints to make pick-ups easy. The comp will be scored on a handicap basis according to glider type and flying experience, so everyone who enters has a chance of taking out the top prizes. You must have an intermediate rating (preferably with inland experience) and UHF radio. Scoring will be with GPS or camera, whichever you prefer. This is still the cheapest comp in the HG calendar at only \$100 if you register before 30 November 2002 (\$120 thereafter). Cheques made out to 'Blue Mountains Hang Gliding Club Inc'. Fee includes comp entry, 20th Anniversary T-shirt, turnpoint film, colour topo map of the area and a presentation dinner with floorshow. Places are limited so don't miss out! Register with: Steve Bell, PO Box 110 Woonona NSW 2517, ph: 0412 686812, email <spbell@1earth.net>.



Australian National Club Class Championships

13-24 January 2003

Temora Gliding Club, Temora, NSW. Contact Geoff King for more information, ph: 02 6977 4424. Snail Mail: PO Box 206, Temora NSW 2666.



Australian National Multi-Class Championships

2-15 February 2003

Benalla, VIC. Gliding Club of Victoria. Contact Gary Brasher for more information, email <brash@eisa.net.au>.



Soaring Australia 19

Lift – Making The Best Of It

Bernard Eckey

ORIGINALLY WRITTEN FOR A CLUB NEWSLETTER AND PUBLISHED OVER A PERIOD OF A YEAR OR TWO THE FOLLOWING SERIES OF ARTICLES WAS INTENDED TO HELP CLUB PILOTS TO IMPROVE THEIR RATIO OF CIRCUITS TO SOARING FLIGHTS.



However, in late 2001 the RTO sports (SA) asked for the paper to be presented at the performance week at Waikerie. To cover aspects related to competitive and performance orientated gliding it was re-drafted and is now made available to the gliding community as a whole. Any comments or suggestions made in this series of articles should not distract readers from official operational guidelines.

I'm mindful of my rather basic writing skills and ask readers to keep in mind that English is not my mother tongue. Any suggestions for improvements or additions are therefore most welcome indeed.

INTRODUCTION

To remain airborne all aircraft require energy – this is fundamental. Power pilots usually rely on a big noise maker up front plus large amounts of fuel in the tank. In contrast we glider pilots tap into generous amounts of energy mother nature freely provides. Once we have acquired the skills to make good use of all this free energy we can fly in peace and quiet without spending hard earned dollars on engines and fuel.

Thermals are the most common source of energy for gliding, they are our main engine. Getting maximum power from their engines makes racing cars go fast. In a sense the same applies to gliding. The more proficient we become at extracting the energy from thermals the faster we can go and the more enjoyment we get from our sport.

Thermals are columns of rising air and as long as we climb in them we accumulate energy in the form of altitude. It is almost like refuelling at a petrol station – well before we run dry we top up again and continue on our merry way. This is easier said than done especially for newcomers to the sport but hopefully this article can assist

aspiring glider pilots to optimise their thermalling technique and get a better understanding of related issues.

CHAPTER 1 – EFFICIENT THERMALLING

1.1 Thermal recognition and thermal detection

A very basic but nevertheless important skill in gliding is to recognise a thermal as we approach it. Generally thermals are invisible unless they are marked by smoke from a fire or they are strong enough to pick up dust and form a column of dirty air. We all know that this only happens on very rare occasions – certainly a very good reason to fine-tune our thermal recognition skills.

We will touch on the structure of thermals a little later but for the moment we must accept that a thermal can not rise through the lower atmosphere without leaving some sort of disturbance in its wake. Therefore the first sign of nearby lift is some slight turbulence and the second clear indication is an increased rate of sink. Although no two thermals are the same it is certainly fair to say that this sink usually weakens gradually and is soon replaced by a second patch of rough air. This is another indicator of a nearby thermal and a sure sign that lift is not too far away. Our mind should go into thermal finding mode and when sink gradually turns into weak lift cruising speed should be slowly reduced in anticipation of good things to come. In any case we remain fast enough to ensure a quick and positive aileron response. For a modern unballasted single seater a speed of around 55-65kt would be fairly close to the mark. What we are looking for is a strong updraft with a distinct vertical acceleration. Usually this strong updraft is embedded in a larger area of buoyant air with less powerful but still quite

workable lift. When the distinct updraft finally occurs it is not displayed by our instruments as quickly as we would like because instruments can only indicate lift after the aircraft has undergone a change of altitude. Only then can probes sense pressure changes and feed this information back to the variometer. This, of course, takes time – in fact it takes about three seconds for even the fastest vario to display any change in vertical airspeed.

If you think this is an unacceptably long delay and rather bad news you are not alone. However, the good news is that as pilots we possess faster reacting and very sensitive body sensors which allow us to reduce our reliance on the instruments and on the variometer in particular. Some of these sensors are located in the inner ear providing help with our balance system as their primary function. In addition our body's nerve endings also act as sensors whereby in our backside are those especially useful. They can detect even minute changes in seat pressure and automatically provide our brain with this information without delay. A very clever software program in our brain quickly converts this feedback into an indication of lift or sink. This ability makes our brain superior to even the best and most expensive variometer on the market because it already responds to the initial vertical acceleration of the aircraft and gives us an almost instantaneous "seat of the pants" feedback.

I know that some readers may find this hard to believe, but it is a fact which you might want to confirm for yourself on one of your next flights by forcing yourself to consult the variometer only upon feeling a change in seat pressure. Don't be surprised when on every occasion lift is sensed much quicker than all those expensive gadgets on the instrument panel combined. I have tried



it on many occasions and even covered up both my variometers for the duration of flights lasting several hours. Let me assure you that it works very well indeed, but I'm happy to admit that the audio sound of my electrical vario provided valuable assistance on those occasions.

One final point for consideration. In recent years I have had the pleasure of flying with Australian, European and even World champions, for that matter. What they all have in common is a rather limited interest in their instruments while in cruise but having said that I hasten to add that they do rely heavily on information from other sources such as other gliders in the vicinity, soaring birds, clouds, ground features and – last but not least – changes in seat pressure.

But now back to our thermal.

After feeling an increase in seat pressure we get the presence of a thermal confirmed by the fastest variometer (usually the electric vario) and at the same time we obtain an indication of its strength. Our brain is only good at detecting changes in vertical airspeed, but it is totally useless when it comes to climb rate indication. Our variometer does come in handy now – in fact it is absolutely crucial for an indication of thermal strength.

Let's elaborate on this a bit more and imagine we step into the elevator of a tall building. As the elevator goes up we can clearly feel increasing G-loads which our brain correctly interprets as an upwards directed acceleration. However, as soon as this acceleration subsides and we ascend at a steady speed our brain is unable to provide further clues. It can't tell whether we are still going up or whether we have come to a complete stop – no wonder we all look at the floor level indicator to find out where we are. Only when the elevator slows down again does the brain sense decreasing G-loads which it rightly interprets as deceleration.

If we agree that our brain can't sense vertical speed in an elevator then we will have no argument that the same holds true in a glider. Luckily clever people have invented variometers for vertical airspeed information, but the point I'm trying to make is that we should mainly use our "seat of the pants" for thermal detection. Our vario is mainly consulted during the second phase namely thermal selection and rate of climb indication.

Make no mistake, keeping the eyes glued to the variometer during thermal entry is a bad habit depriving us of other valuable clues including hints from outside the cockpit.



It is not only a dangerous practice but also detrimental to performance as it seriously masks our ability to feel the thermal and sense its likely position.

In this context it should be mentioned that the human brain has a habit of automatically assigning top priority to visual clues. There is plenty of scientific evidence suggesting that only in the absence of visual clues it takes other stimulus into account. Hundreds of millions of years of human brain evolution have probably led to this development for very good reasons but as far as glider pilots are concerned the brain's preference for visual clues has a very significant drawback. It means that by constantly looking at the vario on thermal entry (visual

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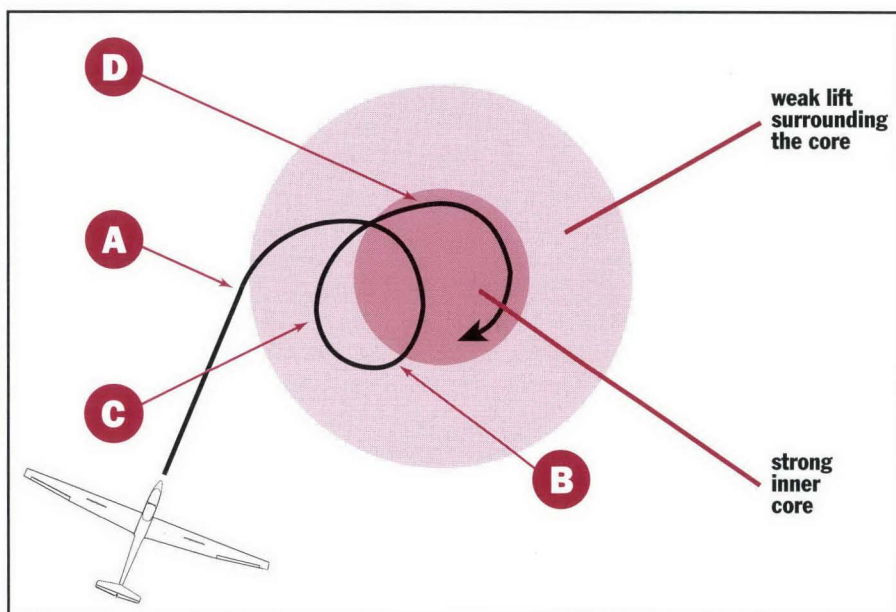
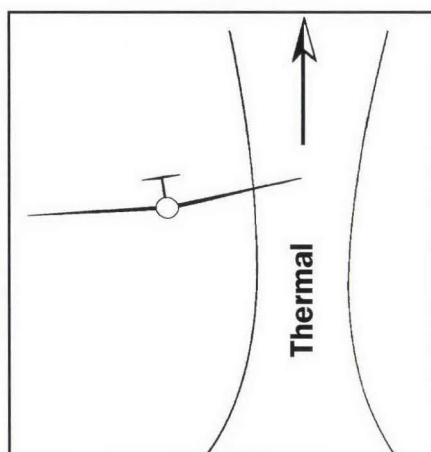
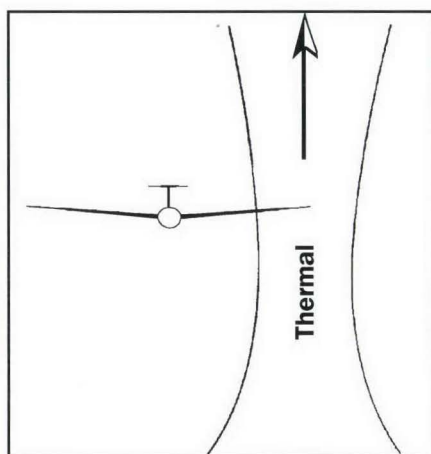
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Tyres, tubes, wheels, brakes. Tost springs, rings, weak links. Perspex, seals, tapes.

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The DG-808B. The competitive 15/18m self launcher. Over 250 DG-800's sold worldwide.



Left – Figure 1: Lifting of wing by thermal (Not to scale)

Above – Figure 2: Thermal centering by varying angle of bank

A-B Turning into lift

B-C Steep angle of bank due to weakening lift

C-D Shallow angle of bank due to increasing lift

D Maintain normal angle of bank while in steady lift

clue) our brain automatically disregards the more instantaneous “seat of the pants” information. Interesting, isn’t it?

1.2 Centering a Thermal

Having found a thermal and satisfied with its strength decisions need to be made. Doing nothing risks losing it and flying into sink again. A turn must be initiated but should it be right or left? If our eyes are glued to the variometer during thermal entry we have few clues and need to rely on luck for banking towards the best part of the lift. Our chances of turning towards the core are 50% at best but our chances of turning into sink are equally bad.

Relying on our “seat of the pants” and by looking outside we can often notice a slowly lifting wing while closing in on the core. Obviously this wing is travelling through more buoyant air and that can often provide a good indication where the core of the thermal is (refer to Figure 1).

By simply banking towards the lifting wing and doing the exact opposite of what our glider wants to do chances are increased of striking the best part of the lift without much delay and without going through heavy sink normally found next door.

This of course means that we must be able to turn equally cleanly to the right or left. If we – like many other glider pilots – have fallen into the habit of thermalling in the same direction all the time there is no need to worry. It is a common problem but can easily be corrected without involving instructors or coaches. We simply must

gather all our willpower and force ourselves to thermal in the opposite direction for only half an hour or so every time we fly. Practicing this method ensures that within only a few weeks we will lose our preference towards a particular direction of turn – guaranteed.

Even the best glider pilots in the world do not get exactly into the core on the first turn and need to perform some thermal centering.

Applying the following two basic rules help greatly when it comes to moving the glider closer to the centre of the lift.

RULE NO. 1:

Never ever fly through the same patch of bad air twice.

RULE NO. 2:

As the lift decreases we increase angle of bank. As the lift increases we decrease angle of bank.

Rule No. 1 does not need any further comment, but I must admit that I am dismayed to see this basic mistake repeated time and again. It is simply a bad habit some of us have fallen into and there is only one piece of advice I can give: **Don’t do it.**

Rule No. 2 is another way of saying that we must always aim to shift our turn towards the stronger part of the thermal.

That’s enough for today folks but please stay tuned for Part 2 of this series of articles. It deals with alternative methods of centering thermals and related issues.



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AUSTRALIAN GLIDING MUSEUM

Graeme Barton

WIDESPREAD SUPPORT FOR POINT COOK NATIONAL AVIATION MUSEUM PROPOSAL.

In May 2001 the Commonwealth Government announced that the Point Cook airfield, the preferred site for the Australian Gliding Museum, would be retained as an operating airfield and that a Steering Committee would be appointed to draw up recommendations for the future use of the whole site of RAAF Williams Point Cook.

The Department of Defence stated intention is to dispose of the Air Force Base within a specified time frame. The Steering Committee, under the chairmanship of Don Hayward, a former Minister of Education in the Victorian Parliament, is now operating and the consulting firm of Sinclair Knight Merz has been commissioned to assist in the preparation of the Strategic Land Use Plan for the area. Sinclair Knight Merz has wide experience in aviation related consultancy.

A process of consultation with community, environmental and heritage groups, existing users, and aviation, commercial and other interests is under way. The Australian Gliding Museum will be involved in this consultation process. Finalisation of the Strategic Land Use Plan is targeted for the end of August 2002, and the site will be available for disposal early in 2003.

Australian Gliding Museum representatives have been working very actively with the Point Cook Airfield Preservation Action Group to promote the development of aviation facilities at Point Cook. In order to gauge support from the aviation community for the establishment of a national aviation museum at that site, the Action Group recently contacted most of the national sporting aviation and aviation interest groups seeking their support for the following motion which will be presented to the Steering Committee :

'We request that the Point Cook Steering Committee takes the necessary action to:

- 1. Recommend to the Commonwealth Government that the RAAF Williams Point Cook Base be proclaimed as the National Aviation Heritage Centre.**
- 2. Establish a national aviation museum at Point Cook as an integral part of the National Aviation Heritage Centre and representing all branches of aviation.**
- 3. Initiate a feasibility study into the establishment of a national aviation museum at Point Cook.'**

At time of writing this report, positive responses have been received from almost all of the aviation groups that were contacted. These include:

- *Aircraft Owners and Pilots Association of Australia*
- *Antique Aircraft Association of Australia*
- *Australian Sport Aviation Confederation, which comprises:*
 - *Australian Aerobatic Club*
 - *Australian Ballooning Federation*
 - *Australian Parachute Federation*
 - *Gliding Federation of Australia*
 - *Hang Gliding Federation of Australia*
 - *Model Aeronautical Association of Australia*

- *Australian Gliding Museum*
- *Australian Ultralight Federation*
- *Aviation Historical Society of Australia*
- *B24 Memorial Foundation*
- *Civil Aviation Historical Society*
- *Qantas-TAA Museum*
- *Royal Victorian Aero Club*
- *Sports Aircraft Association of Australia*
- *A number of other local flying clubs and EAA Chapters*

The combined membership of these aviation organisations is approximately 34,000. In addition, support has also been received from the Victorian Division of the National Trust of Australia, which has a membership of 23,700.

Another key organisation in the future development of Point Cook is Point Cook Operations Limited (PCOL), a not-for-profit company set up in 1999 with the support of the RAAF to ensure, amongst other objectives, the ongoing development of the RAAF Museum which is located at Point Cook and to preserve buildings and structures on the site of historical significance. A number of these buildings have been listed as heritage buildings. PCOL is also supportive of other aviation organisations becoming established to further enhance the development of the site as an aviation centre.

The Commonwealth Government is committed to the disposal of Point Cook RAAF Base as a defence property. This presents a unique opportunity to have established a national aviation museum representing all branches of aviation. In the mid-1970's, the Commonwealth Government appointed a Committee of Inquiry on Museums and National Collections. After extensive reviews, the Committee released its report, the Pigott Report, in 1975. This Report recommended the establishment of three national museums – a national museum (covering the history of man in Australia and the Australian environment), a national maritime museum and a national aviation museum. The first of these was opened in Canberra last year, the National Maritime Museum has been in operation at Darling Harbour for some years, but we are still awaiting the establishment of a national aviation museum.

The establishment of a national aviation museum, representing all branches of aviation, will undoubtedly be resolved by a political decision. It is essential that the aviation community is united in achieving the objective of a national aviation museum. The disposal of the Point Cook RAAF Base presents a unique opportunity to achieve our objective. Please give your support and lobby any political contacts you may have.

It is intended that the Australian Gliding Museum, if it is established at Point Cook, will be a live museum, ie, flying displays by a wide range of gliders from vintage to modern aircraft will be a regular feature of the Museum's activities. As such it will be a showcase for gliding in Australia and will do much to promote the sport to the general public.

For further information on the Point Cook proposal, please phone Graeme Barton on 03 9802 1098.





PARAGLIDING

PARA PERU 2002 – FROM MEGATRO

The giant city reaches to the very edge of land, to the coastline where the flying site of *Costa Verde* is located

Photos: Jimmy Hall and Stefanie Brendl of
'Sea to SkyProductions' [www.seatoskyproductions.com]

POLIS TO MEGA NOTHINGNESS

Part 1

Stefanie Brendl and Jimmy Hall



EARLIER THIS YEAR WE HEADED BACK TO SOUTH AMERICA IN SEARCH OF SOMETHING NEW IN FLYING. PERU SEEMED LIKE A GOOD PLACE TO FIND JUST THAT. WE COULD NEVER HAVE GUESSED HOW STRANGE AND UNUSUAL IT WOULD REALLY BE, AS YOU WILL SEE IN THE FOLLOWING TWO PART PHOTO REPORT.



PARAGLIDING



Jimmy playing low near the ridge
Photo: Stefanie Brendl



Frequently a fog called "Neblina" crawls in from the sea and blankets the city

BIG CITY SOARING

As soon as our feet left the ground, what had been an oppressive, soul consuming, night-mare of a place, turned into a complete and utter joy to fly over. Having been imprisoned in the city's overcrowded mass of noise, people, pollution, and traffic, taking flight was freedom.

When thinking of flying sites, a chaotic city of 11 million people does not find itself at the top of the list. Before setting off on our first trip to Peru, we knew that there was flying in Lima, the country's capital city. We had expected it to be so-so ridge soaring where we might enjoy a short afternoon flight as we hurried around the city preparing for adventures in more remote parts of the country. What we had not expected it to be was a lifesaver. Looking at the photos you can imagine how it might be fun to soar over the city. But what you cannot imagine

is how it feels to fly there after being trapped in it. What had been hell when we were in it, turned into bliss when we were above it. Once airborne, the noise and the traffic were still plainly audible, but it was almost like music. So relieved to no longer be in it, the sounds and sites of the massive city became a pleasure to see and hear. In a sort of selfish way, we silently mocked the poor suckers still buried below. Of course, we would again be in the same position, but at least, because of the flying reprieve, we would be there with our sanity somewhat intact.

At this time it was hard to imagine that we could find anything but chaos in Peru, but we were proven wrong as we escaped the city and headed south into the desert...

See the awesome conclusion to Stefanie and Jim's Peru adventure next issue...

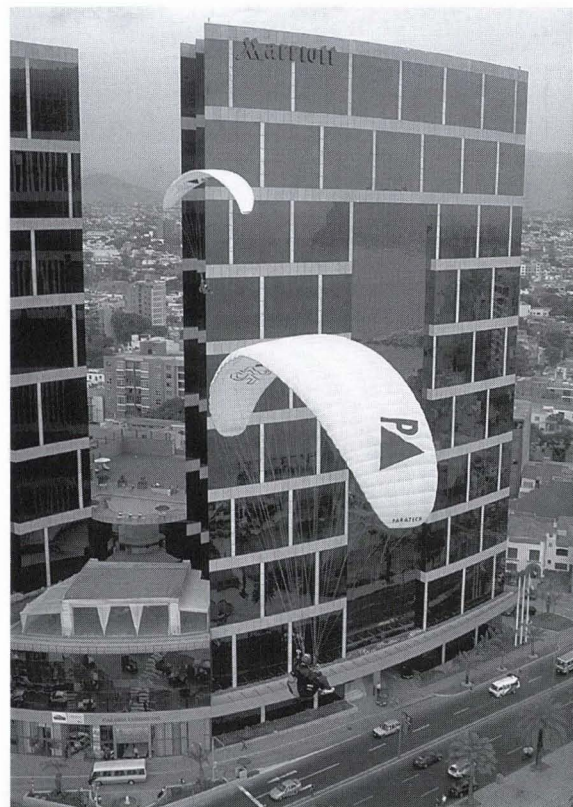


Jimmy cruising around the city
August 2002

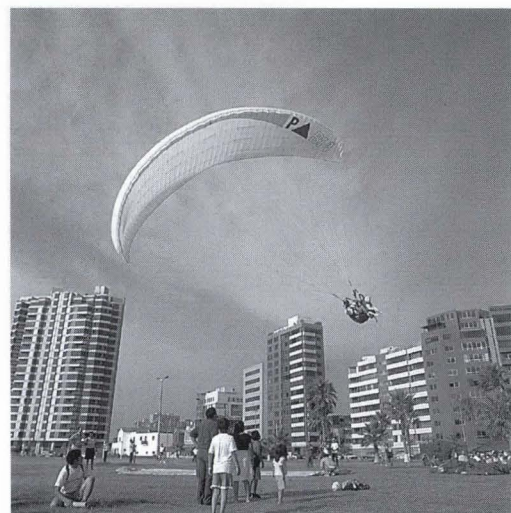
Photo: Jimmy Hall



Labrador 'Hausi' taking his owner Jose Zarich on a fun flight around town
Photo: Stefanie Brendl



One of the most spectacular buildings to soar on the city's edge is the Marriott Hotel



Launch/landing zone at Costa Verde

YOTO Grand Prix

NARROMINE WILL BE THE CENTRE OF THE YEAR OF THE OUTBACK CELEBRATIONS IN OCTOBER THIS YEAR.

2002 of course is the year of the outback and the 100 year celebration of the first powered flight. Both of these events come together in the Outback Aviation Expo and Airshow which, is planned for the four-day long weekend of Friday the 4th to Monday 7th October. This is planned as a combination of many forms of aviation, including the Warbirds, RAAF Roulettes, balloons, ultralights, aerobatics, parachuting and of course Soaring. The Sunday will be a major airshow, not to be missed. The gliding event will take place on the Friday, Saturday and Monday.

THE EVENT

The gliding event will be the Year Of The Outback (YOTO) Grand Prix. This is the most exciting form of sailplane racing that was developed and introduced in Australia. It is one-on-one racing, gliders competing in small groups on a set course with a racehorse start.

RACEHORSE START

Consider a yacht race, with the yachts milling around before the start boat waiting for the gun to be fired. Some of the daring skippers will set their boat towards the start, aiming to start just after the firing of the gun. Well a similar approach is used with the gliding racehorse start. The start area is a two kilometre radius circle and prior to the firing of the gun the gliders need to move into this

circle. Once the start is announced they must cross the edge of the circle heading on track.

This is of course monitored by the GPS logger so the pilot needs to make sure that they don't break too early. It would be disappointing to fly well and then have the flight disqualified through starting too early.

In actual fact, there may be some tactical advantage of just hanging back a little so that the other gliders move out ahead of you, marking the good air and the first few thermals. I don't expect that we will see people going to the extent of the track cyclists who virtually stop to let their opposition get slightly ahead before a big plunge for the finish, but we may see a little bit of tactical delaying.

The two kilometre radius circle is selected so that we ensure that there is a thermal within the start region, and also to give pilots some separation if they want to try moving off in a slightly different direction. A height limit may be set to reduce any advantage of an earlier launch giving too big an advantage.

All gliders will be credited with a start time equal to the announced start time for their group.

SCORING

A place scoring system provides rewards for excellence without unduly punishing a poor performance. This also means that the non-soaring public can actually understand who is winning and what an individual needs to do in order to win.

ZAN over Ayers Rock

Photo: Clare Macfarlane (clinging to the side of a Bell Jetranger helicopter)

The scoring is simple. One point for achieving the minimum distance of 60km, plus one point for each person that you beat. To add some encouragement for making decisions and taking 'tactical' risks, bonus points are given to the first and second placegetters.

- One bonus point is awarded to the pilot who places second.
- Three bonus points are awarded to the pilot who places first.

So in a class of eight, the final daily points would be:

PLACE	POINTS	PLACE	POINTS
1	11	5	4
2	8	6	3
3	6	7	2
4	5	8	1

In practice, these bonus points decide the overall tactics of the event. No more can you afford to stay with the gaggle and come home only a few seconds later, those few seconds can cost you nearly 50% of the days available points. This means that there is a great pressure on pilots to try something different, to push ahead, follow a different street, head in a slightly different direction, use all of your knowledge and weather understanding to grasp the advantage.

This adds a new challenge and approach that makes up part of the overall excitement of this competition. The other aspect is that



you are flying wing tip to wing tip with the opposition. Someone who is ahead is beating you, now you have to find a way of getting past to gain those extra points. This can lead to some exciting finishes although at Gawler this was rarely the case, most placings were decided well out on task, people had made a break from the group to come home minutes ahead, not seconds.

One safety rule is that when approaching the finish line, if overtaking another glider this must be done to the side of the other glider, not overlapping above or below. Pilots are encouraged to give a radio call when overtaking to make sure that there is no risk to either pilot.

GAGGLES

With a racehorse start there is a tendency for gaggles to occur early in flight. In practice these gaggles broke up fairly quickly as pilots made decisions to break away and get the advantage, even quite early in the flight.

To make sure that there is no safety issue with possible gaggles, we restrict the number of entries in any one flying group. Depending on the number of entries, one class may involve a couple of groups with six to 10 entries in each group. At Narromine, if this is the case, the pilots will be rotated through the groups, with the top pilots after the first two days competing in the final on the last day. The other pilots will also compete on this day in the B final.

TASKS

All tasks will be assigned speed tasks – normal races. As a result we will fly aircraft in classes so that the gliders will be of comparable performance. Pilots are encouraged to enter in whatever glider they have available and we will allocate classes accordingly.

The turnpoint will be a 500m radius circle and each glider must pass through the turnpoint sector/circle. The datalogger trace must show at least one point within the turnpoint circle.

If the turnpoint is not achieved but the logger trace shows a point between 500m and 1,000m, a two minute penalty will be added to the task time of the pilot.

If the datalogger trace does not show a point within 1,000m of the turnpoint then the pilot will be deemed not to have made the turnpoint.

SHOW ME THE MONEY

Now for the good bit. As this event is a major celebration and tourism event, sponsorship has been arranged that will ensure at least \$1,500 worth of prize money for the event.

So we have an exciting competition, a great venue, huge variation of aviation activities, great holiday and great flying, and you may be able to pay for the whole thing through some clever tactics.

Entry form and other information is available through the GFA web page, so make the decision now and get your application in.



GFA Badges & Certificates

FAI REPORT JUNE 2002

A CERTIFICATE

MOHAM-WILD Jonas	10697	RAAF Richmond
WILSON Kevin Joseph	10699	Southern Cross
BROCKWAY Meaghan C.	10703	NSW AIR TC
LAUB Manfred	10704	Central Coast
BURGESS Cameron	10706	Sthn Riverina
COMER Michael James	10707	Sthn Riverina
CANNAN Marc	10708	Sthn Riverina
KELLY Timothy Leo	10709	Sthn Riverina
YASUI Sho	10710	Sthn Riverina
ALLEN Keith	10711	Darling Downs

B CERTIFICATE

NOBBS Christopher P.O.	10646	NSW AIR TC
BURGESS Nathan Lee	10601	SA AIR TC
MILLER Bruce	10631	Narrogin
JELEN Andrew	9941	Central Coast

A AND B CERTIFICATE

McKAY Brett John	10698	Byron Power
HOUSTON Paul Vincent	10700	Sthn Riverina

C CERTIFICATE

WILLEY Adrian Richard	10487	NSW AIR TC
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B AND C CERTIFICATE

ALLON Roger Milbank	10451	Hunter Valley
---------------------	-------	---------------

A, B AND C CERTIFICATE

HEWITT Kenneth William	10696	Sthn Riverina
NASH David Anthony	10701	Central QLD
O'TOOLE Brian John	10702	Boonah
OKA Masaaki	10705	Sthn Riverina
PAUL Brian Robert	10712	Kingaroy

SILVER C

THOMPSON Christopher	4427	Southern Cross
HEWITT Kenneth William	4428	Sthn Riverina

SILVER HEIGHT

VASILADIS George	GCV
------------------	-----

DIAMOND GOAL

MUSGRAVE Robert	Beauford
-----------------	----------

DIAMOND DISTANCE

WATERFORD Robert Mathew	Canberra
-------------------------	----------

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 Fax: 02 6889 2933, Email
 <hartley@avionics.com.au>

Decentralised Competition entries to:
 Chris Stephens
 PO Box W48 Wanniasa ACT 2903
 Ph: 02 6231 4121, Email
 <poboxw48@dynamite.com.au>

Flight declarations for badge and record flights

Flight declarations for badge and record flights may be different. It is important to not confuse the rules for each category. A number of claims made this last year supplied electronic evidence of the flight. In many cases the flight declaration was not made in the Flight Recorder and in some of the claims the flight was declared for a different pilot, aircraft, task and even date.

The Written Declaration

There is specific information to be included on a written declaration. Details can be obtained from the FAI Sporting Code Section 3, Chapter 4 or you may wish to use the FAI Flight Declaration Form that can be downloaded from the FAI web site. [www.fai.org].

The Electronic Declaration

Where the task is electronically declared in the Flight Recorder prior to the flight, a written declaration is not required. A written declaration however may be made but be sure that the time of the declaration is recorded. Whichever is the last declaration made prior to the flight is valid.

Turnpoint Declarations

No more than three turnpoints can be declared and used for any badge flight. All turnpoints for Badges must be declared prior to the flight. Only Free Distance flights for Records do not require that the turn points be pre-declared.



Bald Hill: New Regulations

Due to Wollongong restrictions and findings from the coronial enquiries, new rules and procedures are being enforced upon Bald Hill. Top landing in the southern "Chute" until further notice has been totally prohibited due to infringements against rules and procedures of 95.8. This ban will be enforced until limitations have been lifted upon the SPHG&PC.

In conjunction with these new procedures a Duty Officer will be employed on Bald Hill on all weekends and public holidays. This officer will be identified by a fluoro orange safety vest with the lettering, "Duty Officer". This designated officer of the club will be fully supported by the following bodies: SPHG&PC, HGFA, NSWASA, Wollongong Council and CASA. It is imperative that you make yourself known to this individual if you have any doubt of conditions or any reference to the site. This individual will also have access to the "safe" placed at the toilet block of all first aid equipment. This individual will be fully contactable via a mobile phone (0401 076 917), the number to be displayed on a sign supplied by Wollongong Council.

On week days Voluntary Safety Officers will wear fluoro green safety vests with the lettering, "Safety Officer". For any site references or assistance you should contact this individual. The safety officers will also be fully contactable via a mobile phone (the numbers will vary, but will also be displayed upon the designated sign). Some of the duties that the Safety and Duty officers will undertake will be to check current memberships and licences, and recommend possible restrictions on light and variable days, if the officer deems there to be a safety concern. Breaches on air safety, rules and procedures will be dealt with.

Wollongong Council is also stating that some restriction will be imposed upon members of the public, but we await further information on this matter.

Since 14 May 2002, all remote control craft are totally prohibited on the Bald Hill area. This is regardless of whether you are a club member, non-club member or a member of the public. A Wollongong Council Ordinance has been formally placed and breaches will not be tolerated. At the same time all hang glider and paraglider pilots have been asked to be mindful and respectful of possible Remote Control Society operations at the northern end near the "Pie Shop" and at "Hell Hole". A number of complaints have been

filtering through our club and the HGFA, so please be respectful of these people.

The bottom landing area has also had restrictions imposed. Whenever tandems are in operation, bunting must be placed at the bottom landing area, at the extremity of the chute. No flying activities are to take place unless this has been carried out. Landing in the park by any paraglider or hang glider is prohibited, as once again we are infringing upon 95.8. In a recent meeting with council they seemed understanding regarding paraglider pilots having to land their wings in sand, so stated that they would tolerate landing at the very edge of the sand and allowing wings to be deflated on the grass. However, the safety concern for the club is that paraglider pilots landing in the chute must deflate their wing immediately so as not to pose a hazard for mid-air collisions.

In the near future a fence will be erected within the chute landing area. This fence will be approximately two metres out from the current fence and will serve to protect the public, allowing them access to the beach. We are still in discussion regarding the type of material to be used. At this stage it looks as though the same material as the existing fence will be used, however I believe council is flexible in this matter. Many signs are also about to be posted in numerous locations, both on top and below Bald Hill, so keep a keen eye out.

The SPHG&PC will endeavour to keep you updated. Any queries can be directed to any club committee members (see club section of this magazine) or email <pepielepre@ozemail.com.au> or phone 0411 082642.

Robert Lepre, President SPHG&PC

HGFA Web Site Update

A move to a new web site host has enabled a number of updates to the HGFA web site. Firstly, discussion forums have been implemented. Forums include For Sale Paragliding/Hang Gliding, Flying Contacts, Operations, Competition and The Board Room. New forums can also be implemented as required.

A photo gallery has also been started because of the increased web space available with the new host. Digital photos may be submitted for posting on the web page. Photos will be included based on subjective judgement of their quality and variety in comparison to other photos. Please submit photos in 800 x 600 or 1024 x 768 resolution, and in .JPG format. Email to <photos@hgfa.asn.au>.

There is also the opportunity for clubs interested in web hosting. There exists the feature with the new web hosters, to define a sub directory and allocate a username/password and some disk space eg 2MB, to the club to maintain their own site as a sub site of the HGFA sites. Web site addresses will be of the format [www.hgfa.asn.au/~yourclubname]. If your club is interested in this, the HGFA will trial a club initially before making the facility more widely available. Please contact: <Michael.Bruce@hgfa.asn.au>.

Michael Bruce

CLUB NEWS

Canungra Hang Gliding Club Canungra Cup 2002 (Paragliding) 12-19 October 2002

This event has been awarded a AAA sanction by the HGFA, Category 2 status by CIVL and will be the first sanctioned paragliding event of the Australian season.

The entry fee includes maps, competition T-shirt, presentation dinner, site fees for the duration of the event and the chance to win up to 450 national ladder points each day. All this for only \$150 providing your registration and entry fee are received before 6 September 2002. An additional \$30 late fee will be levied to all entries after 6 September.

Following the success of the organised retrieve system in last year's event, a similar system will be operating this year providing there is sufficient interest amongst participating pilots. The cost of this package is \$160 for the eight days of the event. To reserve a place in the organised retrieve system, notification must be made on the registration form and payment received before 6 September.

For pilots new to competition flying we will be hoping to again offer a series of workshops designed to enhance competition flying skills. These workshops, which will run throughout the week, will include post-flight analyses and hopefully contributions from the leading pilots. These workshops will be free of charge to all pilots flying in their first competition. All that is required is an expression of interest on the registration form.

For more information about the competition or Canungra visit the web site [http://home.iprimus.com.au/plenderleithm/canungracup/], email us at <canungracup@hotmail.com> or phone Karen Sexton on 0410 433 711 or Robert Wilton on 0418 732 325.



PRODUCT NEWS



BREAKING WIND

www.breakingwind.com.au

is finally here for Australia!!!

Breaking Wind is a wind and weather alert service that sends alerts directly to your email or mobile phone as a SMS.

With up to 700 weather stations Australia-wide, most providing updated observations every 30 minutes, we should have your flying area covered!

The alerts can be set up based upon the conditions you want. For example, only tell me if the wind at XXX location is between 10-30kt from the north through to the east on Saturday only between 8:00am and 4:00pm and send it as a SMS. You can set up as many alerts as you want, on as many stations as you need!

Check it out at [www.BreakingWind.com.au] or [www.BreakingWind.com.au/info.asp]. May you never miss awesome flying conditions again!

And a special offer: For a limited time, everyone who registers gets 50 free credits to trial the service without obligation!

Jason Grant

Doodle Bug – now in Australia!



The Doodle Bug is a powered harness for hang gliders and shares many of the features of currently available powered harnesses, including the ability to simple clip into most modern hang gliders with little or no modification to the glider. It is powered by the Radne Racket 120cc two-stroke engine and is available with electric or kick-start, folding or fixed propeller and a host of other options.

The Doodle Bug differs from other powered harnesses in so far as it is flown in the seated/supine position as opposed to the conventional prone position. The

August 2002

advantage of this position is unequalled comfort, excellent glider control (engine on or off), great ground handling and well-behaved take-off and landing characteristics. An added bonus is a large stowage area behind the seat which carries the 8 litre plastic fuel tank and still leaves plenty of room for light weight camping gear (sleeping bag, tent, etc) making it an ideal bivouac tourer.

The Doodle Bug is manufactured in England by Flylight Airports [www.flylight.co.uk] and distributed in Australia by Adelaide Airports. For further information and enquires contact Larry Jones on 08 8556 3030 or email <fly@airports.com.au>.

Larry Jones, Adelaide Airports



FAI NEWS

World Record Claims

FAI has received the following Class O (Hang Gliders) record claim:

Sub-class O-3 (Paragliders) – Multiplace Claim number 7379:

Type of record: Distance over a triangle
Course/location: Evianquelle Boeckstein–Deutingalm Klingspitz–Vorhofalm Utten-dorf–Evianquelle Boeckstein (Austria)
Performance: 112.1km

Pilot: Lois Grugger (Austria)
Paraglider: Advance Bi Beta
Date: 19/6/2002

Current record: 101.9km (20/6/2000, Jürgen Stock, Austria)

Sub-class O-3 (Paragliders) – General Claim number 7390:

Type of record: Straight distance
Course/location: Zapata–Sonora, TX (USA)
Performance: 386km
Pilot: David Prentice (USA)
Paraglider: Ozone Proton
Date: 20/6/2002

Current record: 335km (16/11/1998, Godfrey Wenness, Australia)

Claim number 7391:

Type of record: Straight distance
Course/location: Zapata, TX (USA)
Performance: 421km
Pilot: William GADD (Canada)
Paraglider: Superfly/Red Bull
Date: 21/6/2002

Current record: 335km (16/11/1998, Godfrey Wenness, Australia)

Sub-class O-1 (HG with a rigid primary structure/controlled by weightshift) – General

Claim numbers 7388 and 7389:

Type of record: Straight distance to a declared goal

Course/location: Zapata–Big Lake, TX (USA)

Performance: 516km

Pilot: L. “Pete” Lehmann (USA) and Mike Barber (USA) – Joint flight

Hang gliders: Wills Wing Talon 150 and Moyes Litespeed 4

Date: 20/6/2002

Current record: 503km (28/7/2001, Carlos Alberto Morganti (Betinho) Schmitz, Brazil)

Claim number 7395:

Type of record: Speed over a triangular course of 100km

Course/location: Zapata, TX (USA)

Performance: 42km/h

Pilot: Robert “Bo” Hagewood (USA)

Hang Glider: Aeros Combat 2

Date: 25/6/2002

Current record: 40.54km/h (10/12/2000, Tomas Suchanek, Czech Republic)

The details shown above are provisional. When all the evidence required has been received and checked, the exact figures will be established and the record ratified (if appropriate).

World Record

Claim number 6785:

Sub-class O-3 (Paragliders) – General

Type of record: Straight distance to a declared goal

Course/location: Prieska (South Africa)

Performance: 257.4km

Pilot: Jacques Coetzee (South Africa)

Paraglider: Boomerang

Date: 23/12/2000

Previous record: 250.2km (18/12/1994, Alex François Louw, South Africa)

FAI congratulates the pilot on his splendid achievement.

World Pilot Rankings Update

Hang Gliding (Class 1)

Results from the Flytec Championships, the Alpen Open, the Ukrainian Championship, Japanese Nationals, Open Austrian Nationals (Wildkogelpokal) and the Eva Menyhart Competition are added. The Canungra Classic 2000 was deleted. The Canadian HG Championships results have not been received so have not been added and the Swiss Open was postponed.

Tarago Flight Park

XC Tour

Here we go again

DECEMBER TOUR

7 Dec (departure 6 Dec) - 15 Dec

FEBRUARY TOUR

8 Feb (departure 7 Feb) - 16 Feb

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T - 02 4849 4516

Tarago Flight Park
(formerly Canberra HG Centre)

MICROLIGHTS • PARAGLIDING • HANG GLIDING

Gerolf Heinrichs (AUT) maintains 1st, Manfred Ruhmer (AUT) stays in 2nd, Paris Williams (USA) moves into 3rd, swapping places with Rohan Holtkamp (AUS) in 4th. Oleg Bondarchuk (UKR), Gordon Rigg (GBR), Betinho Schmitz (BRA) and Antoine Boissellier (FRA) maintain their places in 5th, 6th, 7th and 8th respectively. Mario Alonzi (FRA) and Jon Durand Jnr (AUS) move up one place each to 9th and 10th.

In the nations ranking, USA takes number one place, putting France into 2nd place for the first time since August 2001. Australia drops to 3rd and the rest of the top 10 remain the same.

Full details of the HG rankings can be found on the FAI web site: [\[www.fai.org/hang_gliding/rankings/class1/\]](http://www.fai.org/hang_gliding/rankings/class1/).

Paragliding

Added are the Alpen Open, Il Real Minas competition, Ukrainian Open and the Berchtesgaden Open. No competitions were deleted. Results from the PG Open in South Wales and Hadong Open have not been received so are not included.

The top three remain the same, with Jean-Marc Caron (FRA) in 1st, Alex Hofer (SUI) 2nd and Steve Cox (SUI) 3rd. Joos Achim (GER) climbs to 4th, the rest of the top 10 slip a place – Tadano Shoichiro (JPN) 5th, Hans Bollinger (SUI) 6th, Patrick Bérod (FRA) 7th, Jin Oh Kim (KOR) joint 8th with Enda Murphy (AUS) and Craig Collins (AUS) 10th.

In the nations ranking the top 10 remain the same with Switzerland, France and Japan in the top three slots.

Full details of the PG rankings can be found on the FAI web site: [\[www.fai.org/paragliding/rankings/\]](http://www.fai.org/paragliding/rankings/)

Class 5

Two competitions have been added: The Alpen Open and the Austrian Nationals. Johann Posch (AUT) is in 1st place, Christian Ciech (ITA) and Alessandro Ploner (ITA) are equal 2nd. The rest of the top 10 remain the same except Manfred Trimmel (AUT) moves up a place to 9th.

USA leads the nations rankings with Germany in 2nd and Switzerland in 3rd. Full details of the Class 5 rankings can be found on the FAI web site: [\[www.fai.org/hang_gliding/rankings/class5/\]](http://www.fai.org/hang_gliding/rankings/class5/).

Class 2

No changes to the ranking. Brian Porter is in 1st, and there is a four-way tie for 2nd place between Manfred Ruhmer (AUT), Robin Hamilton (GBR), Stephen Partridge-Hicks (GBR) and Mark Mullholland (USA).

Paragliding Accuracy

There are no changes to the ranking, with Matjaz Feraric, Simeon Klokocovnik and

Matjaz Sluga in the top three places. Full details of the PG Accuracy rankings can be found on the FAI web site: [\[www.fai.org/paragliding/rankings/precision/\]](http://www.fai.org/paragliding/rankings/precision/).

Pilots should check that their personal record shows the correct nationality, particularly as Category 1 competitions approach.

WPRS Qualifying Competitions

Hang Gliding

Forthcoming Category 2: two Greek Open competitions in June plus a Greek Speed Gliding competition in September; Campeonato de España (Arcones); Upper Austrian; Russian Open; Nordic Open; Open Dutch Champs; British National and Laragne Open; US Open Big Springs; Podbrezova Cup; Portuguese Open; Vikings Open; Brazilian Open.

Category 1: European Champs; Women's World Championships; 14th World Champs Brazil (2003); European Champs Millau (2004).

Details of these competitions can be found on the CIVL web page: [\[http://events.fai.org/hgpg/civil-calendar.asp\]](http://events.fai.org/hgpg/civil-calendar.asp).

Paragliding

Forthcoming Category 2 Champs: French Championships; Slovenian Open; Portuguese Open (Torre de Moncorvo); Plan Delle Betulle; Spanish Open (Ager); Nordic Cup (Austria); Yugoslavian Open; two Greek Open competitions (June & August); Portuguese Open de Distancia de Porto da Espada; Iberian Open (Portugal); Russian Open; PWC Monte Cornizzola; Portuguese Open da Serra de Estrela; PWC Morzine; Welsh International Open; PWC Turkey; PWC Mung Yeong; International German Open; Norwegian League; Belgian Open; British Open Algodanales; South African Open; Pre PWC China.

Category 1: European Champs, Slovenia; PG Worlds (Portugal) 2003; Asian Championship (2004).

Details of these competitions can be found on the CIVL web page: [\[http://events.fai.org/paragliding/calendar.asp\]](http://events.fai.org/paragliding/calendar.asp).

Paragliding Accuracy

Category 2: Sky Lincs PLA (UK); Slovenian Open; Target Austria; Greek Open.

Category 1: 2nd World Accuracy (2003). Details of these competitions can be found on the CIVL web page: [\[http://events.fai.org/paragliding/calendar.asp\]](http://events.fai.org/paragliding/calendar.asp).

Rigid Wings;

Category 2: Nordic Open (C5); Dutch Open (C2); US Open Big Springs (C2 and C5).

Category 1: European Championships, World Championships, Chelan.

Details of these competitions can be found on the CIVL web page: [\[http://events.fai.org/hgpg/civil-calendar.asp\]](http://events.fai.org/hgpg/civil-calendar.asp).

HGFA General Manager's Report . . .

Given the large number of membership renewals at this time of year, our new office staff have had little time to spare. Kerry, Michelle and Claudia are managing to keep on top of things despite the fact that we are spending considerable time improving various systems as we go. Kerry is working full time for us, whilst Michelle and Claudia are part time – I was certainly fortunate to find such dedicated staff.

Insurance

Some members have expressed their appreciation for my being able to negotiate the recent renewal of our insurance policy for the same cost as last year. The thanks really must go to you the members and to our instructors. There were several arguments I used to convince our underwriters that a rise in premium wasn't warranted: a good claims history over the past year; a safety record that continues to improve, particularly in the area of pilot training; and the difficulty we would have in paying a higher premium. Perhaps with another good year as far as claims go, some stabilisation of the insurance industry and a return to common sense when it comes to lodging law suits, we can look forward to a reduction in premium when our renewal is due next March.

HGFA Operations Officer

Our Operations Officer Kev Magennis will be visiting Northern NSW and Queensland clubs and instructors during August and September. He will be at the August meetings of the Canungra and Sunshine Coast Clubs and is asking clubs further north to hold special meetings to allow him to meet with pilots. I encourage Queensland members to get along to their nearest club meeting to hear what he has to say. I appreciate Kev's assistance in fostering safety, promoting clubs and instructor cooperation and ensuring our instructors fulfill their regulatory requirements.

Safety Officer Workshops

Now is the time for Club Senior Safety Officers to conduct a club Safety Officer Workshop – I have a software package of all the documentation available if preferred to the hard copies usually provided. SSOs can telephone the office for the software package if they wish, or email us at either: <office@hgfa.asn.au> or <general.manager@hgfa.asn.au>.

Silastic and Fuel

A microlighting member was understandably concerned with an inclusion in the article regarding the Airborne Edge-X Fuel Transfer system. In the paragraph headed

"Problems" the article suggests that the bolt fitted through the fuel tank cap could be sealed with Silastic. Beware! There are many grades of Silastic and from what I have been able to determine there are only one or two of these grades that are not readily dissolved by petrol. This will either result in the fuel filter becoming clogged, or major problems due to the carburettor being fouled. Either way, there is real danger of an engine-out which could have serious consequences.

Accident Reports

No 1.

Pilot: Advanced HG certificate holder
Experience: 123 hours total, 14.5 hours last 90 days
Glider: High performance HG
Pilot injury: Broken shoulder and shoulder joint sprain
Glider damage: Broken upright
Location: Inland soaring site (Mt Tamborine)
Conditions: 7kt wind, head/crossed, light-moderate turbulence

Description:

After his second flight of the day the pilot decided to top land in a paddock behind the launch. This paddock has trees along either side and is renowned for wind shadow and/or turbulence, particularly if there is a significant prevailing wind or if it is crossed (it was slightly crossed on the day). The pilot set up his landing at the rear of the paddock and transferred to the "hang" position at around 50ft agl. Expecting turbulence, he leant through the control frame and maintained extra speed and stayed on the downwind side of the paddock. At around 20ft agl the glider hit turbulence and despite full correction one wing stalled and the glider was turned downwind. The pilot flared as hard as he could and hit hard, first with his legs, his side, then shoulder.

Comments:

In retrospect the pilot thought that his approach speed could have been higher, which may have enabled him to counter the turbulence. On considering the circumstances from our "Air Man Ship" angle, the "ship" wasn't really a factor, nor was the "man" – other than the decision to land on top in the first place (and perhaps maintain added speed).

New HGFA National Office & General Manager details:

Ph: 02 6559 2713, Fax: 02 6559 3830

Craig Worth mobile: 0418 657419

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

PO Box 157, Hallidays Point NSW 2430

Email: <office@hgfa.asn.au> or

<general_manager@hgfa.asn.au>.

The "air" was the primary contributing factor, given the prevailing crosswind and rotor turbulence. It is common practice for experienced pilots to land in this paddock, though prevailing conditions dictate whether it is safe on any particular the day. I suggest that top landing should be limited to days where ideal conditions prevail.

No 2.

Pilot: Restricted HG pilot
Experience: 5 hours total, 5 hours last 90 days
Glider: Low performance HG
Pilot injury: Fractured forearm, bruising and concussion
Glider damage: Damaged leading edge, uprights and sail
Location: Inland take-off
Conditions: 12kt wind, nil turbulence
Description:

The pilot launched successfully and when 20 metres from launch attempted to get into prone. He looked down at his feet and failed to control the glider. The glider stalled, a wing tip clipped a tree and the glider was turned back into the hill.

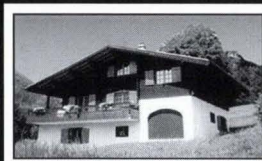
Comment:

Entering a prone harness must be practised on the ground until prone entry can be made whilst primary focus remains on controlling the glider. Fly the glider first and foremost!

Fly safely,
Craig Worth



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GFA Development Officer's Report • •



Photo: Noel Matthews

Terry Cubley

Scores are on the Board

One of the measures available to us on the activity level of clubs is the number of badges and certificates claimed each year.

The A certificate gives us an idea of the number of people trained to solo. The C certificate is a measure of the training to a base level of soaring – post solo training. The silver, gold and diamond badges is some measure of the cross soaring activity of the club. The bigger distances are a measure of some of the higher soaring skills and possibly glider performance, they are probably more related to individual enthusiasm and commitment.

The Air Training Corps groups, in particular the NSW group, are obviously doing a major job in terms of basic training of our younger pilots. The NSW group are even going that extra step in training basic cross country soaring, shown by the three Silver C badges claimed. The scout association seems to have a different type of training, I suspect that they have a larger number of people coming for only a short period rather than actually running full training courses.

The clubs with high activity in basic training appear to be Jondaryan (Darling Downs). Lake Keepit, Southern Cross, Southern Riverina, Narrogin, and Beverley. These are all relatively large clubs (80 to 120 members) but all are very active at the moment, their membership is increasing and their activity level is amongst the highest in the country.

One thing that has become obvious in my visits to clubs is that the clubs that are involved in training (and passenger flights) generally start flying early, fly on more days and have a higher level of solo flying. Clubs that are not involved in this type of flying appear to only turn up once the weather is improving in the early afternoon, and generally not enough people

turn up to operate when the weather is a little tenuous. This cycle of late starts and infrequent operation is a hard one to break. Students soon learn not to turn up too early despite their enthusiasm, passengers drop in and drive away again. In this situation a definite decision for more regular and early operations is required to change the atmosphere in the club. And it doesn't happen overnight so some patience is needed.

The clubs above do have very viable operations, and this performance then flows on to other aspects of flying. Those same clubs have good performances with the other certificates also. You will notice that there are no clubs who have a high result in the Silver C and above who don't have a good result in the ABC badges.

The clubs with the highest levels in the Silver C and Gold/Diamond badges are Lake Keepit, Southern Riverina, Southern Cross, Darling Downs, Narrogin and Concordia. It would be good to hear what steps these clubs are using to promote the achievement of these badges. I know that some of the techniques include

- *promotion of badges as part of the sport*
- *A good number of Official Observers*
- *Promotion of the steps that pilots need to take to achieve the badges*
- *GPS and other means of claiming performances are available within the club*
- *A post solo training syllabus that is followed and promoted*
- *Suitable aircraft – an arrow is suitable for this level of performance.*

What steps can your club include in its endeavours to increase participation levels?

You can compare the results of this year with those of last year. Identify those clubs that have had a high performance two years in a row. Identify those that have made significant improvements (it would be good to hear what changes you made). Is your club missing from both lists? Maybe an opportunity to take some action here?

Image is Important

Travelling around the country has provided me with a good opportunity to see how different clubs keep their house in order. There is a big difference in the level of equipment and facilities available, obviously the bigger and wealthier clubs have an advantage in this area. The way that these facilities, however big and extensive, are presented to the public does vary and I believe they do make a difference to what people believe that they are getting.

One thing that I can say for all clubs that I have visited, the aircraft were

extremely well maintained and presented. I believe that the airworthiness aspect of our movement is one of our strengths – principally due to the hard work put in by that large group of people who really enjoy this sort of thing.

Clubhouses are another matter. The best clubhouses in the country that I have seen, where the criteria are on appearance, cleanliness, orderliness, practicality for the size of the club, homeliness would have to be Kingaroy (cleanest by far), Narromine, Darling Downs, Benalla, Bacchus Marsh, Balaclava and Narrogin. You could say that this is not really all that important but the facts are that it does create an image of a club that cares for what it is doing. People and families are more likely to enjoy the experience.

One of the criteria for clubhouses that I really object to is those notices that appear in bathrooms and kitchens. Things like, "Wash your cups or we will stop the use of the kitchen." I can sympathise with the club members who have to do the work but there are ways to get the message through without being too aggressive and rude and patronising.

The more obvious facility for the flying operation is the 'pie cart'. There are some really excellent examples of these around the country and also some very original designs. Some are a real mess, it is a fight to get through the door and you probably wouldn't want to spend too much time inside. As well as being unpleasant, they can also make it more difficult to keep flight sheets and membership forms accurate and up to date, and club brochures just disappear so it is harder to promote the club and harder to get new members. The best pie carts that I have seen around the place were at Caboolture and Darling Downs. They were large, comfortable, neat, organised and had good shade and comfortable chairs outside. These clubs are making the effort to make people more comfortable and it encourages people to get together and talk about what they are doing.

I guess the last point in this topic is the appearance of the people. There has certainly been an improvement in the overall appearance of people at the gliding field. This has certainly been supported by the awareness of skin cancer and dehydration problems around the country.

People express the idea that when you visit a flying school you are welcomed by a young person with white shirt, possibly a tie and epaulettes – the real image of a professional. Others then express that when you visit a gliding site you get a complete-



FAI Report 2001-2002

	A	B	C	SILVER C	GOLD C	D	GOAL	D	DIST	D	HEIGHT	DC	DISTANCE FLIGHT	TOTAL
Adelaide Soaring Club	5	3	4						1				600km	13
Adelaide University	4	3	2	1										10
Alice Springs	4	4	4	1										13
Australian Air league				1										1
Balaklava	2	2	2											6
Bathurst Soaring Club	6	5	4	3	2		2					2		26
Beauford							1							1
Bendigo Gliding Club	1	1	1											3
Beverley Soaring Society	8	7	7	3	1		2							28
Boonah Gliding Club	4	3	2						1		1	2		13
Bundaberg Gliding Club	3	3	3		1		1		1					12
Byron Bay	7	6	5											18
Caboolture Gliding Club	5	5	5	3	1		2							21
Canberra Gliding Club	3	4	4	1			1		1		1	1	600km	16
Central Coast	2	3	2	2										9
Central Queensland	3	2	2											7
Concordia	2	2	2	4	1									11
Darling Downs	14	11	11	5	1						1			43
Gliding Club of Tasmania				1										1
Gliding Club of Victoria	4	3	2	3	2		2		1					17
Gliding Club of WA													1000km/900km	0
Geelong Gliding Club	4	4	3	1					1				700km	13
Goulburn				1										1
Grampians			1											1
Gympie	6	6	6	1			1							20
Hunter Valley	2	4	4		1		1		1					13
Keith/Bordertown				1										1
Kingaroy Soaring Club	3	3	3	2										11
Lake Keepit Soaring Club	9	9	10	7	2		3				1	1		42
Leeton	1	1	1	1										4
Mangalore	3	2	3	1										9
Mount Beauty	1	1	1	1										4
Murray Bridge				1										1
Murray Valley														0
Narrogin	8	5	4	4										21
North Queensland				1										1
Northern Australia Gliding Club	1	1		2										4
NSW AIR TC	14	13	4	3										34
NSW Scout Association							1							1
Orana Soaring Club	3	3	2	1	1								600km/750km	10
Port Augusta	1	2	1											4
RAAF Richmond	2			1					1					4
RAN Gliding Association			1											1
Renmark	1	1	1	1	1		1							6
SA AIR TC	6	2												8
Soar Narromine														0
Southern Cross	8	5	6	5	3		2		1					30
Southern Downs	1	1	2	1			1		2					8
Southern Riverina	8	8	8	5	1		2		2					34
Summerland Gliding Club	2	2	2											6
Temora														0
Tumbarumba	1	1	1											3
Victorian Motorless														
Flight Group	4	3	2											9
Wagga/Lockhart	2	2	2											6
Waikerie Gliding Club	2	2	2	1									750km	7
Whyalla				1										1
Totals	170	148	134	69	18		23		15		4	6		587

Total Flights including distance flights

595

ly opposite impression. I am not advocating that we all turn up in suit and tie, like the photos of gliding in the 1930s. However, we may want to consider what impression we give when visitors arrive. A number of clubs have arranged for club polo shirts with suitable club logos. The Narromine shirts are a great example of this, and they have selected a wide range of patterns on the shirts so it isn't like everyone is wearing the same uniform.

Feedback from around the Clubs

Just a few comments on some clubs that I have visited recently.

August 2002

Darling Downs Soaring Club (Jondaryan, Queensland). This appears to be the most active club in the country, with over 400 hours in club gliders flown in the past 12 months. Recent information shows a small increase in the number of hours over the past 12 months. They operate from a privately owned field just west of Toowoomba, about two hours drive from Brisbane. The club has recently purchased a couple of extra single seat gliders, Ventus and Astir, giving a total of three two-seat gliders and four single-seat gliders, for a membership of 150.

FOREIGN CLAIMS

Belgium	2
Canada	2
Czech Republic	1
Germany	13
Japan	58
Netherlands	6
New Zealand	1
Sweden	1
United Kingdom	11

CLUBS (FOREIGN CLAIMS)

Gliding Club of Victoria	3
Murray Valley Soaring	3
Orana Soaring Club	12
Soar Narromine	21
Sportavia Soaring	35
Waikerie International	21

Membership has been growing over the past few years and continue to do so. The activity levels are supported by monthly coaching sessions (teams challenge format) and basic cross country courses. The large clubhouse is well looked after with good clean bunkrooms. I was surprised by the lack of caravans given the distance from Brisbane, but they are in the process of grading the caravan park so that there will be greater opportunity for people.

The club is well run and all members that I met were enthusiastic and welcoming. One of the more interesting activities was the very well presented web page. This is used to produce the club newsletter and for people to book aircraft for


the coming weekends. They have even set up a weather camera so that members can dial up to see what the weather is like prior to leaving home (of course it is always beautiful in Queensland).

Certainly a club worth talking to, or even better, making a visit to.

Narrogin Gliding Club (WA). About two hours drive from Perth (as are all of the three biggest clubs in the west). A very enthusiastic group of people, and a great social club. The clubhouse is a little small, as is the pie cart, but you are certainly made to feel welcome. Due to distance from Perth many members stay overnight and there are many caravans on site. Each night is a social occasion and a

great opportunity to share ideas and learn from others.

One of the most innovative ideas is the excellent web based weather forecasting system. This has been set up by Brian Voce and there is a computer at the club that can be easily used to give the relevant weather forecast including a temperature trace and weather maps. I know that others have this sort of information but this is certainly the best example of making it readily available for club members – make soaring more of a science and gives people more confidence in their tasksetting.

More clubs to be revealed later. 

Safety Notice

Update to Mars Parachutes FAA and JAR approval

All Mars parachutes in Australia require that the following AD be carried out to meet the JAR, FAA and CASA approval.

All costs associated with this inspection will be paid by the manufacturer.

For reimbursement of the inspection fee contact the agent on 02 6889 2733.

CASA AIRWORTHINESS DIRECTIVE

AD/PARA/7 Amendment 1

Ref MarS ATL-88, ATL-88/92-S and ATL-88/90. Glider emergency parachutes made by Czech manufacturer MarS spol s.r.o. after December 1997.

Following the removal of the Airworthiness certificate by the Czech CAA some months ago a procedure has now been agreed by CASA to see these parachutes put back into service.

In Australia the parachutes should be subject to a full inspection by an APF Packer "A" or Rigger in accordance with the MarS Mandatory Service Bulletin 1/04/2002. Once this is completed the serial number and date of manufacturer will be advised to the Czech CAA and manufacturer so that the production documents can be confirmed.

Provided these are satisfactory the parachute can then be marked as having had the SB completed and be returned to service.

For more information contact CASA on 131 757 or myself <chappo@apf.asn.au>.

John Chapman, Technical Officer
Australian Parachute Federation 

Around the Clubs

Darling Downs Soaring Club – Mission accomplished

A year ago we set ourselves a goal of increasing our hours flown in club gliders by 15% over the previous year.

I am extremely pleased to advise that we have achieved this goal already, with a month to spare.

Last year we flew 2,042 hours, 15% of that is 2,348 hours. This year to date we have flown 2,411. If June is a reasonable month we should hit 2,500 hours! If June is a really busy month we might equal last years effort of a 24% increase.

Thank you to all the members and visitors who contributed to this great achievement and obviously did a lot of very enjoyable flying along the way.

Just think what the numbers might have been if both the Army and RAFGSA expeditions hadn't been severely affected by rain!

Year to date the LS7 has done 395 hours. It would be great if we could achieve over 400 hours in this one aircraft for the year. So LS7 pilots please get out there a clock up a couple of hours. I know the Ventus is tempting but the LS7 is still pretty good too.

Ralph Henderson

Lake Keepit – Planning for 2002 Summer Safari


Dates have been set for this year's Safari and members of the Lake Keepit club are booking places already. The Safari leaves Keepit on Saturday, 23 November for one week.

This year the plan is to travel through western Queensland without any accommodation booking so that the group can be completely flexible about the day's task and making the best of the day's weather.

Ian Barraclough 

Uncle Foundation 2002-2003

Applications are invited from members of the NSWGA for financial assistance to junior pilots in the 2002-2003 soaring season. Applicants must be under 25 years of age as at the 30 June 2002.

For application form and guidelines please apply to The Secretary, Uncle Foundation, PO Box 275, Narromine NSW 2821 or phone 02 6898 9273. 

GFA Annual General Meeting Notice

MEMBERS ARE ADVISED
OF THE GFA AGM BEING
HELD AT THE AIRPORT
MOTEL AND CONVENTION
CENTRE 33 ARDLIE STREET
ATTWOOD ON 14 AND 15
SEPTEMBER 2002.

SPECIAL BUSINESS

The Executive move that the following
two questions be put to the GFA
membership.

- 1) *Do you support the transfer of the
GFA from the Corporations Act
to the Associations Act?*
- 2) *Do you accept the articles of
association as printed in the August
edition of Soaring Australia as the
new GFA rules?*

Copies of these rules can be found
on the GFA web site under "What's
new" May 27th or from this edition of
Soaring Australia or can be provided by
fax on request to the GFA Secretariat.

Question 1 Yes ☐ No ☐
Question 2 Yes ☐ No ☐

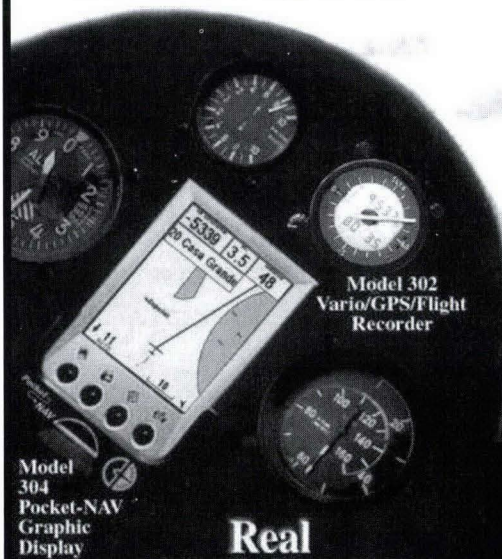
Your vote can only either be given
personally at the AGM or by proxy to
any financial member who will attend
the AGM in your stead. All council are
expected to attend so your vote can be
forwarded through any of them by
completing the appropriate proxy form
with their acceptance.



Revolutionary New Vario and Sensor Technology

Introducing The 300 Series Vario+

FASTER: Up to six times faster. Now
you can "hear" the lift you "feel-in-the-
seat-of-the-pants" without time delay.
High contrast display includes me-
chanical variometer needle and large
altimeter, average climb, speed director
and MacCready setting readouts.



**Real
seat of the pants
feeling will come to life
on your panel**

SMARTER: The Model 302 Vario/
GPS/Flight Recorder with Model 304
Pocket-NAV Graphic Display is the
perfect system for contest use. A simple
club system starts with the Model 301
Vario and uses an existing CAI GPS-
NAV Flight Recorder or handheld as
the GPS data source.

SMALLER: The Model 302 Vario/
GPS/Flight Recorder fits into one 57
mm (2.25") panel hole. The Model 304
Pocket-NAV Graphic Display mounts
to a second 57 mm opening, or may be
attached to any available 25 mm (1")
square mounting area on the edge of
your panel or cockpit.

ECONOMICAL: The Model 302
Vario/GPS/Flight Recorder with Model
304 Pocket-NAV Graphic Display is
only \$6300. A basic system consisting
of the 302 Vario/GPS/Flight Recorder
and 303 Display is less than \$5150.
Existing CAI Flight Recorders and
GPS-NAVs are usable and upgradeable.



Cambridge Aero Instruments

**Bruce Taylor
"The Hill"
Kentucky 2354
NSW**

**Ph/Fax: (02) 67787345
Mob: 0428 787349**

Email: BruceLouise@bigpond.com.au

Proxy Voting Form

I.....
(Name)

Ordinary member ☐ Councillor ☐

hereby nominate.....
(Rep name)

as my representative at the forthcoming AGM ☐ EGM ☐ ACM ☐

The above representative has the power to vote on:

All matters requiring my attention ☐ Specific matters only as detailed below ☐

Details:
.....

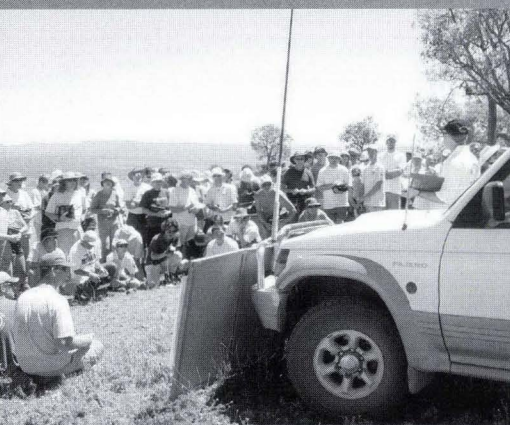
Signed..... Dated
(Member)

Signed..... Dated
(Representative)



Manilla Paragliding Open 2002

Godfrey Wenness



KIWI CRAIG COLLINGS TAKES OUT
HIS SECOND MANILLA WIN IN
A ROW IN A TIGHTLY FOUGHT WEEK!

The week long competition (2-9 March) was one of the most successful FAI Category 2 paragliding competitions held anywhere ever before, with tasks on all eight days and a scoring system allocating 7,920 points available out of a possible 8,000. Pilots collectively flew over 50,000km during the eight days – that's 1.2 times around the world and a new record for paragliding competitions!

Only one accident (bruised back) occurred, despite over 1,000 take offs and landings and 120 pilots flying in tight gaggles over the Mt Borah launch on most days. There were no mid-air, reserve deployments or other incidents.

All tasks were elapsed time race to goal with multiple start times. They were all straight line except one.

T1: 56km (52 into goal)

T2: 63km (FAI triangle, 24 into goal)

T3: 90km (42 into goal)

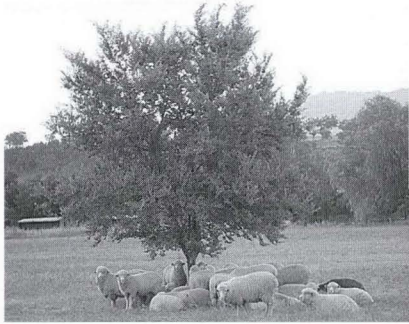
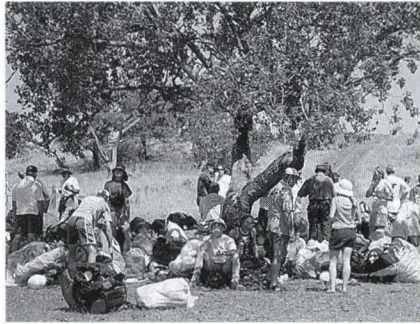
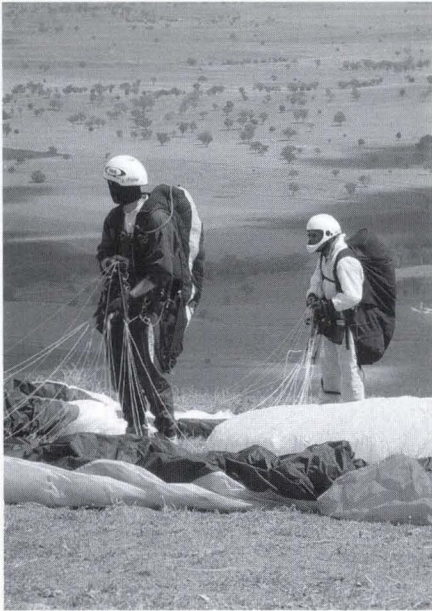
T4: 151km (22 into goal)

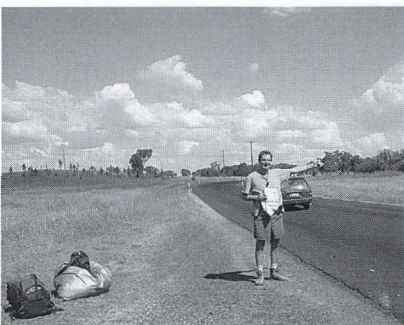
T5: 161km (10 into goal)

T6: 90km (63 into goal!)

T7: 100km (task stopped but scored 920 points)

T8: 101km (6 into goal)





There was potential on three days to set over 200km tasks with up to 20km tailwind, excellent climbs and bases over 3,000m. However, the task committee (Godfrey Wenness, Ross Johnstone and Enda Murphy) didn't let the epic conditions get to their heads and set achievable racing tasks so there were more than just a few pilots in goal daily and a good spread over the course.



Two Australian National Records were set: Declared Goal, 161km, by Godfrey Wenness in Task 5 and Women's Declared Goal, 151km, by Alison Cawte in Task 4.

We think Task 5 (161km) is also the World Record for the longest paragliding task set and achieved in a competition.

Multiple other National Records were set including: Japanese Female Open Distance and Declared Goal, 151km, Macedonian Open Distance and Declared Goal, 151km, New Zealand, Austrian and Korean Declared Goals, 161km, New Caledonian Declared Goal, 151km, plus many more...



As well as this, over 100 pilots (including the entire Japanese PWC Team) flew personal best distances, leaving a whole bunch of extremely happy punters at the end of the week.

After a week of epic racing the final results all came down to the last day...

On the final day of the competition anyone from the top six could have easily taken out the title, as there was only 200 points between them. The sub classes places were also wide open. The 101km task to Kiandool (west of Narrabri) was set, with a crosswind component making the course quite difficult. Six pilots made goal and the rest were spread evenly all way back to Manilla. Clear leader for most of the week – Aussie rice farmer Ron McKenzie – made a mistake early in the race and landed at only 20km out, dashing his hopes of a first Manilla title. Reigning Aussie Champ, Enda Murphy, also blew his chance of winning (and lost his National Champion crown to Rhett Rockman) when he landed just short of Narrabri. This allowed Collings and Ayumu to overfly and make goal a few minutes later, putting them ahead on points and taking the lion's share of the over \$5,000 in prizes.

The presentation night was held at Manilla's Old Mill venue with a huge fireworks display, dinner, free beer and wine, and a band playing until the early hours.

FINAL OVERALL RESULTS

1	Craig Collings (NZ)	Argon C	6,864 points
2	Miyata Ayumu (JAP)	Boomer 2	6,708 points
3	Enda Murphy (AUS)	Omega 5R	6,701 points
4	Rhett Rockman (AUS)	Boomer 2	6,575 points
5	Godfrey Wenness (AUS)	Omega 5R	6,539 points

WOMEN

1	Kari Castle (USA)	Toucan Tandem	4,084 points
33	1st Aussie Female Barb Scott (AUS)	Gin Oasis	1,936 points

INTERMEDIATE

1	(91st) Pieter Strydom (ZAF)	Edel Saber	4,705 points
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VETERAN

1	(21st) Brian Webb (AUS)	Argon	4,482 points
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BEST TEAM

24 Team Manilla Madness





FLIGHT REVIEW:

Pro Design "Effect"

Hakim Mentès

TECHNICAL SPECIFICATIONS

Manufacturer:	Pro Design
Model:	Effect (Large)
Weight Range:	90-110kg
Trim Speed:	37 km/h
Speed Range:	22-51 km/h
Number of Cells:	36+6
Glider Weight:	6.9kg
Certificate:	DHV1-2

SET UP

Harness:	Edel ProLight
Risers separation:	44cm
Weight in flight:	97kg

OVERVIEW

I have tested the Effect at four different sites: Lake Eildon (John Archibald's private site), The Paps (south launch), Mt Elliot (Corryong) and Portsea. I put more than five hours on it, flying through rough thermals and ridge soaring in strong wind without any hick up.

CONSTRUCTION

The Effect uses proven and effective four risers system. As with many other modern gliders, the canopy is manufactured using the V-rib design. To reduce weight it uses the partial V-rip method where not all cells are diagonally connected. The upper sail is fully internally stitched, but not all of the lower sail. Two short straps at the trailing edge of the glider to secure risers is a nice touch for pilots who disconnect their glider from the harness for packing. The glider bag is not as big as I like, but has plenty of pockets.

THERMALLING

Despite the light wing loading, the glider felt solid all the time, even in rough thermals. It is an active wing and informs the pilot precisely what is happening above. The glider moves around a bit, but without any collapse or any other nasty behaviour.

TURNS

The Effect responds to brake line inputs very quickly and turns in a very small radius. Weight shifting is very easy and very effective.

BRAKE LINE EFFORT

The brake lines' force is progressive and on the medium to light side of the scale. It starts light and gradually gets heavier the further it is pulled. You don't need to be an arm wrestler to be able to hang on the brakes for long thermalling hours. I have not tried to stall the glider, therefore not sure about

the exact stalling point, but it required deep brake application before it started getting soft. DHV says deep stall travel is 75cm and full stall travel is 90cm.

TAKE OFF AND LANDING

My main method of reverse launch is to use A's and C's. I applied this method on this glider and it worked effectively. It took only a couple of launches to get used to the glider. The glider did not show any tendency to overshoot and came over my head quickly and stayed there. Unfortunately I was not able to test forward launches thoroughly. My only forward launch was very clear and easy.

Because of the speed of the glider, nil wind landings require a bit of getting used to. It requires brake application a bit earlier than usual for pilots upgrading from a school glider to the Effect.

ASYMMETRIC COLLAPSE

In case of 50% asymmetric collapse, the glider turns about 90 degrees to the collapsed side and opens very quickly. It tends to dive to the collapsed side and picks up speed, which is why it opens up so quickly. I have seen similar behaviour from other brands of fast DHV 1-2 gliders.

BIG EARS

Pulling big ears is an easy affair. Just grab the special big ears cord and pull it in easily. It tends to stay in position once pulled, but a light touch on the brake lines is sufficient to pop it out. I liked the big ears cord idea more than split A risers design – it is simpler and effective.

SPEED BAR

If there is one down side to this glider, it must be the speed bar force. You need to have strong legs to initiate the speed system. Once it is pushed out, force decreases, but is still on the heavy side of the scale. The travel is short therefore one step is sufficient.

B-LINES STALL

Pulling B-lines is not difficult. Once pulled in, the rate of decent quickly exceeds 8 m/s (my vario does not store decent rate more than that). The glider felt solid and did not show any parachutal or overshooting tendency at any stage.



Get Up There

Trevor Kee



Photo: Kerry Williams

Beechwood play-group chief flying instructor, Huon Williams, prepares the big SX for blast off from Pipeclay Ridge (Port Macquarie hinterland). Super model Naomi, although a little sceptical that 200mm of sticky tape holding her wrist to the downtube and a length of dental floss from her necklace to the hang loop constitutes sufficient structural integrity, prepares to join her brother for his maiden tandem adventure. In the background, former Tasmanian pilot and part-time stripper, Andrew 'Squeak' Carswell, can be seen praying to the great thermal god, Clouddus Suckkus', in an attempt to shield himself from the evil god of gravity, 'Biggus Sinkkus', prior to taking off...

Pipeclay Ridge is a new site located halfway between Sydney and Byron Bay, 35km inland from Port Macquarie. The site is 1,200ft asl high, with three launches (south, east and west). The site is owned by resident pilot Trevor Kee and his long suffering wife Gayle. Please ring before flying: 02 6586 4800 or 0418 569 660.

Year round flying can be had, with the best times being in spring and autumn. Height gains of 7,500ft and 80km flights have been achieved.

So, if you're travelling up or down the mid-north coast, call in for some shocking country hospitality. (Bring beer and wing. Lots of beer and wine.)

Two important site rules to note:

1. No turkeys or wood ducks.
2. Persons injuring themselves on site will be clubbed to death with a lump of 4x2 in an attempt to reduce frivolous insurance claims.

Safe Flying!





Feedback Forum



Viv Drew

Thank you for sending your recent comments to Feedback Forum and your participation. Please do keep in mind though that it is not designed as a chat site. Any questions you have will be promptly dealt with and answered and if noteworthy/newsworthy, will be placed on the new Q&A page in Feedback Forum on the GFA website and noted for publication in Australian Soaring for all members to peruse. Any comments you send will be forwarded to the appropriate GFA Officer for their information and notation, but an answer will not automatically be given unless you have a specific question. You will receive a response acknowledging your email from me.

GFA Secretariat News

In keeping with the review of operating costs of the GFA, the Executive have completed the final changes in this regard. In April this year the full time position of GFA Secretary was made redundant due to efficiencies achieved by changes in procedures and software resources, and removal of some core secretarial functions, outside the office. Experience since this time has confirmed that, while significant savings have been achieved, some additional resources are required to meet the full needs of the office. Accordingly the core secretariat group are joined by Marcia Cavanagh making an office of three perma-



Marcia Cavanagh

nent part-time staff who share the various office duties to maximise office coverage and one contractor three days per week for airworthiness functions.

This final change concludes a complete review of operational costs and culminates in the minimum structure and personnel resource we can operate with before significant deterioration occurs to essential member services. It means many of the previous office tasks have been out-sourced to volunteers and the Executive and this puts considerably more strain on these individuals to achieve the cost savings.

Substantial technical and procedural changes are planned which should further free up the current pressures on staff and volunteers.

CASA Licenses and Part 103, Part 115 and Part 149 – Bob Hall, GFA President

Everyone should be aware that current proposals for these CASR parts and the Recreational License involve taking the setting and maintenance of standards for our activities out of our hands and back into direct control of CASA.

This will mean that where currently we set and maintain our own standards, these will revert back to CASA and we will be expected to simply 'administer' these (CASA's) regulations. Any change we wish to make to the regulations will have to be negotiated with CASA to achieve their agreement. Any change CASA wishes to make – they can simply make. We can object, but if they choose to ignore our arguments, the change will go through despite our objections and the change will have the force of law – with no appeal.

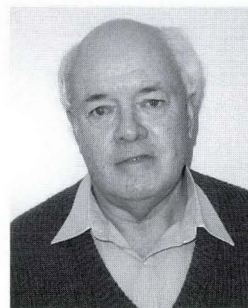
Anyone who does not think this will be a wholesale loss of our freedom to impose sensible rules to achieve a safety outcome as against regulation designed to insist on compliance with the letter of the law, and "designed to achieve a safe conviction", should go and ask AOPA just how their relationship with CASA is right now.

We note that some think that the proposed recreational license will provide a focus for post solo training and the opposition by the GFA is based on a desire not to lose power over our operations. These people are absolutely correct when they say the objective is to retain power over our future within the GFA – that is precisely the reason the GFA was formed in the first place – the alternative is to pass that power back to CASA. We wonder at the attitude which would suggest that a CASA imposed and controlled license is a better focus on the maintenance of standards and the freedom to fly than our own developed processes.

Certificates of Aircraft Registration – Mike Valentine, GFA Senior Technical Officer, Airworthiness

As you may be aware, all holders of certificates of aircraft registration (including

gliders) have been sent glossy brochures by CASA telling them that they must have their flight manuals approved by CASA before 16 August 2002 unless specifically



Mike Valentine

exempted. Although there is reference to sport aircraft on pages 16 and 17 of the brochure, gliders are not specifically mentioned as exempted aircraft.

Perhaps the omission of gliders in the brochure was a CASA oversight. I am getting mixed signals from CASA on this point. Be that as it may, the actual situation is that, in accordance with long-standing practice, GFA members operating gliders that do have flight manuals published by the manufacturer do not need to

- (a) submit the manual to CASA for approval or
- (b) carry the manual in the aircraft.

In other words, whether you have a flight manual for your glider or not, it's business as usual and ignore the CASA brochure. Note that "gliders" includes powered sailplanes and power-assisted sailplanes.

Tugs may be affected, depending on type. Refer to the CASA brochure to see which tugs are on the exempted list.

Web News

All paid advertisements for Australian Soaring will be mirrored on the GFA web site in a dedicated section being developed.

Insurance Implications for Gliding – Bryan Blackburn, GFA Insurance Officer

Insurance matters are receiving a lot of attention currently, particularly the cost of liability insurance and its implications for sporting bodies. For glider pilots and the GFA, insurance implications are in two areas.

1. GFA Liability Insurances

These are liability insurance policies held by the GFA and paid for by our membership fees. These provide liability protection for the bulk of mainly volunteer officials, instructors, inspectors, administrators, etc in the GFA, clubs and affiliated State Associations who, if not given insurance protection may decide it is all too hard and not offer their skills and services to gliding. These policies also include the Broad Based Liability Insurance (BBL),

which applies to all GFA members and is the biggest single premium component. This provides a basic liability cover of \$250,000 to everyone.

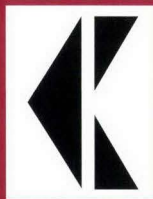
These insurances are fairly specific in what they cover and are designed mainly for back-up protection. For more information on this, email me at <bryan.blackburn@bigpond.com> and I will send you a summary of what the GFA insurances are, including a guide to what they are designed to cover.

2. The GFA Insurance Scheme

This is a comprehensive insurance scheme for gliders and motor gliders that is negotiated on behalf of GFA members by the GFA Insurance Broker, Kevin Chamberlain. It is administered on behalf of GFA by Chamberlain Knights Aviation Insurance Brokers. It aims to provide aviation insurance (including liability insurance) for GFA members and clubs that is tailored to the needs of gliding at competitive costs. Although there is no compulsion to use the Scheme over any other aviation insurer, the vast majority of the Australian glider fleet is insured through the Scheme and the GFA strongly urges all members to support the GFA Scheme insurer wherever possible. The Scheme has provided very positive benefits for members and a stable, quality insurance service for more than 12 years. Support of the GFA Scheme will aid its continued viability into the future. The GFA Scheme generally offers superior cover and is designed to dovetail in with the GFA Liability Insurances.

Regarding the GFA liability insurances, these expire each 30 April and are renegotiated annually. This year, total premiums will be around \$235,000, which is a 37% increase. The BBL comprises about 70% of the total premium. Considering the astronomical premium increases reported by some groups for liability insurance this can be considered an excellent result for which Kevin Chamberlain can be congratulated. It reflects the effort he has put in to present our case to the insurance industry and the risk management procedures built in to gliding's operations.

However, this represents about \$80 per GFA member, including a pro rata distribution for term memberships. This is a significant part of our GFA fee. Every glider pilot needs to consider how we want to pay this. For example, two possible choices are to continue to pay it directly through our membership fee as we do now, or to get a higher proportion from Air Experience Flights as is done by the parachute



Chamberlain Knights. Let us set a better course for your GFA Glider insurance.

Chamberlain Knights – OAMPS Insurance Brokers Ltd

*Chamberlain
Knights – OAMPS
Australia's Aviation
Insurance Specialist
ACN 005 543 920
PO Box 2481
North Parramatta
NSW 1750
Fax: (02) 8838 5770*

OAMPS

Email: kevinc@oamps.com.au

Chamberlain Knights Glider insurance packages are the only option approved and initiated by the GFA for the benefit of members. Why pay more than you need to?

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clubs for example. At the moment each AEF returns \$5 to the GFA, which is just about enough to cover their insurance cost. By comparison, a return of \$25 would produce a large proportion of the total premium and potentially reduce each GFA member's membership fee by around \$50. This will undoubtedly be a topic for the next Annual Council Meeting.

Also, the future format of the BBL is under review to determine its long term viability. Perhaps changes can be made to make it more targeted, which would improve its cost effectiveness. No change is proposed in the short term but recommendations are planned to be worked up for review well before next April 2003.

Regarding the GFA Insurance Scheme, in its 12 year history this scheme has been underwritten by Booker International, who traditionally arranged underwriting security 100% at Lloyds in London. This year, as a reflection of the worldwide insurance market problems, 100% Lloyds support could not be acquired. Protracted renegotiations were necessary and four underwriters including Booker were approached to tender a submission for the GFA Insurance Scheme for GFA's consideration. This required Chamberlain Knights to arrange alternate cover for GFA members with insurance policies due in the period that all this was going on.

The analysis of the tender submissions is now complete, with the result that renewals will continue to be offered through Booker, with some changes. It is expected that most clubs will see relatively minor cost increases of up to six-and-a-half percent on hull rates and up to three percent on liability. In the current insurance climate, these are well below market trends.

However, the underlying underwriters for Booker International have now changed, because they are no longer underwritten 100% by Lloyds. For this reason, Booker will now operate two tiers of cover, which will be noted in the policy document. GFA Insurance Broker Kevin Chamberlain advises that primary cover will be for the hull and liability up to \$2,000,000. This will be underwritten 50% by Lloyds and 50% by Australian International Insurance Ltd (AIIL), which is a wholly owned subsidiary of the OAMPS group, of which Chamberlain Knights is part. Secondary cover will be for liability over \$2,000,000, which will be underwritten by the Aviation Office of Australia (AOA). AOA operates on behalf of French group LRA, which is one of the world's largest aviation insurers. Notwithstanding the two tiers of covers, this will largely be managed (internally) by Chamberlain Knights and Booker International. GFA members will not need to deal directly with different insurers.

Trike Fuel Transfer System – Handy Hints

Ned McIntosh

TRIKE PILOTS USING THE FUEL TRANSFER SYSTEM DESCRIBED IN THE JUNE 2002 ISSUE OF SOARING AUSTRALIA MAY FIND THE EFFICIENCY OF THE SYSTEM COMPROMISED BY AIR-LEAKAGE. IN ALMOST ALL CASES THE AIR LEAK(S) OCCUR AT THE FUEL-TANK CAP.

There are two possible sources of leakage. The first is the fuel-cap gasket (Photo 1). If it is too large, it will buckle against the side of the cap, preventing it from sealing properly. Any slight leak will dramatically reduce the efficiency of the siphon transfer system. Just remove the gasket (caution: little washers!), shave a half a millimetre off the outside with a very sharp hobby-knife, and re-install it. It should fit easily inside the cap, not rubbing on the edges at all.



Photo 1: Silastic used to seal the bolt through the middle of the Edge-X fuel tank cap

The second leakage point is the bolt through the middle of the cap. Clean around it, on top of the cap, and seal it with some orange (high-temperature gasket) silastic (Photo 2). It can be smoothed into position with a finger-tip wet with saliva. (Whilst you've got the silastic out, run beads of it along your exhaust-springs – they'll last a lot longer if they don't resonate.)

By the way, don't try sealing the nut on the inside of the cap as suggested in the previous article. Recent experience shows the fumes will prevent the silastic from curing. It just falls off, straight into the fuel, and it's a time-consuming job to clean the tank. (Although the silastic doesn't actually dissolve, it forms globules and will clog the fuel-drains in each sump.)

With both these potential leakage points rectified, the siphon transfer system should operate efficiently. An added benefit is no danger of fuel leakage when rigging or de-rigging your trike.

Another handy idea is a weight and filter to go into the end of the breather-tube. This ensures all the fuel will be aspirated out of the fuel-drum and offers some protection against suspended solids in the fuel. Photo 3 shows one such unit (plugged into the end of the breather-tube). Any competent machinist can turn up the brass fittings to suit the tubing, dimensions and design are non-critical. The in-line filters can be found at motorcycle shops. If you prefer to purchase a ready-made unit, contact Ned McIntosh via email for further details <criticalmass@hotmail.net.au>.



Photo 2: Edge-X fuel tank cap gasket after trimming to ensure it forms a perfect seal on the tank filler hole

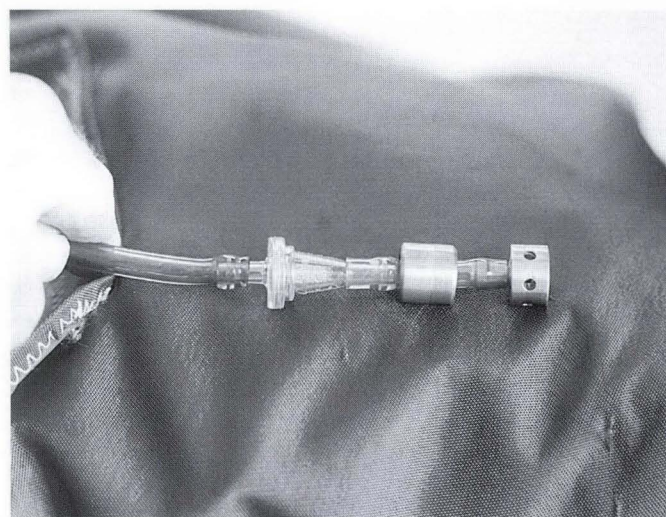


Photo 3: The weight and filter which ensure all the fuel is siphoned out of the fuel drum. It is shown plugged into the end of the breather tube

Classifieds

GFA

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All advertisements and payments can be sent to Angel Administration at the following:
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All GFA advertisements must be paid for prior to publication. (Payment by cheque, money order or credit card). Don't forget Classifieds deadline is the 25th of the month, for publication five weeks hence.

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to register your booking.

If enough expressions of interest are received by 1 October 2002, bookings will be confirmed before a colour issue can go into production.

Gliding Publications

AUSTRALIAN HOMEBUILT SAILPLANE ASSOCIATION: James Garay, 3 Magnolia Ave, Kings Park VIC 3021. Ph: 03 93673694, [www.geocities.com/capecanaveral/hangar/3510].

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When submitting a classified remember to include your contact details (for perspective buyers), your HGFA membership number (for verification) and the State under which you would like the classified placed. (Note that the above does not apply to commercial operators. Instructors may place multiple classified entries, but will be charged at usual advertising rates.)

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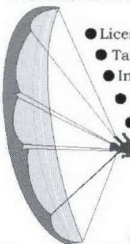
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NOTICE TO ALL ADVERTISERS

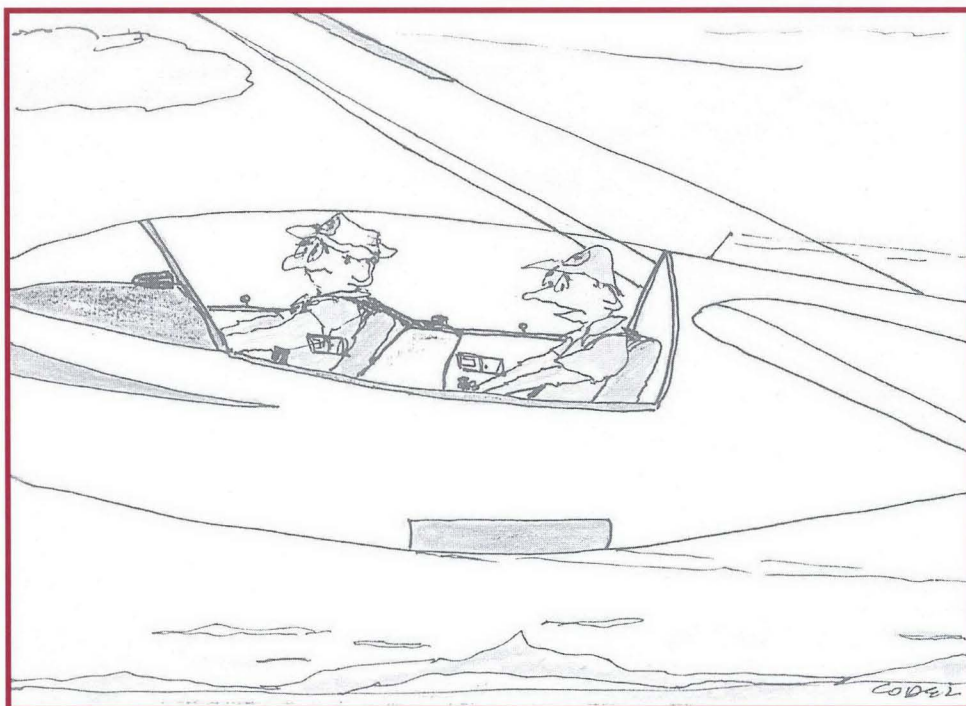
We are planning a full colour print-run for this December 2002 issue of "Soaring Australia".

If you are interested in placing an HGFA colour advertisement in this special Christmas issue, please contact Richard Lockhart on ph: 0418 130354, or email: <skysail@ozemail.com.au> to register.

For GFA ads contact Fiona on ph: 0407 593 192 or email: <frowe@optusnet.com.au>.

If enough expressions of interest are received by 1 October 2002, bookings will be confirmed before a colour issue can go into production.

Cartoon by Codez



**LIGHT ON THE CONTROLS, SMITHERS...
NOT TIGHT!**

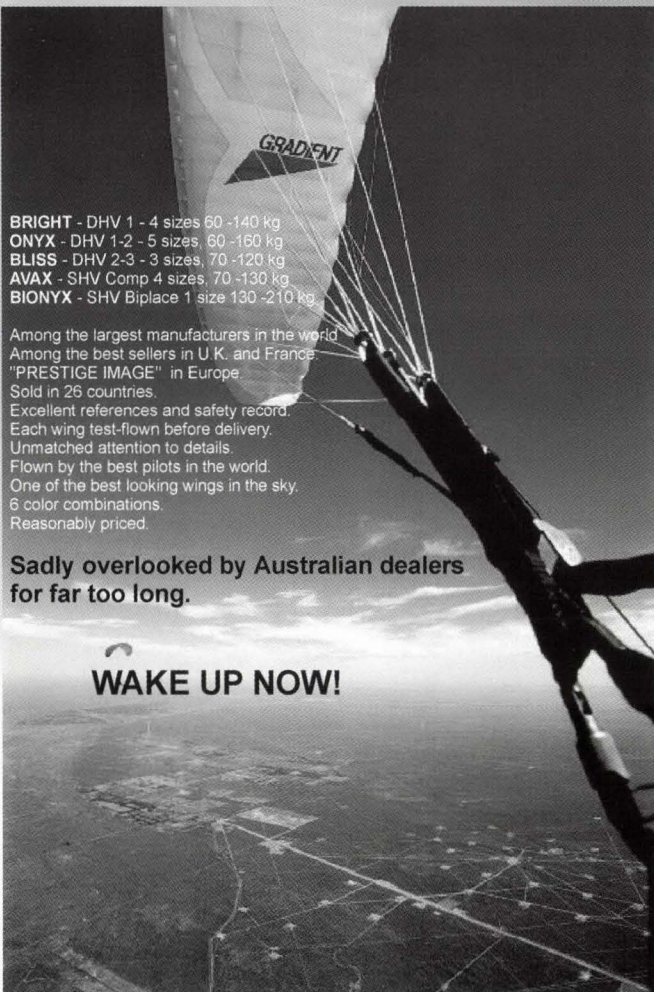
Advertising Index – August 2002

Airtime Products	5
Beres	BC
Cambridge Aero Instruments	37
Chamberlain Knights	43
Chalet Chavenette	33
Forwood Flight and Fun	45
GFA Form 2	17
Gradient	IBC
Lake Keepit Gliding Club	22
Microair Avionics	45
Parachutes Australia	BC
Sportavia Soaring Centre	IBC
Tarago Flight Park	32
T&J Sailplanes	21
Victorian Soaring Association Inc.	16

GRADIENT

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ONE ONLY operator in each state GRADIENT will give an offer which he can't refuse. Get the details **NOW!**
Only established schools need to apply.



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ONYX - DHV 1-2 - 5 sizes, 60 -160 kg
BLISS - DHV 2-3 - 3 sizes, 70 -120 kg
AVAX - SHV Comp 4 sizes, 70 -130 kg
BIONYX - SHV Biplace 1 size 130 -210 kg

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Sold in 26 countries.
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Flown by the best pilots in the world.
One of the best looking wings in the sky.
6 color combinations.
Reasonably priced.

Sadly overlooked by Australian dealers
for far too long.

WAKE UP NOW!

GRADIENT - Questions & Answers

Can I have the technical specifications for GRADIENT paragliders?
Look at the advertisements of other world top manufactures. There are hardly any differences and there nothing special about GRADIENT.

What materials GRADIENT uses in manufacturing their paragliders?
Look at the advertisements of other world top manufactures. There are hardly any differences and there nothing special about GRADIENT.

How are GRADIENT paragliders certified?
Look at the advertisements of other world top manufactures. There are hardly any differences and there nothing special about GRADIENT.

I'm an average recreational pilot. Why should I give preference to GRADIENT against all the others?
I do not know. Ask some of the 1500 pilots like you who did exactly that last year.

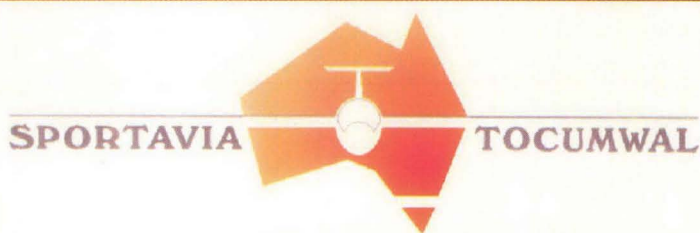
I'm a top competition pilot. Would GRADIENT paraglider be good enough for me?
I don't know. It is good enough for 2001 world champion LUCA DOMINI or other world top pilots like GUS TAPER, NEVIL HULET, JASMIN HILL and many others.

I fly tandems. Are GRADIENT tandems safe and efficient enough for me?
I don't know. JOHN SYLVESTER and ALUN HUGES found one of them good enough to fly it over malayas to make an award winning video "FROM NOWHERE TO THE MIDDLE OF NOWHERE". Ask them - or just watch the video.

O.K., It seems like GRADIENT paragliders will be as expensive as other top brands then.
I do not know. Look at the advertisements of other world top manufacturers then contact me. I may be able to pass on you the savings achieved by others answering trivial questions for me!

Whatever your level of experience is or however high your expectations are, GRADIENT has the right glider for you.

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- ◆ A glider for every level of experience available.
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